

AMERICAN MEN OF SCIENCE

A BIOGRAPHICAL DIRECTORY

EDITED BY J. McKEEN CATELL

SCIENCE: A weekly journal devoted to the advancement of science, exhibiting the official proceedings of the American Association for the Advancement of Science. \$2.00 a year.

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Devoted to the history of science. \$2.00 a year.

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J. McKEEN CATTELL

AND

JAQUES CATTELL

FOURTH EDITION

NEW YORK

THE SCIENCE PRESS

1927

AMERICAN MEN OF SCIENCE
A BIOGRAPHICAL DIRECTORY

J. MCKEE CATTELL

JACQUES CATTELL

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FOURTH EDITION

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PREFACE TO THE FIRST EDITION

THIS BIOGRAPHICAL DIRECTORY OF AMERICAN MEN OF SCIENCE was begun as a manuscript reference list for the Carnegie Institution of Washington, which made an appropriation of \$1,000 toward the clerical and office expenses. It is hoped that the publication will be a contribution to the organization of science in America. There is here given for the first time a fairly complete survey of the scientific activity of a country at a given period. As a reference book for the field it covers, it may be even more useful in academic circles than *Minerva* or *Who's Who in America*. But the chief service it should render is to make men of science acquainted with one another and with one another's work. There scarcely exists among scientific men the recognition of common interest and the spirit of cooperation which would help to give science the place it should have in the community. It is fully as important for the nation as for men of science that scientific work should be adequately recognized and supported. We are consequently in the fortunate position of knowing that whatever we do to promote our own interests is at the same time a service to the community and to the world.

There are included in the directory the records of more than four thousand men of science, and it is believed that the entries are tolerably complete for those in North America who have carried on research work in the natural and exact sciences. Some are admitted who are supposed to have advanced science by teaching, by administrative work, or by the preparation of text-books and compilations. There are also some whose work has been chiefly in engineering, medicine or other applied sciences, and a few whose work is in education, economics or other subjects not commonly included under the exact and natural sciences. But the book does not profess to cover these fields. The names are included because they are supposed to represent work that has contributed to the advancement of pure science—the term being used in the narrower sense—or because they are found in the membership lists of certain national societies. * * * * *

It was intended that each entry should contain information as follows:

- (1) The full name with title and mail address, the part of the name ordinarily omitted in correspondence being in parentheses.
- (2) The department of investigation given in italics.
- (3) The place and date of birth.
- (4) Education and degrees.
- (5) Positions with dates, the present position being given in italics.
- (6) Temporary and minor positions.
- (7) Honorary degrees and other scientific honors.
- (8) Membership in scientific and learned societies.
- (9) Chief subjects of research, those accomplished being separated by a dash from those in progress.

A star is prefixed to the subject of research in the case of about a thousand of the biographical notes. These are the thousand students of the natural and exact sciences in the United States whose work is supposed to be the most important. In each of the twelve principal sciences the names were arranged in the order of merit by ten leading students of the science. The average positions and the probable errors were then calculated, so that in each science the order of merit was determined together with its validity.

The names were then combined in one list by interpolation, the numbers in each science being taken approximately proportional to the total number of workers in that science. The thousand are distributed among the sciences as follows: Chemistry, 175; physics, 150; zoology, 150; botany, 100; geology, 100; mathematics, 80; pathology, 60; astronomy, 50; psychology, 50; physiology, 40; anatomy, 25; anthropology, 20. The star means that the subject of the biographical sketch is probably among the leading thousand students of science of the United States; but its absence does not necessarily mean that the subject of the sketch does not belong in this group, as the name may not have been considered in making the arrangements.

My object in determining the thousand leading American men of science was to secure a group for scientific study. I have also selected for this purpose the thousand leading men in the history of the world arranged in the order of eminence, and I am selecting a thousand students of Columbia University. My original interest in this work of reference was to secure data for a statistical study of the conditions, performance, traits, etc., of a large group of men of science, and I had intended to include the results of this study in the book. It seems, however, unwise to postpone the publication of the biographical sketches until the scientific study has been completed.¹

I am under unusual obligations to a large number of men of science for assistance in this work. I should be glad to give a list of about two hundred to whom I am particularly indebted, but perhaps some of them would prefer not to have their names mentioned. I have been assisted in the compilation by Mr. Wm. Harper Davis, then assistant in psychology at Columbia University and now assistant professor in Lehigh University; by Dr. H. D. Marsh, then scholar in psychology at Columbia University and now instructor in Ohio Wesleyan University; by Miss M. C. Ennis; and most of all by Dr. Vivian A. C. Henmon, now lecturer in psychology at Columbia University. So much completeness and accuracy as the work may have is largely due to them.

COLUMBIA UNIVERSITY,

January, 1906

PREFACE TO THE SECOND EDITION

A BIOGRAPHICAL DIRECTORY requires revision if it is to maintain its usefulness. Nearly a third of the names in the present edition are new, and the sketches which appeared in the first edition have in nearly every case been revised. The amount of work required to prepare the revision has been as great as that given to the first edition. The editor has been fortunate in again having had the cooperation of Dr. Vivian A. C. Henmon, now associate professor of educational psychology in the University of Wisconsin. He has also had the assistance of several other former students and colleagues in psychology—Dr. H. L. Hollingworth, now instructor in psychology at Barnard College; Dr. J. V. Breitwieser, now assistant professor of psychology in Colorado

¹ Two papers on the subject have been printed—'Homo Scientificus Americanus: Address of the president of the American Society of Naturalists,' *Science*, N. S., 17: 561-570, 1903, and 'Statistics of American Psychologists,' *Am. Jour. of Psychol.*, 14: 310-328, 1903. A further series of articles, which is now nearly ready, will probably be printed in *Science*. Cf. in regard to the other groups 'A Statistical Study of Eminent Men,' *Pop. Sci. Mon.*, 53: 359-378, 1903, and 'Physical and Mental Measurements of the Students of Columbia University,' *Psychol. Rev.*, 3: 618-648, 1896.

College; Mr. E. D. Rice, now executive secretary in the Pratt Institute; Dr. Charles A. Cockayne, now professor of philosophy in Toledo College; Mr. J. F. Dashiell, now assistant in philosophy in Columbia University, and Mr. L. D. Hartson, now fellow in psychology in Clark University.

There has been no change in the general plan of the work. Greater strictness has been observed in confining its scope to the natural and exact sciences, and for this reason a few names included in the first edition have been omitted. Efforts have been exerted to make the book as complete and accurate as possible. There are of course omissions, if only because some men will not reply even to repeated requests for the information needed.

The thousand leading men of science have been again selected by the methods that were used before, and stars have been added to the subjects of research in the case of 269 new men who have obtained places on the list. The editor's object in selecting this group of scientific men has been to make a study of the conditions on which scientific research depends and so far as may be to improve these conditions. There are printed as an appendix the two statistical studies that have been made.

COLUMBIA UNIVERSITY,
October, 1910

PREFACE TO THE THIRD EDITION

AN EDITION of this biographical directory should be issued once in five years, and the preparations for a third edition were in progress when war was declared in 1914. The work was then postponed, being resumed in 1916, to be again interrupted in 1917 by the entry of the United States into the war. These delays and the exorbitant cost of paper and printing have added to the difficulties that are inherent in the preparation of such a book. Grateful acknowledgment is here made to the scientific men who have supplied the material and corrected the proofs for the biographies and to those who by subscribing for the book have made possible its publication.

So large a part of the work of collecting and editing the material has fallen to Dr. Dean R. Brimhall that his name appears on the title page. Dr. Alexander Weinstein has also given valuable assistance in the later stages. Others who have assisted in the editorial work are Dr. W. F. Blades, Dr. Grace Helen Kent, Miss Alice Halsey, Dr. Arthur I. Gates, Dr. Richard Painter, Miss Psyche Cattell and Miss Hazel Andrews. During the first half of 1920 the manuscript cards were loaned to the National Research Council, and in turn Dr. Robert M. Yerkes, chairman of the Research Information Service, supplied useful material toward completing the records.

The abbreviations are self-explanatory, except perhaps for scientific societies. A.A. signifies either fellow or member of the American Association for the Advancement of Science; all those properly included in the directory are entitled to be fellows. In the case of other societies an abbreviation is used which is intended to be intelligible to all, rather than a series of letters such as A.I.E.E., with which members may be more familiar. * * * * *

The first edition, compiled in 1904 and 1905 and published at the beginning of 1906, contained about 4,000 biographies; the second edition published at the end of the year 1910, about 5,500. In the present edition, published fifteen years after the first, the

number is about 9,500. This increase may to some extent be due to a more complete collection of the material, but in the main measures the increase in the number of scientific men.

After an interval of ten years, the thousand men whose work for science has been most valuable have been reselected. Stars are prefixed to the subjects of research for these, as well as for those who received this position in a previous edition. The selections were made by a vote of the men competent in each science—some two thousand in all being asked to take part, of whom about one thousand complied. An account of the methods of selection and a further study of the scientific situation are in course of preparation. In the present volume an appendix contains statistics and observations concerning origins and families of American men of science.

GARRISON, N. Y.

May, 1921

PREFACE TO THE FOURTH EDITION

THE FOURTH EDITION of the Biographical Directory of American Men of Science contains about 13,500 sketches and bears witness to the ever increasing number of those engaged in scientific work. There is no change in the general plan of the book. Efforts have been made to include all living Americans who have contributed to the advancement of science, the standards being nearly the same as fellowship in the American Association for the Advancement of Science or membership in the national scientific societies having research as a qualification. The editors are under great obligation to the large number of scientific men who have assisted in the selection of the names to be included in the book and to all those who have supplied the material and corrected the proofs of the biographical sketches. Among those who have assisted in the compilation are Mrs. E. E. Ross, Miss J. B. Christy, Miss Alice Halsey, Miss Jessica McGarrett, Miss Beatrice Greenfield and Mr. Frederic Kuder.

Stars are prefixed to the subjects of research of 250 awarded positions among the thousand leading scientific men of the United States. The methods used in the selection are described in an appendix which also gives some facts concerning the distribution of scientific men in 1927.

J. McKEEN CATTELL

JAQUES CATTELL

GRAND CENTRAL TERMINAL, NEW YORK, N. Y.,
November, 1927

AMERICAN MEN OF SCIENCE

Aamodt, Olaf S(verre), University of Minnesota, St. Paul, Minn. *Plant pathology*. St. Paul, Aug. 9, 92. B.S, Minnesota, 17, M.S, 22; Cornell, 22. *Assoc. pathologist, office cereal investigations, U. S. Dept. Agr, Minnesota, 17-, instr. genetics, 24-* A.A; Soc. Agron; Phytopath. Soc. Genetics; breeding for disease resistance in plants.

Aase, Prof. Hannah (Caroline), State College of Washington, Pullman, Wash. *Botany*. Elkpoint, S. Dak, July 12, 83. A.B, South Dakota, 06; Ph.D, Chicago, 14. *Instr. bot, Wash. Col, 14-19, asst. prof, 19-* A.A; Bot. Soc; Micros. Soc. Plant morphology; cytology; histology; cytology of cereal hybrids.

Abbe, Dr. Cleveland, Jr, G. and C. Merriam Co, Springfield, Mass. *Geology, Climatology*. Washington, D. C, March 25, 72. A.B, Harvard, 94, A.M, 96; Ph.D, Hopkins, 98; Vienna and Paris, 01-03. Prof. nat. sciences, Winthrop Nor. and Indust. Col, 99-01; aid, U. S. Geol. Surv, 03-06; U. S. Weather Bur, 06-19; 'Eng. and Mining Jour', 19-20; asst. prof. econ. geog, Col. City of N. Y., 20-25; exten. asst, N. Y. State Col. Agr, Cornell, 25-26; with *G. and C. Merriam Co, 26-* Asst, Md. Geol. Surv, 97-01. Asst. ed, 'Monthly Weather Rev', 08-09, 14-16, ed, 16-18; 'Sci. Am. Supplement', 19. A.A; Geol. Soc; Wash. Philos. Soc; Berlin Gesell. für Erdkunde. Topographic development; climate of Guam; Alaska; fall line of east North America; Washington winters.

Abbe, Dr. Robert, 13 W. 50th St, New York, N. Y. *Surgery*. New York, April 13, 51. A.B, Col. City of N. Y., 70; M.D, Columbia, 74. Prof. surg, Woman's Med. Col. N. Y., 86-88; Post-Grad. Med. Sch, N. Y., 88-96; clin. instr. *surg, Columbia, 94-99, assoc, 99-* Senior attending surgeon, St. Luke's Hosp, 84- A.A; Surg. Ass; assoc. fel. Phila. Col. Physicians; Int. Surg. Ass.

Abbe, Dr. Truman, Stoneleigh Court, Washington, D. C. *Medicine*. Washington, Nov. 1, 73. A.B, Harvard, 95; M.D, Columbia, 99; Berlin. *Instr. physics, physiol. and surg, Georgetown, 02-05; physiol, med. sch, George Washington, 06-10, surg, 10-* Assoc. visiting surgeon, Columbia Hosp. for Women, 16- Trustee, Nat. Parks Ass. Silver medal, Jamestown Expos. Am. Med. Ass. Radiotherapy; surgery.

Abbot, Dr. C(harles) G(reeley), Smithsonian Institution, Washington, D. C. **Astrophysics*. Wilton, N. H., May 31, 72. B.S, Mass. Inst. Tech, 94, M.S, 95; D.Sc, Melbourne, 14. Asst, *astrophys. observatory, Smithsonian Inst, 95-96, aid, acting in charge, 96-07, director, 07-, asst. sec'y, Smithsonian Inst, 18-* Draper medal, Nat. Acad, 10; Rumford medal, Am.

Acad, 16. Nat. Acad. (home sec'y, 19-23); A.A; Astron. Soc; Am. Acad; Wash. Acad; Wash. Philos. Soc. (v. pres, 08-10); Soc. astron. de France; Royal Astron. Soc; Meteor. Gesell; Soc. Astron. de Mex; Acad. Modena. Solar physics; infra-red solar spectrum; solar constant of radiation; sensitive galvanometer; osmotic pressure; absolute recording pyrheliometer; variability of sun and of terrestrial temperatures; utilization of solar heat.

Abbot, Dr. E(dward) Stanley, 29 Gloucester St, Boston, Mass. *Psychiatry, Mental hygiene*. Beverly, Mass, Dec. 13, 63. A.B, Harvard, 87, M.D, 93. Asst. histol, Harvard Med. Sch, 90-92; house officer, Boston City Hosp, 92-94; asst. physician, McLean Hosp, 94-98; asst. supt, Boston City Hosp, 00-04; first asst. physician, McLean Hosp, 04-09; clin. pathologist, 09-17; med. director mental hygiene committee, Public Charities Ass. Pa, 19-22. Major, M.C, 17, chief neuro-psychiat. clinic, 17-18. A.A; Am. Med. Ass; Psychol. Ass; Psychiat. Ass; New Eng. Soc. Psychiat; Mass. Soc. Psychiat; Boston Soc. Psychiat. and Neur. Insanity; medical psychology.

Abbot, Gen. Henry Larcom, U. S. A. (retired), 23 Berkeley St, Cambridge, Mass. *Engineering, Physics*. Beverly, Mass, Aug. 13, 31. Grad, U. S. Mil. Acad, 54; LL.D, Harvard, 86. All grades from second lieut. to col, C.Eng, 54-95, *brig. gen. retired, 04.* Col, brevet brig. and major gen, U. S. Vols; chairman group XVI, Centennial Expos, 76; higher jury of awards, Atlanta Expos, 95; pres, board consulting engineers, Pittsburgh and Lake Erie Canal, 95-96; Int. Commission Engineers, New Panama Canal Co, 97-00, consulting engineer, 00-04; prof. hydraul. eng, George Washington, 06; many govt. boards. Nat. Acad; Philos. Soc; Am. Acad; New Orleans Acad; cor. mem. Austrian Imperial Royal Geol. Soc. River and harbor improvements; coast defence; submarine mining; explosives; electricity; vertical fire; astronomy; canals; river hydraulics; climatology of the Isthmus of Panama; the Chagres River; the Panama Canal.

Abbott, Dr. A(lexander) C(rever), 4016 Pine St, Philadelphia, Pa. **Hygiene, Bacteriology*. Baltimore, Md, Feb. 26, 60. Baltimore City Col, 77; M.D, Maryland, 84, hon. Sc.D, 07; Hopkins, 84-87; Munich, 87-88; Berlin, 88-89. Asst. hygiene and bacter, Hopkins, 89-91; asst. in charge lab. of hygiene, Pennsylvania, 91-96, *prof. hygiene and bacter, and director lab. hygiene, 97-, director sch. hygiene and pub. health, 19-* Director div. path, bacter. and disinfection, Bur. Health, Phila, 97; chief, Bur. Health and pres, Board Health, 03-09. A.A; Soc. Bact; Am. Physicians; Soc. Exp. Biol; Am.

Med. Ass; Philos. Soc. Bacteriology and preventive medicine; infection, intoxication and immunity.

Abbott, Dr. C(harles) H(arlan), University of Redlands, Redlands, Calif. *Zoology*. Antrim, N. H., March 1, 89. A.B., Brown, 13, A.M., 14, Ph.D., 18. Instr. zool. Wash. Col., 14-15; biol., Haverford, 16-17; asst., Yale, 19; instr. zool., Mass. Col., 19-22; *prof.*, Redlands, 22- Second lieut. Sanit. C., 18. A.A.; Soc. Mammal; Genetic Ass; Ecol. Soc. Ecology; light reactions of land isopods.

Abbott, Clinton G(ilbert), Natural History Museum, Balboa Park, San Diego, Calif. *Ornithology*. Liverpool, Eng., April 17, 81. A.B., Columbia, 03. Confidential sec'y and ed., Conservation Commission, N. Y., 18-21; in charge pub. educ., *Nat. Hist. Museum, Balboa Park*, 21-22, *director*, 22- Ornith. Union; Cooper Ornith. Club; Soc. Mammal; N. Y. Linnean Soc. (sec'y, 04-11, v. pres, 11-14); fel. San Diego Soc. Nat. Hist. (pres, 23-25). Life histories of birds.

Abbott, Dr. E(rnest) V(ictor), Institute of Parasitology, Lima, Peru. *Bacteriology, Plant pathology*. Ashland, Oregon, July 9, 99. B.S., Oregon Col., 22; M.S., Iowa Col., 23, Ph.D., 25. Asst. plant pathologist, La. Exp. Sta., 25-26; asst. chief soil chem. and soil bacter., Iowa Exp. Sta., 26-27; *plant pathologist, Inst. Parasitol, Peru*, 27- A.A.; Soc. Bact; Phytopath. Soc; Soc. Agron. Soil bacteriology.

Abbott, Prof. George A(lonzo), University, N. Dak. *Chemistry*. Alma, Ill., July 7, 74. B.S., De Pauw, 95, A.M., 96; fellow, Chicago, 04-05; Austin fellow, Mass. Inst. Tech., 04-06, Ph.D., 08. Teacher chem, high schools, Ind. and Minn., 96-04, 06-08; asst. prof. org. and indust. chem., N. Dak. Col. and asst. chemist, Exp. Sta., 09-10; *prof. chem.* and head dept., *North Dakota*, 10-, *chairman grad. dept.*, 21- *Lecturer*, Manitoba, 12. State delegate, Eighth Int. Cong. Applied Chem., 12. Teacher, S.A.T.C., U.S.A. A.A.; Chem. Soc; fel. Ind. Acad. (pres, sec'y); N. Dak. Acad. (permanent sec'y, 11-); Cent. Ass. Sci. and Math. Teachers (pres, 10). Physical chemistry; biochemistry; toxicology; pyrophosphoric acids; durability of paints.

Abbott, Dr. Howard (C), University of South Dakota, Vermillion, S. Dak. *Botany*. Conquest, N. Y., Nov. 27, 95. B.S.A., Mich. State Col., 18; Ph.D., Illinois, 25. Smith-Hughes instr., Allegan, Mich., 18-19; Selbyville, Del., 19-20; asst. bot., Illinois, 20-25; *prof.*, *South Dakota*, 25- Summer, instr., Colo. State Teachers Col., 26. A.A.; Bot. Soc; Phytopath. Soc; Ill. Acad; S. Dak. Acad. Plant pathology, physiology and ecology; overwintering and spread of powder mildew.

Abbott, Dr. Maude E(lizabeth Seymour), 386 Sherbrooke St. W., Montreal, Que., Can. *Internal medicine*. St. Andrews East, Que., March 18, 69. B.A., McGill, 90, hon. M.D., C.M., 10; M.D., C.M., Bishop's Col., 94; L.R.C.P.S., Edinburgh, 97. Asst. curator path. museum, McGill, 99-01, curator, 02-27; *prof. path. and bacter.*, Woman's Med. Col. of Pa., 23-25; *asst. prof. research med.*, Mc-

Gill, 25- Governor's fellow, 04-10; lecturer, 11-23; acting curator, Can. Army Med. Mus., 18- Ed. work, 'Sir Wm. Osler Memorial.' A.A.; Am. Med. Ass; Ass. Anat; Ass. Clin. Path; Ass. Path. and Bact; Am. Heart Ass; Phila. Path. Soc; Phila. Physiol. Soc; Int. Ass. Med. Mus; Can. Med. Ass; Montreal Medico-Chirurg. Soc; Int. Ass. Med. Mus. (sec'y-treas, ed., 'Bul'). Pathological anatomy; congenital cardiac disease; organization of the medical museum and classification of specimens; respiratory metabolism; history of medicine and of nursing.

Abbott, Prof. R(aymond) B(arrington), 339 Sylvia St., West Lafayette, Ind. *Physics*. Newton, Kans., Dec. 25, 73. B.S., California, 08, M.S., 12, Ph.D., 19. Asst. instr. *physics*, California, 07-10, instr., 10-20; *asst. prof.*, Wash. Col., 20-21; *Purdue*, 21- A.A.; Physical Soc; Ind. Acad. Electricity; sound.

Abbott, Dr. Roy L(inn), Cedar Falls, Iowa. *Entomology*. Muscatine, Iowa, May 5, 86. A.B., Iowa State Teachers Col., 15; M.S., Wisconsin, 17, Ph.D., 25. *Prof. biol.*, *Iowa State Teachers Col.*, 20- Iowa Acad. Digestion in insects.

Abbott, W(alter) S(idney), Insecticide Board Laboratory, Vienna, Va. *Entomology*. Manchester, N. H., May 21, 79. B.S., New Hampshire. N. J. Exp. Sta., 10-11; Ill. Lab. Nat. Hist., 11-12; *bur. entom.*, U. S. Dept. Agr., 12- A.A.; Ass. Econ. Entom; Wash. Entom. Soc. Insecticides.

Abbott, William L(amont), 72 W. Adams St., Chicago, Ill. *Engineering*. Whiteside Co., Ill., Feb. 14, 61. M.E., Illinois, 84, M.M.E., 04. Machinist and draftsman, 84-87; *pres.*, *Nat. Elec. Construction Co.*, 87-94, chief engineer, power house, 94-99, *chief operating engineer*, 99- Trustee, Illinois (pres, board, 07-19, 21-23). Chanut medal, 06. Mech. Eng. (councilor, pres, 26); fel. Elec. Eng; Nat. Elec. Light Ass. (committees); West. Soc. Eng. (pres, 07). Power plant engineering; conservation and storage of coal.

Abel, Prof. John J(acob), Johns Hopkins Medical School, Baltimore, Md. **Pharmacology, Physiological chemistry*. Cleveland, Ohio, May 19, 57. Ph.B., Michigan, 83, hon. A.M., 03; Hopkins, 83-84; European universities, 84-90; M.D., Strassburg, 88; hon. Sc.D., Michigan, 12; Pittsburgh, 15; Harvard, 25; LL.D., Cambridge, 20. Prin. high sch., Ind., 79-80, supt. pub. schools, 80-82; lecturer mat. med. and therapeut., Michigan, 90-91, *prof.*, 91-93; *pharmacol.*, *Hopkins*, 93- Kober lecturer, 25. Ed., 'Jour. Pharmacol. and Exp. Therapeut.' Willard Gibbs medalist, 27. Nat. Acad; A.A.; Physiol. Soc; Am. Physicians; Soc. Pharmacol. (pres, 09, 10); Soc. Exp. Biol; Soc. Biol. Chem. (v. pres, 07, pres, 08); Fed. Societies Exp. Biol. (councilor, 14); Chem. Soc; Philos. Soc; Phila. Col. Pharm; hon. fel. N. Y. Acad. Med; assoc. mem. Soc. Royale des Sci. Med. et Nat. Bruxelles; cor. mem. Vienna Imp. Med. Soc; Halle Acad. der Naturforscher; for. mem. Dutch Soc. Scientists; hon. mem. Soc. for Biol., Buenos Aires. Composition of animal tissues and fluids; function and isolation of special chemical principles

- of the animal organism; ethyl sulphid; carbamic acid; pigment of negro's skin; isolation of the blood-pressure-raising constituent of the suprarenal capsules in form of a benzoyl derivative; pharmacological action of alcohol; action of phthaleins and derivatives; the poisons of *Amantia phalloides*; action of antimonials in experimental trypanosomiasis; convulsant dyes; lymph hearts of the frog; vividiffusion and plasmapheresis; crystalline poisons of *Bufo agui*; albumoses in the tissues; active principles of the pituitary gland; histamin and like substances in animal tissues and hydrolytic products of proteids; insulin.
- Abel, Dr. Theodora Mead**, 11 W. 11th St, New York, N. Y. *Psychology*. Newport, R. I, Sept. 9, 99. A.B., Vassar, 21; diploma, Paris, 23; A.M., Columbia, 24, Ph.D., 25. Clin. psychologist, pub. schools, New York, 23-24; Chapin Sch., 24-25; instr. *psychol*, Illinois, 25-26; *Nat. Research Council fellow*, 26- Mental testing in trade schools; national differences; tactual perception of movement; psycho-galvanic reflex.
- Aborn, Dr. R(obert) H(ollenbeck)**, Massachusetts Institute of Technology, Cambridge, Mass. *Metallurgy*. Battle Creek, Mich, Jan. 9, 97. A.B., Grinnell, 18; B.S., Mass. Inst. Tech., 20, Sc.D., 25. Research, blast furnace dept, Bethlehem Steel Co., 20-21; *X-ray research*, metal. lab, Watertown Arsenal, 23-25; *staff, lab. applied chem*, Mass. Inst. Tech., 25- Min. and Metal. Eng; Soc. Steel Treat. X-ray studies on metals.
- Abraham, Herbert**, The Ruberoid Co, 95 Madison Ave, New York, N. Y. *Chemistry*. New York, July 9, 83. B.S., Columbia, 03. Chemist, *Ruberoid Co*, 03, *pres.* Chem. Soc; Soc. Chem. Indust; Soc. Test. Mat. Bitumens; oils.
- Abrahamson, Dr. E(manuel) M.**, 25 Eastern Parkway, Brooklyn, N. Y. *Chemistry*. Brooklyn, June 25, 97. B.S., Columbia, 17, Ch.E., 19, A.M., 21, Ph.D., 22, M.D., 26. Asst. chem, Columbia, 18-21; *house staff, Jewish Hosp, Brooklyn*, 26- A.A.; Chem. Soc; N. Y. Chemists Club. Organic and physiological chemistry.
- Abrams, Allen**, Wausau, Wis. *Chemistry*. Butler, Pa, Jan. 27, 89. A.B., Washington and Jefferson, 10, M.S., 15; B.S., Mass. Inst. Tech., 15. Instr., Mass. Inst. Tech., 15-16; research chemist, Bemis Bros. Bag Co., 16-17, 19-20; research assoc., Mass. Inst. Tech., 20-21; research chemist, Cornell Wood Products Co., 21-25; *technical director, Marathon Paper Mills Co*, 25- Chief development sect, defense div, C.W.S., 18-19. Chem. Soc; Ass. Pulp and Paper Indust. Bleaching and finishing of textile goods; fundamentals of pulp and sandpaper manufacture; testing of pulp and paper.
- Abrams, D(uff) A(ndrew)**, 33 W. Grand Ave, Chicago, Ill. *Civil engineering*. Grand Tower, Ill, April 25, 80. B.S., Illinois, 05, C.E., 09. Asst. Eng. Exp. Sta, Illinois, 05-07, assoc., 07-14; *prof. in charge structural materials research lab, Lewis Inst*, 14- Research, Portland Cement Ass. Wason medal, Concrete Inst., 18. A.A.; Civil Eng; Soc. Test. Mat; Concrete Inst. (director, 26-); Ceramic Soc; Ill. Soc. Eng;
- Chicago Eng. Club; Eng. Inst. Can. Testing materials of construction; properties of cement and concrete.
- Abrams, Prof. LeRoy**, Stanford University, Calif. **Botany*. Sheffield, Iowa, Oct. 1, 74. A.B., Stanford, 99, A.M., 02; fellow, Columbia, 04-05, Ph.D., 10. Acting prof. bot, Idaho, 99-00; asst. syst. bot, Stanford, 00-02, instr., 02-04; asst. curator, div. plants, U. S. Nat. Museum, 05-06; asst. prof. syst. bot, Stanford, 06-11, assoc. prof. bot, 11-20, *prof*, 20- Lecturer, California, 15; field asst, U. S. Dept. Agr., 18. A.A.; Bot. Soc. Flora of the Pacific states.
- Abt, Prof. Isaac Arthur**, 104 S. Michigan Ave, Chicago, Ill. *Medicine*. Wilmington, Ill, Dec. 18, 67. Hopkins, 89; M.D., Northwestern, 91; Vienna and Berlin, 92-94. Intern, Michael Reese Hosp, 91-92; instr. physiol. and histol, Northwestern, 94-97, *prof. diseases of children*, Woman's Med. Sch., 97-01; assoc. prof., Rush Med. Col., 02-09; *prof*, Northwestern, 09- Pediat. Soc; Am. Med. Ass. Pediatrics.
- Acheson, Dr. Edward Goodrich**, 689 Fifth Ave, New York, N. Y. **Electrometallurgy, Chemistry*. Washington, Pa, March 9, 56. Bellefonte Acad, Bellefonte, Pa; hon. Sc.D., Pittsburgh, 09. Civil engineer, 76-80; Edison's lab, 80-82; supt, Consol. Lamp Co, Brooklyn, 84; electrician, Standard Underground Co, Pittsburgh, 86-89; *pres*, Carborundum Co, 91-01; *Acheson Graphite Co*, 00-; *Acheson Oildag Co*; *Acheson Corp*; *Acheson Ink Co*; *director, Carborundum Co*. John Scott medals, Franklin Inst, 94, 01; Rumford medal; Perkin medal; Grand Prix, Paris, 00; La. Purchase Expos, 04; Rumford premium, Am. Acad, 07. A.A.; Elec. Eng; Electrochem. Soc. (pres, 08); Chem. Eng. (v. pres, 08); Franklin Inst; London Soc. Arts. Electric furnaces and products; methods of clay-working; lubricants; deflocculation of solid matter; lubrication.
- Achilles, Dr. Edith Mulhall (Mrs. Paul Strong)**, Columbia University, New York, N. Y. *Psychology*. Boston, Mass, Aug. 6, 92. B.S., Columbia, 14, A.M., 15, Ph.D., 18. Asst. psychol, Barnard, Columbia, 13-15; Vassar, 16-17; *instr*, exten. dept, Columbia, 18-21, *supervisor, home study dept*, 21- Clin. psychologist, New York; consultant psychol, Oxford Sch., 25- A.A.; Psychol. Ass. Clinical and school psychology.
- Achilles, Dr. Paul S(trong)**, Personnel Research Federation, 40 W. 40th St, New York, N. Y. *Psychology*. Tacoma, Wash, Jan. 22, 90. A.B., Yale, 13; A.M., Columbia, 17, Ph.D., 23. Instr., Yale-in-China, Changsha, China, 13-14; psychol. examiner, Riverdale Sch., 19-20; lecturer psychol, Columbia, 20-22, *instr*, 22; *field rep, Personnel Research Federation*, and ed, 'Service Bul,' 25-; *sec'y-treas, Psychological Corp*, 26- Research worker, Am. Social Hygiene Ass., 20-21. Lieut, U.S.A., 17-19. Psychol. Ass. Industrial personnel; vocational guidance; military morals; moral incentives.
- Ackerman, A(rthur) J(ohn)**, Bentonville, Ark. *Entomology*. Worcester, Mass, Oct. 5, 89. B.S., Mass. Col., 12, M.S., 14. *Bur. entom*, U. S. Dept. Agr., 14- Ass. Econ. Entom. The San

Jose scale; the codling moth; apple leafhoppers; deciduous fruit insects.

Ackerman, Dr. Lloyd, 1886 Mannering Road, Cleveland, Ohio. *Zoology*. Ridgewood, N. J., Nov. 6, 92. A.B., Colo. State Teachers Col., 17; A.B., Colorado, 20; M.S., Michigan, 24, fellow, 24-25, Ph.D., 25. Asst. *biol.*, Colo. State Teachers Col., 18-19; assoc. prof., West Texas Nor. Col., 19-20; S. Dak. Sch. Mines, 20-24; *instr.*, *Western Reserve*, 25- A.A.; Entom. Soc.; Ecol. Soc.; Mich. Acad. Physiology of wing production in Aphids.

Ackert, Prof. J(ames) E(dward), Kansas State Agricultural College, Manhattan, Kans. *Zoology*. Woosung, Ill., Aug. 31, 79. A.B., Illinois, 09, A.M., 11, fellow, 11-13, Ph.D., 13. Asst. *zool.*, Illinois, 09-11; asst. prof., *Kansas Col.*, 13-16, assoc. prof., 16-18, *prof.*, 18-, *parasitologist*, *Exp. Sta.*, 13-, *head grad. studies*, 23- Exped. hookworm control, Int. Health Board, Rockefeller Foundation, Trinidad, 21. A.A.; Soc. Zool.; Micros. Soc.; Soc. Parasitol.; Soc. Trop. Med.; cor. mem. Wash. Helminth. Soc.; Kans. Acad. (pres, 25). Innervation of integumentary sense organs; life histories of cestodes and nematodes; morphology of hookworms; resistance to parasitism.

Acree, Prof. S(olomon) F(arley), George Washington University, Washington, D. C. **Chemistry*. McGregor, Texas, Dec. 18, 75. B.S., Texas, 96, M.S., 07; fellow, Chicago, 98-01, Ph.D., 02; Berlin, 03-04. Asst. chem., Texas, 96-97; instr., high sch., Texas, 97-98; asst., Chicago, 00-01; assoc. prof. chem., Utah, 01-04; Johnston scholar, Hopkins, 05-06, assoc., 06-07, assoc. prof., 07-14; chief chemist, Forest Products Lab., and prof. forest chem., Wisconsin, 14-17; Syracuse, 17-19; chemist, Hahnemann Hosp., Rochester, 19-20; *tech. director and v. pres.*, *Graham Chem. Co. and Int. Chem. Products Co.*, 20-; *research prof. chem.*, *George Washington*, 24- A.A.; Chem. Soc. (chairman, sect. org. chem., 09); Texas Acad.; fel. London Chem. Soc.; Chem. Gesell. Enzymes; tautomerism; catalysis; color changes in indicators and dye stuffs; alkyl halides; pinacone and pinacoline rearrangements; ions and molecules of electrolytes; influence of hydrogen on the growth of wood-destroying fungi; cataphoresis measurements and stability of colloidal solutions; electrical conductivity of solutions; dilatometry studies; oxidation-reduction reactions; precision types of hydrogen and calomel electrodes; a superpure water still; a capillary colloid mill; beechwood creosote; reclaimed clay scrap and mucic acid.

Adams, Prof. A(my) Elizabeth, Mt. Holyoke College, South Hadley, Mass. *Zoology*. Delaware, N. J., March 28, 92. A.B., Mt. Holyoke, 14; A.M., Columbia, 18; Ph.D., Yale, 23. Asst. *zool.*, Mt. Holyoke, 14-15, instr., 15-17, 18-19, *assoc. prof.*, 19- A.A.; Soc. Zool.; Ass. Anat. Experimental embryology.

Adams, Dr. Cha(rlie)s C(hristopher), New York State Museum, Albany, N. Y. **Zoology*. Clinton, Ill., July 23, 73. B.S., Ill. Wesleyan, 95, hon. Sc.D., 20; M.S., Harvard, 99; fellow, Chicago, 00-03, Ph.D., 08. Asst. *biol.*, Ill. Wesleyan, 95-96; asst.

entomologist, state lab. nat. hist., Illinois, 96-98; curator, univ. museum, Michigan, 03-06; director, Cincinnati Soc. Nat. Hist., 06-07; assoc. animal ecol., Illinois, 08-14; asst. prof. forest zool., N. Y. State Col. Forestry, Syracuse, 14-16, *prof.*, 16-26, *director*, Roosevelt Wild Life Forest Exp. Sta., 19-26; N. Y. State Museum, Albany, 26-Summer, asst., Chicago, 02; curator museum, Cincinnati, 06-07. A.A.; Soc. Nat.; Ecol. Soc. (pres, 23); Soc. Mammal.; Soc. Foresters; Fisheries Soc.; Ass. Geog. (v. pres); Ass. Mus. Habitats, faunas and associations dynamically and genetically considered; general animal ecology; ecology of inland environments, prairies, lakes and forests; migration and evolution; geographical distribution; forestry and the food supply; relation of animal ecology to state and national parks; economics and sociology.

Adams, Dr. Chester E(lgin), 1005 Tatnall St., Wilmington, Del. *Chemistry*. Myrtle Point, Oregon, June 7, 98. A.B., Oregon, 20, A.M., 22; Ph.D., Iowa Col., 25. Asst. chem., Oregon, 20-21; Iowa Col., 21-25; *research chemist*, E. I. du Pont de Nemours and Co., 25-27; *Standard Oil Co. of Ind.*, 27- Chem. Soc. Grignard reagent; aliphatic diazo compounds; organic peroxides and thioindigos.

Adams, Dr. C(larence) Raymond, 260 Doyle Ave., Providence, R. I. *Mathematics*. Cranston, R. I., April 10, 98. A.B., Brown, 18, G.A.R. fellow, 18-19, M.S., 20; A.M., Harvard, 21, Ph.D., 22, Sheldon traveling fellow, Rome, 22-23; Göttingen, 23. Instr. *math.*, Brown, 18-20, 23-25, *asst. prof.*, 25- Math. Soc.; Math. Ass.; Circolo Mat. di Palermo. Analytic theory of difference equations.

Adams, Prof. C(omfort) A(very), Harvard University, Cambridge, Mass. *Electrical engineering*. Cleveland, Ohio, Nov. 1, 68. B.S., Case, 90, E.E., 05, hon. D.E., 25. Elec. engineer, Brush Elec. Co., 90-91; instr. *elec. eng.*, Harvard, 91-96, *asst. prof.*, 96-06, *prof.*, 06-, dean eng. sch., 19-20. Consulting engineer, Stone and Webster, 01-04; Am. Tool and Machine Co., 04-; Warner Sugar Ref. Co., 10-; Okonite Co., 16-; Okonite-Callender Co., 24-; Babcock and Wilcox Co., 25-; director, Am. Bur. Welding, 19- Chairman div. eng., Nat. Research Council, 19-21. Jury awards, St. Louis, 04; board award, Edison medal (chairman, 21-22); pres., board award, Fritz medal, 22-23. Chairman, gen. eng. committee, Council Nat. Defence; welding committee, Emergency Fleet Corp. A.A.; Elec. Eng. (pres, 18); Mech. Eng.; Civil Eng.; Automotive Eng.; Welding Soc. (pres, 19); Physical Soc.; Nat. Elec. Light Ass.; Am. Acad.; British Inst. Elec. Eng. Induction motors; alternator regulation; synchronous motors; dynamo design schedules; commutation.

Adams, Cyrus C(ornelius), Jewett, N. Y. *Geography*. Naperville, Ill., Jan. 7, 49. A.B., Chicago, 76. Ed. staff, 'N. Y. Sun,' 82-08. Pres., dept. geog., Brooklyn Inst., 89-93; chairman, Committee on Collection of Geog. Material for Schools, 89-93. Delegate from Nat. Geog. Soc. to Sixth Int. Geog. Cong., 95. A.A.; Ass. Geog. (pres, 06); Am. Geog. Soc. (assoc. ed., 'Bul,' 02-08, ed., 08-15). Exploration; development

of newly explored lands; the interaction of man with his geographic environment; cartographic presentation of the facts of commercial and economic geography.

Adams, Prof. Edwin P (limpton), Princeton University, Princeton, N. J. **Physics*. Prague, Bohemia, Jan. 23, 78. B.S., Beloit, 99; M.S., Harvard, 01, Ph.D., 04. Instr. *physics*, Princeton, 03-06, asst. prof., 06-09, *prof.*, 09- A.A.; Physical Soc; Philos. Soc; Math. Soc. Metallic conduction; Corbino effect in iron; theory of magnetism; relativity; the quantum theory.

Adams, Dr. Elliot Q (uincy), Nela Research Laboratory, Cleveland, Ohio. *Physical and organic chemistry*. Medford, Mass, Sept. 13, 88. B.S., Mass. Inst. Tech, 09; fellow, California, 12-13, Ph.D., 14. Research asst, research lab, Gen. Elec. Co, Schenectady, N. Y., 09-12; teaching fellow, California, 13-14, asst., 14-16, instr., 16-17; org. and physical chemist, color lab, bur. chem, U. S. Dept. Agr, 17-21; *physical chemist*, Nela Research Lab, 21- A.A.; Chem. Soc; Physical Soc; Optical Soc; Miner. Soc; Wash. Acad. Color and ionization of organic chromogens; transference in amalgams; ultimate rational units; absorption of chlorine by charcoal; photosensitizing dyes; color vision; residual rays; chemi-luminescence.

Adams, Dr. E (lmer) W (ade), 1358 Atchison Ave, Whiting, Ind. *Organic chemistry*. Deer Park, Texas, Oct. 7, 97. A.B., West. Ill. State Teachers Col, 18; B.S., Illinois, 19, M.S., 20; Ph.D., Wisconsin, 24. Asst. prof. chem, Kansas State Teachers Col, 24-25; *research chemist*, Standard Oil Co. of Ind., 25- Summers, prof, West. Ill. State Teachers Col, 22, 24. Chem. Soc. Catalysis in the formation of acetals; the relation of structure, affinity and reactivity in acetals.

Adams, Prof. Frank, Berkeley, Calif. *Irrigation*. Chicago, Ill, Sept. 19, 75. A.B., Stanford, 01; A.M., Nebraska, 06. *Irrig. investigator*, U. S. Dept. Agr, 00-06, 10-; *prof. irrig. investigations and practise*, California, 16- A.A.; Civil Eng; Agr. Eng; Calif. Acad. Irrigation with special reference to economics and agriculture.

Adams, Prof. Frank D (awson), McGill University, Montreal, Que, Can. *Geology*. Montreal, Sept. 17, 59. B.S., McGill, 78, M.S., 84, hon. D.Sc., 02; Sc.D., Tufts, 14; Ph.D., Heidelberg, 92; LL.D., Toronto, 16; Queen's (Can.), 19; Mt. Allison, 23. Asst. chemist and petrographer, Can. Geol. Surv, 80-89; lecturer *geol*, McGill, 89-94, *Logan prof.*, 94-, *dean faculty of applied science*, 08-, acting prin, 19-20. Ed., 'Can. Record of Science,' 93-98. Advisory Council for Sci. and Indust. Research; Can. Conservation Commission. Lyell medal, London Geol. Soc, 06. Pres, Int. Geol. Cong, 13. For. assoc. Nat. Acad; A.A.; Geol. Soc. (v. pres, 09, pres, 16); Philos. Soc; hon. mem. Min. Eng; Min. and Metal. Eng; hon. mem. Am. Acad; cor. mem. N. Y. Acad; Wash. Acad; cor. mem. Phila. Acad; fel. Royal Soc. Can. (pres); Can. Min. Inst. (pres, 10); fel. London Geol. Soc; fel. Royal Soc; hon. mem. Inst. Min. and Metal. Gt. Britain; hon. mem. Stockholm Geol. Soc; hon.

mem. Russian Geol. Soc; hon. mem. Ekaterinburg Nat. Hist. Soc. Igneous rocks and crystalline schists; experimental geology; movements set up in rocks by pressure; geology of the Laurentian of Canada; geology of the Monteregian Hills; conservation.

Adams, Dean George Edward, Rhode Island State College, Kingston, R. I. *Agriculture*. North Kingston, R. I., May 12, 74. B.S., R. I. Col, 94, M.Agr, 16; Cornell, 97, 99-00. Asst. horticulturist, R. I. Exp. Sta., 94-01, assoc. agron., 01-08; *prof.*, R. I. Col, 07-, *dean dept. agr.*, 17-, *director exten. service*, 25- R. I. statist. agent, U. S. Dept. Agr, 01-14. A.A.; Soc. Agron; Genetic Ass; Mass. Hort. Soc. Soil fertility.

Adams, Prof. Geo (rge) I (rving), University of Alabama, Tuscaloosa, Ala. *Geology*. Lena, Ill, Aug. 17, 70. A.B., Kansas, 93, A.M., 95; Sc.D., Princeton, 96; Munich, 97; Yale, 11. Instr. nat. science, Kans. State Nor. Sch, 93-94; field asst, U. S. Geol. Surv, 98-99, asst. geologist, 00-04; chief hydrologist, Cuerpo de Ingenieros de Minas del Peru, 04-06; mine examinations, Peru, Bolivia and Chile, 06-07; geologist, div. mines, Bur. Science, P. I., 08-10; *prof. geol. and mining*, Pei Yang Univ, Tientsin, China, 12-15; Peking Govt. Univ, 15-20; *geol. and miner*, Alabama, 20- Summers, asst, Univ. of Kans. Geol. Surv, 94-97. Decorated by Chinese Govt. Geol. Soc; Min. Eng; Miner. Soc; Wash. Geol. Soc. Economic and structural geology.

Adams, Dr. H (arold) S (tanard), The Upjohn Co, Kalamazoo, Mich. *Chemistry*. Pittsfield, Mass, May 20, 88. A.B., Williams, 11; Ph.D., Chicago, 15. Asst. chem, Mass. Col, 11-12; instr. physiol. chem, Chicago, 14-16; physiol. chemist, E. R. Squibb and Sons, 16-17, asst. supt, 17-19, production manager, 19-20; director research, Naugatuck Chem. Co, 20-25, sales development, 25-26; *production*, The Upjohn Co, 26- Chem. Soc; Chem. Eng. Biochemistry; pharmaceutical and chemical manufacturing; respiration of nerve tissue; physiological standardization; internal secretion; chemical process patents.

Adams, Prof. J (ames) F (owler), P. O. Box 425, Newark, Del. *Botany*. Charlestown, Mass, March 5, 88. B.S., Mass. Col, 11; M.S., Pa. State, 14; fellow, Columbia, 17-18, Ph.D., 18. Asst. plant path, Mass. Col, 11; Pa. State, 12, asst. prof. bot, 14-18, assoc. prof. plant path, 18-20; *Exp. Sta.*, Del., 20-; *plant pathologist*, State Board Agr, Del., 25- U. S. Army Med. Sch, 18-19. Bot. Soc; Phytopath. Soc; Torrey Bot. Club. Plant pathology; cytology of Uredinales; rusts.

Adams, J (ohn), 68 Fairmont Ave, Ottawa, Ont, Can. *Botany*. Antrim, Ireland, Jan. 20, 72. Queen's (Ireland); B.A., Cambridge, 00, M.A., 03. Asst. prof. bot, Royal Col. Science, Dublin, 02-14; *prof.*, Royal Vet. Col, 07-14; *asst. Dominion botanist*, Can, 14- A.A.; Bot. Soc. Plant morphology; ecology.

Adams, Prof. John Mead, University of California at Los Angeles, Los Angeles, Calif. *Physics*. Reading, Mass, June 6, 82. A.B., Harvard, 03, A.M., 05, Ph.D., 07. Asst. *physics*, Har-

vard, 04-08; instr, Simmons, 07-08; prof, Occidental, 09-12; asst. prof, Queen's (Can), 12-16; Saskatchewan, 16-19; *assoc. prof, California at Los Angeles*, 19- John Tyndall scholar, Harvard, 08-09. A.A.; Physical Soc. Röntgen rays.

Adams, L(eason) H(eberling), Geophysical Laboratory, Washington, D. C. **Chemistry*. Cherryvale, Kans, Jan. 16, 87. B.S, Illinois, 06. Tech. branch, U. S. Geol. Surv, 08-10; *physical chemist, geophys. lab, Carnegie Institution*, 10- Manufacturer optical glass, W. I. B, 17-18; nitrate div, ordnance dept, 18. Chem. Soc; Physical Soc; Geol. Soc; Wash. Acad; Wash. Philos. Soc. Physical and chemical constants of substances under high pressures; temperature measurements; gaseous equilibria and rate of reaction; optical glass; internal constitution of the earth.

Adams, Prof. L(everett) A(llen), 605 Indiana St, Urbana, Ill. *Anatomy*. Lawrence, Kans, Sept. 23, 77. A.B, Kansas, 03, A.M, 06; Ph.D, Columbia, 15. Museum instr. anat, Kansas, 04-05; asst. prof. biol, Colo. State Teachers Col, 06-12, head dept, 15-20; *asst. prof. zool, Illinois*, 20- Kans. Univ. biol. expd, 06. Frick scholar, Am. Museum Nat. Hist, 14. A.A; Ass. Anat; Paleont. Soc; Ill. Acad. Vertebrate anatomy; osteology; phylogeny of muscles.

Adams, Prof. Maxwell, 29 W. Ninth St, Reno, Nev. *Chemistry*. St. George, W. Va, Feb. 28, 69. West Virginia, 90-91; A.B, Stanford, 95, A.M, 96; Ph.D, Chicago, 04. Lecture asst. *chem*, Stanford, 95-97; prof, Calif. State Nor. Sch, 97-06, v. pres, 02-06; *prof, Nevada*, 06-, *dean col. arts and sciences*, 17-, v. pres, 22- Instr, exten. dept, Chicago, 00-01; director state soils lab, Nev, 14-16. A.A; Chem. Soc; Calif. Acad; Chem. Gesell. Salts of tin; hydroxylamin; molecular weight of lactimid; action of hydroxylamin on salts of copper; wood distillation; composition of wood turpentine; flotation and essential oils; essential oils from desert plants.

Adams, Dr. Norman I(sley), Jr, Yale University, New Haven, Conn. *Physics*. Winthrop, Mass, Sept. 20, 95. A.B, Yale, 17, Ph.D, 23. Research engineer, Am. Tel. and Tel. Co, 23-24; *instr. physics, Yale*, 25- Physical Soc. Thermodynamics.

Adams, Dr. Oscar S(herman), 325 Seventh St, N. E, Washington, D. C. *Applied mathematics*. Near Mt. Vernon, Ohio, Jan. 9, 74. B.S, Kenyon, 96, A.M, 15, Sc.D, 22. Supt. and prin, high schools, Ohio, 99-10; geod. computer, U. S. Coast and Geod. Surv, 10-24, *geod. mathematician*, 24- A.A; Math. Soc; Math. Ass. (sec'y-treas, Md-Va-D.C. sect, 19, pres, 21); Wash. Acad; Wash. Philos. Soc; Circolo Mat. di Palermo. Least squares and the adjustment of triangulation; theory of projections; elliptic functions applied to conformal world maps.

Adams, Dr. Rachel B(lodgett), 260 Doyle Ave, Providence, R. I. *Mathematics*. Woburn, Mass, Oct. 13, 94. A.B, Wellesley, 16; A.M, Radcliffe, 19, Mary E. Horton fellow, 20-21, Ph.D, 21. Instr. *math*, Wellesley, 21-22; tutor,

Radcliffe, 26- Math. Soc. Approximate solution of integral equations.

Adams, Prof. R(ichard) L(aban), University of California, Berkeley, Calif. *Agriculture*. Dorchester, Mass, Aug. 27, 83. B.S, Mass. Col, 05; Boston, 05; M.S, California, 10. Plant pathologist, California, 06-07; director exp. sta, Spreckels Sugar Co, 07-12; asst. gen. manager, Miller and Lux, 12-14; *prof. farm management, California*, 14- Economics of farming.

Adams, Prof. Roger, University of Illinois, Urbana, Ill. **Chemistry*. Boston, Mass, Jan. 2, 89. A.B, Harvard, 09, A.M, 10, Ph.D, 12; Berlin and Kaiser Wilhelm Inst, 12-13. Instr. *org. chem*, Harvard, 13-16; asst. prof, *Illinois*, 16-19, *prof*, 19-, *head dept*, 26- Nichols medal, 27. Major, C.W.S. A.A. (chairman, sect. C, 27); Chem. Soc. (assoc. ed, 'Jour', 22-, sec'y, 19, chairman, 20, chairman, org. div, councilor, 23-); fel. Am. Acad; Chem. Gesell. Alkali insoluble phenols; platinum-oxide; platinum black as a catalyst; effect of promoters and poisons on catalysts; polyhydroxy and polyhydroxymethylantraquinones; organic arsenic compounds; local anesthetics; chaulmoogric acid and derivatives; organic bismuth compounds.

Adams, Dr. Samuel S(hugert), The Rochambeau, Washington, D. C. *Medicine*. Washington, July 12, 53. A.B, West Virginia, 75, A.M, 78; M.D, Georgetown, 79, LL.D, 25. Lecturer diseases of children, Georgetown, 79-83; *prof. theory and practise of med*, National Univ, 83-91; clin. pediat, George Washington, 91-95; theory and practise of med. and diseases of children, *Georgetown*, 95-15, *chief dept. med*, 15- Am. Physicians; Pediat. Soc; Am. Med. Ass; Wash. Obstet. and Gynec. Soc; Wash. Acad.

Adams, Major Walter H(olbrook), 823 Harvard Ave, Burbank, Calif. *Mechanical engineering*. Worcester, Mass, April 17, 82. B.S, Mass. Inst. Tech, 03. Asst. mech. eng, Mass. Inst. Tech, 03-05; instr, Brooklyn Polytech, 05-08; prof, Pei Yang Univ, Tientsin, 08-13; Calif. Inst, 13-19; *consulting mech. engineer*, 22- Capt, C.Eng, 18-20, C.A.C, 20-21; ordnance dept, 21-22; major, Ordnance R.C, 22- Mech. Eng; Eng. Educ. Heat power engineering.

Adams, Walter S(ydney), Mt. Wilson Observatory, Pasadena, Calif. **Astronomy*. Antioch, N. Syria, Dec. 20, 76. A.B, Dartmouth, 98, Sc.D, 13; A.M, Chicago, 00; Munich, 00-01; Sc.D, Columbia, 26; LL.D, Pomona, 26. Asst. Yerkes Observatory, 01-03; instr. astrophys, 03-04; asst. astronomer, *Mt. Wilson Observatory, Carnegie Institution*, 04-09, astronomer and asst. director, 09-23, *director*, 23- Gold medal, Royal Astron. Soc, 17; Draper medal, Nat. Acad, 18; Jonssen prize, 26. Nat. Acad; A.A; Astron. Soc; Philos. Soc; Royal Astron. Soc. Stellar motions in the line of sight; stellar and solar spectroscopy; rotation of the sun.

Adamson, George P, General Chemical Co, 40 Rector St, New York, N. Y. *Chemistry*. Philadelphia, Pa, Aug. 24, 64. B.S, Lafayette, 84, M.S, 87. Director research dept, *Gen. Chem. Co*. A.A; Chem. Soc; Soc. Chem. Indust; Electro-

chem. Soc; Chem. Eng. Laboratory reagents; P-amido phenol; metol; oxidation products of anilin and phenols; urea; diphenyl amin.

Adamson, Dr. W(illiam) A(ugustus), 1342 Lovering Ave, Wilmington, Del. *Organic chemistry*. Jonesboro, Ga, Jan. 3, 83. A.B, Mercer, 07; Ph.D, Cornell, 17. Asst. org. chem, Cornell, 15-17; *research chemist, E. I. du Pont de Nemours and Co*, 17- Chem. Soc. Benzoic and carboxylic acid; anthracene dyes.

Adamstone, Dr. F(rank) B(olton), 802 W. Park Ave, Champaign, Ill. *Biology*. Listowel, Ont, Can, Dec. 10, 96. B.A, Toronto, 21, M.A, 22, fellow, 23-24, Ph.D, 24. Asst, Toronto, 21; *instr. zool, Illinois*, 24- Lake Nipigon Biol. Exped, 21-23. Limnology; fauna of Lake Nipigon.

Addicks, Lawrence, 51 Maiden Lane, New York, N. Y. *Metallurgy*. Philadelphia, Pa, March 3, 78. Pennsylvania; B.S, Mass. Inst. Tech, 99. Draftsman, N. Mex, 99-00; in charge testing lab. and asst. to supt, Raritan Copper Works, 00; chief engineer and supt, U. S. Metals Ref. Co, 05-14; *consulting engineer*, 14- Naval Consulting Board. Electrochem. Soc. (pres, 15); fel. Elec. Eng; Mech. Eng; Min. Eng; Soc. Test. Mat; Min. and Metal. Soc; Inst. Min. and Metal. London. Metallurgy of copper.

Addington, Arch R(ombough), 507 S. Fess St, Bloomington, Ind. *Geology*. Randolph Co, Ind, Feb. 23, 94. A.B, Indiana, 22, A.M, 25. *Instr. geol, Indiana*, 23- A.A; Ind. Acad. Subterranean drainage features of Indiana.

Addis, Prof. T(homas), Lane Hospital, San Francisco, Calif. *Medicine*. Edinburgh, Scotland, July 27, 81. M.B, Edinburgh, 05, M.D, 08; Carnegie research scholar, Edinburgh Royal Infirmary, 08-09, fellow, 09-11. Clin. asst, outpatient dept, Edinburgh Royal Infirmary, 10-11; asst. prof. *med, Stanford*, 11-13, assoc. prof, 13-20, *prof*, 20- Registrar, Leith Hosp, 11. Am. Physicians; Soc. Exp. Biol; Ass. Path. and Bact; Soc. Clin. Invest; Am. Med. Ass; Edinburgh Royal Col. Physicians. Coagulation of blood; hereditary hemophilia; plasma; urobilin; hemoglobin pigment; glycosuria; urea excretion; regulation of renal activity.

Addison, Dr. William H(enry) F(itzgerald), University of Pennsylvania, Philadelphia, Pa. *Anatomy*. Whitby, Ont, Can, April 23, 80. B.A, Toronto, 02, M.B, 05, M.D, 17. Asst. biol, Toronto, 02-04; demonstrator *histol. and embryol, Pennsylvania*, 05-12, asst. prof, 12-19, *prof*, 19-, *grad. sch. med*, 20- A.A; Soc. Nat; Ass. Anat; Eugenics Soc; Phila. Physiol. Soc; Phila. Path. Soc; Phila. Col. Physicians; Phila. Acad. Regeneration and transplantation of tissues; histogenesis of cerebellar cortex and hypophysis; prenatal and neonatal lung; development of eyelids; rhinencephalon of dolphin; nervous system of fishes; phagocytosis in spleen and in peritoneal cavity; developments of incisor and molar teeth in rat; cerebellum of Teleosts; vomeronasal organ; physiological histology of albino rat.

Addoms, Ruth M(argery), University of Wisconsin, Madison, Wis. *Plant physiology*. Ha-

worth, N. J, May 23, 96. A.B, Wellesley, 18, A.M, 21, Alice Freeman Palmer fellow, Wisconsin, 23-24, Ph.D, 26. Asst. bot, Wellesley, 18-21; instr, high sch, Ind, 21-23; asst. bot, Wisconsin, 24-25, *instr*, 25- A.A; Soc. Plant Physiol; Bot. Soc; Wis. Acad. Colloidal structure of protoplasm; toxicity.

Adelmann, Prof. Howard B(ernhardt), Cornell University, Ithaca, N. Y. *Embryology, Histology*. Buffalo, N. Y, May 8, 98. A.B, Cornell, 20, A.M, 22, Ph.D, 24. Asst. *histol. and embryol, Cornell*, 19-21, instr, 21-25, *asst. prof*, 25- A.A; Ass. Anat; Soc. Zool. Development of the prechordal plate; morphology of the vertebrate head; neural tube and cranial ganglia of the rat.

Adkins, Prof. Homer (Burton), University of Wisconsin, Madison, Wis. *Chemistry*. Newport, Ohio, Jan. 16, 92. B.S, Denison, 15; A.M, Ohio State, 16, Ph.D, 18. Instr. *org. chem*, Ohio State, 18-19; asst. prof, Wisconsin, 19-24, *assoc. prof*, 24- Research chemist, war dept, E. I. du Pont de Nemours and Co; Bakelite Corp. Chem. Soc. Causation of organic chemical reactions; relations of catalysis, affinity, reactivity and structure of organic compounds.

Adkins, W(alter) S(cott), University of Texas, Austin, Texas. *Geology*. Tenn, Dec. 24, 90. B.S, Tennessee, 10; Columbia, 12-13, 15-16; Paris, 25-26. Instr. anat, col. med, Illinois, 17-18; curator collections, *bur. econ. geol, Texas*, 19-20, *assoc. geologist*, 20-21, 25- Paleontologist, Aguila Co, Tampico, 21-25. Geol. Soc; Paleont. Soc; Ass. Petrol. Geol; Min. Eng; Soc. géol. de France. Cretaceous paleontology and stratigraphy.

Adler, Dr. Cyrus, 2041 N. Broad St, Philadelphia, Pa. *Archeology, Oriental history*. Van Buren, Ark, Sept. 13, 63. A.B, Pennsylvania, 83, A.M, 86; Ph.D, Hopkins, 87. Instr. Semitic languages, Hopkins, 87-90, assoc, 90-93; librarian, Smithsonian Inst, 92-05, asst. sec'y, 05-08; curator hist. religions and hist. archeol, U. S. Nat. Museum, 08; *pres, Dropsie Col. for Hebrew and Cognate Learning*, 08-; acting pres, *Jewish Theol. Sem*, 16-25, *pres*, 25- Rep, Columbian Expos. to Turkey, Egypt, Morocco, etc. Delegate, U. S. Govt. to Conf. on Int. Catalogue of Sci. Lit, London, 98; chairman, board editors, Jewish Translation of Bible; Jewish Classics Board. A.A; Archeol. Inst; Am. Jewish Hist. Soc. (past pres); Anthrop. Ass; Philol. Ass; Oriental Soc. (pres, 23); Philos. Soc; Wash. Acad; Wash. Philos. Soc; Wash. Anthropol. Soc. Assyriology; Jewish antiquities and history; history of the Jews on the American continent.

Adler, Dr. Francis Heed, 313 S. 17th St, Philadelphia, Pa. *Ophthalmology*. Philadelphia, Feb. 95. A.B, Pennsylvania, 16, A.M, 18, M.D, 19. Instr. *ophthal. and physiol, sch. med, Pennsylvania*; asst. surgeon, *Wills Eye Hosp*. Fel. Phila. Col. Physicians. Physiology of the eye; regulation of ocular tension.

Adler, Dr. Herman M(orris), 907 S. Lincoln St, Chicago, Ill. *Criminology*. New York, N. Y, Oct. 10, 76. A.B, Harvard, 97; A.M, M.D,

- Columbia, 01. Asst. theory and practise of physic, Harvard Med. Sch, 07-09, instr. neuropath. and psychiat, 09-12, asst. prof. psychiat, 12-16; mental disease and mental deficiency investigation, Nat. Committee Mental Hygiene, Rockefeller Foundation, 16-17; *state criminologist, Ill, 17-*; *prof. criminol. and head dept. social hygiene, med. jurisprudence and criminol. col. med, Illinois, 19-* Asst. clin. path, Boston City Hosp, 07-09; pathologist and asst. physician, Danvers State Hosp. Major, M.C, 18-19. A.A; Ass. Path. and Bact; Soc. Biol. Chem; Psychopath. Ass; Soc. Clin. Invest; Soc. Exp. Biol; Neur. Ass; Psychiat. Ass; Am. Med. Ass; Orthopsychiat. Ass; Chem. Soc; Ass. Research Nervous and Mental Diseases; N. Y. Acad. Med. Personality and behavior difficulties; mental factors in criminology.
- Adler, Dr. Howard**, 1412 Schilling Ave, Chicago Heights, Ill. *Chemistry*. New York, N. Y., Jan. 9, 96. B.S, Col. City of N. Y, 16; A.M, Columbia, 17, Ph.D, 21. Instr. chem, Chicago, 21-23; *head research dept, Victor Chem. Works, Chicago, 23-* Chem. Soc. Theory of solutions; formates; phosphates.
- Adolph, Dr. Edward F(rederick)**, University of Rochester, Rochester, N. Y. *Biology*. Philadelphia, Pa, July 5, 95. A.B, Harvard, 16, Ph.D, 20, traveling fellow at Oxford, 20-21; Yale, 16-18. Instr. zool, Pittsburgh, 21-24; Nat. Research Council fellow zool, Hopkins, 24-25; *asst. prof. physiol. sch. med, Rochester, 25-* Summers, instr, Woods Hole, 21-24; consulting physiologist, U. S. Bur. Mines, 22-24. Soc. Zool; Physiol. Soc. Zoology; physiology; physical chemistry of oxyhemoglobin; regulation of body volume and water content of organisms; passage of water through living and non-living membranes.
- Adolph, Prof. W(illiam) H(enry)**, Shantung Christian University, Tsinan, China. *Analytical chemistry*. Philadelphia, Pa, Sept. 1, 90. A.B, Pennsylvania, 12, Ph.D, 15. Asst. chem, Pennsylvania, 13-14; instr, asst. prof. and *prof, Shantung Christian Univ, 15-* Instr, Illinois, 20-21; lecturer, Science Inst, Tsinghua Col, 24. Chem. Soc; London Soc. Chem. Indust; Chinese Ass. Adv. Sci; Ass. Chinese and Am. Eng. Determination of fluorine; nutritive value of the soy bean; diet studies in Shantung; Chinese food materials.
- Adriance, Prof. John S(abin)**, Williamstown, Mass. *Chemistry*. New York, N. Y, Feb. 18, 61. A.B, Williams, 82, A.M, 85, Ph.D, 90. *Prof. chem. and toxicol, N. Y. Homeop. Med. Col, 97-* A.A; Chem. Soc; Soc. Chem. Indust; fel. London Chem. Soc. Breast milk; ash of breast milk.
- Agard, Dr. H(arry) L(eslie)**, Williamstown, Mass. *Mathematics*. Waterbury, Conn, March 19, 83. A.B, Wesleyan, 04; A.M, Yale, 08, Ph.D, 11. Instr. math, Wesleyan Acad, 04-05; Phillips Andover, 05-07; Hopkins Grammar, 07-10; Yale, 10-14; *Williams, 11-15, asst. prof, 15-, asst. dean, 22-*, acting dean, 23-24. A.A; Math. Soc; Math. Ass.
- Agersborg, Dr. H(elmer) P(areli von Wold) K(jerschow)**, James Millikin University, Decatur, Ill. *Zoology*. Norway, Oct. 26, 81. B.S, M.S, Washington (Seattle), 16; Oslo, 16-17; A.M, Columbia, 20; Ph.D, Illinois, 23. Asst. tutor and demonstrator, 13-20; asst. prof. zool, Wyoming, 20-21; asst, Illinois, 21-22; instr, Nebraska, 22-23; *Williams, 23-24; prof. and head dept, James Millikin, 24-* Summers, Friday Harbor, Columbia, Norway, 13-20. A.A; Soc. Mammal; Ecol. Soc; assoc. Ornith. Union; Soc. Parasitol; Eugenics Soc; Pacific Fisheries Soc; Nebr. Acad; Ill. Acad; Royal Soc. Trondhjem. Mollusks; starfish; Gasteropoda; parasitism.
- Agg, Prof. T(homas) R(adford)**, 707 Hodge Ave, Ames, Iowa. *Engineering*. Fairfield, Iowa, May 17, 78. B.S, Iowa Col, 05, C.E, 14. Instr. drawing, Illinois, 05-06, mech, 06-08; road engineer, Ill. Highway Dept, 08-13; *prof. highway eng. and in charge highway investigations, Iowa Col, 13-* Consulting road engineer, Iowa Highway Commission; mem. div. eng, Nat. Research Council. Civil Eng; Soc. Test. Mat. Load distribution on highway bridge floors; gravel surfacing; concrete road failures; weight of traffic; proportioning unscreened gravel; tractive resistance; economics of highway grades; highway transportation costs.
- Agnew, Dr. James H(oward)**, Houston, Texas. *Internal medicine*. Pittsburgh, Pa, July 31, 84. A.B, Michigan, 07, A.M, 08, M.D, 10. Asst. hygiene, Michigan, 07-08, med, 10-12, instr. clin. micros, 12-13, physical diagnosis, 13-14; prof. med, sch. med, Alabama, 14-17; *internist, Houston, Texas, 19-* Visiting physician, St. Joseph's and City-County Hospitals. Major, M.C, 17-19. A.A; Am. Med. Ass; Col. Physicians. Pulse wave; incoagulable blood nitrogen.
- Agnew, Dr. P(aul) G(ough)**, 29 W. 39th St, New York, N. Y. **Physics*. Hillsdale, Mich, July 3, 81. B.L, Hillsdale, 01; A.M, Michigan, 02; Ph.D, Hopkins, 11. Instr. physics, high sch, Mich, 02-05; lab. asst, Bur. Standards, 06-07, asst. physicist, assoc. physicist and physicist, 08-19; *sec'y, Am. Eng. Standards Committee, 19-* A.A; Elec. Eng; Wash. Acad. Electrical measurements; transformers; industrial standardization.
- Agramonte, Prof. Aristides**, 146 K St, Vedado, Havana, Cuba. *Microbiology, Tropical medicine*. Camagüey, Cuba, June 3, 69. A.B, N. Y. Univ, 86; M.D, Columbia, 92, hon. Sc.D, 14; M.B, Havana, 99, M.D, 00; hon. Sc.D, San Marcos (Peru), 24. Sanit. inspector and asst. bacteriologist, Dept. Health, New York, 97-98; acting asst. surgeon, U.S.A, 98-02; *prof. bacter. and exp. path, Havana, 00-* Sec'y, Board Infectious Diseases, Havana, 02-09, chairman, 09; Nat. Board Health, 09-; sec'y, Pub. Health and Charities, Cuba, 22-23. Breant prize, Paris Acad, 12; Cuban Govt. delegate, Int. Med. Congresses, 06, 09, 13; Int. Hygiene and Demog. Cong, 10; Int. Sanit. Conf, 11; Pan-Am. Sci. Cong, 15, 24. Hon. mem. Soc. Trop. Med; Pub. Health Ass; Cuban Nat. Med. Cong. (pres, 17); Havana Clin. Soc. (pres, 15-17); Havana Acad; Soc. de Path. Exotique; Hungarian Med. Soc; Int. Soc. Trop. Med. Yellow fever; plague; dengue fever; in-

termarriage of lepers; trachoma; malaria; water purification; uncinariasis; tuberculosis; typhoid fever.

Agrelius, Prof. Frank U(lysses) G(rant), Kansas State Teachers College, Emporia, Kans. *Botany*. Spring Green, Wis, July 30, 69. A.B., Kansas, 07, fellow, 07, A.M., 08. Asst. bot., Missouri, 08; asst. instr. and instr., Kansas, 08-11; instr. and *assoc. prof. biol.*, *Kans. State Teachers Col.*, 11- Summers, in charge expeditions, investigation of native plants, Kansas, 11-14. A.A.; Ecol. Soc. (Kans. rep, committee on preservation of nat. conditions); Kans. Audubon Soc. (local v. pres, 25); Kans. Acad. (past pres). Anatomy of spermatophytes; seasonal activities of plants.

Ahern, Major George, U.S.A. (retired), War Department, Washington, D. C. *Forestry*, *Geography*. New York, N. Y., Dec. 29, 59. Grad, U. S. Mil. Acad; LL.B., Yale, 95. *Officer*, U.S.A., 82- Prof. forestry, Mont. Col., 97-98; director forestry, P. I., 00-14. A.A.; Soc. Foresters. Tropical forestry.

Ahern, Prof. M(ichael) J(oseph), S.J., St. Joseph's College, Philadelphia, Pa. *Geology*. New York, N. Y., May 25, 77. A.B., St. Francis Xavier, 96; A.M., Woodstock, 02; Innsbruck, Austria, 07-11. Instr. chem. and geol., Boston Col., 02-06; geol. and math., Woodstock, 06-07; prof. and director dept. science, Canisius, 11-14; prof. chem. and head dept. chem. and geol., Boston Col., 15-19; pres. and director chem. laboratories, Canisius, 19-23; *prof. chem. and head dept.*, Holy Cross, 23-25; *St. Joseph's Col.*, 25-A.A.; Chem. Soc.; Boston Soc. Nat. Hist.; Buffalo Soc. Nat. Sci. (v. pres, 20-23). Prehistoric archeology.

Aikins, Prof. H(erbert) Austin, 2611 Edgehill Road, Cleveland, Ohio. *Clinical psychology*. Toronto, Ont., Can., March 1, 67. B.A., Toronto, 87; Ph.D., Yale, 91; hon. fellow, Clark, 92-93. Instr. philos., Southern California, 88; lecturer, Yale, 90-91; *prof. philos. and logic*, Trinity (N. C.), 91-92; *philos.*, *Western Reserve*, 93-A.A.; Philos. Ass.; Psychol. Ass.; Ass. Prof. (v. pres, 19). Mental tensions.

Aikman, Prof. J(ohn) M(ulvaney), 117 W. 17th St., University Place, Nebr. *Biology*. Mason City, Nebr., March 24, 93. A.B., Nebr. Wesleyan, 17, A.M., 21; Chicago, 22; Nebraska. Asst. prof. bot., *Nebr. Wesleyan*, 21-23, *assoc. prof.*, 23-25, *biol.*, 25- Summers, asst. prof., Colo. State Teachers Col., 23, 26. A.A.; Ecol. Soc.; Nebr. Acad. Plant ecology; the deciduous forest in Nebraska; growth in animals.

Ainslie, Charles N(icolas), 5009 Orleans Ave., Sioux City, Iowa. *Entomology*. Amsterdam, N. Y., Oct. 13, 56. A.B., Beloit, 77, A.M., 80. Banker, Rochester, Minn., 81-06; field agent, *bur. entom.*, U. S. Dept. Agr., 06-12, asst. entom. in charge *entom. lab.*, *Sioux City*, 12-23, *asst. entomologist*, 24- A.A.; Entom. Soc.; Ass. Econ. Entom.; Wash. Entom. Soc.; Iowa Acad.; Sioux City Acad. Hymenoptera.

Ainslie, Prof. Geo(rge) G(ooding), R. R. 9, Knoxville, Tenn. *Entomology*. Rochester, Minn., March 7, 86. B.S.A., Minnesota, 08. Asst. to state entomologist, Minn., 06-08; agent

and expert, *bur. entom.*, U. S. Dept. Agr., 08-09; asst. entom., Clemson, 09-10; *entom. asst.*, *bur. entom.*, U. S. Dept. Agr., 10- A.A.; Entom. Soc.; Ass. Econ. Entom. Crambidae; Aphididae.

Aitken, Prof. Robert G(rant), Lick Observatory, Mt. Hamilton, Calif. *Astronomy*. Jackson, Calif., Dec. 31, 64. A.B., Williams, 87, A.M., 92, Sc.D., 17; Pacific (Calif), 03; Arizona, 23. Instr. math., Livermore, 88-91; prof. math. and astron., Pacific (Calif), 91-95; asst. astronomer, *Lick Observatory*, 95-07, *astronomer*, 07-, *assoc. director*, 23- Prin. acad., Pacific (Calif), 93-95. Lalande gold medal, French Acad., 06; Bruce gold medal, Pacific Astron. Soc. Nat. Acad.; A.A. (pres, Pacific div, 25, v. pres, D, 26); Astron. Soc.; Philos. Soc.; Pacific Astron. Soc. (ed, 97-08, 11-, pres, 98, 15); Wash. Acad.; Calif. Acad.; assoc. Royal Astron. Soc. Double stars; faint satellites; comets; photometry; rapid binary stars; statistical studies relating to binary stars; orbits of binary stars.

Aitken, Prof. W(illiam) A(lexander), Iowa State College, Ames, Iowa. *Anatomy*. Paulina, Iowa, April 11, 95. D.V.M., Iowa Col., 17. *Assoc. prof. anat.*, Iowa Col., 19- U.S.A., 17-19. Para nasal sinuses and abdominal viscera of the ox; oestrous cycle of the mare.

Akeley, Prof. Lewis E(llsworth), Vermillion, S. Dak. *Physics*. Clarendon, N. Y., Feb. 22, 61. A.B., Rochester, 86, A.M., 88, LL.D., 12. Prof. nat. and physical science, *South Dakota*, 87-88, physics and chem., 88-04, *prof. physics*, 04-, *dean col. eng.*, 08- A.A.; Eng. Educ. Teaching of physics.

Akers, Prof. O(scar) P(erry), Allegheny College, Meadville, Pa. *Mathematics*. Trenton, Mo., June 16, 72. A.B., Colorado, 00, A.M., 02; Ph.D., Cornell, 05. Asst. math., Cornell, 04-05; asst. prof., *Allegheny*, 05-07, *prof.*, 07- A.A.; Math. Soc.; Math. Ass.; Circolo Mat. di Palermo. Line geometry.

Albert, Dr. Henry, Des Moines, Iowa. *Public health*. Walcott, Iowa, Oct. 11, 78. B.S., Iowa, 00, fellow, 01-02, M.D., M.S., 02; Vienna, 03. Instr. path. and bacter., Iowa, 02-03, prof., 03-22; *director*, State Bacter. Lab., Iowa, 04-22; *state hygienic lab.*, *Nevada*, 22- Asst. physician, State Insane Asylum, Independence, Iowa; pathologist, univ. hosp., Iowa, 03-14; commissioner, Iowa State Dept. Health, 26- A.A.; Ass. Path. and Bact.; Soc. Bact.; Am. Med. Ass.; Pub. Health Ass. Leucocytes; sarcoma of the spleen; pseudo-parasites; typhoid bacillus carriers; hypernephroma; disinfectants; hypertrophy of the mammary glands; chordoma; influenza; diphtheria.

Albert, Prof. O(rrin) W(ilson), 629 Buena Vista St., Redlands, Calif. *Mathematics*. Mt. Pleasant, Pa., March 24, 89. A.B., Otterbein, 09; A.M., Columbia, 11; Chicago, 16-17, summers, 21, 22, 25. Instr. math., Pittsburgh, 11-14; Purdue, 14-16; Grinnell, 17-19, asst. prof., 19-23; *prof.*, *Redlands*, 23- Math. Soc.; Math. Ass. Geometry.

Albertson, Rev. George W., University of Notre Dame, Notre Dame, Ind. *Biology*. Kalamazoo,

- Mich, Oct. 1, 86. Michigan; Chicago; B.Litt, Notre Dame, 14; A.M., Catholic Univ, 20, Ph.D, 21. Instr. *biol*, Notre Dame, 21-24, *assoc. prof*, 24- Ind. Acad. Bacteriology.
- Albrecht, C(larence) J(ohn)**, Field Museum of Natural History, Chicago, Ill. *Zoology*. Waverly, Iowa, Sept. 28, 91. A.B., Iowa, 13. Curator zool, state museum, Washington (Seattle), 13; *dept. preparation*, Field Museum Nat. Hist. Hawaiian Bird Reservation exped. to Laysan Island, 11; Carnegie Alaska-Siberia exped, 13; collector for Wash. game exhibit, Panama-Pacific Expos, 15; director, Field Museum exped. to Olympic Mountains, 15, northwest coast, 26; Calif. Acad. exped; director, Iowa exped. to northwest coast, 19; Am. Museum exped, 24. Ass. Mus. Birds and mammals; mountain beavers.
- Albrecht, Prof. Sebastian**, Dudley Observatory, Albany, N. Y. *Astrophysics*. Milwaukee, Wis, Aug. 22, 76. B.S., Wisconsin, 00; fellow, Lick Observatory, 03-06, Ph.D., California, 06. Teacher science, high sch, Wis, 00-02; asst, Lick Observatory, 06-08, asst. astronomer, 08-10; first astronomer, Cordoba Observatory, 10-12; acting junior prof. astron, Michigan, 12-13; *astronomer*, Dudley Observatory, 13- Crocker eclipse exped. to Flint Island, 08; Mt. Whitney, 09. A.A.; Astron. Soc; Soc. Astron. de Mex. Comets; satellites; Mars; variable stars; stellar spectral types and the intensities of lines in the spectra; distortions of photographic films; personal scale; anomalous dispersion in the sun; fundamental radial velocities; stellar wave-lengths.
- Albrecht, Prof. W(illiam) A(lbert)**, University of Missouri, Columbia, Mo. *Soils*. Flanagan, Ill, Sept. 12, 88. A.B., Illinois, 11, B.S., 14, M.S., 15, Ph.D., 19. Instr. *soils*, Missouri, 16-19, asst. prof, 19-20, *assoc. prof*, 20- Soc. Agron; Soc. Baet; Am. Acad. Soil bacteriology.
- Albright, Dr. Alan R(oth)**, 1527 Asbury Place, Pittsburgh, Pa. *Chemistry*. Boston, Mass, 85. Fellow, A.B., Ohio State, 09; Ph.D., Göttingen, 12. Bur. chem, U. S. Dept. Agr, 10-17; Dayton Metal Products Co, 17-18; E. I. du Pont de Nemours and Co, 18-23; S. Gumpert Co, Inc, 23-26; *Koppers Co*, 26- Chem. Soc; Chem. Eng. Essential oils; motor fuels; dyes; pharmaceuticals; coal.
- Albright, Prof. Guy H(arry)**, 1120 N. Tejon St, Colorado Springs, Colo. *Mathematics*. Lamar, Mo, Dec. 17, 76. Ph.B., Michigan, 99; A.B., Harvard, 00, A.M., 13; Brooklyn Polytech. *Prof. math*, Colo. Col, 07- Exchange lecturer, Harvard, 13; correspondent, W. Cent. Mil. Dist, War Personnel Staff, Y.M.C.A., 18-19. Math. Ass. Methods of distributing grades.
- Alburger, Prof. H(enry) R(ihl)**, 4023 Park Ave, Indianapolis, Ind. *Pathology*. Germantown, Pa, April 16, 74. M.D., Pennsylvania, 02. Demonstrator path, Pennsylvania, 05-07; junior prof, Indiana, 08, prof, 08-14; pathologist, *Methodist Hosp*, 13-19, *consulting pathologist and consultant internal med*, 19- Hosp. positions. Am. Med. Ass; Phila. Path. Soc. Focal infections; vaccine therapy; diseases of the blood; serology.
- Alcock, Dr. Frederick James**, Geological Survey of Canada, Ottawa, Ont, Can. *Geology*. Griersville, Ont, Nov. 16, 88. B.A., Toronto, 12; Ph.D., Yale, 15; Wisconsin, 15-16. *Can. Geol. Surv*, 11- Lecturer geol, Queen's (Can), 20-21. Fel. Geol. Soc; fel. Am. Geog. Soc; Min. and Metal. Eng; fel. Royal Soc. Can; Can. Min. Inst. The Precambrian of northern Canada; geology of the Gaspé Peninsula; zinc and lead deposits of Canada.
- Alden, Dr. Harold L(ee)**, Yale University Observatory, Southern Station, University of Witwatersrand, Johannesburg, S. Africa. *Astronomy*. Chicago, Ill, Jan. 10, 90. A.B., Wheaton, 12; M.S., Chicago, 13; fellow, Virginia, 14-17, Ph.D., 17. Asst. photog. photom, Yerkes Observatory, 12-14; instr. *astron*, Virginia, 14-17, asst. prof, 18-24, *assoc. prof*, 24-25; *asst. prof*, Yale, and *astronomer in charge south. sta*, Yale Univ. Observatory, Witwatersrand, 25- Asst, McCormick Observatory, 14-25; instr. navig, U. S. Shipping Board, 18-19. A.A.; Astron. Soc; Va. Acad; fel. Royal Astron. Soc; Soc. astron. de France. Stellar parallaxes and proper motions; visual and photographic photometry; variable stars; mass ratios; orbits of double stars.
- Alden, Dr. W(illiam) C(linton)**, U. S. Geological Survey, Washington, D. C. *Geology*. Mitchell, Iowa, Sept. 27, 71. A.B., Cornell (Iowa), 93; fellow, Chicago, 97-98, A.M., 98, Ph.D., 03. Asst. prin, high sch, S. Dak, 93-94, prin, schools, 94-95; special field asst, U. S. Geol. Surv, 96-01, asst. geologist, 01-10, *geologist*, 10-12, *in charge sect. glacial geol*, 12- Non-res. docent geol, Chicago, 03-11. A.A.; Geol. Soc; Wash. Geol. Soc. Glacial geology of Wisconsin, Iowa, Montana, Wyoming and New England.
- Alderman, Prof. W(illiam) H(orace)**, 1380 Raymond Ave, St. Paul, Minn. *Horticulture*. Holley, N. Y, April 6, 85. B.S.A., Cornell, 08. Asst. and assoc. horticulturist, N. Y. Exp. Sta, Geneva, 08-11; prof. hort, West Virginia, 11-19, dean col. agr. and director, Exp. Sta, 18-19; *chief div. hort*, Minnesota, 19- A.A.; Soc. Hort. Sci. (pres, 20, pres, Great Plains sect, 23); Pomol. Soc; Minn. Hort. Soc. (pres, 24, 25). Breeding and production of hardy fruits; propagation of fruit plants; orchard culture.
- Alderson, Pres. Victor C(lifton)**, Colorado School of Mines, Golden, Colo. *Mathematics*, *Technical education*. Plymouth, Mass, June 4, 63. A.B., Harvard, 85; hon. Sc.D., Beloit and Armour, 03. Supt, schools, Ind, 85-87; instr. math, high sch, Ill, 87-93; prof, Armour, 93-99, dean tech. col, 99-03; pres, Colo. Sch. Mines, 03-13; consulting engineer, 13-17; pres, Colo. Sch. Mines, 17-24; *consulting engineer*, 24- Advisory committee, Carnegie Tech. Schools, Pittsburgh, 01. A.A.; Eng. Educ; Min. and Metal. Eng; Min. Cong; Inst. Petrol. Tech. London. Mining; metallurgy; oil shale.
- Alderton, Prof. Nina M(ay)**, Mills College, Calif. *Mathematics*. Berkeley Springs, W. Va, Aug. 19, 90. A.B., Mt. Holyoke, 14; A.M., Columbia, 15; Ph.D., California, 21; Yale. Teacher, Mt. Hermon Boys' Sch, 15-18; X-ray work, Bur. Standards, 18-19; teaching fellow *math*, Cali-

- fornia, 19-21; *assoc. prof.*, *Mills*, 21- Math. Soc.; Math. Ass. Geometry of hyperspace.
- Aldrich, Dr. John A.**, Oglethorpe University, Ga. *Physics, Astronomy*. Clifford, Ont, Can, March 3, 78. A.B, Albion, 14; M.S, Michigan, 15, Ph.D, 23. *Prof. physics and astron.*, Olivet, 16-18; Washburn, 18-25; *Oglethorpe*, 25- A.A; Astron. Soc.
- Aldrich, Prof. J(ohn) M(erton)**, U. S. National Museum, Washington, D. C. **Entomology*. Little Valley, Minn, Jan. 28, 66. B.S, S. Dak. Col, 88, M.S, 91; Mich. State Col, 89-90; M.S, Kansas, 93; Ph.D, Stanford, 06. Asst. zool, S. Dak. Col, 89-92; prof. zool, Idaho, and entomologist, Exp. Sta, 93-05, biol, 05-13; entomologist, bur. entom, U. S. Dept. Agr, 13-19; *assoc. curator, U. S. Nat. Museum*, 19- Ed, Say Foundation, 16- Entom. Soc. (sec'y-treas, 15-20, pres, 21); Ass. Econ. Entom; Wash. Entom. Soc. Classification and literature of Diptera; catalogue of North American Diptera.
- Aldrich, L(oyal) B(laine)**, Smithsonian Institution, Washington, D. C. *Astrophysics*. Milwaukee, Wis, Nov. 20, 84. A.B, Wisconsin, 07, A.M, 09. *Research asst.*, *astrophys. observatory, Smithsonian Inst.*, 09- Smithsonian Inst. expeditions to Mt. Wilson; director eclipse exped. to Kansas, 18; director, Smithsonian Inst. Sta, Montezuma, Chile, 23-25. A.A; Optical Soc. Solar radiation; cloud reflection; instruments for solar constant work.
- Aldrich, Dr. T(homas) B(ell)**, Parke, Davis and Co, Detroit, Mich. *Physiological chemistry*. Port Jefferson, N. Y, June 10, 61. Albany Nor. Col, 79-82; Ph.D, Jena, 92. Prin. pub. schools, 82-88; asst. chem, Jena, 91; prof, high sch, Ill, 92-93; *assoc. physiol. chem*, Hopkins, 93-98; *research chemist, Parke, Davis and Co*, 98- Physiol. Soc; Soc. Biol. Chem; Chem. Soc. New derivatives of phenylmethylpyrazolons; secretion of the anal glands of Mephitis mephitis; derivatives of chlorotone and brometone; isolation and synthesis of adrenalin; pituitrin; enzymes; antitoxins; toxins; halogen tertiary butyl alcohols.
- Aldrich, T(ruman) H(eminway)**, Birmingham, Ala. *Paleontology*. Palmyra, N. Y, Oct. 17, 48. M.E, Rensselaer, 69. Asst, Ala. Geol. Surv; *mining engineer, Birmingham, Ala.* Mem, 54th Cong. A.A; Paleont. Soc; Geol. Soc; Min. Eng; Civil Eng. Tertiary paleontology and stratigraphy.
- Aldrich, W(illiam) S(leeper)**, 268 Chase St, Gary, Ind. *Mechanical engineering*. Philadelphia, Pa, March 3, 63. Grad, U. S. Naval Acad, 83; M.E, Stevens, 84. Asst. Boys' High Sch, Pa, 85-87; Phila. Manual Training Sch, 87-89; instr. drawing, Hopkins, 89-91, *assoc. mech. eng*, 91-92; prof. mech. eng. and head dept, West Virginia, 93-99; prof. elec. eng. and head dept, Illinois, 99-01; director, Clarkson Col. Tech, 01-11; U. S. Reclamation Service, 11-13; acting prof. mech. and elec. eng, Arizona, 13-14; *assoc. prof. elec. eng*, Colo. Agr. Col, 14-18; *Am. Bridge Co, Gary, Ind*, 18- Past asst. engineer and lieut, U.S.N., Spanish-Am. War. Mech. Eng; Elec. Eng. Engineering administration.
- Alexander, Dr. Charles P(aul)**, Massachusetts Agricultural College, Amherst, Mass. *Entomology*. Gloversville, N. Y, Sept. 25, 89. B.S, Cornell, 13, Ph.D, 18. Asst. biol, Cornell, 11-14, instr. nat. hist, 15-17; curator Snow collection, Kansas, 17-19; syst. entomologist, Nat. Hist. Surv. Ill, 19-22; *asst. prof. entom.*, *Mass. Col*, 22- Summer, special syst. entomologist, Maine Exp. Sta, 13. A.A; Entom. Soc. Biology, phylogeny and taxonomy of crane-flies; the crane-flies of Baltic amber.
- Alexander, D(aniel) Basil W(illiam)**, 734 Longmeadow St, Longmeadow, Mass. *Chemistry*. Ipswich, Eng, Feb. 24, 62. Victoria (Eng), 82. Alcatraz Asphalt Co, 98-01; Barber Asphalt Paving Co, 01-13; chief chemist, Gen. Petrol. Co, 13-16; Barber Asphalt Paving Co, 16-20, for. traveling engineer, 20-25; chem. engineer and proprietor, private lab, 25-27; *retired*. A.A; Chem. Soc. (councilor, S. Calif. sect, 12, pres, 13); Chem. Eng. Asphalt; road building.
- Alexander, (Edward) Gordon**, Central College, Fayette, Mo. *Biology*. Rich Hill, Mo, Aug. 18, 01. A.B, Central (Mo), 23; A.M, Princeton, 25. *Asst. prof. biol.*, *Central (Mo)*, 26- A.A; Ecol. Soc; Soc. Mammal. Physiological ecology; ecology of protozoa; bioluminescence.
- Alexander, Prof. Harry L(ouis)**, Washington University School of Medicine, St. Louis, Mo. *Internal medicine*. New York, N. Y, Feb. 16, 87. A.B, Williams, 10; M.D, Columbia, 14. Instr. med, med. col, Cornell, 19-24; *assoc. prof, sch. med.*, *Washington (St. Louis)*, 24- Fel. Am. Med. Ass; Soc. Clin. Invest; Soc. Exp. Biol. Immunology; bacteriology; anaphylaxis.
- Alexander, Prof. H(artley) B(urr)**, University of Nebraska, Lincoln, Nebr. *Philosophy*. Lincoln, April 9, 73. A.B, Nebraska, 97; Harrison fellow, Pennsylvania, 98-00; fellow, Columbia, 00-01, Ph.D, 01. Asst. ed, 'New Int. Encyclopedia,' 03; 'Webster's Dictionaries,' G. and C. Merriam Co, 03-08; *prof. philos.*, *Nebraska*, 08- Board directors, Sch. Am. Research, Santa Fé. Butler silver medal, 17. Leopold Zunz Mem. lecturer, 19; lecturer, Sorbonne, 25. A.A; Philos. Ass. (pres, 19); West. Philos. Ass. (pres, 17); Paris Soc. des Américanistes. Metaphysics; esthetics; American Indian mythology.
- Alexander, Dr. J(ames) W(addell)**, 29 Cleveland Lane, Princeton, N. J. **Mathematics*. Sea Bright, N. J, Sept. 19, 88. B.S, Princeton, 10, A.M, 11, Ph.D, 15. Instr. math, Princeton, 11-12, 15-16, asst. prof, 20-26, *assoc. prof*, 26- A.A; Math. Soc; Math. Analysis situs.
- Alexander, Jerome**, 50 E. 41st St, New York, N. Y. **Chemistry*. New York, Dec. 21, 76. B.S, Col. City of N. Y, 96, M.S, 99. Treas. and chief chemist, companies, 96-21; *consulting chemist and engineer*, 21- Chairman colloid committee, Nat. Research Council, 17-19. A.A; Chem. Soc. (past councilor); Chem. Indust. (chairman, N. Y. sect, 16-18); Chem. Eng; Min. and Metal. Eng; N. Y. Chemists Club (past asst. treas, chairman, library committee); N. Y. Micros. Soc; Soc. Med. Jurisprudence; Soc. de chim. indust. (councilor, N. Y. sect); Kolloid Gesell. Colloid chemistry;

- ultramicroscopy; glue; gelatin; starch products; adhesives.
- Alexander, Prof. L(owell) M(elville)**, University of Cincinnati, Cincinnati, Ohio. *Physics*. Sparta, Ill, Sept. 25, 91. E.E, Cincinnati, 15, A.M, 17, Ph.D, 25. Asst. manager, Royer Wheel Works, 17-20; instr. *physics*, *Cincinnati*, 20-22, asst. prof, 22-25, *assoc. prof*, 25-Physical Soc; Radio Eng; Illum. Eng. Soc; assoc. Elec. Eng. Magnetic rays; X-ray crystal analysis.
- Alexander, William H(enry)**, U. S. Weather Bureau, Columbus, Ohio. *Meteorology*, *Climatology*. Near Cumby, Texas, Jan. 10, 67. A.B, A.M, Virginia, 92; Columbia. Prof. Latin, Decatur Col, 93-95; physics, Henry Col, 95-98; *meteorologist*, U. S. Weather Bur, 98-; meteorologist, Md, 10-12; *climatologist*, Ohio, 20- A.A; Meteor. Soc; fel. Ohio Acad. (pres, 21, sec'y, 23-). Climatological history of Ohio; West Indian hurricanes; thunderstorms in the United States.
- Alexanderson, E(mst) F(redrik) W(erner)**, 8 Adams Road, Schenectady, N. Y. *Electrical engineering*. Upsala, Sweden, Jan. 25, 78. Lund, Sweden, 96-97; grad, Stockholm Polytech, 00; Tech. Hochschule, Berlin, 00-01. *Consulting engineer*, *Gen. Elec. Co*; *chief consulting engineer*, *Radio Corp. of America*. Order Polonia Restituta, 24; Order of North Star, Sweden, 25. Elec. Eng; Radio Eng. (pres, 21). Electric motors; alternators; physiological tolerance of alternating current strengths; dielectric hysteresis at radio frequencies; magnetic properties of iron; magnetic amplifier; multiple tuned antennae; barrage receiver; simultaneous sending and receiving; transoceanic radio communication and wave propagation; radio-photography; television.
- Aley, Pres. Robert J(udson)**, Butler University, Indianapolis, Ind. *Mathematics*. Arney, Ind, May 11, 63. B.S, Valparaiso, 82; A.B, Indiana, 88, A.M, 90; Harrison fellow, Pennsylvania, 96-97, Ph.D, 97, LL.D, 17, Franklin, 09, Butler, 22. Prof. math, Indiana, 91-10; supt. pub. instruction, Ind, 09-10; *pres*, Maine, 10-21; *Butler*, 21- Acting asst. prof. math, Stanford, 94-95; ed, 'Educator-Jour,' 03-13. A.A; Math. Soc; Nat. Council Educ. (pres, 13); fel. Ind. Acad. Modern pure geometry.
- Alford, L(eon) P(ratt)**, 9 North Mountain Ave, Montclair, N. J. *Mechanical engineering*. Simsbury, Conn, Jan. 3, 77. B.S, M.E, Worcester. Shop foreman, McKay Metallic Fastening Ass, 96-97; McKay Bigelow Heeling Ass, 97-99; production supt, McKay Shoe Machinery Co, 99-02; mech. engineer, United Shoe Machinery Co, 02-07; eng. ed, 'Am. Machinist,' 07-11, ed-in-chief, 11-17; *ed*, 'Indust. Management,' 17-20; 'Management Engineering,' 21-23; 'Manufacturing Industries,' 23- Trustee, Nat. Museum Eng. and Indust. Mech. Eng. (v. pres, 20-22); Am. Management Ass. (councilor, 22); Inst. Management (v. pres, 27-) Management of manufacturing enterprises; codification of laws of manufacturing management.
- Alger, Philip L(angdon)**, 1758 Wendell Ave, Schenectady, N. Y. *Electrical engineering*. Washington, D. C, Jan. 27, 94. B.S, St. John's (Md), 12, A.M, 16; Mass. Inst. Tech, 15; M.S, Union, 20. Asst. instr. and research asst, Mass. Inst. Tech, 16-17; *engineer*, *Gen. Elec. Co*, 19- Second lieut. and lieut. ordnance dept, 17-19; capt, O.R.C, 19- Elec. Eng; Mech. Eng; Eng. Educ; Math. Soc. Electrical machinery; ballistics.
- Algué, Rev. J(oseph), S.J**, Manila Observatory, Manila, P. I. *Meteorology*. Manresa, Spain, Dec. 28, 56. Toulouse, France, 72-77; Georgetown, 91-93, Ph.D, 03; Sc.D, Manila, 12. Prof. physics, Zaragoza, Spain, 78-84; Tortosa, 84-88; asst. director, *Manila Observatory*, 94-97, *director*, 97- Commissioner from Spanish Govt, Columbian Expos, 93. Asst. director observatory, Georgetown, 91-93. Int. Cong, Paris, 00; St. Louis, 04; Innsbruck, 05. Hon. mem. Royal Meteor. Soc. Cyclones; climate of the Philippine Islands.
- Alicante, Dr. Marcos Mondejar**, Bureau of Science, Manila, P. I. *Soils*. Maasin, P. I, April 25, 95. B.S, Oregon Col, 20, M.S, 21; Ph.D, Illinois, 23. Soil biologist, substation, Moro, Oregon, 20; soil analyst, dept. agron, Illinois, 22-23; *soil biologist*, *Bur. Science*, P. I, 24- Soc. Bact; Philippine Tech. Agr. Soc; Philippine Sci. Soc. (board directors, 26-). Viability of legume organisms outside of the plant; microbiological properties of the Philippine soil; specific bacteria concerned in the fermentation of Philippine tobacco.
- Allan, Dr. E(ugene) T(homas)**, Geophysical Laboratory, Chatham Courts, Washington, D. C. *Chemistry*, *Geology*. Athol, Mass, April 2, 64. A.B, Amherst, 87; Ph.D, Hopkins, 92; Harvard, 93-95. Assoc. chem, Goucher, 90-91; acting prof, Colorado, 92-93; prof, Mo. Sch. Mines, 95-01; chem. geologist, U. S. Geol. Surv, 01-07; *chemist*, *geophys. lab*, *Carnegie Institution*, 07- Chem. Soc; Geol. Soc. Geochemistry; volcanology.
- Allan, Prof. F(rancis) B(arclay)**, 380 Brunswick Ave, Toronto, Ont, Can. *Chemistry*. Simcoe Co, Ont, Nov. 4, 67. B.A, Toronto, 93, fellow, 93-95, M.A, Ph.D, 00. Asst. lecturer chem, Toronto, 95-00, *lecturer*, 00-07, assoc. prof. *org. chem*, 07-19, *prof*, 19- Chem. Soc; Royal Soc. Can; Chem. Gesell. Bismuth salts; derivatives of phthalic acid; organic syntheses by means of aluminum chloride.
- Allan, Prof. John A(ndrew)**, University of Alberta, Edmonton, Alta, Can. *Geology*. Aubrey, Que, July 31, 84. B.A, McGill, 07, M.S, 08; Ph.D, Mass. Inst. Tech, 12. Asst. geol, Mass. Inst. Tech, 08-11; *prof. geol. and miner*, *Alberta*, 12-, in charge dept. mining eng, 14-20. Field geologist, Can. Geol. Surv, 06-18; provincial geologist, Alta, 19- Sci. and Indust. Research Council; Geol. Soc; fel. Royal Soc. Can; Can. Min. Inst. Mineralogy; petrography; structural geology and physiology of the Canadian Rocky Mountains and foothills belt; oil; gas; coal; experimental ceramics; stratigraphy and sedimentation; mineral resources of Alberta.

- Allanson, H(enry) E(mil)**, U. S. Department of Agriculture, Washington, D. C. *Agriculture*. Carpenter, Iowa, Sept. 8, 88. George Washington; B.S., Cornell, 17. Asst. plant introducer, office for. plant introd, U. S. Dept. Agr, 21, sci. asst, *bur. plant indust*, 17-21, *asst. to chief*, 21- Genus *Lilium*; bureau administration.
- Allard, H(arry) A(rdell)**, U. S. Department of Agriculture, Washington, D. C. *Botany*. Oxford, Mass, Jan. 28, 80. B.S., North Carolina, 05. *Scientist, bur. plant indust*, U. S. Dept. Agr, 06- Wash. Entom. Soc. Plant breeding and nutrition; cotton; the distribution of Fowler's toad; musical Orthoptera; mosaic diseases of tobacco; day length and plant growth.
- Allardice, Prof. R(obert) E(dgar)**, Stanford University, Calif. **Mathematics*. Edinburgh, Scotland, March 2, 62. M.A., Edinburgh, 82. Asst. prof. *math*, Edinburgh, 82-92; *prof*, Stanford, 92- Math. Soc; fel. Edinburgh Royal Soc; Edinburgh Math. Soc. (ed, 'Proc,' 89-91). Geometry; properties of certain systems of conics; property of curves.
- Allee, Prof. W(arder) C(lyde)**, University of Chicago, Chicago, Ill. **Zoology*. Bloomington, Ind. June 5, 85. B.S., Earlham, 08; M.S., Chicago, 10, Ph.D, 12. Asst. zool, Chicago, 10-12; instr. bot, Illinois, 12-13; zool, Williams, 13-14; asst. prof, Oklahoma, 14-15; prof. biol, Lake Forest, 15-21; asst. prof. zool, Chicago, 21-23, *assoc. prof*, 23-, dean col. sciences, 25-27. Summers, instr. zool, Woods Hole, 14-21, in charge invert. zool, 18-21; lecturer zool, California, 23; summers, prof, Utah, 24, 25. Trustee, Earlham, 25- A.A.; Soc. Nat; Soc. Zool. (treas, 18-21, sec'y, 18-24, v. pres, 26); Ecol. Soc. (v. pres, 25); Entom. Soc. Seasonal succession in ponds; rheotaxis in Isopoda; ecology and behavior of isopods, fish, May-fly nymphs, Woods Hole invertebrates and animals in tropical rain-forest; animal aggregations.
- Alleman, Prof. Gellert**, Swarthmore College, Swarthmore, Pa. *Chemistry*. Littlestown, Pa, July 23, 71. B.S., Pa. State, 93; Ph.D, Hopkins, 97; Sc.D, Gettysburg, 25. Instr. *chem*, Maine, 97-98; Washington (St. Louis), 98-02; *prof*, Swarthmore, 02- A.A.; fel. Chem. Soc; Electrochem. Soc; Soc. Chem. Indust; Franklin Inst. (v. pres, 23-25); Chem. Gesell. Diazo-compounds; Portland cements; action of chemicals on wood fiber; phenol ethers; anti-septics; coal tars; creosote oils; asphalts; strength of treated timbers; oxidation of petroleum; electrolysis; occluded gases in ferrous alloys.
- Allen, Dr. Arthur A(ugustus)**, Cornell University, Ithaca, N. Y. *Zoology*. Buffalo, N. Y., Dec. 28, 85. A.B., Cornell, 07, A.M., 08, fellow, 08-09, Ph.D, 11. Instr. zool, Cornell, 09-15, asst. prof. *ornith*, 15-24, *prof*, 24- Am. Museum Nat. Hist. exped. to S. America, 12. Assoc. ed, 'Bird Lore.' A.A.; fel. Ornith. Union; Soc. Mammal; Wilson Ornith. Club; Cooper Ornith. Club. Ornithology; mammalogy; conservation; ecology.
- Allen, A(rthur) W(atts)**, 1452 Scenic Ave, Berkeley, Calif. *Metallurgy, Chemistry*. Bickleigh, Devonshire, Eng, Feb. 22, 79. B.A., Cambridge, 02, M.A., 10. Biologist, indust. chemist, hydrometallurgist and ore dresser, New Guinea, Australia, Africa, North and South America; assoc. ed, 'Mining and Sci. Press,' 20-22; asst. ed, 'Eng. and Min. Journal-Press,' 22-24; 'Chem. and Metal. Eng,' 23-26. A.A.; Min. and Metal. Soc; Inst. Min. and Metal; Chem. Soc; Soc. Chem. Indust. Hydro-metallurgy; nitrate from Chilean caliche.
- Allen, Prof. B(ennet) M(ills)**, 909 Micheltorena St, Los Angeles, Calif. **Embryology*. Greencastle, Ind, July 4, 77. Ph.B., De Pauw, 98; Ph.D, Chicago, 03. Instr. anat, Wisconsin, 03-08, asst. prof, 08-11, zool, 11-13; prof, Kansas, 13-22; assoc. prof. biol, *California at Los Angeles*, 22-24, *prof. zool*, 24- A.A.; Soc. Nat; Soc. Zool; Soc. Exp. Biol; Ass. Anat; Wis. Acad. Embryonic development of ovary and testis of the mammals; anatomy of *Hirudo*; eye of *Bdellostoma*; development of rete cords, sex cords and sex cells of Chysemys; origin of sex-cells; effect of extirpation of thyroid gland and hypophysis of amphibians on bodily growth; influence of glands of internal secretion on growth and differentiation.
- Allen, Prof. C. L.**, Cornell University, Ithaca, N. Y. *Animal husbandry*. Brodhead, N. Y., Dec. 28, 89. A.B., Cornell, 16, M.S., 19, Ph.D, 20. Teacher, pub. schools, N. Y., 07-10; *instr. and prof. animal husbandry, Cornell*, 16- Dairy Sci. Ass; Genetic Ass. Age of dairy cattle; the maintenance of dairy herds; normal variations in weight; growth.
- Allen, Prof. C(alvin) Frank (Francis)**, Montview St, West Roxbury, Mass. *Engineering*. Roxbury, Mass, July 10, 51. B.S., Mass. Inst. Tech, 72. Civil engineer, water works and sewerage, 72-78; railroad engineer, 79-85; attorney-at-law, 85-86; asst. prof, assoc. prof. and prof. railroad eng, Mass. Inst. Tech, 87-16. Civil Eng; Eng. Educ. (sec'y and pres); R. R. Eng; New Eng. R. R. Club (pres, 06); Mass. Highway Ass. (pres); Boston Soc. Civil Eng. (pres, 99). Railroad engineering.
- Allen, Prof. Charles E(imer)**, 2014 Chamberlin Ave, Madison, Wis. **Botany*. Horicon, Wis, Oct. 4, 72. B.S., Wisconsin, 99, Ph.D, 04. Instr. *bot*, *Wisconsin*, 01-04, asst. prof, 04-07, assoc. prof, 07-09, *prof*, 09- Research asst, Carnegie Institution, 04-05. Ed-in-chief, 'Am. Jour. Bot,' 18-26; Nat. Research Council, 25- Nat. Acad; A.A.; Soc. Nat; Micros. Soc; Bot. Soc. (v. pres, 20, pres, 21); Genetic Ass; Philos. Soc; Wis. Acad. (sec'y, 05-07, v. pres, 15-18). Middle lamella in thickened cell walls; spindle formation in pollen mother-cells of larch; nuclear division and chromosome reduction in pollen mother-cells of lily; germination of egg and chromosome reduction in Coleochaete; spermatogenesis in mosses; inheritance in *Sphaerocarpos*; cytology of *Sphaerocarpos*.
- Allen, Prof. Charles M(etcalfe)**, Polytechnic Institute, Worcester, Mass. *Mechanical engineering*. Walpole, Mass, Dec. 12, 71. B.S., Worcester, 94, M.S., 99. Asst. mech. eng, Worcester, 95-97, *instr.* hydraul. and lab.

- 06-09, *hydraul. eng.*, 09- A.A.; Mech Eng; Eng. Educ; Civil Eng. Absorption dynamometers; application of the steam-engine indicator to rowing; current meter rating stations; water-wheel testing; absorption dynamometers of large powers; large gears; rope and belt drivers; salt velocity method of water measurement; hydraulic model tests.
- Allen, Charles R(icketson)**, Federal Board for Vocational Education, Washington, D. C. *Chemistry, Education, Physics.* New Bedford, Mass, Aug. 6, 62. B.S, Mass. Inst. Tech, 85; A.M., Harvard, 02. Senior teacher science, high sch, Mass, 86-09; director, New Bedford Indust. Sch, 09-11; agent, Mass. Board Educ, 11-17; Emergency Fleet Corp, 17-18; special agent, *Fed. Board for Vocational Educ*, 18-24; *ed. and educ. consultant*, 24- Asst. gen. chem, Mass. Inst. Tech, 86; private asst. to Prof. Wolcott Gibbs, Harvard, 86; assoc. ed, 'Vocational Educ. Magazine,' 23-25. Nitrogen in sewage; dissociation of acetylene; industrial relations; vocational education.
- Allen, Prof. Edgar**, 411 Lathrop Road, Columbia, Mo. *Anatomy.* Canyon City, Colo, May 2, 92. Ph.B, Brown, 15, A.M, 16, Ph.D; 21. Instr. and assoc. *anat.*, sch. med, Washington (St. Louis), 19-23; *prof. sch. med.*, *Missouri*, 23-A.A.; Ass. Anat; Am. Med. Ass; Soc. Zool; Ass. Study Int. Secretions. Anatomy and physiology of reproduction.
- Allen, Dr. E(dward) R(iley)**, E. I. du Pont de Nemours and Co, 256 Vanderpool St, Newark, N. J. *Chemistry.* Pana, Ill, July 28, 84. B.S, Illinois, 06; Ph.D, Cornell, 13. Asst. org. chem, Cornell, 11-12; assoc. soil biol, Ohio Exp. Sta, 13-15, in charge soil technol, 15-17; assoc. biochem, Washington (St. Louis), 17-19; org. chemist, dye works, *E. I. du Pont de Nemours and Co*, 19-23, *director research, pigments*, *Newark plant*, 23- Visiting investigator, Mo. Bot. Garden, 17-19. Chem. Soc. Organic and biological chemistry; dyes, lakes and pigments.
- Allen, Prof. Edward S(witzer)**, Iowa State College, Ames, Iowa. *Mathematics.* Kansas City, Mo, Dec. 12, 87. A.B, Harvard, 09, A.M, 10, Ph.D, 14; Rome, 11-13; Göttingen, 12. Instr. *math*, Dartmouth, 13-14; Brown, 14-15; Michigan, 15-19; asst. prof, West Virginia, 19-21; *assoc. prof.*, *Iowa Col*, 21- Math. Soc; Circolo Mat. di Palermo; Math. Verein. Algebraic geometry.
- Allen, Dr. E(dwin) W(est)**, 1923 Biltmore St, Washington, D. C. *Agriculture.* Amherst, Mass, Oct. 28, 64. B.S, Mass. Col, 85; Ph.D, Göttingen, 90. Asst. chemist, Mass. Exp. Sta, 85-88; asst. *office of exp. stations*, *U. S. Dept. Agr.*, 90-93, asst. director, 93-15, *chief*, 15-, asst. director sci. work, 23-25. Ed, 'Exp. Sta. Record,' 95-24; ed, 'Agr. Int. Encyclopedia,' and 'Int. Yearbook,' 02-; chairman ed. committee, 'Jour. Agr. Research,' 24; exec. sec'y, Committee on Country Life. A.A. (sec'y, M, 14-18, v. pres, 20). Agricultural chemistry.
- Allen, Dr. E(lbert) F(rank)**, 5 Blair Court, Columbia, Mo. *Mathematics.* Cloverdale, Ind, Jan. 21, 90. A.B, Ind. State Nor. Sch, 15; A.M, Missouri, 21, Ph.D, 23. Pub. schools, Ind, 09-19; *asst. prof. math.*, *Missouri*, 19- Math. Soc; Math. Ass. Analysis; contact transformations.
- Allen, Dr. E(ugene) T(homas)**, Geophysical Laboratory, Washington, D. C. **Chemistry.* Athol, Mass, April 2, 64. A.B, Amherst, 87; Ph.D, Hopkins, 92; Harvard, 93-95. Assoc. chem, Woman's Col. of Baltimore, 90-91; acting prof, Colorado, 92-93; prof, Mo. Sch. of Mines, 95-01; chem. geologist, U. S. Geol. Surv, 00-06; *research chemist*, *geophys. lab.*, *Carnegie Institution*, 07- Summers, instr, Harvard, 93-95. Chem. Soc. (pres, Wash. sect, 04); Geol. Soc. Geochemistry; volcanology.
- Allen, Dr. E(zra)**, Ursinus College, Collegeville, Pa. *Zoology.* Coudersport, Pa, May 8, 70. A.B, Bucknell, 95, S.C.D, 22; fellow, Clark, 00-01; Chicago, 05; Ph.D, Pennsylvania, 14. Teacher science, Perkiomen Sem, 96-00; *prof. biol.*, Mont. State Nor. Col, 03-07; Phila. Sch. Pedag, 07-18; *Ursinus*, 19- Investigator, Wistar Inst, 10-18; hon. investigator zool, Pennsylvania, 15-19; research assoc, Carnegie Institution, 26-27. Educ. adviser, U.S.A, 19; lecturer biol, A.E.F. Univ. Beaune, 19. A.A; Ass. Anat; Soc. Zool; Phila. Acad. Cytology; mammalian nerve and germ cells; cytological methods; embryology of the mouse.
- Allen, Francis H(enry)**, 2 Park St, Boston, Mass. *Ornithology.* Jamaica Plain, Mass, Aug. 3, 66. Grad, Roxbury Latin Sch, 84. *Ed. staff*, *Houghton Mifflin Co*, 94- A.A; Ornith. Union; Soc. Mammal; Nuttall Ornith. Club (past v. pres, pres); New Eng. Bird Banding Ass. (councilor). Distribution of birds; bird-song; habits of birds.
- Allen, Dr. Frank**, University of Manitoba, Winnipeg, Man, Can. *Physics.* Canterbury, N. B, Feb. 6, 74. B.A, New Brunswick, 95; A.M, Cornell, 00, fellow, 00-01, Ph.D, 02; I.L.D, Manitoba, 24. Instr. *physics*, Cornell, 01-04; *prof.*, *Manitoba*, 04- Optical Soc; fel. Royal Soc. Can. Color and color vision; sound, touch and taste sensations; physiological optics; liquid air production.
- Allen, Prof. F(rank) W(isdom)**, University of California, Berkeley, Calif. *Horticulture.* Columbia, Mo, July 18, 87. B.S.A, Missouri, 10; M.S, Iowa Col, 13. Instr. hort, Iowa Col, 10-13; Wash. Col, 13-14, asst. horticulturist, Exp. Sta, 14-17; bur. markets, U. S. Dept. Agr, 17-20; *asst. prof. pomol.*, *California*, 20- Pomology; orchard management; fruit handling and transportation.
- Allen, Dr. Frederick Madison**, Physiatrie Institute, Morristown, N. J. **Medicine.* Des Moines, Iowa, March 16, 79. A.B, California, 02, M.D, 07. Research fellow, Harvard Med. Sch, 09-12; assoc. med, Rockefeller Inst, 13-18; practising physician, 19-20; *director*, *Physiat. Inst.*, 20- Lecturer, Harvey Soc, 16. Am. Physicians; Soc. Exp. Path; Physiol. Soc; Harvey Soc; N. Y. Acad. Med. Diabetes; nephritis; metabolism.
- Allen, Dr. Glover M(orrill)**, 4 Buckingham St, Cambridge, Mass. **Zoology.* Walpole, N. H, Feb. 8, 79. A.B, Harvard, 01, A.M, 03, Ph.D, 04. *Librarian*, *Boston Soc. Nat. Hist*, 01-

- Lecturer, Harvard, 24-; curator mammals, Harvard. A.A.; Soc. Zool; fel. Ornith. Union; Soc. Mammal. (2d v. pres, 24); Wash. Biol. Soc; Boston Soc. Nat. Hist. (sec'y, 01); Nuttall Ornith. Club (pres, 19). Systematic zoology; heredity.
- Allen, Prof. H(arry) W(illis)**, Agricultural and Mechanical College, Miss. *Entomology*. Pelham, Mass, Aug. 8, 92. B.S, Mass. Col, 13; M.S, Miss. Agr. and Mech. Col, 22; Ph.D, Ohio State, 26. Sci. asst, bur. entom, U. S. Dept. Agr, 13-17, 19-20; bacteriologist, U. S. Pub. Health Service, 19; instr, asst. prof. and *assoc. prof. entom, Miss. Agr. and Mech. Col, 20-*, *assoc. entomologist, Exp. Sta, 23-* U.S.A, 18-19. A.A; Entom. Soc; Ass. Econ. Entom. Muscoid flies of Tachinidae and Sarcophagidae.
- Allen, Prof. Joseph**, 9 Myrtle St, White Plains, N. Y. *Mathematics*. New Bedford, Mass, March 21, 70. A.B, A.M, Harvard, 92, 92-94. Instr. *math*, Cornell, 94-97; *assoc. prof. Col. City of N. Y, 97-* A.A; Math. Soc; Math. Ass. Analytical geometry.
- Allen, Kenneth**, 2700 Municipal Building, New York, N. Y. *Hydraulic and sanitary engineering*. New Bedford, Mass, April 6, 57. C.E, Rensselaer, 79. Consulting engineer, 86-89; city supt. construction, Kansas City, Mo, 89-90; prin. asst. engineer, Baltimore Sewerage Commission, 95-99; consulting engineer, Baltimore, 00-02; engineer and supt, Water Dept, Atlantic City, N. J, 02-06; div. engineer, Baltimore Sewerage Commission, 06-08; engineer, Metropolitan Sewerage Commission, New York, 08-14, *sanit. engineer, Board of Estimate and Apportionment, 14-* Civil Eng; Soc. Munic. Improv; Pub. Health Ass.
- Allen, Prof. Leah B(rown)**, Observatory House, Wellesley, Mass. *Astrophysics*. Providence, R. I, Nov. 6, 84. A.B, Brown, 07; A.M, Wellesley, 12. Computer, Lick Observatory, 07-09; asst. *astrophys, Wellesley, 09-12*, instr, 12-25, *asst. prof, 25-* Pepper fellow, Pennsylvania, 19-20; Martin Kellogg fellow, Lick Observatory, 25. A.A; Astron. Soc. Radial velocities of Me stars; spectroscopic study of T centauri.
- Allen, Dr. Mildred**, 88 Montview St, West Roxbury, Mass. *Physics*. Sharon, Mass, March 25, 94. A.B, Vassar, 16; A.M, Clark, 17, Ph.D, 22. Instr. *physics, Mt. Holyoke, 18-20*; Wellesley, 21, 22-23; Mt. Holyoke, 23-24, *asst. prof, 24-26*. A.A; Physical Soc; Math. Soc.
- Allen, Prof. Paul W(illiam)**, University of Tennessee, Knoxville, Tenn. *Bacteriology*. Harford, N. Y, 83. B.S, 10; M.S, 14; Ph.D, 22. Assoc. bacter, Illinois, 14-18; chief chemist, Douglas Co, 18-20; chief bacteriologist, Wash. Exp. Sta, 22-23; *prof. bacter. and head dept, Tennessee, 23-* Lecturer, Coe, 19-20. Soc. Bact; Wash. Acad. Industrial fermentations.
- Allen, Prof. R(eginald) B(ryant)**, Kenyon College, Gambier, Ohio. *Mathematics*. Medford, N. J, Jan. 3, 72. B.S, Rutgers, 93, M.S, 97; Ph.D, Clark, 05. Acting prof. *math*, Mass. Col, 95; asst. prof, Adelphi, 97-01; instr, Clark, 05-06; *prof, Kenyon, 06-* A.A; Math. Soc; Math. Ass. (chairman, Ohio sect, 16). Hypercomplex number systems; multiple algebras.
- Allen, Dr. Richard D(ay)**, 9 Exchange Terrace, Providence, R. I. *Education, Psychology*. Milwaukee, Wis, May 18, 87. A.B, Brown, 10, A.M, 12, Ph.D, 21. Director *research and guidance, schools, Providence, 18-25*, *asst. supt. in charge, 25-* Lecturer, R. I. Col. Educ, 19-21; Brown, 22-; Harvard, 21-; Boston, 23- Educational and psychological measurements applied to educational and vocational guidance.
- Allen, R(olland) C(raten)**, Hanna Building, Cleveland, Ohio. *Geology*. A.B, Wisconsin, 05, A.M, 08. Instr. *econ. geol, Michigan, 08-09*, lecturer, 09-13; state geologist, Mich, 09-19; *v. pres, Lake Superior Iron Ore Ass, 19-* First v. pres, Oglebay, Norton and Co, Cleveland; U. S. Excess Profits Tax Board, 18-19. A.A; Geol. Soc; Ass. Econ. Geol; Min. and Metal. Eng; Min. and Metal. Soc. Geology of the Iron River district of Michigan.
- Allen, Dr. Ruth F(lorencia)**, Hilgard Hall, Berkeley, Calif. *Plant pathology*. Sturgeon Bay, Wis, May 23, 79. A.B, Wisconsin, 05, A.M, 07, Ph.D, 09. Asst. bot, Wisconsin, 05-10; instr, Mich. State Col, 10-14; instr. and asst. prof, Wellesley, 14-18; *assoc. pathologist, bur. plant indust, U. S. Dept. Agr, 18-* A.A; Bot. Soc; Phytopath. Soc. Cereal diseases; cytology.
- Allen, Prof. Samuel J(ames) M(cIntosh)**, University of Cincinnati, Cincinnati, Ohio. **Physics*. Maitland, N. S, Can, Oct. 5, 77. B.S, McGill, 00, M.S, 01; fellow, Hopkins, 03-04, Ph.D, 06. Demonstrator physics, McGill, 00-03; instr, Cincinnati, 06-09; asst. prof, 09-14, *assoc. prof, 14-19*, *prof. exp. physics, 19-* Physical Soc; Can. Civil Eng; Ohio Acad. (v. pres, 19). Radio-activity; passage of α rays of radium and X-rays through matter; radio-activity of smoky atmosphere; relations between X-ray wave lengths, atomic numbers and absorption coefficients.
- Allen, W(alter) S(tearns)**, 224 State St, Flushing, N. Y. *Chemistry*. Acworth, N. H, Dec. 1, 77. A.B, Amherst, 00. Asst. geol, Amherst, 00-02; *anal. and research chemist, Gen. Chem. Co, 03-*, *in charge Laurel Hill Lab, 10-* A.A; Chem. Soc; N. Y. Chemists Club. Applied chemistry.
- Allen, Dr. William Fitch**, Medical School, University of Oregon, Portland, Oregon. *Anatomy*. Oneonta, N. Y, 75. A.B, Stanford, 00, A.M, 02; Ph.D, Minnesota, 15. Asst. to Dr. E. P. Allis, 01-06; *physiol, California, 06-10*; instr. *embryol. and comp. anat, Illinois, 10-11*; *histol, embryol. and neur, Minnesota, 11-16*; *prof. anat. and head dept, med. sch, Oregon, 16-* Asst. U. S. Fisheries Commission, 99. A.A; Ass. Anat; Wash. Acad; Anat. Gesell. Neurology; embryology; microscopical technique; morphological and experimental neurology; blood vessels and lymphatics in fishes.
- Allen, W(illiam) M(arshall)**, Department of Agriculture, Raleigh, N. C. *Chemistry*. Wadsworth, N. C, Jan, 70. North Carolina, 89-92; Hopkins, 97-98. Asst. chemist, N. C. Exp. Sta, 94-97; asst. to state chemist, Ga, 97-98;

- first asst. state chemist, *N. C.*, 99-06, food chemist, 06-19, *state chemist*, 19- Chem. Soc. (pres, *N. C.* sect, 09); *Agr. Chem*; *Ass. Food and Dairy Departments* (v. pres, 08, sec'y, 09). Food adulteration.
- Allen, Prof. W(illiam) R(ay)**, University of Kentucky, Lexington, Ky. *Zoology*. Ossian, Ind, March 8, 85. A.B, Indiana, 13, A.M, 14, Ph.D, traveling fellow, 20; Cornell, 16-17. Instr. zool, Kansas Col, 14-16; asst. *biol.*, Cornell, 16-17; instr, Indiana, 17-18; *asst. and assoc. prof.*, *Kentucky*, 22- Irwin exped. and traveling fellow, Illinois, S. America. A.A; Soc. Zool; Ecol. Soc; Micros. Soc; fel. Am. Geog. Soc; Ind. Acad; Ky. Acad. Physiology of freshwater mussels; South American fishes.
- Allen, W(infred) E(mory)**, Scripps Institution, La Jolla, Calif. *Biology*. West Newton, Ind, June 6, 73. B.L, Earlham, 98; A.M, Lawrence, 04; Nebraska, 99-00, 04-05; Illinois, 10-11. Athletic coach, Earlham, 96-99; asst. physical director, Nebraska, 99-00; physical director and registrar, Lawrence, 03-04; head *biol. dept.*, high sch, Wash, 00-02; State Nor. Sch, Kearney, Nebr, 05-08; asst. zool, Illinois, 10-11; head *biol. dept.*, high sch, Calif, 12-19; *asst. prof. biol.*, *Scripps Inst.*, *California*, 19-A.A; Ecol. Soc; Micros. Soc; Calif. Acad. Morphology; regeneration; fresh-water plankton; marine phytoplankton.
- Aller, Frank D**, 643 Sixth Ave, Durango, Colo. *Metallurgy*. Bushnell, Ill, June 5, 67. Met.E, Colo. Sch. Mines, 92. S. Am. rep, Am. Smelting and Ref. Co, 04-18; *director exp. plant.*, *Colo. Sch. Mines*, 21- A.A; Min. and Metal. Eng; Am. Geog. Soc. Refractory silver-lead ores; leaching copper ores.
- Alles, Gordon A(lbert)**, 628 N. Ynez St, Monterey Park, Calif. *Organic chemistry*, *Biochemistry*. Detroit, Mich, Nov. 26, 01. B.S, Calif. Inst, 22, du Pont fellow, 24, M.S, 24, Ph.D, 26. Chemist, Riverside Portland Cement Co, 22; research chemist, The Celite Co, 22-23. Chemical behavior of insulin; chemical constitution and physiological action of guanidine derivatives.
- Ailing, Harold L(attimore)**, 31 Barrington St, Rochester, N. Y. *Geology*. Rochester, Feb. 7, 88. B.S, Rochester, 15; A.M, Columbia, 17, Ph.D, 20. *Geologist*, *N. Y. State Museum*, 17-; instr. *geol.*, *Rochester*, 20-23, asst. prof, 23-24, *prof. and head dept.*, 24- A.A; Geol. Soc; assoc. Min. and Metal. Eng; Min. Soc; Chem. Soc; Rochester Acad. Crystallization of rock-forming minerals; Adirondack Precambrian; sedimentary petrography; Silurian salt deposits.
- Allis, Dr. Edward Phelps, Jr**, Milwaukee, Wis, or Palais de Carnolès, Mentone, France. **Vertebrate morphology*. Milwaukee, Sept. 14, 51. C.E, Del. Lit. Inst, 66; Antioch, 67-68; Mass. Inst. Tech, 68-69, 71; LL.D, Wisconsin, 03; hon. M.D, Groningen, 14. *Mem. and officer*, *Edw. P. Allis Co.*, *Milwaukee*, 71- Laureat, Paris Inst, 98; Officier d'Acad; Chevalier, Légion d'honneur. A.A; Soc. Nat; Ass. Anat; Am. Geog. Soc; Mus. French Art; fel. N. Y.
- Acad; Boston Soc. Nat. Hist; fel. London Linnean Soc; London Zool. Soc; London Royal Micros. Soc; London Royal Meteor. Soc; London Soc. Arts; Anat. Soc. Gt. Britain and Ireland; North British Acad; Soc. astron. de France; Soc. météor. de France. The anatomy and development of the head of vertebrates.
- Allison, Dr. F(ranklin) E(lmer)**, 2720 Ontario Road, Washington, D. C. *Biochemistry*. Oakland City, Ind, Nov. 10, 92. B.S, Purdue, 14; M.S, Iowa Col, 15; Ph.D, Rutgers, 17. Nat. Canners Ass, 19-20; *U. S. Dept. Agr.*, 17-18, 20- U.S.A, 18-19.
- Allison, Dr. Fred**, Auburn, Ala. *Physics*. Glade Spring, Va, July 4, 82. A.B, Emory and Henry, 04; A.M, Virginia, 21, Ph.D, 22. Lab. asst, Hopkins, 10-11; *prof. physics*, Emory and Henry, 11-20; instr, Virginia, 20-22; *head prof.*, *Ala. Polytech.*, 22- Pres. and Visitors Research Prize, Virginia, 25. A.A; Physical Soc. The effective wave-length of light in white light interferometry.
- Allison, Dr. Ira S(himmin)**, University of Minnesota, Minneapolis, Minn. *Geology*. Gardner, Ill, March 16, 95. A.B, Hanover, 17; Chicago; Ph.D, Minnesota, 24. *Instr. geol.*, *Minnesota*, 20- Summers, instr, Chicago, 21-22, geologist, Minn. Geol. Surv, 24-
- Allison, Dr. Samuel K(ing)**, University of California, Berkeley, Calif. *Physics*, *Chemistry*. Chicago, Ill, Nov. 13, 00. B.S, Chicago, 21, Ph.D, 23. Nat. Research Council fellow, Harvard, 23-25; research fellow, Carnegie Inst, 25-26; *instr. physics*, *California*, 26- A.A; Physical Soc; Chem. Soc. X-rays; atomic structure.
- Allport, Prof. F(loyd) H(enry)**, 103 Genesee Park Drive, Syracuse, N. Y. **Psychology*. Milwaukee, Wis, Aug. 22, 90. A.B, Harvard, 13, Ph.D, 19. Instr. psychol, Harvard, 19-22; assoc. prof, North Carolina, 22-24; *prof. social and polit. psychol.*, *Syracuse*, 24- U.S.A, 17-18. Psychol. Ass; Sociol. Soc. Experimental, social and personnel psychology.
- Allyn, Prof. Harriett M(ay)**, Vassar College, Poughkeepsie, N. Y. *Zoology*. New London, Conn, May 4, 83. A.B, Mt. Holyoke, 05; M.S, Chicago, 10, Ph.D, 12. Instr. zool, Lake Erie, 08-09; Vassar, 12-13; Hackett Med. Col, Canton, China, 13-19; Mt. Holyoke, 20-21; dean, Hackett Med. Col, 21-23; *prof. zool.*, *Monticello Sem.*, 23-24; instr, *Vassar*, 24-25, *asst. prof.*, 25- Board directors, Chan Kwong Sch, Canton, China, 21-23.
- Almquist, Dr. J(ohn) A(rthur)**, Fixed Nitrogen Research Laboratory, Washington, D. C. *Chemistry*. Moscow, Idaho, Oct. 31, 96. B.S, Idaho, 19; Ph.D, California, 22. Teaching fellow, California, 19-22; *research chemist*, *Fixed Nitrogen Research Lab.*, *U. S. Dept. Agr.*, 22- Chem. Soc. Heterogeneous catalysis; adsorption; synthetic ammonia.
- Almy, Charles, Jr**, Dewey and Almy Chemical Co, Cambridge, Mass. *Chemical engineering*. Cambridge, April 6, 88. A.B, Harvard, 08; B.S, Mass. Inst. Tech, 10. Research assoc. applied chem, Mass. Inst. Tech, 10-11; tech. director, Am. Vulcanized Fibre Co, 12-15; gen.

- manager and sec'y, Va. Red Oil Products Corp, 16-17; *v. pres. and sec'y, Dewey and Almy Chem. Co.*, 19- Lieut. col, C.W.S., 18-19. Chem. Soc; British Soc. Chem. Indust. Can-sealing compounds; soldering fluxes; adhesives.
- Almy, Prof. Frank F(ayette)**, 436 East St, Grinnell, Iowa. *Physics*. Little Compton, R. I, Jan. 12, 66. B.S., Nebraska, 90; Hopkins, 90-93; Chicago, 99, 01-02. *Prof. physics, Grinnell*, 93- Lecturer, Columbia, 09-10. Asst. educ. director, district eight, S.A.T.C., 18. A.A.; Physical Soc; Iowa Acad. (pres, 09). Properties of coherers; pressure shift of lines in the spectrum of iron; electrodeless discharge in gases.
- Almy, Dr. John E(dwain)**, 2300 A St, Lincoln, Nebr. *Physics*. Centralia, Ill, Oct. 13, 75. B.S., Nebraska, 96, A.M., 97; Ph.D., Berlin, 00. Instr. *physics, Nebraska*, 00-02, adjunct prof, 02-05, asst. prof, 05-07, assoc. prof, 07-09, *prof*, 09-, chairman dept, 19-20. A.A.; Physical Soc; Nebr. Acad. Accidental double refraction; spark potentials; discharge through gases; dielectric strength of various glasses and double refracting media; cathode potential; minimum spark potentials; corona-discharge currents.
- Almy, Dr. L(loyd) H(uber)**, H. J. Heinz Co, Pittsburgh, Pa. *Chemistry*. Mendota, Ill, Dec. 14, 85. B.S., Illinois, 09; M.S., George Washington, 15; Ph.D., Columbia, 17. Asst. chemist, Mo. Pacific Ry. Co, 09-10; chemist, Vandalia Ry, 11-12; asst. chemist, bur. chem, U. S. Dept. Agr, 12-14; fish pathologist, Bur. Fisheries, 16-18; chemist, bur. chem, U. S. Dept. Agr, 19-26; *research chemist, H. J. Heinz Co*, 26- Chem. Soc. Chemical composition of fish; preservation of food; fish disease; food decomposition; bacterial metabolism.
- Alperin, Dr. David**, 750 Green Ave, Brooklyn, N. Y. *Biological chemistry*. Bucharest, Roumania. M.S., Freiburg, 02; M.D., N. Y. Univ, 07; Ph.D., Columbia, 12. Lecturer physiol. chem. and director chem. and path. laboratories, Eclectic Med. Col, 03-12; *assoc. prof. ophthal, N. Y. Post-Grad. Med. Sch.* Nucleoprotein metabolism; uricolysis and uricase.
- Alsberg, Dr. C(arl) L(ucas)**, Stanford University, Calif. **Biochemistry*. New York, N. Y., April 2, 77. A.B., Columbia, 96, A.M., M.D., 00. Asst. physiol. chem, Harvard Med. Sch, 02-05, instr. biol. chem, 05-06, faculty instr, 06-08; chem. biologist, bur. plant indust, U. S. Dept. Agr, 08-12, chief bur. chem, 12-21; *director, Food Research Inst, Stanford*, 21- Investigator, Bur. Fisheries, 07-08. A.A.; Am. Med. Ass; Soc. Biol. Chem. (past pres); Soc. Exp. Biol; Agr. Chem. (sec'y-treas, 13-21, ed, 'Jour'); Chem. Soc. (councilor, assoc. ed, 'Jour'); Soc. Pharmacol; Pharmaceut. Ass; Physiol. Soc; Ass. Cereal Chem. (assoc. ed, 'Cereal Chem'); Oil Chemists Soc; fel. Pub. Health Ass; Math. Soc; Wash. Acad. (past pres). Chemistry of nucleic acids and of proteins; cystinuria; enzymes; phosphoric acid metabolism; poisonous plants; oxidizing enzymes; biology and toxicology of molds; cyano-
- genesis in plants; pharmacology; food and agricultural chemistry.
- Altenburg, Prof. Edgar**, Rice Institute, Houston, Texas. *Zoology*. Jersey City, N. J., June 11, 88. A.B., Columbia, 11, A.M., 12, Ph.D., 16. Instr. *biol, Rice Inst*, 17-20, *asst. prof*, 20- A.A. Genetics.
- Alter, Prof. Dinsmore**, University of Kansas, Lawrence, Kans. *Astronomy, Meteorology*. Colfax, Wash, March 28, 88. B.S., Westminster (Pa), 09; M.S., Pittsburgh, 10; Ph.D., California, 16. Instr. physics and astron, Alabama, 11-12, asst. prof, 12-13, adjunct prof, 13-14; instr. *astron*, California, 14-17; asst. prof, *Kansas*, 17-19, assoc. prof, 19-24, *prof*, 24- Lieut. col, C.A.R.C. A.A.; Astron. Soc; Meteor. Soc. (v. pres, 25-27); Physical Soc; fel. Royal Astron. Soc. Orbits; astronomical meteorology.
- Alter, J. Cecil**, 263 S. Tenth East St, Salt Lake City, Utah. *Meteorology*. Near Rensselaer, Ind. Pub. schools. Weather bur. frost-warning service, Rogue River Valley, 16; *weather bur. office and state weather service*, Cheyenne, Wyo, 16-17, *Salt Lake City, Utah*, 17- In charge, Weather Bur. exhibit, Lethbridge, Can, 12; Tulsa, Okla, 13; Panama-Pacific Expos, 15; U. S. Dept. Agr. exhibits, Wichita, Kans, 14, Denver, 15. Meteor. Soc; Utah Acad. Applied meteorology.
- Alter, Dr. Nicholas M**, School of Medicine, University of Colorado, Denver, Colo. *Pathology*. Hungary, 86. M.D., Hungary, 11. Instr. anat, Hungary, 10-11, path, 11-13; pathologist, Montefiore Home and Hosp, New York, 14-15; Howard A. Kelly Hosp, 15-19; Yale, 19-20; West. Pa. Hosp, 20-23; instr. med, med. sch, Michigan, 23-24; *prof. path, sch. med, Colorado*, 24- Chronic diseases; cancer.
- Alty, Dr. T(homas)**, University of Saskatchewan, Saskatoon, Sask, Can. *Physics*. Lancashire, Eng, 99. B.Sc., Liverpool, 20, D.Sc., 27, Oliver Lodge fellow, 21-23, M.Sc., 22; Ph.D., Cambridge, 24. Lecturer *physics*, Durham, 24-25; *prof, Saskatchewan*, 25- Fel. Cambridge Philos. Soc; Faraday Soc. London. Cataphoresis and adsorption; low voltage arcs.
- Alvarado, Prof. A(lfonso) M(iguel)**, Loyola University, New Orleans, La. *Physical chemistry*. Cartago, Costa Rica, Sept. 19, 00. B.E., Tulane, 21; M.S., Iowa, 22, Ph.D., 24. Asst. chem, Iowa, 21-24; prof, Waukon Junior Col, 24-25; *assoc. prof, Loyola (La)*, 25- Chem. Soc. Adsorption of vapors by metallic oxides; catalysis of ester formation; composition of Steffens waste; catalytic decomposition of ethanol.
- Alvarez, Prof. Arthur Carl**, Faculty Club, Berkeley, Calif. *Civil engineering*. San Francisco, Calif, Nov. 2, 86. B.S., California, 08. Instr. *civil eng, California*, 08-13, asst. prof, 13-19, *assoc. prof*, 19- Assoc. Civil Eng; Seismol. Soc. Building construction; structural engineering.
- Alvarez, Dr. Walter C(lement)**, Mayo Clinic, Rochester, Minn. *Medicine*. San Francisco, Calif, July 22, 84. M.D., Cooper Med. Col, 05; Harvard, 13. Asst. path, Cooper Med. Col,

- 05-06; asst. med, Stanford, 12-13; instr. research med, Hooper Foundation, California, 14-20, asst. prof, 20-24, *assoc. prof*, 24-26; *med*, Mayo Foundation, Minnesota, 26- Caldwell lecturer, Röntgen Ray Soc, 20. Am. Med. Ass; Am. Physicians; Physiol. Soc; Soc. Exp. Biol; Gastro-Enterol. Ass; Röntgen Ray Soc; Calif. Acad. Physiology and pathology of digestion; intestinal peristalsis; high blood pressure.
- Alvord, John Watson**, 5203 Kenwood Ave, Chicago, Ill. *Hydraulic and sanitary engineering*. Newton Center, Mass, Jan. 25, 61. Europe, 88, 94, 23; hon. C.E, Wisconsin, 13. City engineer, Lake View, Chicago, 84-88; Cicero, Ill, 89; Columbian Expos, 90-93; *consulting engineer*, 94- Appraisal boards; consulting engineer to many municipalities in the Central West; govt. war work, two years. Chanute medal, West. Soc. Eng, 02; medal as one of the designers of the Columbian Expos, 93; Washington Award, 26. A.A; Civil Eng. (director, 18-); Water Works Ass. (pres, 10); West. Soc. Eng. (pres, 02, 04); Pub. Health Ass; Cook Co. Health Board. Sewage purification; economics of valuation and appraisement; flood prevention.
- Alway, Prof. Frederick J(ames)**, 1386 Grantham Ave, St. Paul, Minn. **Chemistry*. Waterford, Ont, Can, May 28, 74. B.A, Toronto, 94; Ph.D, Heidelberg, 97. *Prof.* chem, Nebr. Wesleyan, 98-06; agr. chem, Nebraska, 06-13; *soil chem*, Minnesota, and *chief div. soils*, *Exp. Sta*, 13- A.A; Chem. Soc; Soc. Agron; Peat Soc; Soil Surv. Ass. Reduction of nitro-compounds; hydroxylamino- and nitroso-compounds; bleaching of flour; soils of northern steppes; prairie soils; humus; soil moisture; glacial, sandy and peat soils.
- Amberg, Dr. Emil**, Maccabee Building, Detroit, Mich. *Aural surgery*. Santa Fé, N. Mex, May 1, 68. M.D, Heidelberg, 94; Berlin, 97, 98; Vienna, 95, 97, 07. House surgeon, aural dept, Mass. Eye and Ear Infirmary, Boston, 96-97. Otol. Soc; Am. Med. Ass; Acad. Ophthal. and Otolaryngol. The ear; the lateral sinus; instruments; influence of the work-pause on mental efficiency; interstate reciprocity for the license to practice medicine.
- Amberg, Dr. Samuel**, Mayo Clinic, Rochester, Minn. *Medicine*. Cannstatt, Germany, Aug. 15, 74. Gymnasium, Cannstatt; Berlin, 95-96; M.D, Heidelberg, 98. Asst. and instr. pediat, Hopkins, 99-03, *assoc*, 03-10, *assoc. prof*, 10-12; mem. Sprague Mem. Inst. and *assoc. prof. exp. med*, Rush Med. Col, 12-21; *assoc. prof. pediat*, *med. sch*, Minnesota, and *assoc*, Mayo Clinic, 21- Pharmacologist, C. W. S, 18. Physiol. Soc; Soc. Biol. Chem; Soc. Pharmacol; Am. Med. Ass; cor. mem. Vienna Gesell. für Innere Med. und Kinderheilkunde. Pediatrics; pharmacology; physiological chemistry.
- Amberson, Dr. William R(uthrauff)**, 738 Foss Ave, Drexel Hill, Pa. *Physiology*. Harrisburg, Pa, June 17, 94. Ph.B, Lafayette, 15; fellow, Princeton, 19-22, Ph.D, 22. Instr. *physiol*, col. med, Tennessee, 21-22, *asst. prof*, 22-23; *sch. med*, Pennsylvania, 23- Summers, instr, Woods Hole, 23- Physiol. Soc; Optical Soc. Bioluminescence; vision; respiration; electrophysiology.
- Ambler, Dr. Joseph A(lfred)**, U. S. Department of Agriculture, Washington, D. C. *Chemistry*. Danbury, Conn, June 30, 89. Ph.B, Yale, 10, Ph.D, 13. Prof. chem, Acadia, 13-16; asst. petrol. chemist, color lab, *bur. chem*, U. S. Dept. Agr, 17-22, chemist in charge, 22-25, *assoc. chemist*, *carbohydrate lab*, 26- Exec. committee, Commission on Standardization of Biol. Stains, 23-25, Chem. Soc. rep, 24-26. Chem. Soc; Wash. Acad. Coal-tar intermediates; pyrimidins; pseudothiohydantoins; amines; sulfonic acids.
- Ames, Prof. A(delbert), Jr**, Dartmouth College, Hanover, N. H. *Optics*. Lowell, Mass, Aug. 18, 80. A.B, Harvard, 03, LL.B, 06; fellow, Clark, 15-17; hon. A.M, Dartmouth, 21. *Research prof. physiol. optics*, Dartmouth, 21- Committee physiol. optics, Nat. Research Council, 21, vision and photo. biol, 24- Optical Soc. Physiological optics; technique of art.
- Ames, Dr. Adeline**, Normal, Nebr. *Botany*. Henderson, Nebr, Oct. 6, 79. B.S, Nebraska, 03, A.M, 04; Ph.D, Cornell, 13. Asst. bot, Nebraska, 02-04; sci. asst, bur. plant indust, U. S. Dept. Agr, 04-11, asst. pathologist, 13-16; asst. prof. bot, *Sweet Briar*, 20-22, *prof. biol*, 22- Bot. Soc; Phytopath. Soc. Systematic mycology; plant pathology.
- Ames, Prof. E(dward) S(cribner)**, University of Chicago, Chicago, Ill. *Philosophy*. Eau Claire, Wis, April 21, 70. A.B, Drake, 89, LL.D, 24; B.D, Yale, 92; Ph.D, Chicago, 95. *Prof. philos*, Butler, 97-00; *Chicago*, 00- A.A; Philos. Ass; Psychol. Ass; West. Philos. Ass. Psychology of religion.
- Ames, Prof. J(oseph) S(weetman)**, Charlecothe Place, Guilford, Baltimore, Md. **Physics*. Manchester, Vt, July 3, 64. A.B, Hopkins, 86, fellow, 87-88, Ph.D, 90; Berlin, 86-87; LL.D, Washington (Md), 07. Asst. *physics*, Hopkins, 88-91, *assoc*, 91-93, *assoc. prof*, 93-99, *prof*, 99-26, director physical lab, 01-26, *provost*, 26- Ed. board, 'Astrophys. Jour.' Harris lecturer, Northwestern, 13. Chairman exec. committee, Nat. Advisory Committee for Aeronautics; chairman div. physical sciences, Nat. Research Council, 24-27. Nat. Acad; Physical Soc. (pres, 19, 20); Philos. Soc; Am. Acad; Franklin Inst. (Bartol Research Committee); hon. mem. Royal Inst; Soc. de Physique. Electrodynamics; spectroscopy; spectrum of hydrogen.
- Ames, Dr. L(ewis) D(arwin)**, University of Southern California, Los Angeles, Calif. *Mathematics*. Keeseville, N. Y, July 11, 69. B.Litt, Missouri, 99; A.B, Harvard, 01, A.M, 02, Ph.D, 04. Instr. math, Chillicothe Nor. Sch, Mo, 90-98, 99-00; Harvard, 01-03; Missouri, 03-06, asst. prof, 06-12, *assoc. prof*, 12-20; ranching, 20-25; *assoc. prof*, Texas Tech. Col, 25-26; *prof. math*, Southern California, 26- Slowly convergent series; analysis situs; continuous groups.
- Ames, Prof. Oakes**, University Museum, Cambridge, Mass. **Botany*. North Easton, Mass, Sept. 26, 74. A.B, Harvard, 98, A.M, 99. Asst. bot, Harvard, 99-00, instr, 00-10, asst. prof. econ. bot, 15-26, *prof. bot*, 26-, *supervisor biol*.

lab. and bot. garden, Cuba, Arnold Arboretum and bot. museum, Harvard, chairman council bot. collections, 23— Asst. director bot. garden, Harvard, 99—09, director, 09—21. A.A.; Soc. Nat.; Bot. Soc.; Am. Acad.; Am. Orchid Soc. (v. pres); New Eng. Bot. Club (v. pres); Mass. Hort. Soc. (past v. pres); Boston Soc. Nat. Hist.; Wash. Biol. Soc.; N. Y. Acad.; Int. Ass. Bot.; fel. London Linnean Soc. Economic botany; orchidology.

Amesse, Dr. J(ohn) W(illiam), 624 Metropolitan Building, Denver, Colo. *Medicine*. Eagle River, Mich, Jan. 15, 74. M.D, Michigan, 98. Sanit. officer, U. S. Pub. Health Service, Honolulu, 98—00, Manila, 00—04, Havana, 06—09, staff, hygienic lab, 07; *lecturer diseases of children and of tropics*, Colorado, 10— Ed, 'Denver Med. Times,' 13—14. Colo. Board Health, 18— Lieut. col, M.C, 17—19. A.A.; Soc. Trop. Med.; Ass. Study Int. Secretions; Cong. Int. Med.; N. Y. Acad. Med. Pediatrics; diseases of the tropics; diseases of children; public health.

Ami, Dr. Henry M, 464 Wilbrod St, Ottawa, Ont, Can. *Geology, Paleontology*. Belle Riviere, Ont, 58. B.A, McGill, 82, M.A, 85, D.Sc, 07; D.Sc, Queen's (Can), 91. Paleontologist, Can. Geol. Surv, 82—12; *lab. geol. and paleont*, *Elgin Annex, Ottawa*. Commissions, Govt. of Can. Bigsby gold medalist, London Geol. Soc, 03. A.A.; Geol. Soc; Paleont. Soc; Wash. Geol. Soc; fel. Royal Soc. Can; Ottawa Field Nat. Club; N. B. Nat. Hist. Soc; N. S. Inst; Hamilton Ass; fel. London Geol. Soc; Soc. Géol. Suisse. Chronological geology; paleontology; bibliography, graptolites; first Eparchean formation; Paleozoic fossils of Canada; Utica formation in Canada; Carboniferous faunas and floras of Nova Scotia and New Brunswick; the Quebec Group and Devono-Carboniferous problem of Quebec and the maritime provinces of Canada; the St. Lawrence-Champlain-Appalachian fault; resources of Canada along the line of the National Transcontinental Railway; Canada and Newfoundland; prehistory.

Amoss, Dr. Harold L(indsay), Johns Hopkins Hospital, Baltimore, Md. **Pathology*. Cobb, Ky, Sept. 8, 86. B.S, Kentucky, 05, M.S, 07; M.D, Harvard, 11, D.P.H, 12; hon. Sc.D, George Washington, 22. Chemist, Ky. Exp. Sta, 05—06; hygienic lab, U. S. Pub. Health Service, 06—07; bur. chem, U. S. Dept. Agr, 07—08; West. Pa. Hosp, 09; asst. prev. med, Harvard Med. Sch, 09—12; bacter. and path, Rockefeller Inst, 12—14, assoc, 14—19, assoc. mem, 19—22; *assoc. prof. med, sch. med, Hopkins, and assoc. physician, Hopkins Hosp, 22—* Assoc. ed, 'Medicine.' A.A.; Ass. Path. and Bact; Soc. Exp. Path; Soc. Immunol; Soc. Clin. Invest; Soc. Exp. Biol; Am. Physicians; Harvey Soc; Interurban Clin. Club. Acidity of gastric contents; oxidases in the blood; expired air; dysentery; poliomyelitis; meningitis; encephalitis; experimental epidemiology; pneumococcus; erysipelas; infectious diseases.

Amsden, Dr. George S(amuel), Albany Hospital, Albany, N. Y. *Psychiatry*. Ashtabula, Ohio, May 7, 70. A.B, Harvard, 01, M.D, 05; Munich, 09—10. Intern, Bloomingdale Hosp,

05—06, director lab, 07—14, senior asst. physician, 14—24; *prof. clin. psychiat, Albany Med. Col, Union, and director psychopath. dept, Albany Hosp, 24—* Am. Med. Ass; Psychiat. Soc; Psychopath. Ass; Ass. Research Nervous and Mental Diseases; Eugenics Research Ass; N. Y. Psychiat. Soc. Personality in its psychiatric and educational bearings.

Anderegg, Prof. F(rederick) O(sband), Mellon Institute, Pittsburgh, Pa. *Chemistry*. Oberlin, Ohio, Sept. 20, 87. A.B, Oberlin, 10; A.M, Harvard, 12, Ph.D, 15. Chemist, Mallinckrodt Chem. Works, 14—16; instr. chem, Illinois, 16—18; asst. prof, Purdue, 18—25, assoc. prof, 25—26; *senior indust. fellow, Mellon Inst, 26—* A.A.; Chem. Soc; Electrochem. Soc; Physical Soc; Concrete Inst; Ind. Acad. Silent electrical discharge through gases; lead corrosion; efflorescence and staining of Indiana limestone; soil colloids.

Anderegg, Prof. L(ouis) T(heodore), 512 Tenth St, Ames, Iowa. *Chemistry*. Rogersville, Ohio, March 11, 88. A.B, Oberlin, 11, A.M, 13; M.S, Michigan, 15; Ph.D, Iowa Col, 24. Instr. in org. chem, Michigan, 13—15; teacher, high sch, Delphos, Ohio, 15—16; Decatur, Ill, 16—18; asst. agr. chemist, Kans. Exp. Sta, 18—19; agr. chemist, N. Dak. Exp. Sta, 19—20; *asst. prof. chem, Iowa Col, 20—* A.A.; Chem. Soc; Dairy Sci. Ass. Relation of diet to reproduction and rearing of young; the nutritive value of milk; the existence of a vitamin for reproduction.

Anders, Dr. Howard S, 1823 Spruce St, Philadelphia, Pa. *Medicine*. Norritonville, Pa, Nov. 12, 66. A.B, Cent. High Sch. Phila, 85, A.M, 92; M.D, Pennsylvania, 90. Intern, Presb. Hosp, Phila, 90—91; instr. clin. med, Medico-Chirurg. Col. Phila, 94—96, lecturer, 97—99, prof. physical diagnosis, 99—13. Physician to Samaritan and Phila. Gen. Hospitals; pioneer in founding Pa. State Hosp. for tuberculous poor. A.A.; Am. Med. Ass; Climat. Ass; Pub. Health Ass; Pa. Soc. Tuber. (past pres); Royal Meteor. Soc. Public health; epidemiology; physical diagnosis; street width; dust-borne diseases; tuberculosis; the weather and epidemic influenza; heart disease.

Anders, Prof. James M(eschter), 250 S. 17th St, Philadelphia, Pa. *Medicine*. Fairview Village, Pa, July 22, 54. M.D, Ph.D, Pennsylvania, 77; LL.D, Ursinus, 98. Res. physician, Protestant Epis. Hosp, Phila, 77—78; visiting staff, Phila. hospitals, 88—95; *prof. forestry and the relation of plant life to health, Medico-Chirurg. Col. Phila, 85—89, hygiene and pediat, 89—90, clin. med, 90—93, med. and clin. med, 93—16; grad. sch. med, Pennsylvania, 16—* Trustee, Medico-Chirurg. Col. and Hosp, 90—16; Ursinus, 96—; Board of Managers, Polyclinic and Medico-Chirurg. hospitals, 18. Phila. Committee Pub. Health, 15—24; Officer of the Instruction Pub. et des Beaux Arts, 10; Chevalier, Légion d'honneur, 23. Am. Med. Ass. (chairman, sect. med, 00); Am. Physicians; Col. Physicians; Therapeut. Soc. (v. pres, 20, pres, 21); Climat. Ass. (pres, 14); Soc. Trop. Med. (pres, 05); Pa. Forestry Ass. (councilor); Pa. Ass. Anti-Tuber. (director, pres, 20—23); Phila. Co. Med. Soc. (pres, 05);

Phila. Med. Club (pres, 97); hon. mem. Cleveland Acad. Med.; Int. Soc. Hydrol. (Am. rep.). Clinical medicine; medical diagnosis; the function of transpiration.

Andersen, Prof. E(mma) N(athalia), University of Nebraska, Lincoln, Nebr. *Botany*. Ames, Nebr. A.B., Nebraska, 10, A.M., 13. *Asst. prof. bot., Nebraska*, 17- A.A.; Bot. Soc.; Phytopath. Soc.; Micros. Soc.; Nebr. Acad. Plant morphology and micro-chemistry.

Anderson, Dr. Alexander P(ierce), Tower View Laboratory, Red Wing, Minn. **Botany, Industrial chemistry*. Red Wing, Nov. 22, 62. B.S., Minnesota, 94, M.S., 95; Ph.D., Munich, 97. Botanist and bacteriologist, Clemson, 97-99; asst. prof. bot., Minnesota, 99-00; biologist and entomologist, Clemson, 00-01; curator herbarium, Columbia, 01; *private research*. A.A.; Forestry Ass.; Am. Geog. Soc.; Bot. Gesell. Formation of abnormal resin-canals in Coniferae; growth of fruits determined by weighing; plant diseases; starch and starchy products; puffed food products.

Anderson, Prof. Arthur, University of Nebraska, Lincoln, Nebr. *Agronomy*. Ulysses, Nebr., June 29, 89. B.S., Nebraska, 16, M.S., 23. *Asst. agron., Nebraska*, 17-18, instr., 18-19, *asst. prof.*, 19- A.A.; Soc. Agron. Field crops.

Anderson, Dr. Arthur (von) K(rogh), State College, Pa. *Biochemistry*. Montevideo, Minn., Feb. 27, 90. B.S.A., Minnesota, 13, M.S., 15, Shevlin fellow, 15-16, Ph.D., 23. *Prof. chem.*, St. Olaf, 16-18; instr. anal. chem., Minnesota, 19-20, agr. biochem., 20-23; *assoc. prof. physiol. chem., Pa. State*, 23- Second lieut., Sanit. C., 18-19. A.A.; Chem. Soc. Fungus metabolism; blood chemistry of cattle.

Anderson, Prof. Arthur L(awrence), University of Minnesota, Minneapolis, Minn. *Animal husbandry*. Minneapolis, Nov. 5, 93. B.S., Minnesota, 16; M.S., Iowa Col., 22. *Asst. div. vet. med.*, Minnesota, 16-17; instr. agr. high sch., Minn., 17-19; *animal husbandry*, Minnesota, 19-20, *asst. prof. and assoc. prof.*, 20- Soc. Animal Production. Animal nutrition; pork production; live-stock judging.

Anderson, Carl B(ernard), Kennedy Building, Tulsa, Okla. *Geology*. Nebraska City, Nebr., Sept. 6, 89. Nebraska, 08-11; B.S., Washington (Seattle), 12; fellow, Chicago, 12-16. Geologist, Ill. Geol. Surv., 13-16; Gypsy Oil Co. and Gulf Oil Corp., 16-19; *consulting geologist and petrol. engineer*, New York, 19-23; *Tulsa*, 23- Summers, U. S. Geol. Surv., 10-12; consulting mining engineer, U. S. Bur. Mines, 21-22. A.A.; Ass. Petrol. Geol.; Min. and Metal. Eng. Stratigraphy; artesian waters of Illinois; the occurrence of petroleum and gas.

Anderson, C(arl) O(tto), Baxter Springs, Kans. *Metallurgy*. Rosedale, Kans., March 14, 96. B.S., Kansas, 17; U. S. Bur. Mines fellow, Washington (Seattle), 17-18, M.S., 18. *Asst. metallurgist*, U. S. Bur. Mines, 19-25, *assoc. metallurgist*, 25-26; *metallurgist*, the Century Zinc Co. and Vinegar Hill Co., 26- C.Eng., U.S.A., and C.W.S., 18-19. Min. and Metal. Eng.; Chem. Soc. Flotation and electrochemistry; gravity concentration.

Anderson, Prof. David Allen, Kent, Ohio. *Education, Psychology*. Lamoni, Iowa, Aug. 19, 74. A.B., Iowa, 08, A.M., 10, traveling fellow, 10-11, Ph.D., 12. *Prof. educ.*, Lacrosse State Nor. Sch., 12-13; teacher and prin. sch., Iowa and Ill.; *asst. prof. educ.*, Washington (Seattle), 13-16, *assoc. prof.*, 16-17; *prof. educ.* and head dept. educ. and psychol., Pa. State, 17-26; *pres., Kent State-Normal Col.*, 26- Summer schools, 11-26. A.A.; Nat. Soc. Study Educ. Duration of tones; time interval; direction of sound; darkness and quiet; pitch discrimination; curricula for secondary education.

Anderson, Prof. Donald B(enton), North Carolina State College, Raleigh, N. C. *Plant physiology*. Schoolcraft, Mich., Sept. 1, 99. A.B., B.S., Ohio State, 20, A.M., 22, fellow, 24-25, Ph.D., 25. *Instr. bot.*, Wisconsin, 23-24; *asst. prof., N. C. State*, 25- A.A.; Ohio Acad. Micro-chemistry; commercial textile fibers.

Anderson, Prof. Douglas S(mith), Tulane University, New Orleans, La. *Electrical engineering*. Lexington, Va., Sept. 6, 71. A.B., Washington and Lee, 90; A.M., Tulane, 92; Polytech. Sch., Zurich, 06-07. *Asst. prof. physics*, Tulane, 93-97, *assoc. prof.*, 97-00; *prof. elec. eng.*, Mississippi, 00-01; *assoc. prof.*, Tulane, 01-06, *prof. and head dept.*, 07-, *dean col. eng.*, 19- A.A.; Elec. Eng.; Eng. Educ.

Anderson, Dr. Edgar, Missouri Botanical Garden, St. Louis, Mo. *Genetics*. Forestville, N. Y., Nov. 9, 97. B.S., Mich. State Col., 18; M.S., Harvard, 20, Sc.D., 22. *Asst. genetics*, Harvard, 21-22; *geneticist*, Mo. Bot. Garden, and *asst. prof. bot.*, Washington (St. Louis), 22- A.A. Self-sterility; geographical variation.

Anderson, Prof. Edward X, University Station, N. Dak. *Chemistry*. Minneapolis, Minn., Feb. 9, 85. B.S., Minnesota, 08, M.S., 09; Ph.D., Iowa, 15. *Asst. chem.*, Minnesota, 04-09; instr., Iowa, 09-13; *North Dakota*, 13-25, *asst. prof.*, 25- Chem. Soc. Electrical conductivity of salts; nucleation of vapors in dust-free air.

Anderson, Prof. E(mer) O(lin), Connecticut Agricultural College, Storrs, Conn. *Dairying*. Dassel, Minn., Aug. 18, 97. B.S., Minnesota, 20, M.S., 22. *Asst. dairying*, Minnesota, 20-22; instr., Nebraska, 22-25; *asst. prof., Conn. Col.*, 25- Dairy manufacturing; physico-chemical factors influencing cream rising; freezing and the constituents of milk.

Anderson, Prof. Ernest, University of Arizona, Tucson, Ariz. *Chemistry*. Kaufman, Texas, 81. B.S., Texas, 03, M.S., 04, fellow, 04-05; fellow, Chicago, 06-09, Ph.D., 09. Research instr. chem., Chicago, 09-12; *asst. prof.*, Mass. Col., 12-14, *assoc. prof.*, 14-17; *prof. agr. chem.*, Transvaal, 17-20; *chem.*, Nebraska, 20-23; *Arizona*, 23- A.A.; Chem. Soc.; Royal Soc. S. Africa. Organic and physical chemistry; sugars; aldehydes; calorimeter; alkali soils of South Africa; physical properties of arsenic trioxide; benzoin condensation; hydrolysis of plant gums.

Anderson, Dr. E(rnest) G(ustaf), University of Michigan, Ann Arbor, Mich. *Genetics*. Concord, Nebr., 91. B.S., Nebraska, 15; Ph.D., Cornell, 20. Research assoc., Carnegie Institu-

- tion, 20-22; instr. *biol.*, Col. City of N. Y., 22-23; *Nat. Research Council fellow*, *Michigan*, 23- A.A.; Genetic Ass; Bot. Soc. Genetics of maize and *Drosophila*.
- Anderson, Evald**, 1016 W. Ninth St, Los Angeles, Calif. *Chemistry*. Hallsberg, Sweden, Dec. 3, 83. B.S., California, 13. Chemist, chem. engineer and *tech. director*, *West. Precipitation Co.*, 13- A.A.; Chem. Soc; Chem. Eng; Physical Soc. Cement and by-products; electrical precipitation; collection of dust and fume.
- Anderson, Frank M.**, 58 Hillcrest Road, Berkeley, Calif. *Geology*. Phoenix, Oregon, June 4, 63. A.B., Willamette, 89; A.B., Stanford, 95; M.S., California, 97. Teacher, high sch, Calif, 95-96; instr. miner, California, 97-98; geologist, Calif. Mining Bur, 99-01; South. Pacific and oil companies, 02-24; *consulting geologist*, 20- Curator paleont, Calif. Acad, 03-17. Geol. Soc; Paleont. Soc. Paleontology; economic geology of northern California.
- Anderson, Col. Geo(rge) L(ucius)**, Army and Navy Club, Washington, D. C. *Electrical engineering*. Delafield, Wis, April 9, 49. A.M., Lawrence, 70; grad, U. S. Mil. Acad, 74; Naval War Col, 97. Second lieutenant, 74-81, lieutenant, 81-98; instr. math, U. S. Mil. Acad, 85-89; elec. and mines, Officers' Sch, Ft. Monroe, 89-95; capt, Seventh Artil, 98-02; major, U. S. Artil. Corps, 02-06, lieutenant-col, 06-08, col, 08-09. Ordnance board, U. S. Proving Ground, Sandy Hook, 03-07; ordnance and fortification board, Washington, D. C., 17-19. Philos. Soc; hon. mem. Franklin Inst. Range-finders and sights; electric control of heavy guns; operation of submarine mines.
- Anderson, Prof. H(arry) W(arren)**, 811 Michigan Ave, Urbana, Ill. *Botany*. Ladoga, Ind, Oct. 14, 85. A.B., Wabash, 07, A.M., 10; research fellow, Shaw Sch. of Bot, 10-11; Ph.D., Illinois, 17. Instr. bot, Wabash, 08-10; pathologist, Ill. Exp. Sta, 11-12; prof. bot, Wabash, 12-17; *assoc. prof. pomol. and path.*, Illinois, 17- A.A.; Phytopath. Soc; fel. Ind. Acad. Plant pathology; chestnut blight fungus; fruit diseases.
- Anderson, J(acob) P(eter)**, P. O. Box 1074, Juneau, Alaska. *Botany*. Glenwood, Utah, April 7, 74. Nebraska, 93-95; B.S., Iowa Col, 13, M.S., 16. Instr. science, Graceland, 02-06; horticulturist, Sitka Exp. Sta, U. S. Dept. Agr, 14-16; *florist*. Summer, instr. Iowa Col, 13. A.A.; Bot. Soc; Soc. Hort. Sci; Phytopath. Soc; Genetic Ass; Iowa Acad. Horticulture; mycology; local floras; plant diseases.
- Anderson, Prof. J(ohn) A(ugust)**, Mt. Wilson Solar Observatory, Pasadena, Calif. *Astronomy*. Rollag, Minn, Aug. 7, 76. B.S., Valparaiso, 00; Ph.D., Hopkins, 07. Instr. astron, Hopkins, 08-09, assoc, 09-11, assoc. prof, 11-15; *staff*, *Mt. Wilson Observatory*, *Carnegie Institution*, 16- Asst, U. S. Naval Observatory eclipse exped. to Spain, 05; asst, Carnegie Institution, 07. A.A.; Astron. Soc; Seismol. Soc; Physical Soc; Optical Soc; Chem. Soc. Spectroscopy; ruling of gratings; seismometers.
- Anderson, Dr. John E(dward)**, University of Minnesota, Minneapolis, Minn. *Psychology*. Laramie, Wyo, June 13, 93. A.B., Wyoming, 14; A.M., Harvard, 15, Ph.D., 17. Instr. and asst. prof. psychol, Yale, 19-26; *director inst. child welfare*, Minnesota, 25- A.A.; Psychol. Ass. (sec'y, 23-25). Experimental, animal and child psychology.
- Anderson, Dr. John F.**, 195 College Ave, New Brunswick, N. J. *Bacteriology*. Fredericksburg, Va, March 14, 73. M.D., Virginia, 96; Vienna; Paris; Sch. Trop. Med, Liverpool. Asst. surgeon, U. S. Pub. Health Service, 98-03, past asst. surgeon, 03-12, surgeon, 12-15, asst. director hygienic lab, 02-09, director, 09-15; director research and biol. laboratories, *E. R. Squibb and Sons*, 15-19, *v. pres*, 19- Lecturer, Rutgers, 16-23; prof, Georgetown, 12-15; Cutter lecturer, Harvard; lecturer, Harvey Soc, 07. A.A.; Ass. Path. and Bact. (pres, 15); Am. Physicians; Soc. Exp. Biol; Soc. Exp. Path. (v. pres); Pub. Health Ass. (pres, 15); Am. Med. Ass. Hygiene; sanitation; immunology; anaphylaxis; serum therapy; etiology of typhus and measles.
- Anderson, Dr. Leroy**, Box 109, R. R. 2, San Jose, Calif. *Horticulture*. Magee, N. Y., Dec. 4, 66. B.S., Cornell, 96, fellow, 96-97, M.S.A., 97, Ph.D., 02. Asst. dairy husbandry, Cornell, 97-00; instr. animal and dairy indust, California, 00-02; director, Calif. Polytech. Sch, 02-08; prof. agr. practise and supt, farm schools, California, 08-13. Cooperative marketing of farm products.
- Anderson, Dr. Lewis O(rvin)**, University of North Dakota, Grand Forks, N. D. *Psychology*. Barneveld, Wis, April 10, 90. A.B., A.M., Ph.D., Wisconsin. Asst. prof. *psychol.*, Ohio Wesleyan, 22-23; *instr.*, Hibbing Junior Col, 23-25; *North Dakota*, 25- A.A.; Psychol. Ass. Speech defects; intelligence tests.
- Anderson, Dr. Meta L.**, 35 Fifth Ave, New York, N. Y. *Psychology*. Brooklyn, N. Y. B.S., N. Y. Univ, 15, Ph.D., 22. Pub. schools, New York, 02-10; *director*, *Binet classes*, Newark, N. J., 10- Lecturer, N. Y. Univ, 12-; summer, Lehigh, 21; Calif. State Col, San Francisco. Head, Reconstruction Aide-Psychiatric Hospitals, U.S.A., 18-19; director indust. educ, Serbian Child Welfare Commission, 19-20. Education of defectives; results of retests of defective children; stability and instability of defective children.
- Anderson, Dr. M(yron) S(allee)**, 1440 W St, N. W, Washington, D. C. *Chemistry*. Stanhope, Iowa, Nov. 13, 87. A.B., Simpson (Iowa), 13; M.S., Iowa Col, 16; Ph.D., George Washington, 22. In charge chem, Penn (Iowa), 13-14; asst, Iowa Col, 16-17; *assoc. chemist*, *bur. soils*, U. S. Dept. Agr, 17- Chem. Soc; Soc. Agron. Soil chemistry; soluble salts in soil; colloids.
- Anderson, Prof. O(scar) G(ustaf)**, Purdue University, Lafayette, Ind. *Horticulture*. Gardner, Mass, Aug. 5, 88. B.S., Mass. Col. Instr. vocational agr, sch, Mass, 13-14; pomol, *Purdue*, 14-17, asst. prof. *hort*, 17-19, assoc. prof, 19-22, *prof*, 22- Summers, Am. Cyanamid Co, N. Y.; Japanese Beetle Lab, Riverton, N. J. Soc. Hort. Sci; Ind. Hort. Soc. Spray materials and appliances; control of the Japanese beetle.

- Anderson, Dr. P(aul) J(ohnson)**, Connecticut Tobacco Experiment Station, Windsor, Conn. *Botany*. Ladoga, Ind, March 27, 84. A.B, Wabash, 10; fellow, Cornell, 10-12, Ph.D, 14. Instr. bot, Mass. Col, 15-16, asst. prof, 16-17, assoc. prof, 18-19, prof, 20-25, assoc. plant pathologist, Exp. Sta, 17-25; *director, Conn. Tobacco Exp. Sta, 25-* Field pathologist, Pa. State Chestnut Blight Commission, 12-14. A.A; Bot. Soc; Phytopath. Soc. Injury to fruit trees; diseases of rose, cauliflower and onions; N. American phyllotistics; diseases of tobacco.
- Anderson, Prof. Philip Arthur**, 1343 Cleveland Ave, St. Paul, Minn. *Animal husbandry*. St. Paul, May 1, 90. B.S, Minnesota, 14. Instr. *animal husbandry, Minnesota, 15-17, asst. prof, 17-*
- Anderson, Dr. Robert J(ohn)**, 3042 Feltz Ave, Westwood, Cincinnati, Ohio. *Metallurgy, Metallography*. Cleveland, Ohio, July 10, 92. B.S, Case, 14, Met.E, 17; Sc.D, Mass. Inst. Tech, 25. Instr. metal, Mo. Sch. Mines, 14-15; asst, Henry M. Howe, 15-16; chief metallurgist, Cleveland Metal Products Co, 17; metal. engineer and chief non-ferrous metals sect, U. S. Bur. Mines, Pittsburgh, 19-24; consulting metal. engineer, 24-26; *pres, Robert J. Anderson, Inc, 26-* Lecturer, Carnegie Inst. Tech, 23-24; research metallurgist, Bur. Aircraft Production, 18. MacFadden gold medal, Foundrymen's Ass, 25. Min. and Metal. Eng. (chairman, papers committee, metals div, 25); Min. and Metal. Soc; Soc. Test. Mat; Foundrymen's Ass. (chairman, papers committee, non-ferrous sect); Ceramic Soc; Franklin Inst; British Inst. Metals. Iron and steel; corrosion; aluminum, ferrous and non-ferrous alloys.
- Anderson, Robert van V(leck)**, Menlo Park, Calif. *Geology*. Galesburg, Ill, April 18, 84. A.B, Stanford, 06. Field asst. and geol. aid, U. S. Geol. Surv, 06-09, asst. geologist, 09-12, geologist, 12-13; S. Pearson and Son, 13-18; director, Whitehall Petrol. Corp, Ltd, 19-23, chief geologist, 23-26; *research, 26-* Sci. exped. to Japan, 05; rep, W. T. B, and Am. delegate on Inter-Allied Trade Committee, Stockholm, 18-19. A.A; Geol. Soc; Ass. Geog; Paleont. Soc; Seismol. Soc; Soc. Econ. Geol; Ass. Petrol. Geol; Archeol. Inst; Eugenics Soc; Wash. Acad; Wash. Geol. Soc. (sec'y, 10). Cretaceous and Tertiary geology of California; geology of oil fields.
- Anderson, Dr. R(oss) P(eter)**, 250 Park Ave, New York, N. Y. *Chemistry*. Savannah, N. Y, Feb. 22, 87. A.B, Cornell, 08, Ph.D, 12. Asst. chem, Cornell, 07-11, instr, 11-14, asst. prof, 14-17; chief chemist, United Nat. Gas Co, 17-24; *technologist, Am. Petrol. Inst, 24-* Capt, C.W.S, 18. A.A; Chem. Soc. Petroleum.
- Anderson, Dr. Rudolph J(ohn)**, New York Agricultural Experiment Station, Geneva, N. Y. *Biochemistry*. Härna, Sweden, Sept. 13, 79. B.S, Tulane, 06; Upsala, Berlin and London; Ph.D, Cornell, 19. *Biochemist, N. Y. Exp. Sta, Geneva, 11-* Capt, Sanit. C, 17-19, major, O. R. C, 19. A.A; Soc. Biol. Chem; Chem. Soc. (sec'y, div. biol. chem, 24, 25, chairman, 25, 26). Nutrition; calorimetry; organic phosphorus compounds of plants; metabolism of inosite; plant chemistry; pigments; sterols.
- Anderson, Dr. Rudolph M(artin)**, Victoria Memorial Museum, Ottawa, Ont, Can. *Zoology*. Winneshiek Co, Iowa, June 30, 76. Ph.B, Iowa, 03, Ph.D, 06. Asst. museum, Iowa, 01-06; instr, Blees Mil. Acad, 06-08; field agent, Am. Museum Nat. Hist, 08-12, asst. mammal, 13; *mammalogist, Dept. Mines, Nat. Museum of Can, 13-, chief biol. div, 20-* Assoc. ed, 'Can. Field Naturalist,' 17-; Stefansson-Anderson exped. to Arctic regions, Am. Museum Nat. Hist, 08-12; chief south. party, Can. Arctic exped, 13-16, gen. ed, 'Report,' 19- Advisory board, wild life protection, Can, 17-, north. advisory board, 25- A.A; Ornith. Union; Soc. Mammal; Game Protective Ass; Cooper Ornith. Club; Wash. Biol. Soc; Ottawa Field Naturalists' Club (pres, 21, 22); British Ass. Mammalogy; ornithology; taxonomy; Arctic history and bibliography; distribution, ecology and life histories of Arctic, Sub-Arctic and Canadian animals; wild life conservation.
- Anderson, Prof. S(amuel) Herbert**, University of Washington, Seattle, Wash. *Physics*. Berrien Springs, Mich, Aug. 21, 80. A.B, Park, 02, A.M, 03; Ph.D, Illinois, 12. Prof. physics and chem, Albany (Oregon), 05-07; asst. prof. physics, Occidental, 07-10; instr. and asst. prof, *Washington (Seattle), 12-* A.A; Physical Soc. Effect of frequency on capacity; photo-electric cells; photo-electric properties of vapors of alkali metals; catenary loaded at one point; overtones of tuning forks; design and calibration of phonodeik; tungsten arc characteristics.
- Anderson, Prof. W(illiam) B(allantyne)**, 310 N. 26th St, Corvallis, Oregon. *Physics*. Rockford, Ill, Oct. 8, 67. B.S, Wisconsin, 01, M.S, 03, Ph.D, 06. Asst. physics, Wisconsin, 04-05; instr, asst. prof. and assoc. prof, Iowa Col, 05-14; *prof, Oregon Col, 14-* A.A; Physical Soc. Spark spectrum in gases at high pressure.
- Anderson, Prof. W(illiam) E(lijah)**, Miami University, Oxford, Ohio. *Mathematics*. Arcadia, Ohio, Oct. 2, 75. A.B, Wittenberg, 02; Chicago, summers, 05, 08, 09; Harrison fellow, Pennsylvania, 11-12, Ph.D, 13. Teacher *math*, high sch, Ohio, 02-05; prof, Midland, 05-08; Wittenberg, 08-18; instr, Pennsylvania, 12-13; assoc. prof, *Miami, 18-21, prof, 21-* A.A; Math. Soc; Math. Ass; Astron. Soc. Astronomy.
- Anderson, Dr. W(illiam) T(heodore), Jr**, Newark Athletic Club, Newark, N. J. *Physics, Physical chemistry*. Trenton, N. J, Jan. 2, 99. B.S, Princeton, 21, du Pont fellow, 21, 22-23, Ph.D, 23. *Research director, Hanovia Chem. and Mfg. Co, Newark, N. J. Chem. Soc. Ultraviolet radiations.*
- Anderton, Dr. Ethel L(ouise)**, Wellesley College, Wellesley, Mass. *Mathematics*. Dover, N. H, Sept. 23, 88. A.B, Wellesley, 11; A.M, Yale, 22, Ph.D, 25. Teacher, high schools, 11-24; *instr. math, Wellesley, 24-* Math. Soc; Math. Ass. Geometry.
- Andrews, Dr. A(lbert) LeRoy**, Cornell University, Ithaca, N. Y. *Botany*. Williamstown,

- Mass., Dec. 27, 78. A.B., Williams, 99; A.M., Harvard, 03; Ph.D., Kiel, 08. *Instr. German*, West Virginia, 03-04; Dartmouth, 04-05; *Cornell*, 09- Systematic botany, especially bryology; North American Sphagnaceae.
- Andrews, Prof. A(ndrew) I(rving)**, University of Illinois, Urbana, Ill. *Ceramic engineering*. Baraboo, Wis., June 10, 95. B.S., Wisconsin, 20, M.S., 21; Bur. Mines fellow, Ohio State, 23-24, Ph.D., 24. Asst. chem., Wisconsin, 20-22; Ohio State, 22-24; prof. *ceramic eng.*, Alfred, 24-25; *asst. prof.*, Illinois, 25- Ensign, U.S.N., 18-19. Consulting engineer, Dolomite Products Co., 24-25. Ceramic Soc.; Chem. Soc.; Chem. Eng. Dolomite refractories and brick.
- Andrews, Dr. Anne D(ale) B(iddle)**, University of California, Berkeley, Calif. *Mathematics*. Hanford, Calif., Dec. 13, 85. A.B., California, 08, Ph.D., 11. *Instr. math.*, Washington (Seattle), 11-12; *asst.*, California, 13-18, 20-23, *instr.*, 23- Projective geometry.
- Andrews, Prof. Carl B(owers)**, University of Hawaii, Honolulu, Hawaii. *Engineering*. Pahala, Hawaii, April 17, 79. B.S., Rose, 08, M.S., 09, C.E., 17. With Baldwin and Alexander, surveyors, 08-09; *asst. engineer*, Hawaii, 09; *engineer*, Oahu Ry., 10-18; *chief engineer*, Pampanga Sugar Develop. Co., P. I., 19-20; *prof. eng.*, Hawaii, 20- Capt., C.Eng., 18. Assoc. Civil Eng.; Soc. Test. Mat.; Ry. Eng.; Eng. Educ.
- Andrews, C(lement) W(alker)**, The John Crerar Library, Chicago, Ill. *Chemistry, Library economy*. Salem, Mass., Jan. 13, 58. A.B., Harvard, 79, A.M., 80; LL.D., Northwestern, 11. *Instr. chem.*, Mass. Inst. Tech., 83-95, *librarian*, 89-95; *John Crerar Library*, 95- Ed., 'Tech. Quarterly,' 91-95. A.A.; Chem. Soc.; Soc. Chem. Indust.; Library Ass. (pres., 06); Library Inst. (pres., 22-24); hon. mem. China Library Ass. Optical analysis of sugar; the arrangement of a scientific and technical reference library.
- Andrews, Dr. Donald H(atch)**, Franklin Institute, Philadelphia, Pa. *Chemistry*. Southington, Conn., June 11, 98. A.B., Yale, 20, Ph.D., 23. Research asst., Yale, 23-24; research assoc., California, 24-25; Nat. Research Council fellow, Leiden, Holland, 25-26; *research fellow*, Bartol Research Foundation, Franklin Inst., 26- Chem. Soc.; Physical Soc.; fel. London Chem. Soc. Application of thermodynamics to organic chemistry; colloids.
- Andrews, Prof. E(than) A(llen)**, Johns Hopkins University, Baltimore, Md. **Zoology*. New York, N. Y., Sept. 10, 59. Ph.B., Yale, 81, 82; Polytech., Hanover, 83; fellow, Hopkins, 84-86, Ph.D., 87. Asst., U. S. Fish Commission, 79-81; *asst. biol.*, Hopkins, 87-92, *assoc. prof.*, 92-08, *prof.*, 08- A.A.; Soc. Nat.; Soc. Zool. (v. pres., 91, pres., 04); Ecol. Soc. Eyes of annelids; anatomy and embryology of invertebrates; reproduction in crayfish; Folliculina; ants' nests.
- Andrews, Mrs. Ethan Allen (Gwendolen Foulke)**, Bellona and Lake Avenues, Govans, Md. *Biology*. Bala Farm, Pa., June 26, 63. Private sch.; hearer in biol., Bryn Mawr, 88.
- A.A. Structure and habits of protoplasm; animal and child psychology; Infusoria; Rotatoria.
- Andrews, Dr. Frank M(arion)**, 901 E. Tenth St., Bloomington, Ind. *Botany*. Vienna, Ind., 70. A.B., Indiana, 94, A.M., 95; Ph.D., Leipzig, 02; Amsterdam, 07; Leipzig, 07-08; Smithsonian table, Naples Zool. Sta., 08; Strassburg, 08-09. Asst. *bot.*, Indiana, 94-97, *instr.*, 97-04, *asst. prof.*, 04-07, *assoc. prof.*, 07-22, *prof.*, 22- Summer, Woods Hole, 03. A.A.; Bot. Soc.; Ind. Acad. (v. pres., 20, pres., 21). Physiological botany; protoplasm; plant chemistry; centrifugal force; pollen; chlorophyll; plant movements.
- Andrews, Dr. Grace**, 116 Cambridge Place, Brooklyn, N. Y. *Mathematics*. Brooklyn, May 30, 69. B.S., Wellesley, 90; A.M., Columbia, 99, Ph.D., 01. Asst. math., Barnard, Columbia, 00-02. The primitive double minimal surface of the seventh class and its conjugate.
- Andrews, Horace**, 125 Lancaster St., Albany, N. Y. *Civil engineering*. New Haven, Conn., March 19, 52. Ph.B., Yale, 71, C.E., 72. U. S. Coast and Geod. Surv., 72-78; N. Y. State Trigonometric Surv., 78-84; inspecting engineer, N. Y. State Board Health, 84-86; city engineer, Albany, 86-00; *consulting engineer*, 00- Instr., Sheffield Sci. Sch., Yale, 72-73; Albany Board Health, 86-00; examiner for eng. positions, N. Y. State Civil Service, 88-94. Civil Eng. (director, 08-10); Soc. Munic. Improv.; Geom. Verein. Geodetic and higher surveying; municipal engineering.
- Andrews, Dr. James C(larence)**, University of Pennsylvania, Philadelphia, Pa. *Physiological chemistry*. Colfax, Ind., March 8, 92. B.S., Iowa, 15; Ph.D., Columbia, 18. Asst. chem., Columbia, 15-18; research chemist, E. I. du Pont de Nemours and Co., 18-22; *instr. physiol. chem., sch. med.*, Pennsylvania, 22-26, *asst. prof.*, 26- Addition compound formation in aqueous solutions; palladium electrodes; cystine and cysteine.
- Andrews, Dr. J(ohn) W(endell)**, 5026 Washington Boulevard, Chicago, Ill. *Chemistry*. Chicago, Aug. 25, 99. du Pont fellow, Illinois, 23-24, Ph.D., 24. *Magnetic materials research*, West. Elec. Co. Thermodynamics; magnetic materials.
- Andrews, Justin M(eredith)**, 615 N. Wolfe St., Baltimore, Md. *Zoology*. Providence, R. I., Aug. 28, 02. Ph.B., Brown, 23; Sc.D., Hopkins, 26. Tech. asst. med. zool., *sch. hygiene and pub. health*, Hopkins, 23-24, *asst. protozool.*, 24-26, *instr.*, 26- Summer, Cold Spring Harbor, 25. Protozoology; intestinal flagellates; coccidiosis.
- Andrews, Dr. Launcelot W(inchester)**, Williamstown, Mass. **Chemistry*. London, Ont., Can., June 13, 56. Ph.B., Yale, 75; Ph.D., Göttingen, 82. Prof. chem., Iowa, 85-04; research chemist, Mallinckrodt Chem. Works, 04-10; pres., Andrews Chem. Works, 10. Teacher, high sch., Mass., 76. A.A.; Chem. Soc. (pres., St. Louis sect., 08-10); Chem. Eng.; St. Louis Acad. (v. pres., 09); Iowa Acad. (past pres.); Iowa Eng. Soc.; hon. mem. Davenport Acad.; London Chem. Soc. Volumetric methods of chemical analysis;

rational relations between densities and optical properties of aqueous solutions and their molecular composition; synthesis of formic and oxalic acids; enhancement of optical rotatory power.

Andrews, Mrs. Mary R(uggles), 64 Van Antwerp Road, Schenectady, N. Y. *Physics*. Delhi, Ohio, Jan. 11, 84. B.S. Mass. Inst. Tech. Research lab, Gen. Elec. Co, 06-08; Rockefeller Inst, 16-18; *research lab, Gen. Elec. Co, 18-Physical Soc; Chem. Soc.* X-ray analysis of alloys; formation of, diffusion through and emission from tungsten carbide; gas absorption by tantalum, tungsten and other metals.

Andrews, R(oy) C(hapman), American Museum of Natural History, New York, N. Y. *Zoology*. Beloit, Wis, Jan. 26, 84. A.B. Beloit, 06; A.M. Columbia, 13; hon. Sc.D. Brown. *Curator-in-chief div. Asiatic exploration and research, Am. Museum Nat. Hist, 06- Am. Museum Nat. Hist. exped. to Alaska, 08; St. Lawrence, 09; special naturalist, 'Albatross' exped. to the Orient, 09-10; exped. to Korea, 11, 12; naturalist, Borden exped. to Alaska, 13; leader, Central Asiatic expeditions, Am. Museum Nat. Hist. expeditions to Asia, 16- A.A.; Soc. Mammal; Wash. Biol. Soc; N. Y. Acad; cor. mem. London Zool. Soc. Water mammals; Asiatic exploration.*

Andrews, Dr. T(roy) M(onroe), Chapel Hill, N. C. *Chemistry*. Chapel Hill, Dec. 14, 93. A.B. North Carolina, 14, M.S. 17, Ph.D. 21. *Chemist, E. I. du Pont de Nemours and Co, 17-19; U. S. Forest Products Lab, 21-23; The Texas Co, 23- Elisha Mitchell Sci. Soc. Dyes; pulp; paper; cellulose; petroleum.*

Andrews, W(illiam) S(ymes), 136 Park Ave, Schenectady, N. Y. *Electrical engineering*. Saltford, Eng, Sept. 10, 47. Private education; Beckington Commercial Col, Eng. With Thomas A. Edison, 79-81; supt, testing dept, Edison Lighting Co, 81-83, construction of cent. stations, Edison Co, 83-85, chief engineer, 85-86; gen. supt, Marr Construction Co, 86-88; partner, Leonard and Izard Co, 88-89; supt. construction and asst. gen. manager, Gen. Elec. Co, 89-92; gen. supt, Peterborough works, Can. Gen. Elec. Co, 92-93; Edison Lighting Co, 93-94; *gen. eng. lab, Gen. Elec. Co, 94- A.A.; Elec. Eng; Illum. Eng. Soc; Franklin Inst. Fluorescence and phosphorescence; analysis of rare gases; safety glasses for arc welders; selenium cells; electrical apparatus and devices.*

Andros, S(tephen) O(sgood), Suite 744, American Bond and Mortgage Building, Chicago, Ill. *Mining*. Gardiner, Maine, 76. A.B. Bowdoin, 97; B.S. Mich. Col. Mines, 02, M.E. 03. Asst. supt, Imp. Copper Co, 03-05; pres, Copper Prince Mining Co, 05-09; field asst, Ill. coal mining investigations, 11-15; asst. prof. mining research, Illinois, 15-16; *pres, sec'y and director, various land companies, 16-, pres, Audio Inst, Inc.* Chairman board directors, N. Mex. Naval Consulting Board. A.A.; Min. Eng; Eng. Educ; Ill. Acad. Placer mining; coal mining; oil combustion; petroleum engineering.

Andrus, Dr. E(dwin) Cowles, Johns Hopkins Hospital, Baltimore, Md. *Physiology*. Kaatsbon, N. Y., Feb. 28, 96. A.B. Oberlin, 16, A.M.

17; M.D. Hopkins, 21. House officer, Hopkins Hosp, 21-22, asst. res. physician, 22-23; Nat. Research Council fellow med, 23-25; *res. physician, Hopkins Hosp, 25- Physiology of the heart.*

Andrus, L(ucius) B(uckley), 519 Guaranty Building, Indianapolis, Ind. *Electrical engineering*. Columbus, Ohio, Sept. 22, 75. E.E. 10; M.S. 16. Supt, fire alarm, telegraph and police signal systems, Columbus, Ohio, 00-02; Westinghouse Elec. and Mfg. Co, 02-04; gen. supt, Ind. and Mich. Elec. Co, 04; chief engineer, Kelsey Brewer Co; *pres, Attica Elec. Co; Ind. Elec. Corp; Merchants Heat and Light Co; North. Ind. Power Co; Wabash Valley Elec. Co.* Lecturer, Notre Dame. A.A.; Elec. Eng. Effect of synchronous motors on line regulation; effect of inertia on speed regulation; water wheel tests in place.

Andrus, Dr. William D(e) W(itt), University of Cincinnati, Cincinnati, Ohio. *Surgery*. Saugerties, N. Y., Feb. 28, 96. A.B. Oberlin, 16, A.M. 17; M.D. Hopkins, 21. Asst. surg, Hopkins, 21-22; instr, Cincinnati, 22-26, asst. prof, 26- Nat. Research Council fellow med, 22-25. Ass. Thoracic Surg. Physiology of surgical pneumothorax and pneumectomy; surgical treatment of cancer of the esophagus; angina pectoris; fractures of the femur.

Angell, Dr. F(rank), Stanford University, Calif. **Psychology*. Rhode Island, 57. B.S. Vermont, 78, L.H.D. 92; Ph.D. Leipzig, 91. Teacher, high sch, Washington, D. C. 80-87; asst. prof. *psychol*, Cornell, 91-92; prof, Stanford, 92-22, emer. prof, 22- Investigator, Belgian Relief Commission, 15-16. *Psychophysics; sensory discrimination.*

Angell, Dr. James R(owland), Yale University, New Haven, Conn. **Psychology*. Burlington, Vt, May 8, 69. A.B. Michigan, 90, A.M. 91; A.M. Harvard, 92; Berlin and Halle, 93; Litt.D. Vermont; LL.D. Yale, Harvard, Princeton, Columbia, Chicago, Union, Cincinnati, McGill, Wesleyan, Middlebury, Brown; hon. Ph.D. Rensselaer. Instr. philos, Minnesota, 93-94; asst. prof. psychol. and director lab, Chicago, 94-01, assoc. prof, 01-05, prof. and head dept, 05-20, senior dean, 08-11, dean faculties, arts, lit. and science, 11-20, acting pres, 18-19; chairman, Nat. Research Council, 19-20; *pres, Carnegie Corp, 20-21; Yale, 21- Lecturer, California, 03; Wellesley, 04; Ichabod Spencer lecturer, Union, 11; lecturer, Sorbonne, Paris, 14. Nat. Acad; Psychol. Ass. (pres, 06); Philos. Soc; West. Philos. Ass. (v. pres, 06). Psychology of attention; organic accompaniments of conscious processes; auditory localization; reaction time; effect of partial tones on localization of sound; dermal space-perception; memory and development in motor coordination; animal intelligence; rhythm; vision; affection.*

Angell, Prof. M(artin) F(uller), University of Idaho, Moscow, Idaho. *Physics*. Delavan, Wis, Dec. 29, 78. B.S. Wisconsin, 02, A.M. 05, Ph.D. 11. Asst. physics, Wisconsin, 02-03, 04-05; prof. physics and math, New Mexico, 03-04, physics and elec. eng, 05-13, dean col. science and eng, 08-13; *prof. physics. Idaho,*

- 13-, acting dean univ. faculty, 18-19, *col. letters and sciences*, 19-20, *dean*, 21- A.A.; assoc. mem. Physical Soc; Northwest Sci. Ass. (pres, 23). Absorption of infra-red radiations; self-recording electrometer for atmospheric potential; atmospheric potential; gradient measurements; thermal conductivity of metals at high temperatures.
- Angier, Prof. Roswell P(arker)**, 140 Edgehill Road, New Haven, Conn. *Psychology*. St. Paul, Minn., Oct. 21, 74. A.B., Harvard, 97, A.M., 01, Ph.D., 03; Berlin, 04-06; LL.D., Franklin and Marshall, 22. Asst. physiol. lab, Berlin, 05-06; instr. *psychol*, Yale, 06-08, asst. prof, 08-17, *prof*, 17-, acting director *psychol. lab*, 09-14, *director*, 14-, dean freshmen, 20-25, *chairman*, *Inst. Psychol*, 24- A.A.; Psychol. Ass; Physiol. Soc; Philos. Ass. Esthetics; psychology and physiology of vision.
- Angle, Dr. Edward H(artley)**, 1025 N. Madison Ave, Pasadena, Calif. *Orthodontia*. Herrick, Pa, June 1, 55. D.D.S., Pa. Col. Dental Surg, 78; hon. M.D., Marion-Sims-Beaumont Col. Med, 99; hon. Sc.D., Pennsylvania, 15. Prof. histol, comp. anat. of teeth and orthodontia, Minnesota, 89-91; orthodontia, Northwestern, 92-98; Marion-Sims-Beaumont Col. Med, 96-98; Washington (St. Louis), 98; founder and prof. orthodontia, Angle Sch. Orthodontia, St. Louis and New London, 00-13; *Angle Col. Orthodontia, Pasadena, Calif*, 16- Special surgeon, Great North. Ry, 92-95; Wabash Ry, 96-08. A.A.; Soc. Orthodont. (founder and pres, 00); hon. mem. Soc. Dental Mex; hon. mem. Verein Zahnärzte; hon. mem. Verein öster. Zahnärzte; hon. mem. Vienna Orthodont. Gesell; hon. mem. Verein Wiener Zahnärzte; hon. mem. Dental Soc. Sweden; hon. mem. Med-Dental Soc. Finland. Fractures of the maxillae; malocclusion of the teeth; orthodontic mechanism.
- Angle, Dr. E(dward) J(ohn)**, 2219 B St, Lincoln, Nebr. *Medicine*. Cedarville, Ill, April 1, 64. M.D., Cincinnati, 87; B.S., Wisconsin, 90; M.D., Pennsylvania, 95; A.M., Nebraska, 98. Prof. genito-urinary and skin diseases, col. med, Nebraska, 05-10; *specialist, dermat. and genito-urinary surg*, 10- Advisory med. board, U.S.A. A.A.; Am. Med. Ass; Am. Acad. Med; Urol. Ass; Royal Soc. Arts. Zoology; genito-urinary and skin diseases; kidneys of the pig.
- Anning, Prof. Norman H(erbert)**, 128 Observatory St, Ann Arbor, Mich. *Mathematics*. Holland, Ont, Can, Aug. 28, 83. B.A., Queen's (Can), 05, M.A., 06; Clark, 06-09. Teacher and prin. schools, and construction engineer, 09-16; instr. *math*, Maine, 19-20; *Michigan*, 20-23, *asst. prof*, 23- Asst. ed, 'Am. Math. Monthly,' 23-26. Seventh Can. Ry. Troops, France, 17-19. Math. Soc; Math. Ass. (sec'y, Mich. sect, 25). Higher geometry.
- Anslow, Dr. Gladys A(melia)**, 395 Elm St, Northampton, Mass. *Physics*. Springfield, Mass, May 22, 92. A.B., Smith, 14, A.M., 17; Chicago, 21; Smith Col. fellow, Yale, 22-24, Ph.D., 24. Demonstrator *physics*, Smith, 14-15, asst, 15-17, instr, 17-24, *asst. prof*, 24- A.A.; Physical Soc. Spectral series; ionization of gases.
- Anthony, A(lfred) W(ebster)**, Natural History Museum, San Diego, Calif. *Ornithology*. Cayuga Co, N. Y., Dec. 25, 65. Pub. schools. *Mining engineer*. Fel. Ornith. Union; Soc. Mammal; Caurinus Club. Pelagic and insular ornithology.
- Anthony, Charles**, Vиейtes y Gorriti, Bahia Blanca, Argentina. *Engineering*. Hereford, Eng, Oct. 10, 65. Royal Sch. Mines, Bristol; Cambridge. Asst. engineer, Bateman and Parsons, 90-91; engineer first class, Argentine Govt, 91-93; prin. res. engineer, Buenos Aires Sanit. Improvement Works Commissioners, 93-02; consulting engineer, Cape Colonial Govt, 03-06; legal representative and chief engineer, Dirks and Dates, 06-08; *gen. manager, Bahia Blanca Water Works Co*, 09- Civil Eng; fel. Chem. Soc; fel. Royal Astron. Soc; British Inst. Civil Eng; fel. British Sanit. Inst; fel. Edinburgh Royal Soc; fel. Royal Meteor. Soc. Hydraulic and sanitary engineering; sewage disposal; color determination; filtration.
- Anthony, Prof. Ernest L(ee)**, University of West Virginia, Morgantown, W. Va. *Dairy husbandry*. Comstock, Nebr, Sept. 6, 88. B.S.A., Missouri, 12; M.S.A., Pa. State, 14. Asst. *dairy husbandry*, Pa. State, 12-13, instr, 13-15, asst. prof, 15-18, *asst. prof*, 18-19; *prof. and head dept, West Virginia*, 19- Am-Scandinavian Foundation fellow, Copenhagen, 23-24. Dairy Sci. Ass. History, feeding and breeding of dairy cattle.
- Anthony, Prof. Gardner C(hace)**, Tufts College, Mass. *Graphics*. Providence, R. I., April 24, 56. Brown, 75-77; Tufts, 77-78, A.M., 90, hon. Sc.D., 05. Mech. engineer, 78-85; instr, R. I. Sch. of Design, 85-87; director, R. I. Sch. Tech. Drawing, 87-93; *prof. tech. drawing and dean, Bromfield-Pearson Sch. Tufts*, 93-, *dean eng. sch*, 98- A.A.; Mech. Eng; Eng. Educ. (pres, 13). Mechanical and machine drawing; gearing; descriptive geometry.
- Anthony, H(arold) E(lmer)**, American Museum of Natural History, New York, N. Y. *Zoology*. Beaverton, Oregon, April 5, 90. B.S., Columbia, 15, A.M., 20. Asst. zool. and chem, Pacific (Oregon), 10-11; *mammal, Am. Museum Nat. Hist*, 11-18, assoc. curator, 19-25, *curator*, 26- Summers, field asst, U. S. Biol. Surv, 10, 11. Sci. expeditions to west. states, Mex, Ecuador, Panama, Isthmus of Darien, P. R., Cuba, Virgin Islands, St. Martins Islands and Africa. Lieut, F.A., 17-18, capt, 18-19. Soc. Mammal. (councilor and v. pres, 26-); fel. N. Y. Acad; Explorers Club; hon. mem. Bogota Col. de Cien. Nat. Mammalogy; mammals of the Western Hemisphere, especially of South America and the West Indies; Pleistocene Mammalia of the West Indies.
- Anthony, Harvey Mitchell**, Anthony Building, Muncie, Ind. *Electrical engineering*. Muncie, Feb. 90. A.B., Harvard, 14; Mechanics Inst, Boston, 14; Columbia, 15; N. Y. Elec. Inst, 15; B.S., Indiana, 24. Founder and past director indust. educ, pub. schools, Ind; prof. applied elec. eng, Cent. Tech. High Sch; *consulting elec. engineer*. Past city examiner elec. licensing, Muncie; director, U. S. Naval Aviation Radio

Training, 17-19; pres, Ind. State board eng. examiners; Nat. Council engineering examiners (v. pres). A.A.; Elec. Eng. (pres, Ind. sect); Radio Eng; Indust. Eng; Ass. Eng; Stationary Eng; fel. Inst. Chem; Chem. Soc; Electrochem. Soc; West. Soc. Eng; Ind. Eng. Soc; Ind. Acad; British Ass; fel. Royal Soc. Arts; Soc. de Physique. Electrical power installation; industrial electrical development; storage battery engineering.

Anthony, R(oy) D(avid), State College, Pa. *Horticulture*. Rochester, N. Y., April 2, 84. B.S., Rochester, 08; B.S.A., Cornell, 10, M.S.A., 13, Ph.D., 20. Asst. pomol., Cornell, 10-11, instr., 12-13; assoc. horticulturist, N. Y. Exp. Sta., Geneva, 13-19; *research horticulturist, Pa. State*, 19- A.A.; Soc. Hort. Sci. Fruit stocks, nutrition and storage.

Appel, W(illiam) D(unford), 4421 Lowell St., Washington, D. C. *Chemistry*. Washington, Dec. 21, 92. B.S., Chicago, 17. Asst. econ. ornith., biol. surv., U. S. Dept. Agr., 12-13; asst. zool., Chicago, 14-17; chemist in charge anal. lab., Fed. Dyestuff and Chem. Corp., Tenn., 17-18; research chemist, Ault and Wiborg, Ohio, 18-20; Newport Co., Wis., 20-22; *dye chemist, Bur. Standards*, 22- Chem. Soc; Wash. Biol. Field Club. Spectrophotometric transmission measurements of dye solutions; commercial evaluation of dyes; action of light on dyed textiles.

Appleby, Dean W(illiam) R(emsen), University of Minnesota, Minneapolis, Minn. *Metallurgy, Assaying*. Hoboken, N. J., Feb. 11, 65. A.B., Williams, 86, A.M., 93; sch. mines, Columbia, 87. Asst. anal. and pharmaceut. chem., N. Y. Col. Pharmacy, 88-89; *prof. mining and metal, Minnesota*, 91-92, *metal. and dean sch. mines*, 00- Consulting metal. engineer, U. S. Bur. Mines, 18- Jury awards, Panama-Pacific Expos. Min. and Metal. Eng; Min. and Metal. Soc; Chem. Soc; Soc. Chem. Indust; Lake Superior Min. Inst; London Inst. Min. and Metal; N. of England Inst. Min. and Mech. Eng.

Appleman, Dr. C(harles) O(rval), College Park, Md. **Plant physiology*. Millville, Pa., Dec. 6, 78. B.E., Bloomsburg State Nor. Sch., 97, B.P., 98; Ph.B., Dickinson, 03; Ph.D., Chicago, 10. Instr., Swarthmore Prep. Sch., 03-04; *prof. biol., Lombard*, 04-08; *plant physiologist, Md. Exp. Sta.*, 10-, *prof. plant physiol. and biochem., Maryland*, 18-, *dean grad. sch. and chairman bot.*, 19- Summer, Cold Spring Harbor, 95. Lecturer, U. S. Dept. Agr., 21-22; Columbia; Ohio State; Iowa Col. Assoc. ed., 'Potato News Bul.', 25- A.A. (mem. sec. committee, G., 27-); Soc. Nat; Bot. Soc. (chairman, physiol. sect, 20, 27, mem. plant physiol. board, 21, 27); Chem. Soc; Potato Ass. (chairman, research committee, 21-23, physiol. investigations, 25-); Union Am. Biol. Societies (councilor); Wash. Acad; Wash. Bot. Soc. Botany; physiology and biochemistry of plants; oxidases and catalases; carbohydrate metabolism; potatoes; corn.

Appleton, Prof. J(ohn) H(oward), 209 Angell St., Providence, R. I. **Chemistry*. Portland, Maine, Feb. 3, 44. Ph.B., Brown, 63, A.M., 69, Sc.D., 00. Instr. chem., Brown, 63-68, Newport-

Rogers prof., 68-14, *emer. prof.*, 14- U. S. Mint Commission, 91; consulting chemist. A.A.; Chem. Soc. (v. pres); N. Y. Acad. Industrial chemistry; artificial dyes.

Appleton, Prof. J(oseph) L(uke) T(easdale), Jr., University of Pennsylvania, Philadelphia, Pa. *Bacteriology*. Albany, N. Y., Sept. 18, 88. B.S., Hamilton, 09; D.D.S., Pennsylvania, 14. Instr. chem., Pa. State, 10, zool., 10-11; instr. asst. prof. and *prof. microbiol. and bacteriopath, dental sch., Pennsylvania*, 14- A.A.; Soc. Bact; Am. Dental Ass; Acad. Stomatol; Phila. Acad; Phila. Path. Soc; Phila. Physiol. Soc. Dental pathology; development of teeth; bacteriology of the mouth.

Appleton, Dr. L(illa) Estelle, Oxford College for Women, Oxford, Ohio. *Psychology*. Victory, Vt., Nov. 9, 58. B.Litt., Oberlin, 86, Ph.B., 90; Ph.M., Chicago, 03, M.S., 04, Ph.D., 09; fellow, Clark, 08-09; Columbia, 10-11. Various school positions, 75-01; director sch. educ., Upper Iowa, 07-08; acting head dept. educ. and supt., training sch., Marshall, 09-10; acting head dept. philos. and educ., Milwaukee-Downer, 11-12; instr. psychol. and educ., Kindergarten Training Sch., 12-16; ed. work, 16-18; *head dept. psychol. and educ., Oxford (Ohio)*, 19- A.A.; Brussels Solvay Inst. de Sociol. Comparative phylogenetic and ontogenetic psychology; art; play activities of adult savages and civilized children.

Arbuckle, Dr. H(oward) B(ell), Davidson, N. C. *Chemistry*. Lewisburg, W. Va., Oct. 5, 70. A.B., Hampden-Sidney, 89, fellow, 89-90, A.M., 90; Virginia; Ph.D., Hopkins, 98. Instr., Hampden-Sidney, 89-90; chem. and physics, Florida, 91-96; asst. chem., Hopkins, 96-98; chem. and biol., Agnes Scott Col., 98-06, *prof. chem.*, 06-13; *Davidson Col.*, 13- Chem. Soc. (pres, Ga. sect, 07); N. C. Acad. (pres, 16, 24). Artificial incubation; toxic effects of fertilizers on tobacco; variation of protein in corn; distillation of cellulose; viscosities of common lubricating oils.

Archer, R(obert) S(amuel), Aluminum Co. of America, 2210 Harvard Ave., Cleveland, Ohio. *Metallurgy*. Denver, Colo., June 20, 95. B.Ch.E., 16; M.S., 17. Research engineer, Detroit Edison Co., 16-17; *research metallurgist, Aluminum Castings Co.*, 19-20; *Aluminum Co. of Amer.*, 20- Bur. Aircraft Production, U. S.A., 17-18. Min. Eng; Soc. Steel Treat. Annealing of malleable castings; metallurgy of aluminum alloys.

Archer, W(illiam) Andrew, U. S. Department of Agriculture, Washington, D. C. *Botany*. Torreon, Mex., Nov. 7, 94. B.S., N. Mex. Col., 20; Ph.D., Michigan, 26. Asst. biologist, N. Mex. Col., 21; grad. asst. bot., Michigan, 21-25; instr., Oberlin, 25-26; *asst. plant pathologist, U. S. Dept. Agr.*, 26- A.A. Morphology of the Sphaeropsidales.

Archibald, Prof. E(benezzer) H(enry), University of British Columbia, Vancouver, B. C., Can. **Chemistry*. Brookvale, N. S., Sept. 27, 73. B.S., Dalhousie, 97, M.S., 98; A.M., Harvard, 00, Ph.D., 02. Demonstrator chem., McGill, 02-04; instr., Syracuse, 04-06, asst. prof., 06-09, assoc. prof., 09-12, prof., 12-15; asst.

- prof., *British Columbia*, 15-17, assoc. prof., 17-20, *prof. and head dept.*, 20- A.A.; Chem. Soc.; fel. Royal Soc. Can; fel. Edinburgh Royal Soc. Conductivity of salt solutions; freezing-point of dilute solutions; atomic weight of caesium, rubidium, potassium and platinum; the electric conductivity of organic bodies dissolved in the liquefied halogen hydrides; basic properties of oxygen; compounds of the halogen acids and organic substances containing oxygen; separation of platinum from iridium; separation of iron from manganese by means of nitrosophenylhydroxylamine.
- Archibald, Dr. Edward William**, 52 Westmount Boulevard, Montreal, Que., Can. *Surgery*. Montreal, Aug. 5, 72. B.A., McGill, 92, M.D., C.M., 96. *Surgeon, Royal Victoria Hosp.*, 04-; *prof. surg.*, McGill, 08- Consulting surgeon, Children's Mem. Hosp; Shriners' Hosp. Col. Surg; Surg. Ass; Ass. Thoracic Surg; Interurban Surg. Soc; Int. Soc. Surg. Pancreatitis; cerebral injuries; intestinal and pulmonary tuberculosis.
- Archibald, Prof. J(ohn) G(eddie)**, North Amherst, Mass. *Chemistry*. Cavendish, P.E.I., Can, June 11, 94. B.S.A., Ont. Agr. Col, 16; M.S., Mass. Col, 24. Asst. chemist, N. S. Agr. Col, 16-20; research chemist, Int. Nickel Co, Copper Cliff, Ont, 20; *asst. research prof. chem.*, Mass. Exp. Sta., 21- Animal nutrition.
- Archibald, Prof. Ray(mond) C(lare)**, Brown University, Providence, R. I. **Mathematics*. South Branch, N. S. Can, Oct. 7, 75. B.A., Mt. Allison, 94, teacher's diploma in violin, conservatory of music, 94, artist's diploma, 95; A.B., Harvard, 96, A.M., 97, 97-98; Berlin, 98-99; Ph.D., Strassburg, 00; Paris, 09-10; Rome, 22; hon. Sc.D., Padua, 22; LL.D., Mt. Allison, 23. *Teacher math.*, Mt. Allison Ladies' Col, 94-95, *prof.*, 00-07; *prof. and head dept.*, Acadia, 07-08; *instr.*, Brown, 08-11, *asst. prof.*, 11-17, *assoc. prof.*, 17-23, *prof.*, 23- Librarian and head violin dept, Mt. Allison Ladies' Col, 00-07; ed-in-chief, 'Am. Math. Monthly,' 19-21, co-editor, 17-18; *assoc. ed.*, 'Rev. semestrielle publ. math'; 'Isis,' 24- A.A. (sec'y, sect. A, 24-); Math. Soc. (librarian, 21-, ed. board, 'Bul,' 14-20, counselor, 18-); Math. Ass. (councilor, 16, 23-, v. pres, 21, pres, 22); Am. Acad; British Ass; London Math. Soc; British Math. Ass; Edinburgh Math. Soc; Soc. math. de France; Math. Verein; Circolo Mat. di Palermo; Unione Mat. Ital. The cardioid and some of its related curves; mathematical instruction in France; training of teachers of mathematics in secondary schools of foreign countries; restoration of Euclid's book on division of figures; bibliography of Simon Newcomb; biography and bibliography of Benjamin Peirce; Egyptian mathematics; history and bibliography of geometry.
- Arctowski, Dr. Henryk (Bronislaw)**, University of Lwów, Poland. *Geography, Climatology*. Warsaw, Poland, July 15, 71. Liège, 88, 93-95; Paris, 89-92; Zurich, 96; Ph.D., Lemberg, 12. Oceanographer and meteorologist, Belgian Antarctic exped, 97-99; Belgica Commission; asst, Royal Observatory, Belgium, 04-09; chief science div, N. Y. Pub. Library, 11-19; *prof. meteor. and geophys.*, Lwów, 20- Antarctic geology; oceanography; meteorology; aurora australis; climatic fluctuations; solar faculae; reactions of vapors; solutions; crops.
- Ardagh, Prof. E(dward) G(owan) R(ussell)**, University of Toronto, Toronto, Ont, Can. *Chemical engineering*. B.A.Sc., Toronto, 01. *Assoc. prof. chem. eng.*, Toronto. Soc. Chem. Indust. (chairman, Toronto branch, 18-20, past asst. ed, 'Abstracts'); fel. Can. Inst. Chem. Natural gases of Ontario; activated carbon; distillation of acetate of lime; assay of zinc ores; iodometric determination of the carbonyl group in organic compounds; colorimetric determination of platinum.
- Arenson, Dr. Saul B(ryan)**, 711 Gholson St, Cincinnati, Ohio. *Chemistry*. Lincoln, Nebr, June 21, 95. Ph.C, B.S., A.M., Nebraska, Ph.D., 24. Instr. chem, Nebraska, 19-24; *chem. eng.*, Cincinnati, 24-26, *asst. prof.*, 26- Instr. gas defense, M.O.T.C., and research chemist, C.W.S., 18. A.A.; Chem. Soc. (sec'y-treas, Nebr. sect, 21-24). Physico-organic chemistry; electromotive forces of organic oxidation-reduction reactions; zeolites.
- Arentz, Fred B.**, U. S. Industrial Alcohol Co, Baltimore, Md. *Chemistry*. Ocala, Fla., Aug. 27, 92. B.S., Rochester, 14. Asst. chemist, Art in Buttons, Inc, Rochester, N. Y., 15-16; indust. research fellow, Columbia, 16-17; research and development chemist, U. S. Indust. Alcohol Co, 17-26, *supt.*, Newark div, 26- Chem. Soc. Organic chemistry.
- Arey, Prof. Leslie B(rainerd)**, 303 E. Chicago Ave, Chicago, Ill. *Anatomy*. Camden, Maine, Feb. 15, 91. A.B., Colby, 12; Ph.D., Harvard, 15. Austin teaching fellow, Harvard, 13-15; *instr. anat. med. sch.*, Northwestern, 15-16, *assoc. prof.*, 17-19, *prof. micros. anat.*, 19-24, *Robert L. Kea prof. anat. and chairman div.*, 24- Investigator, Bur. Fisheries, 16- Ass. Anat; Soc. Zool. (treas, 25-). Experimental anatomy; physiology of the sense organs and sensory behavior; mammalian histology and embryology.
- Arey, Prof. M(elvin) F(ranklin)**, 2320 College St, Cedar Falls, Iowa. *Geology*. Hampden, Maine. A.B., Bowdoin, 67, A.M., 70. Private and corporal, 22d Maine Volunteers, 62-63; prin, sem, Maine, 68-72; *supt.*, schools, Iowa, 74-90; *prof. nat. science*, Iowa Teachers' Col, 90-, retired, head dept, 09-17, *curator museum*, 17- Iowa Univ. exped. to Bahamas, 93; sec'y, Iowa State Educ. Council, 25 years; special asst, Iowa Geol. Surv; City Council, 99-15. A.A.; Iowa Acad. (pres, 05). Underground water of Iowa.
- Arkin, Prof. Aaron**, 5612 South Park Ave, Chicago, Ill. *Internal medicine*. Libau, Batavia, Sept. 6, 88. B.S., Chicago, 09, fellow, 09, 11-12, M.D., 12, Ph.D., 13; A.M., Wisconsin, 10. Instr. pharmacol, Wisconsin, 09-10; Inst. for Infectious Diseases, Chicago, 10-12; Sprague Mem. Inst, 13-14; *prof. path. and bacter.*, sch. med, West Virginia, 14-22; intern and röntgenologist, first med. clinic, Vienna, 22-25. Chief bacteriologist and pathologist, W. Va. State Hygienic Lab, 14-17. A.A.; Am. Med.

- Ass; Physiol. Soc; Ass. Path. and Bact; Soc. Pharmacol; Pub. Health Ass; Soc. Bact; Int. Ass. Med. Museums; Vienna Path. Soc. Syphilis of the bowel; catalytic activity of blood and tissue; phagocytosis; immune reactions; sodium salts of iodoxybenzoic acid; rat bite fever; right-sided aorta; hypernephroma; lymphogranuloma.
- Arlitt, Dr. Ada Hart**, University of Cincinnati, Cincinnati, Ohio. *Psychology*. New Orleans, La, July 27, 90. A.B, Tulane, 13; Ph.D, Chicago, 17. Fellow, Sprague Mem. Inst, Chicago, 17; assoc. educ. psychol, Bryn Mawr, 17-23; psychologist, Cent. Clinic, Cincinnati, 23-25; *prof. child care and training and head dept.*, Cincinnati, 25- Psychol. Ass; S. Soc. Philos. and Psychol. Educational and animal psychology; mental tests; child psychology.
- Arms, Dr. B(urdett) L(oomis)**, State Board of Health, Jacksonville, Fla. *Public health*. Springfield, Vt, Sept. 27, 69. M.D, col. med, Vermont, 05. Bacteriologist, Boston Board Health Lab, 06-08, asst. director, 08-10, director, 10-13; lecturer munic. lab. methods, Mass. Inst. Tech, 10-13; state bacteriologist, Oregon, 13-14; *prof. prev. med.*, Texas, 14-16; state bacteriologist, Ala, 16-17; director div. diagnostic laboratories, Fla. State Board Health, 17-25; *Fla. state health officer*, 25- Ass. Path. and Bact; Am. Med. Ass; Pub. Health Ass; Nat. Committee Milk Standards. Laboratory studies of diphtheria, tuberculosis, glanders and hookworm.
- Armstrong, Prof. A(ndrew) C(ampbell)**, Middletown, Conn. **Philosophy, Psychology*. New York, N. Y, Aug. 22, 60. A.B, Princeton, 81, fellow, 81-82, A.M, 84, theol. sem, 82-85, hon. Ph.D, 96; Berlin, 85-86; A.M, Wesleyan, 94. Assoc. prof. ecclesiastical hist, Princeton Theol. Sem, 86-89, instr. hist, Princeton, 87-88; *prof. philos.*, Wesleyan, 88- Cooperating ed, 'Psychol. Rev.', 04-10. Psychol. Ass; Philos. Ass. (mem. exec. committee, 01-03, pres, 15, chairman, committee on int. cooperation, 16-); Inst. Social Sci. Historical philosophy; history of intellectual progress.
- Armstrong, Dr. Beulah (May)**, University of Illinois, Urbana, Ill. *Mathematics*. Sterling, Kans, Nov. 18, 95. A.B, Baker, 17; A.M, Kansas, 18; fellow, Illinois, Ph.D, 21. *Instr. math.*, Illinois, 21- Mathematical induction in group theory.
- Armstrong, Dr. Charles, U. S.** Public Health Service, Washington, D. C. *Medicine*. Alliance, Ohio, Sept. 25, 86. B.S, Mt. Union, 10; M.D, Hopkins, 15. Supt. schools, Ohio, 10-11; intern, New Haven Gen. Hosp, 15-16; asst. surgeon, U. S. *Pub. Health Service*, 16-20, passed asst. surgeon, 20-24, *surgeon*, 24- Botulism; influenza; dengue fever; tetanus following vaccination; experimental syphilis; pasteurization; pollen-extracts.
- Armstrong, Dr. Donald B(udd)**, 1 Madison Ave, New York, N. Y. *Public health*. Bangor, Pa, Dec. 19, 86. Ph.B, Lafayette, 08, hon. Sc.D, 23; A.M, M.D, Columbia, 12; M.S, Mass. Inst. Tech, 13. Dept. Social Welfare, 13-16; exec. officer, Framingham Community Health and Tuberculosis Demonstration, 16-23; Nat. Health Council, 21-24, sec'y, tech. board, Milbank Mem. Fund, 22-24; *asst. sec'y. welfare div.*, Metropolitan Life Ins. Co, 24- Lecturer, Teachers Col, Columbia; Col. City of N. Y; Univ. and Bellevue Hosp. Med. Col; Simmons Col; N. Y. Sch. of Social Work. Am. Med. Ass; fel. Pub. Health Ass. (past chairman, sociol. sect, Health Inst, 22); Tuber. Ass. (board directors); N. Y. Acad. Med. House files in relation to diarrhoeal disease among infants; control of tuberculosis.
- Armstrong, Prof. Geo(rge) E**, 320 Mountain St, Montreal, Que, Can. *Surgery*. Can, June 15, 54. M.D, C.M, McGill, 77; LL.D, Queen's (Can); D.Sc, Liverpool. *Prof. anat.*, Bishop's Col, 77-83, *physiol.*, 83-85; *surg. and clin. surg.*, McGill, 95- Col, C.O.M, 14-19; C.M.G, 18. Col. Surg. (pres); Surg. Ass; Can. Med. Ass; Int. Soc. Surg. Embryology and physiology of the intestinal tract; gastric hemorrhage.
- Armstrong, Dr. Geo(rge) M(iller)**, Clemson Agricultural College, Florence, S. C. *Botany*. Appleton, S. C, Nov. 13, 93. B.S, Clemson, 14; A.M, Wisconsin, 17; Ph.D, Washington (St. Louis), 21. Grad. asst, Wisconsin, 15-17; instr. bot, Clemson, 17-18; asst. pathologist, bur. plant indust, U. S. Dept. Agr, 18-19; instr. Shaw Sch. of Bot, 21-22, asst. prof, 22-24; *head div. boll weevil control*, Clemson, 24- A.A; Bot. Soc; Soc. Plant Path. Physiology in fungi; boll weevil control in the cotton plant; cotton experiments.
- Arndt, Dr. Charles H(omer)**, Port au Prince, Haiti. *Plant physiology*. Jonestown, Pa, Oct. 14, 92. A.B, Lebanon, 14; M.S, Purdue, 16; Ph.D, Pennsylvania, 21. Prof. biol, Lebanon, 16-17; instr. bot, Agr. and Mech. Col. Texas, 17-18; inspector, bur. plant indust, U. S. Dept. Agr, 18-19; instr. plant path. and physiol, Pennsylvania, 22-25; *director, Coffee Exp. Sta.*, Port au Prince, 25- Harrison research fellow, Pennsylvania, 21-22. A.A; Bot. Soc; Phytopath. Soc. Physiology of the coffee plant; salt balance for the higher green plants and fungi.
- Arnold, Dr. Bion J(oseph)**, 231 S. La Salle St, Chicago, Ill. *Electrical engineering*. Casnovia, Mich, Aug. 14, 61. Nebraska, 79-80, E.E, 98, hon. D.Eng, 11; B.S, Hillsdale, 84, M.S, 87, hon. Ph.M, 89; Cornell, 88-89; hon. Sc.D, Armour, 07. Industrial positions, 84-88; Thomson-Houston Elec. Co, 89-93; *pres*, Arnold Eng. Co, 96-; *consulting engineer, street railways*, Chicago, 02-, *chief subway engineer*. Consulting engineer, Pub. Service Commission, N. Y; univ. lecturer; Naval Consulting Board. Medal, Trans-Miss. Expos, 98; La. Purchase Expos, 04; diploma, Pan-Am. Expos, 01; Longstreth medal, Franklin Inst, 03. Delegate, Int. Elec. Cong, Paris, 00, St. Louis, 04 (chairman, exec. committee and v. pres). Lieut. col, A.S, 17-19, col, R.C, A.S. A.A; Elec. Eng. (pres, 03); Civil Eng; Eng. Educ; West. Soc. Eng. (pres, 06). The magnetic clutch; storage batteries; power plants; single phase railway construction; traffic needs of large cities; aerial torpedoes.
- Arnold, Dr. H(arold) D(eForest)**, 463 West St, New York, N. Y. **Physics*. Woodstock, Conn,

- Sept. 3, 83. Ph.B, Wesleyan, 06, M.S, 07; fellow, Chicago, 07-09, Ph.D, 11. Asst. physics, Wesleyan, 06-07; Chicago, 08; prof, Mt. Allison, 09-10; research engineer, West. Elec. Co, 11-25; *director research, Bell Telephone Laboratories*, 25- A.A; Physical Soc; Elec. Eng; Chem. Soc; Franklin Inst. Arc between metallic electrodes; viscosity; telephone transmission; thermionics; magnetic alloys.
- Arnold, John W(illiam)**, Western Union Telegraph Co, 195 Broadway, New York, N. Y. *Engineering*. Paulding, Ohio, Sept. 13, 97. A.B, Illinois, 21, A.M, 23; Columbia. Asst. math, Illinois, 21-23; *eng. asst, West. Union Telegraph Co*, 23- A.A. Magnetic storms; inductive interference.
- Arnold, Prof. Lloyd**, 706 S. Lincoln St, Chicago, Ill. *Bacteriology, Pathology*. Kimmundy, Ill, July 8, 88. A.B, Texas Christian, 08, A.M, 18; M.D, Vanderbilt, 19; München, Göttingen and Tübingen, 11-14. Asst. anat, Tulane, 08-10, research asst. physiol, 15-16; director lab, City Hosp, Nashville, 19-20; asst. med, med. sch, Vanderbilt, 19-20; asst. prof. bacter, *Loyola (Ill)*, 21-22, *prof. path, bacter. and prev. med*, 22- Director lab, Mercy Hosp, 21-; pathologist, Misericordia Hosp, 21- Soc. Bact; Ass. Path. and Bact; Am. Med. Ass; Chicago Path. Soc; Chicago Int. Med. Soc. Classification of streptococci; Twort-d'Herelle's phenomenon of bacteriology.
- Arnold, Dr. Ralph**, 639 S. Spring St, Los Angeles, Calif, and 42 Broadway, New York, N. Y. **Paleontology, Geology*. Marshalltown, Iowa, April 14, 75. Throop, 94-96; A.B, Stanford, 99, A.M, 00, Ph.D, 02; Sc.D, Pittsburgh, 21; D.Eng, Southern California, 25. Asst. miner, Stanford, 99; instr. chem. and physics, Hoitt's Sch, Menlo Park, Calif, 99-00; field asst, Wash. Sch. of Mines Mining Surv, 00; asst. geol, Stanford, 00-02; aid, U. S. Geol. Surv, 03-05, paleontologist, 05-08, geologist, 08-09; *consulting geologist and engineer*, 09- Temporary field asst, U. S. Geol. Surv, 00-03; chief oil, gas and mines sect, Bur. Int. Revenue, 17-19. Lecturer, Chicago, 14; Harvard and Mass. Inst. Tech, 16; summer, Columbia, 25. A.A; Geol. Soc; Paleont. Soc; Soc. Econ. Geol; Seismol. Soc. (chairman, South. Calif. sect, 24); Min. and Metal. Eng. (chairman, southwest. sect, chairman, petrol. committee, 19-22); Min. and Metal. Soc. (mem. council, 18-); Ass. Petrol. Geol; Pacific Astron. Soc; Cooper Ornith. Club; LeConte Geol. Soc. (sec'y, 01); Geol. Soc. of Am. Univ. (pres, 02); Wash. Geol. Soc. (sec'y, 07); Wash. Biol. Soc; Wash. Acad; London Geol. Soc; London Malacol. Soc; Royal Geog. Soc. Pleistocene and Tertiary paleontology and stratigraphy of the western coast of North America; geology, paleontology and technology of the California oil fields; paleontology of San Pedro, California; Tertiary and Quaternary Pectens of California; paleontology of the Santa Cruz Mountains; geology and oil resources of Coast Ranges; oil resources of the world; taxation of mines.
- Arnold, Prof. S(amuel) T(omlinson)**, Brown University, Providence, R. I. *Chemistry*. Fall River, Mass, 92. A.B, Brown, 13, A.M, 14, Ph.D, 16. Instr. chem, Brown, 16-17, asst. prof, 18-22, *assoc. prof*, 22- Chem. Soc. (sec'y, R. I. sect, 18, chairman, 22-25). Analytical and industrial chemistry.
- Arnold, Weld**, American Geographical Society, Broadway at 156th St, New York, N. Y. *Astronomy, Geography*. New York, June 9, 95. A.B, Harvard, 18; diploma, Royal Geog. Soc. Austin teaching fellow astron, Harvard, 19-21; *instr. sch. surv, Am. Geog. Soc*, 23- Topographer, seventh Hamilton Rice exped, North. Brazil, 24-25; Harvard eclipse exped, Sumatra, 25-26. A.A; Astron. Soc; Am. Geog. Soc; fel. Royal Astron. Soc; Royal Geog. Soc. Maps; surveying; improvement in present methods of latitude and longitude determination in the field.
- Arnstein, Dr. Henry**, 191 E. Roosevelt Boulevard, Philadelphia, Pa. *Chemistry*. New York, N. Y, Nov. 10, 85. D.Sc, Budapest, 08; Ph.D, Berlin, 10. Research chemist, Newman Brothers, 10-14; supt. mfg, Fleischman Co. of Calif, 14-18; *consulting chemist*, 19- Designer and builder of commercial plants. Chem. Soc; Inst. Chem; Electrochem. Soc; Ass. Eng; Eng. Soc; Franklin Inst; Chemists Club; Eng. Club; Chem. Gesell; Hungarian Acad. Utilization of molasses; alcoholic motor fuels; recovery of by-products.
- Army, Prof. A(lbert) C(edric)**, 2115 Dudley St, St. Paul, Minn. *Agriculture*. Washington Co. Minn, Nov. 4, 77. B.S.A, Minnesota, 09, M.S, 17. Asst. prof. agr, Minnesota, 09-16, *assoc. prof*, 16-, asst. agriculturist, *Exp. Sta*, 09-25, *in charge farm crops*, 14- Soc. Agron. Farm crops; forages; small grains; corn; rotations
- Army, Prof. H(enry) V(inecome)**, 115 W. 68th St, New York, N. Y. *Pharmacy*. Philadelphia, Pa, Feb. 28, 68. Ph.G, Phila. Col. Pharmacy, 89, Ph.M, 19; Ph.D, Göttingen, 96. *Prof. pharmacy*, Western Reserve, 97-11; *chem. col. pharmacy, Columbia*, 11- A.A; Pharmaceut. Ass; Chem. Soc; Franklin Inst. Pharmaceutical chemistry; revision of the United States Pharmacopœia and of the national formulary.
- Aronson, Dr. Joseph D(avid)**, Henry Phipps Institute, Philadelphia, Pa. *Medicine*. Russia, Jan. 12, 87. M.D, Medico-Chirurg. Col. Phila, 08. Prof. bacter. and path, med. dept, Arkansas, 11-14; asst, Bur. Health Lab, Phila, 14-17; *asst, laboratories, Henry Phipps Inst*, 20- Chief lab, Base Hospitals, Fort Sill and No. 85, 17-19. A.A; Am. Med. Ass; Ass. Path. and Bact; Soc. Bact; Ass. Immunol; Phila. Path. Soc. Diphtheria carriers; bacterial association; complement fixation in tuberculosis and leprosy; standardization of tuberculin; immunity in tuberculosis.
- Arps, Prof. George F(rederick)**, 216 E. Lane Ave, Columbus, Ohio. *Psychology*. Cary, Ill, Jan. 23, 75. A.B, Stanford, 04; A.M, Indiana, 05; Ph.D, Leipzig, 08. Assoc. prof. educ. and psychol, Indiana, 08-10; asst. prof. psychol, Illinois, 10-12; *prof, Ohio State*, 12-, *dean col. educ*, 20- Major, Sanit. C, 18-19. A.A; Psychol. Ass. Sensations of pressure; attention and rhythm; the influence of intensity on the acoustic perception of depth; aware-

ness as an efficiency factor; visual discrimination; color induction; regeneration.

Arsem, William C(ollins), Schenectady, N. Y. *Chemistry*. Chelsea, Mass., May 1, 80. B.S., Mass. Inst. Tech, 01. Chem. engineer, Gen. Elec. Co, 01-18; pres. and treas. Org. Products Corp, 16-21; pres, *Indust. Tech. Corp*, 18-; *practising research and consulting engineer*. Chem. Soc. (pres, east. N. Y. sect, 15-17); Electrochem. Soc; N. Y. Chemists Club. Electrochemistry; organic chemistry; electric furnaces; catalysis; metallography; insulating materials; paints and varnishes; sugars.

Arthur, John M(orris), Boyce Thompson Institute, Yonkers, N. Y. *Plant physiology, Biochemistry*. Paris, Ill, Nov. 12, 93. B.S., Chicago, 19. Asst. plant physiol, Iowa Col, 16-17; asst. physiologist, Md. Exp. Sta, 17-18; asst. plant physiol, Chicago, 19-21; *biochemist, Boyce Thompson Inst*, 21- Sanit. C, U.S.A., 18-19. A.A.; Bot. Soc; Chem. Soc; Torrey Bot. Club. Effects of light and carbon dioxide pressure on growth of plants.

Arthur, Prof. J(oseph) **C**(harles), Lafayette, Ind. **Botany*. Lowville, N. Y., Jan. 11, 50. B.S., Iowa Col, 72, M.S., 77, Sc.D., 20; Hopkins, 78-79; Harvard, 79; Sc.D., Cornell, 86; Bonn, 96; LL.D., Iowa, 16. Instr. bot, Minnesota and Wisconsin, 79-82; botanist, N. Y. Exp. Sta, Geneva, 84-87; prof. bot, *Purdue*, 87-88, veg. physiol. and path. and botanist, Exp. Sta, 88-15, *emer. prof. bot*, 15- Speaker, Int. Cong. Arts and Sciences, St. Louis, 04. A.A. (sec'y, F, 86, asst. gen. sec'y, 87, v. pres, 95); Soc. Nat; Bot. Soc. (pres, 02, 19); Philos. Soc; Am. Acad; Ind. Acad. (pres, 93); Iowa Acad; Phila. Acad; Torrey Bot. Club; Bot. Gesell; Russian Bot. Soc; Cong. Int. Bot. (mem. committee nom. crypt, 05-10). Development of plant rusts; the connection of aecial and telial stages of heteroecismal Uredinales.

Arthur, M(ary) **G**race, 476 Laurel Ave, St. Paul, Minn. *Psychology*. St. Paul, May 22, 83. B.S., Hamline, 17; A.M., Minnesota, 19, Ph.D., 24. Psychol. examiner and teacher, pub. schools, Minn, 17-20, psychologist, 20-23; teaching fellow psychol, Minnesota, 23-24; *psychologist, Child Guidance Clinic, St. Paul*, 24- Psychol. Ass; Nat. Soc. Study Educ. Relation of mental age to elementary school achievement; construction of point scales for the measurement of intelligence; relation of intelligence quotient to position in family; construction of tests for word blindness; stability of the intelligence quotient.

Artschwager, Dr. Ernst, U. S. Department of Agriculture, Washington, D. C. *Botany*. Linkuhnen, Germany, July 9, 89. B.S., Colorado, 15; Ph.D., Cornell, 18. Sci. asst, bur. plant indust, U. S. Dept. Agr, 16-17; asst. plant physiol, Cornell, 18-20; *assoc. pathologist, bur. plant indust, U. S. Dept. Agr*, 20- Collaborator, bur. plant indust, U. S. Dept. Agr, 17-20. Bot. Soc; Phytopath. Soc. Plant anatomy, physiology and pathology.

Ashbrook, Dr. Donald S(inclair), 2404 Willard St, Wilmington, Del. *Chemistry*. Philadelphia, Pa., 80. B.S., Pennsylvania, 02, Ph.D., 04.

Gen. supt, Joseph Bancroft and Sons Co, Del, 04- A.A.; Chem. Soc; Ass. Textile Chem. and Colorists; British Textile Inst; British Soc. Dyers and Colorists. Textile chemistry.

Ashby, Dr. Winifred (Mayer), St. Elizabeth's Hospital, Washington, D. C. *Bacteriology, Immunology*. London, Eng, 79. B.Sc., Chicago, 03; M.Sc., Washington (St. Louis), 05; Ph.D., Minnesota, 21. Research, div. exp. bacter. Mayo Foundation, Minnesota, 21-23, div. med, Mayo Clinic, 23-24; *med. bacteriologist, St. Elizabeth's Hosp*, 24- Soc. Bact; Soc. Immunol; Wash. Psychopath. Soc. Physiology of the blood; blood destruction; the mechanism of variation in fragility of blood corpuscles; blood volume; fluctuations in metabolism.

Ashcraft, Prof. T(homas) **B**(ryce), 34 Pleasant St, Waterville, Maine. *Mathematics*. Marshville, N. C., Nov. 27, 82. A.B., Wake Forest, 06; Ph.D., Hopkins, 11. Prin, Wingate High Sch, 06-07; assoc. prof. math, Colby, 11-13, *prof*, 13- Math. Soc; Math. Ass. Quadratic involutions on the plane rational quartic.

Ashdown, Dr. Avery A(llen), Massachusetts Institute of Technology, Cambridge, Mass. *Chemistry*. North Collins, N. Y., Oct. 28, 91. A.B., Rochester, 14, A.M., 16; Grasselli fellow, Mass. Inst. Tech, 23-24, Ph.D., 24. Lab. asst. biol, Rochester, 15-16, instr. chem, 16-20; asst. org. chem, *Mass. Inst. Tech*, 21-23, Moore fellow, 24-25, *research assoc. org. chem*, 25- Acting city chemist, Rochester, 19-20. A.A.; Chem. Soc; Hist. Sci. Soc; Chem. Gesell. Organic chemistry.

Ashe, W(illiam) **W**(illard), 1512 Park Road, Washington, D. C. *Forestry*. Raleigh, N. C., June 4, 77. B.Litt, North Carolina, 91; M.S., Cornell, 92. Forester, N. C; *asst. dist. forester, U. S. Forest Service*. Sec'y, Nat. Forest Reservation Commission. Soc. Foresters (v. pres, 19); Torrey Bot. Club. Silviculture; dendrology; forest engineering and ecology; trees and shrubs of eastern North America; forest types of the Appalachians, southeastern Coastal Plain, White Mountains and Great Lakes region; protection of reservoirs; logging technique and costs; sawmill efficiency; lumber grades.

Ashford, Col. Bailey K(elly), Columbia University, New York, N. Y. *Medicine*. Washington, D. C., Sept. 18, 73. George Washington, 91-93; M.D., Georgetown, 96, Sc.D., 11. *Army med. officer*, 97-; *prof. trop. med. and mycol, Columbia*. Rockefeller Foundation med. exped. to Brazil, 16; in charge battle training of med. officers, U.S.A., 17-18; trop. diseases prevention committee, London; consulting ed, 'Med. and Surg. Hist. of the World War,' 20. U. S. delegate, Int. Cong. Indust. and Alimentary Hygiene, Brussels, 11. D.S. medal. Am. Physicians; fel. Col. Physicians; Soc. Clin. Invest; Soc. Trop. Med. (pres, 17); fel. Col. Surg; P. R. Med. Ass. (pres, 15); fel. Royal Soc. Trop. Med. Tropical diseases; mycology; public health; application of medical science to war.

Ashhurst, Dr. Astley P(aston) **C**(ooper), 257 S. 16th St, Philadelphia, Pa. *Surgery*. Philadelphia, Aug. 21, 76. A.B., Pennsylvania, 96,

- M.D. 00. *Surgeon, Episcopal Hosp, 15-*; *Orthopedic Hosp, 14-*; prosector, *Pennsylvania, 04-11*, instr, 11-20, assoc, 20-23, *prof. clin. surg, 23-* Col, M.R.C., 17-18. Gross prize, Phila. Acad. Surg, 10. Col. Surg; Surg. Ass; Soc. Int. de Chirurg. Enlargement of the prostate; fractures; upper abdomen; perforation of intestines and gall-bladder in typhoid fever; tetanus; empyema; birth injuries of shoulder; tumors and diseases of bone; surgery in malignant diseases.
- Ashley, Prof. Geo(rge) H(all)**, The Capitol, Harrisburg, Pa. **Geology*. Rochester, N. Y., Aug. 9, 66. M.E., Cornell, 89; A.M., Stanford, 92, Ph.D., 94. Paleontologist, Ward's Nat. Science Estab, Rochester, N. Y., 89-91; asst. geologist, Ark. Geol. Surv, 91-93; teacher, high schools, Calif, 94-96; asst. state geologist, Ind, 96-00; prof. biol. and geol. Col. of Charleston, 00-03; asst. geologist, U. S. Geol. Surv, 01-05, geologist, 05-12, administrative geologist, 12-19; *state geologist, Pa, 19-* Prof. pharmacog, med. col, State of S. C., 01-03; acting prof, Vanderbilt, 17; state geologist, Tenn, 10-12. Mem. juries awards, S. C. I. and W. I. Expos, 02. A.A; Geol. Soc; Min. Eng; Social Sci. Ass; Wash. Geol. Soc; cor. mem. Ind. Acad; hon. mem. S. C. Pharmaceut. Ass; hon. mem. Tenn. Acad. Geology of coal; sources of power.
- Ashley, Prof. R(aymond) Harman**, Tufts College, Boston, Mass. *Chemistry*. London, Eng, March 29, 81. B.S., Rutgers, 03, M.S., 06; A.M., Yale, 05, Ph.D., 06. Instr. and asst. prof. chem, Maine, 13-16; *prof. and head dept, premed. sch, Tufts, 16-* Lecturer, Forsyth Dental Infirmary. Chem. Soc. Analytical chemistry; chemical calculations.
- Ashman, Dr. G(eorge) C(romwell)**, Bradley Polytechnic Institute, Peoria, Ill. *Chemistry*. Frankfort, Ind, Aug. 19, 69. B.S., Wabash, 95, A.M., 06; M.S., Chicago, 05, Ph.D., 08. Asst. chem, Wabash, 95-96; *instr. physics and chem, high sch, Ind, 96-01*; Ill. State Nor. Sch, 01; *chem, Bradley Polytech. Inst, 02-* A.A; Chem. Soc; Cent. Ass. Sci. and Math. Teachers; Ind. Acad; Ill. Acad. Determination of the radium emanation in the atmosphere; preparation of urano-uranic oxid, and a standard of activity; the specific radio-activity of thorium and its products.
- Ashman, Prof. Richard**, 376 Millaudon St, New Orleans, La. *Physiology*. Philipsburg, Pa, Aug. 13, 90. B.Litt, Rutgers, 15; M.S., Tulane, 20, Ph.D., 25. Asst. zool, Rutgers, 16-17; *physiol, Illinois, 17-18*; instr, *Tulane, 18-24*, asst. prof, 24- A.A. Conductivity and rhythm production in the heart; electrocardiography.
- Ashton, Prof. C(harles) H(amilton)**, 1200 Ohio St, Lawrence, Kans. *Mathematics*. Cambridge, N. Y., Aug. 12, 66. A.B., Union, 87, A.M., 90, Sc.D., 22; A.M., Harvard, 93; Ph.D., Munich, 09. Teacher, private sch, 87-89; *prof. math, State Nor. Sch, Mansfield, Pa, 89-92*; instr, Harvard, 94-03; asst. prof, *Kansas, 03-10*, assoc. prof, 10-15, *prof, 15-* Math. Soc; Math. Ass. Theory of functions of complex variables.
- Assmuth, Rev. Joseph, S.J.**, Fordham University, New York, N. Y. *Biology*. Bockwitz, Germany, Feb. 21, 71. Leipzig, 06; Ph.D., Berlin, 10. Prof. zool, Bombay Univ, India, 10-16; *biol, Fordham, 24-* Micros. Soc; N. Y. Zool. Soc; Bombay Soc. Nat. Hist. (managing committee, 11-15); Zool. Gesell; Entom. Gesell. Termites; Termitophilous insects.
- Atack, Dr. F(rederick) W(illiam)**, Dye and Chemical Co, Kingston, Ont, Can. *Chemistry*. Boston, Lincolnshire, Eng, Jan. 3, 92. B.Sc., London, 12; M.Sc. Tech, Manchester, 12, D.Sc., 21. Staff, faculty technol, Manchester, 11-15; director research, British Alizarine Co, 19-21; v. pres, E. C. Klipstein Co, New York, 22-23; *pres, Dye and Chem. Co. of Can, 23-*; *pres, Indust. Processes Development, Ltd, 26-* Consulting chemist, Toronto. Chem. Soc; fel. Can. Inst. Chem; London Chem. Soc; Chem. Gesell; Soc. chim. de France. Dyestuffs; organic and analytical chemistry.
- Atchison, Prof. Clyde S**, Washington and Jefferson College, Washington, Pa. *Mathematics*. Carnegie, Pa, June 28, 82. A.B., Westminster (Pa), 03; fellow, Hopkins, 06-07, Ph.D., 07. Instr. math, Williams, 07-11, asst. prof, 11-12; *prof. and head dept, Washington and Jefferson, 12-* Summers, prof, West Virginia, 22, 24; eng. dept, Erie Ry, 05, 06, 11, 12; auditor, U. S. Shipping Board, 18. A.A; Math. Soc; Math. Ass. Geometry; rational curves.
- Atchley, Dr. Dana W(inslow)**, 6 Ormond Place, Rye, N. Y. *Medicine*. Chester, Conn, July 8, 92. B.S., Chicago; M.D., Hopkins. Instr. med, Hopkins, 19-21, assoc, 21-25; *asst. prof, col. physicians and surg, Columbia, 25-* A.A; Am. Med. Ass; Soc. Clin. Invest; Soc. Exp. Biol; Harvey Soc. Physiological chemistry; chemical problems in internal medicine; edema; nephritis.
- Atkeson, Prof. T(homas) C(lark)**, 1831 Lamont St, N.W., Washington, D. C. *Agriculture*. Buffalo, W. Va, Feb. 15, 52. LL.B., Kentucky, 74; Ph.D., Morris Harvey, 97. Prof. agr, West Virginia, 91-93; pres, Morris Harvey, 93-97; prof. agr. and dean col. agr, *West Virginia, 97-10*, prof. *animal husbandry, 10-14*, emer. prof, 14-; *Washington representative, Nat. Grange Ass, 19-* Ed, 'Ashland (Ky) Jour'; 'Big Sandy Herald'; 'W. Va. Farmer.' Soils; crop production; animal husbandry; animal feeding; wool production.
- Atkinson, Prof. A(lbert) A(lgernon)**, Athens, Ohio. *Physics, Electrical engineering*. Nelsonville, Ohio, March 7, 67. B.S., Ohio (Athens), 91, M.S., 95; Michigan, 92-93. Supt. schools, Ohio, 91-92; assoc. prof. physics, Ohio (Athens), 93-95, *prof. physics and elec. eng, 95-* A.A; Physical Soc; Elec. Eng; Ohio Acad. The relative actinic power of the spectrum colors; surface tension and osmotic pressure; deposition of copper and silver; elongation of nickel in transverse magnetic fields.
- Atkinson, Pres. Alfred**, Montana State College, Bozeman, Mont. *Agriculture*. Seaforth, Ont, Can, Oct. 6, 79. Ont. Agr. Col, 99-02; B.S.A., Iowa Col, 04, Sc.D., 20; M.S., Cornell, 12. Asst. agron, Iowa Exp. Sta, 02-04; prof, *Mont. Col, 04-19*, pres, 19- State food administrator, Mont, 17-19. A.A; Soc. Agron; Genetic Ass.

Dry farming; soil moisture control and nitrate formations; crops.

Atkinson, Dr. Daniel (Armstrong), 132 Oakwood Ave, West View, Pittsburgh, Pa. *Zoology*. Cincinnati, Ohio, Aug. 7, 75. M.D, Pittsburgh, 01. A.A; Pittsburgh Acad. Geographic distribution.

Atkinson, Dr. Elizabeth A(llen), 4106 Locust St, Philadelphia, Pa. *Chemistry, Geology*. Wilmington, Del, Oct. 7, 68. Certificate in chem, Pennsylvania, 95, Ph.D, 98. Asst. demonstrator chem, Woman's Med. Col. of Pa, 99-02; treas, Phila. Clin. Lab, 01-07. Chem. Soc. Metal separation by means of hydrobromic acid gas; indium in tungsten minerals.

Atkinson, F(rederick) C(ornelius), 213 E. South St, Indianapolis, Ind. *Chemistry*. Newton, Ala, Jan. 13, 81. B.S, Ala. Polytech, 02, M.S, 03. S. C. Exp. Sta, 05; asst, district, assoc. chemist and chemist, South. Cotton Oil Co. and other companies, 03-12; *chief chemist, Am. Hominy Co, 13-*; consulting chemist and engineer. Chem. Soc. (v. pres, Ind. sect, 13, pres, 16-18, councilor, 15, 16, 19, 20); Soc. Chem. Indust; Electrochem. Soc; Oil Chemists Soc; Ass. Eng. (director, Indianapolis chap, 23); Mech. Eng. (director, Ind. sect, 25, v. pres, Indianapolis sect, 26); Ind. Eng. Soc. (director, 24); Sciencetech Club (pres, 21, director, 22-26); Ass. chim. de Sucre et de Dist. de France; Chem. Gesell. Biological and industrial chemistry; cereals and cereal products; destructive distillation; leather; nitrocellulose lacquers; incandescent lamps; colors.

Atkinson, Dr. H(arry) V(ictor), University of Iowa, Iowa City, Iowa. *Pharmacology*. Van Wert, Ohio, Feb. 12, 87. B.S, Ohio State, 11; Ph.D, Illinois, 22. Commercial chemist, 11-14; instr. physiol. chem, med. sch, Northwestern, 14-17; physiol. med. col, Cornell, 17-18; *pharmacol, col. med, Illinois, 20-22*; assoc. prof, sch. med, Texas, 22-24, prof, 24-26; *assoc. prof, col. med, Iowa, 26-* U.S.A, 18-19. Soc. Pharmacol. Changes in the chemical composition of blood under the influence of drugs; toxicity of alcohols; gastro-intestinal movements.

Atkinson, James (Purviance), 203 E. 112th St, New York, N. Y. *Chemistry*. Elizabeth, N. J, Jan. 3, 70. A.B, Princeton, 92, M.S, 96. Asst. miner. and anal. chem, Princeton, 92-96; asst, chem. research lab, Dept. Health, New York, 96-04, chief chemist, 04; *consulting expert, blood stains and toxicol.* Adjunct prof. diseases of digestion, Fordham, 10. Soc. Biol. Chem; Soc. Exp. Biol. Experimental immunity; toxicology of foods and drugs.

Atkinson, R(alph) W(aldo), Standard Underground Cable Co, Perth Amboy, N. J. *Electrical engineering*. Smithland, Iowa, June 16, 87. B.S, Iowa Col, 06, E.E, 11. Eng. apprentice, Westinghouse Elec. and Mfg. Co, 06-08; *Standard Underground Cable Co, 08-*, chief elec. engineer. Elec. Eng. (sec'y, Pittsburgh sect, 11, mem, exec. committee, 12). Current carrying capacity of electric power cables; properties of insulating materials; dielectric field in electric power cables.

Atkisson, Major Earl J(ames), U.S.A, Edgewood Arsenal, Md. *Chemistry, Engineering*.

Broken Bow, Nebr, Aug. 12, 86. Grad, U. S. Mil. Acad, 08; M.E, Cornell, 11; grad, Army Eng. Sch, 12. Director elec. and mech. eng, Army Eng. Sch, 13-15; supt, Gatun Locks, Gatun, C. Z, 17; commanding officer, first gas regiment, 17-19; with Peace Commission and div. engineer, First U. S. Div, 19; senior instr. eng, The Inf. Sch, 19-20; commanding officer, Edgewood Arsenal, 20-23; asst. mil. attaché, Am. Embassy, London, 23-25; *staff, headquarters, Ninth Corps Area, Presidio of San Francisco, 25-* D.S. medal. A.A; Elec. Eng; Chem. Soc.

Attix, Prof. J(ames) C(onner), 2355 N. 13th St, Philadelphia, Pa. *Chemistry, Metallurgy*. Near Kenton, Del, Feb. 28, 70. B.S, Lafayette, 95, M.S, 98; D.D.S, Medico-Chirurg. Col. Phila, 01, M.D, 04; Pharm.D, Temple, 12. Asst. chem, Lafayette; 95-96; Pa. State, 96; chemist, various iron and steel works, 96-98; asst. chem. and metal, Medico-Chirurg. Col. Phila, 98-01; supt, St. Ignace furnace, Mich, and Goshen furnace, Va, 01-03; *prof. chem. and toxicol, Temple, 04-* A.A; Chem. Soc; Am. Med. Ass; Agr. Chem; Phila. Röntgen Ray Soc; Phila. Clin. Soc. Volatile combustible matter in coal and coke; poisons; poisoning by permanganate of potash; utilization of fine ore and flue dust in the blast furnace; hippuric acid secreted and excreted in certain infections; blood pressure instruments; diabetes; ivy poisoning; administration of salicylates.

Atwater, Miss Helen W(oodard), Mills Building, Washington, D. C. *Home economics*. Somerville, Mass, May 29, 76. B.L, Smith, 97. Personal ed. asst. to Prof. W. O. Atwater, Wesleyan, 97-04; expert, scientific asst. and in charge ed. work, office home econ, U. S. Dept. Agr, 09-23; *ed, 'Jour. Home Econ,' 23-* Exec. chairman, food production and home econ. dept, woman's committee, C. N. D. Home Econ. Ass. Nutrition; economics of clothing, household equipment and management.

Atwell, Prof. C(harles) B(each), 1938 Sherman Ave, Evanston, Ill. *Botany*. Theresa, N. Y, April 11, 55. Ph.B, Syracuse, 79, Ph.M, 82; Harvard, 87; Freiburg, 91. Asst. prin, acad, N. Y, 79-80; instr, acad. dept, Northwestern, 80-82; prin, pub. schools, Ill, 82-84; instr, acad. dept, Northwestern, 84-87, *Northwestern, 87-91, prof. biol, 91-94, bot, 94-* Registrar, col. dept, Northwestern, 90-02; city forester, Evanston, Ill. Bot. Soc; Ill. Acad. Algae; chlorophyll; algae of Cook County, Illinois; development of *Lathyrus maritimus*; embryology of Ribes; dune plants; history of botany.

Atwell, Prof. Wayne J(ason), 24 High St, Buffalo, N. Y. *Anatomy*. Fairfield, Nebr, Oct. 19, 89. A.B, Nebr. Wesleyan, 11; A.M, Michigan, 15, Ph.D, 17. Research asst. histol, Michigan, 13-14, instr. anat, 14-18; *prof, Buffalo, 18-* Assoc. ed, 'Endocrinology.' Ass. Anat; Ass. Study Int. Secretions; Soc. Exp. Biol. Development and physiology of the hypophysis; human embryology; kidney function.

Atwood, Dr. Charles Edwin, 2 E. 45th St, New York, N. Y. *Medicine*. Shoreham, Vt, July 21, 61. B.S, Cornell, 80; M.D, Univ. and

Bellevue Hosp. Med. Col, 83; Vienna. Physician, Hudson River State Hosp, 85-87; Utica State Hosp, 87-92; Bloomingdale Hosp, 92-05; clin. asst. neur, Columbia, 92-13. Assoc. ed, 'Jour. Insanity,' 87-92; visiting neurologist, N. Y. Hosp. and Schools for Children, 07-13; asst. neurologist, Hosp. Nervous Diseases, 08-13. Am. Med. Ass; Psychiat. Ass; Ass. Research Nervous and Mental Diseases; N. Y. Acad. Med; N. Y. Neur. Soc. (sec'y). Insanity; neurology.

Atwood, Dr. George G(ray), 865 Myrtle Ave, Albany, N. Y. *Botany*. Springfield, Mass, March 2, 47. Sc.D, Syracuse, 14. *Chief bur. plant indust*, N. Y. State Dept. Agr, 00-A.A; Ass. Econ. Entom; N. Y. Forestry Ass. (v. pres). Economic entomology; plant pathology; forestry; gipsy and brown tail moths; blister rust; chestnut fungi; trees and shrubs for parks and lawns; orchard propagation.

Atwood, Horace, Morgantown, W. Va. *Agriculture*. Summer Hill, N. Y, Aug. 1, 68. B.S.A, Cornell, 91, M.S.A, 97. Asst. agr, W. Va. Exp. Sta, 97-14, *chief poultry research dept*, 18-Poultry Ass; Int. Ass. Poultry Husbandry. Feeding; soil fertility; breeding; mortality of incubator chicks.

Atwood, Dr. Wallace W(alter), Clark University, Worcester, Mass. **Physical geography*. Chicago, Ill, Oct. 1, 72. B.S, Chicago, 97, Ph.D, 03. Instr. physiog, Lewis Inst, Chicago, 97-99; geol, Chicago Inst, 99-00, director, 00; asst. physiog, Chicago, 01-02, assoc, 02-03, instr. geol, 03-08, asst. prof. physiog. and gen. geol, 08-10, assoc. prof, 10-13; prof. physiog, Harvard, 13-20; *pres. and prof. physical geog*, Clark, 20- Asst. geologist, U. S. Geol. Surv, 01-09; geologist, 09- Trustee, Children's Museum, Boston, 14; director, Children's Museum, Cambridge, 15- A.A; Geol. Soc; Ass. Geog; Am. Acad; Ill. Acad; Chicago Acad; Chicago Geog. Soc. Glaciation; ancient glaciers among the Rocky Mountains; structural and economic geology; coal resources of Alaska; physiography of San Juan Mountains; the new geography; series of wall maps.

Atwood, Col. William G(reene), 75 West St, New York, N. Y. *Engineering*. Fredonia, N. Y, Aug. 4, 72. C.E, Cornell, 92. Chem. engineer, L. E. and W. Ry, 09-14; asst. dist. engineer, bur. valuation, Interstate Commerce Commission, 14-17; manager rail transportation, Am. Relief Administration, Europe, and Am. transportation rep, Supreme Econ. Council, Paris, 19; tech. adviser, Kingdom of Serbs, Croats and Slovenes, 20; director committee on marine piling investigations, Nat. Research Council, 22-24; *consulting engineer*, 24-Lecturer, Cornell. Ry. explorer and builder, 97-09. Major, lieut. col. and col, C.Eng, 17-19, U.S.A, 18- Civil Eng; Ry. Eng; Mil. Eng; Wood Preservers Ass. Wood preservation; cement uses; marine structures; rail and water terminals.

Atwood, Prof. William Henry, Wisconsin State Normal School, Milwaukee, Wis. *Biology*. Grand View, S. Dak, March 21, 86. A.B, Hope, 12; A.M, Washington (St. Louis), 16; M.S, Wisconsin, 16. Teacher, high sch, Ill, 12-17;

prof. science, Wis. State Nor. Sch, 17- Marquette Dent. Col, 19-22. Cent. Ass. Sci. and Math. (chairman, gen. science sect, 26). Civic and economic biology; comparative vertebrate dissection; the anatomy of snakes.

Atwood, Prof. W(infred) M(cKenzie), 214 N. Seventh St, Corvallis, Oregon. *Botany*. Aurelia, Iowa, July 25, 83. A.B, Cornell (Iowa), 07, A.M, 10; M.S, Chicago, 11, fellow, 12-13, Ph.D, 13. *Prof. plant physiol*, Oregon Col, 13-A.A; Bot. Soc. Delay of germination of seeds; respiration of fruits.

Aub, Dr. Joseph C(harles), Massachusetts General Hospital, Boston, Mass. *Medicine*. Cincinnati, Ohio, May 13, 90. A.B, Harvard, 11, M.D, 16. Intern, Mass. Gen. Hosp, 14-15; asst. physician, Russell Sage Inst. Path, 15-16; res. physician, Mass. Gen. Hosp, 16-17; instr. physiol, *Harvard Med. Sch*, 19-20, *asst. prof*, 20-24, *med*, 24- Assoc. physician, Mass. Gen. Hosp, 23- Physiol. Soc; Am. Med. Ass; assoc. Am. Physicians; Soc. Endocrin; Soc. Clin. Invest. Clinical medicine; metabolism; glands of internal secretion; inorganic salts.

Auchincloss, William S(tuart), Atlantic Highlands, N. J. *Engineering*. New York, N. Y, March 19, 42. C.E, Rensselaer, 62. Civil engineer, A. and G. W. Ry, 64; U. S. commissioner, Paris Expos, 67; ship builder and car manufacturer, 69-79; commission merchant, 79-95. A.A; Civil Eng; Mech. Eng; Phila. Eng. Club; Inst. Braziliera; British Ass. War-vessel casemates; indicators for elevators; axle-boxes and trucks; thread spoolers; averaging instruments; link and valve motions; laws of rainfall.

Auchter, Prof. Eugene C(urtis), College of Agriculture, College Park, Md. *Horticulture*. Elmgrove, N. Y, Sept. 14, 89. B.S.A, Cornell, 12, M.S, 18, Ph.D, 23. Asst. pomol, Cornell, 11; instr. hort. and asst. horticulturist, West Virginia, 12-14, asst. prof. hort, 14-17, assoc. prof, 18; *prof. and head dept, Maryland, and horticulturist*, Exp. Sta, 18- A.A; Soc. Hort. Sci; Pomol. Soc. Orchard survey; apple and peach culture; pruning; fertilization of orchards; fruit pollination; fruit spur growth; biennial bearing of apple trees.

Auchy, George, 3309 Disston St, Philadelphia, Pa. *Chemistry*. Pottstown, Pa, April 23, 62. Lafayette, 78-82. Chemist, Durham Iron Works, 82-86; Nashua Iron and Steel Co, 94-97; Keystone Saw Works, 97-11; *private research political econ*, 11- Chemical analysis of iron and steel; properties of iron and steel; industrial depressions.

Auer, Dr. John, St. Louis University School of Medicine, St. Louis, Mo. **Physiology, Pharmacology*. Rochester, N. Y, March 30, 75. B.S, Michigan, 98; M.D, Hopkins, 02. Fellow, Rockefeller Inst, 03-05, asst, 05-06; instr. physiol, Harvard Med. Sch, 06-07; assoc. mem, Rockefeller Inst, 08-21; *prof. pharmacol. and director dept, sch. med*, St. Louis, 21- House officer, Hopkins Hosp, 02-03. Major, M.R.C, 17-22. A.A; Am. Physicians; Physiol. Soc; Soc. Pharmacol. (sec'y, 12-17, pres, 24-); Soc. Exp. Biol; Harvey Soc; St. Louis Acad. Anaphylaxis; edema; motor phenomena of the

gastro-intestinal tract; respiration; functional effects of epinephrin, magnesium salts, antiseptics and war gases; dyschiria; muscle, connective tissue contraction.

- Augustine, Prof. D(onald) L(eslie)**, 207 Audubon Road, Boston, Mass. *Helminthology*. Kason, Minn., Jan. 1, 95. B.S., Macalester, 18; Sc.D., Hopkins, 23. Adjunct prof. biol., Macalester, 19-20; asst. helminthol., Hopkins, 20-23; director field hookworm research lab, Int. Health Board, Rockefeller Foundation, Andalusia, Ala., 23-24; instr. *helminthol.*, *Harvard Med. Sch.*, 24-25, asst. prof., 25- Hopkins exped, study of hookworm disease, Trinidad, 21, Porto Rico, 22. A.A.; Soc. Parasitol. Control of hookworm disease; prenatal infestation with parasitic worms.
- Ault, J(ames) P(ercy)**, 36th St. and Broad Branch Road, Washington, D. C. *Physics*. Olathe, Kans., Oct. 29, 81. A.B., Baker, 04; A.M., Columbia, 09. Magnetic observer, dept. *terrestrial magnetism*, *Carnegie Institution*, 04-09, magnetician and commander, 09-17, chief observer, 17-18, commander and chief sect. *ocean work*, 19- Magnetic surv., West Indies and Panama, 05; Pacific Ocean, 05; Mex., 06-07; Can., 08; Peru, Bolivia and Chile, 12; N. Atlantic and Arctic Oceans, 14; Atlantic, Pacific and South. Oceans, 15-17; Pacific and Indian Oceans, 19-21; in charge eclipse, magnetic and elec. expeditions, California, 23, Long Island, 25. Chairman sect. *oceanog.*, *Geophys. Union*, 22-24; advisory committee, Maury U. S. Naval Oceanog. Research, 24- A.A.; Am. Geog. Soc.; Wash. Acad.; Wash. Philos. Soc. (sec'y, 22-24, v. pres, 24-26, pres, 27). *Terrestrial magnetism*; navigation; atmospheric electricity.
- Aungst, Prof. R(euben) H(arper)**, Fern St. and Tremont Ave, St. Albans, L. I. *Chemistry*. Suedberg, Pa., April 17, 79. B.S., Pa. State, 05, M.S., 19. Instr. *chem.*, Pratt Inst., 06-14; prof., *Adelphi*, 14-
- Austin, Prof. Arthur Everett**, Tufts College Medical School, Boston, Mass. *Biochemistry*. Boston, April 11, 61. A.B., Bowdoin, 83, A.M., 87; M.D., Harvard, 87. Prof. med. chem. and toxicol., med. sch., Tufts, 93-06; assoc. prof. *physiol. chem.*, dept. med., Virginia, 06-07; prof. *chem. and toxicol.*, med. branch, Texas, 08; asst. prof. *clin. med.*, med. sch., Tufts. Col. Physicians; Gastro-Enterol. Ass; Soc. Biol. Chem. Diseases of the digestive tract; diathetrapy.
- Austin, Prof. C(lift) F(ay)**, 665 Kalamazoo St, South Haven, Mich. *Horticulture*. South Haven, Oct. 23, 73. B.S., Mich. State Col., 99. Asst. horticulturist, Ala. Exp. Sta., 00-02; assoc. prof. hort., Maryland, 02-04; chief dept. hort., Estacion Central Agron., Cuba, 04-09; asst. administrator, Cent. Nueva Luisa Sugar Estate, 09. A.A.; Soc. Hort. Sci.; Pomol. Soc.; Genetic Ass. Fruit and vegetable culture.
- Austin, Prof. F(rank) E(ugene)**, Box 441, Hanover, N. H. *Electrical engineering*. Amesbury, Mass., 73. B.S., Dartmouth, 95, fellow, 96-97, E.E., 15. Prof. *elec. eng.*, *Dartmouth*, 02-, mech., Thayer Sch., 18; physics, *Norwich*, 06-08, *elec. eng.*, 08-14, head dept., 14- A.A;
- Eng. Educ. Hydraulics; mechanical engineering; automatic mapper; transformers; alternating currents; direct currents; induction coils; battery engineering; magnetism.
- Austin, Dr. J(ames) Harold**, University of Pennsylvania, Philadelphia, Pa. *Medicine*. Philadelphia, Sept. 22, 83. B.S., Pennsylvania, 05, M.D., 08. Assoc. research med. sch. med., Pennsylvania, 11-14, assoc. med. and asst. physician, Univ. Hosp., 12-17; asst., Rockefeller Inst., 19-20, assoc., 20-21; prof. *research med. sch. med.*, *Pennsylvania*, 22- A.A.; Am. Med. Ass; Am. Physicians; Ass. Path. and Bact; Soc. Exp. Biol.; Soc. Clin. Invest. (sec'y, 24-26); Phila. Col. Physicians. Nephritis; physiology of the spleen; acid base equilibrium of blood.
- Austin, L(eonard) S(trong)**, 1627 Ingraham St, Los Angeles, Calif. *Metallurgy*. Stratford, Conn., Feb. 26, 46. Ph.B., Yale, 68. Mech. engineer, 68-71; chemist, exploration in Patagonia, 77-79; practising metallurgist, 81-02; prof. in charge dept. metal. and ore dressing, Mich. Col. Mines, 03-09; *mining and metal. engineer*, 90- Min. and Metal. Inst. Metallurgy of the common metals.
- Austin, Prof. Louis W(inslow)**, Bureau of Standards, Washington, D. C. *Physics*. Orwell, Vt., Oct. 30, 67. A.B., Middlebury, 89, Sc.D., 20; Strassburg, 89-90, Ph.D., 93; fellow, Clark, 90-91. Instr. and asst. prof. physics, Wisconsin, 93-01; on staff, Physik-Tech. Reichsanstalt, Charlottenburg, 02-04; *Bur. Standards*, 04-, head, U. S. Naval radio research lab, 08-23, lab. for special radio transmission research, 23- Nat. Research Council; delegate, Int. Radio Conf. London, 12; tech. advisory committee, Conf. for the Limitation of Armaments, Washington, 21; U. S. delegate, Int. Radio Tech. Conf. Paris, 21; delegate, Int. Research Council, Brussels, 22. Physical Soc; Radio Eng. (pres, 14); Wash. Acad.; Wash. Philos. Soc; Soc. de Physique; Physik. Gesell; Int. Union Sci. Radio (v. pres, 20-). Physical measurements; elasticity in metals; magnetostriction discharge of electricity through gases; specific heat of gases at high temperatures and in radiotelegraphy; transmission formula; high frequency measurements; atmospheric disturbances.
- Austin, Dr. Richard S(isson)**, Cincinnati General Hospital, Cincinnati, Ohio. *Pathology*. Providence, R. I., April 18, 85. Ph.B., Brown, 07; M.D., Harvard, 11. Asst. path., Boston City Hosp., 11-13; instr. bacter., Harvard Med. Sch., 13-15; asst. prof. path., Rush Med. Col. and pathologist, Children's Mem. Hosp., 15-20; prof. path., col. med., Cincinnati, and pathologist, Cincinnati Gen. Hosp., 20- A.A.; Ass. Path. and Bact; Soc. Clin. Path; Am. Med. Ass; Soc. Exp. Path; Chicago Path. Soc; Chicago Inst. Med. Bacteriology; tuberculosis in children; experimental tuberculosis; hereditary syphilis.
- Austrian, Dr. Charles Robert**, 1417 Eutaw Place, Baltimore, Md. *Medicine*. Baltimore, 85. A.B., Hopkins, 04, M.D., 09. Asst. instr. and assoc. med., Hopkins, 10-14, assoc. *clin. med.*, 15-23, assoc. prof., 23- A.A.; Ass. Path. and Bact; Soc. Clin. Invest. Bacteriology; immu-

nology; internal medicine; infectious diseases; tuberculosis; etiology of angio-neurotic edema.

Avent, Prof. Jos(eph) E(mory), University of Tennessee, Memphis, Tenn. *Educational psychology*. Wake Co, N. C. 78. A.B., North Carolina, 01; A.M., Columbia, 13, Ph.D., 25. Supt, city schools, N. C., 01-12; prof. educ, Va. State Teachers Col, 13-21; pres, Martha Washington, 22-23; *prof. educ. psychol. Tennessee*, 23-Summer sessions in state teachers colleges.

Averitt, S(axe) D(abney), 304 E. Maxwell St, Lexington, Ky. *Chemistry*. Caledonia, Ky, July 31, 71. B.S., Bethel (Ky), 93; M.S., Kentucky, 00. Teacher, private schools, 95-97; instr, Decatur Baptist Col, 00-01; asst. chemist, *Ky. Exp. Sta.*, 01-06, *chemist*, 06-A.A.; Chem. Soc. (sec'y, Lexington sect, 21, pres, 22); Ky. Acad. Soils; insecticides; waters.

Avers, H(enry) G(odfrey), U. S. Coast and Geodetic Survey, Washington, D. C. *Geodesy*. Elmore, Ohio, March 6, 86. A.B., George Washington, 13. Geod. computer, *U. S. Coast and Geod. Surv.*, 08-24, *chief mathematician, div. geod.*, 24-A.A.; Math. Ass; Wash. Acad; Wash. Philos. Soc; Wash. Soc. Eng. Precise leveling.

Avery, Dr. Elroy M(cKendree), New Port Richey, Fla. *Physics, Chemistry*. Erie, Mich, July 14, 44. Ph.B., Michigan, 71, Ph.M., 74; Ph.D., Hillsdale, 82, LL.D., 94, D.C.L., 06. Prin, East High Sch. and City Nor. Sch., Cleveland, Ohio, 71-79; mem, Ohio Senate, 92-96; mayor, New Port Richey, 24-25. Founder and pres, Avery Pub. Library. A.A. (sec'y, B, 90); Econ. Ass; Ohio Archeol. and Hist. Soc.

Avery, Prof. George T(rue), 401 E. Laurel St, Fort Collins, Colo. *Psychology*. Georgetown, Colo, April 17, 80. A.B., Colorado, 15; A.M., Harvard, 17; Ph.D., Stanford, 24. Head dept. English, high sch, Colo, 15-17; asst. prof. *educ. and psychol.*, Colo. Agr. Col, 17-19, *assoc. prof.*, 19-Summers, acting assoc. prof, Colorado, 16, 17; director, Colo. Agr. Col, 19-; acting prof, San Jose Teachers Col, 23-24. A.A.; Colo. Sci. Club (sec'y, 18-20, pres, 25). Intelligence tests; reproduction and X-ray studies in guinea pigs; ring dove.

Avery, Dr. Oswald T(heodore), Rockefeller Institute, New York, N. Y. **Bacteriology*. Halifax, N. S., Can. A.B., Colgate, 00; M.D., Columbia, 04. Assoc. director, dept. bact, Hoagland Lab, 07-13; assoc, assoc. mem. and mem, *Rockefeller Inst.*, 13-Ass. Path. and Bact; Soc. Bact; Soc. Exp. Path; Soc. Clin. Invest; Am. Physicians; Harvey Soc; N. Y. Acad. Med. Bacteriology and immunology of infectious diseases.

Avery, Chancellor S(amuel), University of Nebraska, Lincoln, Nebr. **Chemistry*. Bureau Co, Ill, April 19, 65. A.B., Doane, 87, LL.D., 09; Idaho, 09; B.S., Nebraska, 92, A.M., 94; Ph.D., Heidelberg, 96. Instr. chem, Nebraska, 95-97, adjunct prof, 97-99; prof, Idaho, 99-01; agr. chem, *Nebraska*, 02-05, chem. and director chem. lab, 05-06, head prof, 05-08, acting chancellor, 08-09, *chancellor*, 09-Major, C.W.S., 17-18. A.A.; Chem. Soc; Chem. Gesell. Aromatic glutaric acids; determination of

arsenic and iron; prussic acid in sorghum and kaffir corn; extermination of prairie dogs; arsenical insecticides; sulphur and lime in cattle dips; constitution of Paris green and its homologues; action of sodium benzyl cyanid with cinnamic ester; synthesis of certain aromatic succinic acids; nitration of b-p-tolyl-glutaric acid.

Aycock, Dr. W(illiam) L(loyd), University of Vermont, Burlington, Vt. *Medicine*. Georgia, Feb. 25, 89. M.D., Louisville, 14. Instr. bacter, N. Y. Post-Grad. Med. Sch, 15-19; *director research lab, Vt. Dept. Pub. Health*, 19-; *prof. trop. med. col. med.*, Vermont, 20-Assoc, Harvard Med. Sch, 23-; fellow, Hopkins Hosp, 23. Am. Med. Ass; Soc. Bact; Pub. Health Ass. Acute anterior poliomyelitis.

Ayer, Dean Fred(eric) E(ugene), Municipal University of Akron, Akron, Ohio. *Engineering education*. Sheshequin, Pa, Oct. 24, 76. C.E., Lafayette, 00. Draftsman, Pa. Steel Co, 00-02; Am. Bridge Co, Conn, 02-03; chief draftsman, N. J. Bridge Co, 03-04; field draftsman and office engineer, U. S. Reclamation Service, 04-06; instr, asst. prof. and assoc. prof. civil eng. and asst. to dean eng. col, Cincinnati, 06-14; *dean col. eng. and commerce*, Akron, 14-Summers, draftsman, Pa. Steel Co, 98, 99; draftsman and timekeeper, Great Falls Iron Works, Mont, 04. Commission to survey Carnegie Inst. Tech. Civil Eng; Eng. Educ.

Ayer, Dr. James B(ourne), 475 Commonwealth Ave, Boston, Mass. *Medicine*. Boston, Dec. 28, 82. A.B., Harvard, 03, M.D., 07. Prof. neur, Harvard Med. Sch; *neurologist*, Mass. Gen. Hosp. A.A.; Ass. Path. and Bact; Neur. Ass; Am. Med. Ass; Boston Soc. Psychiat. and Neur. Cerebro-spinal fluid.

Ayers, Dr. Howard, Winding Way and Valley Road, Cincinnati, Ohio. **Biology*. Olympia, Wash, May 21, 61. B.S., Harvard, 83; Heidelberg; Strassburg; Ph.D., Freiburg, 86; LL.D., Missouri, 99. Instr. zool, Michigan, 86-87; Harvard and Radcliffe, 87-88; Woods Hole, 89-98; director, Allis Lake Lab, Milwaukee, 89-94; prof. biol, Missouri, 94-99; pres, Cincinnati, 99-04. Walker prize, Boston Soc. Nat. Hist, 83. Soc. Nat; Soc. Zool; cor. mem. Phila. Acad. Vertebrate morphology; anthropology; morphology and physiology of the vertebrate ear; vertebrate cephalogenesis.

Ayres, Dr. H(iram) D(outhitt), Municipal University of Wichita, Wichita, Kans. *Physics*. College Hill, Ky, May 30, 78. A.B., De Pauw, 02; A.M., Cornell, 04, Ph.D., 13. Asst. physics, De Pauw, 02-03; instr, Ohio State, 04-05; physicist, Carnegie Institution, 05-10; chief physicist, B. F. Goodrich Rubber Co, 13-26; *prof. physics*, *Municipal Univ. of Wichita*, 26-A.A.; Physical Soc; Soc. Automotive Eng. Coefficients of expansion of metals and indices of refraction of gases at low temperatures; elasticity of metals; rubber products.

Ayres, Dr. Leonard P(orter), Cleveland Trust Company, Cleveland, Ohio. *Economics, Statistics*. Niantic, Conn, Sept. 15, 79. Ph.B., Boston, 02, A.M., 09, Ph.D., 10, D.C.S., 23; Co-

lumbia, 07-09. Supt, schools, P. R., 03-04; San Juan, 04-06; gen. supt, P. R., and chief div. statist, 06-08; director div. statist. and div. educ, Russell Sage Foundation, 08-21; *v. pres, Cleveland Trust Co*, 21- Lecturer, Boston, 09; N. Y. Univ, 12; Illinois, 13; Colorado, 13; Chicago, 20; director educ. surveys, various cities, 12-15. Statistician, Am. Peace Commission; econ. adviser, Dawes Commission, 24. Col. Gen. Staff, 17-19; chief statist. officer, War Dept. A.A. (*v. pres*, 16); Statist. Ass. (*pres*, 26); Econ. Ass. Economics.

B

Babasinian, Dr. V(ahan) S, South Bethlehem, Pa. *Chemistry*. Marsovan, Asia Minor, Nov. 28, 76. A.B. Anatolia, 95; A.M., Brown, 03, Ph.D, 06. Instr. chem, Brown, 03-06; *org. chem, Lehigh*, 06-09, asst. prof, 09-11, assoc. prof, 11-22, *prof*, 22- Research chemist, E. I. du Pont de Nemours and Co, 19-20. Summer, instr, California, 09. C.W.S., U.S.A., 18-19. A.A.; Chem. Soc. Indanthrene colors; derivatives of thiophene.

Babb, Cyrus C(ates), Granite Falls, N. C. *Hydraulic engineering*. Portland, Maine, June 18, 67. B.S., Mass. Inst. Tech, 90. Engineer, U. S. Geol. Surv, 90-02; U. S. Reclamation Service, 02-09; Maine State Water Storage Commission and U. S. Geol. Surv, 10-16; *consulting engineer*, 16- Civil Eng; Maine Ass. Eng. (*pres*, 11).

Babb, Prof. M(aurice) J(efferis), 157 Cricket Ave, Ardmore, Pa. *Mathematics*. Marshalton, Pa, Oct. 20, 70. B.S., Haverford, 05; Ph.D, Pennsylvania, 10. Prof. *math*, Dickinson Sem, 96-00; Bellefonte Acad, 00-01; instr, Pa. State, 01-05; *Pennsylvania*, 05-10, *asst. prof*, 10- Assoc. ed, 'Math. Teacher.' Trustee, Phila. Collegiate Inst, 11- A.A.; Math. Soc. Pedagogy and history of mathematics; theory of numbers.

Babbitt, Prof. H(arold) E(aton), University of Illinois, Urbana, Ill. *Sanitary engineering*. East Orange, N. J., Jan. 7, 88. B.S., Mass. Inst. Tech, 11; M.S., Illinois, 17. Asst, sewage testing sta, Sanit. Dist, Chicago, 11-13; asst. engineer, Ohio State Board Health, 13; from instr. to *prof. sanit. eng, Illinois*, 13- Civil Eng; Eng. Educ; Water Works Ass; Ill. Soc. Eng. (*pres*, 22, *sec'y*, 23-). Plumbing; sewage treatment; water works.

Babbitt, Dr. James A(ddison), 2117 Chestnut St, Philadelphia, Pa. *Hygiene, Oto-Laryngology*. Waitsfield, Vt, Oct. 22, 69. A.B., Yale, 93; A.M., Haverford, 96; M.D., Pennsylvania, 98. Prof. hygiene and physical educ, Haverford; asst. prof. otol. sch. med, *Pennsylvania*, *assoc. prof. oto-laryngol, grad. sch. med.* Asst. laryngologist and aurist, Lankenau Hosp; laryngologist and aurist, Children's Hosp; laryngologist, Children's Hosp, Mary J. Drexel Home; consulting laryngologist and aurist, Misericordia Hosp. Laryngol. Ass; Laryngol. Rhinol. and Otol. Soc; Phila. Col. Physicians. Rhinology; physical education; conservation of hearing.

Babcock, Prof. Ernest B(rown), University of California, Berkeley, Calif. **Plant genetics*.

Edgerton, Wis, July 10, 77. B.S., California, 05, M.S., 11. Teacher biol. and nature study, Los Angeles Nor. Sch, 06-07; instr. plant path, *California*, 07-08, asst. prof, 08-09, agr. educ, 09-12, *prof. genetics*, 13- A.A.; Soc. Nat; Bot. Soc; Genetic Ass; Calif. Acad. Nature and mechanism of the germinal substance; genetics; taxonomy; evolutionary processes.

Babcock, Harold D(eios), Mt. Wilson Observatory, Pasadena, Calif. **Physics*. Edgerton, Wis, Jan. 24, 82. B.S., California, 07. Asst. physics, California, 05-06; lab. asst, Bur. Standards, 06-08; *physicist, Mt. Wilson Observatory*, 09- A.A.; Physical Soc. (board editors); Astron. Soc; Royal Astron. Soc. Standard resistances; Zeeman effect; iron arc spectrum; electrostatic field of the sun; standards of wave length.

Babcock, Dr. H(arold) L(ester), Woodleigh Road, Dedham, Mass. *Herpetology*. Holliston, Mass, May 30, 86. Worcester, 05-06; M.D., Boston, 10; Berlin, 11. *Curator reptiles and amphibians, Boston Soc. Nat. Hist.* Soc. Ichthyol. and Herp. Turtles of New England.

Babcock, Henry A(ndrews), Northwestern University, Evanston, Ill. *Physics*. Lebanon Springs, N. Y., July 17, 91. B.S., Mass. Inst. Tech, 12, M.S., 13; fellow, Northwestern, 14-16, Ph.D, 16. Instr. physics, Northwestern, 16-17, assoc. prof, 19-20; mill manager, Interlake Pulp and Paper Co, Appleton, 20-24; *partner, Wm. H. Babcock and Sons, Chicago*, 24- Second lieut, A.S., 17-19. Physical Soc. Heat; specific heat of ammonia.

Babcock, Prof. R(odney) W(hittemore), 2022 Madison St, Madison, Wis. *Mathematics*. Milton, Vt, July 22, 90. A.B., Missouri, 12; Pennsylvania; A.M., Wisconsin, 15, Ph.D, 24. Instr. *math, Pennsylvania*, 15-16; *Wisconsin*, 16-25, *asst. prof*, 25- Math. Soc. Applied mathematics; mathematical physics; motions of viscous fluids.

Babcock, Dr. S(tephen) M(oulton), 432 Lake St, Madison, Wis. **Agricultural chemistry*. Babcock Hill, N. Y., Oct. 22, 43. A.B., Tufts, 66, LL.D, 01; Ph.D, Göttingen, 79; Sc.D, Wisconsin, 17. Instr. chem, Cornell, 75-77, 81-82; chemist, N. Y. Exp. Sta, Geneva, 82-88; *prof. agr. chem, Wisconsin*, and chief chemist, Exp. Sta, 88-13, asst. director, 99-13, *emer. prof*, 13- Jury awards, Pan-Am. Expos, 01. Bronze medal, Wis. Legislature, 99; grand prize, Paris Expos, 00; St. Louis Expos, 04; silver medal, Stockholm, 08. A.A. (*sec'y*, C, 94). Dairy chemistry; influence of low temperatures upon the curing of cheese; conservation of gravity during molecular changes; constitution of matter.

Baber, Dr. E(rl) A(rmitage), Longview Hospital, Cincinnati, Ohio. *Psychiatry*. Griggsville, Ill, May 3, 83. M.D., Louisville, 09. *Supt*, Dayton State Hosp, 11-23; *Longview Hosp*, 23- A.A.; Psychiat. Ass; Am. Med. Ass.

Baber, Miss Zonia, 6037 Ellis Ave, Chicago, Ill. *Geography*. Kansas, Ill, Aug. 24, 62. B.S., Chicago. Prin, ward sch, Youngstown, Ohio, 86-88; critic teacher, Cook Co. Nor. Sch, 88-90, head dept. geog, 90-99; assoc. prof. teaching

- geog. and geol. Chicago, 01-21. Prin. elementary sch. sch. educ. Chicago, 02-03. A.A.; Soc. Sci. Educ.; Chicago Geog. Soc.; cor. mem. Soc. Géog. de Genève. Geography in education.
- Babkin, Prof. B(oris) P(eter)**, Medical Science Building, College St, Halifax, N. S. Can. *Physiology*. Kursk, Russia, Jan. 5, 77. M.D. Mil. Med. Acad. St. Petersburg, 04; D.Sc. London, 25. Asst. physiol. Inst. Exp. Med. St. Petersburg, 01-12; *prof. animal physiol.* Agr. Inst. Novo-Alexandria, 12-15; *physiol.* med. faculty, Odessa, 15-22; *Dalhousie*, 24- Lecturer, Mil. Med. Acad. 01-12; Med. Research Council, London, 22-24. *Physiol. Soc.*; *British Physiol. Soc.* Conditioned reflexes; digestion; secretion; movements of the alimentary tract.
- Babor, Dr. Joseph A.**, College of the City of New York, New York, N. Y. *Physical chemistry*. New York, March 5, 95. B.S. Col. City of N. Y., 16; A.M. Columbia, 19, Ph.D., 24. *Instr. chem.* Col. City of N. Y., 16- Chem. Soc. Concentration of dilute nitric acid; volatility of liquids.
- Bach, Walter J(ohnston)**, Box 1058, Orlando, Fla. *Plant pathology*. Spokane, Wash, April 22, 99. B.S. Wash. Col., 21, M.S., 22; Rufus J. Lackland fellow, Washington (St. Louis), 24-25. *Junior pathologist, bur. plant indust.* U. S. Dept. Agr. A.A.; *Phytopath. Soc.* Fruit diseases; the citrus melanose and scab fungus.
- Bachman, Prof. A(lois)**, Instituto Biológico Argentino, Cordoba, Argentine Republic, S. Amer. *Bacteriology*. Cordoba, Aug. 30, 74. M.D. Buenos Aires, 99. Chief path. lab, Buenos Aires, 00, *prof. bacter.* 05-15; Cordoba, 15-19; director, Inst. Microbiol. and Hygiene, Tucumán, 19-21; Inst. Bact. Dept. Nacional de Higiene, 21-24; *prof. microbiol.* Buenos Aires, 21- Director clin. lab, Buenos Aires Hosp., 05-12. Delegate, Int. Hygiene Committee, Paris, 19. Soc. Bact.; Soc. de Path. exot.; Argentine Med. Soc.; Rio de Janeiro Acad. Med. Immunity; anaphylaxis; prophylaxis; malaria; ankylostomiasis; diphtheria.
- Bachmann, Dr. Freda M.**, Stout Institute, Menomone, Wis. *Bacteriology*. Genoa, Ohio, Nov. 7, 78. A.B. Miami, 07, A.M., 08; fellow, Wisconsin, 08-09, Ph.D., 12. Asst. bot. and plant path. Wisconsin, 09-12; asst. *prof. bot. and bacter.* Milwaukee-Downer, 12-14; *instr. agr. bacter.* Wisconsin, 14-24; *prof. bacter.* Stout Inst., 24- A.A.; Soc. Bact. Cytology; morphology and physiology of bacteria; yeasts; molds.
- Bachmann, Prof. J(ean) G(eorge)**, 1688 Lullwater Road, Atlanta, Ga. *Physiology*. Mulhouse, Alsace, July 18, 77. M.D. Jefferson Med. Col., 07; M.S. Emory, 22. Res. physiologist and lecturer hygiene, Jefferson Hosp., 07-09; demonstrator *physiol.* Jefferson Med. Col., 09-10; *prof.* Atlanta Med. Col., 10-15; *Emory*, 15- A.A.; *Physiol. Soc.*; *fel. Col. Physicians*; Ga. Acad. Venous pulse; action of strophanthus in heart block; interauricular time interval; distribution of vagus nerves to the sino-auricular junction of the mammalian heart.
- Back, Dr. E(rnest) A(dna)**, U. S. Department of Agriculture, Washington, D. C. *Entomology*. Northampton, Mass, Oct. 7, 80. B.S. Mass. Col. and Boston, 04; Ph.D. Mass. Col., 07. Deputy state nursery inspector, Mass., 02-06; *instr. entom.* Mass. Col., 04-06, bot., 06-07; agent and expert, bur. entom. U. S. Dept. Agr., 07-10; state entomologist, Va. Exp. Sta., 10-12; fruit fly investigations, Hawaii, Bermuda and Spain, *bur. entom.* U. S. Dept. Agr., 12-17, *entomologist in charge stored product insect investigations*, 17- Entom. investigator, Cuba and Mexico, 10- A.A.; Ass. Econ. Entom.; Entom. Soc.; Wash. Entom. Soc. Biology and control of citrus white flies; protection from insect attack of food and other stored products; Asilidae.
- Bacon, Prof. Arthur A(very)**, American University, Beirut, Syria. *Physics*. Laconia, N. H., Oct. 26, 75. A.B. Dartmouth, 97, A.M., 01. Tutor physics, Oberlin, 97-98; asst. Dartmouth, 98-00, *instr. math.* and astron., 00-01; *prof. physics*, Hobart, 03-19, sec'y and registrar, 07-17; *prof. physics*, American Univ., Beirut, 19- A.A.; Physical Soc. Equilibrium of vapors at curved surfaces of liquids.
- Bacon, Prof. C(harles) S(umner)**, 2333 Cleveland Ave, Chicago, Ill. *Medicine*. Spring Prairie, Wis, July 30, 56. Ph.B. Beloit, 78, hon. Sc.D., 25; M.D. Northwestern, 84. *Prof. gynec.* Chicago Polyclinic, 91-94, *obstet.* 95-; *col. med.* Illinois, 03- A.A.; Col. Surg.; Am. Med. Ass. (chairman, sect. obstet., 05); Chicago Med. Soc. (pres, 03); Chicago Gynec. Soc. (pres, 01, 23); Chicago Acad. Med. Pathology of pregnancy; tuberculosis.
- Bacon, Cha(rles) S(umner)**, 3 Park Row, New York, N. Y. *Chemistry*. New York, March 24, 85. Cooper Union, 04-06, B.S., 19; Columbia, 10; Ch.E. St. Mary Col., 19. *Consulting chemist and chemical engineer*, 02- Major, C. Eng., 17-19. Chem. Soc.; Inst. Chem.; Soc. Test. Mat.; N. J. Chem. Soc.; Int. Ass. Test. Mat. Experimental, analytical and industrial research; surveying and inspection of organic products; petroleum; fatty oils; process development and plant supervision; preparation of technical work for court testimony and presentation.
- Bacon, Dr. Charles W(alter)**, 1139 12th St. N. W., Washington, D. C. *Chemistry, Plant physiology*. Worcester, Mass, March 11, 86. A.B., Clark, 06, A.M., 07, Ph.D., 11. Asst. chem., Clark, 07-09; *assoc. physiologist, bur. plant indust.* U. S. Dept. Agr., 10- A.A.; Chem. Soc. Distillation; tobacco curing; physiological plant diseases; biochemistry.
- Bacon, Prof. Clara Latimer**, 2316 N. Calvert St, Baltimore, Md. *Mathematics*. Hillsgrove, Ill., Aug. 13, 66. A.B. Wellesley, 90; A.M., Chicago, 04; Ph.D. Hopkins, 11. Teacher, secondary schools, 90-97; *instr. math.* Goucher, 97-05, *assoc. prof.* 05-14, *prof.* 14- A.A.; Math. Soc.; Math. Ass.
- Bacon, Dr. F(ranklin) J(ames)**, University of Florida, Gainesville, Fla. *Pharmacology*. New London, Wis, Nov. 11, 96. Ph.G. Wisconsin, 18, B.S., 20, fellow, 22-23, M.S., 23, Hollister fellow, 23-25, Ph.D., 25. Pharmacognosist, Eli Lilly and Co., 20-22; *prof. pharmacog. and pharmacol. and head dept.* Florida, 25- Pharma-

- cognosy; belladonna assays; *Mentha piperita* L; stabilization and assay of digitalis.
- Bacon, Prof. George P(reston)**, Tufts College, Mass. *Physics*. Charlemont, Mass, Aug. 24, 66. A.B. Dartmouth, 87, A.M. 90. Assoc. prof. math, Beloit, 92-02; prof. physics, Wooster, 02-08; assoc. prof. math. and physics, Simmons, 10-19; *prof. physics, Tufts, 19-* A.A.; Physical Soc; Astron. Soc; Eng. Educ.
- Bacon, Dr. Raymond F(oss)**, Chemists Building, 50 E. 41st St, New York, N. Y. **Chemistry*. Muncie, Ind, June 29, 80. B.S. De Pauw, 99, A.M. 00; fellow, Chicago, 01-04, Ph.D. 04; hon. Sc.D, Pittsburgh, 18, De Pauw, 19. Instr. chem, De Pauw, 99-00; prof, Vincennes, 00-01; commercial chemist, Chicago, 04-05; chemist, Bur. Science, P. I. 05-10; asst. chemist, bur. chem, U. S. Dept. Agr, 10-11; senior fellow, Mellon Inst, 11-12, assoc. director, 12-14, director, 14-22; *chem. engineer, New York, 22-* Assoc. mem, Naval Consulting Board. D.S. medal. Col. C.W.S. A.A.; Chem. Soc; Electrochem. Soc; Chem. Eng; Min. and Metal. Eng; Ceramic Soc; Soc. Chem. Indust; London Chem. Soc; Soc. chim. de Paris; Soc. de Chim. indust. Industrial research; tropical oils and resins; petroleum.
- Badertscher, Prof. J(acob) A**, Bloomington, Ind. *Histology*. Bluffton, Ohio, Jan. 11, 79. Ph.B, Ohio (Athens), 09, Ph.M. 10; Ph.D. Cornell, 14. Asst. biol, Ohio (Athens), 08-09, instr, 09-10; asst. histol. and embryol, Cornell, 10-11, instr, 11-14; *anat, Indiana, 14-15*, asst. prof, 15-17, assoc. prof, 17-21, *prof, 21-* A.A; Ass. Anat; fel. Ind. Acad. Muscle degeneration; the thymus; the ultimobranchial bodies; the pineal gland.
- Badger, Dr. Richard M(cLean)**, 215 Highland Place, Monrovia, Calif. *Physical chemistry, Physics*. Elgin, Ill, May 4, 96. B.S. Calif. Inst, 21, Ph.D. 24. *Research fellow physical chem, Calif. Inst, 24-* Chem. Soc. The free energy of hydrogen-cyanide; absorption spectra in the infra-red.
- Badger, Prof. Walter Lucius**, 917 Church St, Ann Arbor, Mich. *Chemical engineering*. Minneapolis, Minn, Feb. 18, 86. A.B. Minnesota, 07, B.S. 08, M.S. 09. Chemist, Great West. Sugar Co, 09; instr. chem, Minnesota, 10; lab. asst, Bur. Standards, 10-12; *prof. chem. eng, Michigan, 12-*; *director research, Swenson Evaporator Co, 17-* Committee on heat transfer, div. eng, Nat. Research Council, 23- Chem. Soc; Chem. Eng. (director, 24-26, chairman, evaporation test code committee, 22-). Design of chemical machinery; evaporator design; heat transfer.
- Baehr, Dr. George**, 110 E. 80th St, New York, N. Y. *Pathology*. New York, April 16, 87. M.D. Columbia, 08; Freiburg, 11-12; Vienna, 12-13. *Assoc. path, Mt. Sinai Hosp, New York, 11-*, *assoc. attending physician, 19-* Research fellow, Mt. Sinai Hosp, 10-11, 14-17, 19-20. Mem. Red Cross Sanit. Commission to Serbia and Russia, 15-16. Lieut. col, M.C. 17-19. A.A; Ass. Path. and Bact; Soc. Clin. Invest; Soc. Exp. Biol; Harvey Soc; Am. Med. Ass; N. Y. Acad. Med; Int. Ass. Med. Mus. Experimental medicine; nephritis; nutrition.
- Baekeland, George**, 247 Park Ave, New York, N. Y. *Geology*. Yonkers, N. Y., Feb. 8, 95. E.M. Colo. Sch. Mines; A.B. Cornell. Mine examination and geol. explor, 20-23; geol. explor. in Africa and Europe, Standard Oil Co. of N. J. Min. and Metal. Eng; fel. Am. Geog. Soc.
- Baekeland, Dr. L(eo) H(endrik)**, Yonkers, N. Y. **Chemistry*. Ghent, Belgium, Nov. 14, 63. B.S. Sc.D, Ghent, 84; hon. Ch.D, Pittsburgh, 16. Asst. prof. chem, Ghent, 85-88, assoc. prof, 88-89; prof. chem. and physics, Higher Nor. Sch, Bruges, 85-89; mfg. and consulting chemist, U. S. 89-99; research chemist and hon. prof. chem. eng, Columbia, 99-16. Mem. chem. advisory committee, U. S. Dept. Commerce. Chandler lecturer, Columbia, 14. Naval Consulting Board, 15- Nitrate Supply Commission, 17. Nat. Research Council; administrative board, Inst. Int. Educ. Nichols medal, Chem. Soc, 09, Gibbs medal, 13; Scott medal, Franklin Inst, 10; Chandler medal, Columbia, 14; grand prize, Panama-Pacific Expos, 15; Perkin medal, Soc. Chem. Indust, 16. Order of the Crown, Belgium, 19; commander, Order of Leopold, Belgium, 24; Officier, Légion d'honneur, 23. A.A; Chem. Soc. (pres, 24); Electrochem. Soc. (pres, 09); Chem. Eng. (pres, 12); London Soc. Chem. Indust. (v. pres, 05); Soc. chim. de France; Soc. de Chim. indust. Physical, general, industrial and organic chemistry; synthesis of resinoids and intermediate bodies resulting from the action of phenols upon formaldehyde; photographic processes; electrical insulation; Velox; Bakelite.
- Baerg, Prof. W(illiam) J**, University of Arkansas, Fayetteville, Ark. *Entomology*. Hillsboro, Kans, Sept. 24, 85. A.B. Kansas, 15; Ph.D. Cornell, 22. Instr. entom, Cornell, 17-18; asst. prof, Arkansas, 18-20, *prof, 20-*, *entomologist, Exp. Sta, 18-* A.A; Entom. Soc; Ass. Econ. Entom; Soc. Parasitol. Poisonous arthropods; strawberry weevil; crop pests.
- Baetjer, Anna M(edora)**, 500 Roland Ave, Baltimore, Md. *Hygiene*. Baltimore, 99. A.B. Wellesley, 20; Sc.D, Hopkins, 24. Asst. *sch. hygiene and pub. health, Hopkins, 23-24*, instr, 24-26, *assoc, 26-* Physiological hygiene.
- Baetjer, Prof. F(rederick) H(enry)**, 4 E. Madison St, Baltimore, Md. *Röntgenology*. Baltimore, Oct. 4, 74. A.B. Hopkins, 97, M.D. 01. *Röntgenologist, Hopkins Hosp, and prof. clin. röntgenol, Hopkins*. Consulting röntgenologist, hospitals. Delegate, Int. Röntgen Ray Cong, Amsterdam, 08. Major, M.C. Röntgen Ray Soc. (pres, 11); Baltimore Med. Soc. (v. pres, 15); hon. mem. N. Y. Röntgen Ray Soc; hon. mem. Phila. Röntgen Ray Soc. Thoracic aneurysms; gastro-intestinal diseases; effects of Röntgen rays upon embryonic tissues; injuries and diseases of the bones and joints.
- Baeyertz, Dr. M(ary)**, 4834 Kenmore Ave, Chicago, Ill. *Chemistry*. Los Angeles, Calif, Sept. 14, 99. A.B. Smith, 21; A.M. Columbia, 22, fellow, 23-24, Ph.D. 25. Asst. chem, Columbia, 24-25; *research chemist, Prudential Life Ins. Co, 25; West. Elec. Co, 25-* Chem. Soc. Colloid chemistry; Bredig platinum sols.

Bagby, Prof. English, University of North Carolina, Chapel Hill, N. C. *Psychology*. Baltimore, Md, May 9, 91. A.B, Princeton, 13, A.M, 14; Ph.D, Hopkins, 18. Asst. psychologist, U. S. Bur. Mines, 17; adjunct prof. *psychol*, Va. Mechanics' Inst, 19-20; asst. prof, Yale, 20-25; *assoc. prof*, North Carolina, 25- Summers, instr, Hopkins and Columbia. *Psychol. Ass.* Psychiatry; psychopathology; social psychology.

Bagg, Dr. Halsey J(oseph), Cornell University Medical College, New York, N. Y. *Biology*. Utica, N. Y, Oct. 23, 89. B.S, Columbia, 14, A.M, 15, Ph.D, 18. Asst. biol, Rockefeller Inst, 10-11; instr, N. Y. Univ, 14-17; *research fellow*, Huntington fund for cancer research; *med. col*, Cornell, 17-, *assoc. anat*, 26- Soc. Zool; Soc. Exp. Biol; *assoc.* Radium Soc; fel. N. Y. Acad. Heredity of animal behavior; hereditary structural defects; irradiation and mammalian development; irradiation of thyroid gland in relation to ovarian activity; radium lesions in the brain; experimental cancer.

Bagg, Dr. Rufus M(ather), 16 Brokaw Place, Appleton, Wis. *Geology*. West Springfield, Mass, April 19, 69. A.B, Amherst, 91; Ph.D, Hopkins, 95. Prin. high sch, Maine, 91-92; asst. geol, Hopkins, 95-97; asst, N. Y. State Museum, 97; prof. geol. and miner, Colo. Col, 98-99; instr, high sch, Colo, 99-00; sub-master, high sch, Mass, 01-03; prof. miner. and petrog, N. Mex. Sch. Mines, 03-04; mining engineer and geologist, 04-08; instr. geol, Illinois, 08-11; *prof. geol. and miner*, Lawrence, 11- Instr, Worcester Summer Sch. for Boys, 91, 92. Md. Geol. Surv, 96-98. Diploma and bronze medal, Paris Expos, 00. A.A; Geol. Soc; Min. Eng; Paleont. Soc; Wash. Geol. Soc; Wis. Acad. Cretaceous and Tertiary Foraminifera; artesian water and oil supplies.

Bagley, Prof. W(illiam) C(handler), Teachers College, Columbia University, New York, N. Y. *Education*, *Psychology*. Detroit, Mich, March 15, 74. B.S, Mich. State Col, 95; M.S, Wisconsin, 98; Ph.D, Cornell, 00; Ed.D, R. I. Col, 19. Teacher, pub. schools, Mich, 95-97; asst. psychol, Cornell, 00-01; prin, pub. schools, Mo, 01-02; v. pres. and director training, Mont. State Nor. Col, 02-06; supt, training dept, N. Y. State Nor. Sch, Oswego, 06-08; prof. educ, Illinois, 08-17, director sch. educ, 09-17; *prof. educ*, Teachers Col, Columbia, 17- A.A; Psychol. Ass; Soc. Sci. Educ; Nat. Educ. Ass. (ed, 'Jour,' 21-25). Apperception of the spoken sentence; correlation of mental and motor ability in school children; factors of the educative process; educational values; minimal essentials in elementary school subjects; curriculum problems in elementary and normal schools.

Bahney, Luther William, Scovill Manufacturing Co, Waterbury, Conn. *Metallurgy*. Red Bluff, Calif, Dec. 25, 78. Met.E, Stanford, 11. Asst. prof. metal, Stanford, 07-11; Yale, 11-17; *metal. engineer*, research dept, Scovill Mfg. Co, 17- Gold and silver; refractories; laboratory methods; methods of reclamation; casting shop metallurgy.

Bailey, Dr. Austin, 195 Broadway, New York, N. Y. *Physics*. Lawrence, Kans, June 9, 93. A.B, Kansas, 15; Ph.D, Cornell, 20. Supt, apparatus div, Corning Glass Works, 20-21; asst. prof. physics, Kansas, 21-22; *telephone engineer*, Am. Tel. and Tel. Co, 22- Second lieut, Sig. C, 18. Physical Soc; Radio Eng. Telephone engineering; high frequency electric currents; radio transmission measurements.

Bailey, Prof. Benj(amin) F(ranklin), University of Michigan, Ann Arbor, Mich. *Electrical engineering*. Sheridan, Mich, Aug. 7, 75. B.S.(E.E.), Michigan, 98, A.M, 00, Ph.D, 07. Instr. *elec. eng*, Michigan, 01-06, asst. prof, 06-09, junior prof, 09-13, *prof*, 13- Designing, constructing and chief engineer, companies. Elec. Eng. (sec'y, Detroit-Ann Arbor sect, 11); Soc. Automotive Eng. X-ray; Wehnelt interrupters; electrolytic rectifiers; induction coils; induction motors; dynamo electric machinery.

Bailey, Prof. Cameron V(ernon), New York Post-Graduate Medical School, 303 E. 20th St, New York, N. Y. *Physiology*. Toronto, Ont, Can, Nov. 25, 84. M.D, C.M, McGill, 09; L.R.F.P. and S, Glasgow, 13; L.R.C.P, L.R. C.S, Edinburgh, 13. Asst. prof. clin. med, N. Y. Post-Grad. Med. Sch, 15-20, biochem, 20-21, *assoc. prof*, 22-23, *prof. applied physiol*, 24- A.A; Am. Med. Ass; Soc. Exp. Biol; Soc. Biol. Chem; Harvey Soc. Applied physiology; carbohydrate metabolism; toxic jaundice; animal calorimetry.

Bailey, Prof. C(lyde) H(arold), University Farm, St. Paul, Minn. *Biochemistry*. Minneapolis, Minn, April 15, 87. B.S, N. Dak. Col, 13; M.S, Minnesota, 16; Ph.D, Maryland, 21. Asst. grain standardization, U. S. Dept. Agr, 07-11; instr. and asst. prof. agr. chem, Minnesota, and cereal technologist, Exp. Sta, 11-16; chemist, Minn. Grain Inspection Dept, 16-17; *assoc. prof. agr. biochem*, Minnesota, 17-20, *prof*, 20-, *assoc. agr. biochemist*, Exp. Sta, 17- Ed, 'Cereal Chem,' 23-; director research, Biscuit and Cracker Manufacturers Ass, 24-26. A.A; Chem. Soc. Chemical technology of cereal industries; biochemistry of bread-making; respiration of cereals.

Bailey, Prof. E(dgar) H(enry) S(ummerfield), 1101 Ohio St, Lawrence, Kans. **Chemistry*. Middlefield, Conn, Sept. 17, 48. Ph.B, Yale, 73; Strassburg, 81; Ph.D, Ill. Wesleyan, 83; Leipzig, 95. Instr. *chem*, Yale, 73-74; Lehigh, 74-83; *prof*, Kansas, 83-, *director chem. lab*, 00- Chemist, Kans. State Board Health and State Board Agr. Lecturer, Kansas City Univ. Med. Col. A.A; Chem. Soc. (councilor, 06-17, chairman, div. water and sewage, 17-18); hon. mem. Am. Inst. Homeop; mem. Ass. State and Nat. Food and Dairy Departments; Kans. Acad. (past pres. and sec'y). Sanitary and applied chemistry; toxicology; delicacy of special senses; mineral waters; mineral resources of Kansas; applications of the ion theory; the action of preservatives; chemistry of foods; dietetics of state institutions.

Bailey, Dr. E(dward) M(onroe), Box 1106, New Haven, Conn. *Chemistry*. New London, Conn, Aug. 27, 79. Ph.B, Yale, 02, M.S, 05, Ph.D, 10.

- Asst. chemist, *Conn. Exp. Sta.*, 02-17, *chemist in charge anal. lab.*, 17- State chemist, Conn., 19- Consultant, council pharmacol. and chem., Am. Med. Ass., 19-, committee definitions and standards for foods and drugs, 22- Chem. Soc.; Agr. Chem. Agricultural chemistry; chemistry, bacteriology and enzymes of the banana; carbohydrates and enzymes of the soy bean; vitamin potency of commercial yeast preparations; foods and drugs.
- Bailey, Ernest W(infield)**, Highland, Calif. *Horticulture*. Worcester, Mass., March 28, 85. B.S., Mass. Col. and Boston, 08; M.S., Illinois, 09; California, 19-21. Asst. agron., Mass. Col., 08; asst. instr. and assoc. plant breeding, Illinois, 10-15; asst. prof. pomol., col. agr. and plant breeding, Exp. Sta., 16-20; commercial orcharding, 20-24; *horticulturist*, *Mutual Orange Distributors*, 24- A.A.; Soc. Hort. Sci.; Pomol. Soc.; Am. Breeders Ass. Plant physiology and breeding; systematic pomology; marketing economics; growth periodicity; fruit.
- Bailey, Prof. Frederick H(arold)**, Massachusetts Institute of Technology, Cambridge, Mass. *Mathematics*. Leominster, Mass., April 24, 65. A.B., Harvard, 87, A.M., 89. Asst. *math.*, Harvard, 89-91; instr., *Mass. Inst. Tech.*, 91-93, asst. prof., 93-04, assoc. prof., 04-07, *prof.*, 07- Instr., Radcliffe, 90-91; Simmons, 02-03. *Math. Soc.* Analytic geometry; calculus.
- Bailey, Dr. George Corbin**, 654 Jefferson Ave., Elizabeth, N. J. *Organic chemistry*. Eureka, Kans., Dec. 1, 85. A.B., Wisconsin, 09; A.M., Yale, 14, Ph.D., 16. Chemist, Winchester Arms Co., 16; research lab., Barrett Co., 17-21; chief chemist, Marcus Hook plant, Nat. Aniline and Chem. Co., 21-22, group leader, research dept., Buffalo plant, 22-26; *research chemist*, *Roessler and Hasslacher Chem. Co.*, 26- Chem. Soc. Pyrimidines; amines; coal tar products; resins; perfumes; catalytic oxidation products; benzene dye, naphthalene and vat color intermediates; indigo; phthalic anhydride; maleic and malic acids; anthraquinone; rubber accelerators.
- Bailey, Herbert (Stevens)**, Exchange Orange Products Co., Ontario, Calif. *Chemistry*. Bethlehem, Pa., Sept. 12, 80. A.B., Kansas, 02; B.S., Mass. Inst. Tech., 06. Chemist, Armour Packing Co., 03-04; asst. oils, Mass. Inst. Tech., 05-06; instr. chem., Mich. State Col., 07-08; chief oil, fat and wax lab., bur. chem., U. S. Dept. Agr., 09-18; chemist, E. I. du Pont de Nemours and Co., 18-20; director research, South. Cotton Oil Co., 20-24; production manager, *Exchange Orange Products Co.*, 24-25, *manager*, 25- Chairman interdepartmental committee on fats and oils, Food Ad., 17-18. Chem. ed., 'Cotton Oil Press,' 19-24. Chem. Soc. (sec'y, Wash. sect., 09); Soc. Test. Mat.; Oil Chemists Soc. Oils for artificial leather; paints; varnishes; animal and vegetable oils; citrus oils and juices.
- Bailey, Prof. Irving W(idmer)**, Bussey Institution, Forest Hills, Boston, Mass. **Botany*. Tilton, N. H., Aug. 15, 84. A.B., Harvard, 07, M.F., 09. Asst. bot., *Harvard*, 08-09, instr. *forestry*, 09-12, asst. prof., 12-20, *assoc. prof.*, 20- Mem. advisory board, U. S. Forest Products Lab., 14-16. Exec. committee, div. biol. and agr., Nat. Research Council, 21-23. In charge wood sect., materials eng. dept., Bur. Aircraft Production, 18. Nat. Acad. (forestry committee); A.A.; Soc. Nat.; Bot. Soc. (mem. ed. board, 'Am. Jour. Bot.', 15-18, treas., 21-24); Biol. Soc. (exec. committee, 25-); Philos. Soc.; Ecol. Soc.; Soc. Foresters (mem. ed. board, 'Proc.', 14-16); Am. Acad. (mem. council, 23-). Comparative physiological and pathological plant anatomy.
- Bailey, Dr. J(ames) R(obinson)**, University of Texas, Austin, Texas. *Chemistry*. Houston, Texas, Dec. 11, 68. A.B., Texas, 91; Ph.D., Munich, 97; Leipzig, 00-01. Asst. chem., *Texas*, 91, tutor, 91-94, instr., 96-00, adjunct prof. and *prof. org. chem.*, 01- Texas Acad.; Chem. Gesell. Semicarbazid acids; hydrazin acids; hydrazoacids; hydantoin; action of mustard oils on hydrazo compounds; use of cyanic and prussic acids in glacial acetic acids; the criss-cross addition on conjugate systems.
- Bailey, J(ohn) Wendell**, Clinton, Miss. *Zoology*. Winona, Miss., Jan. 9, 95. B.S., Miss. Agr. and Mech. Col., 15, M.S., 17; A.B., Cornell, 16, A.M., 25. Field asst., bur. entom., U. S. Dept. Agr., 14; asst. prof. zool. and entom., Miss. Agr. and Mech. Col., 16-17; sci. asst., bur. entom., U. S. Dept. Agr., 17-18; alumni sec'y and research worker, Miss. Agr. and Mech. Col., 19-24; asst. entom., Cornell, 24-25; *prof. biol.*, *Mississippi*, 25- Austin scholar, Harvard, 26-27. Cornell biol. exped., 16; entom. control, U.S.N., 18-19. A.A.; Entom. Soc.; Ass. Econ. Entom.; Ornith. Union. Myriapoda; herpetology; natural history of Mississippi.
- Bailey, Prof. L(iberty) H(yde)**, Ithaca, N. Y. **Botany*. South Haven, Mich., March 15, 58. B.S., Mich. State Col., 82, M.S., 85; LL.D., Wisconsin, 07; Alfred, 08; Litt.D., Vermont, 19. Prof. hort. and landscape gardening, Mich. State Col., 84-88; hort., Cornell, 88-03; director, N. Y. State Col. Agr., 03-13. Chairman, Commission on Country Life, appointed by Pres. Roosevelt, 08. Veitchian medal, 98. Nat. Acad.; A.A. (v. pres., 15, pres., 26); Bot. Soc. (pres., 26); Soc. Hort. Sci. (pres., 07); Pomol. Soc. (past pres.); Philos. Soc.; Am. Acad. Systematic botany; cultivated plants.
- Bailey, Prof. S(olon) I(rving)**, Harvard Observatory, Cambridge, Mass. **Astronomy*. Lisbon, N. H., Dec. 29, 54. A.B., Boston, 81; A.M., Harvard, 87; Sc.D., San Augustin (Peru), 23. Asst. prof. *astron.*, *Harvard*, 93-98, assoc. prof., 98-12, Phillips prof., 12-25, *emer. prof.*, 25- In charge Arequipa branch, Harvard Col. Observatory, 92-19, acting director, 19-21. Exped., S. Amer., 89; S. Africa, 08. Int. Astron. Union. Nat. Acad.; A.A.; Astron. Soc.; fel. Am. Acad.; Wash. Acad.; assoc. Royal Astron. Soc.; Astron. Gesell.; Lima (Peru) Geog. Soc. Meteorology; stellar photometry; variable stars; globular stellar clusters; the Milky Way.
- Bailey, Dr. Thomas L(aval)**, University of California, Berkeley, Calif. *Geology*. Berkeley, Oct. 5, 97. A.B., South Carolina, 17; A.M., California, 21, Ph.D., 25. Instr. geol. and biol., Univ. of South, 17-18; geol., Pomona, 21-22; assoc. geologist, bur. econ. geol., Texas, 22-24; *instr. geol.*, *California*, 24- General geology; sedimentation; stratigraphy.

Bailey, Vernon, 1834 Kalorama Road, Washington, D. C. **Biology*. Manchester, Mich, June 21, 64. Michigan, 93; George Washington, 94, 95. *Chief field naturalist, biol. surv., U. S. Dept. Agr.*, 87- A.A.; Ornith. Union; Soc. Mammal; Forestry Ass; Wash. Acad; Wash. Biol. Soc. (pres, 22); Cooper Ornith. Club. Distribution of mammals, birds and plants; spermophiles and gophers of Mississippi Valley; revision of *Eutamias*, *Microtus*, *Sigmodon*, *Thomomys*; biological surveys of Texas, New Mexico and North Dakota; mammals of Glacier National Park.

Bailey, Mrs. Vernon (Florence Merriam), 1834 Kalorama Road, Washington, D. C. *Ornithology*. Locust Grove, N. Y., Aug. 8, 63. A.B., Smith, 86. Ornith. Union; Soc. Mammal; Cooper Ornith. Club; Wilson Ornith. Club; Wash. Acad; Wash. Biol. Soc. Birds of village and field; birds of the Santa Rita Mountains; birds and wild animals of Glacier National Park.

Baillie, Prof. W(illiam) H(arold) T(revorrow), University of Toronto, Toronto, Ont., Can. *Biology*. Toronto, Aug. 11, 88. B.A., Toronto, 11, fellow, 11-12, M.A., 12, M.B., 15; L.C.P.S., 15. Demonstrator and class asst. biol., *Toronto*, 12-15, lecturer comp. anat., 15-16, *mammal. anat.*, 19-24, *asst. prof.*, 24- Capt. C.M.C., 16-19. Ont. Col. Physicians and Surg. Comparative anatomy; annulata polychaeta; mammalian anomalies; blood vascular system in Elasmobranch; peritoneal reactions in mammalia; life histories in Cladocera and viability of the sexes.

Bailor, Prof. Edwin Maurice, Dartmouth College, Hanover, N. H. *Educational psychology*. Nebraska, 90. Simpson (Iowa), 07-09; A.B., Wash. Col., 14, A.M., 16; Ph.D., Columbia, 25. Teacher and supervisor, pub. schools, Wash., 09-13, 14-15; instr. educ., Wash. Col., 15-18; psychol. expert, U.S.A., 19-21; training officer, U. S. Veterans Bur., 21-23; asst. educ. psychol., Teachers Col., Columbia, 23-24, instr., 24-25; *asst. prof. psychol.*, *Dartmouth*, 25- Second lieut., Sanit. C., 18-19. Assoc. Psychol. Ass. Content and form in tests of intelligence.

Baily, Dr. D(ixon) L(loyd), Manitoba Agricultural College, Winnipeg, Man., Can. *Plant pathology*. Winchester, Ont., Sept. 9, 96. B.A., Queen's (Can.), 18; M.S., Minnesota, 21, Ph.D., 23. Asst. pathologist, Can. Dept. Agr., 19-20; agent, U. S. Dept. Agr., Minnesota, 20-22; pathologist, *Can. Dept. Agr.*, 22-26, *senior pathologist*, 26- A.A.; Phytopath. Soc; Can. Soc. Tech. Agr. Cereal diseases; sunflower rusts; smuts and stem rust; wheat root rots; physiologic specialization in *P. gr. avenae*.

Baily, William Lloyd, Ardmore, Pa. *Ornithology*. Germantown, Pa., Dec. 26, 61. B.S., Haverford, 83. Prof. archit., Pennsylvania, 90. Fel. Ornith. Union; Inst. Archit.; State Ass. Archit. Pa. (sec'y, 09-); Del. Valley Ornith. Club (pres, 90); Phila. Acad. Bird photography; birds of Maine, New Jersey, North Dakota and Magdalen Islands.

Bain, Edgar C(ollins), Union Carbide and Carbon Research Laboratories, Inc., Long Island City, N. Y. *Physics, Metallurgy*. La Rue,

Ohio, Sept. 14, 91. Ch.E., Ohio State; M.S., Wisconsin; Columbia. Instr. metallog., Wisconsin, 16-17; chem. engineer, B. F. Goodrich Rubber Co., 17-18; metallurgist, Nat. Lamp Works, Gen. Elec. Co., 19-23; *research metallurgist*, Atlas Steel Corp., 23-24; *Union Carbide and Carbon Research Laboratories*, 24- Lecturer, Ohio State, 22. Lieut., C.W.S., 18-19. Fel. Physical Soc; Min. and Metal. Eng. (iron and steel committee); Soc. Test. Mat. (committee on metallog); Soc. Steel Treaters. X-ray crystal structure; allotropy in metals; alloy steels.

Bain, H(arry) Foster, 29 W. 39th St., New York, N. Y. **Geology, Mining*. Seymour, Ind., Nov. 2, 71. B.S., Moore's Hill, 90; Hopkins, 91-93; Ph.D., Chicago, 97. Asst. state geologist, Iowa, 93-00; special asst., U. S. Geol. Surv., 00-01; manager, Consol. Franklin Mines Co., 01-02; geologist, U. S. Geol. Surv., 02-08; state geologist, Ill., 05-09; ed., 'Min. and Sci. Press,' 09-15; ed., 'Min. Magazine,' London, 15-16; explorations, Far East, 16-18; asst. director, U. S. Bur. Mines, 18-19; New York Orient Mines Co., 19-20; director, U. S. Bur. Mines, 20-25; *sec'y*, *Am. Inst. Min. Eng.*, 25- Lecturer, Iowa, 98; Chicago, 99, 02, 03. Geol. Soc; Min. Eng; Min. and Metal. Soc. Structural geology; ore deposits; mining methods; lead and zinc deposits.

Bain, Prof. J. Watson, University of Toronto, Toronto, Ont., Can. *Chemistry*. London, Eng., Nov. 15, 75. B.A.Sc., Toronto, 97, fellow, 97-99; Zurich, 01. Demonstrator chem., *Toronto*, 99-02, lecturer, 02-05, assoc. prof. applied chem., 05-16, *prof. chem. eng.*, 16- Chem. Soc; Soc. Chem. Indust; fel. Can. Inst. Chem; Chem. Gesell. Industrial chemistry and chemical engineering.

Bainbridge, Dr. W(illiam) Seaman, 34 Gramercy Park, New York, N. Y. *Surgery*. Providence, R. I., Feb. 17, 70. M.D., Columbia, 93; hon. A.M., Shurtleff, 99; hon. M.S., Washington and Jefferson, 02; hon. Sc.D., West. Univ. of Pa., 07; Litt.D., LL.D., Lincoln Mem. Univ; LL.D., Coe. Adjunct prof. *surg.*, N. Y. Post-Grad. Hosp. Med. Sch; *prof.*, N. Y. *Polyclinic*, 06- Surgeon, N. Y. Skin and Cancer Hosp; N. Y. Children's Hosp; consulting surgeon, Manhattan Hosp; Hosp. for Joint Diseases; Booth Mem. Hosp; Central Islip State Hosp; third naval district and attending specialist, surg., U. S. Pub. Health Service, N. Y.; consulting gynecologist, hospitals. Director, Equitable Life Assurance Soc. Hon. pres, First Int. Cong. Study Tumors and Cancers, Heidelberg. Commander, M.C., U.S.N.R.F. Am. Med. Ass; fel. Ass. Obstet. and Gynec. (v. pres, 17); N. Y. Acad. Med; fel. Royal Soc. Med. London; for. mem. Acad. Royale de Med. de Belg. Cancer; operative gynecology; abdominal surgery; goiter.

Baird, Prof. E(dgar) A(ian), University of North Dakota, Grand Forks, N. Dak. *Botany*. River Falls, Wis., Nov. 4, 86. A.B., Wisconsin, 14, A.M., 15, Ph.D., 20. Supt. schools, Wis., 11-14; instr., Wisconsin, 15-17, 20-22; *assoc. prof. bot.*, *North Dakota*, 22- Officer, U.S.A., 17-19. A.A.; Bot. Soc; Phytopath. Soc; Micros. Soc; Wis. Acad. Nuclei in the black molds.

Baitsell, Prof. George A(Ifred), Yale University, New Haven, Conn. **Zoology*. Wright, Iowa,

- Oct. 2, 85. B.S., Central (Iowa), 08; A.M., Yale, 09, Ph.D., 14. Prof. biol. and chem., Central (Iowa), 09-10, acting dean and prof. biol., 12-13; Seessel fellow *zool.*, Yale, 13-14, instr., 14-18, asst. prof., 18-25, *assoc. prof.*, 25- Instr., Woods Hole, 13-19. Asst. physiologist, army-navy gas investigation; capt., C.W.S. A.A.; Soc. Zool.; Soc. Nat.; Soc. Exp. Biol.; Ass. Anat.; Physiol. Soc. Life history of Protozoa; tissue culture; microdissection; wound healing; fibrin; connective-tissue formation; fibrous tissue in tubercular tissues.
- Bakenhus, Capt. Reuben Edwin**, Naval War College, Newport, R. I. *Civil engineering*. Chicago, Ill., 73. B.S., Mass. Inst. Tech.; U. S. Naval War Col. *Officer, C.E.C., U.S.N., 01-*; *staff U. S. Navy War Col., 24-* Asst. chief bur. yards and docks, Navy Dept., 18-23, manager shipyard plants, Emergency Fleet Corp., 20. Navy Cross. A.A.; Soc. Mil. Eng.; Civil Eng.; Naval Eng.; Naval Archit.; Permanent Int. Ass. Navigation Congresses.
- Baker, A(rthur) C(hallen)**, U. S. Department of Agriculture, Washington, D. C. *Entomology*. Belleville, Ont., Can., Feb. 5, 85. Diploma, Ont. Agr. Col., 09; B.A.Sc., Toronto, 11; Ph.D., George Washington, 18. *Expert and senior entomologist, bur. entom., U. S. Dept. Agr., 11-26, in charge trop. and sub trop. plant insect investigations, 26-* A.A.; Entom. Soc.; Zool. Soc.; Ecol. Soc.; Ass. Econ. Entom. (advisory board, and committee on nomenclature, 24-); Wash. Entom. Soc. (ed., 'Proc.', 18-23); Wash. Biol. Soc.; Wash. Acad.; Ont. Entom. Soc. Economic entomology; fruit insects; research methods and personnel; taxonomy of Aphididae and Aleoerodidae.
- Baker, Dr. A(rthur) L(atham)**, Rye, N. Y. *Mathematics*. Cincinnati, Ohio, May 7, 53. C.E., Rensselaer, 73; Ph.D., Lafayette, 89. Adjunct prof. civil eng., Lafayette, 73-80; prin., high sch., Pa., 82; prof. math., Stevens High Sch., Hoboken, N. J., 89-91; Rochester, 91-01; head dept. math., Manual Training High Sch., Brooklyn, N. Y., 01-16. Micros. Soc.; N. Y. Micros. Soc.; Rochester Acad. (sec'y, 92-00). Microscopy; xylogy.
- Baker, Prof. C(harles) F(uller)**, College of Agriculture, Los Baños, P. I. *Botany, Zoology*. Lansing, Mich., March 22, 72. B.S., Mich. State Col., 91; A.M., Stanford, 03. Asst. zoologist, Mich. State Col., 91-92; asst. to zoologist and entomologist, Colo. Agr. Col., 92-97; biologist, Ala. Polytech., and entomologist, Exp. Sta., 97-99; head teacher biol., Cent. High Sch., St. Louis, 99-01; asst. prof. biol., Pomona, 03-04; chief dept. agr. bot., Cuban Exp. Sta., Santiago, 04-07; curator herbarium and bot. garden, Museo Goeldi, Para, Brazil, 07-08; *assoc. prof. biol.*, Pomona, 08, *prof.*, 08-12; *trop. agron., Philippines, 12-18, dean, prof. trop. agr. and director, Exp. Sta., 18-* Zoologist and *assoc. botanist*, Ala. Biol. Surv.; in charge, Colo. forestry and zool. exhibit, Columbian Expos, 93; botanist, H. H. Smith exploring exped., Santa Marta Mts., Colombia, 98-99; founder, Laguna Marine Lab, 10; asst. director, Bot. Gardens, Singapore, 18; cooperator, tech. asst. to director, Bur. Agr., P. I. Publisher, 'Invert. Pacifica'; ed., 'Pomona Jour. Econ. Entom'; 'Pomona Jour. Econ. Bot'; *assoc. ed.*, 'Philippine Agriculturist', 'Philippine Jour. Science', and 'Philippine Agr. Rev.' A.A.; Ass. Econ. Entom.; Entom. Soc.; S. Calif. Acad.; Wash. Entom. Soc.; N. Y. Entom. Soc.; Havana Acad.; Entom. Gesell.; Soc. entom. de France; Soc. Linnean de Lyon; Soc. Belge d'Entom.; Soc. Entom. Italiano. Comparative anatomy of special groups of plants and animals; Hemiptera and Hymenoptera; economic plants of the tropics.
- Baker, Charles Laurence**, 324 Southern Pacific Building, Houston, Texas. *Geology*. Cordova, Ill., Oct. 10, 87. Monmouth, 03-05; Oberlin, 05-07; Chicago, 07, fellow, 08-10, B.S., 08; California, 10-12, fellow, 10-11, A.M., 16. Asst. biol., Monmouth, 04-05; comp. anat. and vert. histol., Oberlin, 05-07; instr. geol., California, 11; Texas, 16; asst. geologist, South. Pacific Ry. Co., 12-13, 17-18; geologist, bur. econ. geol., Texas, 14-17, 22; geologist for L. E. Hanchett, 17-21, 23; oil companies, 21-24; East Coast Oil Co., 24-25, chief geologist, 25-26; *South. Pacific Ry., Mex., 25-26, Texas and La., 26-*; *Rio Bravo Oil Co., 26-* Field asst., U. S. Geol. Surv., 08, 10. A.A.; Ass. Petrol. Geol.; fel. Am. Geog. Soc.; Paleont. Soc.; fel. Royal Scottish Geog. Soc. Economic geology; geology of western United States, Mexico and River Plata Basin of South America.
- Baker, Charles Whiting**, Fern Hill, Montclair, N. J. *Engineering, Economics*. Johnson, Vt., Jan. 17, 65. C.E., Vermont, 86. Assoc. ed., 'Eng. News,' 87-95, managing ed. and sec'y, Eng. News Pub. Co., 95-05, ed-in-chief and v. pres, 05-17, consulting engineer and consulting ed., 'Eng. News Record,' 17-20; *director, Eng. Business Exchange, 20-* Aid, U. S. Coast and Geod. Surv., 84; draftsman, Baldwin Locomotive Works, 86-87; commissioner, Palisades Interstate Park, 11- Mech. Eng. (v. pres, 09-). Economics of transportation systems.
- Baker, Prof. E(dwin) M(yron)**, University of Michigan, Ann Arbor, Mich. *Chemical engineering*. Toledo, Ohio, Feb. 21, 93. B.S., Pa. State, 16. Chemist and shift supt., Hooker Electrochem. Co., 16-18; instr. chem. eng., Michigan, 18-20, *asst. prof., 20-*; consulting engineer, C. G. Spring and Bumper Co., 19- Chem. Soc.; Electrochem. Soc.; junior mem. Chem. Eng. Spray systems for washing and scrubbing gases; gas absorption; electroplating.
- Baker, Ernest L.**, 9 Probert St., Rochester, N. Y. *Chemistry*. Portland, Maine, 80. B.S., Maine, 03. Asst. chemist, N. Y. Exp. Sta., 05-07, *assoc. chemist, 07-14*; chief chemist, Patent Cereals Co., 14-20; Schreiber Products Corp., 20-22; *pres., Pyramid Process Co., 22-* Chem. Soc. Cereal foods; cattle foods; dextrins; starches; sugars; vegetable oils; sugars from cereal starches; adhesives.
- Baker, F(rank) C(ollins)**, Natural History Museum, Urbana, Ill. *Zoology, Paleontology*. Warren, R. I., Dec. 14, 67. Brown, 88-89; Jesup scholar, Acad. Nat. Sciences, Phila., 89-90; B.S., Chicago Sch. Sci., 95. In charge invert. dept., Ward's Nat. Sci. Establishment, Rochester, 91-92; curator zool., Field Museum Nat. Hist., 94; curator, Chicago Acad., 94-15; zool. investigator, Syracuse, 15-17; *curator museum nat.*

- hist. Illinois*, 18— Phila. Acad. exped, Mex, 90; Mollusca Surv, Wis, 20-23; Pleistocene Mollusca Surv, Ill, 25— A.A.; Ecol. Soc.; Ass. Mus. (councilor, 14-16); Ill. Acad. (sec'y, 11); Audubon Soc. (v. pres, 96-15); Chicago Acad. (sec'y, 94-96, 08); fel. Rochester Acad. (sec'y, 91). Fresh-water, Pleistocene and Wisconsin Mollusca; molluscan protoconch and ecology; Lymnaeidae; fresh-water pulmonates; limnology; museum administration.
- Baker, Dr. Fred (erick)**, 892 Rosecrans Boulevard, Point Loma, Calif. *Conchology*. Norwalk, Ohio, Jan. 29, 54. B.S., Cornell, 78; M.D., Michigan, 80. Asst. ophthalm. and otol., Michigan, 80-81; collector, U. S. Nat. Museum, Japan, China, Formosa, Cambodia and P. I., 13-15. Conchologist and surgeon, Stanford exped, 11; Calif. Acad. exped, Gulf of Calif, 21. Trustee, Calif. State Nor. Sch., San Diego, 11-13. Calif. Acad.; South. Calif. Med. Soc. (pres, 00); Calif. Med. Soc. (v. pres, 00); San Diego Soc. Nat. Hist. (pres, 20-22); San Diego Mus. Ass. Paleozoic Crustacea; mollusks; ophthalmology; otology; rhinology; laryngology.
- Baker, Dr. G(erald) C(lifford)**, 208 Hanssler Place, Peoria, Ill. *Sanitary chemistry*. Bement, Ill., March 1, 94. A.B., Illinois, 17, M.S., 19; Ph.D., Iowa, 22. Chemist and bacteriologist, Ill. State Water Surv., 17-20; supervising chemist, Newport Chem. Co., 20-21; instr. chem., Iowa, 22-25; tech. director, Premier Malt Products Co., 25— Summer, chemist, Borromite Co. of Amer., 21. Consulting sanitary chemist, 22-25. Chem. Soc.; Water Works Ass. Water chemistry; water softening; malt products.
- Baker, Dr. Harry J(ay)**, 100 E. Grand River Ave., Detroit, Mich. *Educational psychology*. Kinsman, Ohio, July 31, 89. A.B., Michigan, 13, A.M., 18, Ph.D., 20. Supt. pub. schools, Ohio, 13-17; clin. psychologist, Detroit, 20— Summers, prof., Missouri, 21-23, 25. A.A.; Psychol. Ass.; Nat. Soc. Study Educ. Kindergarten, advanced first grade, primary, Alpha and advanced intelligence tests.
- Baker, Dr. Horace Burrington**, University of Pennsylvania, Philadelphia, Pa. *Zoology*. Sioux City, Iowa, Jan. 25, 89. B.S., Michigan, 10, 10-13, Ph.D., 20. Instr. zool., Colo. Col., 13-17, asst. prof., 17; instr., Pennsylvania, 20— Summers, Mich. Biol. Surv., 08-10, instr., Woods Hole, 24-26; research assoc., Phila. Acad. Nat. Sci., 25— Univ. of Michigan Museum exped, Mex, 10; Venezuela, 20; Curaçao, 22. Soc. Nat.; Soc. Zool.; Ecol. Soc.; Malacozool. Gesell. Molluscan morphology and systematics; animal distribution.
- Baker, H(ugh) P(otter)**, Dobbs Ferry, N. Y. *Forestry*. St. Croix Falls, Wis., Jan. 20, 78. B.S., Mich. State Col., 01; M.F., Yale, 04; D.Oec., Munich, 10. Forest asst., U. S. Forest Service, 01—; assoc. prof. in charge forestry, Iowa Col., and forester, Exp. Sta., 04-07; prof. forestry, Pa. State, and forester, Exp. Sta., 07-12; dean, N. Y. State Col. Forestry, and prof. silviculture, Syracuse, 12-20; forester and sec'y, Am. Paper and Pulp Ass., 20— Asst., Forest Surv., Nebr. and Wyo., 01; chief, Iowa Forest Surv., 05; in charge forestry short course, Colo. Agr. Col., 07. A.A.; Soc. Foresters; Forestry Ass. (v. pres, Iowa, 05); N. Y. Acad.; Royal Geog. Soc. Sand dunes along Columbia River; public lands of central Idaho; silviculture in New Mexico; forest surveys of Idaho and Iowa; adaptability of prairie states to growing of trees for commercial purposes; forest nursery practice; forest economics.
- Baker, Dr. J(ohn) C(lark)**, 125 Cooper Ave., Upper Montclair, N. J. *Chemistry*. Ridgeway, Iowa, Aug. 11, 84. B.S., Upper Iowa, 10; A.M., Columbia, 15, Ph.D., 16. Asst., Upper Iowa, 10; head dept. science, N. Mex. Nor. Univ., 10-13; asst. chem., Columbia, 14-16; assoc. chemist, N. Y. Exp. Sta., Geneva, 16-19; chief chemist, Wallace and Tiernan Co., 19—, v. pres, 23— A.A.; Chem. Soc.; Ass. Cereal Chem. Diastatic enzymes; casein; milk control; water sterilization; applications of chlorine; flour and textile bleaching.
- Baker, John T(ownsend)**, Phillipsburg, N. J. *Chemistry*. Orange, N. J., June 30, 60. M.S., Lafayette. Pres, J. T. Baker Chem. Co. Manufacture of chemical reagents.
- Baker, Dr. Lillian E(loise)**, 420 W. 20th St., New York, N. Y. *Chemistry*. Wheaton, Ill., 90. A.B., Wellesley, 14; A.M., Columbia, 19, fellow, 21-22, Ph.D., 22. Instr. physics and chem., Pratt Inst., 14-18; chem., Wellesley, 18-20; asst., Rockefeller Inst., 22— Oxidation-reduction potentials; lipoids as the growth-inhibiting substance in serum.
- Baker, M(oses) N(elson)**, 53 Oakwood Ave., Upper Montclair, N. J. *Engineering*. Enosburgh, Vt., Jan. 26, 64. Ph.B., Vermont, 86, C.E., 99. Assoc. ed., 'Eng. News,' 87-17; 'Eng. News Record,' 17— Mem. Board Health, Montclair, 94-04, pres, 04-15; v. pres, N. J. State Dept. Health, 15. Pub. Health Ass.; Water Works Ass.; Nat. Munic. League (chairman, exec. committee, 13-18); New Eng. Water Works Ass.; N. J. Sanit. Ass. (pres, 03). Civil and sanitary engineering; public health; water and sewage treatment; garbage and refuse disposal; municipal administration.
- Baker, Prof. O(liver) E(dwinn)**, 4 Magnolia Parkway, Chevy Chase, Md. *Geography*. Tiffin, Ohio, Sept. 10, 83. B.S., Heidelberg (Ohio), 03, M.S., 04; A.M., Columbia, 05; Ph.D., Wisconsin, 21. Agr. economist, U. S. Dept. Agr., 12—; prof. agr. geog., Clark, 23— Summers, Wis. Soil Surv., 10-12. A.A.; Ass. Geog. (v. pres, 23); Meteor. Soc.; Statist. Ass.; Econ. Ass. Land utilization; climatology; ecology; climate of Wisconsin in relation to agriculture; atlas of American agriculture; agricultural geography.
- Baker, Prof. R(ichard) P(hilip)**, University of Iowa, Iowa City, Iowa. *Mathematics*. Condover, Eng., Feb. 3, 66. Oxford, 84-87; B.Sc., London, 87; Ph.D., Chicago, 10. Instr. math., Iowa, 05-10, asst. prof., 10-15, assoc. prof., 15— A.A.; Math. Soc.; Math. Ass.; Circolo Mat. di Palermo. Algebraic equations; groups; geometry; thermodynamics; mathematical models.
- Baker, Prof. Robert H(orace)**, University of Illinois, Urbana, Ill. *Astronomy*. Northampton, Mass., March 29, 83. A.B., Amherst, 64, A.M., 05; Ph.D., Pittsburgh, 10. Asst., Amherst Col. Observatory, 04-06; Allegheny Observatory, 06-10; asst. prof. astron., Brown, 10-11;

- Michigan, 11; prof, Missouri, 11-22; fellow, Lick Observatory, 22-23; *prof, Illinois, and director observatory, 23-* A.A.; Astron. Soc.; Physical Soc. Stellar spectroscopy; photographic and photoelectric photometry.
- Baker, Prof. Ross Allen**, 114 Trinity Place, Syracuse, N. Y. *Chemistry*. Greencastle, Ind, Nov. 13, 86. A.B., De Pauw, 06, A.M., 07; Ph.D., Wisconsin, 14. Instr. chem, high sch, Ill, 07-08; prof, Baker, 08-10; instr, Wisconsin, 10-14; Minnesota, 14-16, asst. prof, 17-18; *prof. inorg. chem, Syracuse, 19-* Dept. ed, 'Jour. Chem. Educ.', 25- Major, C.W.S., and commandant, U. S. Gas Sch, 18. A.A.; Chem. Soc. (chairman, Syracuse sect, 23, sec'y, div. chem. educ, 26-). Metals; chemical education.
- Baker, Dr. S(ara) Josephine**, 749 West End Ave, New York, N. Y. *Child hygiene*. Poughkeepsie, N. Y, Nov. 15, 73. M.D., Woman's Med. Col. N. Y., 98; D.P.H., N. Y. Univ, 17. Med. inspector, dept. health, New York, 01-07, asst. commissioner, 07-08, director bur. child hygiene, 08-22. Lecturer, Teachers Col, Columbia; Univ. and Bellevue Hosp. Med. Col; surgeon, U. S. Pub. Health Service; consulting director children's bur, U. S. Bur. Labor. Child Hygiene Ass. (pres, 18); Pub. Health Ass; Sch. Hygiene Ass; Am. Med. Ass; fel. N. Y. Acad. Med. Health of children.
- Baker, Prof. T(homas) A(lexander)**, University of Delaware, Newark, Del. *Dairy husbandry*. Dalton, Ga, Jan. 17, 93. B.S., Cornell, 14. Instr. *animal husbandry*, Cornell, 14-17; N. Y. State Sch. Agr, Cobleskill, 17-18; *prof, Delaware, 19-* Dairy Sci. Ass. Heredity in dairy cattle.
- Baker, Prof. Tho(mas) R(akestraw)**, Winter Park, Fla. *Physics, Chemistry*. Chester Co, Pa, Feb. 27, 37. B.S., First Pa. State Nor. Sch, 60, M.S., 61; Pa. State, 62-65; Ph.D., Göttingen, 71; LL.D., Rollins, 26. Prof. math, Pa. State, 61-67; nat. science, First Pa. State Nor. Sch, 71-86; Rollins, 92-12, *director museum, private lab*. Conducted private lab, Orlando, Fla, 87-90. Electricity; acoustics; dynamics.
- Baker, Prof. Will(iam) C(oombs)**, 135 Centre St, Kingston, Ont, Can. *Physics*. Kingston, Dec. 16, 71. M.A., Queen's (Can), 95; 1851 Exhib. scholar, Cambridge, 99-00. Demonstrator *physics, sch. mining, Queen's (Can)*, 95-02, lecturer, 02-08, asst. prof, 08-12, assoc. prof, 12-20, *prof, 20-* Physical Soc. Hall effect in gold for small fields; ultra-violet light effect in starting discharge; absorption of hydrogen by metals.
- Baker, Prof. W(oolford) B(ales)**, Emory University, Ga. *Protozoology, Cytology*. Las Vegas, N. Mex, Dec. 30, 92. A.B., Henderson-Brown Col, 13; M.S., Emory, 20; Ph.D., Columbia, 26. Instr. science, Henderson-Brown Col, 13-14; head master, acad, 14-15, prof. biol. sciences and head dept, 15-19; instr. biol, Emory, 19-21, asst. prof, 21-24; acting prof. biol. and head dept, Agnes Scott Col, 22-24; asst. zool, Columbia, 24-25; *assoc. prof. biol, Emory, 25-* Summer, instr, Woods Hole, 26. Ga. Acad. Cytology and physiology of Euglenoidina.
- Bakke, Dr. A(rthur) L(aurence)**, Ames, Iowa. *Plant physiology*. Fargo, N. Dak, June 26, 86. B.S., Iowa Col, 09, M.S., 11; Ph.D., Chicago, 17. Asst. bot, Iowa Col, 08-09; instr. science, Elgin Acad, 09-10; bot, Iowa Col, 10-13, asst. prof. bot. and plant physiologist, 13-17, assoc. prof. *plant physiol, 17-25, prof, 25-, chief, Exp. Sta, 25-* Assoc. desert lab, Carnegie Institution, 13, 14; collaborator and asst. pathologist, bur. plant indust, U. S. Dept. Agr, 14, 18, 19. A.A.; Soc. Plant Physiol; Bot. Soc; Iowa Acad. Life history of Helminthosporium teres; city smoke and vegetation; transpiring power of plants; determination of wilting; hardness of plants.
- Balch, Dr. Alfred W(illiam)**, Piermont, N. Y. *Chemistry, Medicine*. East Saginaw, Mich, Aug. 27, 73. Ph.G., Mass. Col. Pharmacy, 94; M.D., Harvard, 98; grad, London Sch. Trop. Med, 07. Instr. org. and anal. chem, Mass. Col. Pharmacy, 94, asst. prof, 98-01; asst. pharmacol, Harvard Med. Sch, 98-01; asst. surgeon, U.S.N., 01-04, passed asst. surgeon, 04-09; prof. med. chem. and toxicol, med. sch, Tufts, 09-17; Metropolitan Life Ins. Co, 17-18, asst. med. director, 18-23; *biochem. lab. and med. practice, Piermont, 23-* A.A.; Chem. Soc; Ass. Path. and Bact; Soc. Trop. Med; Soc. Chem. Indust; Pub. Health Ass. Azoturia; pharmacological action of corn smut; action of drugs on the flow of bile.
- Balch, Edwin Swift**, 1634 Spruce St, Philadelphia, Pa. *Geography, Ethnology*. Philadelphia, 56. A.B., Harvard, 78. *Mem. Phila. Bar, 82-* A.A.; Am. Geog. Soc; Philos. Soc; Franklin Inst; Phila. Geog. Soc. (pres, 95); cor. mem. Wyoming (Pa) Hist. and Geol. Ass; hon. mem. Soc. Cient. Ant. Alz; fel. Royal Geog. Soc. Mountains; caves; polar discoveries; comparative art.
- Balch, Francis N(oyes)**, 60 State St, Boston, Mass. *Biology*. Boston, Nov. 23, 73. A.B., Harvard, 96, A.M., 97, LL.B., 00; Woods Hole, 96; U. S. Fish Commission, 97; Cold Spring Harbor, 98, 99; Bermuda, 10. *Mem. Mass. Constitutional Convention, 17-19; Mass. Legislature, 19-* Boston Finance Commission. A.A.; Soc. Nat; Soc. Zool; assoc. Am. Acad; Boston Soc. Nat. Hist; Boston Malacol. Club (v. preh. and past pres); London Malacol. Soc; Conchol. Soc. of Gt. Britain and Ireland. Coloration and distribution of Mollusca; bird migration and coloration; chromatophores of cephalopods; the Nudibranchiata; heredity, eugenics and crime.
- Balch, Royal T(ylor)**, U. S. Department of Agriculture, Washington, D. C. *Chemistry*. Kalamazoo, Mich, Jan. 3, 95. B.S., Kalamazoo Col, 16; A.M., Clark, 17. *Bur. chem, U. S. Dept. Agr, 17-18, 19-* C.W.S., U.S.A., 18-19. Chem. Soc. Physical constants in relation to carbohydrate analysis; sugar manufacture.
- Balcom, Dr. E. W(ilfred)**, U. S. Department of Agriculture, Washington, D. C. *Chemistry*. Morden, N. S. Can, Nov. 18, 77. B.S., Mass. Inst. Tech, 00, Austin fellow, 02-04; Ph.D., Heidelberg, 05. Asst. anal. chem, Mass. Inst. Tech, 00-02; instr. gen. and physical chem, Michigan, 05-06, anal. chem, 06-07; asst. chemist, *bur. chem, U. S. Dept. Agr, 07-09*, acting

- chief, U. S. Food and Drug Inspection Lab, Nashville, Tenn, 09-11, chief, 11-14, food investigation chemist, 14-20, in charge lab, 20-22, tech. administrative asst, 22-24, *chemist*, 24- A.A.; Chem. Soc. (pres, Nashville sect, 12); Agr. Chem. (sec'y-treas, 21, chairman, board editors, 'Jour,' 21-); Wash. Acad. Physical, analytical and food chemistry.
- Baldauf, Dr. Leon K(ahn)**, 913 Starks Building, Louisville, Ky. *Internal medicine*. Louisville, Dec. 17, 77. Ph.G, Phila. Col. Pharmacy, 96; A.B, Hopkins, 01, M.D, 05. Instr. path. and bacter, Albany Med. Col, 05-07; asst. city pathologist, St. Louis, Mo, 07-10; prof. path. and bacter, *Louisville*, 10-14, *instr. med*; *practising physician, internal med*, 15- Ass. Path. and Bact. Arterio-sclerosis; experimental leucocytosis and leucopenia; fatty infiltration of the liver; cerebro-spinal syphilis; cardiovascular diseases.
- Balderston, Dr. Lloyd**, 805 Franklin St, Wilmington, Del. *Chemistry*. Colora, Md, July 3, 63. B.S, Pennsylvania, 02, Ph.D, 04. Teacher, schools, 85-03; physics, Pa. State Nor. Sch, West Chester, 04-10; chemist, Elk Tanning Co, 10-17; prof. leather chem. and technol, Hokkaido Imp. Univ, 17-20; *chemist, J. E. Rhoads and Sons*, 21- A.A.; Leather Chem. Ass. (mem. council, 12-14, assoc. ed, 'Jour,' 12-17, pres, 26-); Int. Ass. Leather Trades Chemists. Speed of sound in liquids; microbiology of tan liquors; chrome tanning liquors; Japanese tanning materials.
- Balduf, Prof. W(alter) V(alentine)**, 610 Michigan Ave, Urbana, Ill. *Entomology*. La Carne, Ohio, Sept. 28, 89. A.B, Ohio Wesleyan, 15; M.S, Ohio State, 20, Ph.D, 22. Instr, high sch, Ohio, 15-18; zool. and entom, Ohio State, 18-20; asst. entomologist, Ohio Exp. Sta, 20-22; *asst. prof. entom, Illinois*, 22- A.A.; Entom. Soc; Ass. Econ. Entom; Soc. Parasitol; Ecol. Soc; Ill. Acad; Ohio Acad. Economic entomology; bionomics of parasitic Hymenoptera; taxonomy of Eurytomidae.
- Baldwin, Dr. Bird T(homas)**, University of Iowa, Iowa City, Iowa. **Psychology, Education*. Marshallton, Pa, May 31, 75. B.S, Swarthmore, 00, traveling fellow, 02-03; Pennsylvania, 01-02; A.M, Harvard, 03, Ph.D, 05; Leipzig, 06. Prin, Friends' Sch, Moorestown, N. J, 00-02; asst. psychol. and logic, Harvard, 03-04; prof. pedag, State Nor. Sch, West Chester, Pa, 05-06, psychol, 06-10; assoc. prof. educ. and head sch. art of teaching, Texas, 10-12; prof. *psychol*, Swarthmore, 12-17; *research prof, Iowa, and director, Child Welfare Research Sta*, 17- Summers, asst, Harvard, 04; lecturer, Hopkins, 15-17; Swarthmore, 06-10; Chicago, 09-10; winter, Hopkins, 16-17. Chief psychologist and director reconstruction, Walter Reed Hosp. Chairman committee child development, Nat. Research Council; advisory council, Near East Relief. Major, Sanit. C, 18-19. A.A. (sec'y and chairman, Q); Psychol. Ass. (past counselor, committee on certification of psychologists); Eugenics Ass. (advisory council); Iowa Soc. Occupational Therapy (pres). Educational psychology; physical growth and school progress; physical growth of child from birth to maturity; mental growth curve of normal and superior children; psychology of pre-school child.
- Baldwin, Dr. Edward R**, Saranac Lake, N. Y. **Medicine*. Bethel, Conn, Sept. 8, 64. M.D, Yale, 90, hon. A.M, 14. Asst, Yale Med. Sch, 89-90; intern, Hartford Hosp, 90-92; asst, Saranac Lab, 94-15; *director, Trudeau Foundation*, 15- A.A; Am. Med. Ass; Ass. Path. and Bact; emer. mem. Am. Physicians; Soc. Clin. Invest; Tuber. Ass; Climat. Ass. Tuberculosis; immunity and infection; tuberculin.
- Baldwin, Dr. Francis Marsh**, Iowa State College, Ames, Iowa. *Zoology*. West Upton, Mass, Jan. 16, 85. A.B, Clark, 06, A.M, 07; Ph.D, Illinois, 17. Instr. nature and science, Louisville Nor. Sch, Ky, 08-11; prof. biol, Western Maryland, 11-15; asst. zool, Illinois, 15-17; asst. prof, *Iowa Col*, 17-19, assoc. prof, 19-20, *prof. physiol*, 20- Bur. Fisheries, Woods Hole, 15. Summers, Illinois, 16, Woods Hole, 19, Lakeside Lab, 24, 25. A.A; Physiol. Soc; fel. Iowa Acad. Earthworms; Amblystoma; carotid, aorta and subclavian arteries of the rabbit; permeability of sea-urchin eggs; consumption of oxygen in marine forms; body temperature in turtles; photochemical distribution on retina; metabolism.
- Baldwin, G(eorge) Clyde**, Federal Building, Idaho Falls, Idaho. *Civil engineering*. Kinsman, Ohio, April 14, 84. B.S, Kansas, 06. Surveyor, Alaska Boundary Surv, 06-09; junior engineer, asst. engineer and *hydraulic engineer*, U. S. Geol. Surv, 10- Aid, U. S. Coast and Geod. Surv, 03-04, 05. Trustee, Idaho Falls pub. schools, 24- Civil Eng; Ass. Eng. Hydrometry; stream measurements; water distribution.
- Baldwin, Henry I(ves)**, Milan Road, Berlin, N. H. *Forestry*. Saranac Lake, N. Y, Aug. 23, 96. A.B, Yale, 19, M.F, 22; Cornell. Instr, high sch, N. Y, 19; asst. to dean, forest sch, Yale, 22-23; Am-Scandinavian Foundation fellow, 23-24; *research forester, Brown Co*, 24- Summer, instr, Camp Riverdale, N. Y, 21. A.A; Soc. Foresters; Ecol. Soc; Meteor. Soc; Conn. Forestry Ass. (sec'y, 23); N. H. Acad; Svenska Skogsvordsforening; Norske Skogselskap. Climatology; silviculture.
- Baldwin, Prof. I(ra) L(awrence)**, University of Wisconsin, Madison, Wis. *Bacteriology*. Oxford, Ind, Aug. 20, 95. B.S.A, Purdue, 19, M.S.A, 21; Ph.D, Wisconsin, 26. Instr. bacter, Purdue, 19-24, asst. prof, 24-25; assoc. physiol, Indiana Exp. Sta, 26; *asst. prof. agr. bacter, Wisconsin*, 27- Soc. Bact; Soc. Agron; Ind. Acad. Soil and dairy bacteriology.
- Baldwin, Prof. J(ames) Mark**, Harris Forbes and Co, 56 William St, New York, N. Y, and Equitable Trust Co, 23 Rue de la Paix, Paris, France. **Psychology, Philosophy, Sociology*. Columbia, S. C, Jan. 12, 61. A.B, Princeton, 84, A.M, 87, Ph.D, 89; Leipzig and Berlin, 84-85; hon. D.Sc, Oxford, 99; LL.D, Glasgow, 00; South Carolina, 05; Sc.D, Geneva, 09. Instr. modern languages, Princeton, 86; prof. philos, Lake Forest, 87-90; Toronto, 90-93; psychol, Princeton, 93-03; philos. and psychol, Hopkins, 03-09; hon. prof, Mexico, 10-15; prof, Ecole

- des Hautes Etudes Sociales, Paris, 19-24. Spencer lecturer, Oxford, 16. Jury awards, Columbian Expos, 93. Co-editor, 'Johnson's Cyclopedia,' 93; 'Psychol. Rev,' 94-10. Commander, Imp. Order St. Sava, Servia, 19; Chevalier, Légion d'honneur, 18; gold medal, Denmark Royal Acad, 97. V. pres, Int. Cong. Psychol, London, 92, Geneva, 99, pres-elec, hon. pres, Int. Cong. Criminal Anthropol, Geneva, 96; Int. Inst. Sociol, 98, v. pres, 10. A.A.; Soc. Nat; Psychol. Ass. (pres, 97); Philos. Ass; Philos. Soc; S. Soc. Philos. and Psychol. (pres, 04-08); London Aristot. Soc; London Sociol. Soc; for. cor. Inst. de France; Belgrade Royal Acad; Tokyo Royal Acad. Logic; esthetics; sociology.
- Baldwin, S(amuel) Prentiss**, 11025 East Boulevard, Cleveland, Ohio. *Geology, Ornithology*. Cleveland, Oct. 26, 68. A.B, Dartmouth, 92, A.M, 94; LL.B, Western Reserve, 94. Practising lawyer, 94-99; *pres, The Williamson Co. Trustee*, Cleveland Museum Nat. Hist; operates Baldwin Research Lab, Ohio. A.A.; Ornith. Union; fel. Geol. Soc; Am. Geog. Soc; Inland, East. and West. Bird-banding Associations (hon. pres). *Geology of Lake Champlain*, Muir Glacier, Snake River and New Mexico; bird-banding; daily life of birds.
- Baldwin, W(esley) M(anning)**, Medical College, Albany, N. Y. *Anatomy*. Troy, N. Y, Aug. 18, 81. Med. col, Cornell, 00-04, A.B, Cornell, 07, A.M, 09, M.D, 11; Bonn and Würzburg, 11-13. Asst. anat, med. col, Cornell, 04-06, asst. demonstrator, 06-07, instr, 07-14, asst. prof, 14-15; *prof, Albany Med. Col, Union*, 15-A.A; Ass. Anat; Anat. Gesell. Human anatomy and histology; experimental embryology; pancreas; muscle structure; ultra-violet and X-rays on embryonic tissues; syphilis.
- Balfour, Prof. Donald C(hurch)**, 427 Sixth Ave, S. W, Rochester, Minn. *Surgery*. Toronto, Ont, Can, Aug. 22, 82. M.B, Toronto, 06, M.D, 14. *Prof. surg, Minnesota*, 15- Surgeon, St. Mary's Hosp, Rochester. Col. Surg; Surg. Ass; Soc. Clin. Surg; Ry. Surg; Am. Med. Ass; Interurban Surg. Soc; South. Surg. Ass; West. Surg. Ass. Thyroid; gastric ulcer; spleen.
- Balke, Dr. Clarence W(illiam)**, 518 Lincoln Place, Highland Park, Ill. **Chemistry*. Auburn, Ohio, March 29, 80. A.B, Oberlin, 02; Ph.D, Pennsylvania, 05. Acting prof. physics and chem, Kenyon, 03-04; research fellow, Pennsylvania, 05-06, instr. chem, 06-07; assoc, Illinois, 07-10, asst. prof. and prof. inorg. chem, 10-16; *chem. director, Fansteel Products Co*, 16- Summer, instr, Oberlin, 03. Chem. Soc. Atomic weights; metallic cerium, tungsten and molybdenum; tantalum; columbium.
- Ball, Prof. Albert**, Cooper Union, New York, N. Y. *Physics*. Perrysburg, N. Y, July 14, 73. A.B, Cornell, 01. Instr. physics, Pratt Inst, 01-05; Cooper Union, 05-07, asst. prof, 07-12, *prof. in charge*, 12- A.A; Physical Soc; Elec. Eng; Eng. Educ.
- Ball, Dr. Carleton R(oy)**, U. S. Department of Agriculture, Washington, D. C. *Agronomy, Botany*. Little Rock, Iowa, June 12, 73. B.S, Iowa Col, 96, M.S, 99, hon. Sc.D, 20. Asst. bot, Iowa Col, 96-98, asst. botanist, Exp. Sta,
- 97-98; asst. agrostologist, U. S. Dept. Agr, 99-05, agronomist, bur. plant indust, 06-18, cerealist in charge office cereal investigations, 18-24, senior agronomist in charge, 24- Acting director grad. sch, U. S. Dept. Agr, 25-26. A.A; Soc. Agron. (sec'y, 10-14, pres, 16); Bot. Soc; Soc. Plant Physiol; Ecol. Soc; Agr. Hist. Soc; Wash. Bot. Soc. (v. pres, 19); Wash. Biol. Soc; Wash. Acad; Iowa Acad. Agronomy and botany of cereals and grain sorghums; taxonomy of willows and grasses.
- Ball, Cha(rie)s B(ackus)**, Room 704, City Hall, Chicago, Ill. *Civil engineering*. New Haven, Conn, Aug. 31, 54. Ph.B, Yale, 80. Instrumentman, Burlington Ry, Nebr, 81-82; div. engineer, N. Y. West Shore and Buffalo Ry, 82-83; field inspector, Potomac River Improvement, Washington, D. C, 84-86; asst. examiner, U. S. Patent Office, 87; asst. engineer, Sewer Div, 87-94; inspector plumbing, Washington, D. C, 95-01; chief inspector, tenement house dept, New York, N. Y, 02-03; *chief sanit. inspector, Dept. Health, Chicago*, 04-; *Hoover Advisory Committee on City Planning and Zoning*, 24- Lecturer, U.S.A, 19. Civil Eng. (sec'y, city planning div, 23-); Royal Sanit. Inst. Gt. Britain. The plumbing catechism; housing and zoning.
- Ball, Dr. E(imer) D(arwin)**, Entomological Laboratory, Sanford, Fla. *Entomology*. Athens, Vt, Sept. 21, 70. B.S, Iowa Col, 95, M.S, 98; Ph.D, Ohio State, 07. Asst. zool. and entom, Iowa Col, 95-97; Colo. Agr. Col, 97-01; prof, Utah Col, 02-07, director, Exp. Sta, and dean agr, 07-16; state entomologist, Wisconsin, 16-18; prof. zool. and entom, Iowa Col, 18-21; director sci. work, U. S. Dept. Agr, 21-25; *in charge celery insect investigations, Fla. State Plant Board*, 25- Asst. sec'y, agr, U. S. Dept. Agr, 20-21. A.A; Entom. Soc; Ass. Econ. Entom. (pres, 18); Ecol. Soc; Wash. Entom. Soc; Wash. Biol. Soc; Iowa Acad; Utah Acad. (pres, 10); Ohio Acad; Wash. Acad. Taxonomy and life-histories of Hemiptera-Homoptera; North American Cercopidae, Membracidae, Fulgoridae, Cicadellidae; codling moth and beet leaf hopper; insect carriers of plant diseases.
- Ball, Dr. Gordon H(arold)**, University of California at Los Angeles, Los Angeles, Calif. *Zoology*. Warren, Pa, Sept. 20, 99. B.S, Pittsburgh, 20, M.S, 21; fellow, California, 23-24, Ph.D, 24. Asst. biol, Pittsburgh, 20-21; teaching fellow zool, California, 21-23, *instr, California at Los Angeles*, 24- A.A; Soc. Zool. Protozoology; genetics; variation in fresh water mussels; conjugation and division-rate in paramaecium; effects of hormones on Protozoa.
- Ball, Max W(aite)**, 2277 Bellaire St, Denver, Colo. *Geology*. Munson, Ill, Sept. 9, 85. E.M, Colo. Sch. Mines, 06; LL.M, Nat. Univ, 14. Field asst, U. S. Geol. Surv, 06-07, geol. aid, 07-08, junior geologist, 08-09, asst. geologist, 09-14, geologist, 15-16; mining engineer and law officer, U. S. Bur. Mines, 16-17; chief geologist, Rocky Mt. region, Royal Dutch Shell Co, 17-18, gen. manager, 18-21; *pres*, West Pipe Line Co, 21-26; *Ute Petrol. Co*, 21-; *Marine Oil*

- Co*, 22-; *Argo Oil Co*, 22- Chairman oil board, U. S. Geol. Surv, 10-16. A.A.; Geol. Soc; Ass. Petrol. Geol; Petrol. Inst; Econ. Geol; Min. Eng; Acad. Polit. Sci; Archeol. Inst; Wash. Geol. Soc. Economic geology; conservation; petroleum industry; Wyoming coal fields; placers of Colorado; oil fields.
- Ball, Prof. Oscar M(elville)**, College Station, Texas. *Botany*. Miami, Mo, Aug. 25, 68. Oklahoma, 92-93; fellow, Virginia, 96-97, A.B, 97; Bonn, 00; Ph.D, Leipzig, 03. Instr. bot, Virginia, 95-96; *prof.* chem. and biol, Miller Sch, Va, 97-00; bot. and mycol, *Agr. and Mech. Col. Texas*, 03-10, *biol.*, 10- A.A.; Texas Acad; Bot. Gesell. Plant physiology and pathology; paleobotany; soil bacteriology; nitrogen-fixing bacteria of legumes; economic botany.
- Ball, Prof. Ruth Jane**, University of Vermont, Burlington, Vt. *Zoology*. Ferrisburg, Vt, March 7, 96. B.S, Vermont, 21, research fellow, 21-22, M.S, 23. Instr. zool, *Vermont*, 22-23, *asst. prof.*, 23- A.A.; Soc. Zool. Infusoria; ciliary action of Scyphidia; parasitic protozoa of Bermuda Echinoidea.
- Ball, Dr. S(tanley) C(rittenden)**, Peabody Museum, New Haven, Conn. *Zoology*. Shelburne Falls, Mass, Nov. 19, 85. Ph.B, Yale, 11, Ph.D, 15. Draftsman, marine biol. lab, Carnegie Institution, Tortugas, Fla, 13-14; asst. curator zool, Peabody Museum, Yale, 15-16; instr, Mass. Col, 16-18; *prof.* biol, Int. Y. M. C. A. Col, 18-21; curator, Bishop Museum, 21-26; *asst. curator zool, Peabody Museum*, 26- Anatomy; histology, physiology; ichthyology; migration of insects; ornithology.
- Ball, Dr. Sydney H(obart)**, 42 Broadway, New York, N. Y. *Geology*. Chicago, Ill, Dec. 11, 79. A.B, Wisconsin, 01, Ph.D, 10. Asst. geologist, Mo. Bur. Mines and Geol, 01-02; asst. geol, Wisconsin, 03-04; geol. aid, U. S. Geol. Surv, 04-05, asst. geologist, 05-07; chief geologist, Soc. Int. Forestière et Minière du Congo, 07-09; *consulting mining geologist*, 09- Chairman, library, United Eng. Soc. Officier, Belgian Royal Order of the Lion, 19. A.A.; Geol. Soc; Soc. Econ. Geol; Min. Eng. (director); Min. and Metal. Soc. (v. pres); Soc. Belge de Géol. Geology of Miller County, Missouri, and Nevada; areal geology; geology of Belgian Congo; precious stones.
- Ball, Prof. T(heodore) R(olly)**, 7533 Westmoreland Ave, Clayton, Mo. *Chemistry*. Marshalltown, Iowa, July 29, 83. B.S, Drake, 08; Harvard, 08-09; M.S, Illinois, 14, fellow, 15-16, Ph.D, 16. Instr. *chem*, Drake, 10-13; Illinois, 16-17; *asst. prof.*, *Washington (St. Louis)*, 17-21, *assoc. prof.*, 21- Chem. Soc. (sec'y, St. Louis sect, 19, chairman, 26). Inorganic chemistry; physical chemistry; ionization in mixed electrolytes; the preparation of titanous chloride from titanic oxides; the color in the sulfo-cyanate test for iron.
- Ballantine, Dr. J(ohn) P(erry)**, 4544 Ninth Ave, N. E, Seattle, Wash. *Mathematics*. Rahuri, India, Feb. 23, 96. A.B, Harvard, 18; fellow, Chicago, 22-23, Ph.D, 23. *Instr. math*, Maine, 19-20; Pa. State, 20-21; Michigan, 21-22; Columbia, 23-26; *Washington (Seattle)*, 26- Math. Soc; Math. Ass. Interpolation; statistics.
- Ballard, Prof. Charles W**, 115 W. 68th St, New York, N. Y. *Pharmacognosy*. New York, July 6, 87. Ph.C, Columbia, 07, Phar.D, 08, A.M, 11, Ph.D, 26. Instr. *pharmacog*, *Columbia*, 07-18, *prof.*, 18- Pharmacognosist, S. B. Penick Co, 14-17; microanalyst, Health Dept, New York, 17- Pharmaceut. Ass. Food and drug botany; microscopy of food and drug products.
- Ballard, H(arian) H(oge)**, 247 South St, Pittsfield, Mass. *Natural history*. Athens, Ohio, May 26, 53. Olivet, 69-70; A.B, A.M, Williams, 74. Prin, high sch, Mass, 74-80; Lenox Acad, 80-86; *librarian and curator*, *Berkshire Athenaeum and Museum, Pittsfield, Mass*, 88- Dept. ed, 'St. Nicholas', 80-86; ed, 'Swiss Cross', 86-88; 'Popular Science News', 88-92. Medal, Columbian Expos, 93. A.A; Agassiz Ass. (founder, 75, pres, 75-05). Methods of interesting youth in natural science.
- Ballard, Prof. W(alter) R(aymond)**, College Park, Md. *Horticulture*. Towanda, Ill, May 8, 78. B.S, Kansas Col, 05. Asst. horticulturist, Md. Exp. Sta, 06-11, pomologist, 12-18; garden specialist, States Relations Service, 18-19; asst. prof. pomol, *Maryland*, and in charge small fruit investigations, Exp. Sta, 19-20, *specialist, veg. and landscape gardening, exten. service*, 20- Soc. Hort. Sci. Plant breeding; orchards; small fruits; tomatoes; landscape gardening.
- Ballard, W(illiam) S(alisbury)**, U. S. Department of Agriculture, Washington, D. C. *Plant pathology*. Platteville, Wis, May 29, 81. A.B, Illinois, 04. Asst. bot, Illinois, 04-06; sci. asst, asst. pathologist and *pathologist, fruit disease investigations, bur. plant indust, U. S. Dept. Agr*, 06- A.A; Phytopath. Soc; Soc. Hort. Sci; Chem. Soc; Soc. Plant Physiol. Parasitic and physiological diseases of fruits.
- Ballou, H(enry) A(rthur)**, Imperial College of Tropical Agriculture, St. Augustine, Trinidad, B. W. I. *Economic entomology*. West Swanzy, N. H, July 23, 72. B.S, Mass. Col, 95, M.S, 06. Gipsy Moth Committee, Mass, 95; instr. bot, forestry and entom, Conn. Col, 97-02; *entomologist, Imp. Dept. Agr, B. W. I*, 03-, *asst. commissioner and prof. entom, Imp. Col. Trop. Agr*, 22- A.A; for. mem. Ass. Econ. Entom.
- Balz, Dr. Emil H(arold)**, Mellon Institute, Pittsburgh, Pa. *Chemistry*. Columbus, Ohio, May 28, 92. B.S, 14; M.S, Pittsburgh, 16, Ph.D, 19. Instr. org. chem, Pittsburgh, 16-19; *prof.*, Westminster, 21-22; *indust. fellow, Mellon Inst*, 22- Synthetic organic chemistry; aromatic constituents of perfumes and flavors; essential oils.
- Bancroft, Dr. Edith S(usana) W(hitaker)**, Hamiltion, N. Y. *Botany*. North Conway, N. H, Nov. 19, 93. A.B, Radcliffe, 16, A.M, 17, Ph.D, 22, Alice Freeman Palmer fellow, Wellesley, 20-21. Instr. biol, Maine, 18-20. Summer, asst, Harvard, 19. A.A; Bot. Soc. Plant anatomy and morphology.
- Bancroft, Geo(rge) J(arvis)**, Bancroft Block, Denver, Colo. *Mining engineering*. Denver,

Sept. 10, 73. B.S. Stanford, 95; Colo. Sch. Mines, 96. *Ed.*, 'Min. Science,' 08- Min. Eng; Colo. Sci. Soc. Origin of ore deposits.

Bancroft, Prof. Geo(rge) R(ussell), Morgantown, W. Va. *Chemistry*. Weymouth, N. S. Can., July 7, 78. B.A., Acadia, 06; A.B., Yale, 14, Silliman fellow, 15-17, Ph.D., 17. Prin. pub. schools, N. S. Can., 98-99, 00-03, 06-07; science master, Halifax Acad., 07-13; asst. instr. chem., Yale, 14-17; prof. chem. and physics, Transylvania, 17-18; asst. prof. org. chem., Kentucky, 18-20; assoc. prof., West Virginia, 20-23; *prof. physiol. chem. sch. med.*, West Virginia, 23- Chem. Soc. (sec'y, Lexington sect., 18); Am. Med. Ass.; Ky. Acad.; W. Va. Acad. (pres., 24); W. Va. Sci. Soc. (sec'y, 22, v. pres., 23, pres., 24); N. S. Inst. Organic chemistry; esters derived from substituted aliphatic alcohols.

Bancroft, Dr. J(oseph) Austen, McGill University, Montreal, Que., Can. *Geology*. North Sydney, N. S., April 8, 82. B.A., Acadia, 03; Yale, 04, A.M., 06; Ph.D., McGill, 10. Demonstrator *geol.*, McGill, 05-08, lecturer, 08-10, asst. prof., 10-11, assoc. prof., 11-13, *Dawson prof.*, 13- Asst. gen. manager, Granby Consol. Mining and Smelting Co., B. C., 21-22. Geol. Soc.; Can. Min. Inst.; fel. Royal Soc. Can. Petrography and economic geology; geology of coast and islands between the strait of Georgia and Queen Charlotte Sound, British Columbia; geology of northern Quebec; gold, copper, zinc, lead and bauxite deposits.

Bancroft, Prof. M(erle) F(owler), Acadia University, Wolfville, N. S. Can. *Geology*. North Sydney, N. S., Nov. 2, 90. B.A., Acadia, 11; A.B., Yale, 13, fellow, 13-15. Engineer, Price Bros. and Co., 11-12; asst. geologist, Can. Geol. Surv., 16-23; *prof. geol.*, Acadia, 23-, *head dept.*, 24- Summers, field asst., Can. Geol. Surv., 10-16. A.A.; Can. Inst. Min. and Metal. Geology of the Kootenay Lake, Slocan, Lardeau and Windermere districts.

Bancroft, Prof. Wilder D(wright), 7 East Ave., Ithaca, N. Y. **Physical chemistry*. Middletown, R. I., Oct. 1, 67. A.B., Harvard, 88; Ph.D., Leipzig, 92; hon. Sc.D., Lafayette, 19, Cambridge, 23. Asst. chem., Harvard, 88-89, 93-94, instr., 94-95; asst. prof. *physical chem.*, Cornell, 95-03, *prof.*, 03- Chairman div. chem., Nat. Research Council, 19; board visitors, Bur. Standards, 22-25. *Ed.*, 'Jour. Physical Chem.', 96. Lieut. col., C.W.S. Nat. Acad.; Philos. Soc.; Chem. Soc. (pres., 10); Physical Soc.; hon. mem. Electrochem. Soc. (pres., 05, 19); Am. Acad.; hon. mem. London Chem. Soc.; hon. mem. Soc. chim. de France. Phase rule; mass law; electrochemistry; alloys; irreversible reactions; chemistry of light; colloid chemistry.

Bangham, Prof. R(alph) V(andervoort), Wooster College, Wooster, Ohio. *Zoology, Parasitology*. Wilmington, Ohio, Feb. 26, 95. A.B., Wilmington, 15; B.S., Haverford, 16, fellow, 16-17, A.M., 17; fellow, Ohio State, 22-23, Ph.D., 23. Asst. Haverford, 16-17, instr. biol., 17-18; prof., Agr. and Mech. Col. Texas, 18-19; asst. prof. anat., Baylor, 19-20, *biol.*, 20-22; *Wooster*, 23-24, *prof.*, 24- Summer, Ohio Fish and Game Div., 26. A.A.; assoc. Soc. Zool.; Soc. Parasitol.; Ecol. Soc.; Fisheries Soc.; Ohio Acad. (v. pres.,

zool. sect., 25). Ecology and life history of parasites of black bass; parasites of fresh water fish.

Bangs, Outram, Museum of Comparative Zoology, Cambridge, Mass. **Zoology*. Watertown, Mass., Jan. 12, 63. Lawrence Sci. Sch., Harvard, 84. *Asst. in charge mammals and birds, museum comp. zool.*, Harvard, 00- A.A.; fel. Ornith. Union; Soc. Mammal; Boston Soc. Nat. Hist.; Nuttall Ornith. Club; British Ornith. Union. Mammals; birds.

Banker, Prof. Howard J(ames), Eugenics Record Office, Cold Spring Harbor, N. Y. *Mycology, Eugenics*. Schaghticoke, N. Y., April 19, 66. A.B., Syracuse, 92; A.M., Columbia, 00, Ph.D., 06. Instr. biol., Southwestern Nor. Sch., California, Pa., 01-04; prof., De Pauw, 04-14; *researcher eugenics, eugenics record office, Carnegie Institution*, 14- A.A.; Torrey Bot. Club; Eugenics Research Ass. Hydnaceae; human heredity.

Banks, H(enry) W(ard), 3d, Noroton, Conn. *Chemistry*. Englewood, N. J., Oct. 28, 90. A.B., Williams, 13; Columbia, 13-14, fellow, 16-17. *Chemist*, Harriman Research Lab., Roosevelt Hosp., New York, 14-16; Marvin Davis Laboratories, 19-20; *Banks and Craig*, 20-; *Loomis, Stump and Banks*, 24- In mil. service, 16, 17-19. A.A.; Chem. Soc. Industrial and food chemistry; nephelometry; chemical detection of blood; vacuum dehydration of foods; oil from fresh coconuts; rubber latex; tar and asphalt emulsions; colloidal fungicides and insecticides.

Banks, Dr. H(orace) M(cMurrin), 324 Vernon Ave., Grand Forks, N. Dak. *Pathology, Bacteriology*. Shepherdstown, W. Va., July 18, 90. A.B., Washington and Lee, 13; M.D., Hopkins, 17. Asst. res., Hopkins Hosp., 18; *prof. bacter. and path.*, North Dakota, 23- Acting dean sch. med., North Dakota, 25-26. Chlorine concentration necessary for germicidal reaction; endocrine gland extirpation.

Banks, Nathan, Holliston, Mass. **Entomology*. Roslyn, N. Y., April 13, 68. B.S., Cornell, 89, M.S., 90. Agent, div. entom., U. S. Dept. Agr., 90-92, asst. entomologist, 96-16; *curator insects, museum comp. zool.*, Harvard, 16- Entom. Soc. (pres., 18); N. Y. Entom. Soc.; Cambridge Entom. Club; Wash. Entom. Soc.; Phila. Entom. Soc.; assoc. Phila. Acad. Systematic American arachnology; neuropterology; geographical distribution and habits of insects; catalogues of Neuroptera of the world and of American Arachnida and Heteroptera and fossorial Hymenoptera; mimicry and protective resemblance in insects.

Banta, Dr. A(rthur) M(angun), Cold Spring Harbor, L. I., N. Y. **Zoology*. Greenwood, Ind., Dec. 31, 77. A.B., Indiana, 03, A.M., 04; Ph.D., Harvard, 07. Instr., pub. schools, 95-97; prin., high school, 99-01; asst. zool., Indiana, 03-05; Harvard, 05-07; prof. biol., Marietta, 07-09; *res. investigator, sta. for exp. evolution, Carnegie Institution*, 09- A.A.; Soc. Nat.; Soc. Zool.; Soc. Exp. Biol.; Soc. Ichthyol. and Herp.; Ecol. Soc.; Ind. Acad.; Ohio Acad. Speleology; animal behavior; inhibition of de-

- velopment of melanin pigment in animals; effects of selection; comparative physiology and effects of changed environment on cavernicolous and non-cavernicolous animal species; sex control; genetics of cladocera.
- Banta, Dr. Clifford**, 1332 Foulkrod St, Philadelphia, Pa. *Chemistry*. Marshall, Ind, Nov. 24, 92. A.B, Wabash, 15; A.M, Colorado, 16; Grasselli fellow, Mass. Inst. Tech, 20, Savage fellow, 21, Ph.D, 22. Research chemist, E. I. du Pont de Nemours and Co, 17, 19; Standard Oil Co. of Ind, 22-24; *chief chemist, Barrett Co, Frankford, Pa, 24*— Research chemist, C.W.S., 18. Chem. Soc. Petroleum products; coal tar crude oils.
- Banting, Dr. F(rederick) G(rant)**, University of Toronto, Toronto, Ont, Can. *Medicine*. Al-Liston, Ont, Nov. 14, 91. M.B, Toronto, 16, L.R.C.P., 18, M.D, 22, D.Sc, 23; LL.D, Queen's (Can), 23, Western Ontario, 24; Sc.D, Yale, 24. Res. surgeon, Hosp. Sick Children, Toronto, 19-20; asst. physiol, Western Ontario, 20-21; lecturer pharmacol, *Toronto, 21-22*, senior demonstrator med, 22-23, *prof. med. research, 23*— John Scott medal, Philadelphia, 23; Rosenberger medal, Chicago, 23; Nobel prize, 23. Am. Physicians; Physiol. Soc; Can. Med. Ass; Ont. Med. Ass; Acad. Med. Toronto; British Physiol. Soc; Royal Col. Surg. Internal secretion of the pancreas.
- Barach, Dr. Joseph H(ayem)**, 5745 Beacon St, Pittsburgh, Pa. *Medicine*. Kalvaria, Lithuania, March 12, 82. M.D, Pittsburgh, 03. Res. physician, West. Pa. Hosp, 03-04, res. pathologist, 05; pathologist, Eye and Ear Hosp, 04-09; South Side Hosp, 10; *consulting physician, dept. health, Carnegie Inst. Tech, 10*— Visiting physician, Presb. Hosp, 10— Capt, M.C, 18-19. Cong. Sch. Hygiene, Buffalo, 11; Int. Cong. Hygiene and Demog, Washington, 10. A.A; Am. Med. Ass; fel. Col. Physicians. Morphology of the blood; physical diagnosis; the cardiovascular system; nephritis and diabetes.
- Barbeau, C(harles) Marius**, National Museum, Ottawa, Ont, Can. *Anthropology*. Beauce, Que, March 5, 83. B.A, Laval, 03, LL.D, 07; B.Sc, Oxford, 10; Sorbonne, 09. Asst. anthropologist, *Can. Geol. Surv, 11*, assoc. anthropologist, 19-22, *anthropologist and folklorist, 22*— Assoc. ed, 'Jour. Am. Folk-lore,' 16— Folk-Lore Soc; Royal Soc. Can; Can. Hist. Ass; cor. mem. Paris Soc. des Américanistes. Wyandotte, Huron, Iroquoian and Tsimshian ethnography; French and English folk-lore of Canada.
- Barber, E(rnest) R.**, 1200 S. Broad St, New Orleans, La. *Entomology*. Liverpool, Eng, Oct. 12, 84. Ont. Agr. Col, 03. Bur. entom, U. S. Dept. Agr, 11-22; *pres. and gen. manager, Barber Laboratories, Inc, 23*— A.A; Ass. Econ. Entom. Control of insect pests.
- Barber, Geo(rge) W(are)**, U. S. Entomological Laboratory, Charlottesville, Va. *Entomology*. Hyde Park, Mass, Aug. 3, 90. B.S, Mass. Col, 13; M.S, Harvard, 25, Sc.D, 27. *Bur. entom, U. S. Dept. Agr, 14*— Lieut, U.S.A., 17-19. Ass. Econ. Entom; Ecol. Soc.
- Barber, H(arry) G(ardner)**, 143 E. Third Ave, Roselle, N. J. *Biology*. Hiram, Ohio, April 20, 71. A.B, Nebraska, 93, A.M, 95; A.M, Harvard, 98. *Teacher biol, De Witt Clinton High Sch, New York, 98*— Investigator, Am. Museum Nat. Hist, 14-16; summers, U. S. Nat. Museum, 22-26. Ed. board, 'N. Y. State List Insects.' Entom. Soc; N. Y. Entom. Soc. (see'y, 02-10, pres, 16-18); Wash. Entom. Soc; Can. Entom. Soc. Hemiptera; Heteroptera.
- Barber, Herbert S(pencer)**, U. S. National Museum, Washington, D. C. *Entomology*. Yankton, S. Dak, April 12, 82. Pub. schools. Asst. preparator, U. S. Nat. Museum, 98-02; U. S. Dept. Agr, 02-04; U. S. Nat. Museum, 04-08; *asst, U. S. Dept. Agr, 08*— A.A; Entom. Soc; Ass. Econ. Entom; Wash. Acad; Wash. Entom. Soc. Coleoptera.
- Barber, Dr. I(ra) G(arnett)**, Western Electric Co, Hawthorne, Ill. *Physics*. Villa Nova, Ont, Can, Feb. 12, 98. B.A, Queen's (Can), 16; Ph.D, Chicago, 20. Instr. physics, Ohio State, 18; physics and elec. eng, Rensselaer, 18-19; *physicist, Linde Air Products Co, Buffalo, 20-22; West. Elec. Co, Chicago, 22*— Physical Soc. Secondary electron emission from metals; improved magnetic materials for telephone work.
- Barber, Dr. M(arshall) A(lbert)**, U. S. Public Health Service, Greenwood, Miss. *Bacteriology*. Crown Point, Ind, Nov. 22, 68. A.B, Kansas, 91; A.B, Harvard, 92, A.M, 94, Ph.D, 07. Asst. bot, Harvard, 92-93; asst. and assoc. prof. bot. and bacter, Kansas, 94-06, prof. bacter. and path, med. sch, 06-11; research, Bur. Science, P. I, 11-15; Int. Health Board, Rockefeller Foundation, 15-17, med. research, Rockefeller Inst, 18-19; *special expert, malaria research, U. S. Pub. Health Service, 20*— John Scott medal. Major, Sanit. C, 17-18. Ass. Path. and Bact. Medicine; helminthology; malaria.
- Barber, T(homas) C(aldwell)**, Box 639, Brownsville, Texas. *Entomology*. Liverpool, Eng, July 27, 81. B.A.Sc, Toronto, 04. Hort. inspector, Ill, 06-07; asst. entomologist, La, 07-10; in charge sugar cane insect investigations, bur. entom, U. S. Dept. Agr, 11-12; *entomologist, Sugar Exp. Sta, Tucumán, Argentina, 12-14; Delta Lab, Tallulah, La, 14-16; Fed. Hort. Board, Texas, 17-18*, in charge sugar cane investigations, 18-24, *cotton insect investigations, 24*— A.A; Ass. Econ. Entom; Entom Soc.
- Barber, Prof. W(illiam) Harley**, 621 Ransom St, Ripon, Wis. *Physics*. Black Earth, Wis, Aug. 28, 78. B.S, Wisconsin, 01, A.M, 09; Chicago, 11-13, 14. Asst. prin. and prin, high sch, Wis, 01-05; asst, Bur. Standards, 05-06; *prof. physics, Ripon, 06*—, registrar, 10-15, dean, 15-24, acting pres, 17-18. Instr, Wisconsin, 24-26. Summer, asst, Chicago, 13. Physical Soc; Wis. Acad. Oil-drop falling in hydrogen gas.
- Barber, Dr. William Howard**, 21 W. 54th St, New York, N. Y. *Surgery*. New York, 86. A.B, Columbia, 09, M.D, 11. Instr. surg, N. Y. Polyclinic, 14-16; *Univ. and Bellevue Hosp. Med. Col, 15-19*, lecturer and director, lab. exp. surg, 19-23, *clin. prof. surg, 23*— Asst. attending surgeon, Bellevue Hosp, 18—; senior attend-

ing surgeon, Jamaica Hosp, N. Y. A.A; Col. Surg; Am. Med. Ass; Soc. Exp. Biol; Harvey Soc; N. Y. Acad. Med. General and abdominal surgery.

Barbour, Prof. Erwin H(inckley), University of Nebraska, Lincoln, Nebr. *Geology*. Springfield, Ind. A.B, Yale, 82, Ph.D, 87. Asst. paleontologist, U. S. Geol. Surv, under Prof. O. C. Marsh at Yale, 82-89; prof. *geol*, Grinnell, 89-91; *head prof*, Nebraska, state geologist and curator, State Museum, 91- U. S. Geol. and Hydrog. Surv. A.A; Geol. Soc; Seismol. Soc; Ass. Petrol. Geol; Paleont. Soc; Soc. Vert. Paleont; Ornith. Union; Ass. Mus; Nebr. Acad; Nebr. Ornith. Union. Vertebrate paleontology.

Barbour, Dr. Henry G(ray), University of Louisville, Louisville, Ky. **Physiology, Pharmacology*. Hartford, Conn, March 28, 86. A.B, Trinity (Conn), 06; M.D, Hopkins, 10, fellow, 10-11; Freiburg, 11; Vienna, 12; London, 13. Asst. prof. pharmacol, Yale, 12-21; *prof*, McGill, 21-23; *physiol. and pharmacol*, Louisville, 23- Revision committee, U. S. Pharmacopoeia, 20- A.A; *Physiol. Soc*; *Soc. Pharmacol.* (assoc. ed, 'Jour', councilor, 22-); *Soc. Exp. Biol.* Body temperature; fever; periodic respiration; drug effects on mammalian arteries; pyretic and antipyretic drug action; amines; anesthetics; blood and serum specific gravity.

Barbour, Thomas, Museum of Comparative Zoology, Cambridge, Mass. **Zoology*. Martha's Vineyard, Mass, Aug. 19, 84. A.B, Harvard, 06, A.M, 08, Ph.D, 11. *Curator and mem. council*, Harvard Library, 08-, *curator reptiles and amphibians, museum comp. zool*, Harvard, 10-, *lecturer zool*, 22-, *mem. faculty*, Peabody Museum, 13- Gold medal, Harvard Travellers Club, 07. Delegate, Pan-Am. Sci. Cong, Santiago, Chile, 07-08. A.A; *Soc. Zool*; *Ornith. Union*; *Soc. Mammal*; *Am. Acad*; *Explorers Club*; *fel. N. Y. Zool. Soc*; *Phila. Acad*; *Boston Soc. Nat. Hist.* (pres, 25-); *Wash. Biol. Soc*; *Nuttall Ornith. Club*; *hon. fel. Acad. Nat. Phys. Med. Sci, Cuba*; *hon. fel. Can. Med. Zool. Soc*; *fel. Royal Geog. Soc*; *Royal Asiatic Soc*; *cor. mem. Am. Hispan. Soc*; *cor. mem. London Zool. Soc*; *Nederland. Dierkundige Vereen Amsterdam*. Herpetology; geographical distribution of fishes and reptiles.

Bardeen, Dr. C(harles) R(ussell), University of Wisconsin, Madison, Wis. **Anatomy*. Kalamazoo, Mich, 71. A.B, Harvard, 93; M.D, Hopkins, 97. Asst. *anat*, Hopkins, 97-99, assoc, 99-01, assoc. *prof*, 01-04; *prof*, Wisconsin, 04-, *dean med. sch*, 07- A.A; *Ass. Anat*; *Soc. Exp. Biol*; *Radiol. Soc*. Experimental morphology; growth of skeleton, muscles and nerves in vertebrates; variation in distribution of nerves in man; regeneration in planarians; action of X-rays on development; size of the human heart; proportions of the human body during post-natal development.

Bardwell, Dr. D(ought) C(ooley), Atmospheric Nitrogen Corporation, Syracuse, N. Y. *Physi- cal chemistry*. Aspen, Colo, Jan. 20, 97. B.S, California, 19, Ph.D, 21. Asst. physical chemist, U. S. Bur. Mines, 21-24, *assoc. physi- cal chemist*, 24-25; fixed nitrogen research lab,

U. S. Dept. Agr, 25-26; *Atmospheric Nitrogen Corp*, 26- A.A; *Chem. Soc.* Radium; chemical effects of the alpha radiation from radon in gas systems.

Bardwell, Prof. Fred L(eslie), Carleton College, Northfield, Minn. *Chemistry*. Excelsior, Minn, Sept. 2, 58. B.S, Minnesota, 81; B.S, Mass. Inst. Tech, 84. Asst. *chem*, Mass. Inst. Tech, 84-86, instr, 86-94, *asst. prof*, 94-11; Case, 11-15; lecturer, Minnesota, 17-19; *Carleton*, 22- Work for India-rubber mfg. and culture companies. A.A; *Chem. Soc.* India-rubber.

Bardy, Dr. Joseph, 5626 N. Marvine St, Philadelphia, Pa. *Psychology*. Russia, Dec. 23, 88. M.D, Pennsylvania, 11, A.B, 18, A.M, 21, Ph.D, 23. *Instr. physics and biol*, West Philadelphia Senior High Sch. A.A; *Soc. Study Educ.* Educational psychology; tests and measurements.

Bareis, Prof. Grace M(arie), 201 W. 11th Ave, Columbus, Ohio. *Mathematics*. Canal Winchester, Ohio. A.B, Heidelberg (Ohio), 97; Bryn Mawr, 97-99, 02-06; fellow, Ohio State, 06-08, Ph.D, 09. Teacher, Miss Roney's Sch, Bala, Pa, 00-06; *asst. prof. math*, Ohio State, 08- *Math. Soc*; *Math. Ass. Groups*.

Baringer, John W(illiam), Ohio State University, Columbus, Ohio. Jamestown, Ind, Aug. 30, 95. A.B, Wabash, 18; M.S, Ohio State, 24. *Assoc. pathologist in charge European barberry eradication in Ohio, bur. plant indust*, U. S. Dept. Agr, 18- A.A; *Phytopath. Soc*; Ohio Acad. The common barberry and black stem rust of wheat.

Barkan, Prof. A(dolf), 2209 Laguna St, San Francisco, Calif. *Medicine*. Eperies, Hungary, Jan. 45. M.D, Vienna, 66; Zurich; L.L.D, Glasgow, 02. Asst. *physiol*, Graz, Austria, 67; junior asst, eye dept, Vienna Hosp, 68; *prof. ophthal. and otol*, Cooper Med. Col, 72-; *sch. med*, Stanford, *emer. prof.* Eye and ear surgeon, Lane's Hosp; German Hosp. Am. Med. Ass; San Francisco Soc. Eye, Ear and Throat Surg. (pres, 09); *Otol. Gesell*; Heidelberg Ophthal. Gesell; *hon. mem. Budapest Soc. Physicians and Surg.* Surgery of the eye and ear.

Barkan, Dr. Hans, Stanford University School of Medicine, San Francisco, Calif. *Medicine*. San Francisco, July 26, 82. A.B, Stanford; M.D, Harvard. *Instr. path*, Harvard, 10-12; *asst. ophthal. sch. med*, Stanford, 14-16, instr, 16-18, *asst. prof*, 18- Pathologist, L. I. Hosp, N. Y, 10-12. A.A; Acad. Ophthal. and Oto-Laryngol; Pacific Coast Oto-Ophthal. Soc. Ophthalmology.

Barkenbus, Dr. C(harles), 348 Aylesford Place, Lexington, Ky. *Organic chemistry*. Kalamazoo, Mich, July 7, 94. B.S, Kalamazoo Col, 17; Ph.D, Yale, 20. Asst, Yale, 17-18; *asst. prof. chem*, Kentucky, 20- *Chem. Soc.* Analysis of natural occurring drugs; synthetic organic chemistry.

Barker, Prof. A(ugustus) L(awrence), 302 Elm St, Ripon, Wis. *Chemistry*. Cedar Bluff, Ala, Feb. 10, 88. B.S, Alabama, 10, fellow, 10-11, M.S, 11; fellow, Chicago, 14-15; Ph.D, Wisconsin, 22. *Instr. biol*, Alabama, 11-13; *asst. prof. chem*, Mississippi, 15-16; *instr. physiol*,

- Emory, 16-17; prof. *chem.*, Ripon, 17-20; instr., Wisconsin, 20-21; *prof.*, Ripon, 21- Chem. Soc.; Wis. Acad. Organic chemistry; de-aminization of esters of amino acids.
- Barker, Dr. E(imer) Eugene**, 64 Roseland St., Cambridge, Mass. *Landscape architecture*. Crown Point, N. Y., Dec. 31, 86. A.B., Cornell, 10, Ph.D., 14; M.L.A., Harvard, 25. Sci. aid, sta. for exp. evolution, Carnegie Institution, 11; asst. prof. plant breeding, Cornell, 14-19; plant breeder, Insular Exp. Sta., P. R., 19-20, chief agronomist, 20-21; asst. prof. bot., Georgia, 22-23; investigator, Mass. Dept. Agr., 23-25. Nat. Indust. Conf. Board. A.A. Breeding of native Porto Rican plants; physiography; the brook stickleback; food supply and agricultural industry of New England; regional planning.
- Barker, Prof. E(rnest) F(ranklin)**, 1603 S. University Ave., Ann Arbor, Mich. *Physics*. Listowel, Ont., Can., March 16, 86. B.S., Rochester, 08; fellow, Michigan, 13-14, A.M., 13, Ph.D., 15. Instr. math., Rochester, 10-12; asst. physics, Michigan, 14-15; prof., Western, 15-19; Nat. Research Council fellow *physics*, Michigan, 19-22, *asst. prof.*, 22- A.A.; fel. Physical Soc. Infra-red spectra.
- Barker, Prof. Franklin D(avis)**, Northwestern University, Evanston, Ill. *Zoology*. Ottawa, Kans., Sept. 16, 77. A.B., Ottawa (Kans.), 98, A.M., 00; Ph.D., Nebraska, 10; fellow, Harvard, 15. Prof. biol., Ottawa (Kans.), 98-03; instr. zool., Nebraska, 04-05, adjunct prof., 06, asst. prof., 06-08, assoc. prof., 09-13, prof., 13-26, director pre-med. studies, 21-26; *prof. and head dept. zool.*, Northwestern, 26- Summers, asst., Chicago, 99, 00. A.A.; Soc. Zool.; Soc. Parasitol.; Micros. Soc.; Nebr. Acad. (sec'y, 05-07). Trematoda; new trihedral Taenia; parasites of freshwater turtles, muskrats and birds; parasitic worms.
- Barker, Dr. Harold C(harles)**, University of Pennsylvania, Philadelphia, Pa. *Physics*. Philadelphia, Dec. 3, 75. B.S., Pennsylvania, 03, A.M., 05, Ph.D., 07. Asst. chem., Drexel Inst., 96-98; *physics*, Pennsylvania, 03-04, instr., 04-10, asst. prof., 10-19, *prof.*, 19- Physical Soc. Peltier electromotive force.
- Barker, Henry D.**, Service Technique, Port-au-Prince, Haiti. *Plant pathology*. Tamassee, S. C. B.S., Clemson, 15; M.S., Wisconsin, 17; Ph.D., Minnesota, 23. Agent office cereal investigations, bur. plant indust., U. S. Dept. Agr., 17-18, 19-23; instr. plant path., Minnesota, 19-23; assoc. plant pathologist, Miss. Agr. and Mech. Col., 23-24; *botanist and plant pathologist*, Service Technique, Haiti, 24- A.A.; Phytopath. Soc. Wild resistance in flax; inheritance in timothy; fruitlet black-rot of pineapples.
- Barker, Howard H(ill)**, 346 Richmond Ave., South Orange, N. J. *Physics*, *Chemistry*. Baraboo, Wis., Sept. 28, 90. A.B., Colorado, 13; A.M., Missouri, 16. Junior chemist, U. S. Bur. Mines, 15-16; chief chemist, Chem. Products Co., Denver, 16-19; chief chemist and director, Ore Products Corp., 19-21; research prof., Eng. Exp. Sta., Missouri, 21-23; *v. pres. and chemist*, U. S. Radium Corp., New York, 23- A.A.; Chem. Soc. Uranium; vanadium; measuring and extraction of radium; measurement of luminous zinc sulfide compounds activated with radium.
- Barker, Prof. John W(illiam)**, Box 855, Flat River, Mo. *Chemistry*. Cassville, Mo., Sept. 4, 94. B.S., 20, M.S., 23, Ph.D., 25. Control chemist, Larabee Flour Mills Corp., Kans., 20-21; asst. instr. *chem.*, Kansas, 23-24; *prof.*, Junior Col., Flat River, 24- Chem. Soc. Electro-physical chemistry; super-heating in the Brown-Duval moisture tester; electrolytic valve action; absolute value of an electrode potential.
- Barker, Dr. Lewellys F(ranklin)**, Johns Hopkins Hospital, Baltimore, Md. **Medicine*. Norwich, Ont., Can., Sept. 16, 67. M.B., Toronto, 90, hon. M.D., 05; fellow, Hopkins, 92-94; Leipzig, 95; Munich and Berlin, 04; LL.D., Queen's (Can.), 07, McGill, 11. Assoc. anat., Hopkins, 94-97, assoc. prof., 97-99, path., 99-00; prof. anat., Chicago, and head dept. anat., Rush Med. Col., 00-05; prof. med., Hopkins, 05-14, clin. med., 14-21, *emer. prof. med.*, 21-, physician-in-chief, Hopkins Hosp., 05-14, *visiting physician*, 14- Asst. res. pathologist, Hopkins Hosp., 94-99; Hopkins med. commissioner to Philippine Islands, 99; special fed. commissioner from U. S. Treas. Dept. for investigation of plague in San Francisco, 01. Assoc. ed., 'Am. Jour. Anat.', 02- Trustee, Mem. Inst. for Infectious Diseases, Chicago; pres. med. and chirurg. faculty, Maryland, 25. A.A.; Soc. Nat.; Ass. Anat.; Ass. Path. and Bact.; Am. Physicians (v. pres, 11); Soc. Biol. Chem.; Soc. Clin. Invest.; Neur. Ass.; cor. mem. Edinburgh Medico-Chirurg. Soc.; cor. mem. Vienna Imp. Med. Soc.; cor. mem. Budapest Royal Soc. Physicians; for. mem. Swedish Med. Soc. Structure, physiology and pathology of the nervous system; infectious diseases; morbid anatomy of hereditary ataxia; amino-acids in urine; pathological physiology of the heart; clinical diagnosis of internal diseases.
- Barker, Capt. M(aurice) E(uгене)**, Edgewood Arsenal, Edgewood, Md. *Chemistry*. Humboldt, Tenn., May 20, 94. B.S., Valparaiso, 15; A.M., South Carolina, 24; Int. Correspondence Schools, 26. Teacher, high schools, P. I., 16-17; battery officer, heavy artil., U.S.A., 17-20, troop duty, 20-21; special instr., coast artil., 21-24; instr. chem. and war gases, C.W.S. Sch., 24-25, *tech. director*, C.W.S., 25- Chem. Soc. Chemical warfare.
- Barlow, John**, Rhode Island State College, Kingston, R. I. *Zoology*. Amenia, N. Y., Nov. 28, 72. B.S., Middlebury; A.M., Brown. *Prof. zool.*, R. I. Col., 01-, *dean science*, 25- A.A.
- Barlow, Dr. O(rpheus) W(illiam)**, 1621 Hawthorne Drive, Cleveland, Ohio. *Pharmacology*. Webb City, Mo., Oct. 30, 96. A.B., Missouri, 20, A.M., 23; Ph.D., Chicago, 26. *Instr. physiol. and pharmacol.*, Missouri, 21-24; *pharmacol.*, Western Reserve, 24- Soc. Exp. Biol.; Soc. Pharmacol.; Ass. Study Int. Secretions. Adrenalectomy and the metabolism of the cat; epinephrin on the frog heart; adrenal extracts.
- Barlow, Prof. W(illiam) E(dward)**, Virginia Polytechnic Institute, Blacksburg, Va. *Chemistry*, *Metallurgy*. Bury, Eng., May 11, 70.

B.A., Cambridge, 95, M.A., 99; Ph.D., Göttingen, 03. Demonstrator and asst. prof. chem, Iowa, 92-01, asst. prof. chem. and metal, 03-04; assoc. prof. indust. chem. and metal, *Va. Polytech.*, 04-06, *prof. metal. and metallog.*, 06-, dean grad. dept., 08-16. A.A.; Chem. Soc.; fel. Inst. Chem. Metallography; correlation of physical properties of alloys with constitution, heat treatment and mechanical treatment.

Barnard, H(arry) E(verett), American Institute of Baking, Minneapolis, Minn. *Chemistry*. Dunbarton, N. H., Nov. 14, 74. B.S., New Hampshire, 99; hon. Ph.D., Hanover, 14. Asst. chemist, N. H. Exp. Sta., 00; U. S. Naval Smokeless Powder Factory, Md., 01; chemist, N. H. State Board Health, 01-05; Ind. State Board Health, 05-19, state food and drug commissioner, 07-19; *pres.*, *Am. Inst. Baking*, 19- Food and drug inspection chemist, U. S. Dept. Agr.; standards committee, U. S. Govt; Lake Mich. Water Commission, 08-09. Chem. Soc. (pres, Ind. sect, 06, director, 17-); Chem. Eng.; Agr. Chem. (referee, food adulteration); Ind. Sanit. and Water Supply Ass. (pres). Food adulteration; sanitation; water supply; fruit syrups; beer analysis; benzoate of soda in foods; technical problems of the baking industry.

Barnard, Prof. R(aymond) W(alter), University of Chicago, Chicago, Ill. *Mathematics*. Ontario, Can., May 31, 90. A.B., Michigan, 16, M.S., 18. *Instr. math.*, Michigan, 17-23; *Chicago*, 25- Math. Soc.; Math. Ass.

Barnard, Prof. W(illiam) N(ichols), Cornell University, Ithaca, N. Y. *Mechanical engineering*. Canton, Ill., April 24, 75. M.E., Cornell, 97. Instr. machine design, Cornell, 97-00; chief draftsman, The Russell Engine Co, Massillon, Ohio, 01-03; asst. prof. machine design, *Cornell*, 03-05, *power eng.*, 05-07, *prof.*, 07- Mech. Eng.; Eng. Educ. Machine design; steam machinery; heat-power engineering.

Barnebey, Dr. O(scar) L(eonard), 215 E. Lane Ave., Columbus, Ohio. *Chemical engineering*. Hughesville, Mo., Feb. 23, 86. B.S., Nebraska, 08, A.M., 09; Ph.D., Wisconsin, 12. Instr. chem., Nebraska, 08-10; Wisconsin, 10-16; asst. prof., Rutgers, 16-17; chief research chemist, Air Reduction Co, 17-18; manager, Nizer Lab. Co, Detroit, 19-22; *pres.*, *Barnebey-Cheney Eng. Co.*, Columbus, Ohio, 19-, *Am. Solvent Recovery Corp.*, 25- Capt. C.W.S., 18-19. A.A.; Chem. Soc.; Electrochem. Soc. Inorganic chemistry; industrial furnaces; adsorbent carbon; manufacturing processes and methods.

Barnes, Dr. B(entley) T(iffany), 1858 Haldane Road, Cleveland, Ohio. *Physics*. New York, N. Y., Jan. 23, 01. A.B., Park Col., 21; fellow, Rice Inst., 21-23, A.M., 23; Loomis fellow, Yale, 24-25, Ph.D., 25. Asst., Yale, 23-24; *research physicist*, *Nela Research Lab.*, *Gen. Elec. Co.*, 25- Physical Soc. Conductivity of flames; pressure shifts in the nickel arc spectrum; vacuum tubes.

Barnes, Prof. Fred Asa, Cornell University, Ithaca, N. Y. *Railroad engineering*. Stockbridge, Mass., June 17, 76. C.E., Cornell, 97, M.C.E., 98. Rodman, Dist. Columbia, 98;

draftsman, U.S.N., 99; asst. res. engineer, Santiago de Cuba, 99-01; engineer, Ponupo Mining Co, Cuba, 01; H. J. Reilly Co, Cienfuegos, Cuba, 02; instr. ry. eng., *Cornell*, 02-05, asst. prof., 05-15, *prof.*, 15-, *director civil eng.*, 21- A.A.; Ry. Eng.; Civil Eng.; Ass. Eng.; Eng. Educ.; Soc. Test. Mat.; Concrete Inst. Railroad surveying and construction.

Barnes, Dr. Harry Elmer, 108 Maynard Road, Northampton, Mass. *History of science*. Auburn, N. Y., June 15, 89. A.B., Syracuse, 13, A.M., 14; Harvard, 16-17; Ph.D., Columbia, 18. Instr. sociol., Syracuse, 13-15; lecturer hist., Columbia and Barnard, 17-18; assoc. prof., Clark, 18-19; *prof.*, New Sch. for Social Research, 19-20; hist. thought and culture, Clark, 20-23; *hist. sociol.*, *Smith*, 23- Prof. social and econ. institutions, Amherst, 23-25; lecturer, New School for Social Research, 22-24, 26-; Springfield Col., 23. Summers, prof., Montana, 19, Washington, 20, California, 23, Wisconsin, 24, Cornell, 25. A.A. (committee mem. sect. L, v. pres, 27); Hist. Sci. Soc.; fel. Ethnol. Soc.; Anthrop. Soc.; Hist. Ass.; Econ. Ass.; Sociol. Soc.; Polit. Sci. Soc.; Acad. Polit. Sci.; N. Y. Acad.; London Sociol. Soc.; fel. Royal Econ. Soc.; fel. Inst. Int. de Sociol. Culture and social thought; methodology of the social sciences; criminology.

Barnes, Dr. Harry Lee, Wallum Lake, R. I. *Medicine*. Adams, Mass., Aug. 10, 77. M.D., Vermont, 98. *Med. supt.*, Stonywood Sanatorium, 03-04; *R. I. State Sanatorium*, 05- Am. Med. Ass.; Climat. Ass. Pulmonary tuberculosis.

Barnes, Prof. H(oward) T(urner), McGill University, Montreal, Que., Can. *Physics*. Woburn, Mass., July 21, 73. B.A.S., McGill, 93, M.A.S., 96, D.Sc., 00. Demonstrator physics, McGill, 95-98, lecturer, 00-01, asst. prof., 01-06, assoc. prof., 06-07, Macdonald prof., 07-19, director Macdonald Physics Building, 09-19. Assoc. ed., 'Jour. Physical Chem.' Joule studentship, London Royal Soc. Pres. Can. Nat. Committee, Int. Electrotech. Commission; sec'y, sect. A, Int. Elec. Cong. St. Louis, 04. A.A.; fel. Physical Soc.; fel. Am. Geog. Soc.; Can. Inst. Eng.; fel. Royal Soc. Can. (pres, math. and physics sect, 09); fel. Royal Soc.; fel. Royal Meteor. Soc. Standards of electromotive force; continuous electric calorimetry; specific heats of water and mercury; variation of the specific heat of liquids with temperature; critical velocity of liquids; thermal and electrical measurements; ice formation and prevention; ice navigation; iceberg research.

Barnes, Dr. James, Bryn Mawr, Pa. **Physics*. Halifax, N. S., Can., Dec. 11, 78. A.B., Dalhousie, 99, A.M., 00, 1851 Exhib. scholar, 00-03; fellow, Hopkins, 03-04, Ph.D., 04. Instr. physics, Hopkins, 04-06; assoc., *Bryn Mawr*, 06-10, assoc. prof., 10-17, *prof.*, 17- Cambridge, 14; Manchester, 15. A.A.; Physical Soc.; Franklin Inst. Electrical conductivity and freezing-points of mixtures of electrolytes; spectrum analysis with interferometers; emission and absorption spectra.

Barnes, Dean Jasper C(onverse), Maryville College, Maryville, Tenn. *Psychology*. Meigsville,

- Ohio, Aug. 28, 61. A.B. Marietta, 90, A.M., 93; Ph.D. Chicago, 11. Supt. schools, Ohio, 90-92; prof. educ. and prin. prep. dept. *Maryville*, 92-01, acting prof. psychol. and polit. science, 01-03, *prof. psychol.*, 03-, *dean*, 14-Prof., Summer Sch. of South, 15, 18; summer, faculty, Ohio State, 20, N. C. State Nor. Sch., Asheville, 21-23, Tennessee, 23-27, Rhodes Scholarship Committee, Tenn., 13-19. A.A.; Psychol. Ass.; S. Soc. Philos. and Psychol. (councilor, pres, 15). Voluntary control; personality in the Afro-American; progress of psychology in the South; intelligence of college freshmen.
- Barnes, Prof. O(tis) A(very)**, Colorado College, Colorado Springs, Colo. *Chemistry*. Auburn, Ill., April 15, 94. B.S., Illinois, 16, M.S., 18, Ph.D., 22. Asst. *chem.*, Illinois, 16-22; instr., Utah, 22-25; *asst. prof. Colo. Col.*, 25- Summers, Ill. State Highways Lab, 17, 23-26. Chem. Soc. (sec'y-treas, northwest. Utah sect, 23). Chlorine and crenothrix; piperidine derivatives of cocaine and procaine; catalytic reduction.
- Barnes, William**, 320 Millikan Building, Decatur, Ill. *Entomology*. Decatur, Sept. 3, 60. B.S., Harvard, 93, M.D., 96. A.A.; Am. Med. Ass. Lepidoptera of North America.
- Barnes, William Hutt**, 1349 Barrows Road, Oakland, Calif. *Medicine*. Grotiot Co, Mich., Sept. 7, 77. A.B., Stanford, 16; A.M., California, 17, M.D., 21. Teacher, high sch. P. I., 12-13; bacteriologist, Cutter Laboratories, 15-17; instr. bacter., California, 17-20; *asst. urologist, California Infirmary*, 21-; *assoc. gynec.*, *Merritt Hosp.*, 22- Soc. Bact. Immunology.
- Barnett, Dr. George D(e Forest)**, Stanford University, Calif. *Medicine*. Santa Rosa, Calif., July 12, 84. A.B., Stanford, 06, A.M., 09, M.D., 13; Hopkins, 10-12. Instr. *chem.*, *Stanford*, 09-10, *med.*, 15-19, *assoc. prof.*, 24-26, *prof.*, 26- Lieut. M.C., 17-19. Am. Med. Ass.; Soc. Exp. Biol. Renal function; hydrogen ion concentration.
- Barnett, Prof. I(saac) A(lbert)**, University of Cincinnati, Cincinnati, Ohio. *Mathematics*. London, Eng., May 7, 94. B.S., Chicago, 15, M.S., 16, Ph.D., 18. Instr. *math.*, Washington (St. Louis), 18-19; Pierce fellow, Harvard, 19-20; *asst. prof.*, Saskatchewan, 20-23; *Cincinnati*, 23- Math. Soc.; Math. Ass. Calculus variations; continuous groups in function space.
- Barnett, Lelia Jefferson Harvie (Mrs. S. J.)**, 508 N. Ardmore Ave, Pasadena, Calif. *Physics*. Amelia Co, Va. A.B., Cornell, 01. Teacher math. and physics, Va. State Nor. Sch., 93-00; computer, U. S. Naval Observatory, 01-02; U. S. Coast and Geod. Surv., 02-04; *collaborator with Dr. S. J. Barnett*, 06- Experimental electricity; magnetism.
- Barnett, Prof. R(obert) J(ohn)**, Manhattan, Kans. *Pomology*. Denison, Kans., Jan. 16, 74. B.S., Kansas Col., 95, M.S., 11. *Prof. pomol.*, Wash. Col., 14-20; *hort.*, *Kansas Col.*, 20- A.A.; Soc. Hort. Sci. Agricultural teaching; apples.
- Barnett, Prof. S(amuel) J(ackson)**, University of California at Los Angeles, Los Angeles, Calif. **Physics*. Woodson Co, Kans., Dec. 14, 73. Emporia, 89-91; Chicago, 92-93; A.B., Denver, 94; Virginia, 95-96; fellow, Cornell, 97-98, Ph.D., 98. Instr. physics and biol., Denver, 94-95; asst. astron. observatory, Virginia, 95-96; instr., asst. prof. and prof. physics, Colo. Col., 98-00; Stanford, 00-05; Tulane, 05-11; Ohio State, 11-18; physicist, Carnegie Institution, 18-26; *prof. physics, California at Los Angeles*, 26- Research assoc., Calif. Inst., 23- Magnetic observer, U. S. Coast and Geod. Surv., 02-04. Nat. Research Council; Int. Geophys. Union. Comstock prize, Nat. Acad., 18. A.A.; Physical Soc.; Am. Acad.; Wash. Philos. Soc. Experimental and theoretical electricity and magnetism.
- van Barneveld, Prof. Cha(rls) E(dwinn)**, Chatsworth, Calif. *Mining and metallurgical engineering*. Doetinchem, Netherlands, Nov. 26, 74. Collège Commercial, Boulogne; King's Col., Can.; B.S., McGill, 93, M.S., 16. Mining engineer, 93-96; asst. prof. miner. and practical metal, Ariz. Sch. Mines, 96-97; prof. mining eng., Minnesota, and consulting mining engineer, 98-13; chief dept. mines and metal, Panama-Pacific Expos., 14-15; prof. mining, California, 16; supt. southwest. sta., U. S. Bur. Mines, 17-22, Miss. Valley Sta., 22-24; *consulting engineer*, 25- Min. Eng. Metal mining; copper leaching and concentration.
- Barney, Dr. A(rchie) F(ay)**, 2657 Alden St, Salt Lake City, Utah. *Agronomy*. Kanosh, Utah, July 4, 92. B.S., Utah Col., 20; Ph.D., Cornell, 24. Plant breeding, Utah Exp. Sta., 24; *agronomist, dept. agr. research, Am. Smelting and Ref. Co.*, 25- The inheritance of smut resistance in oats; the effects of smelter fumes and gases on vegetation.
- Barney, Dr. Edgar S(tarr)**, 36 Stuyvesant St, New York, N. Y. *Engineering*. April 10, 61. A.B., C.E., Union, 84, A.M., 87, Sc.D., 04. Teacher, Gramercy Park Sch., New York, 84-87; *Hebrew Tech. Inst.*, 87-92, *prim.*, 92- Clerk, Hudson River Day Line, 83-88, auditor, 88-20, sec'y, director and gen. passenger agent, 18- A.A.; Eng. Educ.; fel. Am. Geog. Soc.; N. Y. Elec. Soc.
- Barney, Dr. I(da)**, 346 Whitney Ave, New Haven, Conn. *Astronomy*. New Haven, Nov. 6, 86. A.B., Smith, 08; Ph.D., Yale, 11. Prof. math., Rollins, 11-12; asst. Smith, 12-13, instr., 13-17; prof., Lake Erie, 17-19; Meredith, 19-20; asst. prof., Smith, 20-21; *research asst., Yale Observatory*, 22- A.A.; Astron. Soc.; Math. Soc.; Math. Ass. Formation of star catalogues by means of photography.
- Barney, R(aymond) L(ivingston)**, Middlebury College, Middlebury, Vt. *Limnology*. Providence, R. I., Oct. 21, 91. B.S., R. I. Col., 15; M.S., Brown, 16, Ph.D., 25. Instr. biol., Brown, 15-16; asst. U. S. Bur. Fisheries, 16, sci. asst., 16-18, director, Beaufort Lab., 18-20, Fairport Lab., 20-24; asst. prof. *biol.*, *Middlebury*, 24-25, *assoc. prof.*, 25-26, *prof.*, 26- Investigator, Conn. Fish and Game Dept., 24-25. A.A.; Fisheries Soc. Green-gilled oysters; life history of Elasmoma; Gambusia; diamond back terrapin; fresh-water mussels and fishes; shad; mosquito control.

- Barnhart, Prof. C(harles) A(nthony)**, 115 S. Maple St, Albuquerque, N. Mex. *Mathematics*. Mansfield, Ill, Jan. 4, 83. A.B, Illinois, 05, A.M, 11. Prof. *math*, Carthage, 12-16; instr, Colo. Col, 17-18; *prof*, New Mexico, 18- Math. Soc; Math. Ass. Graphical differentiation and integration in engineering and scientific problems.
- Barnhart, Dr. John Hendley**, New York Botanical Garden, Bronx Park, New York, N. Y. *Botany*. Brooklyn, N. Y., Oct. 4, 71. A.B, Wesleyan, 92, A.M, 93; M.D, Columbia, 96. Ed. asst, N. Y. Bot. Garden, 03-12, librarian, 06-12, *bibliographer*, 13- Delegate of N. Y. Bot. Garden, Int. Bot. Cong, Vienna, 05; Brussels, 10. A.A; Bot. Soc; Soc. Nat; Torrey Bot. Club (ed-in-chief, 03-07, v. pres, 08-); fel. N. Y. Acad; Wash. Biol. Soc. Botanical bibliography and nomenclature; taxonomy of flowering plants; Lentibulariaceae; local floras of North America.
- Barnhart, P(ercey) S(pencer)**, Scripps Institute of Oceanography, La Jolla, Calif. *Biology*. Berkley Heights, N. J, Sept. 17, 81. A.B, Southern California, 11, A.M, 14. Asst. biol, Southern California, 07-11, instr. zool, 11-13; asst. prof. marine biol, Venice Marine Biol. Sta, 13-14; sci. asst, Bur. Fisheries, 14; *assoc. oceanography and curator*, Scripps Inst, California, 14- A.A; Genetic Ass. Marine biology.
- Barnhill, Prof. John Firmen**, 310 N. Hamilton St, Ypsilanti, Mich. *Mathematics*. Bloomington, Ind, Feb. 17, 76. A.B, Kansas, 10; Chicago, 15; A.M, Columbia, 22. Prin. and supt, schools, Kans, 01-21; *prof. math*, Mich. State Nor. Col, Ypsilanti, 22- Summers, *prof*, Kans. State Teachers Col, Pittsburg, 18-22. State Board Educ, Kans, 19-21. Math. Ass. Elementary, secondary and industrial mathematics.
- Barnum, Dr. Charlotte C(ynthia)**, 344 Humphrey St, New Haven, Conn. *Mathematics*. Philipston, Mass, May 17, 60. A.B, Vassar, 81; Hopkins, 90-92; Ph.D, Yale, 95. Teacher, Betts Acad, Conn, 81-82; high sch, 83, 85-86; computer, Yale Observatory and 'Dana's Mineralogy,' 83-87; teacher astron, Smith, 89-90; math, Carleton Col, 95-96; computer, Mass. Mutual Life Ins. Co, 98; Fidelity Mutual Life Ins. Co, Phila, 00-01; U. S. Naval Observatory, 01; tidal div, U. S. Coast and Geod. Surv, 01-08; ed, biol. surv, U. S. Dept. Agr, 08-13; *ed. and proofreader, sci. works*, 14- Asst. ed, 'Webster's Int. Dict,' 86-90, 97. A.A; Math. Soc. Functions having lines or surfaces of discontinuity; tides and currents; annuities; social legislation.
- Barott, Herbert G(eorge)**, 1321 Kennedy St, N. W, Washington, D. C. *Physics*. Burton, Ohio, July 13, 81. E.E, Syracuse, 09. Asst. physicist, Bur. Standards, 10-17; *physicist in charge respiration calorimeter lab*, U. S. Dept. Agr, 17- Heat measurements; physics of incubation of hens' eggs.
- Barr, Charles E(lisha)**, 20 Union Park, Boston, Mass. *Biophysics*. Watertown, N. Y, April 8, 60. A.B, Williams, 81, A.M, 87. Prof. nat. sciences, Baldwin, 87-88; astron. and applied math, Albion, 88-97, biol. and geol, 95-18; *research fellow*, Harvard, 22-, *instr. biophysics*, 25- Pres, Bay View Univ, 98-08. Mich. Acad. (pres, 00). Structure of protoplasm; physiological effects of ultra-violet light.
- Barr, Prof. D(avid) P(reswick)**, 600 S. Kings-highway Boulevard, St. Louis, Mo. *Internal medicine*. Ithaca, N. Y, Aug. 23, 89. A.B, Cornell, 11, M.D, 14. Instr. med, Cornell, 16-23, asst. prof, 23-25; *prof, sch. med*, Washington (St. Louis), 25-; *physician-in-chief*, Barnes Hosp, St. Louis, 25- Research fellow, Russell Sage Inst, 16-24; asst. physician, Bellevue Hosp, 21-24. Soc. Clin. Invest. (treas, 23-25); Soc. Exp. Biol; N. Y. Acad. Med; Harvey Soc. Cardiac diseases; muscular exercise; fever.
- Barr, John H(enry)**, Barr-Morse Corporation, Ithaca, N. Y. *Machine design*. Terre Haute, Ind, June 19, 61. B.M.E, Minnesota, 83, M.S, 88; M.M.E, Cornell, 89. Draftsman, Calumet and Hecla Mining Co, 83-84; *mech. engineer*, Lake Superior Iron Works, 84-85; instr, asst. prof. and prof. mech. eng, Minnesota, 85-91; asst. prof, Cornell, 91-95, *assoc. prof. and prof. machine design*, 95-03; manager, Smith Premier Works, 03-09; chief engineer, Remington Typewriter Co, 09-23; v. pres, Barr-Morse Corp, 23- Mem. N. Y. State Commission on Voting Machines, 03-15. Trustee, Cornell, 05-15. Major, ordnance dept, 17-19. A.A; Mech. Eng; Franklin Inst. Proportions of steam engines; compression of governing in steam engines; kinematics of machinery; elements of machine design.
- Barr, William M(ilton)**, 120 S. 51st St, Omaha, Nebr. *Chemistry, Chemical engineering*. West Union, Iowa, Aug. 26, 78. B.S, Iowa, 02; A.M, Grinnell, 04; Harrison fellow, Pennsylvania, 07-08, Ph.D, 08. Instr. chem, Grinnell, 02-05; asst, Pennsylvania, 05-06; chemist, Mallinckrodt Chem. Works, Mo, 07, 08-09, 12; *assoc. prof. in charge eng. chem*, Iowa Col, 09-11; manager, Mallinckrodt Chem. Works, N. J, 13-16; *consulting chemist*, Union Pacific System, 16- U. S. Geol. Surv, 05-08. 'Ry. Rev.' prize, 26. Chem. Soc; Chem. Eng; Ry. Eng; Water Works Ass; Soc. Test. Mat. The spectrum and bromides of columbium; the disintegration of concrete in septic tanks; the treatment of railway water supplies; pitting and corrosion in locomotives.
- Barre, Prof. H(enry) W(alter)**, South Carolina Agricultural Experiment Station, Clemson College, S. C. *Agriculture*. Lexington, S. C, May 5, 81. B.S, Clemson, 05; B.S, Nebraska, 07, A.M, 10. Agent, Nebr. Crop Pest and Disease Bur, 07; *assoc. prof. bot. and bact*, Clemson, 07-08, *prof*, 11-; *botanist and plant pathologist*, S. C. Exp. Sta, 08-; *director*, 17- Plant pathologist, War Emergency Board, 18-19. A.A. (sect. G committee, 23-); Phytopath. Soc. (assoc. ed, 14-16, councilor, 16-18, advisory board, 19-21); Bot. Soc; Ass. South. Agr. Workers (sec'y-treas, 23-26, v. pres, 26, pres, 27); S. C. Acad. (v. pres, 26). Plant diseases; cotton anthracnose; water requirements of cotton.
- Barrett, Dr. Albert M(oore)**, 630 Oxford Road, Ann Arbor, Mich. *Psychiatry*. Austin, Ill,

- July 15, 71. A.B. Iowa, 93, M.D. 95; Heidelberg, 01-02. Pathologist and asst. physician, Independence Hosp. for Insane, Iowa, 95-97, pathologist, 98-01; asst. physician, Worcester Hosp. for Insane, Mass, 97-98; pathologist, Danvers Hosp. for Insane, Mass, 01-06; director, State Psychopathic Hosp, Mich, 06-*prof. psychiat, Michigan, 06-* Asst., Harvard Med. Sch, 05-06. Psychiat. Ass. (pres, 24); Psychopath. Ass. (pres, 25); Neur. Ass; Am. Med. Ass; Ass. Research Nervous and Mental Diseases; Cent. Neuro-Psychiat. Ass; New Eng. Psychol. Ass. Neuro-pathology.
- Barrett, Prof. J(ames) T(heophilus)**, Citrus Experiment Station, Riverside, Calif. *Plant pathology*. Butler, Ill, Nov. 14, 76. A.B. Illinois, 03, A.M. 07; fellow, Cornell, 08-10, Ph.D. 10. Asst. bot. Ill. Exp. Sta, 03-08; Cornell, 08-10; assoc., Illinois, and asst., Exp. Sta, 10-13; *prof. plant path, sch. trop. agr, California, and plant pathologist, Citrus Exp. Sta, 13-19; acting dean, grad. sch. trop. agr, and acting director, Citrus Exp. Sta, 19-22, assoc. director, 22-* A.A.; Bot. Soc; Phytopath. Soc. Mycology; bacterial, fungous and physiological diseases of plants.
- Barrett, L(eslie) P(ark)**, Michigan Geological Survey, Lansing, Mich. *Geology*. Boston, Mass, June 20, 87. B.S., Michigan, 13. *Geologist, Mich. Geol. Surv, 13-* Lieut. and capt, U.S.A., 17-18. A.A.; Geol. Soc; Min. Eng; Mich. Acad; Lake Superior Min. Inst. Economic geology; Precambrian geology of Michigan; economics of iron mining industry; Michigan ore deposits.
- Barrett, O(tis) W(arren)**, Department of Agriculture and Labor, San Juan, P. R. *Agriculture*. North Clarendon, Vt, April 18, 72. B.S., Vermont, 96. W. India Improvement Co, 94; hon. curator entom. collections, Museo de la Comisión Geografico-Exploradora, Tacubaya, Mex, 98-00; botanist and entomologist, P. R. Exp. Sta, 01-05; plant introducer, U. S. Dept. Agr, 05-08; director agr, Mozambique, 08-10; chief div. hort, bur. agr, Manila, P. I, 10-14; horticulturist, C. Z, 14-17; *agr. adviser, Liberian Govt, 20-22; Insular Dept. Agr. and Labor, P. R, 23-* Mex. Agente viajero, Paris Expos, 00. C.W.S. and U. S. Dept. Agr, 17-19. A.A.; Wash. Entom. Soc; Philippine Acad; Ateneo de P. R. Tropical agriculture; zootechnology; coconut, cacao and coffee culture; pomology.
- Barrett, Prof. S(ampson) K(irby)**, New York University, New York, N. Y. *Physics, Electrical engineering*. Saratoga Springs, N. Y, Sept. 7, 86. E.E., Brooklyn Polytech, 10; N. Y. Univ, 13-16. Instr. physics and elec. eng, Brooklyn Polytech, 10-15, asst. prof, 15-17; *elec. eng, N. Y. Univ, 19-22, assoc. prof, 22-*; consulting engineer, 15- Lieut. N.R.F, 19. A.A.; Elec. Eng; Naval Inst. Brownian movements; commutation phenomena; induction motors; shading coils; single-phase and polyphase relays; ozonators; electrical dryers; magnetos for aeroplanes; insulating paints and varnishes; oscillograph; naval fire control apparatus; gunnery; automotive starting and lighting systems; illumination and production.
- Barrett, Dr. S(amuel) A(lfred)**, Public Museum, Milwaukee, Wis. *Anthropology*. Little Rock, Ark, Nov. 12, 79. California, 00-04, B.S. 05, LeConte fellow, 05-06, M.S. 06, Ph.D. 08. Asst. anthrop, California, 06-08; ethnologist, George G. Heye exped, S. Amer, 08-09; curator anthrop, *Pub. Museum, Milwaukee, Wis, 09-20, director, 20-* A.A.; Anthrop. Ass; Ethnol. Soc; Folk-Lore Soc; Ass. Mus; Wis. Archeol. Soc; Wis. Hist. Soc; Wis. Acad; Explorers Club. Indians of Ecuador, California and Wisconsin; Wisconsin archeology.
- Barrett, Storrs B(arrows)**, Yerkes Observatory, Williams Bay, Wis. *Astronomy*. Kingsville, Ohio, Aug. 12, 64. A.B. Rochester, 89, Sc.D. 24; fellow, Chicago, 93-95. Prin, Middlebury Acad, 89-91; teacher, high sch, N. Y, 91-92; *sec'y, Yerkes Observatory, 00-*, asst. prof. *astrophys, Chicago, 14-23, assoc. prof, 23-* A.A.; Astron. Soc. Stellar radial velocities; spectroscopic binary stars.
- Barrett, Dr. Willard R(iehlman)**, 3500 Gray's Ferry Road, Philadelphia, Pa. *Chemistry*. Tully, N. Y, Dec. 18, 99. Ch.B., Cornell, 20, fellow, 22-23, Ph.D. 23. *Chem. research dept, E. I. du Pont de Nemours and Co, 23-* Chem. Soc. Phthaleins.
- Barringer, Daniel Moreau**, 1242 Real Estate Trust Building, Philadelphia, Pa. *Geology*. Raleigh, N. C, May 25, 60. A.B. A.M., Princeton, 79; LL.B., Pennsylvania, 82; Harvard, 89-90; Virginia, 91. Practising lawyer, Phila, 82-89; *consulting geologist and mining engineer, 91-* Trustee, Jefferson Med. Col. A.A.; Min. and Metal. Eng; Min. and Metal. Soc; Phila. Geog. Soc; Franklin Inst; Phila. Acad; Harvard Eng. Soc; Princeton Eng. Soc; Phila. Zool. Soc. Law of mines and mining in the United States; minerals of commercial value; origin of Meteor Crater, Arizona; origin of craters and other features of the lunar surface.
- Barringer, L(awrence) E(ugene)**, 1248 Lenox Road, Schenectady, N. Y. *Ceramics*. Washington, D. C, March 1, 76. E.M., Ohio State. Chemist, Columbus Brick and Terra Cotta Co, 00-02; *Gen. Elec. Co, 02-09, engineer, insulations, 09-* Silver medal, Panama-Pacific Expos, 15. Ceramic Soc. (pres, 16); Chem. Soc. Electrical insulating materials; porcelain; enamels; varnishes; mica.
- Barron, Leonard**, Garden City, L. I., N. Y. *Horticulture*. Chiswick, Eng, Sept. 29, 68. Birkbeck Inst, London; gardens, Royal Hort. Soc, Eng. Asst. ed, 'Gardeners' Chronicle' London, 85-94; *ed, 'Am. Gardening, 94-04; 'Garden Magazine, N. Y, 05-25; 'Garden and Home Builder, 25-* Sec'y, Int. Conf. on Plant Breeding, N. Y, 02; Int. Conf. Plant Hardiness, N. Y, 07. A.A.; Soc. Hort. Sci; Am. Inst; N. Y. Hort. Soc. (sec'y, 98-09); fel. Royal Hort. Soc. Adaptation of plants to ornamental gardening; methods of horticulture.
- Barron, Prof. Moses**, 1526 W. 22d St, Minneapolis, Minn. *Medicine*. Kovno, Russia, Nov. 8, 83. B.S., Minnesota, 10, M.D. 11. Demonstrator path. and bacter, *Minnesota, 12-13, instr. path, 13-16, asst. prof, 16-20, med, 20-* Director path. lab, City Hosp, Minne-

apolis, 13-14; City and County Hosp, St. Paul, 14-17; staff, outpatient dept, Univ. Hosp, 24-26; St. Mary's Hosp, 21-; City Hosp, 27-; Lieut, capt, and major, M.C., 17-19. Am. Med. Ass; Ass. Path. and Bact; Ass. Cancer Research; Minn. Path. Soc. (pres, 25); Minn. Soc. Int. Med. Pathology; internal medicine.

Barrow, Prof. David F(rancis), University of Georgia, Athens, Ga. *Mathematics*. Athens, Nov. 14, 88. A.B., B.S., Georgia, 10; A.M., Harvard, 11, Ph.D., 13. Instr. *math*, Texas, 14-16; Sheffield Sci. Sch., Yale, 16-18; *prof*, Georgia, 20- *Math. Ass*; Ga. Acad. (sec'y).

Barrows, Dr. Albert L(loyd), National Research Council, Washington, D. C. *Zoology*. Nordhoff, Calif, May 28, 83. B.S., Pomona, 06; Cornell, 06-07; fellow, California, 11-12, M.S., 12, Ph.D., 17. Teacher, high sch., P. I., 07-10; asst. zool., California, 12-14, instr., 14-19; *sec'y*, *div. states and educ. relations*, Nat. Research Council, 19- *Sci. staff*, 'Albatross,' 08-09. A.A. (sec'y, Pacific div, 14-17); Paleont. Soc; Calif. Acad. Marine Protozoa; marine rock- and wood-boring mollusks.

Barrows, Prof. Harlan H., University of Chicago, Chicago, Ill. *Geography*. Armada, Mich., 77. B.S., Chicago, 03; hon. Pd.M., Mich. Nor. Col., 12. Asst. geol. *Chicago*, 03-07, instr. geol. and geog., 07-08, asst. prof., 08-10, assoc. prof. *geog*, 10-14, prof., 14-19, *head dept*, 19- *Ass. Geog.* (v. pres, 20, pres, 22). Historical geography; geographical text-books.

Barrows, Prof. H(arold) K(ilbrith), 6 Beacon St, Boston, Mass. *Hydraulic engineering*. Melrose, Mass., Nov. 9, 73. B.S., Mass. Inst. Tech., 95. Asst. and assoc. prof. civil eng., Vermont, 01-04; dist. engineer, U. S. Geol. Surv., 04-09; *consulting hydraulic engineer*, 07-; assoc. prof. *hydraulic eng*, Mass. *Inst. Tech.*, 09-21, *prof*, 21- *Civil Eng*; *Inst. Const. Eng*; *Eng. Educ*; Am. Water Works Ass; New Eng. Water Works Ass; Boston Soc. Civil Eng. Water power; engineering.

Barrows, Prof. W(illiam) E(dward), 36 Myrtle St, Orono, Maine. *Electrical engineering*. Ludlow, Vt., Feb. 20, 78. B.S., Maine, 02, E.E., 08. Student engineer, Gen. Elec. Co., 02-04; instr. *elec. eng*, Pennsylvania, 04-06; asst. prof., Armour, 06-12; *prof*, Maine, 12- *Elec. Eng*; *Eng. Educ*. Light; photometry; illuminating engineering.

Barrows, Prof. William Morton, Ohio State University, Columbus, Ohio. *Zoology*. Rochester, N. Y., April 7, 83. B.S., Mich. State Col., 03; M.S., Harvard, 06, Sc.D., 20. Teacher, sch., Ind., 06-07; instr. *zool*, New Hampshire, 07-09; asst. prof., Ohio State, 09-23, *prof*, 23- A.A.; Soc. Zool; Ecol. Soc. Reactions of *Drosophila* to odorous substances; reactions of spiders to vibrations of web; color in cocker-spaniels; spiders of Ohio.

Barrus, Prof. M(ortier) F(ranklin), Forest Home Drive, Ithaca, N. Y. *Plant pathology*. Forestville, N. Y., March 17, 79. A.B., Wabash, 08; Ph.D., Cornell, 11. Asst. bot., Wabash, 07-08; *plant path*, Cornell, 08-10, instr., 10-11, asst. prof., 11-14, *prof*, 14-18, 19- Part-time specialist, U. S. Dept. Agr., 16, path. adviser,

17-19; in charge potato inspection, N. Y. State Col. Agr., Cornell, 19-24; Board Governors, Crop Protection Inst., 24-26; Nat. Research Council, 24- U.S.A., 18-19. A.A.; Phytopath. Soc. (councilor, 22-23, advisory board, 23-27, chairman advisory board, 24-, v. pres, 25-27, pres, 27-); Bot. Soc; Potato Ass. (chairman, committee on seed improvement and certification, 15-18). Bean and potato diseases.

Barry, Prof. Frederick, 880 181st St, New York, N. Y. *Chemistry*. Lynn, Mass., Feb. 13, 76. A.B., Harvard, 97, A.M., 09, Ph.D., 11. Research asst. chem., Carnegie Institution, 11-12; instr., Columbia, 12-18; *asst. prof*, N. Y. Univ., 18-19; *hist. science and research assoc*, Columbia, 19- A.A.; Chem. Soc; Hist. Sci. Soc. Chemical energetics; calorimetry; thermochemistry.

Barsky, Dr. George, 45 W. 11th St, New York, N. Y. *Chemistry*. New York, Aug. 26, 96. B.S., Columbia, 16, Ch.E., 18, Bridgman fellow, 19-21, A.M., Ph.D., 22. Research chemist, *Am. Cyanamid Co*, 22-26, *research director*, 26- A.A.; Chem. Soc; Mech. Eng. Cyanides; nitrogen fixation; cyanamid.

Barss, Prof. A(lden) F(orrest), University of British Columbia, Vancouver, B. C., Can. *Horticulture*. Hoosick, N. Y., March 29, 88. A.B., Rochester, 10; B.S.A., Cornell, 12; M.S., Oregon Col., 14. Research asst. hort., Oregon Col., 14-17, asst. prof. pomol., 17-18; *assoc. prof. hort*, *British Columbia*, 18- A.A.; Soc. Hort. Sci; Can. Soc. Tech. Agr.

Barss, Prof. H(oward) P(hillips), Oregon Agricultural College, Corvallis, Oregon. *Plant pathology*. Victoria, B. C., Can., April 20, 85. A.B., Rochester, 07; M.S., Harvard, 09. Austin teaching fellow, Harvard, 09-10; instr. bot. and asst. plant path., Wash. Col., 10-12; asst. plant pathologist, Oregon Exp. Sta., 12-14, assoc. pathologist, 14-15; *prof. bot. and plant path.* and *head dept*, Oregon Col., 15- A.A.; Bot. Soc; Phytopath. Soc. (board editors, 18); New Eng. Bot. Club; Northwest Sci. Ass. General pathology; bacterial diseases of stone fruits and nuts; smut control.

Barss, Dr. William Raymond, Massachusetts Institute of Technology, Cambridge, Mass. *Physics*. New Germany, N. S., Can., Feb. 15, 85. B.S., Acadia, 07; A.B., Yale, 09, Sloane fellow, 10-12, Ph.D., 12. Asst. *physics*, Yale, 09-12; instr., Mass. *Inst. Tech.*, 12-23, *asst. prof*, 23- Physical Soc. Measurements of radioactivity by means of alpha rays; ionization by collision in gases and vapors; effect of humidity on velocity of sound in air; effect of wood vanes in phonograph horns; architectural acoustics; stethoscopes.

Bartell, Prof. F(loyd) E(arl), University of Michigan, Ann Arbor, Mich. *Chemistry*. Concord, Mich., June 16, 83. A.B., Albion, 05; A.M., Michigan, 08, Ph.D., 10. Instr. chem., Simpson, 05-07; *gen. and physical chem*, Michigan, 10-16, asst. prof., 16-18, assoc. prof., 18-24, *prof*, 24- Colloid committee, Nat. Research Council. Capt, nitrate div, ordnance dept., 17-18. Chem. Soc; Electrochem. Soc. Permeability of membranes and osmotic pressure; electrochemistry; colloids; nitrogen fixation; adsorption; interfacial tension.

- Bartelmez, Dr. George W(illiam)**, University of Chicago, Chicago, Ill. *Anatomy*. New York, N. Y., March 23, 85. B.S., N. Y. Univ, 06; fellow, Chicago, 07-10, Ph.D. 10. Asst. biol., N. Y. Univ, 06-07; instr. *anat*, Chicago, 10-19, *assoc. prof*, 19- Lecturer, California, 25. Ass. Anat; Soc. Zool. Development and structure of the nervous system.
- Barter, Dr. John D(ouglas)**, Box 66, Pacific Grove, Calif. *Mathematics, Physics*. Calgary, Alta, Can, Nov. 18, 89. B.A., Toronto; Ph.D., California, 17. Instr, California, 19-21. Math. Soc. Vector analysis; mathematical physics.
- Barth, Carl G(eorge) L(ange)**, 420 Whitney Ave, New Haven, Conn. *Mechanical engineering*. Christiania, Norway, Feb. 28, 60. Grad, Horten's Tech. Sch, Norway, 77. Draftsman and chief designer, Wm. Sellers and Co, Phila, 81-95; chief draftsman and engineer, Rankin and Fritz Foundry and Machine Co, St. Louis, 95-97; prof. applied mech, Int. Correspondence Schools, 97-99; shop engineer, Bethlehem Steel Co, 99-02; *consulting mech. and indust. engineer*, 02- A.A.; Mech. Eng; Franklin Inst; Econ. Ass; hon. mem. Taylor Soc; Phila. Eng. Club. Theoretical and applied mechanics; strength of columns; transmission of power by leather belting; art of cutting metals; mathematical approximations; mathematics of graded income tax.
- Bartholomew, Elam**, Stockton, Kans. *Mycology*. Strasburg, Pa, June 9, 52. M.S., Kansas Col, 98. *Ed. and publisher*, 'Fungi Columbiani' and 'N. Am. Uredinales,' 01- A.A.; Phytopath. Soc; Forestry Ass; Kans. Acad. Determination and distribution of fungi.
- Bartholomew, Prof. E(lbert) T(homas)**, Citrus Experiment Station, Riverside, Calif. *Botany*. Stockton, Kans, Oct. 18, 78. A.B., Kansas State Teachers Col, 09; fellow, Wisconsin, 10-11, Ph.D., 14. Asst. prof. bot, Kansas State Teachers Col, 09-10; instr, Wisconsin, 11-15, asst. prof, 15-20; asst. prof. plant path, *Citrus Exp. Sta, California*, 20-25, *assoc. plant pathologist*, 25- Acting instr, Stanford, 17-18. A.A. (chairman, physiol. sect, Pacific div, 22-24); Bot. Soc; Phytopath. Soc. Apple and cedar rusts; diastase; black heart in potatoes; rusts; pathological and physiological diseases of the lemon; acidity, water content and growth rate of lemon fruits.
- Bartholomew, Mrs. L(ucille) K(eene)**, Citrus Experiment Station, Riverside, Calif. *Plant pathology*. St. Louis, Mo, July 23, 88. B.S., Missouri, 09, A.B, 10, A.M, 12, Ph.D, 16; fellow, Wisconsin, 13-14. Asst. bot, Missouri, 10-13, instr, 14-16; *asst. pathologist, cereal disease investigations, bur. plant indust, U. S. Dept. Agr.* Cytology of fungi; cereal diseases; smuts.
- Bartholomew, Tracy**, Mellon Institute, Pittsburgh, Pa. *Metalurgy*. Austin, Texas, Nov. 14, 84. Ohio State; E.M., Colo. Sch. Mines, 06. Construction and metal. engineer, Fed. Lead Co, Mo, and Nev. Consol. Copper Co, 06-09; gen. manager, alkali-proof dept, Colo. Portland Cement Co, 09-11; manager, Rico Trop. Fruit Co, P. R., 12-21, pres, 21-25; *senior indust. fellow, Mellon Inst, 21-* Chem. Soc; Soc. Test. Mat; Concrete Inst; West. Pa. Eng. Soc. Utilization of blast-furnace slag.
- Bartlett, Dr. C(harles) J(oseph)**, 183 Bishop St, New Haven, Conn. *Medicine, Pathology*. Sutton, Vt, Dec. 18, 64. A.B., Yale, 92, A.M., 94, M.D., 95. Asst. and instr. path, Yale, 95-97, asst. prof, 97-00, prof, 00-17; director laboratories, Conn. Dept. Health, 17-24; attending physician, *Grace Hosp, New Haven*, 19-26, *director laboratories*, 21- Pathologist, New Haven Hosp, 00-17. A.A.; Ass. Immunol; Ass. Path. and Bact; Soc. Bact; Am. Med. Ass; Public Health Ass; N. Y. Path. Soc; Conn. Acad. Phagocytosis in vivo; fate of bacteria in the blood stream; blood spots; family pernicious anemia.
- Bartlett, Prof. Dana P(rescott)**, Massachusetts Institute of Technology, Cambridge, Mass. *Mathematics*. Boston, Mass, Oct. 4, 63. B.S., Mass. Inst. Tech, 86; Munich, 03-04. Instr. *math, Mass. Inst. Tech*, 86-92, asst. prof, 92-98, *assoc. prof*, 98-05, *prof*, 05- Asst, Harvard Col. Observatory, 87. Math. Soc; Math. Verein. Method of least squares.
- Bartlett, Prof. Edward P(ayson)**, Fixed Nitrogen Research Laboratory, Washington, D. C. *Physical chemistry*. Belchertown, Mass, Oct. 17, 84. A.B., Dartmouth, 08; A.M., Harvard, 13, Ph.D., 15. Teacher science, Bleses Mil. Acad, 08-09; instr. chem, Pomona, 09-11; Austin teaching fellow, Harvard, 11-13; asst. prof, Pomona, 14-19, *assoc. prof*, 19-24; *assoc. chemist, fixed nitrogen research lab, U. S. Dept. Agr*, 24- Acting dean, Pomona, 16-18. Capt, U.S.A., 18-19. Chem. Soc. Piezo-chemistry.
- Bartlett, Prof. Edwin Julius**, Hanover, N. H. *Chemistry*. Hudson, Ohio, Feb. 16, 51. A.B., Dartmouth, 72, A.M., Sc.D, 19; M.D., Rush Med. Col, 79. Instr. sciences, Monson Acad, Mass, 72-73; high sch, Ill, 74-75; Lake Forest Acad, 76-78; *assoc. prof. chem*, Dartmouth, 78-83, *prof*, 83-20; *retired*, 20. A.A.; Chem. Soc; N. H. Acad. Toxicology.
- Bartlett, Dr. Emily M(ary)**, University of California at Los Angeles, Los Angeles, Calif. *Botany, Morphology*. Orono. A.B., A.M., Maine, 17; Ph.D., Stanford, 25. Research asst, sta. for exp. evolution, Carnegie Institution, 16-17; technician anat, Minnesota, 17-18; asst, Stanford, 19-23, *bot. and acting instr*, 24-25; *instr*, Wellesley, 25-26; *California at Los Angeles*, 26- Base Hosp, Texas, 18-19. A.A.; Bot. Soc. Comparative morphology of the Anthrocerotaceae.
- Bartlett, G(eorge) M(iller)**, 2533 College Ave, Indianapolis, Ind. *Mechanical engineering*. Chicago, Ill, Aug. 5, 73. B.S., Amherst, 01, A.M., 04. Instr. physics and math, Case, 01-03; mechanism and descriptive geom, Michigan, 03-10; *chief engineer, Diamond Chain and Mfg. Co, Indianapolis*, 10- Mech. Eng. (chairman, Indianapolis sect, 21); Indianapolis Sciencetech Club. Descriptive geometry; the kinematics of machines; the skew bevel gear; design of transmission chains and sprockets; chain drives; flexible shaft couplings; angular transmissions.

- Bartlett, Prof. Harley Harris**, University of Michigan, Ann Arbor, Mich. **Botany*. Anaconda, Mont, March 9, 86. A.B., Harvard, 08. Asst. Gray Herbarium, Harvard, 05-08; chem. biologist, bur. plant indust, U. S. Dept. Agr, 09-15; asst. prof. bot, Michigan, 15-17; botanist, Hollandsch-Amerikaansche Plantage Maatschappij, Sumatra, 18; assoc. prof. bot, Michigan, 18-21, *prof*, 21-, *director dept. bot. gardens and arboretum*, 18-, *chairman dept*, 23- Fellowships board, biol. sciences, Nat. Research Council. A.A.; Soc. Nat; Bot. Soc. (sec'y, 15-17, v. pres, 19, pres, 27); New Eng. Bot. Club; Wash. Acad; Mich. Acad. (pres, 24). *Oenothera*; plant pigments; plant nutrition.
- Bartlett, Dr. Oscar C(hristopher)**, 2211 W. Washington St, Phoenix, Ariz. *Entomology*. Westhampton, Mass, April 1, 83. B.S., Mass. Col, 09, Ph.D, 12. Asst. state entomologist, Ariz, 12-19, field entomologist, 19-23, *state entomologist, administrative officer, Ariz. Commission Agr. and Hort, and chief state apiary dept*, 23- Entom. Soc; Ass. Econ. Entom. Parasitic Hymenoptera; economic insect pests; plant diseases.
- Bartley, Dr. E(lias) H(udson)**, 164 Clinton St, Brooklyn, N. Y. *Pediatrics, Chemistry*. Bartley, N. J, Dec. 6, 49. B.S., Cornell, 73; M.D., L. I. Col. Hosp, 79; hon. Ph.G., Brooklyn Col. Pharmacy, 96. Instr. chem, Cornell, 74-75; prof, Swarthmore, 75-78; chief chemist, Health Dept, Brooklyn, 82-88; *prof. chem. and toxicol, L. I. Col. Hosp*, 86-, *pediatrics*, 01- Dean and prof, Brooklyn Col. Pharmacy, 92-02. Kings Co. Board Pharmacy, 91-98; committee revision vision, U. S. Pharmacopoeia, 09. A.A.; Am. Med. Ass; Col. Physicians (v. pres); fel. N. Y. Acad. Med; Brooklyn Pediat. Soc; Brooklyn Path. Soc. Food chemistry; clinical chemistry; infant feeding.
- Bartol, William C**, 110 University Ave, Lewisburg, Pa. *Mathematics, Astronomy*. Huntingdon, Pa, Nov. 24, 47. A.B., Bucknell, 72, A.M., 75, Ph.D. Prof. math, Salisbury Acad, Conn; prin, schools, Pa, 74-75; Wis, 75-76; Huntingdon Acad, 76-77; *prof. math*, Pa. State Nor. Sch, 77-81; *math. and astron, Bucknell*, 81-, *director, Bucknell Observatory*, 87- Perspective; differential calculus; solid geometry.
- Barton, Dr. Arthur W(illis)**, 4057 Tenth St, N. E, Seattle, Wash. *Biochemistry*. Abilene, Kans, June 8, 73. Ph.G, 97, A.B, 02, Ph.D, 18. Instr, high schools, Wash, 02-04, 07-16, 22-25; prof. chem. and biol, Puget Sound, 04-07; bot. and pharmacog, Northwestern, 13-14, prof, 16-17, instr. chem, med. sch, 17-18; asst. prof, Washington (Seattle), 18-22; v. pres. and biochemist, J. G. Robinson Lettuce Farms, Inc, Snohomish, 25-27; *director biochem. lab, Seattle*, 27- A.A.; Chem. Soc; Physiol. Soc; Bot. Soc; Northwest Sci. Ass. Proteolytic enzymes; autolysis; acidosis; dietetics.
- Barton, Dr. Donald C(linton)**, Humble Building, Houston, Texas. *Geology*. Stow, Mass, June 29, 89. A.B., Harvard, 11, A.M., 12, Sheldon traveling fellow, Ph.D, 14. Instr. eng. geol, Washington (St. Louis), 14-16; geologist, Empire Gas and Fuel Co, 16-17; div. geologist, Gulf Coast, Amerada Petrol. Corp, 19-23; chief geologist, Rycade Oil Corp, 23-26; *chief magnetic and gravimetric section, Geophysical Research Corp, and consulting geologist, Rycade Oil Corp*, 26- U.S.A., 17-19. A.A.; fel. Geol. Soc; fel. Soc. Econ. Geol; fel. Ass. Petrol. Geol; fel. Min. and Metal. Eng; Meteor. Soc; Boston Soc. Nat. Hist; Houston Geol. Soc; Soc. géol. de France. Paleontology; geology of arkose, of disintegration of granite, of chert, of salt domes and of coastal plain area of Texas; Cheriruridae; oil fields of Texas and Louisiana; geophysical methods in the search for petroleum.
- Barton, G(eorge) E(stes)**, 227 Pine St, Millville, N. J. *Chemistry*. Worthington, Mass, May 9, 71. B.S., Worcester, 91; M.S., George Washington, 95. Asst. chemist, Naval Torpedo Sta, Newport, R. I, 91-92; chemist, Aetna Powder Co, Chicago, 92-94; *chief chemist, Whitall Tatum Co*, 96- Asst. ed, 'Chem. Abstracts,' 07-; assoc. ed, 'Jour. Indust. and Eng. Chem,' 09-11. A.A.; Chem. Soc. (councilor, 08-, chairman, Phila. sect, 21); Chem. Eng; Soc. Chem. Indust; Ceramic Soc. (chairman, glass div, 24-25); Soc. de Chim. indust. Explosives; glycerine; glass; graduated chemical glassware; glass manufacture.
- Barton, Prof. Geo(rge) H(unt)**, 89 Trowbridge St, Cambridge, Mass. *Geology*. Sudbury, Mass, July 8, 52. B.S., Mass. Inst. Tech, 80. Asst. drawing, Mass. Inst. Tech, 80-81; asst, Hawaiian Govt. Geol. Surv, 81-83; asst. geol, Mass. Inst. Tech, 83; asst. geologist, U. S. Geol. Surv, 89-94; asst. prof. geol, Mass. Inst. Tech, 96-04; *director, Teachers Sch. Science*. 02- Lecturer, Boston, 96-04, 16-17. Past pres, Children's Museum, Boston. A.A.; Geol. Soc; Am. Acad; Forestry Ass; Appalachian Mt. Club (past pres); Arctic Club; Am. Alpine Club; Boston Sci. Soc. (past pres); Boston Soc. Nat. Hist. Glacial geology; dynamic and structural geology; lithology; distribution and origin of drumlins in Massachusetts.
- Barton, Dr. Henry A(skew)**, Harvard University, Cambridge, Mass. *Physics*. Pittsburgh, Pa, June 27, 98. B.S., Princeton, 19, E.E, 21, A.M., 24, Ph.D, 25. Engineer, Am. Tel. and Tel. Co, 21-23; *Nat. Research Council fellow physics*, 25- Physical Soc. Ionization of gases; emission of ions from surfaces.
- Barton, Dr. James M(oore)**, Atlantic City, N. J. *Surgery*. Philadelphia, Pa, Oct. 16, 46. A.M., Jefferson Med. Col, 65, M.D, 68. Res. physician, Episcopal Hosp, 68-69; asst. to Prof. S. D. Gross, and surgeon, Charity Hosp, 69-79; surgeon and prof. clin. surg, Jefferson Med. Col, 79-00. Lecturer, Phila. Sch. Anat, 77-82; surgeon, German Hosp, 79-86; Phila. Hosp, 90-00. Surg. Ass.
- Barton, Prof. J(oseph) Wesley**, University of Idaho, Moscow, Idaho. *Psychology*. Greenville, Utah, 81. B.S., Utah, 15; Ph.D, Peabody Col, 23. Prof. psychol. and educ, Branch Nor. Sch, Utah, 09-13; instr, Utah, 13-15; *prof. psychol, Idaho*, 20- Northwest Sci. Ass. The psychology of learning.
- Barton, Ralph M(artin)**, University of Minnesota, Minneapolis, Minn. *Mathematics*. New-

port, N. H., July 21, 75. A.B., Dartmouth, 04; Harvard, 07-08; Chicago, 10-12. Instr. math, Dartmouth, 03-08, asst. prof, 08-13; prof, New Mexico, 13-14; Lombard, 14-16, dean and acting pres, 15-16; instr. math, Minnesota, 16-19, asst. prof, 19- A.A.; Math. Ass; Circolo Mat. di Palermo.

Barton, Prof. Samuel G. (oodwin), 26 N. Millick St, Philadelphia, Pa. *Astronomy*. Ivyland, Pa., Jan. 1, 82. A.B., Temple, 03; fellow, Pennsylvania, 05-06, Ph.D., 06, research fellow, 06-07. Prof. math, Clarkson Col. Tech, 07-11; asst. prof. math, Swarthmore, 11-13; instr. astron, Pennsylvania, 13-14, asst. prof, 14- Acting director, Flower Observatory, 20-; summers, asst, U. S. Naval Observatory, 07, 08, 11. Director, U. S. Shipping Board Navig. Sch, 17-19. A.A.; Astron. Soc. Secular perturbations; orbits of asteroids; star positions.

Barton, Prof. Vola Price, Linwood Ave, Station E, Baltimore, Md. *Physics*. Baltimore, Dec. 19, 93. A.B., Goucher, 15; A.M., Mt. Holyoke, 17; Ph.D., Hopkins, 23. Asst. physics, Mt. Holyoke, 15-17; Goucher, 17-19, instr, 19-23, asst. prof, 23-26, assoc. prof, 26- Summers, asst, Bur. Standards, 18, asst. physicist, 20, research assoc, 24, 25. Physical Soc. Soft X-rays; light sensitivity of cuprous oxide and selenium; molecular dimensions of celluloid.

Barton, Prof. Wilfred M. (ason), 1730 Connecticut Ave, Washington, D. C. *Medicine*. Washington, July 16, 71. M.D., Georgetown, 92. Prof. therapeut. and pharmacol, Georgetown, 06-14, assoc. prof. med, 14- Attending physician, Georgetown Univ, Columbia and Gallinger hospitals. Soc. Nervous and Mental Diseases; Soc. Clin. Path; D. C. Med. Soc. (pres, 11); Wash. Acad. Internal medicine; pharmacology; medical terminology.

Barton, Prof. W. (illiam) **H.** (enry), Jr, University of Pennsylvania, Philadelphia, Pa. *Highway engineering*. Baltimore, Md, July 7, 93. B.S., Pennsylvania, 17, C.E., 21, M.S., 23. Research, U. S. Bur. Pub. Roads, Wash, 17-20; instr. and asst. prof. highway eng, Pennsylvania, 20- Civil Eng. Sampling and testing of highway materials.

Bartow, Prof. Edward, University of Iowa, Iowa City, Iowa. *Chemistry*. Glenham, N. Y., Jan. 12, 70. A.B., Williams, 92, Sc.D., 23; Ph.D., Göttingen, 95. Asst. chem, Williams, 92-94, instr, 95-97; Kansas, 97-99, assoc. prof, 99-05; prof, Kansas City Med. Col, 02-05; assoc. prof, Illinois, 05-06, prof, 06-20; Iowa, and head dept, 20- Director, Ill. State Water Surv, 05-17, chief, 17-20; acting assoc. prof. chem, Kansas, 97. Commission on Coal Mine Explosions, Kansas; sec'y-treas, Lake Mich. Water Commission; Commission on Standards of Water for Common Carriers in Interstate Commerce. Major, Sanit. C, 18, lieut. col, 19. A.A.; Chem. Soc; Chem. Eng; Eng. Educ; Pub. Health Ass; Am. Water Works Ass. (v. pres, 20, pres, 21); Soc. Munic. Improv; Ill. Soc. Eng; Iowa Eng. Soc; New Eng. Water Works Ass; Ill. Acad; Ill. Water Supply Ass. (sec'y-treas); Kans. Acad. (v. pres, 02, pres, 04); Iowa Acad; Soc. de Chim. indust. Crystals of

white arsenic; formation of amids in anhydrous ammonia; derivatives of m-isocymene; synthetical preparation of quinolin derivatives; Kansas petroleum; water supplies of southeastern Kansas; derivatives of m-ethyltoluene; water analysis and treatment; activated sludge method of sewage treatment; disposal of organic trade wastes.

Bartow, Dr. Virginia, 1201 W. Oregon St, Urbana, Ill. *Chemistry*. Rochester, N. H., Dec. 20, 96. A.B., Vassar, 18; A.M., Illinois, 21, Ph.D., 23. Asst. chem, Goucher, 18-20; instr, Rockford, 23-24; Iowa, 24-25; Illinois, 25- Organic chemistry.

Bartsch, Prof. Paul, Smithsonian Institution, Washington, D. C. *Biology*. Tuntshendorf, Germany, Aug. 14, 71. B.S., Iowa, 96, M.S., 99, Ph.D., 05. Aid, div. mollusks, U. S. Nat. Museum, 96-05, asst. curator, 05-14, curator div. marine invertebrates, 05-14, div. mollusks, 14-; prof. zool, George Washington, 99-; director, histol. and physiol. laboratories, sch. med, Howard, 01- Assoc. Carnegie Institution. Assoc. ed, 'The Osprey,' 00-; Smithsonian Inst. rep, 'Albatross' exped, Philippines, 07-10; Bur. Fisheries exped, Lower Calif, 11; Smithsonian Inst. expeditions, Cuba, Haiti, the Bahamas and Fla. War gas experiments, U. S. Bur. Mines; lecturer, Y. M. C. A., U.S.A.; biol. representative, U. S. Bur. Efficiency, 19.

Barus, Prof. Carl, 181 Governor St, Providence, R. I. *Physics*. Cincinnati, Ohio, Feb. 19, 56. Sch. mines, Columbia, 74-76; Würzburg, 76-80, Ph.D., 79; LL.D., Brown, 07, Clark, 09. Physicist, U. S. Geol. Surv, 80-92; prof, U. S. Weather Bur, 92-93; physicist, Smithsonian Inst, 93-95; Hazard prof. physics, Brown, 95-26, dean grad. dept, 03-26, emer. prof, 26- Asst. to Prof. Kohrausch, Würzburg, 79-80; mem. council, Carnegie Institution, 02. Rumford medal, 00. Int. Cong. Radiol, 05, 10 (mem. comité d'honneur). Nat. Acad; A.A. (v. pres, 97); Physical Soc. (pres, 05, 06); Philos. Soc; Ass. Prof. (mem. council, 18-); Am. Acad; cor. mem. British Ass; hon. mem. Royal Inst; hon. mem. Physiol. Med. Soc. Erlanger. Magnetism; iron carburets; high temperatures; high pressures; thermodynamics; physical geology; atmospheric condensation; ionization; ionization and nucleation of gases and the atmosphere; interferometry; measurement of 'g'; acoustic pressure.

Bascom, Dr. F. (lorence), Bryn Mawr, Pa. *Geology*. Williamstown, Mass. A.B., B.L., Wisconsin, 82, B.S., 84, A.M., 87; Ph.D., Hopkins, 93. Instr. geol. and petrog, Ohio State, 93-95; lecturer and assoc. prof. geol, Bryn Mawr, 95-06, prof, 06- Geol. asst, U. S. Geol. Surv, 96-01, asst. geologist, 01-09, geologist, 09- Assoc. ed, 'Am. Geologist,' 96. A.A.; Geol. Soc. (mem. council, 24-27); Min. and Metal. Soc; Seismol. Soc; Min. Eng; Geog. Soc; Wash. Acad; Phila. Geog. Soc; Phila. Acad. Ancient lavas and the crystalline schists; geology of eastern Pennsylvania; petrography of the Neponset area, Boston basin; Philadelphia, Wilmington and Trenton geologic folios; geologic folios of the Pennsylvania Piedmont province.

- Bascom, Dr. K(ellogg) F(inley)**, 2914 Idlewood Ave, Richmond, Va. *Histology, Embryology*. Fargo, N. Dak, Sept. 22, 91. A.B, Fargo, 16; M.S, Chicago, 19, fellow, 20-22, Ph.D, 22. Instr. biol, Allegheny, 19-20; asst. zool, Chicago, 20-22; asst. prof. biol. and acting head dept, Allegheny, 22-23; instr. anat, Pennsylvania, 23-24; *assoc. prof. Med. Col. of Va*, 24-A.A; Ass. Anat; Soc. Mammal; Va. Acad. Interstitial cells of the gonads in cattle; structure and growth of the testis.
- Bashore, Dr. Harvey B(rown)**, West Fairview, Pa. *Natural history*. West Fairview, July 31, 64. A.B, Yale, 86; M.D, Pennsylvania, 89. A.A; Pub. Health Ass. Local and natural history.
- Basquin, Dr. Olin H(anson)**, 225 Kedzie St, Evanston, Ill. **Physics*. Dows, Iowa, Jan. 30, 69. A.B, Ohio Wesleyan, 92; A.B, Harvard, 94; A.M, Northwestern, 95, Ph.D, 01. Assoc. prof. physics, Northwestern, 01-09, *prof. applied mechanics*, 09-
- Bass, Prof. C(harles) C(assedy)**, 1216 Broadway, New Orleans, La. **Medicine*. Carley, Miss, Jan. 29, 75. M.D, Tulane, 99; Sc.D, Cincinnati, 20. Instr. med, sch. med, Tulane, 05-07, *lab. clin. med*, 07-09, *director*, 09-, *prof. exp. med*, 12-, *dean*, 22- Head, Tulane exped, study of malaria, 12- A.A; Am. Med. Ass. (committee on sci. researches, 13); Am. Physicians; Soc. Bact; Soc. Trop. Med. (pres, 17); Soc. Clin. Invest. (pres, 25); Micros. Soc; S. Med. Ass. (pres, 26); New Orleans Acad. Hookworm; pellagra; typhoid fever; malaria; pyorrhea alveolaris; intestinal flora; laboratory methods.
- Bass, Prof. Frederic (Herbert)**, University of Minnesota, Minneapolis, Minn. *Engineering*. Hyde Park, Mass, June 19, 75. B.S, Mass. Inst. Tech, 01. Eng. asst, Metropolitan Water Works, Mass, 96-99, 01; engineer and director eng. div, Minn. State Board Health, 06-15; prof. munic. and sanit. eng, Minnesota, 11-18, *chairman dept. civil eng*, 18- Civil Eng. (pres, N. W. sect); Water Works Ass.
- Bass, Dr. L(awrence) W(ade)**, Rockefeller Institute, New York, N. Y. *Organic chemistry*. Streator, Ill, June 18, 98. Ph.B, Yale, 19, Ph.D, 22; Lille; Paris; Pasteur Inst. Nat. Research Council fellow chem, Yale, 22-23; *asst. dept. chem, Rockefeller Inst*, 25- Chem. Soc; Soc. de Chim. biol. Pyrimidines; photochemistry; complex salts.
- Bass, N(athan) W(ood)**, U. S. Geological Survey, Washington, D. C. *Geology*. Bourbon Co, Kans, June 8, 93. M.S, George Washington, 22. *Assoc. geologist, U. S. Geol. Surv.* Ass. Petrol. Geol; Wash. Geol. Soc. Geology of coal, oil and gas deposits.
- Basset, Dr. G(ardner) C(heney)**, 161 Bell Court, Lexington, Ky. *Psychology*. Boston, Mass, June 17, 73. A.B, Clark, 11; fellow, Hopkins, 12-13, Ph.D, 13. Res. investigator psychol. and neur. sta. for exp. evolution, Carnegie Institution, 13-14; prof. psychol, Pittsburgh, 14-19; asst. prof, Stanford, 19-20; prof, Reed, 20-21; vocational counselor, Dartmouth, 21-23; *assoc. prof, Kentucky*, 26- Psychol. Ass; Soc. Zool; Eugenics Research Ass. Neurology; eugenics.
- Bassett, Dr. V(ictor) H(ugo)**, 1010 E. Park Ave, Savannah, Ga. *Pathology*. Aledo, Ill, May 7, 71. A.B, Knox, 96; M.D, Hopkins, 03, fellow, 04-05. Asst. chem, Wisconsin, 96-98, asst. bacteriologist, Exp. Sta, 98-99; instr. bacter, Northwestern, 03-04; prof. path, Wisconsin Col. Physicians and Surg, 05-06; asst. prof, Marquette, 07-08; *city bacteriologist, Savannah*, 08- Am. Med. Ass; Chicago Path. Soc. Dysentery; milk supply of Baltimore; sewage; intestinal obstruction; splenic anemia; duodenal diverticula; accessory pancreas.
- Bassett, W(illiam) H(astings)**, Cheshire, Conn. *Metallurgy*. New Bedford, Mass, March 7, 68. B.S, Mass. Inst. Tech. Chemist and supt, Pope's Island Mfg. Corp, 91-95; teacher chem, Swain Free Sch, 95-00; chemist, N. J. Zinc Co, 00-02; Coe Brass Mfg. Co, 02-03; *tech. supt, Am. Brass Co*, 12- Eng. div, Nat. Research Council. James Douglas medal, Min. Eng, 25. A.A; Min. Eng. (director, exec. committee, 18); Min. and Metal. Soc; Chem. Eng. (director, 21, 24); Soc. Test. Mat. (director, 16); Mech. Eng; Chem. Soc; Electrochem. Soc; Automotive Eng; Franklin Inst; British Inst. Metals; London Soc. Chem. Indust. Metallurgy; corrosion; properties and treatment of copper, brass and other non-ferrous metals and alloys.
- Bassler, Prof. R(ay) S(mith)**, U. S. National Museum, Washington, D. C. **Geology*. Philadelphia, Pa, July 22, 78. A.B, Cincinnati, 02; M.S, George Washington, 03, Ph.D, 05. Asst. curator stratig. paleont, U. S. Nat. Museum, 03-07, *curator*, 07-; asst. prof. and *prof. geol, George Washington*, 04- A.A; Geol. Soc; Paleont. Soc. (sec'y, 10-); Wash. Acad; Wash. Geol. Soc. Ordovician and Silurian stratigraphy and paleontology; fossil Bryozoa and Ostracoda.
- Bassoe, Dr. Peter**, 1031 Michigan Ave, Evanston, Ill. *Neurology*. Drammen, Norway, May 18, 74. B.S, Christiania, Norway, 92; M.D, Chicago, 97. *Clin. prof. nervous and mental diseases, Rush Med. Col, Chicago*. Neurologist, Presb. Hosp, Chicago, 07- A.A; Neur. Ass; Chicago Med, Path. and Neur. Societies. Gigantism; leontiasis ossea; blastomycosis; poliomyelitis; caisson disease; encephalitis.
- Bast, Prof. T(heodore) H(ieronimus)**, University of Wisconsin, Madison, Wis. *Histology, Neurology*. Rockfield, Wis, Sept. 1, 90. A.B, Ripon Col, 12; Ph.D, Chicago, 21. Prof. biol, Piedmont, 15-19; asst. anat, Chicago, 19-20; asst. prof, Wisconsin, 20-25, *assoc. prof*, 25-A.A; Ass. Anat. Bone cell-structure, function, growth and repair; the maxillary sinus; traumatic muscle injuries; morphology of Nissl bodies; the thyroid gland; adrenal in extreme fatigue.
- Basterfield, Prof. Steward**, University of Saskatchewan, Saskatoon, Sask, Can. *Chemistry, Pharmacology*. Halesowen, Eng, Oct 22, 84. B.Sc, London, 08; Ph.D, Chicago, 20. Instr. chem, Saskatchewan, 14-19, *prof. org. chem*, 20-, *lecturer*, 22- A.A; Chem. Soc; fel. Can. Inst. Chem. Iso-ureas and urethanes.

- Bastin, Dr. Edson S(underland)**, University of Chicago, Chicago, Ill. **Geology*. Chicago, Dec. 10, 78. A.B., Michigan, 02; M.S., Chicago, 03, Ph.D., 09. Geologist, U. S. Geol. Surv., 05-20; *prof. econ. geol.*, Chicago, 20-, *chairman dept. geol. and paleont.*, 22- Ill. Board Conservation and Natural Resources. Geol. Soc.; Soc. Econ. Geol. (v. pres, 23); Inst. Min. and Metal. Peat deposits of Maine; chemical composition as a criterion in identifying metamorphosed sediments; geology of Rockland and Eastport quadrangles, Maine; origin of graphite deposits; genesis of the ores of Tonopah, Nevada; silver ores of Cobalt and South Lorraine, Ontario; metallic minerals as precipitants of gold and silver; economic geology of Gilpin County, Colorado; geology of Braden Copper Mine, Chili; sulphate reducing bacteria in oil field waters.
- Batchelder, Charles Foster**, Peterborough, N. H. *Ornithology*. Cambridge, Mass., July 20, 56. A.B., Harvard, 78, C.E., 82. A.A.; fel. Ornith. Union (past pres); Soc. Mammal.
- Batchelder, Prof. C(harles) H(oward)**, University of Maine, Orono, Maine. *Entomology*. Amesbury, Mass., 91. B.S., New Hampshire, 13, M.S., 15; Ph.D., Cornell, 25. Instr., New Hampshire, 14-17; *Maine*, 19, *assoc. prof.*, 20- Sci. asst., bur. entom., U. S. Dept. Agr., 20. A.A.; Entom. Soc.; Ass. Econ. Entom. Ecology; morphology; migration of Mollusca; the life-history of *Ostrea virginica*; distribution of the Colorado potato beetle; arsenic ingestion in insects.
- Batchelder, Prof. P(aul) M(ason)**, 808 W. 22nd St., Austin, Texas. *Mathematics*. Portsmouth, N. H., Jan. 10, 86. A.B., Dartmouth, 08; A.M., Princeton, 10; Ph.D., Harvard, 16. Instr. *math.*, Northwestern, 13-15; *Texas*, 16-23, *adjunct prof.*, 23- Acting asst. prof., Brown, 24-25. A.A.; Math. Soc.; Math. Ass. Difference equations.
- Batcheller, Prof. J(ames) H(ervey)**, 963 Adams St., Corvallis, Oregon. *Mining engineering*. Boston, Mass., Dec. 10, 78. B.S., Mass. Inst. Tech., 00. Mining engineer and metallurgist; *assoc. prof. min. eng.*, Oregon Sch. Mines. Min. and Metal. Eng.
- Batchelor, Dr. L(eon) D(exter)**, Citrus Experiment Station, Riverside, Calif. *Agriculture*. Upton, Mass., May 8, 84. B.S., New Hampshire, 07; Ph.D., Cornell, 11. Instr. hort., Cornell, 07-10; horticulturist, Utah Col., 10-15; *prof. plant breeding*, California, 15-19, *orchard management*, 19- Mem. Utah Agr. Commission, 10-15. A.A.; Soc. Hort. Sci. Orchard management; variation and yield of fruit trees; field trials; irrigation.
- Bateman, Prof. Alan M(ara)**, Yale University, New Haven, Conn. *Geology*. Kingston, Ont., Can. B.A., B.S., Queen's (Can.), 10; Ph.D., Yale, 13. Mining and field geologist, 05-10, asst. geologist, Can. Geol. Surv., 11-12; geologist, secondary enrichment investigation, 13-15; instr. geol., Yale, 15-16, asst. prof., 16-21, *assoc. prof.*, 22-25, *prof. econ. geol.*, 25- Consulting geologist, Kennecott Copper Corp. Ed., 'Jour. Econ. Geol.'; 'Am. Jour. Sci.' A.A.; Geol. Soc.; Soc. Econ. Geol.; Ass. Petrol. Geol.; Min. Eng.; Wash. Acad. Sci. Economic geology; ore deposits; ore formation.
- Bateman, Prof. H(arry)**, California Institute, Pasadena, Calif. **Mathematics*. Manchester, England, May 29, 82. Trinity Col., Cambridge, 00-05, fellow, 05-11; Göttingen and Paris, 05-06; Ph.D., Hopkins, 13, Johnston scholar, 12-15. Lecturer, Liverpool, 06-07; reader *math. physics*, Manchester, 07-10; lecturer *math.*, Bryn Mawr, 10-12; Hopkins, 15-17; *prof. math. physics and aeronautics*, Calif. Inst., 17- Smith's prize, Cambridge, England, 05. Math. Soc. (mem. council, 24-); Math. Ass.; Philos. Soc.; Pacific Astron. Soc.; Physical Soc.; British Ass.; London Math. Soc. Geometry; mathematical physics; definite integrals; partial differential and integral equations; functions of Legendre and Bessel; electromagnetism; theory of relativity; dynamical meteorology; probability; seismology; sound; hydrodynamics; aeronautics.
- Bateman, Prof. W(illiam) G(eorge)**, University of Montana, Missoula, Mont. *Chemistry*. Salt Lake City, Utah, April 1, 83. A.B., Stanford, 07, A.M., 09; Ph.D., Yale, 16. Asst. and instr. *chem.*, Stanford, 05-10; *prof.*, Pei Yang Univ., Tientsin, 10-12; *Montana*, 12- A.A.; Chem. Soc. Toxicity of thallium salt; copper in plants and soils of smelter regions; salts of the halogen acids; development of speech in children; digestibility of proteins.
- Bates, C(arlos) G(lazier)**, Forest Products Laboratory, Madison, Wis. *Forestry*. Topeka, Kans., Oct. 14, 85. B.S., Nebraska, 07. Forest asst., forest examiner and silviculturist, U. S. Forest Service, 07-27; *chief biol. div., Forest Products Laboratory*, 27- Assoc. ed., 'Jeur. Forestry,' 25- A.A.; Soc. Foresters; Ecol. Soc.; Soc. Plant Physiol.; Bot. Soc. Silviculture; ecology; physiology.
- Bates, Prof. C(linton) O(wen)**, Coe College, Cedar Rapids, Iowa. *Chemistry*. Lincoln, Ark., June 4, 58. A.B., Arkansas, 83; Michigan, 85-86; Chicago, 94; hon. Ph.D., Coe, 94. Teacher, Male Sem., Okla., 83-85; high sch., Mich., 86-89; *prof. chem.*, Coe, 89-24, *emer. prof.*, 24-; *city chemist*, Cedar Rapids, 24- Chem. Soc. (pres, Iowa sect., 08); Water Works Ass.; Iowa Acad. (pres, 06). Clay for paving brick; water for engines; physiological effects of sulphur dioxide on the human system; market milk; city water supply; sewage analysis.
- Bates, Frederick (John)**, U. S. Bureau of Standards, Washington, D. C. *Physical chemistry*. Marysville, Kans., Jan. 2, 77. B.S., Kansas, 00; A.M., Nebraska, 02. *Lab. asst. and physicist*, Bur. Standards, 03- Supervisor, government sugar laboratories, customs serv., Treas. Dept.; mem. Int. Sugar Commission. Physical Soc.; Chem. Soc. (sec'y, sugar sect.); Wash. Philos. Soc. Natural and magnetic rotary polarization, especially anomalous rotary dispersion; effect of clarifying reagents on rotary dispersion curves of sugar solutions; sensibility of sensitive strip spectral polarizing system; quartz compensating polariscope with adjustable sensibility; sugar; cadmium vapor arc lamp; new Baume scale.

- Bates, H(arry) Clifford**, Corning Glass Works, Corning, N. Y. *Physics*. Glanford, Ont, Can, 93. B.A, Toronto, 20, M.A, 23. Instr, De Veaux Acad, Niagara Falls, 20-21; demonstrator physics, Toronto, 21-22, Can. Research Council student, 22-23; instr, Lafayette, 23-24; research asst, Toronto, 24-25; *physical lab, Corning Glass Works*, 25- Physical Soc. Compressibility of solids; thermal conductivity of pyrex; glass wool as insulator for refrigeration.
- Bates, Rev. J(ohn) M(allery)**, Red Cloud, Nebr. *Botany, Ornithology*. Wallingford, Conn, Jan. 3, 46. A.B, Trinity, 72, A.M, 75; grad, Berkeley Divinity Sch, Middletown, Conn, 76. V. prin, high sch, Conn, 73-74; *Episcopal clergyman*, 76- Chaplain and head master, Bethany (Kans), 83-86. A.A; assoc. Ornith. Union; Nebr. Ornith. Union (pres, 02); Nebr. Acad. The economic value of the fodder plants of Nebraska; plant rusts; sedges.
- Bates, P(haon) H(ilborn)**, U. S. Bureau of Standards, Washington, D. C. *Chemistry*. Sipesville, Pa, Aug. 1, 79. A.B, Cent. High Sch, Phila, 98; B.S, Pennsylvania, 02. Asst. chemist, Pa. Ry, 02-06; structural materials chemist, U. S. Geol. Surv, 06-10; *chemist, Bur. Standards*, 10- A.A; Chem. Soc; Ceramic Soc; Concrete Inst; Soc. Test Mat. Hydraulic properties of silica-lime-alumina compounds; Portland cement; concrete.
- Bates, Prof. Robert L(ee)**, Virginia Military Institute, Lexington, Va. *Psychology*. Middleway, W. Va. LL.B, West Virginia, 12, A.B, 16; A.M, Hopkins, 20, fellow, 20-21, Ph.D, 24. Asst. prof. *psychol, Va. Mil. Inst*, 21-22, assoc. prof, 22-25, *prof, 25-* Lieut, Sanit. C, 18-20, capt, O.R.C, 24. A.A; Psychol. Ass; S. Soc. Philos. and Psychol. Psychological problems of tobacco smoking; intelligence characteristics; personnel studies.
- Bates, Prof. Stuart J(effery)**, California Institute, Pasadena, Calif. *Physical chemistry*. Toronto, Ont, Can, May 9, 87. B.A, McMaster, 07, M.A, 09; fellow, Illinois, 10-12, Ph.D, 12. Research asst, McMaster, 09-10; research assoc. physical chem, Illinois, 12-13, instr. anal. chem, 13-14; *prof. physical chem, Calif. Inst*, 14- Research asst, Bur. Standards, 13. Chem. Soc. Value of the Faraday; iodine coulometer; theory of solutions.
- Bates, Prof. W(illiam) H(unt)**, 116 N. Grant St, West Lafayette, Ind. *Mathematics*. Winchester, Tenn, Jan. 4, 70. A.B, Vanderbilt, 94; A.M, Chicago, 02, Ph.D, 10. Asst, Battle Ground Acad, Franklin, Tenn, 94-97; prin, Smyrna Fitting Sch, Tenn, 97-00; instr. math, Purdue, 03-10, asst. prof, 10-11, assoc. prof, 11-19. Math. Verein. Differential geometry.
- Batson, Prof. William H(oward)**, University of South Dakota, Vermillion, S. Dak. *Psychology*. Martinsville, Ohio, Sept. 18, 81. A.B, Antioch, 07; Ph.D, Michigan, 15. Supt, schools, Ohio, 07-11; prof. educ, Texas Christian, 13-17; prof. educ. and director training sch, Southwest. State Teachers Col, Okla, 17-18; *prof. educ, South Dakota*, 19- Psychol. Ass. Acquisition of skill.
- Battle, Dr. H(erbert) B(emerton)**, 103 S. Court St, Montgomery, Ala. *Chemistry*. Chapel Hill, N. C, May 29, 62. B.S, North Carolina, 81, Ph.D, 87. Asst. chemist, N. C. Exp. Sta, 81-87, director and state chemist, 87-97; chemist, N. C. State Board Health, 87-97; pres, South. Chem. Co, 97-01; tech. worker, South. Cotton Oil Co, 02-03, dist. supt, 03-06; *pres, Battle Lab. Corp*, 06- A.A; Chem. Soc; Oil Chem. Soc; Ala. Tech. Ass; Ala. Anthropol. Soc. Manufacture of cotton seed and peanut products.
- Baudisch, Dr. Oskar**, Rockefeller Institute, New York, N. Y. *Chemistry*. Maffersdorf, Czechoslovakia, June 3, 81. B.A, Zurich, 03, Ph.D, 04. Asst, Zurich, 05-06; research assoc, Manchester, 06-07; asst. privatdocent, Zurich, 09-14; research director, Strahlenforschungs Inst, 15-19; research assoc, Yale, 21-23; *assoc, Rockefeller Inst*, 23- Summers, Bologna, 12, research, Mosso Inst, Monte Rosa, 13. Chem. Soc; Harvey Soc; Chem. Gesell. Diazo and nitroso compounds; chemistry of complex salts; photochemistry; catalytic oxidation; magneto chemistry.
- Bauer, C(lyde) Max**, Midwest Exploration Co, Amarillo, Texas. *Geology*. Bristol, Ind, April 5, 86. B.S, Chicago, 08. Teacher and prin, high schools, Colo, 09-11; asst. geologist, U. S. Geol. Surv, 11-16; geologist, Empire Gas and Fuel Co, 16-18; consulting geologist, Bauer and Clark, Okla, 19-20; *geologist, Midwest Ref. Co, and chief geologist, Midwest Explor. Co*, 21- A.A; fel. Geol. Soc; Ass. Petrol. Geol. Coal and oil deposits; stratigraphy; petroleum.
- Bauer, Prof. F(rederick) C(harles)**, Soil Experiment Fields, Ill. *Soils*. Blue Mound, Ill, May 7, 86. B.S, Illinois, 09, M.S, 18; Ph.D, Wisconsin, 20. Instr, high sch, Idaho, 09-11; soils, Illinois, 11-18, in charge soil exten. and exp. fields, 20- Availability of mineral phosphates.
- Bauer, Prof. Geo(rge) N(eander)**, University of New Hampshire, Durham, N. H. *Mathematics*. Jordan, Minn, Jan. 8, 72. B.S, Minnesota, 94; M.S, Iowa, 98; Ph.D, Columbia, 00. Teacher, high sch, Minn, 94-95; instr. math, Iowa, 95-98; Minnesota, 00-02, asst. prof, 02-07, *prof, 07-20; New Hampshire*, 24- State chairman, War Savings Societies, Minn; assoc. director, War Loan Organization, 9th Fed. Reserve Dist. Math. Soc; Circolo Mat. di Palermo. The parallax of μ Cassiopeiae and the positions of 56 neighboring stars; analytic geometry; trigonometry; algebraic and transcendental numbers and equations; transcendental curves and numbers.
- Bauer, Dr. L(ouis) A(gricola)**, The Ontario, Washington, D. C. **Terrestrial magnetism*. Cincinnati, Ohio, Jan. 26, 65. C.E, Cincinnati, 88, M.S, 94, Sc.D, 13; Ph.D, Berlin, 95; Sc.D, Brown, 14. Civil engineer, 86-87; computer, U. S. Coast and Geod. Surv, 87-92; docent math. physics, Chicago, 95, instr. geophysics, 96; asst. prof. math. and math. physics, Cincinnati, 97-99; chief div. terrestrial magnetism and inspector magnetic work, U. S. Coast and Geod. Surv, 99-06; *director dept. terrestrial magnetism, Carnegie Institution*, 04- Chief div. terrestrial magnetism, Md. Geol. Surv, 96-99; astronomer and magnetician, West.

- Boundary Surv, Md, 97; lecturer, Hopkins, 99-; Halley lecturer, Oxford, 13. Commission on terrestrial magnetism, Int. Ass. Academies, 04-Ed, 'Terrestrial Magnetism and Atmospheric Elec,' 96- Lagrange prize, Royal Belgian Acad, 05; Neumayer gold medal, Berlin Gesell. für Erdkunde, 13. Permanent committee on terrestrial magnetism; Int. Meteor. Conf, 98; sec'y, sect. terrestrial magnetism and elec, Int. Geophys. Union; chairman, Geophys. Union, 22-24, v. chairman and chairman sect. terrestrial magnetism and elec, 20-26; Nat. Research Council, 17- A.A. (v. pres, 09); Physical Soc; Astron. Soc; Ass. Geog. (v. pres, 09); Philos. Soc; Am. Acad; Wash. Acad; Wash. Philos. Soc. (pres, 08); hon. mem. Cornwall Polytech. Soc; Meteor. Gesell; Soc. Cient. Ant. Alz; Portugal Geog. Soc; Portugal Inst. Ciombra; cor. mem. Göttingen Royal Acad; Lisbon Acad; Batavia Acad; Russian Acad; Int. Soc. Arctic Explorers (v. pres).
- Baughman, Walter F(ee)**, U. S. Department of Agriculture, Washington, D. C. *Chemistry*. Dubois, Pa, April 16, 89. B.S. Pennsylvania, 12. Asst. chemist, *bur. chem, U. S. Dept. Agr*, 12-20, *assoc. chemist*, 20- Chem. Soc; Agr. Chem. Vegetable oils; evolution of hydrogen peroxide; iodide and bromide in mineral waters and brines; removal of barium from brines used in manufacturing salt.
- Baum, F(rank) G(eorge)**, Hobart Building, San Francisco, Calif. *Electrical engineering*. Ste. Genevieve, Mo, July 18, 70. A.B. Stanford, 98, E.E, 99. Asst. elec. eng, Stanford, 98-99; practical work, 99-00; instr. *elec. eng, Stanford*, 00-02, *asst. prof*, 02-; *consulting engineer, elec. power transmission*, 07- Chief engineer, Calif. Gas and Elec. Corp, 04- Elec. Eng; Mech. Eng; Civil Eng. Alternating currents; the limiting distance to which power can be transmitted; water power development; the electric power industry.
- Bauman, Dr. Louis**, 19 E. 65th St, New York, N. Y. *Biochemistry*. New York, Sept. 10, 80. M.D. Columbia, 02; Berlin, 05, 07-08; Breslau, 07. Intern, Mt. Sinai Hosp, New York, 02-05; lecturer biochem, McGill, 09-11; asst. prof. med. and director research lab, Iowa Col, 11-19; *asst. prof. med, Columbia*, 19- Asst. visiting physician, Presb. Hosp, New York, 19- A.A; Chem. Soc; Soc. Biol. Chem; Soc. Exp. Biol; Am. Med. Ass. Muscle extractives; scurvy; amino acids; hyperthyroidism; acidosis.
- Baumann, Dr. Emil J(acob)**, Montefiore Hospital, New York, N. Y. *Physiological chemistry*. New York, Feb. 5, 91. B.S. Col. City of N. Y., 12; Ph.D, Yale, 15. Asst. physiol. chem, Yale, 14-16; lecturer, Toronto, 16-17; *physiol. chemist, Montefiore Hosp, New York*, 19- A.A; Biol. Chem; Chem. Soc; Soc. Exp. Biol. Metabolism; suprarenals.
- Baumberger, Dr. J(ames) Percy**, Stanford University, Calif. *Physiology*. San Leandro, Calif, Sept. 17, 92. B.S. California, 14; M.S. Harvard, 16, Sc.D, 18. Asst. zool, Harvard, 14-19, Austin teaching fellow, 17-18, asst. bot, 18; instr. *physiol, Stanford*, 19-21, *asst. prof*, 21- Instr. Lowthorpe Hort. Sch, 16-18; asst, Radcliffe, 17-18; C. R. B. Educ. Foundation fellow, Brussels, 25-26; Am-Scandinavian fellow, Lund and Copenhagen, 26. Sergt, M.C, 18-19. A.A; Physiol. Soc; Soc. Exp. Biol. Insect physiology; relationship of insects to microorganisms; hibernation; longevity; industrial fatigue; tobacco smoke; molting of crustacea; tissue metabolism; blood clotting.
- Baumgartner, Dr. E(dwin) A(be)**, Clifton Springs Sanitarium, Clifton Springs, N. Y. *Pathology*. Halstead, Kans, Feb. 14, 88. A.B, Kansas, 10, fellow, 11, A.M, 11; Ph.D, Minnesota, 15; M.D, Washington (St. Louis), 19. Instr. anat, Wisconsin, 11-12; Minnesota, 12-14; Washington (St. Louis), 14-19; *assoc. anat, Halstead Hosp, Kans*, 19-20; *assoc. pathologist, Clifton Springs Sanitarium*, 21- A.A; Ass. Path. and Bact; Am. Med. Ass; Ass. Anat. Embryology; anatomy; medicine; splenic aneurism; cancer of the lungs; goiter; development of glands and ducts.
- Baumgartner, Prof. W(illiam) J(acob)**, University of Kansas, Lawrence, Kans. *Zoology*. Excelsior, Mo, May 14, 71. A.B, Kansas, 00, A.M, 01; fellow, Chicago, 02-04. Instr. zool, Kansas, 04-05, *asst. prof. histol. and zool*, 05-13, *assoc. prof*, 13- Asst, Univ. of Kans. paleont. exped, Oregon, 05, entom. exped, Ariz, 07, director zool. exped, Texas, 08, Wash, 09; staff, Puget Sound Marine Sta, 09-16; managing ed, 'Kans. Univ. Science Bul,' 10-14, 19- A.A; Soc. Zool. Chromosome individuality in Gryllus; the biology of the crickets; spermatogenesis in the Gryllidae; the effect of cigarette smoke on growing rabbits.
- Bausch, Edward**, Bausch and Lomb Optical Co, Rochester, N. Y. **Optics*. Rochester, Sept. 26, 54. Cornell, 75. Pres, *Bausch and Lomb Optical Co*. A.A; Optical Soc; Micros. Soc. Manipulation of the microscope.
- Bawden, Dr. A(rthur) T(albot)**, Belton, Texas. *Chemistry*. Rochester, N. Y, Nov. 21, 97. B.S, Denison, 20; M.S, Ohio State, 21, Ph.D, 24. Asst, Ohio State, 20-23; *head dept. chem, Ottawa (Kans)*, 23-26; *Baylor Col. for Women*, 26- Chem. Soc. Analytical and household chemistry; chemical education.
- Bawden, H(enry) Heath**, Moosa Canyon, Escondido, Calif. *Philosophy, Psychology*. Elyria, Ohio, Sept. 28, 71. Illinois, 88-90; A.B, Denison, 93, fellow, 93-94, A.M, 94; Rochester Theol. Sem, 94-96, 97-98; fellow, Chicago, 98-00, Ph.D, 00. Instr. gymnasium, Denison, 91-94, biol, 97-98; philos, Iowa, 00-01; prof, Vassar, 01-07; Cincinnati, 07-08. A.A; Philos. Ass; West. Philos. Ass. Pragmatism; behaviorism; methodology; esthetics.
- Baxter, Dr. Dow V(awter)**, University of Michigan, Ann Arbor, Mich. *Forest pathology*. Hillsboro, Ill, Jan. 16, 98. B.S.F, Michigan, 21, M.S.F, 22, fellow, 23-24, Ph.D, 24. Asst. bot, Michigan, 19-21, forest path, 22-23; instr. bot, Wisconsin, 24-26; *asst. prof. forestry, Michigan*, 26- Summers, special asst, Michigan, 20, office blister rust control, U. S. Dept. Agr, 19, 21-23, field asst, office forest path, 18-19, asst. pathologist, 24-25. White pine blister rust;

decay of black ash; fomes fraxineus in culture; hardwood heart rots.

Baxter, Prof. Gregory P(aul), Coolidge Memorial Laboratory, Cambridge, Mass. **Chemistry*. Somerville, Mass, March 3, 76. A.B, Harvard, 96, A.M, 97, Ph.D, 99. Asst. chem, Harvard, 95-97, instr, 97-99; Haverford, 99-00; asst. prof, Swarthmore, 00-02; instr. anal. chem, Harvard, 02-05, asst. prof. chem, 05-15, prof, 15- Summers, instr, Harvard, 97, 02-21, Radcliffe, 02- Nat. Acad; A.A; Chem. Soc; Am. Acad. Analytical and inorganic chemistry; atomic weights and other physico-chemical constants.

Baxter, Dr. Mildred Frances, 3447 Euclid Ave, Cleveland, Ohio. *Psychology*. Springfield, Mass, June 16, 94. A.B, Vassar, 16; Harvard, 16; Columbia, 20; A.M, Michigan, 22, fellow, 22-24, Ph.D, 25. Asst, psychol. lab, Training Sch. for Feeble-minded, Vineland, N. J, 17-18; psychologist and director child study, Sleighton Farm, Darling, Pa, 18-19; psychol. examiner child study, dept. pub. instruction, Rochester, 19-21; *psychologist, Board Educ, Cleveland*, 24- Field worker, Associated Charities, Minneapolis, Minn, 19. Affective processes; temperament; intelligence and school placement.

Bayley, Dr. W(illiam) S(hirley), University of Illinois, Urbana, Ill. **Mineralogy, Geology*. Baltimore, Md, Nov. 10, 61. A.B, Hopkins, 83, Ph.D, 86. Prof. geol. Colby, 88-04; instr, Lehigh, 04-06; asst. prof, Illinois, 06-09, assoc. prof. miner. and econ. geol, 09-13, *prof. geol*, 13- Asst. geologist, U. S. Geol. Surv, 89-08, geologist, 09- Assoc. ed, 'Am. Naturalist,' 86-02; reviewer, 'Neues Jahrbuch,' 90-08; business ed, 'Econ. Geol,' 05- A.A; Geol. Soc. (councilor, 19); Soc. Econ. Geol. (councilor); Ill. Acad. (pres); Wash. Geol. Soc; Chem. Gesell. Descriptive mineralogy; crystallography; geography of iron districts of Lake Superior region; metamorphism; igneous rocks; iron ores of New Jersey and North Carolina; kaolins of North and South Carolina; geology of New Jersey Highlands; geology of crystalline rocks in Llano district, Texas; Suwanee district, Georgia.

Bayne-Jones, Dr. S(tanhope), University of Rochester, Rochester, N. Y. *Bacteriology*. New Orleans, La, Nov. 6, 88. A.B, Yale, 10; M.D, Hopkins, 14, A.M, 17. Intern med, Hopkins Hosp, 15-16; instr. path, Hopkins, 16, assoc. prof. path. and bacter, 20; *prof. bacter, sch. med, Rochester*. A.A; Soc. Bact; Ass. Immunol; Am. Med. Ass. Pathology; immunology.

Bazett, Prof. H(enry) C(uthbert), University of Pennsylvania, Philadelphia, Pa. *Physiology*. Gravesend, Eng, June 25, 85. B.A, Oxford, 08, M.B, B.Ch, 11, Radcliffe traveling fellow, 12-14, M.A, 13, M.D, 19; L.R.C.P, 11. Demonstrator physiol, St. Thomas Hosp, 10-11; fellow, Magdalen, Oxford, 12-20, demonstrator path, 13-15, Christopher Welch lecturer clin. physiol, 19-21; *prof. physiol, Pennsylvania*, 21- Cheselden medal, St. Thomas Hosp, 11; Mil. Cross, Gt. Britain, 15; Order of British Empire, 18. Physiol. Soc; Phila. Col. Physicians; fel. Royal Col. Surg; British Physiol. Soc. The

circulation of the blood; chronic aortic lesions in animals; chronic decerebrate animals; temperature gradients in the skin; control of body temperature in mammals.

Bazzoni, Prof. C(harles) B(lizard), University of Pennsylvania, Philadelphia, Pa. *Physics*. Newburgh, N. Y, Jan. 28, 86. B.S, Pennsylvania, 11, A.M, 13, Ph.D, 14. Instr. physics, Pennsylvania, 11-17; asst. research, King's Col, London, 16-17; asst. prof, Pennsylvania, 19-21, *prof. exp. physics*, 21- Harrison research fellow (London), 15-16. Capt, C.Eng, 17-19. Physical Soc; Optical Soc; Chem. Soc. Photoelectric and thermionic emissions; ionization potentials.

Beaber, Dr. N(athaniel) J(ohn), Mellon Institute, Pittsburgh, Pa. *Organic chemistry*. Fort Wayne, Ind, Sept. 13, 97. B.S, Kalamazoo Col, 20; M.S, Chicago, 21; Ph.D, Iowa Col, 25. Asst, Iowa Col, 21-26; *Mellon Inst*, 26- Chem. Soc. Reaction of Grignard reagents with aryl thio esters; sulfonation of benzene; synthesis of phenol and of alkyl aryl sulfides.

Beach, Prof. Frederick Elijah, Yale University, New Haven, Conn. *Physics*. New Haven, June 12, 63. Ph.B, Yale, 83, Ph.D, 93. Machinist and draftsman, 83-90; asst. physics, Yale, 91-94, instr, 94-95, asst. prof, 95- Physical Soc.

Beach, Dr. Howard T(homas), Agricultural and Mechanical College, Miss. *Chemistry*. Oska-loosa, Iowa, Jan. 25, 00. B.S, Penn (Iowa), 21; Ph.D, Iowa, 25. Assoc. prof. chem, Miss. Agr. and Mech. Col, 25- Chem. Soc. Solubilities of liquid inorganic compounds in liquid sulphur dioxide.

Beach, Prof. J(erry) R(aymond), 13 Kingston Road, Berkeley, Calif. *Veterinary science*. West Danby, N. Y, Dec. 21, 88. D.V.M, Cornell, 13. Asst. and instr. vet science, California, 14-20, asst. prof, 20- Delegate World's Poultry Cong, The Hague, 21. Vet. Med. Ass; Soc. Bact; Poultry Sci. Ass. (v. pres, 21). Diseases and physiology of poultry, including diet and vitamin A deficiency.

Beach, Lansing H(oskins), Care of Adjutant General, U. S. Army, Washington, D. C. *Engineering*. Dubuque, Iowa, June 18, 60. U. S. Mil. Acad; Eng. Sch. Application. All grades, C.Eng, major gen. and chief engineers, 20-24; *commissioner to determine distribution of waters of Rio Grande between U. S. and Mex*, 25- Senior mem, board to determine conditions of navigation, U. S. and Europe, 10-14; board on flood prevention, 15. River and harbor improvement; resistance of vessels; waterflow; methods of warfare in the sixteenth and seventeenth centuries.

Beach, Prof. W(alter) S(purgeon), Bustleton Station, Philadelphia, Pa. *Plant pathology*. Brown-ton, Minn, Jan. 24, 90. B.S, Minnesota, 14; fellow, Mich. State Col, 14-15, M.S, 15; fellow, Illinois, 17-18, Ph.D, 18. Asst. bot, Illinois, 15-17; instr. plant path, Pa. State, 18-19, asst. prof, 19-23, assoc. prof, 23- A.A; Phytopath. Soc; Phila. Acad. Fusarium wilt of China aster; biological specialization in Septoria; diseases of vegetables and mushrooms.

Beadle, C(hauncey) D(elos), Biltmore, N. C. **Botany*. St. Catharines, Ont. Can, Aug. 5, 66. Ont. Agr. Col, 84; Cornell, 89. Director, Biltmore Herbarium, 90-16. Botany of the southern states; Crataegus; Philadelphus; Rudbeckia; Marshallia.

Beal, Prof. A(lvin) C(asey), Cornell University, Ithaca, N. Y. *Horticulture*. Mt. Vernon, Ill, Nov. 30, 72. B.S., Illinois, 97; M.S.A., Cornell, 03, Ph.D., 11. Foreman, hort. dept., Ill. Exp. Sta., 98-99, supt., agr. greenhouses, 00-01, asst. hort., 01-02, *floricul.*, 02-03, instr., 03-09; asst., Cornell, 09-10, asst. prof., 11-13, *prof.*, 13-A.A.; Bot. Soc.; Soc. Hort. Sci. (chairman, committee on floricult. courses, 13, 14). Floriculture; history of the use of flowers; genus Rosa; rock plants; forcing vegetables under glass; greenhouse construction and management.

Beal, Dr. A(rthur) F(loyd), U. S. Public Health Service, Washington, D. C. *Physics*. Arlington, Colo, Sept. 25, 88. A.B., Kansas, 11, A.M., 12; fellow, Pittsburgh, 14-16, Ph.D., 17. Magnetic observer, U. S. Coast and Geod. Surv., 12-14; instr. physics, Albion, 16-17; asst. physicist, Bur. Standards, 17-20, assoc. physicist, 20-23; *physicist*, U. S. Pub. Health Service, 23- Hon. mem. committee on nat. lighting, Illum. Eng. Soc. Physical Soc.; Astron. Soc.; Horol. Inst. (exec. committee, 21-24); Statist. Ass.; Wash. Acad.; Wash. Philos. Soc. Weights and measures; variation of latitude; natural illumination of interiors.

Beal, Carl H(ugh), 417 S. Hill St, Los Angeles, Calif. *Geology*. A.B., Stanford, 12, A.M., 15, E.M., 20. Asst. geologist, K. T. and Co, 13; consulting geologist, 13-14; instr. geol. and mining, Stanford, 14-15; oil and gas inspector, U. S. Bur. Mines, 15-16, asst. to chief petrol. technologist, 16-18; special agent, bur. internal revenue, U. S. Treas. Dept., 18-19; consulting geologist and engineer, 19-24; *v. pres.*, *Marland Oil Co, Calif.*, 24- Petroleum geology.

Beal, Dr. Fred(erick) W(ahn), University of Pennsylvania, Philadelphia, Pa. *Mathematics*. Hamilton, N. Y., July 18, 79. Ph.B., Colgate, 02, A.M., 05; fellow, Princeton, 09-10, Ph.D., 11. Instr. *math.*, Pa. State, 05-08; Brown, 10-11; Pennsylvania, 11-18; acting prof., Tennessee, 18-19; *asst. prof.*, *Pennsylvania*, 19- Math. Soc. Normal congruences determined by centers of geodesic curvature; a congruence of circles.

Beal, Prof. Geo(rge) D(enton), Mellon Institute, Pittsburgh, Pa. *Chemistry*. Scio, Ohio, Aug. 12, 87. Pharm.D., Scio, 07, Ph.B., 08; A.M., Columbia, 10, Ph.D., 11. Asst. chem., Scio Col, 06-08; instr., Illinois, 11-14, assoc., 14-18, asst. prof., 18-20, assoc. prof., 20-24, prof. anal. and food chem., 24-26; *asst. director*, *Mellon Inst.*, 26- Committee on chem. of med. products, Nat. Research Council; Am. Conf. Pharmaceutics, Research, Crop Protection Inst. Ebert prize, Pharmaceut. Ass., 20. A.A. (sec'y, C, 17); Chem. Soc. (sec'y, div. pharmaceut. chem., 15-19); Pharmaceut. Ass. (research committee, 18-); hon. mem. Ill. Pharmaceut. Ass. Quantitative organic analysis; alkaloids; fatty acids; anthraquinone drugs.

Beal, Dr. J(ames) H(artley), 801 W. Nevada St, Urbana, Ill. *Pharmacy*. New Philadelphia, Ohio, Sept. 23, 61. B.S., Scio Col, 84, A.B., 88; LL.B., Cincinnati Law Sch., 86; Ph.G., Ohio Med. Col., 94; Sc.D., Mt. Union, 95; hon. Pharm.D., Pittsburgh, 02; hon. Ph.M., Phila. Col. Pharmacy, 13. Prof. chem. and dean, dept. pharmacy, Scio Col, 87-07; prof. applied pharmacy, Pittsburgh, 02-11; gen. sec'y and ed., *Jour. Am. Pharmaceut. Ass.*, 11-14; director pharmacy research, Illinois, 14-18. Chairman board trustees, U. S. Pharmacopoeia, 10-; mem. W.I.B., 18. Nat. Drug medalist, 19. A.A.; Pharmaceut. Ass. (pres, 04); Am. Conf. Pharmaceut. Faculties (pres, 07); Chem. Soc.; Ohio Pharmaceut. Ass. (pres, 98). Pharmacy food and drug laws; poison and habit-forming drug legislation.

Beal, Prof. J(ohn) M(ann), Agricultural College, Mississippi. *Botany*. Red Oak, N. C., April 18, 88. B.S., N. C. State, 11; M.S., Miss. Agr. and Mech. Col., 13; Wisconsin, 21, 25. Instr. *bot.*, *Miss. Agr. and Mech. Col.*, 11-13, asst. prof., 13-15, *prof. and botanist*, *Exp. Sta.*, 15- Collaborator, Plant Disease Surv. A.A. Plant pathology and cytology.

Beal, W(alter) H(enry), U. S. Department of Agriculture, Washington, D. C. *Agriculture*. Hanover Co, Va., Dec. 9, 67. A.B., M.E., Va. Polytech., 86. Asst. chemist, Mass. Exp. Sta., 87-91; *U. S. Dept. Agr.*, 91- U. S. Dept. Agr. delegate, Int. Cong. Agr. Liège, 05. A.A.; Am. Geog. Soc. Methods and results of agricultural experiment station work.

Beal, W(illiam) O(tis), University of Minnesota, Minneapolis, Minn. *Astronomy*. Rollin, Mich., Feb. 18, 74. B.S., Earlham, 96; Earlham fellow, Haverford, 96-97, A.M., 97; fellow, Chicago, 01-02, 12-13, M.S., 02; Ph.D., 26. Instr. *math.*, Mich. State Col., 97-00; Chicago Manual Training High Sch., 02-03; Ill. Col., 03-04, asst. prof., 04-05, *prof.*, 05-12; *asst. astronomer*, *Minnesota*, 13- A.A.; Astron. Soc.; Math. Soc.; Soc. astron. de France. Periodic orbits; proper motion of stars; comet positions; double stars.

Beamer, R(aymond) H(ill), 1000 Missouri St, Lawrence, Kans. *Entomology*. Hallowsell, Kans., Oct. 20, 89. A.B., Kansas, 13, A.M., 17. *Asst. curator* *Snow entom. collection, Kansas*, 14-17, 22-, *asst. entom.*, 21-22, *asst. prof.*, 22- Biol. surv., Colo., 14; in charge annual entom. collecting parties, Kans. Entom. Soc. Entomology.

Beams, Dr. J(esse) W(akefield), University of Virginia, Charlottesville, Va. *Physics*. Belle Plaine, Kans. A.B., Fairmount, 21; A.M., Wisconsin, 22; Ph.D., Virginia, 25. Instr. physics and math, Ala. Polytech., 22-23; teaching fellow, *Virginia*, 23-25; *Nat. Research Council fellow physics*, 25- Physical Soc. The measurement of very short time intervals; time interval between the first appearance of spectrum lines, between excitation and fluorescent emission.

Bean, Barton A(ppler), U. S. National Museum, Washington, D. C. *Ichthyology*. Bainbridge, Pa., May 21, 60. Academy; private study. Clerk, aid, asst. curator and later *acting cura-*

- tor, U. S. Nat. Museum, 81- Fisheries Soc; Wash. Biol. Soc. Fishes of the Atlantic coast, especially of Florida and the Bahamas; South American and Philippine fishes.
- Bean, Prof. C(harles) Homer**, 2015 Government St, Baton Rouge, La. *Psychology*. Petersburg, Ohio, Feb. 28, 70. A.B, Nebraska, 99; Chicago; Ph.D, Columbia, 12. Asst. prof. psychol, Ind. State Nor. Sch, 04-14; *prof. psychol. and educ, Louisiana, 15-* A.A; Psychol. Ass. Educational psychology; standard tests; forgetting; temporary blindness; job-analyzing athletics.
- Bean, E(rnest) F**, University of Wisconsin, Madison, Wis. *Geology*. Zeaaring, Iowa, Jan. 30, 82. A.B, Wisconsin, 09, A.M, 11. Asst. geol, Wisconsin, 08-09, instr, 11-15, asst. prof, 15-17; geologist, Wis. Geol. Surv, 11, chief of parties, 13-15; asst. state geologist, *Wisconsin, 16-25*, acting state geologist, 25-26, *state geologist, 26-* Asst. Nat. Geog. Soc. exped, Alaska, 09-10. A.A; fel. Geol. Soc; Soc. Econ. Geol; Min. and Metal. Eng; Wis. Eng. Soc; Wis. Acad. Economic geology of the Precambrian; areal and glacial geology; road materials.
- Bean, Prof. R(obert) Bennett**, University, Va. *Anatomy, Anthropology*. Gala Water, Va, March 24, 74. B.S, Va. Polytech, 00; M.D, Hopkins, 04. Asst. *anat*, Hopkins, 04-05; instr, Michigan, 05-07; asst. prof, Philippines, 07-08, assoc. prof, 08-10; Tulane, 10-14, *prof, 14-16; Virginia, 16-* Lecturer, Teachers' Assembly, Baguio, 08; govt. investigator Benguet Igorots, 08. A.A. (exec. committee, sect. H, 25, chairman, 26); Ass. Anat; Anthropol. Ass. (councilor, 19); Va. Acad; New Orleans Acad. (pres, 15). Distribution, development and evolution of man; Filipinos; American negroes; growth; weight of organs; sitting height; ear form; teeth; mongoloid dwarfs; pulse of growth; human types.
- Beans, Prof. Hal T(rueman)**, Columbia University, New York, N. Y. *Chemistry*. Pleasanton, Kans, Aug. 20, 76. B.S, Nebraska, 99, A.M, 00; Ph.D, Columbia, 04. Instr. *chem*, Idaho, 00-03; *Columbia, 03-11*, asst. prof. and assoc. prof, 11-21, *prof, 21-* Chem. Soc. Inorganic, physical and analytical chemistry; colloids.
- Bear, Prof. Firman E(dward)**, Ohio State University, Columbus, Ohio. *Agriculture*. Germantown, Ohio, May 21, 84. B.S, Ohio State, 08, M.S, 10; Ph.D, Wisconsin, 17. Instr. agr. chem. and soils, Ohio State, 08-10, asst. prof, 10-13; prof. soils in charge soil investigations, West Virginia, 14-16; *prof. agr. chem. and soils, Ohio State, 16-* A.A; Chem. Soc; Soc. Agron. Nitrogen economy in soils.
- Bearce, Henry W(alter)**, 6308 Ridgewood Ave, Chevy Chase, Md. *Physics, Mechanical engineering*. Hebron, Maine, Oct. 5, 81. B.S, Maine, 06. Instr. physics, Maine, 06-08; *Bur. Standards, 08-21, co-chief div. weights and measures, 21-* In charge weights and measures exhibit, Panama-Pacific Expos, 15 (silver medal); sec'y, Nat. Screw Thread Commission. Wash. Acad; Wash. Philos. Soc. Thermal expansion of liquids; standardization of nuts, bolts, screw threads and gages; the application of tolerances; principles of limit gaging.
- Beard, Harry R(andal)**, U. S. Bureau of Fisheries, Washington, D. C. *Chemistry*. Denver, Colo, Aug. 31, 92. A.B, Colorado, 17; M.S, Wisconsin, 20. Instr. chem, Wisconsin, 19-20; asst. technologist, *Bur. Fisheries, 20-24, chief technologist, 24-* Chemist, Colo. State Oil Lab, 16; asst, Colorado, 16-17; chemist, Wilson and Co, 20. Asst. chemist, Puget Sound Navy Yard, 17; ordnance dept, U.S.A, 17-19, research chemist, 19. Chem. Soc. Fisheries technology; the preparation of fish for canning.
- Beard, Dr. Howard H(orace)**, 2109 Adelbert Road, Cleveland, Ohio. *Biochemistry*. York, S. C, May 5, 94. B.S, South Carolina, 14; A.M, Columbia, 21; Porter fellow, Yale, 25, Ph.D, 25. Asst. state chemist, S. C. Dept. Agr, 18-22; prof. physical science, Chicora Col, 22-23; asst. physiol. chem, sch. med, Yale, 24; *senior instr. biochem, sch. med, and acting head dept, Western Reserve, 25-* Chem. Soc; Soc. Biol. Chem. Nutrition; metabolism.
- Beard, J(ames) T(hom)**, 58 Washington Ave, Danbury, Conn. *Civil and mining engineering*. Brooklyn, N. Y, Oct. 19, 55. C.E, E.M, Columbia, 77. Asst. engineer, N. Y. and Brooklyn Bridge, 77-80; asst. and div. eng, C. B. and Q. Ry, 80-83; U. S. Dept. Min. Surv, 83-85; mining engineer, Ottumwa Fuel Co, and Colo. Fuel and Iron Co, 85-96; prin, sch. mines, Int. Correspondence Schools, and assoc. ed, 'Mines and Minerals,' 96-11; *senior assoc. ed, 'Coal Age,' 11-* A.A; Min. Eng; Mine Inspectors' Inst; N. of England Inst. Min. and Mech. Eng. Mine ventilation; gases and explosions in mines; safety lamps; centrifugal ventilators; mine examinations.
- Beard, Prof. J(ohn) G(over)**, University of North Carolina, Chapel Hill, N. C. *Pharmacy*. Kernersville, N. C, April 5, 88. Ph.G, North Carolina, 09. Instr. *pharmacy, North Carolina, 09-13*, asst. prof, 13-17, assoc. prof, 17-19, *prof, 19-, sec'y, sch. pharmacy, 16-* Pharmaceut. Ass. (local sec'y, 23, chairman, sect. educ. and legislation, 25); Ass. Col. Pharm. (v. pres, 25); Elisha Mitchell Sci. Soc. (pres, 17-19); N. C. Pharm. Ass. (sec'y-treas, 12-). Percolation under reduced pressure.
- Beard, Dr. J(oseph) H(oward)**, University of Illinois, Urbana, Ill. *Physiology*. Linden Hill, Md, Jan. 12, 83. A.B, St. John's (Md), 02, A.M, 12; M.D, Hopkins. Instr. physiol, *Illinois, 12-18, prof. hygiene and univ. health officer, 18-* Am. Med. Ass; Pub. Health Ass. Internal medicine; urinalysis during pregnancy; industries and disease; nervousness; health education; school hygiene.
- Beard, Dr. Leslie C(arrington), Jr**, 1764 Bedford Ave, Brooklyn, N. Y. *Chemistry*. Hagerstown, Md, Jan. 28, 98. A.B, Hopkins, 19, Ph.D, 22. Instr. chem, Hopkins, 22-23; *research chemist, Standard Oil Co. of N. Y, 23-* A.A; Chem. Soc. Vapor tension of aqueous solutions; petroleum.
- Beard, Dr. R(ichard) O(lding)**, University of Minnesota, Minneapolis, Minn. *Physiology*. Middlesex, Eng, Dec. 20, 56. M.D, Northwestern, 82. Prof. physiol, *Minnesota, 88-13*, head dept, 88-09, dept. physiol. and pharmacol, 09-

- 13, assoc. prof. *physiol.*, 13-25, *emer. prof.*, 25-Sec'y, med. sch., Minnesota, 88-25. Minn. Pure Water Commission. Hon. mem. Am. Med. Ass; hon. fel. Minn. Acad. Med. (sec'y, 90-03, pres, 05); Hennepin County Pub. Health Ass. (exec. sec'y). Nutrition; foods; food adulteration.
- Beardslee, H(enry) C(urtis)**, Perry, Ohio. *Botany*. Painesville, Ohio, Sept. 28, 65. A.B., Western Reserve, 89, A.M., 92. Teacher science, Univ. Sch., Cleveland, 90-01; senior master, Asheville Sch., 01-20. A.A.; Bot. Soc.; Torrey Bot. Club; Phytopath. Soc.; Ohio Acad. (trustee, 97-00); N. C. Acad. Fleshy fungi; fungous flora of North Carolina.
- Beardsley, J(ames) W(allace)**, 134 Rider Ave, Syracuse, N. Y. *Civil engineering*. Coventry, N. Y., Sept. 11, 60. C.E., Cornell, 91. Asst. engineer, sanit. dist., Chicago, 92-98; Deep Waterway Commission, 98-00; canal and harbor works, C.Eng., U.S.A., 00-02; consulting engineer, Philippine Commission, and director pub. works, P. I., 02-08; investigator of irrig. Java, Burma, India and Egypt, 08-09; chief engineer, P. R. Irrig. Service, 10-16; consulting engineer, ordnance dept., U.S.A., 18; asst. chief eng. surveys, Grand Canal, China, 18-19; engineer mem. highway commission, Panama, 20-21; consulting engineer, 21-24; designing engineer, Syracuse Int. Sewer Board, 25-26; consulting engineer on ports, Santo Domingo, 26- Civil Eng; West. Soc. Eng.
- Beath, Prof. O(rville) A(ndrew)**, 815 University, Laramie, Wyo. *Organic chemistry*. Wisconsin, Nov. 9, 84. A.B., Wisconsin, 08, A.M., 12. Instr. high sch., Wis., 08-10; asst. chemist, forest products lab, U. S. Forest Service, Madison, 10-11; instr. chem., Kansas, 12-14; research chemist, Wyoming, 14- Fritzsche fellow, Wisconsin, 22; special poisonous plant investigator, Midwest Ref. Co., 20. A.A.; Chem. Soc.; Inst. Chem.; Soc. Prom. Agr. Research. Plant chemistry; poisonous constituents of western range plants.
- Beattie, Prof. James Alexander**, Massachusetts Institute of Technology, Cambridge, Mass. *Chemistry*. Louisville, Ky., July 24, 95. B.S., Mass. Inst. Tech., 17, M.S., 18, fellow, 19-20, Ph.D., 20. Research chemist, Am. Writing Paper Co., 16; asst. chem., Mass. Inst. Tech., 17-18, research assoc., 20-23; Nat. Research Council fellow chem., 21-23; cryogenic lab., Leiden, Holland, 22-23; asst. prof. *physical chem. research*, Mass. Inst. Tech., 23- Chem. Soc. Physical chemistry; ionic theory; thermodynamics; equations of state; specific heats; gas and resistance thermometry; cryogenic measurements.
- Beattie, Prof. R(olla) Kent**, U. S. Department of Agriculture, Washington, D. C. *Botany*. Ashland, Ohio, Jan. 14, 75. A.B., Cotner, 95; B.S., Nebraska, 96, A.M., 98. Instr. high sch., Colo., 96-97; Wyo., 98-99; bot., Wash. Col., 99-03, prof. and head dept. and botanist, Exp. Sta., 03-12; forest pathologist, U. S. Dept. Agr., 12-14, path. inspector, fed. hort. board, 14-19, pathologist in charge for plant quarantines, 19- Summers, instr., Cotner, 93, Nebr. State Nor. Sch., 98. A.A.; Bot. Soc.; Phytopath. Soc.; Wash. Bot. Soc. (pres, 25); Wash. Acad. Plant pathology; flora of Palouse region, Washington and Oregon; food plants of sheep; geography of plant disease.
- Beattie, W(illiam) R(enwick)**, U. S. Department of Agriculture, Washington, D. C. *Agriculture*. Zanesville, Ohio, Dec. 17, 70. B.S., M.S., Ohio State. Asst. bot., Ohio State, 96-98; asst. horticulturist, U. S. Dept. Agr., 99-12; agr. and indust. commissioner, St. Louis and Southwest. Ry., 12-18; horticulturist, bur. plant indust., U. S. Dept. Agr., 18- Soc. Hort. Sci.; Am. Peat Soc.; Vegetable Growers Ass. (v. pres); Wash. Biol. Soc.; Wash. Biol. Field Club. Horticulture.
- Beaumont, Prof. A(rthur) B(ishop)**, 51 Amity St., Amherst, Mass. *Agronomy*. Waco, Texas, Jan. 21, 87. B.S., Kentucky, 08; Ph.D., Cornell, 18. Teacher, high sch., Oregon, 09-10; Oregon Nor. Sch., Monmouth, 11-13; asst. soil technol., Cornell, 13-17; assoc. prof. agron. and acting head dept., Mass. Col., 17-19, prof. soils and head dept., 19- A.A.; Soc. Agron. Soil colloids; fertilizers.
- Beaver, Dr. D(avid) J(ohn)**, 125 Van Dam St., Long Island City, N. Y. *Chemistry*. Schenectady, N. Y., Feb. 23, 93. B.S., Union, 15; A.M., Columbia, 17, Ph.D., 21. Asst. anal. chem., Columbia, 18-21; research chemist, Firestone Tire and Rubber Co., 22-23; assoc. director research, Combustion Utilities Corp., 23- Research chemist, Gas W. S., 17-19. The properties of colloidal gold sols; the temperature of thermostats; thermal changes during vulcanization.
- Beaver, Dr. J(acob) J.**, 140 Myrtle Ave., Larchmont, N. Y. *Chemistry*. Schenectady, N. Y., Feb. 23, 93. B.S., Union, 15; A.M., Columbia, 16, Ph.D., 21. Instr. chem., Columbia, 21- Chem. Soc. Compound formation in phenol-cresol mixtures; control of thermostats; photochemistry.
- Beber, Dr. M(eyer)**, University of Nebraska, Omaha, Nebr. *Biochemistry*. Minsk, Russia, December 27, 99. B.S., Nebraska, 20, fellow, 21-23, Ph.D., 25; Harvard Med. Sch., 25. Instr. biochem., Nebraska, 23- A.A.; Chem. Soc. Enzymes; catalase.
- Bechdel, Prof. S(amuel) I(rvin)**, State College, Pa. *Dairy husbandry*. Blanchard, Pa., July 9, 86. B.S., Pa. State, 11, M.S., 16; Shevlin fellow, Minnesota, 22-23, Ph.D., 25. Bur. animal indust., U. S. Dept. Agr., 11-13; dept. dairy husbandry, Pa. State, 13-26, prof. dairy production in charge research, 26- Dairy Sci. Ass; Soc. Animal Production. Dairy cattle feeding; silage; vitamin requirements.
- Becht, Dr. Frank Christian**, 245 Herriek Road, Riverside, Ill. *Physiology, Pharmacology*. Lexington, Ill., Nov. 28, 79. B.S., Chicago, 06, fellow, 06, Ph.D., 09; M.D., Northwestern, 15. Asst. physiologist, Chicago, 07-09, assoc., 09-10; asst. prof., Illinois, 10-12; pharmacol., Northwestern, 12-14; Chicago, 14-17; prof., Northwestern, 17-23. Lecturer, McGill, 15. Soc. Pharmacol.; Physiologist. Heat paralysis; antibodies in the serum and lymph; influence of the hypophysis on sugar metabolism; catalases of the blood; cerebrospinal fluid.

- Bechtel, Dr. A(lbert) R(eiff)**, Wabash College, Crawfordsville, Ind. *Botany*. Royersford, Pa., March 21, 82. B.S., A.M., Pennsylvania, 12; Ph.D., Cornell, 20. Teacher and prin. schools, Pa., 03-08; asst. instr. *bot.*, Pa. State, 13, instr., 14; N. Y. State Col. Agr., Cornell, 14-20; *prof.*, *Wabash*, 20- A.A.; Bot. Soc. Taxonomy of seed plants.
- Beck, Dr. Claude S(chaefer)**, Lakeside Hospital, Cleveland, Ohio. *Medicine*. Shamokin, Pa., Nov. 8, 94. A.B., Franklin and Marshall, 16; M.D., Hopkins, 21. Res. house officer, Hopkins Hosp., 21-22; res. surgeon, New Haven Hosp., 22-23; Arthur Tracy Cabot fellow, Harvard Med. Sch. and assoc. surg., Peter Bent Brigham Hosp., 23-24; G. W. Crile fellow, *sch. med.*, *Western Reserve*, 24-25; *instr. surg. and res. surgeon*, *Lakeside Hosp.*, 25- Surgery of the heart; mitral stenosis; suture of wounds; renal counterbalance; lymph pressure; cardiovalvulotomy; the pericardium; spindle cell sarcoma.
- Beck, Dr. Joseph C(lar)**, University of Illinois College of Medicine, Chicago, Ill. *Medicine*. Czecho-Slovakia, Sept. 26, 70. M.D., Illinois, 95. *Assoc. prof. oto-laryngol. col. med.*, *Illinois*, 04- Attending surgeon, Cook Co. Hosp., 05-; head dept. ear, nose and throat, North Chicago Hosp., 04- Czecho-Slovak Army, 18-19; lieutenant, M.R.C., 19. Col. Surg.; Am. Med. Ass. (pres, sect. oto-laryngol., 19); Otol. Soc.; Acad. Ophthal. and Oto-Laryngol. (pres, 14); Laryngol. Rhinol. and Otol. Soc.; Chicago Oto-Laryngol. Soc. (pres, 09). Surgery of the head and neck.
- Becker, Prof. A(lbert) J(ohn)**, Ohio Valley Roofing Co., Evansville, Ind. *Applied mechanics*. Evansville, Oct. 6, 77. B.S., Michigan, 03, M.E., 07; Ph.D., Illinois, 15. Instr. mech. eng., North Dakota, 04-06, asst. prof., 06-07, prof. applied math., 07-19; *sec'y-treas.*, *Ohio Valley Roofing Co.*, 20- Mech. Eng.; Eng. Educ. Strength of materials; bi-axial loading of mild steel; effect of temperature on the strength of concrete.
- Becker, Prof. Elery R(onald)**, Iowa State College, Ames, Iowa. *Zoology*. Sterling, Ill., Dec. 5, 96. A.B., Colorado, 20; Sc.D., Hopkins. Instr. *zool.*, Princeton, 23-25; *assoc. prof.*, *Iowa Col.*, 25- Morphology; protozoology; parasitology.
- Becker, George G(over)**, Federal Horticultural Board, Houston, Texas. *Entomology*. Baltimore, Md., Feb. 2, 89. B.S.A., Cornell, 10. Asst. entomologist, Ark. Exp. Sta., 10-12, acting entomologist, 12-13, entomologist, 14-18; chief inspector, State Plant Board, Ark., 19-26; *entomologist in charge cotton insect quarantines*, *Fed. Hort. Board*, 26- A.A.; Ass. Econ. Entom.; Genetic Ass. Plant pathology; round-headed apple-tree borer; peach-tree borer; woolly aphids.
- Becker, Dr. Joseph A(dam)**, 463 West St., New York, N. Y. *Physics*. Saar Dist., Germany, Jan. 24, 97. A.B., Cornell, 18, Ph.D., 22. Instr. physics, Cornell, 19-22; Nat. Research Council fellow, and instr., Calif. Inst., 22-24; *research physicist*, *Bell Telephone Laboratories*, 24- Acting asst. prof., Stanford, 24. Physical Soc. Thermionics; magnetism; X-rays.
- Becket, F(rederick) M(ark)**, 30 E. 42nd St., New York, N. Y. *Metallurgy*. Montreal, Que., Can., Jan. 11, 75. B.A.Sc., McGill, 95; A.M., Columbia, 99, 00-02. Westinghouse Elec. and Mfg. Co., 95-96; Acker Process Co., 96-98, 99-00; Ampere Electrochem. Co., 02-03; Niagara Research Laboratories, 03-06; *Electro Metal. Co. and Union Carbide Co.*, 06- Perkin medal, 24. Min. and Metal. Eng.; Soc. Test. Mat.; Electrochem. Soc. (pres, 25); Ceramic Soc.; Chem. Soc.; Min. and Metal. Soc.; London Soc. Chem. Indust.; London Iron and Steel Inst. Electrometallurgical inventions.
- Beckett, C(harles) H(arrison)**, State Life Insurance Co., Indianapolis, Ind. *Mathematics*. Aurora, Ind., May 24, 76. A.B., Cornell, 00, 00-02. Assoc. prof. math., Purdue, 05-12; *actuary*, *State Life Ins. Co.*, 12- Consulting actuary. Math. Soc.; Am. Inst. Actuaries (pres, 17-19); Statist. Ass. Actuarial science.
- Beckett, Prof. Samuel Hume**, University Farm, Davis, Calif. *Civil engineering*. Calif., Sept. 19, 83. B.S., California, 09. Sci. asst., U. S. Dept. Agr., 09-12, irrig. engineer, 12-15; instr. and asst. prof. *irrig. practice*, *California*, 15-18, *assoc. prof.*, 18- Development and economic use of irrigation water.
- Becking, Prof. L(ourens) Gerhard Marinus B(aas-)**, Stanford University, California. *Physiology*. Deventer, Holland, Jan. 4, 95. A.B., Utrecht, 18, A.M., 19, D.Sc., 21; Ph.D., Stanford, 21. Instr. bot., *Stanford*, 21-22, asst. prof. econ. biol., 22-25, *prof. biol.*, 25- Consultant, bur. chem., U. S. Dept. Agr., 24-25. Bot. Soc.; Soc. Plant Physiol.; Soc. Exp. Biol.; Chem. Soc.; Utrecht Acad.; Netherland Bot. Soc.; Netherland Zool. Soc. Physiology of the cell; microbiology.
- Beckman, Prof. Harry**, 638 Fourth St., Milwaukee, Wis. *Pharmacology*. Louisville, Ky., Aug. 14, 92. M.D., Louisville, 21. Instr. physiol. and pharmacol., *Marquette*, 23-24, asst. prof., 24-25, *assoc. prof. pharmacol.*, and acting director dept., 25-26, *prof. and director*, 26- Synergism; colonic anesthesia; ferment action.
- Beckman, H(enry) C(laus)**, P. O. Box 138, Rolla, Mo. *Engineering*. Muscatine, Iowa, Feb. 15, 88. B.S., Iowa Col., 12, C.E., 17. Instrument man, Chicago and Northwest Ry., 12-13; eng. inspector, Railroad Commission, Wis., 13-16; hydraulic engineer, water resources branch, U. S. Geol. Surv., 16-19; engineer, Cent. States Eng. Co., Iowa, 19-23; *dist. engineer*, *water resources branch*, U. S. Geol. Surv., *Mo. and Ark.*, 23- Assoc. Civil Eng. Stream-flow.
- Becknell, Dr. G(uy) G(aillaird)**, 6900 Dixon Ave., Tampa, Fla. *Physics*. Milford, Ind., April 16, 78. B.S., Northwestern, 04, fellow, 05, M.S., 05; hon. fellow, Clark, 08-09, senior fellow, 09-11, Ph.D., 11. Instr. physics, Purdue, 05-08; research asst., Clark, 08-09; prof., Mt. Allison, 11-12; instr., Syracuse, 12-14; Northwestern, 14-15; Pittsburgh, 16-17, asst. prof., 17-20, prof., 20-24. A.A.; Physical Soc. Residual E.M.F. in carbon arc; demagnetization of iron and steel; diffraction evolutes.
- Beckstrand, Prof. E(lias) H(yrum)**, University of Utah, Salt Lake City, Utah. *Engineering*.

- Meadow, Utah. B.S. (E.E.), Michigan, 00; M.M.E., Cornell, 01. *Prof. mech. eng., Utah, 02-* Engineer, Yampa tramway, Bingham, Utah. Mech. Eng.; Soc. Test. Mat. Testing of brick and macadam rock; testing and value of lubricating oils; effect of alkalis on concrete.
- Beckstrom, Prof. R(obert) C(arl)**, 1215 16th St, Golden, Colo. *Petroleum engineering.* Axtell, Nebr, Sept. 22, 88. A.B., Oklahoma, 20, A.M., 21. Instr. in charge petrol. tech, Oklahoma, 22-23; *prof. and head petrol. eng., Colo. Sch. Mines, 23-* Consulting engineer, 22-; lecturer, Denver Inst. Tech, 25- Petrol. Inst; Chem. Soc. Recovery of oil from oil sands; migration, accumulation and origin of petroleum; action of clays in contact filtration; solid absorbents for gasoline.
- Beckwith, Angie M(aria)**, U. S. Department of Agriculture, Washington, D. C. *Plant pathology.* Grand Rapids, Mich, Jan. 27, 81. A.B., Michigan, 04; Chicago, 04-05. Asst. biol. lab, Vassar, 06-08; expert xyloptomist, U. S. Forest Service, 08-10; *sci. asst., bur. plant indust., U. S. Dept. Agr, 10-* A.A.; Phytopath. Soc. Grape root rot; cranberry diseases.
- Beckwith, Charles S(ewart)**, Pemberton, N. J. *Entomology.* Olean, N. Y., May 16, 91. B.S., M.S., Rutgers, 24. *Asst. entomologist, N. J. Exp. Sta, 14-*, *cranberry specialist, 20-* A.A.; Ass. Econ. Entom. Mosquito control; cranberries and blueberries of New Jersey.
- Beckwith, Prof. Cora J(ipson)**, Vassar College, Poughkeepsie, N. Y. *Zoology.* Grand Rapids, Mich, March 24, 75. B.S., Michigan, 00; A.M., Columbia, 08, Ph.D., 14. Asst. biol, *Vassar, 00-02, instr. zool, 02-13, asst. prof, 14-15, assoc. prof, 15-* A.A.; Soc. Nat; Soc. Zool. Lateral line organ in *Amia calva*; cytology of hydroid germ cells.
- Beckwith, Prof. Ethelwynn R(ice)**, (Mrs. W. E.), Milwaukee-Downer College, Milwaukee, Wis. *Statistics.* Hartford, Conn, Jan. 7, 78. Ph.B., Oberlin, 00; A.M., Western Reserve, 09; Ph.D., Radcliffe, 25. Instr. *math, Western Reserve, 10-17, asst. prof, 17-20; acting asst. prof, Vassar, 21-22; acting head dept. col. for women, Western Reserve, 24-25; prof. and head dept, Milwaukee-Downer, 25-* A.A.; Statist. Ass; Math. Soc; Math. Ass.
- Beckwith, Prof. T(heodore) D(ay)**, University of California, Berkeley, Calif. *Bacteriology.* Utica, N. Y., Dec. 8, 79. B.S., Hamilton, 04, Root fellow, 04, M.S., 07; Ph.D., California, 20. Sci. asst, U. S. Dept. Agr, 04-07; asst. prof. bacter. and plant path, N. Dak. Col. and asst. botanist, Exp. Sta, 07-11; head dept. bacter, Oregon Col. and bacteriologist, Exp. Sta, 11-20; *assoc. bacter, California, 20-* Capt. Sanit. C, 18. A.A.; Am. Med. Ass; Soc. Exp. Biol; Soc. Parasitol. Water supplies; soils; cold storage; experimental pathology; pyorrhea.
- Bedell, Prof. Frederick**, Cornell University, Ithaca, N. Y. **Physics, Electrical engineering.* Brooklyn, N. Y., April 12, 68. A.B., Yale, 90; M.S., Cornell, 91, fellow, 91-92, Ph.D., 92. Instr. *physics, Cornell, 92-93, asst. prof, 93-04, prof, 04-* Assoc. ed, 'Physical Rev,' 93-12, managing ed, 13-22. A.A. (sec'y, B, 97, sec'y, council, 98, gen. sec'y, 99); Physical Soc; Elec. Eng. (manager, 14-16, v. pres, 17). Alternating currents; aerodynamics.
- Beebe, Prof. Murray C(harles)**, Scovill Manufacturing Co, Waterbury, Conn. *Electrical engineering.* Racine, Wis, Feb. 25, 76. B.S., Wisconsin, 97. Instr. elec. eng, Wisconsin, 97-00; research dept, Nernst Lamp Co, 00-04; assoc. prof. elec. eng, Wisconsin, 05-07, prof, 07-18; West. Elec. Co, 19; chief engineer, Wadsworth Watch Case Co, 20-25; *director lab, Scovill Mfg. Co, 25-* Elec. Eng; Min. Eng; Electrochem. Soc; Chem. Soc. Electric lighting; chemistry of rare earths; metallurgy; photographic and printing processes.
- Beebe, Prof. Ralph A(lonzo)**, Amherst, Mass. *Chemistry.* Monson, Mass, March 8, 98. A.B., Amherst, 20; Ph.D., Princeton, 23. Instr. *chem, Amherst, 23-25, assoc. prof, 25-* Chem. Soc. Adsorption theory of catalysis; heat of adsorption.
- Beebe, Prof. S(ilas) P(almer)**, 116 E. 53d St, New York, N. Y. *Physiological chemistry.* St. Johns, Mich, April 22, 76. B.S., Valparaiso, 96; B.S., Harvard, 00; M.S., Yale, 02, Ph.D., 04; M.D., Cornell, 09. Instr. high sch, Conn, 00-03; *physiol. chemist, Huntington Fund for Cancer Research, Loomis Lab, 03-09; prof. exp. therapeut, med. col, Cornell, 09-15.* Summers, lecturer, Harvard, 02-04. A.A.; Physiol. Soc; Ass. Path. and Bact; Soc. Exp. Biol; Soc. Cancer Research; Soc. Biol. Chem. Effect of alcohol and alcoholic fluids on excretion of uric acid; tumor tissue; fat from proteid; immunity; serum therapy; physiology of thyroid and parathyroid.
- Beebe, William**, New York Zoological Park, New York, N. Y. **Ornithology, Oceanography, Evolution.* Brooklyn, N. Y., July 29, 77. Columbia, 96-99. Curator *ornith, N. Y. Zool. Park, 99-*; *hon. curator and director dept. tropical research, N. Y. Zool. Soc, 19-* Elliot medal; Burroughs medal. A.A.; fel. Ornith. Union; Soc. Mammal; Ecol. Soc; N. Y. Linnean Soc; fel. N. Y. Zool. Soc; fel. N. Y. Acad; N. Y. Audubon Soc; cor. mem. London Zool. Soc. Ecology of land and marine vertebrates of neotropical regions.
- Beecher, M(ilton) F(erdinand)**, Norton Co, Worcester, Mass. *Ceramic engineering.* Mason City, Iowa, April 21, 87. B.S., Iowa Col, 10, Cer.E, 15. Foreman, Boone Brick, Tile and Paving Co, Iowa, 10; asst. supt, West Stoneware Co, Ill, 10-11; instr. ceramic eng, Iowa Col, 11-13, asst. engineer, ceramics, Eng. Exp. Sta, Iowa, 13-15; ceramic engineer, *research laboratories, Norton Co, 15-19, research engineer, 19-* Ceramic Soc. (chairman, committee standards, 17-22, trustee, 20-23); British Ceramic Soc. Clays and clay products; special refractories.
- Beede, Dr. J(oshua) W(illiam)**, 1201 S. David St, San Angelo, Texas. *Geology, Paleontology.* Raymond, N. H., Sept. 14, 71. B.S., Washburn, 96, A.M., 97; Ph.D., Kansas, 99. Instr. paleont, Kansas, 97-99; teacher, high sch, Kans, 99-01; instr. geol, Indiana, 01-06, asst. prof, 06-09, assoc. prof, 09-17; *geologist,*

- bur. econ. geol. Texas, 17-22; Empire Gas and Fuel Co, 22-24; *Dixie Oil Co*, 24- Asst. Kans. Geol. Surv, 96, 98, 03-09; U. S. Geol. Surv, 01-03. A.A. (exec. committee, 16); Geol. Soc; Paleont. Soc; Ass. Petrol. Geol; Ind. Acad; Kans. Acad. Stratigraphic geology, paleontology and faunal divisions of Kansas coal measures; invertebrate paleontology of the Permian Red Beds; subterranean drainage; Permian of Kansas, Oklahoma and Texas; terrestrial vertebrates of the Appalachian and Kansas-Texas sections; species of genus *Schwagerina*.
- Beekley, Dr. John S(herman)**, Lazote, Inc, Wilmington, Del. *Chemistry*. West Chester, Ohio, Dec. 7, 94. A.B, Miami, 15; A.M, Illinois, 17; Ph.D, Princeton, 24. Asst. prof. math, Miami, 19-21; *research chemist*, E. I. du Pont de Nemours and Co, 24- Second lieut. A.S, U. S. Field Artil, 17-19. Chem. Soc. Adsorption of ions; catalysis.
- Beer, Dr. Edwin**, 45 E. 85th St, New York, N. Y. *Medicine*. New York, March 28, 76. A.B, Columbia, 96, M.D, 99. *Visiting surgeon*, *Bellevue and Mt. Sinai hospitals*. A.A; Am. Med. Ass; Col. Surg; Surg. Ass; Urol. Ass; N. Y. Path. Soc; Clin. Genito-Urinary Soc; N. Y. Surg. Soc; N. Y. Acad; Int. Urol. Soc; Soc. Ital. d'Urol; Int. Soc. Surg; Urol. Gesell. Physiology and pathology of the kidneys, urinary bladder, intestines and liver; therapeutics applied to diseases of viscera.
- Beers, Dr. C(harles) Dale**, Yale University, New Haven, Conn. *Zoology*. Arcanum, Ohio, April 4, 01. A.B, North Carolina, 21, A.M, 22; Ph.D, Hopkins, 25. *Instr. biol*, Yale, 25- *Instr*, Woods Hole, 24-25. Soc. Zool. Life histories and physiology of conjugation and encystment in Protozoa.
- Beery, Prof. Pauline G(racia)**, (Mrs. Warren Mack), State College, Pa. *Chemistry*. Norborne, Mo, Dec. 19, 91. A.B, Missouri, 13; A.M, Columbia, 19. Teacher, high sch, Mo, 13-15, head dept, 15-19; *instr. chem*, Pa. State, 19-20, *asst. prof*, 20- A.A; Chem. Soc. Chemistry applied to home and community; man's conquest of materials.
- Beeson, Prof. J(asper) L(uther)**, 202 Columbia St, Milledgeville, Ga. *Chemistry*. Keener, Ala, Aug. 31, 67. A.B, Alabama, 88, A.M, 89; Ph.D, Hopkins, 93. *Instr. physics*, Alabama, and chemist, Ala. Geol. Surv, 88-89; research chemist, La. Exp. Sta. and prof. chem, La. Sch. of Sugar, 93-96; *prof. nat. science*, Bethel, 96-97; *chem*, Ga. State Col. for Women, 97-, *dean col. arts and sciences*, 25-, *chairman faculty*, 10-, acting pres, 22-23, 27. Summer, prof, Georgia, 09. A.A; Chem. Soc. Action of alcohol on certain diazo compounds; sugar chemistry; nitric nitrogen gathered by the Leguminosae.
- Beeson, Dr. M(alcolm) A(lfred)**, Stillwater, Okla. *Agronomy*. Gadsden, Ala, June 20, 79. B.S, Ala. Polytech, 00; Hopkins, 01-03; hon. Sc.D. Prof. science, E. Miss. Female Col, 00-01; pres. and proprietor, Meridian Col, 03-14; prof. agron. and agronomist, Okla. Col, 15-21, dean agr. div. and sch. agr, 21-23, *director*, *Exp. Sta*, 23- Trustee, E. Miss. Female Col. A.A; Soc. Agron; Chem. Soc. Crops; farm management.
- Beetle, Dr. Ralph D(ennison)**, Dartmouth College, Hanover, N. H. *Mathematics*. New Bedford, Mass, Jan. 21, 86. A.B, Dartmouth, 06, A.M, 11; fellow, Princeton, 12-14, Ph.D, 14. *Instr*, high sch, N. H, 06-07; *math*, Dartmouth, 07-12, 14-15, *asst. prof*, 15-20, *prof*, 20- A.A; Math. Soc; Math. Ass. Differential geometry of curves and surfaces; analysis situs.
- Begeman, Prof. Louis**, 2315 Iowa St, Cedar Falls, Iowa. *Physics*. Evansville, Ind, March 1, 65. B.S, Michigan, 89, M.S, 97; Ph.D, Chicago, 10. Supt. schools, Iowa, 89-95; *prof. physics and chem*, Parsons, 95-99; *physics*, Iowa State Teachers Col, 99- A.A; Cent. Ass. Sci. and Math. Teachers; Iowa Acad. (pres, 12). Charge of the electron by the cloud method.
- Begg, Dean A(lexander) S(wanson)**, Boston University School of Medicine, Boston, Mass. *Embryology*. Council Bluffs, Iowa, May 23, 81. M.D, 07. *Instr. path*, Drake, 07-09, *asst. prof. path, histol. and embryol*, 09-10, *prof. histol. and embryol*, 10-13; teaching fellow, Harvard Med. Sch, 11-12, *instr. comp. anat*, 13-18, *asst. dean, demonstrator anat. and instr. histol*, 18-21; *prof. anat, sch. med*, Boston, 21-, *dean*, 23- Research assoc, Carnegie Institution, 15- Med. advisory council, Life Exten. Inst; chairman committee educ, Ass. Am. Med. Col, 24-; chairman committee pub. health and sanitation, Boston Chamber of Commerce. U.S.A, 17-19. A.A; Ass. Anat. Development of veins; cytology of intestinal epithelium; anatomical anomalies; medical education.
- Beghtel, Prof. F(loyd) E(ldon)**, Indiana Central College, Indianapolis, Ind. *Botany*. Huntington, Ind, Dec. 22, 86. A.B, Ind. Cent. Col, 12; A.M, Indiana, 17; Ph.D, Cincinnati, 23. *Instr. bot*, Cincinnati, 18-24, *asst. prof*, 24-25; *prof*, Ind. Cent. Col, 25- Bot. Soc. Plant morphology.
- Behre, O(harles) Edward**, Amherst, Mass. *Forestry*. Brooklyn, N. Y, Sept. 24, 95. Ph.B, Yale, 15, M.F, 17. Assoc. prof. lumbering, Idaho, 19-23; *assoc. silviculturist*, Northeast. Forest Exp. Sta, U. S. Forest Service, 23- Second lieut. C.Eng, 18-19. Soc. Foresters. Forest mensuration.
- Behre, Prof. Charles H(enry), Jr**, 3614 Vine St, Cincinnati, Ohio. *Geology*. Atlanta, Ga, March 16, 96. B.S, Chicago, 18, Ph.D, 25. Geologist, Wis. Geol. Surv, 17-18; *asst. zool*, Chicago, 18-20, *geol*, 20-21; *instr*, Lehigh, 21-23; *asst. prof*, Cincinnati, 24- Asst. geologist, U. S. Geol. Surv, 21-; cooperative geologist, Pa. Geol. Surv, 22- A.A; Min. and Metal Eng; Ill. Acad. Economic geology of manganese, antimony, zinc and slate; structural geology.
- Behre, Prof. E(llinor) H(elene)**, Louisiana State University, Baton Rouge, La. *Zoology*. Atlanta, Ga, Sept. 28, 86. A.B, Radcliffe, 08; Tulane, 13-15; Ph.D, Chicago, 18. *Instr*. in charge dept. biol, Newcomb Col, 12-15; *asst. zool*, Chicago, 15-18; research asst, sta. for exp.

- evolution, Carnegie Institution, 18-19; instr. biol., Newcomb Col., 19-20; asst. prof. *zool.*, *Louisiana*, 20-23, *assoc. prof.*, 23- A.A.; Soc. Zool.; Micros. Soc.; Ecol. Soc. Physiological zoology; anatomy.
- Behre, Dr. J(eanette) A(llen)**, Union Central Life Insurance Co., Cincinnati, Ohio. *Biochemistry*. Cincinnati, 91. A.B., Vassar, 13; fellow, Chicago, 18-19; fellow, Cornell, 20-22, Ph.D., 22. Asst. zool., Cincinnati, 17-18; research asst. bacter., Northwestern, 19-20; *instr. chem. med. col.*, Cornell, 22-24, 25-; *research chemist, lab.*, Union Central Life Ins. Co., 24- A.A.; Soc. Biol. Chem. Blood and urinary chemistry; creatine and creatinine; urea; acetone bodies; preservatives.
- Behrend, B(ernard) A(rthur)**, 110 Cliff Road, Wellesley Hills, Mass. *Engineering, Physics*. Villeneuve, Switzerland, May 9, 75. Polytech, Berlin, 94; London; Paris. Asst. chief electrician, Oerlikon Co., Switzerland, 98; chief engineer and chief designer, Bullock Elec. Mfg. Co., 00-09; chief electrical engineer and consulting engineer, Allis-Chalmers Co., 09; advisory engineer in charge power dept., *Westinghouse Elec. and Mfg. Co.*, Boston, 09-11, *consulting engineer*, 09- Scott medal, Franklin Inst., 12; Edison Medal Committee, 21-26; gold medal, St. Louis, 04. A.A.; Elec. Eng. (v. pres, 17-19); Mech. Eng.; Civil Eng.; Am. Acad. Alternating current phenomena; induction motor; steam turbine generators; alternators and long lines; regulation and scientific methods of testing.
- Behrens, Prof. Charles A(ugust)**, 1020 Third St., West Lafayette, Ind. *Bacteriology*. Grand Rapids, Mich., Jan. 5, 85. B.S., Michigan, 09, M.S., 10, Ph.D., 13. Instr. bacter., Michigan, 10-14; asst. prof. in charge dept., *Purdue*, 14-16, *assoc. prof.*, 16-18, *prof.*, 18- A.A.; Soc. Bact.; fel. Ind. Acad. (pres, 23); Mich. Acad. Protozoology; immunology; serology.
- Beilby, Dr. George Everett**, 247 State St., Albany, N. Y. *Pathology*. Harpersfield, N. Y., April 10, 76. M.D., 99. *Clin. prof. surg.*, *Albany Med. Col.*, Union, 14- Asst. surgeon, Albany Hosp. Ass. Path. and Bact. Surgery; pathology and surgery of the thyroid gland.
- Beinhart, E(rnest) G(eorge)**, Quincy, Fla. *Agriculture*. Cincinnati, Ohio, Sept. 24, 87. B.S., Iowa Col., 10. Asst. chem. sect., Iowa Exp. Sta., 06-08, tobacco experiments, 08-09; in charge plant improvement, Sunnybrook Tobacco Co., 09-10; asst. in charge New Eng. tobacco investigations, bur. plant indust., U. S. Dept. Agr., 11-19; asst. manager, H. Zering Mfg. Co., 19-22; in charge farm dept. and advertising, Lippincott Co., 22-23; *research, Fla-Ga. Tobacco Growers Ass.*, and *research work, Am. Sumatra and Wedeles Tobacco Companies*, 23- A.A.; Chem. Soc. Plant nutrition; disease resistance and improvement of tobacco.
- Beisler, Dr. Walter H(erman)**, University of Florida, Gainesville, Fla. *Chemical engineering*. Newark, N. J., April 21, 96. B.S., Rutgers, 18, Van der Poel fellow, 18-19, M.S., 19; M.S., Princeton, 21, Sc.D., 22. Chemist, du Pont Eng. Co., Tenn., 18; asst. chem., Princeton, 19-22; asst. prof., *Florida*, 22-23, *prof. chem. eng.*, 23- Summers, chemist, Noil Color and Chem. Co., 20-22; *assoc. ed.*, 'Jour. Chem. Educ.', 24-25. Capt., C.W.S. Chem. Soc.; Chem. Eng. Analytical and organic chemistry; derivatives of anthraquinone; Chinese wood oil.
- Belfield, Dr. W(illiam) T(homas)**, 31 N. State St., Chicago, Ill. *Medicine*. St. Louis, Mo., 56. Michigan, 72-73; M.D., Rush Med. Col., 78; Vienna. *Prof. bacter.*, *Rush Med. Col.*, Chicago, 91-98, *genito-urinary surg.*, 98- Cartwright fund lecturer, New York, 83. A.A.; Ass. Genito-Urinary Surg. (pres, 02); Urol. Ass. (pres, 08). Biology and sociology of sex; diseases of seminal duct.
- Belknap, W(illiam) E(thelbert)**, Mantoloking, N. J. *Engineering*. Yonkers, N. Y., July 20, 67. B.S., C.E., N. Y. Univ., 88. Pa. Ry., 89-94; asst. engineer, dept. city works, Brooklyn, N. Y., 94-97; dept. docks, New York, 97-02; supt., Communipaw Coal Co., 02-05; treas. and sec'y, Burns Bros. Coal Co., 05-11. Civil Eng. (director, 10-12).
- Bell, Prof. E(lexious) T(hompson)**, University of Minnesota, Minneapolis, Minn. **Pathology*. Hatch, Mo., Aug. 31, 80. B.S., Missouri, 01, fellow, 01-02, M.D., 03; Bonn, 05-06. Asst. anat., Missouri, 02-03, instr., 03-07, asst. prof., 07-11; *path.*, *Minnesota*, 11-16, *assoc. prof.*, 16-20, *prof.*, 20-, *director dept.*, 21- Ass. Path. and Bact.; Am. Med. Ass.; Soc. Exp. Biol.; Ass. Cancer Research. Experimental morphology; histogenesis of the thymus; adipose tissue; fatty metamorphosis; nephritis; endocarditis; hypertension.
- Bell, Prof. E(ric) T(emple)**, California Institute, Pasadena, Calif. **Mathematics*. Aberdeen, Scotland, Feb. 7, 83. A.B., Stanford, 04; A.M., Washington (Seattle), 08; Ph.D., Columbia, 12. Asst. *math.*, Washington (Seattle), 07-08, instr. and asst. prof., 12-20, *assoc. prof.*, 20-21, *prof.*, 21-27; *Calif. Inst.*, 27- A.A.; Math. Soc. (councilor, 23-, v. pres, 26-); Math. Ass.; Circolo Mat. di Palermo; Calcutta Math. Soc. Theory of numbers; numerical functions; analytical theorems in arithmetic.
- Bell, Dr. Frederick K(eller)**, Johns Hopkins University, Baltimore, Md. *Chemistry*. Cincinnati, Ohio, March 27, 95. A.B., Hopkins, 16, Ph.D., 20. Asst. chem., *Hopkins*, 20-21, *pharmacol.*, 21-22, *instr.*, 22- Copper and the rate of solution of iron in acids; ultra-violet and infra-red absorption spectra of imidazol derivatives; infra-red absorption spectra of organic derivatives of ammonia, organic sulphur compounds and the alkaloids; penetration of animal tissues by ultra-violet light.
- Bell, Prof. Hugh P(hilip)**, Dalhousie University, Halifax, N. S., Can. *Botany*. Halifax, Feb. 22, 89. B.Sc., Dalhousie, 12, M.Sc., 14; Can. Research Council student, Toronto, 19-20, Ph.D., 22. Asst. prof. biol., Dalhousie, 20-21; demonstrator bot., Toronto, 21-22; *assoc. prof.*, *Dalhousie*, 22- Capt., Royal Can. Regiment, 14-19. A.A.; Bot. Soc.; British Ecol. Soc. The rusts of balsam; marine algae.

- Bell, Prof. J(ames) Carleton**, 1032A Sterling Place, Brooklyn, N. Y. *Psychology, Education*. Mt. Vernon, Ohio, Dec. 11, 72. A.B., Denison, 96; A.M., Harvard, 03, Ph.D., 04. Instr. Latin, Boston Latin Sch., 04-05; asst. philos., Harvard, 05-06; instr. exp. psychol., Wellesley, 05-07; prof. educ. psychol., Brooklyn Training Sch. for Teachers, 07-12; art of teaching, Texas, 12-16; *psychol. and educ.*, Brooklyn Training Sch. for Teachers, 16-24; *Col. City of N. Y.*, 24- Founder and managing ed., 'Jour. Educ. Psychol.' A.A.; Psychol. Ass.; N. Y. Soc. Exp. Study Educ. (sec'y-treas.). Animal psychology; movement; visual perception; mental tests; educational measurements.
- Bell, Prof. J(ames) E(dgar)**, California Institute, Pasadena, Calif. *Chemistry*. B.S., Chicago, 05; Ph.D., Illinois, 13. Instr. *chem.*, Washington (Seattle), 10-11, 13-16; assoc. prof., *Calif. Inst.*, 16-18, *prof.*, 18- A.A.; Chem. Soc.
- Bell, Prof. James M(unsie)**, University of North Carolina, Chapel Hill, N. C. *Chemistry*. Chesley, Ont., Can., April 19, 80. B.A., Toronto, 02, M.A., 05; Sage fellow, Cornell, 04-05, Ph.D., 05. Soil chemist, bur. soils, U. S. Dept. Agr., 05-10; assoc. prof. *physical chem.*, *North Carolina*, 10-13, *prof.*, 13-, *head dept.*, 21- A.A.; Chem. Soc.; Soc. Chem. Indust.; London Chem. Soc.; Soc. chim. de France. Atomic weight of zirconium; thermal properties of nitrotoluenes; chemical affinity; free energy.
- Bell, John Hume**, 477 Tillou Road, South Orange, N. J. *Electrical engineering*. Aberdeenshire, Scotland, Sept. 6, 79. *Telegraph engineer*, British Post Office, 04-11; West. Elec. Co., 11-25; *Bell Telephone Laboratories*, 25- Elec. Eng.; British Inst. Elec. Eng. Land and submarine telegraphs; printing telegraphs; telegraph transmission.
- Bell, Dr. Walter A(ndrew)**, Victoria Museum, Ottawa, Ont., Can. *Paleobotany, Geology*. St. Thomas, Ont., Jan. 4, 89. B.S., Queen's (Can.), 11, 1851 Exhib. scholar, 11-13; Dana fellow, Yale, 14, Ph.D., 20. Student asst., *Can. Geol. Surv.*, 10-15, asst. paleobotanist, 20-22, assoc. paleobotanist, 22-24, *paleobotanist*, 24- Paleont. Soc.; fel. Geol. Soc.; Royal Soc. Can. Carboniferous stratigraphy of the Maritime Provinces of Canada.
- Bell, Dr. W(illiam) B(onar)**, 803 Rittenhouse St., Washington, D. C. *Biology*. Milton, Iowa, June 2, 77. M.Di., Iowa State Nor. Sch., 99; Woods Hole, 01; A.B., Iowa, 02, fellow, 03-05, M.S., 03, Ph.D., 05; Smithsonian table, Naples Zool. Sta., 05. Asst. prof. zool. and physiol., N. Dak. Col., 05-08, *prof.*, 08-16; asst. biologist, *bur. biol. surv.*, U. S. Dept. Agr., 16-24, *biologist*, 24- A.A.; Soc. Mammal.; Ornith. Union; N. Dak. Acad. (pres, 15); Wash. Biol. Soc. Homologous crustacean appendages; beetles, birds, mammals and plants of North Dakota; control of ground squirrels, gophers, prairie dogs, jack rabbits and predatory animals.
- Bellamy, Dr. A(lbert) W(illiam)**, University of California at Los Angeles, Los Angeles, Calif. *Zoology*. Yukon, Okla., June 20, 92. B.S., Kansas Col., 14; Ph.D., Chicago, 19. Asst. zool.
- Kansas Col., 12-14, zool. and genetics, 14-16; zool., Chicago, 17-18, assoc., 18-19, instr. zool. and genetics, 19-23, *asst. prof. zool.*, 23-24; *California at Los Angeles*, 24- A.A.; Soc. Zool. Genetics; experimental evolution.
- Belling, Dr. John**, Carnegie Institution, Cold Spring Harbor, Long Island, N. Y. *Genetics*. Aldershot, England, Oct. 7, 66. Birkbeck Inst., London, 82-86; Birmingham, 92-94; B.Sc., London, 94; hon. Sc.D., Maine, 22. Teacher, private and pub. schools, 82-92; res. lecturer, Hort. Col., Swanley, England, 95-98; teacher science, Wells, England, and Llandidloes, Wales, 00-01; Imp. Dept. Agr., W. I., 01-07; asst. botanist, Fla. Exp. Sta., 07-16; *cytologist, dept. genetics, sta. for exp. evolution, Carnegie Institution*, 21- Plant breeding; plant chromosomes.
- Belyea, Prof. Harold C(ahill)**, New York State College of Forestry, Syracuse, N. Y. *Forestry*. St. John, N. B., Can., Sept. 28, 87. B.A., Mt. Allison, 08, M.A., 11; B.S.F., New Brunswick, 11; M.F., Yale, 16. Instr. *forest eng.*, N. Y. State Col. Forestry, Syracuse, 17-19, *asst. prof.*, 19- Soc. Foresters. Silviculture; forest growth and management.
- Bemis, Prof. H(arold) E(dward)**, Iowa State College, Ames, Iowa. *Veterinary surgery*. Cawker City, Kans. Northwestern University; D.V.M., Iowa Col., 08. Asst. prof. *vet. surg.*, Iowa Col., 08-12, assoc. prof., 12-15, *prof. and v. dean*, 15- Summer, bur. animal indust., U. S. Dept. Agr., Ill., 08. Lieut. col., V.C., 17-19, O.R.C., 25. Vet. Med. Ass. (chairman, sect. on practise, 20); Iowa Vet. Med. Ass. (chairman, committee surg., 15-21, 25). Obstetrics; sterility in animals.
- Benbrook, Prof. E(dward) A(ntony)**, Iowa State College, Ames, Iowa. *Pathology*. South Orange, N. J., May 15, 92. D.V.M., Pennsylvania, 14. Instr. *vet. path.*, Pennsylvania, 15; Okla. Agr. and Mech. Col., 15-18; assoc. prof. *vet. investigation*, Iowa Col., 18-19, *prof. vet. path. and head dept.*, 19- Vet. Med. Ass.; Soc. Parasitol.; Iowa Vet. Med. Ass. Veterinary parasitology and pathology; milk hygiene.
- Bencowitz, Dr. Isaac**, New York University, New York, N. Y. *Physical chemistry*. Russia, Feb. 10, 96. B.S., Chicago, 21; A.M., Columbia, 22, Ph.D., 24. *Nat. Research Council fellow physical chem.*, N. Y. Univ., 24- Chem. Soc. The mobilities of onium ions; vapor-pressure lowering as a function of the degree of saturation.
- Bender, Dr. H(arry) A(lbert)**, 403 N. Mathews Ave., Urbana, Ill. *Mathematics*. Uhrichsville, Ohio, Oct. 6, 95. A.B., Ohio, 18; A.M., Illinois, 21, Ph.D., 23. Prof. *math.*, Muskingum Col., 19-20; asst., *Illinois*, 20-23, instr., 23-25, *assoc.*, 25- Math. Soc.; Math. Ass. Group theory.
- Bendrat, Prof. T(homas) A(lbert)**, 37 Morgan Ave., Montgomery, Ala. *Geology, Biology*. Danzig Free State, Europe, Dec. 12, 78. A.B., Real Gymnasium, Danzig, 93; Ph.B., Theol. Sem., Kropp, Germany, 96; M.S., New Mexico, 00; Chicago, 04-06; Hamburg, 16-17. Instr. *econ. geol.*, *miner. and petrolog.*, North Carolina, 12; head dept. *geol.* and *oil geol.*, Phillips, 20-21;

- geol. and biol. Stetson, 21-24; *consulting and petrol. geologist*, 24- N. Mex. Geol. Surv, 99-00; S. Dak. Geol. Surv, 00-02; N. Y. Geol. Surv, 07-08; expeditions, S. Amer. and the W. Indies, 08-09, 12-13, 15-17, 24-25; Geol. and Biol. Surv, Mexico, 26, biol. research, 27- A.A.; Ass. Petrol. Geol.; Ass. Med. Progress; Okla. Acad. Physiography; botany; zoology.
- Benedict, Dr. A. L.**, 377 Elmwood Ave, Buffalo, N. Y. *Physiology, Archeology*. Buffalo, Aug. 25, 65. Rochester, 83-85; A.B, Michigan, 87; M.D, Buffalo, 88; M.D, Pennsylvania, 89; hon. A.M, Ohio Wesleyan, 91. Instr. therapeut. dept. med, Buffalo, 90-96, prof. physiol. and digestive diseases, dental dept, 95-01. Ed, 'Buffalo Med. Jour,' 11-18. Supt. ethnol. and archeol. Pan-Am. Expos, 01. Prize, N. Y. State Med. Soc, 95, 96; gold medal, Am. Med. Ass, 00. Capt, M.C, 17-18; capt, M.C, N. Y. G, 19-20, major, 20-24, O.R.C, 24- Am. Acad. Med. (v. pres, 00); Gastro-Enterol. Ass. Physical diagnosis; physiologic chemistry and physics of the digestive organs; the Seneca Indians; archeology of the Niagara frontier.
- Benedict, C. H(arry)**, Lake Linden, Mich. *Metalurgy*. Pittsburgh, Pa, Sept. 24, 76. B.S, Cornell, 97. Instr, Cornell, 97-98; *metallurgist, Calumet and Hecla Consol. Copper Co*, 98- Lecturer, Mich. Col. Mines, 23- Min. and Metal. Eng; Chem. Soc. Ammonia leaching of copper.
- Benedict, Prof. Don M(arion)**, N. Y. State College of Forestry, Syracuse, N. Y. *Forestry*. Portland, Mich, Oct. 29, 86. B.S, Michigan, 17. *Asst. prof. forest bot*, N. Y. State Col. Forestry, Syracuse, 21- A.A; Bot. Soc; Ecol. Soc; Torrey Bot. Club. Pathology; wood decay.
- Benedict, Prof. Francis G(ano)**, Nutrition Laboratory, Vila St, Boston, Mass. **Chemistry*. Milwaukee, Wis, Oct. 3, 70. A.B, Harvard, 93, A.M, 94; Ph.D, Heidelberg, 95; hon. Sc.D, Wesleyan, 11, Maine, 24. Instr. chem, Mass. Col. Pharmacy, 93-94; Wesleyan, 96-01, assoc. prof, 01-05, prof, 05-07; *director nutrition lab, Carnegie Institution*, 07- Physiologist, chemist, nutrition investigations, U. S. Dept. Agr, 95-07; chemist, Storrs Exp. Sta, 96-01. Nat. Acad; A.A; Chem. Soc; Soc. Biol. Chem; Physiol. Soc; Philos. Soc; Am. Acad. Analytical methods; metabolism in man and animals; respiration calorimeters.
- Benedict, Prof. H(arris) M(iller)**, University of Cincinnati, Cincinnati, Ohio. *Botany*. Buda, Ill, Dec. 8, 73. A.B, Doane, 94; B.S, Nebraska, 96, A.M, 97; Ph.D, Cornell. Asst. zool, Nebraska, 96-97; head dept. biol, high schools, Nebr, 97-00; asst. biol, Cincinnati, 01-02, asst. prof, 03-09, assoc. prof, 09-11, *prof. bot*, 11- A.A; Bot. Soc; Nature Study Soc; Ohio Acad. Plant physiology; senility in plants.
- Benedict, Prof. H(arry) Y(andell)**, University of Texas, Austin, Texas. *Mathematics, Astronomy*. Louisville, Ky, Nov. 14, 69. Fellow, Texas, B.S, 92, A.M, 93; Ph.D, Harvard, 98; LL.D, Baylor, 20. Tutor math, Texas, 93; asst. observatory, Virginia, 93-95; instr. math. and astron, Vanderbilt, 99; math, Texas, 99, adjunct prof. math. and astron, 99-02, assoc. prof, 02-06, *prof. applied math. and astron*, 06-, *dean col. arts and sciences*, 11- Director exten. dept, Texas, 09-11. A.A; Math. Soc; Astron. Soc; Eng. Educ.
- Benedict, Dr. James E.**, U. S. National Museum, Washington, D. C. *Biology*. Norwalk, Conn, Jan. 5, 54. A.M, Ph.D, Union. Res. naturalist, 'Albatross,' Atlantic cruise, 82-86; *asst. curator*, U. S. Nat. Museum, 89- Crustacea; annelids.
- Benedict, Dr. R(alph) C(urtiss)**, 322 E. 19th St, Brooklyn, N. Y. *Botany*. Syracuse, N. Y, June 14, 83. Ph.B, Syracuse, 06; Columbia, 08-09, fellow, 09-10, Ph.D, 11. Aid, N. Y. Bot. Garden, 06-08; instr. bot, Fordham, 10-11; High Sch. of Commerce, New York, 12-16; *biol*, Bushwick High Sch, 16-19; *first asst, Stuyvesant High Sch*, 19- Summer, instr, N. Y. Univ, 10; res. investigator, Brooklyn Bot. Garden, 14- A.A; Bot. Soc; Torrey Bot. Club (treas, 25); Fern Soc. (ed, 'Jour,' 10-); N. Y. Ass. Biol. Teachers (pres, 22, 25). Phylogeny and classification of ferns.
- Benedict, Dr. Ruth (Fulton)**, Bedford Hills, N. Y. *Anthropology*. New York, N. Y, 87. A.B, Vassar; Ph.D, Columbia. Ed, 'Jour. Am. Folklore,' 25-; *lecturer, Columbia*, 25- Anthrop. Ass. (councilor, 24-); Folk-Lore Soc. (exec. committee, 24-). Folk-lore; American Indian religion and mythology.
- Benedict, Prof. Stanley R(ossiter)**, 477 First Ave, New York, N. Y. **Chemistry*. Cincinnati, Ohio, March 17, 84. A.B, Cincinnati, 06; Ph.D, Yale, 08. Instr. chem, Syracuse, 08-09; assoc. biol. chem, Columbia, 09-10; asst. prof. chem. path, *med. col, Cornell*, 10-11, *chem*, 11-12, *prof*, 12- Harvey lecturer, N. Y. Acad. Med, 16. Nat. Acad; A.A; Soc. Biol. Chem. (pres, 20); Physiol. Soc.
- Benedict, Dr. Susan R(ose)**, 12 Barrett Place, Northampton, Mass. *Mathematics*. Norwalk, Ohio, Nov. 29, 73. B.S, Smith, 95; A.M, Columbia, 06; Ph.D, Michigan, 14. Instr. *math, Smith*, 06-14, assoc. prof, 14-22, *prof*, 22- Math. Soc; Math. Ass. History of mathematics; algebraic symbols; early treatises on algorism.
- Benedict, Prof. W(illiam) L(emuel)**, Mayo Clinic, Rochester, Minn. *Ophthalmology*. Springfield, Ind, Feb. 13, 85. M.D, Michigan, 12. *Prof. ophthal, Minnesota, and chief sect. ophthal, Mayo Clinic*, 17- Ophthal. Soc; Acad. Ophthal. and Oto-Laryngol; Am. Med. Ass; Optical Soc; Minn. Acad. Ophthal. and Oto-Laryngol.
- Benger, Dr. Ernest B(aden)**, 116 North Drive, Buffalo, N. Y. *Chemistry*. Belvidere, Ill, Dec. 20, 85. B.S, Grinnell, 07; M.S, Wisconsin, 13, fellow, 14-15, 16-17, Ph.D, 17. Teacher, high schools, Minn. and Ky, 07-14; instr. chem, Wisconsin, 15-16; research chemist and lab. director, E. I. du Pont de Nemours and Co, 17-24; *chem. director, du Pont Rayon Co. and du Pont Cellophane Co*, 24- Chem. Soc; Soc. Chem. Indust; Ass. Dyers and Colorists. Physical and inorganic chemistry; photochemistry; pyroxylin compositions; artificial leather; rayon; cellulose films; viscose.

- Bengis, Dr. R(obert) O(liver)**, The Cott-a-lap Co, Somerville, N. J. *Chemistry*. New Haven, Conn, May 2, 90. Ph.B, Yale, Ph.D, 13. Biochemist, pharmacol. lab, bur. chem, U. S. Dept. Agr, 14-16; asst. chief chemist, Calco Chem. Co, 16-19; chief chemist, Heyden Chem. Co, 19-22; chem. director, T. H. Quinn and Co, 22-25; *tech. director, The Cott-a-lap Co, 25-* Chem. Soc. Organic, pharmaceutical and biological chemistry; dyes and intermediates; wood distillation.
- Bengtson, Dr. Ida A(lbertina)**, Hygienic Laboratory, 25th and E Sts, N. W, Washington, D. C. *Bacteriology*. Harvard, Nebr, Jan. 17, 81. A.B, Nebraska, 03; M.S, Chicago, 13, Ph.D, 19. Bacteriologist, Dept. Health, Chicago, 15-16; *assoc. bacteriologist, hygienic lab, U. S. Pub. Health Service, 16-* Lecturer, Mo. Sch. Mines, 25- A.A; Soc. Bact; Pub. Health Ass. Potency testing and standardization of antitoxins and vaccines; bacteriology of botulism; etiology of trachoma.
- Bengtson, Prof. N(els) A(ugust)**, 3248 T St, Lincoln, Nebr. *Geography*. Winslof, Sweden, May 22, 79. A.B, Nebraska, 07, A.M, 08. Prof. geog, Nebr. State Nor. Sch, Peru, 03-04, 05-06; instr, *Nebraska, 08-09*, asst. prof, 09-12, *assoc. prof. and prof. geol. and geog, 13-* Summers, instr, Cornell, 12, prof, Virginia, 13, Wisconsin, 25; U. S. Soil Surv, 14; Nebr. Geol. Surv, 15; collaborator, bur. soils, U. S. Dept. Agr, 14-18; bur. research, W. T. B, 18; trade commissioner, U. S. Dept. Commerce, 19. A.A; Ass. Geog; Nebr. Acad. Geology; soils; Pennsylvanian and Permian stratigraphy of Nebraska; economic geography of Norway; geology of Honduras and Santa Elena Peninsula, Ecuador.
- Benioff, (Victor) Hugo**, California Institute, Pasadena, Calif. *Physics*. Los Angeles, Calif, Sept. 14, 99. A.B, Pomona, 21; Calif. Inst, 21-22, 24- Asst, Lick Observatory, 23-24; *physicist, Carnegie Institution, 24-* Astron. Soc; Physical Soc; Radio Eng. Instrumental seismometry.
- Benjamin, Dean C(harles) H(enry)**, 2215 Lewis Ave, Altadena, Calif. *Mechanical engineering*. Patten, Maine, Aug. 29, 56. M.E, Maine, 81; hon. D.Eng, Case, 08. Instr. mech. eng, Maine, 80-83, prof, 83-86; Case, 89-07; dean sch. eng, Purdue, 07-20, director, Eng. Exp. Sta, 17-20. Mech. Eng. (v. pres, 17); hon. mem. Cleveland Eng. Soc; Pasadena Eng. Soc. (director, 21-24). Bursting of cast iron flywheels and cylinder; stresses in pulley arms; smoke abatement; lubrication; locomotive headlights; farm tractors.
- Benjamin, Dr. Earl W(hitney)**, 28 Outlook Place, Glen Ridge, N. J. *Poultry husbandry*. Almond, N. Y, Oct. 16, 89. B.S.A, Cornell, 11, M.S.A, 12, Ph.D, 14. Instr. poultry husbandry, Cornell, 11-14, asst. prof, 15-19, prof, 20-22; sales manager, *Pacific Egg Producers, N. Y, 22-25*, *gen. manager and treas, 25-* Marketing of poultry products.
- Benjamin, Foster H(endrickson)**, 500 W. Main St, Decatur, Ill. *Entomology*. Brooklyn, N. Y, Sept. 17, 95. B.S, Cornell, 20, A.M, 21. Asst. entomologist, Miss. State Plant Board, 20, 21-22; *curator, William Barnes Museum and collaborator publications, 22-* Asst. curator, Cornell. Entom. Soc; S. Calif. Acad. Systematic and economic entomology; taxonomy of Lepidoptera; North American fauna.
- Benjamin, Dr. G(eorge) H(illard)**, 277 Park Ave, New York, N. Y. *Physics*. New York, Dec. 25, 52. Union, 72; M.D, Albany Med. Col, 74; Ph.D, Freiburg, 82. Indust. engineer and patent agent; pres, Conn. Development Co; New Process Combustion Co. Ed, 'Appleton's Ency. of Applied Mech'; 'Nat. Ency. of Applied Mech.' Medico-Legal Soc; British Ass. Industrial chemistry; high explosives.
- Benjamin, Dr. Marcus**, U. S. National Museum, Washington, D. C. *Chemistry, Technology*. San Francisco, Calif, Jan. 17, 57. Ph.B, Columbia, 78; hon. A.M, Lafayette, 88; Ph.D, Nashville, 89; Sc.D, Pittsburgh, 05; LL.D, St. John's (Md), 10. Chemist, U. S. lab, Appraiser's Store, New York, 83-85; lecturer chem, Woman's Med. Col, New York, 84-86; *ed, U. S. Nat. Museum, 96-* Lecturer, Washington Cathedral, 11- Special agent, U. S. Geol. Surv, 84-86. Ed. contributor, Appleton's Cyclopedias, 'Int. Yearbook', 'New Practical Cyclopedias.' U. S. Assay Commission, 96, 00, 04, 06, 12, 17, 18, 24. Jury awards, Columbian, Nashville, Omaha, Pan-Am, Charleston, La. Purchase and Jamestown Expositions. Int. Cong. Arts and Science, St. Louis, 04 (see'y, sect. indust. chem); Int. Cong. Applied Chem, Washington, 12; Officier de l'instruction publique, France, 20; Order of the Crown, Italy, 23. A.A. (see'y, I, 98, v. pres. and acting pres, 99, 00); Soc. Chem. Indust; fel. London Chem. Soc.
- Benner, Prof. James W(illiam)**, R.F.D. 3, Ithaca, N. Y. *Veterinary medicine*. Hamlin, Kans, June 24, 87. D.V.M, Kansas Col, 11; M.S, Cornell, 20. Instr, Kansas Col, 14-17; *asst. prof, Mich. State Col, 17-19; N. Y. State Vet. Col, Cornell, 21-* Vet. Med. Ass; N. Y. Vet. Ass. Diseases of swine.
- Benner, Dr. R(aymond) C(alvin)**, Niagara Falls, N. Y. *Chemistry*. Minneapolis, Minn, May 13, 82. B.S, A.B, Minnesota, 04; A.M, Wisconsin, 06, Ph.D, 09. Instr. chem, Mich. State Col, 02-03; Wisconsin, 03-06; asst. prof, Arizona, 06-11; prof. electrometal, Pittsburgh, 11-13; director, Fremont lab, Nat. Carbon Co, 13-25; research engineer, Gen. Chem. Co, 25-27; *director research, Carborundum Co, 27-* Chemist, Wis. Geol. Surv, 04-06; in charge smoke investigation, Pittsburgh, 11-13; U. S. Assay Commission, 12, 13. Electrochem. Soc; Ceramic Soc; Chem. Soc; Min. and Metal. Eng; N. Y. Chemists Club. Electrochemistry; metallurgy; primary and secondary cells; corrosion; catalysis; chromium; active lead; lead peroxide; ceramics; abrasives; sulphur recovery.
- Bennett, Prof. Albert A(rnold)**, Lehigh University, Bethlehem, Pa. **Mathematics*. Yokohama, Japan, June 2, 88. A.B, A.M, Brown, 10, M.S, 11; Ph.D, Princeton, 15; Göttingen; Paris; Bologna; Chicago. Instr. *math, Princeton, 14-16; adjunct prof, Texas, 16-18*, *assoc. prof, 18-*

- 25; *prof. and head dept, Lehigh, 25-* Asst. ed, 'Annals of Math'; ed-in-chief, 'Am. Math. Monthly,' 22. Math. and dynamics expert, ordnance dept, U.S.A., 19-22. Math. Soc; Math. Ass. (trustee, 21, v. pres, 25). Algebra.
- Bennett, A(lva) H(erschel)**, 506 Dorset Ave, Chevy Chase, Md. *Physics*. Sidney, Ohio, Oct. 2, 95. A.B., Ohio State, 18; A.M., George Washington, 26. Asst. physics, Ohio State, 17-18; lab. asst, *Bur. Standards*, 18-20, asst. physicist, 20-22, *assoc. physicist*, 22- Physical Soc; Optical Soc. Optical glass and instruments.
- Bennett, C(arlyle) W(ilson)**, Michigan State College, East Lansing, Mich. *Plant pathology*. Narrows, Ky, June 8, 95. B.S., Kentucky, 17; M.S., Mich. State Col, 19. Asst. *bot, Mich. State Col*, 17-19, instr, 19-21, asst. prof, 21-22, *research asst*, 22- Bot. Soc; Phytopath. Soc. Celery and fruit diseases; virus diseases of small fruits.
- Bennett, C(harles) W(illiam)**, Douglaston, L. I., N. Y. *Physical chemistry*. Hartford, Ky, March 29, 86. B.S., A.M., Vanderbilt, 09; Ph.D., Cornell, 11. Asst. chem., Vanderbilt, 07-09; Cornell, 09-11, instr, 11-13, asst. prof, 13-15; *chem. technologist and pres, Douglaston Laboratories, Inc*, 15- Electrochemistry; colloids; emulsions; photochemical effects; storage batteries; nitrogen fixation; phosphoric acid; alumina.
- Bennett, Clarence E(dwin)**, 17 Tyler St, Lakewood, R. I. *Physics*. Providence, R. I., May 23, 02. Ph.B., Brown, 23, M.S., 24. Asst. *physics, Brown*, 23-24, *instr*, 24- A.A.; Physical Soc; Providence Eng. Soc. Capillary electrometers.
- Bennett, E(dmund) R.**, Boise, Idaho. *Horticulture*. Geneva, Mich, June 3, 74. B.S., Mich. State Col, 02, M.Hort, 08. Asst. hort, Conn. Col, 03-06; asst. horticulturist, Colo. Exp. Sta, 06-09, prof. hort, Colo. Agr. Col, 09-13; horticulturist, C. R. I. and P. Ry, 13-14; *field horticulturist, exten. div, Idaho*, 16-
- Bennett, Prof. Edward**, University of Wisconsin, Madison, Wis. *Electrical engineering*. Pittsburgh, Pa, Oct. 26, 76. E.E., Pittsburgh, 97. Engineer, Nernst Lamp Co, 99-02, chief engineer, 03-04, consulting engineer, 04-05; head engineer, National Elec. Signaling Co, 05-06; engineer, Telluride Power Co, 06-09; *assoc. prof. elec. eng, Wisconsin*, 09-13, *prof*, 13-, *chairman dept*, 13- Westinghouse Elec. and Mfg. Co. A.A.; Elec. Eng; Eng. Educ; Physical Soc; Radio Eng; Illum. Eng. Soc; Hist. Sci. Soc. Nernst lamp development; lightning arresters; wireless telegraphy; power transmission.
- Bennett, H(arry) T(homas)**, Mid-Continent Petroleum Corp, Tulsa, Okla. *Chemistry*. Wilmington, Del, Jan. 8, 93. B.S., Delaware, 15; M.S., Nebraska, 16; Missouri, 16. Asst. chem, Nebraska, 15-16; Missouri, 16-17; chemist, Okla. Exp. Sta, 17; Cosden and Co, 17-19; chief chemist, Transcontinental Oil Co, 19-20; *chief research chemist, Mid-Continent Petrol. Corp*, 20- Chem. Soc. (councilor, Okla. sect, 24, v. pres, 25); Petrol. Inst; Soc. Test. Mat; Nat. Petrol. Ass. Petroleum.
- Bennett, Hugh H(ammond)**, Bureau of Soils, Washington, D. C. *Agriculture*. Wadesboro, N. C, April 15, 81. B.S., North Carolina. Asst. chem, North Carolina; *soil scientist, bur. soils, U. S. Dept. Agr*, 03- Agr. exped, Canal Zone, 09; in charge agr. exped, Alaska, 14; Chugach Nat. Forest Commission, 16; Guatemala-Honduras Boundary Commission, 19; soil specialist, Rubber Commission, Cent. and S. Am, 23-24; special investigator, soils, Trop. Plant Research Foundation, Cuba; Cotton Council, U. S. Dept. Agr. Lieut, C.Eng, 18, capt, O.R.C, 24- A.A.; Soc. Agron; Ass. Geog; Soil Surv. Ass; Int. Soc. Soil Sci. Soils.
- Bennett, Dr. James Percy**, University of California, Berkeley, Calif. *Botany*. Pender, Nebraska, Oct. 25, 86. A.B., Missouri, 11, A.M., 13; Ph.D., Wisconsin, 18. Instr. bot, Wisconsin, 15-18; *ptomol, California*, 19-21, asst. prof, 21-26, *assoc. prof*, 26- A.A.; Bot. Soc; Phytopath. Soc; Chem. Soc; Calif. Bot. Soc. Plant nutrition and growth; physiology and nutrition of fruit trees.
- Bennett, Dr. W(illiam) Z(ebina)**, 1996 Monta Vista St, Pasadena, Calif. *Chemistry*. Montpelier, Vt, Feb. 25, 56. A.B., Harvard, 78, A.M., 81, Ph.D., 83; Berlin, 88. Asst. chem, Harvard, 78-80; master science, DeVeaux, 80; adjunct prof, Wooster, 80-83, prof, 83-86, chem. and physics, 86-02, chem. and director chem. lab, 02-24, *retired*, 24. A.A.; Chem. Soc; Cleveland Chem. Soc. Mucochloric, dichloracrylic and tetrabromopropionic acids; determining nitrites in water.
- Bennitt, Dr. Rudolf**, Columbia, Mo. *Zoology*. Springfield, Mass, Dec. 22, 98. B.S., Boston, 20, A.M., 21; A.M., Ph.D., Harvard, 23. Austin teaching fellow, Harvard, 20-22; asst. prof. biol, De Pauw, 23-24; instr, Tufts, 24-27; *assoc. prof. zool, Missouri*, 27- A.A.; Soc. Exp. Biol; assoc. Soc. Zool. Physiology of vision in arthropods.
- Benoliel, S(olomon) D.**, 649 S. Highland Ave, Merion, Pa. *Chemistry*. New York, N. Y., June 1, 74. B.S., Col. City of N. Y., 98; E.M., A.M., Columbia, 96. Gen. Elec. Co, N. Y., 96-97; instr. physics, elec. and chem, Adelphi, 97-01; gen. manager, Roberts' Chem. Co, 01-06; *proprietor, Int. Chem. Co, Phila*, 06- Lecturer, Boards Educ, New York and Brooklyn; Brooklyn Inst. Chem. Soc; Electrochem. Soc; Elec. Eng. Alkalies; synthetic muriatic acid; soap lubricants; metal and industrial cleaning chemicals.
- Bensley, Dr. B(enjamin) A(rthur)**, University of Toronto, Toronto, Ont, Can. *Zoology*. Hamilton, Ont, Nov. 5, 75. B.A., Toronto, 96; Senff fellow, Columbia, 99-00, Ph.D., 02. Lecturer *zool, Toronto*, 02-06, *assoc. prof*, 06-14, *prof*, 14- Director, Ont. Museum Zool, Toronto. A.A.; Paleont. Soc; Soc. Mammal; fel. Royal Soc. Can. Comparative anatomy; mammalian and marsupial evolution.
- Bensley, Prof. R(obert) R(ussell)**, University of Chicago, Chicago, Ill. *Anatomy*. Hamilton, Ont, Can, Nov. 13, 67. B.A., Toronto, 89, M.B., 92, hon. D.Sc, 10. Asst. demonstrator biol, Toronto, 92-99, demonstrator, 99-01; asst. prof. *anat, Chicago*, 01-05, *assoc. prof*, 05-07,

prof., 07- A.A.; Soc. Nat.; Ass. Anat. (pres, 18-); Soc. Exp. Biol.; British Ass. Microchemistry; the gastric glands of mammals; esophageal glands of Urodela; the glands of Brunner; the human stomach; pancreas; structure of protoplasm; the salivary and thyroid glands.

Benson, Prof. C(harles) E(mile), 32 Waverly Place, New York, N. Y. *Educational psychology*. Clinton, Iowa, Sept. 9, 81. B.Ed., Nebr. State Teachers Col, Peru, 11; A.B., Nebraska, 11, A.M., 12; Ph.D., Columbia, 22. Supt. schools, Wash, 04-05; Nebr., 07-09, 12-14; asst. psychol., Nebraska, 10-12; prof. psychol. and educ., Nebr. State Teachers Col, Kearney, 14-15; head dept. psychol. and educ., Mo. State Teachers Col, Cape Girardeau, 15-22; acting dean sch. educ., Oklahoma, 22-23; asst. prof. *educ. psychol.*, N. Y. Univ., 23-24, assoc. prof., 24-25, *prof.*, 25- Summer, director sch. educ., Oklahoma, 23. Clin. psychologist, U.S.A., 18-19. A.A.; Psychol. Ass.; Soc. Study Educ. Clinical psychology; teacher training; thinking processes; professional schools for teachers; spelling; children's drawings; psychology for teachers.

Benson, Prof. C(lara) C(ynthia), University of Toronto, Toronto, Ont., Can. *Biochemistry*. Port Hope, Ont., June 5, 75. B.A., Toronto, 99, fellow, 99-03, Ph.D., 03. Instr. science, Lillian Massey Sch. Household Science, 03-05; lecturer physiol. chem., Toronto, 05-06, assoc. prof., 06-26, *prof. food chem.*, 26- Chem. Soc.; Soc. Biol. Chem.; Can. Inst. Chem. Physiological and food chemistry; rates of chemical reactions; chemistry of physiological fluids; chemistry of fish; vitamin B.

Benson, Prof. Harry K(reitzer), University of Washington, Seattle, Wash. *Chemistry, Chemical engineering*. Lebanon, Pa., Jan. 3, 77. A.B., Franklin and Marshall, 99, A.M., 02, Sc.D., 26; fellow, Columbia, 06-07, Ph.D., 07. Instr. high sch., Wash., 00-03; assoc. prof. chem., Washington (Seattle), 04-19, *prof. and head dept.*, 19- Asst. soil surv., Wash. Geol. Surv. and bur. soils, U. S. Dept. Agr., 09-; commercial agent, U. S. Dept. Agr., 09-; commercial agent, U. S. Dept. Commerce, 14; consulting chemist, Am. Nitrogen Products Co., 17-20. Capt. ordnance dept., 18-19. Chem. Soc. (pres, Puget Sound sect, 09). Industrial chemistry; molten hydrates as solvents; the soils of western Washington; resins in coal; low temperature distillation; by-products of lumber industry.

Benson, Dr. Robert L(ouis), P. O. Box 356, Portland, Oregon. *Pathology*. Flint, Mich., May 30, 80. A.B., Michigan, 02, A.M., 04; M.D., Rush Med. Col., 10. Bacteriologist, Fla. State Board Health, 10-12; *prof. path.*, Oregon, 13- City bacteriologist, Portland, Oregon. Ass. Path. and Bact.; Am. Med. Ass.; Int. Ass. Med. Mus. Pathology of the heart and nasal sinuses.

Bent, Arthur Cleveland, Taunton, Mass. *Ornithology*. Taunton, Nov. 25, 66. A.B., Harvard, 89. Ornith. Union; Nat. Ass. Audubon Societies; Nuttall Ornith. Club; Wilson Ornith. Club; Cooper Ornith. Club. Distribution and life histories of American birds.

Bentley, Prof. Gordon M(ansir), University of Tennessee, Knoxville, Tenn. *Entomology*. Great Barrington, Mass., Sept. 23, 76. B.S.A., Cornell, 00, A.M., 01. Prof. bot. and zool., Union Acad., Belleville, N. Y., 01-05; instr. entom., N. C. State, and asst. state entomologist, 05-06; instr. zool. and entom., Tennessee, 06-08, assoc. prof., 08-25, entomologist, 08-, *prof. entom.*, 25-; asst. state entomologist, 05-09; state entomologist and plant pathologist, 09- A.A. (v. pres, 18); Entom. Soc.; Ass. Econ. Entom. (sec'y, apiculture sect); Phytopath. Soc.; Fed. Hort. Inspectors; Beekeepers Ass. (sec'y-treas); Cotton States Entom. Soc. (sec'y); Tenn. Acad.; Tenn. Nurs. Ass.; Tenn. Ornith. Soc.; Tenn. Hort. Soc.

Bentley, Prof. John, Jr., Cornell University, Ithaca, N. Y. *Forest engineering*. Brooklyn, N. Y., June 8, 80. U. S. Forest Service, 07-11; asst. prof. forest engineering, Cornell, 12-17, *prof.*, 17- Lecturer, Yale, 17-19. Soc. Foresters. Forest management.

Bentley, Prof. Madison, University Hall, Urbana, Ill. *Psychology*. Clinton, Iowa, June 18, 70. B.S., Nebraska, 95; Ph.D., Cornell, 98. Asst. psychol., Cornell, 97-98, instr., 98-02, asst. prof., 02-12; *prof. and director lab.*, Illinois, 12- Ed., 'Jour. Exp. Psychol.' A.A.; Psychol. Ass. (pres, 25). The memory image; mental synthesis; comparative and social psychology; mental inheritance.

Bentley, Dr. William B(urdelle), Morris Ave., Athens, Ohio. *Chemistry*. Maple Valley, N. Y., Aug. 8, 66. A.B., Harvard, 89, A.M., 90, Ph.D., 98. Asst. chem., Harvard, 90-91; adjunct prof. chem. and physics, Arkansas, 91-94, assoc. prof., 94-00; *prof. chem.*, Ohio, 00- Asst., U. S. Torpedo Sta., Newport, R. I., 90; capt., ordnance dept., 18-19. A.A.; Chem. Soc. Derivatives of symmetrical tribrom benzol.

Benton, Dr. Alva H(artley), North Dakota Agricultural College, Fargo, N. Dak. *Agricultural economics*. Mendon, Ohio, 86. B.S., Ohio State, 12; M.S., Pa. State, 13; Ph.D., Wisconsin, 21. Asst. prof. farm management, Minnesota, 13-18; prof. farm management and rural econ., Manitoba, 18-22; *head dept. marketing and rural organizations*, N. Dak. Col., 22- Farm. Econ. Ass.; Econ. Ass. Marketing agricultural products; farm tenancy; rural credit.

Benton, Anne G(ertrude), U. S. Department of Agriculture, Washington, D. C. *Bacteriology*. Madelia, Minn., March 10, 88. A.B., Wellesley, 08; A.M., Minnesota, 18. Instr. bacter., Minnesota, 17-23; *assoc. bacteriologist, bur. dairying*, U. S. Dept. Agr., 23- A.A.; Soc. Bact. Metabolism of bacteria; bacteria in milk and its products.

Benton, Prof. Arthur F(erguson), University of Virginia, University, Va. *Chemistry*. Cranford, N. J., May 7, 95. A.B., Princeton, 16, A.M., 19, Ph.D., 20. Nat. Research Council fellow chem., 20-24; *asst. prof.*, Virginia, 24- A.A.; Chem. Soc. Reaction kinetics and catalysis; fluid flow.

Benton, Prof. J(ohn) R(oberth), Gainesville, Fla. *Physics*. Concord, N. H., June 6, 76. B.S., Trinity (Conn.), 97, A.B., 98; Ph.D., Göttingen,

00. Instr. math, Princeton, 00-01; asst. physics, Cornell, 01-02; govt. sci. work, 02-04; research asst, geophys. lab, Carnegie Institution, 04-05; *prof. physics and elec. eng, Florida, 05-*, *dean col. eng, 10-* A.A.; Physical Soc; Elec. Eng; Eng. Educ. Mechanical properties of matter; elasticity.
- Bentz, Dr. Charles A.**, 126 W. Humbolt Parkway, Buffalo, N. Y. *Bacteriology*. Buffalo, Feb. 20, 79. M.D., Buffalo, 02. Lecturer histol. and bacter, *Buffalo*, 02-04, bacter, 04-07, embryol, 10, *assoc. prof. prev. med; city bacteriologist*. Clin. pathologist, Sisters of Charity Hosp; St. Mary's Maternity Hosp; Mem. Hosp; Providence Retreat. Ass. Path. and Bact; Buffalo Acad. Med. Trichinosis; rhinophyma; tetanus; arthritis deformans; avian tuberculosis.
- Bequaert, Dr. Joseph C(harles)**, Harvard Medical School, Boston, Mass. *Entomology, Botany*. Thourout, Belgium, May 24, 86. Ph.D., Ghent, 08. Research assoc, Congo zool, Am. Museum Nat. Hist, 17-22; *instr. entom, Harvard Med. Sch, 23-* Entomologist, Belgian Sleeping Sickness Commission, Belgian Congo, 10-12; in charge bot. explorations, Belgian Congo, 13-15. A.A; Entom. Soc; N. Y. Entom. Soc; Brooklyn Entom. Soc; Cambridge Entom. Club; Boston Soc. Nat. Hist; Soc. zool. de France; Soc. entom. de France; Soc. Entom. de Belg; Soc. d'Hist. Nat. de l'Afrique du Nord; cor. mem. Soc. de Path. Exot; Kruidkundig Genootschap Dodonaea; Soc. Belge de Geol; Cercle Zool. Congolais. Medical entomology; Hymenoptera; Diptera.
- Berg, Prof. Ernst Julius**, Union University, Schenectady, N. Y. *Electrical engineering*. Oster-sund, Sweden, Jan. 9, 71. M.E., Royal Polytech, Stockholm, 92; hon. Sc.D, Union, 09. Elec. engineer, Gen. Elec. Co, 92-04, consulting engineer, 04-09; *prof. elec. eng. in charge dept, Illinois, 09-13; Union, 13-* A.A; Elec. Eng; Math. Soc. Rotary converters; transmission line disturbances; electromagnetic radiation.
- Berg, Dr. William N(athan)**, Berg Biological Laboratory, New York, N. Y. *Pathological chemistry*. Hungary, Sept. 22, 81. B.S., Columbia, 04, Ph.D, 07. Asst. physiol. chem, col. physicians and surg, Columbia, 04-07; tutor biol. chem, 07-08; chemist, dairy div, bur. animal indust, U. S. Dept. Agr, 08-12, path. div, 12-22; *director, Berg Biol. Lab, 22-* Capt, Sanit. C, 18-19. Soc. Biol. Chem; Soc. Bact; Soc. Exp. Biol. Biochemistry of foods and nutrition; preparation and testing of anthrax, diphtheria, tetanus antitoxins; chemical nature of antitoxin; non-specific immunity; anerobes; metabolism calculations.
- Bergeim, Dr. Olaf**, University of Illinois, College of Medicine, Chicago, Ill. *Physiological chemistry*. Watertown, S. Dak, Nov. 6, 88. B.S., S. Dak. Col, 08; M.S., Illinois, 12; Ph.D, Jefferson Med. Col, 14. Asst. chem, Illinois, 11-12; instr. physiol. chem. and toxicol, Jefferson Med. Col, 12-14, demonstrator physiol. chem, 14-16, org. and physiol. chem, 15-17, assoc, 17-19, *asst. prof, 19-23; physiol. chem, col. med, Illinois, 23-* Research div, C.W.S., 18. A.A; Soc. Biol. Chem; Chem. Soc; Physiol. Soc; Soc. Exp. Biol. Digestion and metabolism.
- Berger, Dr. E(dward) W(illiam)**, State Plant Board, Gainesville, Fla. *Zoology, Entomology*. Berea, Ohio, Nov. 29, 69. A.B., German Wallace, 91; Ph.B., Baldwin, 94; Ph.D, Hopkins, 99. Prof. science, Baldwin, 99-01; Lincoln High Sch, Cleveland, 01-02; entomologist, Fla. Exp. Sta, 06-11; Florida, and state inspector of nursery stock, 11-15; *entomologist, State Plant Board, 15-* Silver medal, Royal Int. Hort. Exhib, London, 12. A.A; Entom. Soc; Ass. Econ. Entom; Fla. Entom. Soc. (pres, 17); Fla. Hort. Soc; Ohio Acad. Physiology and histology of Cubomedusae; pseudoscorpionidae; habits of Hyphantria cunea; biology and control of Aleyrodidae; insects of Florida; quantity culture of entomogenous fungi.
- Bergey, Dr. D(avid) H(endricks)**, 206 S. 53d St, Philadelphia, Pa. *Bacteriology, Hygiene*. Montgomery Co, Pa, Dec. 27, 60. M.D, B.S., Pennsylvania, 84, Scott fellow, 94-95, D.P.H., 16; A.M, Ill. Wesleyan, 94. Instr. hygiene, *Pennsylvania, 95-96*, first asst, lab. hygiene, 96-03, asst. prof. bacter, 03-16, *hygiene and bacter, 16-26; prof, 26-* Capt, M.C., 17, major, 18. A.A; Soc. Nat; Soc. Bact; Am. Med. Ass; Soc. Exp. Biol. Composition of expired air; pseudodiphtheria bacilli; hemolysis and bacteriology; alcoholism and hemolysis; anaphylaxis; phagocytosis; types of infection and immunity; food preservatives and enzyme action.
- Bergman, Prof. H(erbert) F(loyd)**, University of Hawaii, Honolulu, Hawaii. *Botany*. Medicine Lodge, Kans, Sept. 15, 83. B.S., Kansas Col, 05; M.S., Minnesota, 15, Ph.D, 18. Asst. bot, Kansas Col, 06-08; asst. prof, N. Dak. Col, 08-12; Minnesota, 12-17; asst. pathologist, bur. plant indust, U. S. Dept. Agr, 17-19; *prof. bot, Hawaii, 19-* A.A; Ecol. Soc; Phytopath. Soc. Plant physiology and ecology; flora of North Dakota; aeration of roots; plant succession; respiration.
- Bergquist, Prof. S(tanard) G(ustaf)**, Michigan State College, East Lansing, Mich. *Geology*. Ironwood, Mich, Aug. 13, 92. A.B., Michigan, 15. *Assoc. prof. geol, Mich. State Col, 15-* A.A.
- Bergstein, Dr. Milton**, 564 W. 160th St, New York, N. Y. *Physical chemistry*. Stapleton, N. Y, March 4, 02. B.S., N. Y. Univ, 22, M.S., 23, fellow, 24-25, Ph.D, 25. Teaching fellow, N. Y. Univ, 22-24; *chief engineer, Photon Elec. Corp, 25-* Chem. Soc. Hydrogen and hydroxyl ion catalysis; theory of tautomerism; photoelectric cell phenomena.
- Bergstrom, Dr. F(rancis) W(illiam)**, 25 Salvatierra St, Stanford University, Calif. *Inorganic chemistry*. Bloomington, Ind, Jan. 10, 97. A.B., Stanford, 18, Ch.E., 19, Ph.D, 22. Nat. Research Council fellow chem, Stanford, Clark and Brown, 22-25; *instr. org. chem, Stanford, 25-* Chem. Soc. The ammonia system of acids, bases and salts; reaction between bases of the ammonia system and the elements; metallic compounds in liquid ammonia.

- Bergtold, Prof. W(illiam) H(arry)**, 1159 Race St, Denver, Colo. *Ornithology*. Buffalo, N. Y, Oct. 28, 65. M.D., Buffalo, 86; hon. M.S., Hobart, 90. Prof. path, Buffalo, 90-94; Denver, 96-00. Col. M.R.C. Fel. Ornith. Union; Soc. Mammal. Incubation periods of birds.
- Bergy, Prof. Gordon A(iger)**, 101 Jackson Ave, Morgantown, W. Va. *Pharmacy*. Caledonia, Mich, May 1, 88. Ph.C., Michigan, 13, B.S., 15, M.S., 16. Asst. pharmacy, Michigan, 13-16; *prof. and head dept., West Virginia*, 16- Pharmaceut. Ass. (sec'y, sect. educ. and legis, 23, chairman, 24); Chem. Soc.; W. Va. Pharmaceut. Ass.; W. Va. Acad. Quantitative determination of alkaloids by the use of hydrated aluminum silicates.
- Berkeley, Dr. Garven H(ugh)**, 19 Thomas St, St. Catharines, Ont, Can. *Plant pathology*. Belleville, Ont, Nov. 30, 94. B.A., Queen's (Can.), 19; M.A., Toronto, 21, Ph.D., 23. *Officer in charge plant path. lab., Can. Dept. Agr., St. Catharines*. Phytopath. Soc.; Can. Phytopath. Soc.; Can. Soc. Tech. Agr. (v. pres, Niagara sect, 26). Botrytis; utilization of sulphite liquor; verticillium wilt; raspberry mosaic and leaf curl.
- Berkey, Dr. Charles P(eter)**, Columbia University, New York, N. Y. **Geology*. Goshen, Ind, March 25, 67. B.S., Minnesota, 92, M.S., 93, Ph.D., 97. Instr. miner, Minnesota, 93-03; tutor *geol., Columbia*, 03-07, instr., 07-10, asst. prof., 10-14, assoc. prof., 14-16, *prof.*, 16- Asst, Minn. and Wis. Geol. Surveys; special geologist, N. Y. Geol. Surv.; geologist, Board Water Supply; Metropolitan dist, Water Supply Commission, Mass; Port of New York Authority. Chief geologist, Cent. Asiatic expd, Am. Museum Nat. Hist, 22, 25- Nat. Acad.; A.A. (councilor, 16); Geol. Soc. (sec'y, 22-); Min. Eng.; fel. N. Y. Acad. (v. pres, 13); Minn. Acad. (cor. sec'y, 97-03). The geology and mineralogy of Keweenaw and Cambrian areas in Minnesota and Wisconsin; structural and stratigraphic features of the Highlands of New York; structural, areal and engineering geology of New York City; geology of the Catskill aqueduct; the St. Peter sandstone of the Mississippi Valley; reconnaissance of Porto Rico; geology of the West Point quadrangle, New York; petrology and interpretation of rocks and ores of the Gobi Desert region.
- Berliner, Emile**, 1464 Columbia Road, Washington, D. C. *Electricity, Acoustics*. Hanover, Germany, May 20, 51. German schools. Chief instrument inspector, Bell Telephone Co, 78-81. Wash. Milk Conf, 07. John Scott and Elliott Cresson medals, Franklin Inst. The loose contact telephone transmitter; telephone induction coil; the gramophone; milk supply; hygiene.
- Berliner, J(ulius) F(rederick) T(homas)**, U. S. Bureau of Mines, Washington, D. C. *Physical and organic chemistry*. Santa Cruz, Canary Islands, July 16, 02. B.S., M.S., George Washington, 23, Ph.D., 26. Asst. physicist, Bur. Standards, 18-23; org. and physical chemist, bur. chem, U. S. Dept. Agr, 23-26, *assoc. chemist, U. S. Bur. Mines*, 26- Instr, George Washington, 24-; collaborator, Int. Critical Tables. A.A.; Chem. Soc.; Soc. Steel Treat; Wash. Geol. Soc. Metallography; corrosion of metals; thermoelectric measurements of the critical ranges of steel; organic synthesis; vapor pressures of pure organic compounds; reactions of hydrofluoric acid on organic bases; rare earth metals; spectrophotometric investigations of acid-base indicators and of dyestuffs.
- Berman, Dr. Nathan**, 269 W. 12th St, New York, N. Y. *Bacteriology*. New Haven, Conn, Dec. 17, 93. Ph.B., Yale, 14, M.S., 16, Ph.D., 17; fellow, Hopkins, 18-19. *Arlington Chem. Co*, 19- Red Cross sanit. service, 17-18. Summers, Eli Lilly and Co, 17; U. S. Pub. Health Service, 18. Soc. Bact. Bacterial metabolism.
- Bernheim, Dr. Bertram M(oses)**, 2313 Eutaw Place, Baltimore, Md. *Surgery*. Paducah, Ky, Feb. 15, 80. A.B., Hopkins, 01, M.D., 05. Asst. surg, *Hopkins*, 12-14, instr. *clin. surg.*, 14-24, *assoc.*, 24- Visiting surgeon, infirmary and hospitals, Md; major, M.C., 17-19. A.A.; Col. Surg. (founder); Am. Med. Ass; Surg. Research Club. Surgery of the vascular system; blood transfusion; gangrene of the extremities.
- Bernstein, Prof. B(enjamin) A(ram)**, University of California, Berkeley, Calif. *Mathematics*. Posvol, Russia, May 20, 81. Baltimore City Col, 97-02; A.B., Hopkins, 05; Ph.D., California, 13. Instr. *math., California*, 07-19, asst. prof., 19-23, *assoc. prof.*, 23- A.A.; Math. Soc.; Math. Ass. Mathematical logic; theory of probability; the foundations of mathematics.
- Bernton, Dr. Harry S(aul)**, 2013 O St, N. W., Washington, D. C. *Hygiene*. Jan. 15, 84. A.B., Harvard, 04, M.D., 08. Director Bender Lab, Albany, N. Y., 09-14; pathologist, R. I. State Board Health, 14-18; instr. path, Harvard, 16-18; director Child Welfare Soc, Washington, 19-22; special agent, U. S. Pub. Health Service, 22-24; *assoc. prof. hygiene and prev. med., Georgetown*, 24- *prof., George Washington*, 18-25. Ass. Path. and Bact; Int. Ass. Med. Mus. Hygiene of hay fever and asthma; protein sensitization.
- Berolzheimer, D(aniel) D(eronda)**, 50 E. 41st St, New York, N. Y. *Chemistry*. New York, June 30, 77. Col. City of N. Y., 93-95; N. Y. Univ, 95-97; Würzburg, 97-00. Chemist in charge Daland biochem. lab, Philadelphia, 00-04; director, Biochem. Lab, N. Y., 04-06; anal. lab, Arlington Chem. Co, Yonkers, 06-10; librarian, N. Y. Chemists Club, 10-15; The Barrett Co, 15-19; asst. tech. ed, The Chem. Catalog Co, 19-22; *consulting bibliographer and patent searcher*, 22- Manager tech. information service, 'Chem. Eng. Catalogue,' 20-22. Chem. Soc. (librarian, 10); Soc. Chem. Indust; Ohio Archeol. Soc. Carbonyl chloride; poison war gases; chemical dictionary and bibliography.
- Berridge, Prof. W(illiam) A(rthur)**, Brown University, Providence, R. I. *Statistics*. Lynn, Mass, April 13, 93. A.B., Harvard, 14, Sheldon traveling fellow, 22, Ph.D., 22. Instr. math, Harvard, 15-17, instr. and tutor *econ.*, 20-22; asst. prof, *Brown*, 22-24, *assoc. prof.*, 24- Special agent, Bur. Census, 23-26; adviser, President's Conf. Unemployment, 21-22. David Ricardo prize, 19; Francis D. Pollak prize, 21;

- David A. Wells prize, 23; J. Walter Thompson prize, 24. Statist. Ass. Econ. Ass; Ass. Labor Legis; Acad. Polit. and Social Sci; Royal Statist. Soc. Economic cycles; unemployment.
- Berrien, C(hauncey) L.** Anaconda Copper Mining Co, Butte, Mont. *Mining engineering*. Galesburg, Ill, July 23, 79. Columbia, 99-03. Geol. dept, *Anaconda Copper Mining Co*, 05-10, asst. foreman, 10-13, foreman, 13-14, asst. gen. supt, 14-19, *gen. supt*, 19- Major, Flying C, 17-19. Min. and Metal. Eng; Mont. Soc. Eng. (v. pres, 20-22, pres, 23).
- Berry, C(harles) Harold**, McGraw-Hill Book Co, Tenth Ave. at 36th St, New York, N. Y. *Mechanical engineering*. Brooklyn, N. Y, June 8, 89. M.E, Cornell, 12, M.M.E, 16. Instr. and asst. prof, Cornell, 13-18; Detroit Edison Co, 19-25; *assoc. ed.*, 'Power,' 25- Mech. Eng. (chairman, Detroit sect, 22). Power plant equipment.
- Berry, Prof. Charles Scott**, University of Michigan, Ann Arbor, Mich. *Psychology*. Hamlin, Kans, May 23, 75. A.B, Hiram, 03; A.M, Harvard, 05, Ph.D, 07, James Walker fellow, at Berlin, 07-08. Asst. econ, Hiram, 03-04; philos, Harvard, 06-07; acting asst. prof. *educ*, *Michigan*, 08-09, asst. prof, 09-15, *assoc. prof*, 15-19, *prof*, 19-; *director physiol. clinic, pub. schools*, *Detroit*, 19- Capt, Sanit. C, 17-18, major, 18-19; National Committee for Mental Hygiene. A.A; Psychol. Ass; Ass. Study of Feeble-minded; Nat. Soc. Study Educ. Imitation in animals; psychology and education of exceptional children.
- Berry, Prof. Charles W(illiam)**, Massachusetts Institute of Technology, Cambridge, Mass. *Engineering*. Charlestown, Mass, May 21, 72. B.S, Mass. Inst. Tech, 95, Swett fellow, at Göttingen, 95-97. Asst. instr. *heat eng*, *Mass. Inst. Tech*, 99-00, instr, 00-08, asst. prof, 08-12, *assoc. prof*, 12-20, *prof*, 20- Refrig. Eng. Application of thermodynamics to engineering problems; refrigeration; heat transmission; temperature-volume and temperature-entropy indicators.
- Berry, Prof. Edward W(ilber)**, Johns Hopkins University, Baltimore, Md. **Paleontology*. Newark, N. J, Feb. 10, 75. Hopkins, 05-06. Asst. *paleont*, *Hopkins*, 06-08, instr, 08-10, *assoc*, 10-13, *assoc. prof*, 13-17, *prof*, 17- Asst. state geologist, Md, 17-; geologist, U. S. Geol. Surv, 10- Assoc. ed, 'Am. Jour. Sci'; 'Pan-Am. Geol'; 'Bot. Abstracts.' Williams mem. exped, S. Amer, 19. Walker prize, Boston Soc. Nat. Hist, 01. Nat. Acad; A.A; Soc. Nat; Paleont. Soc. (pres, 24); Geol. Soc. (v. pres, 24); Am. Acad; Philos. Soc; N. Y. Acad; Torrey Bot. Club (sec'y); Soc. géol. de France. Historical geology; floras and geological history of southeastern North America, equatorial and South America; geological and geographical distribution of flowering plants.
- Berry, E(dward) Willard**, 19 Elmwood Road, Baltimore, Md. *Paleontology*. Passaic, N. J, Nov. 6, 00. A.B, Hopkins, 23. *Micropaleontologist*, *Int. Petrol. Co*, *Peru*, 25- A.A. Micropaleontology; paleobotany; microfossils; life history of Eulimnadia.
- Berry, Dr. Eugene M(anasseh)**, Lynchburg College, Lynchburg, Va. *Mathematics*. West Sumner, Maine, Feb. 19, 91. A.B, Colgate, 15; M.S, Iowa, 17, fellow, 19-20, Ph.D, 20. Research asst. physics, Iowa, 15-19; instr. *math*, *Purdue*, 20-26; *prof*, *Lynchburg*, 26- Math. Soc; Math. Ass. Mathematical physics; reflection of light; localization of sound.
- Berry, George M(agruder)**, 661 Allen St, Syracuse, N. Y. *Chemistry*. Leonardtown, Md, Feb. 18, 78. B.S, George Washington, 99. Chemist, Park Steel Co, 99-03; Willson Aluminum Co, 03-04; consulting chemist, Wyckoff, Seamans and Benedict, 04-05; *chief chemist*, *Halcomb Steel Co*, 05- Lecturer, Syracuse, 16- Chem. Soc. (sec'y, Syracuse sect, 11-13, v. pres, 15-16, pres, 16-18, councilor, 19); Electrochem. Soc; Min. Eng. Metallurgy; electric furnaces; effect of gases on steels when heated; melting and refining of fine steels; non-corrosive and heat-resisting steel alloys.
- Berry, Prof. H(erman) C(laude)**, University of Pennsylvania, Philadelphia, Pa. *Engineering*. Near Zionsville, Ind. A.B, Indiana, 97; B.S.C.E, *Purdue*, 02. T, St. L. and W. Ry, 02; instr, Colo. Sch. Mines, 02-03; U. S. Reclamation Service, 03-04; instr. *civil eng*, Cornell, 04-05; *prof*, *Pennsylvania*, 05- Civil Eng; Soc. Test. Mat; Phila. Eng. Club. Reinforced concrete; beams; columns; arches.
- Berry, Dr. S(amuel) Stillman**, 745 W. Highland Ave, Redlands, Calif. *Zoology*. Unity, Maine, March 16, 87. A.B, Stanford, 09, Ph.D, 13; A.M, Harvard, 10. Asst. zool, Stanford, 10-11; research asst. and librarian, Scripps Inst, California, 13-16, research zoologist, 16-18; *asst*, *Bur. Fisheries*, 08- A.A; Genetic Ass; London Malacol. Soc. West American Mollusca; cephalopods of America, Japan, Australia and the Hawaiian and Kermadec Islands; chitons of western North America and North Pacific; biophotogenesis; horticulture of genus *Iris*.
- Berry, Prof. William**, 698 Melville St, Rochester, N. Y. *Psychology*. Manchester, Eng, Nov. 1, 84. B.A, Alberta, 16, M.A, 18; Ph.D, Chicago, 22. Lecturer psychol. and philos, Alberta, 16-20; instr, Chicago, 20-22; *asst. prof. psychol*, *Rochester*, 22- Physiological psychology; psychology of vision.
- Berry, Prof. W(illiam) J(ohnston)**, 224 St. Johns Place, Brooklyn, N. Y. *Mathematics*. Brooklyn, May 3, 83. C.E, Brooklyn Polytech, 03, M.S, 04; A.M, Harvard, 08. Instr. *math*, Brooklyn Polytech, 04-07; Harvard, 08-09; asst. prof, *Brooklyn Polytech*, 09-17, *assoc. prof*, 17-25, *prof*, 25- Sec'y, faculty, Brooklyn Polytech, 09-17. A.A; Math. Soc; Math. Ass; Eng. Educ. Systems of linear partial differential expressions.
- Bert, Prof. O(tto) F(rederick) H(erman)**, 28 N. Lincoln St, Washington, Pa. *Mathematics*. New Brighton, Pa, Feb. 21, 77. B.S, Geneva Col, 95, A.M, 03; Harvard; Mass. Inst. Tech. Teacher, 98-14; *prof. applied math*, *Washington and Jefferson*, 14- A.A; Math. Ass. The theory of numbers.

- Bertholf, Prof. Lloyd M(illard)**, Westminster, Md. *Zoology*. Kechi, Kans, Dec. 15, 99. A.B, Southwestern (Kans), 21; A.M, Hopkins, 25. Instr. *biol.*, N. C. Col. for Women, 22-24; *prof.*, *Western Maryland*, 24- A.A.; *Ecol. Soc.*; *Genetic Ass.* Molts; digestion of carbohydrates and color reactions in honey bees.
- Besley, Dr. F(red) W(ilson)**, University of Maryland, College Park, Md. *Forestry*. Vienna, Va, Feb. 16, 72. A.B, Maryland, 92, Sc.D, 15; M.F, Yale, 04. Forest asst, U. S. Forest Service, 04-06; *state forester*, Md, 07- Lecturer, Maryland, 07- States relations div, Nat. Research Council. A.A; Forestry Ass. (director, 22-); Soc. Foresters (exec. council, 22-24). The forests of Maryland.
- Bessey, Prof. Ernst A(thearn)**, Michigan State College, East Lansing, Mich. **Botany*. Ames, Iowa, Feb. 20, 77. A.B, Nebraska, 96, B.S, 97, A.M, 98; Ph.D, Halle, 04. Asst. *veg. pathologist*, U. S. Dept. Agr, 90-01, asst. in charge seed and plant introduction, 01-02, *veg. pathologist*, 04-06, *pathologist in charge sub-trop. lab*, Miami, Fla, 06-08; *prof. bot. and bacter*, Louisiana, 08-10; *bot.*, *Mich. State Col*, 10- Summers, asst, Colorado, 94-96; field collector, N. Y. Bot. Garden, 97; div. *agrost*, U. S. Dept. Agr, 98, *agr. exploration*, 02-05. A.A. (sec'y, G, 01); Bot. Soc; *Phytopath. Soc.*; *Torrey Bot. Club*; *Mich. Acad.* (pres, 15). *Mycology*; plant pathology; Florida strangling figs; flora of Louisiana and Michigan; plant diseases due to nematodes; phylogeny of fungi.
- Best, Dr. C(harles) H(erbert)**, University of Toronto, Toronto, Ont, Can. *Applied physiology*. West Pembroke, Maine, Feb. 27, 99. B.A, Toronto, 21, M.A, 22, M.B, 25. Asst. *prof. physiol. hygiene, research assoc.*, *Banting-Best chair med. research*, Toronto, 24- *Physiol. Soc.*; *Soc. Biol. Chem.* Insulin; carbohydrate metabolism.
- Best, Dr. G(eorge) N(ewton)**, Rosemont, N. J. *Bryology*. Round Valley, N. J, Oct. 16, 46. Lafayette, 73; M.D, Pennsylvania, 75. A.A; *Torrey Bot. Club*; *Sullivant Moss Chapter* (pres, 01); cor. mem. Phila. Bot. Club. *Musei*; *Leskeaceae*.
- Bethke, Dr. Roland M(artin)**, 505 N. Market St, Wooster, Ohio. *Animal husbandry*. Elkhart Lake, Wis, July 20, 96. B.S, Wisconsin, 20, M.S, 21, Ph.D, 23. Asst. *agr. chem*, Wisconsin, 20-23; *in charge nutritional investigations*, *Ohio Exp. Sta*, 23- *Chem. Soc.* Biological chemistry; nutrition.
- Bethune, Rev. C(harles) J(ames) S(tewart)**, 16 Washington Ave, Toronto, Ont, Can. *Entomology*. West Flamboro, Ont, Aug. 11, 38. B.A, Trinity (Can), 59, M.A, 62, D.C.L, 83. Ed, 'Can. Entomologist', 68-73, 85-09; head master, Trinity Col. Sch, Port Hope, Ont, 70-99; *prof. entom. and zool*, Ont. Agr. Col, 06-20. A.A; *Entom. Soc.* (v. pres, 08); *Ass. Econ. Entom.*; *Wash. Entom. Soc.*; *Buffalo Soc. Nat. Sci.*; *fel. Royal Soc. Can.* (pres, sect. IV, 00); *Can. Inst.*; *Ont. Entom. Soc.* (pres, curator and librarian, 04); *Ottawa Field-Nat. Club*; *N. S. Inst.* Economic entomology; Canadian Lepidoptera; life histories of injurious insects.
- Betten, Prof. Cornelius**, 3 The Circle, Ithaca, N. Y. *Biology*. Orange City, Iowa, Nov. 13, 77. A.B, Lake Forest, 00, A.M, 01; fellow, Cornell, 04-05, Ph.D, 06. Instr. *biol.*, Buena Vista, 01-03; Lake Forest, 05-06, asst. *prof.*, 06-07, *prof.*, 07-15; sec'y and register, *N. Y. State Col. Agr*, Cornell, 15-20, *director res. instruction*, 20-, *acting dean*, 24- A.A; *Entom. Soc.* Entomology; Trichoptera.
- Betts, Anson G(ardner)**, Kinderhook, N. Y. *Metallurgy*. Troy, N. Y, April 14, 76. Ph.B, Yale, 97; A.M, Columbia, 98. Electrochemical and metallurgical processes.
- Betts, Prof. George Herbert**, Northwestern University, Evanston, Ill. *Psychology*. Clarks-ville, Iowa, April 1, 68. Ph.B, Cornell (Iowa), 99, A.M, 02; Ph.M, Chicago, 04; Ph.D, Columbia, 09. Teacher and supt, pub. schools, Iowa, 89-97; instr. *psychol. and educ*, Cornell (Iowa), 99-01, *prof.*, 02-18; *prof. religious educ*, Boston, 18-19; *Northwestern*, 19-26, *prof. educ. and director research*, 26- *Exten. lecturer*, Teachers Col, Columbia, 08-09; *director summer sch*, Cornell (Iowa), 05-18. A.A. Educational psychology; the functions and distribution of mental imagery; religious education.
- Betts, Dr. Philander**, 790 Broad St, Newark, N. J. *Engineering*. Nyack, N. Y, May 28, 68. B.S, Rutgers, 91, M.S, 95; E.E, Columbia, 03; Ph.D, George Washington, 14. Instr. and asst. *prof. elec. eng. and mech. eng*, George Washington, 00-10; *chief engineer*, N. J. Pub. Utilities Commission, 10- Major, Eng. R.C, 17-19, *lieut. col.*, 19-22, *col.*, 22- A.A; *Elec. Eng.*; *Mech. Eng.*; *Elec. Ry. Ass.*; *Illum. Eng. Soc.*; *Eng. Educ.*; *New Eng. Water Works Ass.* Public utilities; economics; copper plating of steel; valuations; rates; gas, water and electric service standards; street railways.
- Betz, Prof. Herman**, University of Missouri, Columbia, Mo. *Mathematics*. Rochester, N. Y, Sept. 30, 92. B.S, Rochester, 12; Göttingen, 12-16; Ph.D, Yale, 24. Instr. *math*, Cornell, 16-17; Michigan, 17-18; Yale, 18-25; *asst. prof.*, *Missouri*, 25- *Math. Soc.* Dynamics; mathematical physics.
- Beutenmüller, William**, 85 Elm St, Tenafly, N. J. **Entomology*. Hoboken, N. J, March 31, 64. Pub. and private schools, New York, N. Y. Curator dept. entom, Am. Museum Nat. Hist, 88-12. A.A; *fel. Entom. Soc.*; *Ass. Econ. Entom.*; *N. Y. Entom. Soc.* (pres, 00, ed, 'Jour', Vols. I-XI); cor. mem. Wash. Entom. Soc; Brooklyn Entom. Soc. Lepidoptera; Coleoptera; gall-insects; bibliography of American entomology; Sesiidae; the genus *Catocala*; insects of the Black Mountains, North Carolina; Lepidoptera found within 50 miles of New York City; insects injurious to forest trees.
- Beutner, Dr. R(einhard)**, University of Louisville, Louisville, Ky. *Pharmacology*. Berlin, Germany, April 10, 85. Berlin, Heidelberg; Ph.D, Karlsruhe, 08; Berlin, Karlsruhe, 08-11; M.D, Berlin, 26. Asst. to Dr. J. Loeb, Rockefeller Inst, 11-14; chemist, indust. and research laboratories, 14-21; asst, *Pharmacol-Therapeut. Inst.*, Leiden, 22-23; *asst. prof. pharmacol*, Louisville, 24- *Soc. Pharmacol.*; *Physiol. Soc.*

- Chem. Soc; Chem. Gesell. Galvanic electricity; artificial reproduction of vital phenomena.
- Bevan, Prof. Arthur (Charles)**, University of Illinois, Urbana, Ill. *Geology*. Delaware, Ohio, Aug. 8, 88. B.S., Ohio Wesleyan, 12; Chicago, 14-17, Ph.D., 21. Asst. *geol.*, Ohio Wesleyan, 13-14, instr., 14-15; asst., Chicago, 15-17; instr., Ohio State, 17-19; *asst. prof.*, Montana, 19-21; *Illinois*, 21- Asst. geologist, Mont. Bur. Mines, 20-21; geologist, Ill. Geol. Surv., 23. Summer, asst. prof., Chicago, 24. A.A.; Geol. Soc; Ill. Acad; Ohio Acad. *Geology of western Montana*; the Montana Rockies and Beartooth Mountains.
- Bevan, Dr. Arthur Dean**, 122 S. Michigan Ave., Chicago, Ill. *Surgery, Anatomy*. Chicago, Aug. 6, 61. Sheffield Sci. Sch., Yale, 78-79; M.D., Rush Med. Col., 83; Leipzig, 92-93. Surgeon, U. S. Marine Hosp. Service, 83-88; prof. anat., Rush Med. Col., 88-89, assoc. prof. *surg.*, 98-02, *prof.*, *Rush Med. Col., Chicago*, 02- Surgeon, Presb. Hosp., 94- Prize, Chicago Med. Soc., 98. A.A.; Surg. Ass.; Ass. Anat.; Am. Med. Ass. (pres., 19, chairman council, med. educ., 04-). Surgical anatomy of liver and bile tracts; gallstones, stomach and undescended testis; iodid of potash in blastomycosis; traumatic neurosis; the effect of X-rays on malignant tumors.
- Bevier, Prof. Isabel**, University of Illinois, Urbana, Ill. *Home economics*. Plymouth, Ohio, Nov. 14, 60. Ph.B., Wooster, 85, Ph.M., 88; Harvard, 88; Wesleyan, 94; Mass. Inst. Tech., 98. Prin. high schools, Ohio, 85-88; prof. nat. science, Pa. Col. for Women, 88-97; chem., Lake Erie, 98-99; *home econ.* and head dept., *Illinois*, 00-22, *emer. prof.*, 22- Asst. nutrition investigations, U. S. Dept. Agr., 94-99; lecturer, California at Los Angeles, 21-23; Arizona, 24-25. Board editors, 'Jour. Home Econ.' Jury awards, Columbian Expos, 93. A.A.; Home Econ. Ass. (v. pres); Chem. Soc; Pub. Health Ass. Selection and preparation of food; bread making; planning of meals; home economics in education.
- Beyer, Prof. S(amuel) W(alker)**, Iowa State College, Ames, Iowa. *Geology*. Clearfield, Pa., May 15, 65. B.S., Iowa Col., 89; Ph.D., Hopkins, 95. Instr. *geol.*, *Iowa Col.*, 91-95, asst. prof., 95-98, *prof.*, 98-, v. dean, eng. div., 08-17, dean, 17-18, *indust. science div.*, 19- A.A.; Geol. Soc. (councilor, 13); Min. Eng; Eng. Educ; Wash. Geol. Soc; fel. Iowa Acad. (v. pres, 08). Economic geology; Iowa clays, quarry products, peat deposits, road and concrete materials.
- Bibbins, A(rthur) Barneveld**, Lee Mineral Co., 201 Park Ave., Baltimore, Md. *Geology*. Hanover, Mich., Aug. 6, 60. Ph.B., Albion, 87; Hopkins, 87-90. Curator and head dept. *geol.* and miner, Goucher, 92-16; *investigator for oil, gas and potash*; pres., *Lee Mineral Co.* Md. Geol. Surv; U. S. Geol. Surv. A.A.; Md. Acad. (pres., 20-22). Eastern, Gulf and mid-continental oil geology; the Potomac group.
- Bichowsky, Dr. F(rancis) Russell v.**, Johns Hopkins University, Baltimore, Md. *Physical chemistry*. San Gabriel, Calif., Feb. 19, 89. A.B., Pomona, 12; M.S., California, 14, Ph.D., 16. Physical chemist, geophys. lab., Carnegie Institution, 16-19; Nat. Research Council fellow *physical chem.*, California, 19-23; *assoc.*, *Hopkins*, 24- Special ed. in charge thermochem, 'Int. Critical Tables,' 23- Chem. Soc; Physical Soc. Free energy of sulfur compounds; electromagnetic interpretation of quantum theory; kinetic theory of gases; psychology; mechanism of consciousness.
- Biddle, Prof. H(enry) C(halmers)**, University of California College of Pharmacy, San Francisco, Calif. *Chemistry*. Kirkwood, Ill., Oct. 4, 69. A.B., Monmouth, 91; grad., McCormick Theol. Sem., 96; fellow, Chicago, 97-99, Ph.D., 00. Instr. chem. and physics, Monmouth, 91-92, prof., 92-93; *chem.*, Maryville, 99-00; asst., Chicago, 00-01; instr., California, 01-06, asst. prof., 06-18; chem. engineer, 18-24; prof., Temple, 21-22; *lecturer, San Francisco State Teachers Col.*, 22-; *prof. col. pharmacy, California*, 24-, *acting dean*, 26-; *director, Carbonado Research*, 24- Chem. Soc; Chem. Gesell. Derivatives of formhydroxamic and fulminic acids; the reduction of copper molecular weights; cinchona alkaloids; color changes among dyes of the triphenylmethane series.
- Bidwell, Prof. Charles C(larence)**, 105 Valentine Place, Ithaca, N. Y. *Physics*. Rochester, N. Y., Oct. 23, 81. A.B., Rochester, 04; Ph.D., Cornell, 14, Carnegie research fellow, 15. Teacher, high sch., N. J., 08-10; asst. *physics*, *Cornell*, 10-12, instr., 12-17, asst. prof., 17-25, *prof.*, 25- Acting prof., Union, 23-24. Physicist, U. S. Naval Exp. Sta., New London, 18. A.A.; fel. Physical Soc; Optical Soc. (sec'y, 25-). Actual and black body temperatures of various metals; thermo-electric power of oxides; resistance and thermo-electric power of germanium and of the alkali metals; thermal conductivity and specific heats of the alkali metals.
- Bidwell, Geo(rge) L(eslie)**, 1245 Evarts St., N. E., Washington, D. C. *Chemistry*. Goffstown, N. H., Aug. 31, 80. B.S., Tufts, 05. Chemist, B. F. Sturtevant Co., Mass., 05-06; instr., R. I. Col., 06-07; asst. chemist and *assoc. chemist*, *U. S. Dept. Agr.*, 08- Ass. Feed Control Officials (pres., 25). Analysis of feed stuffs; determination of water.
- Biefeld, Prof. P(aul)**, Denison University, Granville, Ohio. *Physical chemistry*. Königsvalde, Germany, March 22, 67. B.S., Wisconsin, 94; Ph.D., Zurich, 00. Asst., high sch., Wis., 94-97; asst. physics to Prof. H. F. Weber, Zurich, 99-00; prof. physics, math. and elec. eng., Tech. Hildburghausen, Germany, 00-06; physics and astron., Buchtel, 06-11; *prof. astron. and director, Swasey Observatory, Denison*, 11- Summer, asst., Yerkes Observatory, 19; solar eclipse exped., Colo., 18, Catalina Island, 23. A.A.; Astron. Soc; hon. mem. Sta. Eng; Pacific Astron. Soc. Physics; electrical engineering; electrolysis; constant of diffusion.
- Bielser, Dr. Etienne S(amuel)**, McGill University, Montreal, Que., Can. *Physics*. Lausanne, Switzerland, Feb. 3, 95. B.A., McGill, 15, M.Sc., 20; 1851 Exhib. scholar, Cambridge, 20-23, Ph.D., 23. Demonstrator *physics*, *McGill*, 19-20, *asst. prof.*, 23- C.E.F., 15-17, asst.

physicist, anti-submarine div, British Admiralty, 18-19. Physical Soc. Electrical measurements; radioactivity.

Bierbaum, C(hristopher) H(enry), 197 Lathrop St, Buffalo, N. Y. *Engineering*. Garnavillo, Iowa, Feb. 14, 64. B.S., North. Ill. Nor. Sch; M.E., Cornell. Instr., Cornell, 92-96; consulting engineer, 03-25; *v. pres. and consulting engineer*, *Lumen Bearing Co.*, 25- Advisory committee, non-ferrous metals, Bur. Standards; chairman, Bearing Metals Research Committee. A.A.; Mech. Eng; Min. and Metal. Eng; Soc. Test. Mat; Electrochem. Soc; Micros. Soc. Bearing design and construction; metallurgy and metallography of bearing alloys.

Bierring, Dr. Walter L(awrence), 1210 Bankers Trust Building, Des Moines, Iowa. *Pathology*. Davenport, Iowa, July 15, 68. M.D., Iowa, 92, 94; Vienna and Heidelberg, 92; Vienna, 93, 96, 01; Pasteur Inst., Paris, 94. Prof. path. and bacter., Iowa, 93-03, theory and practise of med. and clin. med, 03-10; med, Drake, 10-13; pres, Iowa State Board Health, and med. examiner, Iowa, 13-22; *Nat. Board Med. Examiners*, 16- A.A; Ass. Path. and Bact; Am. Med. Ass. (chairman, sect. path. and physiol, 07, sect. med, 19); Tuber. Ass; hon. mem. Edinburgh Royal Col. Physicians. Bacteriology; hematology; pernicious anemia; chloroma; cardio-vascular diseases.

Bigelow, Dr. Edward F(uller), Sound Beach, Conn. *Biology*. Colchester, Conn., Jan. 14, 60. Yale, 96-97; Cold Spring Harbor, 99; R. I. Col, 99; A.M., Ph.D., Taylor, 99; Woods Hole, 00-01. Ed, sci. magazines, 99-00; *nature and science* ed, 'St. Nicholas Magazine,' 00-; ed, 'Guide to Nature'; curator, Bruce Museum, Greenwich, 15- Scout naturalist, Boy Scouts of Amer, and naturalist ed, 'Boys' Life,' 16-20; naturalist guide, Camp Fire Girls of Amer, and asst. ed, 'Every-girl's Mag,' 20-; director, Cornucopia Camp for Girls, Sound Beach, 25- Assoc. Ornith. Union; Agassiz Ass. (pres, 07); Brooklyn Inst; N. Y. Micros. Soc. Germination of seeds and artificial growth of plants; aquatic microscopy; life histories of insects; rabbits; honey bees.

Bigelow, Dr. George H(oyt), State House, Boston, Mass. *Public health*. Framingham, Mass, Nov. 13, 90. A.B., Harvard, 13, M.D., 16, D.P.H., 21. Director indust. med. and hygiene, Antioch, 21-22; clinic, med. col, Cornell, 22-24; div. communicable diseases and deputy commissioner, Mass. Dept. Pub. Health, 24-25; *state commissioner pub. health, Mass*, 25- Lecturer, sch. pub. health, Harvard. Am. Med. Ass; Pub. Health Ass.

Bigelow, Prof. H(arold) E(ugene), Sackville, N. B., Can. *Chemistry*. Spencer's Island, N. S., Oct. 7, 81. B.A., Mt. Allison, 03; Harvard, 07, A.M., 08, Ph.D., 11. Prof. chem, Mt. Allison, 11-14; dean, McClellan Sch. Applied Sci., 13-14; asst. prof, Brown, 14-15; *prof, Mt. Allison*, 15- A.A; Chem. Soc; fel. Can. Inst. Chem; Chem. Gesell. Replacement of hydrogen in benzene substituted compounds; barium.

Bigelow, Prof. Harriet W(illiams), Smith College Observatory, Northampton, Mass. *Astronomy*.

Fayetteville, N. Y., June 7, 70. A.B., Smith, 93; Ph.D., Michigan, 04. Asst. astron, Smith, 96-01, instr, 04-06, assoc. prof, 06-11, *prof*, 11- A.A; Astron. Soc. Comets; positions of stars.

Bigelow, Dr. Henry B(ryant), Museum of Comparative Zoology, Cambridge, Mass. **Zoology*. Boston, Mass, Oct. 3, 79. A.B., Harvard, 01, A.M., 04, Ph.D., 06. Asst. invert. zool, *museum comp. zool, Harvard*, 06-13, curator coelenterates, 13-25, *research curator zool*, 25- Lecturer, Harvard, 21- Agassiz exped, Maldive Islands, 01-02; Brown-Harvard exped, Labrador, 00; 'Albatross' E. Pacific exped, 04-05; Agassiz exped, W. Indies, 07. Chairman, N. Am. Committee on Fisheries Investigations; sci. adviser, Int. Ice Patrol, Geophys. Union. A.A; Soc. Nat; fel. Am. Acad; Boston Soc. Nat. Hist; fel. Royal Geog. Soc. Medusae; cytology; oceanography; Siphonophorae; Philippine Medusae; cytology of the Coelenterata.

Bigelow, Dr. Lucius A(urelius), Brown University, Providence, R. I. *Chemistry*. Boston, Mass, Jan. 31, 92. B.S., Mass. Inst. Tech, 15; Harvard, 16-17; Ph.D., Yale, 19. Asst. chem, Mass. Inst. Tech, 15-16; Yale, 17-18; instr, St. Lawrence, 19-20; *org. chem, Brown*, 20-24, *asst. prof*, 24- Chem. Soc. (sec'y-treas, R. I. sect, 23-25, v. chairman, 25-26, chairman, 26-). Side chain oxidations with potassium permanganate; benzylidene aniline with carbon disulphide; organic silicon compounds.

Bigelow, Prof. Maurice A(lpheus), Teachers College, Columbia University, New York, N. Y. **Zoology*. Union Co, Ohio, Dec. 8, 72. B.S., Ohio Wesleyan, 94; M.S., Northwestern, 96; Ph.D., Harvard, 01. Instr. biol, Ohio Wesleyan, 94-95; zool, Northwestern, 96-98; *biol, Teachers Col, Columbia*, 99-03, adjunct prof, 03-07, *prof*, 07-; *prof. and director, Sch. Practical Arts*, 15- A.A. (sec'y, F, 08-13); Soc. Nat; Soc. Zool. The early development of lower Crustacea; Cirripedia; the teaching of biological science.

Bigelow, Dr. Robert P(ayne), Massachusetts Institute of Technology, Cambridge, Mass. **Zoology*. Baldwinsville, N. Y., July 10, 63. B.S., Harvard, 87; Ph.D., Hopkins, 92, Bruce fellow, 91-93. Instr. biol, *Mass. Inst. Tech*, 93-12, asst. prof. zool, 12-15, assoc. prof, 15-22, *prof. zool. and parasitol.*, 22- Librarian, Mass. Inst. Tech, 95-25; ed, 'Am. Naturalist,' 97-98; 'Tech. Quarterly,' 95-08. A.A; Soc. Nat; Soc. Zool; Soc. Parasitol; Ass. Anat; Soc. Trop. Med; Am. Acad; Boston Soc. Nat. Hist. Embryology of Medusae; Crustacea; Stomatopoda from the Pacific Ocean; ichthyology; ecology of food fishes.

Bigelow, Dr. S(amuel) Lawrence, 1520 Hill St, Ann Arbor, Mich. **Chemistry*. Boston, Mass, Feb. 23, 70. A.B., Harvard, 91; B.S., Mass. Inst. Tech, 95; Ph.D., Leipzig, 98. Instr. gen. chem, *Michigan*, 98-01, asst. prof. and acting director lab, 01-04, junior prof, 04-05, *gen. and physical chem*, 05-07, *prof*, 07- A.A; Chem. Soc; Electrochem. Soc; Mich. Acad; Wash. Acad; Franklin Inst. Catalysis; decomposition point of electrolytes; polarization with low voltages and the residual current; colloidal solutions; capillarity; osmosis; surface tension.

Bigelow, W(illard) D(ell), National Canners Association, 1739 H St, N. W, Washington, D. C. **Chemistry*. Gardner, Kans, May 31, 66. A.B, Amherst, 89. Assoc. prof. chem, Oregon, 89-90; instr, high schools, Washington, 91-92; prof, med. dept, National Univ, 91-98; asst. chemist, U. S. Dept. Agr, 92-01, chief div. foods, 01-13, asst. chief bur. chem, 03-13; *director research lab, Nat. Canners Ass*, 13- A.A.; Chem. Soc; Soc. Bact; Soc. Test. Mat. Food chemistry; development, ripening and storage of fruits; influence of preservatives on health and digestion; composition and purity of foods; food inspection and enforcement of food laws; technology of canning.

Biggs, Dr. George P(atten), 16 Rockledge Road, Montclair, N. J. *Pathology*. Trumansburg, N. Y, Oct. 26, 67. M.D, N. Y. Univ, 89. Asst. pathologist, N. Y. Hosp, 91-96, pathologist, 96-06; Health Dept, New York, 94-14. Prof, N. Y. Vet. Col, 92-97; lecturer, Univ. and Bellevue Hosp. Med. Col, 98-03. N. Y. Acad. Med; N. Y. Path. Soc.

Bigney, Prof. A(ndrew) J(ohnson), Evansville College, Evansville, Ind. *Biology*. Moore's Hill, Ind, Feb. 15, 64. A.B, Moore's Hill, 88, A.M, 91, Sc.D, 13; Hopkins, 93-94; Woods Hole, 02. Prof. biol. and geol, Moore's Hill, 88-92, 94-17, acting pres, 09, 15-16; asst. zool, Harvard, 17-18; asst. prof. physiol, Syracuse, 18-19; *prof. zool, Evansville Col*, 19- Asst, Hopkins, 93-94. A.A; fel. Ind. Acad. (sec'y, 10-15, pres, 15). Amoeba; early stages in various eggs; protective coloring in terns; nitrifying bacteria; medicinal value of Eupatorium perfoliatum; effect of adrenin on pigment of skin and retina of frog; science progress.

van der Bijl, Dr. H(endrik) J(ohannes), Box 1091, Johannesburg, S. Africa. **Physics*. Pretoria, S. Africa, Nov. 23, 87. B.A, Cape of Good Hope, 08; M.A, Ph.D, Leipzig, 12. Instr. physics, Royal Sch. Tech, Dresden, 12-13; research physicist, West. Elec. Co, 13-20; tech. adviser, bur. mines, S. Africa, 20-23; *chairman elec. supply commission, S. Africa*, 23- Physical Soc; Elec. Eng; Radio Eng. Conduction of electricity in high vacua; thermionic vacuum tube.

Billhuber, Dr. Ernst A(ugust), 26 Central Ave, Maywood, N. J. *Chemistry*. New York, N. Y, Aug. 26, 91. Princeton; Columbia, 10-13; D.Sc, Tübingen, 15. Chemist, G. Siegle Co, Germany, 15-17; chemist and plant manager, C. M. Childs, Brooklyn, 17-20; chemist, Imp. Color Works, 20-22; *chemist and v. pres, E. Billhuber, Inc*, 22- Chem. Soc; N. Y. Acad. Aldol condensations; colloidal color chemistry; waterproof gelatines.

Bill, Dr. E(arl) Gordon, Dartmouth College, Hanover, N. H. *Mathematics*. Billtown, N. S. Can, June 23, 84. B.A, Acadia, 02; A.B, Yale, 05, A.M, 06, Ph.D, 08; Bonn, 10-11. Asst. math, Sheffield Sci. Sch, Yale, 07-08, instr, 08-10; Purdue, 11-12; asst. prof, Dartmouth, 12-20, *prof, dean freshmen and director admissions*, 20- Math. Soc; Math. Ass; Math. Verein. Calculus of variations; non-euclidean geometry.

Billing, Dr. W(yly) M(cGehee), 411 Elm St, Cincinnati, Ohio. *Biochemistry*. Montgomery, Ala, 96. B.S, Ala. Polytech, 16; A.M, Columbia, 20; Ph.D, Cincinnati, 25. Research chemist, Hercules Powder Co, 17-19; Wm. S. Merrell Co, 21-24, director laboratories, 22-26; *pres, La Verne, Inc*, 26- Chem. Soc; Pharmaceut. Ass; London Biochem. Soc; Soc. de Chim. biol. Action of the toxin of crotales adamantens on blood; tissue fibrinogen; bacterial toxins.

Billings, Erle M(onroe), 484 Woodbine Ave, Rochester, N. Y. *Chemistry*. Canton, N. Y, March 4, 89. B.S, St. Lawrence, 11; M.S, Rochester, 15. V. prin, Lowville Acad, 11-12; first asst. chem, high sch, Rochester, 12-17, acting head dept, 17-18; org. research chemist, *Eastman Kodak Co*, 18-19, sec'y, research lab, 19-26, *asst. business manager, teaching film dept*, 26- Business manager, 'Jour. Chem. Educ', 24- Chem. Soc. (councilor, sec'y-treas, Rochester sect, 18-, sec'y-treas, div. indust. and eng. chem, 22-, sec'y, div. officers group, 22-24, chairman, 24-); West. N. Y. Physics Club (pres, 16); N. Y. Teachers' Ass. (organizer and pres, science sect, 16). Business chemistry.

Billings, Dr. Frank, 1550 N. State Parkway, Chicago, Ill. **Medicine*. Highland, Wis, April 2, 54. M.D, Northwestern, 81, M.S, 90, Sc.D, 25; Vienna, 85-96; Sc.D, Harvard, 15; Wisconsin, 24; LL.D, Cincinnati, 24. Intern, Cook Co. Hosp, Chicago, 81-82; demonstrator anat, Northwestern, 82-85, *prof. physical diagnosis*, 87-90, *med*, 90-98; *Rush Med. Col, Chicago*, 98-, *dean faculty*, 99-, *prof. med, Chicago*, 05-24, *emer. prof*, 24-; *attending physician, Presb. Hosp*, 98- Shattuck lecturer, Harvard, 02; Lane lecturer, Stanford, 16; pres, Ill. State Board Charities, 06-12. Major, lieut. col. and col, M.C, 17-18, U.S.A, 18; col, M.O.R.C, 19-22, brig. gen, 22-; lieut. col. Red Cross, and chairman, mission to Russia, 17. Pres, Cong. Physicians and Surg, 22. A.A; Ass. Path. and Bact; Am. Physicians (pres, 07); Am. Med. Ass. (pres, 02-04, treas, 05-10); Tuber. Ass. (pres, 08); Chicago Path. Soc; Chicago Acad; Inst. Med. Internal medicine.

Billings, Dr. F(rederick) H(oratio), 948 E. Colton Ave, Redlands, Calif. *Botany*. Chicago, Ill, May 26, 69. A.B, Stanford, 96; A.M, Harvard, 97; Ph.D, Munich, 01. Asst. prof. nat. science, Pomona, 91-93; prof. bot, Louisiana, 01-07; assoc. prof. bot. and bacter, Kansas, 07-13, *prof. bacter*, 13-17; *bot. and bacter, Redlands*, 21- A.A; Soc. Bact; Pub. Health Ass. Plant embryology.

Billings, Dr. John S(edgwick), Union Club, 1 E. 51st St, New York, N. Y. *Medicine*. Washington, D. C, July 31, 69. A.B, Hopkins, 89; M.D, Pennsylvania, 92. Deputy health commissioner, New York, 16-19; med. director, east. group of telephone companies, 19-20; director, N. Y. Tuber. Ass, 20. Med. officer, Stock Exchange, New York. Tuber. Ass. (director, 19); N. Y. Acad. Med. Preventive and industrial medicine; tuberculosis.

Billingsley, Paul, Portage, Wash. *Geology*. New York, N. Y, Nov. 30, 87. A.B, Columbia, 08, A.M, 10. *Geologist, Anaconda Copper Mining*

Co, 10-18, 19- Consulting geologist, 17-; chief geologist, oil exploration branch, Anaconda Copper Mining Co, 20-21; Int. Smelting Co, 21- Lieut. Gen. Staff, U.S.A., 18-19. A.A.; Geol. Soc; Soc. Econ. Geol; Min. and Metal. Eng; Am. Geog. Soc; N. Y. Acad. Geology of boulder batholith of Montana; Montana ore deposits; oil geology of Rocky Mountain states; ore deposits of British Columbia and of Zaruma district, Ecuador; mining industry of Utah.

Bills, Dr. Charles E(verett), Mead Johnson and Co, Evansville, Ind. *Biochemistry*. Natick, Mass, Feb. 9, 00. B.S, Hopkins, 20, A.M, 23, Ph.D, 24. Asst. chem, Hopkins, 19-21; lecturer biochem, Alberta, 21-22; *director biochem. research lab, Mead Johnson and Co, 25-* Chem. Soc. Protozoa; nutrition; vitamins; rickets; vitamin D; cholesterol.

Bills, Dr. Marion A(lmira), Aetna Life Insurance Co, Hartford, Conn. *Psychology*. Allegan, Mich, 80. A.B, Michigan, 08; Ph.D, Bryn Mawr, 17. Asst. psychol, Michigan, 15-17; prof, Oxford (Ohio), 17-18; asst. prof, Kansas, 18-19; asst. director, bur. personnel research, Carnegie Inst. Tech, 19-23; Life Ins. Sales Research Bur, 23-24; *asst. sec'y, Aetna Life Ins. Co, 24-* Personnel in business.

Bilising, Dr. S(herman) W, College Station, Texas. *Entomology*. Crestline, Ohio, Dec. 8, 85. B.S, Otterbein Col, 12; A.B, Ohio State, 12, fellow, 12-13, A.M, 13, fellow, 23-24, Ph.D, 24. Instr. *entom, Agr. and Mech. Col, Texas*, 13-15, assoc. prof, 16, acting prof, 16-18, *prof. and head dept, 18-* A.A; Entom. Soc; Ass. Econ. Entom; Ohio Acad. Pecan insects; spiders.

Binckley, Col. Geo(rge) S(ydney), 7831 Hillside Ave, Los Angeles, Calif. *Hydraulic engineering*. Norfolk, Va, Sept. 9, 70. Private sch. Mech. mining and civil and hydraul. engineer, U. S. Mex. and Can, 90-17; *mem. test dam committee, in charge eng. design, construction and testing of Stevenson Creek Test Dam, 19-* C.Eng, U.S.A., 17-19. Civil Eng; Soc. Mil. Eng. Heat and hydraulic phenomena; hydrographic and meteorological instruments; radiation of heat; determination of the mechanical equivalent of solar radiation; heat conduction; instruments of precision in connection with elastic deformation.

Binford, Pres. Raymond, Guilford College, Guilford, N. C. *Zoology*. Carthage, Ind, July 15, 76. B.S, Earlham, 01; M.S, Chicago, 06; Ph.D, Hopkins, 12. Prof. biol, Guilford, 01-14; zool, Earlham, 14-18; *pres, Guilford, 18-* Summers, investigator, Beaufort Lab, Bur. Fisheries, 08-11, instr, Woods Hole, 12-17. A.A; Soc. Zool. Sporangium in ferns; life histories of crabs; fertilization in crustaceans.

Binger, Dr. Carl A(lfred) L(anning), Rockefeller Institute, New York, N. Y. *Medicine*. Long Branch, N. J, Aug. 26, 89. A.B, Harvard, 10, M.D, 14. Intern, Mass. Gen. Hosp, 14-15; Sheldon fellow, sch. med, Hopkins, 15-16, asst. pharmacol, 15-17; asst. med. and asst. res. physician, *Rockefeller Hosp, 19-22, assoc. med, 22-* Royal Soc. exped, Peruvian Andes.

M.C, U.S.A., 17-19. Soc. Exp. Biol; Soc. Clin. Invest; Harvey Soc. Pathological physiology of respiration with reference to heart disease and pneumonia; oxygen therapy in pneumonia.

Bingham, Prof. Eugene C(ook), Lafayette College, Easton, Pa. **Physical chemistry*. Cornwall, Vt, Dec. 8, 78. A.B, Middlebury, 99; Ph.D, Hopkins, 05. Prof. *chem, Richmond, 06-15*; asst. physicist, Bur. Standards, 15-16; *prof, Lafayette, 16-* Chemist, Bur. Standards, 18. Lieut. col, C.W.S. A.A; Chem. Soc. (chairman, metric committee); Soc. Test. Mat; hon. mem. Va. Chemists' Club. Fluidity and plasticity; viscosity; fluidity; solubility.

Bingham, Dr. Harold C(lyde), 1314 Whitney Ave, New Haven, Conn. *Psychology*. Rowan, Iowa, Jan. 21, 88. A.B, Ellsworth, 10; A.M, Harvard, 12; Ph.D, Hopkins, 23. Prof. educ. and psychol, Ellsworth, 12-17; sci. assoc. research information service, Nat. Research Council, 19-22, asst. director, 22-23; lecturer, Wesleyan, 23-24, acting prof, 24-25; *research assoc. inst. psychol, Yale, 25-* First lieut, capt. and major, U.S.A., 18-19, major, O.R.C. A.A; Psychol. Ass; Soc. Mammal. Animal behavior; life history and mentality of apes; visual perception of the chick; classification of research personnel; methods of measurement in primates; ontogenesis of sexual behavior in chimpanzees.

Bingham, Senator Hiram, New Haven, Conn. *Geography, Aeronautics*. Honolulu, Hawaii, Nov. 19, 75. A.B, Yale, 98; A.M, California, 00; A.M, Harvard, 01, Ph.D, 05; D.Litt, Cuzeo, 15. Austin teaching fellow, Harvard, 01-02, 04-05, asst. hist, 03-04; preceptor, Princeton, 05-07; lecturer S. Am. geog. and hist, *Yale, 07-08, Latin Am. hist, 08-10, asst. prof. and curator Latin Am. collections, 10-15, prof, 15-24*; lieut. gov, Conn, 22-24, gov, 24-25; *U. S. senator, 25-* Shaw lecturer, Hopkins, 10. Director, Yale and Nat. Geog. Soc. exped, Peru, 11-15. Major and lieut. col, A.S, U.S.A., 17-19; reserve mil. aviator. A.A; Ass. Geog; Anthropol. Ass. (councilor, 19-); Antiq. Soc; Am. Council Learned Societies (exec. committee); Polit. Sci. Ass; Am. Hist. Ass; fel. Royal Geog. Soc; Royal Anthropol. Inst; Hispanic Soc; Nat. Acad. Hist, Bogota; Soc. Geog. de Lima. South American geography and history, particularly Venezuela, Colombia and Peru; bibliography; trade routes from Buenos Ayres to Lima; Vitcos and Machu Picchu, Inca cities.

Bingham, Dr. W(alter) V(an Dyke), Personnel Research Federation, 40 W. 40th St, New York, N. Y. **Psychology*. Swan Lake, Iowa, Oct. 20, 80. A.B, Beloit, 01; fellow, Chicago, 05-06, Ph.D, 08; A.M, Harvard, 07. Instr, high schools, 01-05; assoc. psychol, Chicago, 06-07; instr. educ. psychol, Teachers Col, Columbia, 08-10; asst. prof. psychol. and educ, Dartmouth, 10-15; prof. psychol, Carnegie Inst. Tech, 15-18, *director div. applied psychol, 18-24*; *Personnel Research Federation, Inc, 24-*; *pres, Psychological Corp, 26-* Exec. sec'y, committee on classification of personnel in army, 17-18; lieut. col, U.S.A., 18-19. Ed, 'Jour. Personnel Research.' Chairman div. anthrop. and psychol, Nat. Research Council, 19-20. A.A.

(sec'y, council, 17); Psychol. Ass. (sec'y, 11-13, council, 17-19). The psychology of music; industrial psychology.

Bingham, Mrs. Millicent Todd (Mrs. W(alter) V(an Dyke)), 110 Washington Place, New York, N. Y. *Geography*. Washington, D. C. 80. A.B. Vassar, 02; Paris, 05-06; A.M., Radcliffe, 17. Ph.D. 23; Grenoble, 18-19. Asst. French, Vassar, 02-03, instr. 03-04; asst. Wellesley, 06-07; lecturer geog. Grenoble, 19. Amherst eclipse exped, Singkep, D. E. I. 01; Tripoli, Barbary, 05; Russia, 14; Lowell exped, Andes, 07. Army Educ. Corps, U.S.A. 18. Fel. Am. Geog. Soc. *Geography of France*; principles of human geography; geographic controls in Peru.

Bingley, Prof. George A(ithoff), 248 Prince George St, Annapolis, Md. *Mathematics*. Nov. 12, 88. A.B. Princeton, 10. A.M. 16; Göttingen, 14-15. Teacher, Japan, 10-13; instr. Ga. Tech. 18-19; U. S. Naval Acad. 19-23; asst. prof. math, *St. John's (Md)*, 23-24, *assoc. prof.*, 24- *Math. Ass.* Aerodynamics.

Binney, Dr. Edwin, Jr., Sound Beach, Conn. *Geology*. Sound Beach, March 20, 99. A.B. Yale, 21, Ph.D. 25. Instr. hist. geol. Yale, 26-27, *research asst. geol.* 27- *Origin and geologic associations of natural gas*.

Binns, Prof. Charles F(ergus), Alfred, N. Y. *Ceramics*. Worcester, Eng. Oct. 4, 57. Hon. Sc.D, Alfred. Royal Porcelain Works, Worcester, Eng. 72-79; examiner in pottery and porcelain, London, 95-97; prin. Tech. Sch. Trenton, N. J. 98-00; *director, N. Y. State Sch. Clay-working and Ceramics*, 00- *Jury on ceramics*, St. Louis Expos, 04 (sec'y). Silver medal, Paris, 00. Ceramic Soc. (v. pres, 00, pres, 01, sec'y, 18). Technology of clays, glazes and fuels for potter's use; the art and history of pottery.

Bioletti, Prof. Frederic T(heodore), University of California, Berkeley, Calif. *Botany, Horticulture*. Liverpool, Eng. July 21, 65. B.S. California, 94, M.S. 98. Instr. viticulture, California, 94-02; horticulturist, Elsenburg Col. Cape Colony, 02-05; *assoc. prof. viticulture, California*, 05-14, *prof. viticulture and enology*, 14-19, *viticulture*, 19- *Chairman, Citrus Commission, Cape Colony*. A.A.; Soc. Hort. Sci.; Eugenics Soc; Genetic Ass; Pomol. Soc; Soc. Plant Physiol; Calif. Bot. Soc. *Viticulture*; *zymology*; *enology*.

Birch, Prof. R(aymond) R(ussell), Cornell University, Ithaca, N. Y. *Veterinary medicine*. Manhattan, Kans. March 30, 81. B.S. Kansas Col. 06; D.V.M. Cornell, 12, Ph.D. 16. Agr. inspector, Bur. Agr. P. I. 06-08, *specialist*, animal indust, 09; instr. asst. prof. and *prof. vet. research, Cornell, and in charge, Vet. Exp. Sta.*, 12- *Int. Educ. Board scholar*, Europe, 25. Vet. Med. Ass; U. S. Live Stock Sanit. Ass. Hog cholera; tuberculosis and infectious abortion in cattle.

Birch, Prof. T(homas) Bruce, Wittenberg College, Springfield, Ohio. *Education, Psychology*. Bloomsburg, Pa. Sept. 11, 66. A.B. Gettys-

burg, 91, A.M. 94; A.M. Pennsylvania, 06, Harrison fellow, 06-08, Ph.D. 08. Instr. Irving, 96-02; Susquehanna, 02-05; *prof. educ. and psychol. Wittenberg Col.*, 08- A.A.; fel. Royal Soc. Arts. Standard tests and measurements; child psychology; psychology of religion; psychology of William of Occam.

Birchard, Dr. F(rederick) J(ames), Board of Grain Commissioners, 876 Grain Exchange, Winnipeg, Man, Can. *Biological chemistry*. Toronto, Ont. Dec. 17, 75. B.A. Toronto, 01; Ph.D. Leipzig, 09. Fellow chem. Rockefeller Hosp, 10; fellow and asst. Rockefeller Inst, 10-12; *chemist*, bur. animal indust, U. S. Dept. Agr, 13; *Board of Grain Commissioners, Winnipeg*. Soc. Biol. Chem. Proteins and their split-products; cereal chemistry.

Bircher, Dr. Louis J(acob), Vanderbilt University, Nashville, Tenn. *Physical chemistry*. St. Louis, Mo. Feb. 1, 92. A.B. B.S. Missouri, 15, A.M. 17; Ph.D. Chicago, 24. Instr. chem. Iowa Col. 16-18; Washington (St. Louis), 19-21; asst. prof. *physical chem, Vanderbilt*, 21-24, *assoc. prof.* 24- *Inspector explosives, U.S.A.*, 18-19. A.A.; Chem. Soc. (chairman, Nashville sect, 25); Tenn. Acad. Electrochemistry; over-voltage and the temperature effect; electrochemical preparation of semicarbazine; effect of temperature on the potentials of reference electrodes.

Birkner, Dr. Victor, U. S. Department of Agriculture, Washington, D. C. *Chemistry*. Warningsdorf, Czecho-Slovakia, April 25, 87. Leipzig, 06-09; M.S. California, 11, Ph.D. 12. *Mycologist, bur. chem, U. S. Dept. Agr.*, 15-20, *asst. chemist*, 20- *Wash. Acad. Food research and analysis*; milk; yeast; fermentation.

Bird, Prof. Charles, University of Minnesota, Minneapolis, Minn. *Psychology*. Birkenhead, Eng. March 23, 93. A.M. Clark, 17, Ph.D. 20. Instr. *psychol, Minnesota*, 20-23, *asst. prof.*, 23- *Psychol. Ass.* Animal psychology; the development of instincts.

Bird, Prof. Grace E(lecta), 157 Cypress St, Providence, R. I. *Psychology*. Brooklyn, N. Y. Ph.B. Chicago; A.M. Columbia, 16; Ph.D. Brown, 18. *Prof. educ. psychol, R. I. Col. Educ.*, 14- A.A.; Psychol. Ass; R. I. Soc. Mental Hygiene (board directors). Educational psychology; tests and measurements.

Bird, H(enry), 600 Milton Road, Rye, N. Y. *Entomology*. Rye, Oct. 12, 69. Pub. schools. *Consulting entomologist*. A.A.; Entom. Soc; Ecol. Soc; fel. N. Y. Acad; N. Y. Entom. Soc. Economic entomology; noctuid moths of North America; Papaipema and allies; acid soil plants; artificial acidulation of soils; insect parasitism and polyembryony.

Bird, Ralph D(urham), University of Manitoba, Winnipeg, Man, Can. *Zoology*. Man, May 20, 01. B.S. Manitoba, 24, M.S. 26. *Demonstrator zool, Manitoba*, 24- *Summers, Treesbank entom. lab, Can. Dept. Agr.* 24- *Soc. Mammal; Ecol. Soc; Ont. Entom. Soc.* Ecological survey of Manitoba; morphology and life history of sawflies.

- Bird, Dr. R(obert) M(ontgomery)**, University, Va. *Chemistry*. Petersburg, Va., June 13, 67. A.B., B.S., Hampden-Sidney, 97; Ph.D., Hopkins, 01. Prof. science and math, Frederick Col., 98-99; acting prof. chem, Miss. Agr. and Mech. Col., 01-02; acting prof. agr. chem, Missouri, and chemist, Exp. Sta., 02-03, instr. agr. chem, 03-05, asst. prof., 05-06, acting prof., 06-07; *prof. chem*, Virginia, 07- Chemist, committee on educ. and special training, war plans div, Gen. Staff, U.S.A. A.A.; Chem. Soc. Reactions of orthosulphobenzoic acid; toxic agents for orchards; analytical methods; positive ions from non-metallic elements; wood extracts.
- Birdsall, Lewis I(saac)**, General Chemical Co., 112 W. Adams St., Chicago, Ill. *Sanitary science*. Patterson, N. Y., Oct. 16, 84. A.B., Williams, 07; A.M., Illinois, 09. Chemist, Ill. State Water Surv., 07-09; commercial chemist and bacteriologist, 10-11; supt. filtration, Rock Island, Ill., 11-12; Minneapolis, Minn., 13-22; *sales dept*, Gen. Chem. Co., 22- A.A.; Water Works Ass; Pub. Health Ass; Chem. Eng; Chem. Soc; Minneapolis Eng. Club (pres, 18). Water purification; Lake Michigan water; some practical problems in filtration plant operation.
- Birdseye, C(laude) H(ale)**, U. S. Geological Survey, Washington, D. C. *Engineering*. Syracuse, N. Y., Feb. 13, 78. A.B., Oberlin, 01; Ohio State, 02. Topog. engineer, U. S. Geol. Surv., 01-15, geographer, 16-17, *chief topog. engineer*, 19- Surv. Kilauea Volcano, Hawaii, 12; summit, Mt. Rainier, 13; leader, Grand Canyon exped, 23. U.S.A., 17-19, col. Eng. O.R.C. Officier de l'Instruction Pub., 19. Charles P. Daly medal, Am. Geog. Soc., 24. Civil Eng; Mil. Eng; Ass. Geog; Am. Geog. Soc; Wash. Soc. Eng; Wash. Acad. Topography; physiography; geography; geodesy.
- Birge, Dr. E(dward) A(sahel)**, University of Wisconsin, Madison, Wis. *Zoology, Limnology*. Troy, N. Y., Sept. 7, 51. A.B., Williams, 73, A.M., 76, LL.D., 03; Ph.D., Harvard, 78; Leipzig, 80-81; hon. Sc.D., Pittsburgh, 97; LL.D., Wisconsin, 05; Missouri, 19; hon. Ph.D., Rensselaer, 24. Instr. nat. hist, Wisconsin, 75-79, prof. zool., 79-11, dean col. letters and science, 91-19, acting pres., 00-03, pres., 18-25, *emer. pres.*, 25- Commissioner fisheries, Wis., 95-15; director, Wis. Geol. and Nat. Hist. Surv., 97-19, pres., commissioners, 19-25; commissioner forestry, Wis., 07-15; Wis. Conservation Commission, 08-15. A.A.; Soc. Nat; Soc. Zool. (pres, cent. branch, 08, 10); Ecol. Soc; Micros. Soc. (pres, 02); Fisheries Soc. (pres, 07); Philos. Soc; Wash. Acad; Wis. Acad. (pres, 90, 18-21); Phila. Acad. Cladocera; lake temperatures; biology of plankton.
- Birge, Dr. R(aymond) T(hayer)**, University of California, Berkeley, Calif. *Physics*. Brooklyn, N. Y., March 13, 87. A.B., Wisconsin, 09, A.M., 10, Ph.D., 14. Instr. physics, Syracuse, 13-15, asst. prof., 15-18; instr., California, 18-20, asst. prof., 20-22, assoc. prof., 22-26, *prof.*, 26- A.A.; Physical Soc. (councilor, 27-); Optical Soc. Spectroscopy; band and line series relations in spectra; Planck constant; concave grating; indicators.
- Birkett, Prof. H(erbert) S(tanley)**, McGill University, Montreal, Que., Can. *Medicine*. Hamilton, Ont., July 17, 64. C.B., LL.D., M.D., McGill, 86. *Prof. otolaryngol*, McGill, 94- Dean. med. faculty, McGill, 14-21; chief otolaryngol. clinic, Royal Victoria Hosp; consultant, Alexandra Hosp. and Mackay Inst. for Infectious Diseases. Laryngol. Ass. (pres, 07); Laryngol. Rhinol. and Otol. Soc. (pres, 18); Otol. Soc. Otolaryngology.
- Birkhaug, Dr. Konrad E(lias)**, University of Rochester, Rochester, N. Y. *Bacteriology*. Bergen, Norway, Oct. 12, 92. A.B., Jamestown Col., 17; M.D., Hopkins, 24, Charlton fellow, 24-25. Intern, Sydenham Hosp, Baltimore, 23-24; asst. med., Hopkins Hosp, 24-25; *assoc. bacter. sch. med*, Rochester, 25-26, *asst. prof.*, 26- A.A.; Soc. Bact; Soc. Exp. Biol; Nord. Patol. Scarlet fever; erysipelas.
- Birkhoff, Prof. George David**, 22 Craigie St., Cambridge, Mass. *Mathematics*. Overisel, Mich., March 21, 84. A.B., Harvard, 05, A.M., 06; Ph.D., Chicago, 07; hon. Sc.D., Brown, 23. Instr. math, Wisconsin, 07-09; preceptor, Princeton, 09-11, prof., 11-12; asst. prof., Harvard, 12-19, *prof.*, 19- Querini-Stampalia prize, 19; Bôcher prize, 23; A. A. A. S. prize, 26. Nat. Acad; A.A.; Math. Soc. (pres, 25); Am. Acad; Philos. Soc; Royal Danish Acad; Göttingen Acad. Differential equations; dynamics; relativity.
- Birnie, Col. R(ogers)**, U.S.A. (retired), 10 E. 58th St., New York, N. Y. *Mechanical engineering*. Glen Burn Farm, Md., April 5, 51. Grad, U. S. Mil. Acad., 72. Lieut., 13th U. S. Inf., 72-78; lieut. ordnance dept., 78-86, capt., 86-01, major, 01-06, lieut. col., 06-07, col., 07-15, *retired*, 15. Inf. service, Camp Douglas, Utah, 72-74; in charge party, U. S. Geog. Surveys west of 100th meridian, 74-78; chief ordnance officer, Seventh Army Corps, 98-99; Div. of Cuba, 99; Ordnance Board, 99, pres., 00-02, 08-12, 13-15; commanding ordnance proving ground, Sandy Hook, N. J., 08-12; acting chief ordnance, U.S.A., 12-13. Chevalier, Légion d'honneur. A.A.; Mech. Eng. Gun construction; ordnance materials.
- Bisby, Prof. G(uy) R(ichard)**, Manitoba Agricultural College, Winnipeg, Man., Can. *Botany*. Brookings, S. Dak., Aug. 17, 89. B.S., S. Dak. Col., 12; A.M., Columbia, 17; Ph.D., Minnesota, 18. Asst. Brooklyn Bot. Garden, 13-14; bot., Purdue, 15-16; instr. *plant path*, Minnesota, 16-18, asst. prof., 18-20; *prof.*, Man. Agr. Col., 20- Asst. Imp. Bur. Mycol., London, 21-22. Summers, consulting pathologist, Am. Potato Co., 14, 15. A.A.; Phytopath. Soc; Bot. Soc. Plant pathology; slime moulds; rusts; potato diseases; mycology.
- Bisch, Dr. L(ouis) E(dward)**, 105 E. 38th St., New York, N. Y. *Neuro-psychiatry*. Brooklyn, N. Y., March 10, 85. A.B., Columbia, 07, M.D., 11, Ph.D., 12. Intern, Manhattan State Hosp, 11-13; lecturer educ. psychol., Teachers Col., Columbia, 13-15, assoc., 15-16; instr. neuropath., N. Y. Post-Grad. Med. Sch., 14-15; organizer and director, Psychopathic Lab, New York, 16; Mental Hygiene Clinic, Norfolk, Va.,

- 18-19; Mental Hygiene Clinic, Asheville, N. C, 23-24; med. director, Hillcrest Manor, 19-24; *practising neuropsychiatrist*, New York, 24-; *prof. neuropsychiat*, N. Y. Polyclinic Med. Sch. and Hosp, 26- Physician, Clearing House for Mental Defectives, New York, 12-15; N. Y. Neur. Inst, 12-16. Director psychiat. div, fifth naval dist, U.S.N.R.F, 17-19. A.A.; Psychiat. Ass; Am. Med. Ass; Eugenics Research Ass. Clinical psychology; biochemistry; psychoanalysis.
- Bischoff, Dr. Fritz E(mil)**, Cottage Hospital, Santa Barbara, Calif. *Organic chemistry*. Milwaukee, Wis, May 21, 99. B.S, Wisconsin, 20, M.S, 22, fellow, 23, du Pont fellow, 24, Ph.D, 24. Plant supervisor and research chemist, New Port Co, 21-25; research chemist, Jackson lab, E. I. du Pont de Nemours and Co, 25-26; *Potter metabolic lab*, Cottage Hosp, 26- Chem. Soc. Contact catalysis; organic titanium; volatile oils; dyes; insulin; lead in cancer.
- Bishop, Prof. Avard L(ongley)**, Yale University, New Haven, Conn. *Business administration*. Williamston, N. S. Can, March 4, 75. B.A, Acadia, 01; A.B, Yale, 03, A.M, 04, Ph.D, 06. Instr. commercial geog, Yale, 04-08, asst. prof. science of society, 08-11, geog. and commerce, *Sheffield Sci. Sch*, Yale, 11-14, *prof*, 14-18, *business administration*, 18- Ass. Geog; Econ. Ass.
- Bishop, Prof. Carlton T(homas)**, 284 Alden Ave, New Haven, Conn. *Structural engineering*. Avon, Conn, Nov. 4, 82. Ph.B, Yale, 03, C.E, 11. Draftsman and engineer, Am. Bridge Co, Pa, 03-08; chief draftsman, Hay Foundry and Iron Works, N. J, 08-09; instr, asst. prof. and *assoc. prof. structural eng*, Yale, 09- Civil Eng; Eng. Educ; Sigma Xi (past sec'y and v. pres); Conn. Soc. Civil Eng. (director). Structural details of hip and valley rafters; structural drafting and designing of details; problems in structural design.
- Bishop, Dr. E(ugene) L(indsey)**, Tennessee Department of Public Health, Nashville, Tenn. *Public health*. Nashville, 86. M.D, Vanderbilt, 14; C.P.H, Hopkins, 23. Field director, *Tenn. State Board Health*, 16-18, director rural sanitation, 18-22, asst. commissioner *pub. health*, 23-24, *commissioner*, 24- Lecturer, Vanderbilt, 23- Conf. State and Provincial Health Authorities of N. Amer; Nat. Malaria Committee. A.A; Pub. Health Ass; Am. Med. Ass; Soc. Parasitol; S. Med. Ass. Preventive medicine.
- Bishop, Prof. F(rederic) L(endall)**, University of Pittsburgh, Pittsburgh, Pa. *Physics*. St. Johnsbury, Vt, Aug. 26, 74. B.S, Mass. Inst. Tech, 98; Ph.D, Chicago, 05. Head dept. physics, Bradley Polytech, 98-09; *prof. physics and dean schools eng. and mines*, Pittsburgh, 09- Consulting physicist, Am. Window Glass Co, 14- Treas, Highway Educ. Board. A.A; Physical Soc; Elec. Eng; Eng. Educ. (sec'y). Thermal conductivity; heat of dilution; variation of wave length with pressure; surface tension; high temperature; viscosity; glass technology.
- Bishop, Prof. G(eorge) H(olman)**, Washington University School of Medicine, St. Louis, Mo. *Physiology*. Durand, Wis, June 27, 89. A.B, Michigan, 12; Ph.D, Wisconsin, 20. Instr. zool, Northwestern, 19-20; asst. prof. histol, Tennessee, 20-21; *assoc. physiol*, Washington (St. Louis), 21-24, *assoc. prof*, 24- Physiol. Soc. Nerve action currents; cell metabolism in insects.
- Bishop, Prof. H(omer) G(uy)**, 111 E. Fourth St, Springfield, Ohio. *Psychology*. Rosseau, Ohio, Oct. 26, 87. B.S, Ohio, 11, M.S, 12; Ph.D, Cornell, 20. Asst. *psychol*, Ohio, 10-11, instr, 11-12, asst. prof, 12-13; asst, Cornell, 13-18, 19-21, instr, 21-24; asst. prof, Smith, 24-26; *assoc. prof*, *Wittenberg Col*, 26- Psychol. Ass. The psychology of audition.
- Bishop, Howard B(erkey)**, 284 Springfield Ave, Summit, N. J, *Chemistry*. Bloomington, Ill, Jan. 24, 78. B.S, Michigan, 00. Chief chemist, anal. lab, Gen. Chem. Co, 02-10, research chemist, 10-17; chief chemist, Nat. Aniline and Chem. Co, 17-19; consulting chemist, 20-21; *pres*, *John C. Wiarda and Co. and Sterling Products Co*, 21- W. H. Nichols medal, Chem. Soc, 08. A.A; Chem. Soc; Soc. Chem. Indust; Chem. Eng; N. Y. Chemists Club. Manufacture of acids, alkalies and salts.
- Bishop, Dr. K(atharine) Scott**, 1508 La Loma Ave, Berkeley, Calif. *Histology, Pathology*. New York, N. Y, 89. A.B, Wellesley, 10; M.D, Hopkins, 15. Asst. anat, California, 15-16, instr, 16-21, *assoc*, 21-24; *histopathologist*, *Hooper Foundation*, 24- A.A; Ass. Anat. Connective tissue cells and vital dyes; nutrition in reproduction in the rat; changes in bone development; the bony ear; otosclerosis.
- Bishop, Dr. Louis B(ennett)**, 450 Bradford St, Pasadena, Calif. *Ornithology*. Guilford, Conn, June 5, 65. A.B, Yale, 86, M.D, 88. Head dept. pediat, New Haven Dispensary, 96-08; instr. pediat, Yale, 99-08. A.A; fel. Ornith. Union; Conn. Acad; N. Y. Linnean Soc; cor. mem. Nuttall Ornith. Club; Cooper Ornith. Club; Wilson Ornith. Club; Wash. Biol. Soc.
- Bishop, Dr. L(ouis) Faugeres**, 109 E. 61st St, New York, N. Y. *Medicine*. New Brunswick, N. J, March 14, 64. A.B, Rutgers, 85, A.M, 89, Sc.D, 19; M.D, Columbia, 89. Instr. chem. and physics, Princeton Prep. Sch, 85-86; house physician, St. Luke's Hosp, New York, 89-92; clin. director, *Forðham*, 04-08, *clin. prof. heart and blood vessel diseases*, 05- A.A; N. Y. Acad. Med. (sec'y and chairman, sect. med). Blood pressure in man; heart disease.
- Bishop, Miss Mabel**, Hood College, Frederick, Md. *Zoology*. Bridgeport, Conn, 81. A.B, Wellesley, 05; fellow, Smith, 07-09, A.M, 08; Wellesley fellow, Chicago, 16-17, Ryder fellow, 22-23, Ph.D, 23. Asst. path, Cornell, 05-07; instr. biol, Goucher, 09-11; research asst. embryol. and histol, Michigan, 12-13; *head dept. biol*, Rockford, 14-19; *Hood*, 19- In charge embryol, Cold Spring Harbor, 08-12. A.A; Eugenics Soc; Genetic Ass; Social Hygiene Ass. Embryology; neurology; nervous and circulatory systems.

Bishop, Prof. M(argaret) K(incaid), 111 E. Fourth St., Springfield, Ohio. *Psychology*. Brooklyn, N. Y., Oct. 21, 96. A.B., Vassar, 17; A.M., Cornell, 18; Ph.D., Minnesota, 22. Asst. *psychol.*, Vassar, 18-19; teaching fellow, Minnesota, 19-22; instr., Smith, 22-25, asst. prof., 25-26; *assoc. prof.*, Wittenberg Col., 26- The psychology of learning.

Bishop, Sherman C(hauncey), New York State Museum, Albany, N. Y. *Zoology*. Sloatsburg, N. Y., Nov. 18, 87. B.S., Cornell, 13, Ph.D., 25. Asst. entom., Cornell, 09-13, plant path. and entom., 14-15, biol., 15-16; *zoologist*, N. Y. State Museum, 16- Cornell Okefinokee exped., 12. A.A.; *assoc.* Ornith. Union; Soc. Mammal; Entom. Soc; Soc. Ichthyol. and Herp. Spiders; reptiles; batrachians.

Bishopp, F(red) C(orry), Box 208, Dallas, Texas. *Entomology*. Virginia Dale, Colo., Jan. 14, 84. B.S., Colo. Agr. Col., 02, fellow, 02-03, M.S., 26. Asst. prof. entom. and zool., Maryland, and asst. state entomologist, 03-04; special field agent, *bur. entom.*, U. S. Dept. Agr., 04-08, agent and expert, 08-11, entom. asst., 11-16, *entomologist*, 16-, *in charge insects affecting animals*, 26- A.A.; Entom. Soc; Ass. Econ. Entom; Soc. Parasitol. (councilor); Wash. Entom. Soc; Texas Acad. Veterinary and medical entomology; cotton insect pests.

Bissell, Prof. G(eorge) W(elton), Michigan State College, East Lansing, Mich. *Mechanical engineering*. Poughkeepsie, N. Y., July 14, 66. M.E., Cornell, 88. Instr. exp. eng., Cornell, 88-91; prof. mech. eng., Iowa Col., 92-07, v. dean eng., 04-07; *dean eng.*, Mich. State Col., 07- Chairman, Mich. Board Boiler Rules. Mech. Eng; Eng. Educ; Mich. Eng. Soc; Detroit Eng. Soc. Properties of lubricants; steam-engine economics.

Bissell, Dr. Malcolm H(avens), Bryn Mawr College, Bryn Mawr, Pa. *Geology, Geography*. Norwalk, Conn., Oct. 11, 89. Ph.B., Yale, 11, A.M., 18, Ph.D., 21. Westinghouse Elec. and Mfg. Co., 11-13; instr. *geol.*, Bryn Mawr, 18-21, *assoc.*, 21-25, *assoc. prof.*, 25- Asst. geologist, Pa. Geol. Surv., 20-22, 25- A.A.; Am. Geog. Soc; Min. and Metal. Eng; Meteor. Soc; Ecol. Soc; Phila. Geog. Soc; Phila. Acad. Triassic of eastern North America; paleoclimatology; geography of Pennsylvania.

Bisson, Prof. Charles S(tewart), University Farm, Davis, Calif. *Chemistry*. San Jose, Calif., March 15, 91. B.S., California, 15, M.S., 16, Ph.D., 19. Asst. chem., California, 16-19; prof. in charge dept., S. Dak. Sch. Mines, 19-22; *prof. chem. and in charge div. univ. farm.*, California, 22- Chem. Soc. Physical and inorganic chemistry; electromotive force and thermal measurements; columbium; tantalum; determination of copper in cuprous oxide.

Bissonnette, Prof. T(homas) H(ume), Trinity College, Hartford, Conn. *Embryology*. Dundas, Ont., Can., June 27, 85. M.A., Queen's (Can.), 13; Ph.D., Chicago, 23. Junior master, Galt Col. Inst., 06-09; prin. pub. sch., Can., 13; science master, Regina Col. Inst., 14-16; lecturer biol., Queen's (Can.), 19-21; asst. zool.,

Chicago, 21-23; *prof. biol.*, Coe, 23-25; *Trinity (Conn.)*, 25- Y. M. C. A., Col. Liberal Arts, Chicago, 22-23. Instr., Canadian Khaki Col. Eng., 19. C.E.F., 17-19. A.A.; Soc. Zool. Embryology and sex in the freemartin; fleshy fungi of Georgian Bay district; triplets in calves.

Bitting, Dr. A(rvill) W(ayne), 1030 Green St., San Francisco, Calif. *Chemistry*. Bourbon, Ind., May 24, 70. B.S., Purdue, 91; D.V.S., Iowa Col., 95; M.D., Indiana, 00. Comparative pathologist, Fla. Exp. Sta., 91-93; Purdue, and Exp. Sta., 93-07; food technologist, bur. chem., U. S. Dept. Agr., 07-13; Nat. Canners Ass., 13-18; director research, Glass Container Ass., 19-22. Exec. subsistence div., Q.M.C., 18-19. Chem. Soc; Am. Med. Ass; Soc. Bact. Food technology; canning.

Bitting, Mrs. K(atherine) G(older), 1030 Green St., San Francisco, Calif. *Botany*. Stratford, Ont., Can., April 29, 69. B.S., Purdue, 90, M.S., 92. Asst. botanist, Ind. Exp. Sta., 90-93; instr. biol., Purdue, 93-01, asst. prof., 01-05; microanalyst, bur. chem., U. S. Dept. Agr., 07-13; Nat. Canners Ass., 13-18; bacteriologist, Glass Container Ass., 19-23. A.A.; Bot. Soc; Soc. Bact; Ind. Acad; Calif. Acad. Micro-organisms of preserved foods.

Bixby, Gen. W(illiam) H(erbert), U.S.A. (retired), 1709 Lanier Place, N. W., Washington, D. C. *Civil and military engineering*. Charlestown, Mass., Dec. 27, 49. Mass. Inst. Tech., 66-67; grad., U. S. Mil. Acad., 73; postgrad., U.S.A. Eng. Sch., 75; Ecole des Ponts et Chaussées, 81. Asst. prof. eng., U. S. Mil. Acad., 75-79; capt., C.Eng., 83-95, major, 95-04, lieut. col., 04-08, col., 08-10, brig. gen. and chief of engineers, U.S.A., 10-13. Adjutant, U. S. battalion engineers, 82-83; U. S. lighthouse engineer, 95-01, 17-19; U. S. Board on long-span suspension bridges, 93; chief engineer, Dept. of the Lakes, Dak. and Mo., U.S.A., 07-08; pres., Miss. River Commission, 08-10, 17-18. Pres., Int. Navig. Cong., 12; chairman, eng. sect., Pan-Am. Sci. Cong., 15. Chevalier, Légion d'honneur. A.A.; Civil Eng; Mech. Eng; Soc. Test. Mat. (pres., 17); Naval Inst; Mil. Service Inst; Terminal Eng. (pres., 12); Soc. Am. Wars (commanding general, 14-17); Acad. Polit. Sci; Econ. Soc; Math. Ass; Am. Acad; Wash. Acad; British Ass; British Inst. Civil Eng; Soc. des Ing. civile de France. Graphical solutions; wind pressures; Portland cement; iron for fortifications; bridges; canals; river, harbor and lighthouse improvements.

Bizzell, Prof. James A(drian), Cornell University, Ithaca, N. Y. *Chemistry*. Glenwood, N. C., April 13, 76. B.S., N. C. State, 95, M.S., 00; fellow, Cornell, 01-02, Ph.D., 03. Instr. chem., N. C. State, and asst. chemist, Exp. Sta., 95-01; asst. chemist, Exp. Sta., Cornell, 03-07, asst. prof. *soil technol.*, 07-12, *prof.*, 12- Soil technology and fertility.

Black, Prof. A(ivin) P(ercy), 811 N. Virginia Ave., Gainesville, Fla. *Agricultural chemistry*. Blossom, Texas, Aug. 30, 95. A.B., Southwestern, 17; Iowa Col.; Harvard. Prof. chem., Wesley Col., 17-18; asst. chemist, Bur. Standards,

- 18-19; asst. prof. chem, *Florida*, 19-24, *prof. agr. chem*, 24- Austin teaching fellow, Harvard, 24-25. Capt. C.W.S. Contrib. ed, 'Jour. Chem. Educ.' Chem. Soc. Bituminous paints; the preparation of phenyl-nitro-methane and derivatives.
- Black, Prof. Davidson**, Peking Union Medical College, Peking, China. *Anatomy*. Toronto, Ont, Can, July 25, 84. M.B. Toronto, 06, B.A., 09, M.A., 24; Manchester, 14; Cent. Dutch Inst. for Brain Research, 14. Asst. histol. Toronto, 08-09; instr. histol. and embryol. Western Reserve, 09-11, assoc. 11-13, asst. prof. anat., 13-17; *prof. neur. and embryol.*, *Peking Union Med. Col.*, 18-21, *anat.*, 21- Capt. M.C. Can, 17-19. A.A.; Ass. Anat.; Soc. Mammal; fel. Royal Anthropol. Inst.; China Geol. Soc.; China Anat. and Anthropol. Ass. Comparative neurology; physical anthropology.
- Black, Prof. J(ames) H(arvey)**, 1408 Medical Arts Building, Dallas, Texas. *Bacteriology, Immunology*. Huntington, W. Va, March 27, 84. M.D., Southern Methodist, 07. Prof. bacter. and histol. Southern Methodist, 07-08, bacter. and physiol., 08-12, bacter. and path., 12-15, dean med. faculty, 14-15; *prof. bacter. and prev. med.*, *Baylor*, 15-20, *prev. med.*, 20- A.A.; Soc. Bact.; Am. Med. Ass.; Soc. Clin. Path.; Pub. Health Ass.; Micros. Soc. Colloidal gold solutions; allergy.
- Black, Prof. John D(onald)**, University Farm, St. Paul, Minn. *Agricultural economics*. Jefferson Co, Wis, June 6, 83. A.B., Wisconsin, 09, A.M., 10, Ph.D., 18. Instr. Western Reserve, 10-11; Mich. Col. Mines, 11-13, asst. prof., 13-15; *Minnesota*, 18-19, assoc. prof., 19-21, *prof. agr. econ. and chief div.*, 21- Consulting specialist, U. S. Dept. Agr., 22. Farm Econ. Ass.; Econ. Ass.; Statist. Ass. Production economics; national agricultural policies; land economics.
- Black, Dr. Melville**, 424 Metropolitan Building, Denver, Colo. *Ophthalmology*. Washington, Iowa, March 15, 66. M.D. N. Y. Univ., 89. Intern, Manhattan Eye and Ear Hosp., 89-91; *prof. ophthalm. and oto-laryngol.*, Colorado, 91-97; *ophthal.*, Gross Med. Col., 97-02; Denver and Gross Col. Med., 02-09; *Colorado*, 09- Acad. Ophthalm. and Oto-Laryngol.; Am. Med. Ass.; Colo. Med. Soc. (pres, 23); Colo. Ophthalm. Soc.; Denver Clin. and Path. Soc.
- Black, Prof. N(ewton) Henry**, 21 Follen St., Cambridge, Mass. *Physics, Education*. Putney, Vt, May 3, 74. A.B., Harvard, 96, A.M., 06; Berlin, 12-13. Instr. St. George's Sch., Newport, R. I., 96-98; high sch., N. H., 98-00; master physics and chem, Roxbury Latin Sch., 00-24; *asst. prof. educ.*, *Harvard*, 24- A.A.; Physical Soc.; Chem. Soc.; Elec. Eng. Physical chemistry; refractive index of solutions; educational measurements.
- Black, Otis Fisher**, U. S. Department of Agriculture, Washington, D. C. *Chemistry*. Cambridge, Mass, March 11, 67. A.B., Harvard, 91; fellow, Northwestern, 92-93, A.M., 94. Asst. chem., Harvard, 95-01, instr., 01-06, research asst. biol. chem., Harvard Med. Sch., 06-09; *biochemist, bur. plant indust.*, U. S. Dept. Agr., 09- A.A.; Chem. Soc.; Soc. Biol. Chem.; Wash. Acad. Organic, analytical and biological chemistry.
- Black, Prof. Robert M(offitt)**, University of Pittsburgh, Pittsburgh, Pa. *Mining engineering*. Meyersdale, Pa, April 10, 79. A.B., Harvard, 01; B.S., Mich. Col. Mines, 03, E.M., 03. Civil eng., 03-05; mining eng., Ill., Iowa, Okla. and W. Va., 05-11; instr. civil eng., Iowa, 11-12, asst. prof., 12-17, assoc. prof., 17-20; *prof. mining*, *Pittsburgh*, 20- Min. and Metal. Eng.; Coal Min. Inst.; W. Pa. Eng. Soc. (director, min. sect., 25-27). Mine haulage; explosives; mining economics.
- Black, Gen. W(illiam) M(urray)**, U. S. A., 2723 N St., N. W., Washington, D. C. *Engineering*. Lancaster, Pa, Dec. 8, 55. Franklin and Marshall, 70-73, Sc.D., 12; grad. U. S. Mil. Acad., 77; D.Eng., Pa. Mil. Col., 20. Second Lieut. to col., 77-16, major gen. and chief engineers, 16-19, *retired*, 19; instr. practical mil. eng., U. S. Mil. Acad., 82-86; civil eng., U. S. Eng. Sch., 91-95; commander, Eng. Sch. Application, 01-03; adviser, Dept. Pub. Works, Cuba, 06-09; chief engineer officer in charge river and harbor works, Dist. No. 1, N. Y., Depts. East and Gulf, 09-16; *mem. firm*, *Black, McKinney and Stewart*. Engineer commissioner, D. C., 97-98; lieut. col. and chief engineer, U. S. Vols, Spanish-Am. War, and in charge cleaning of Havana, Cuba, 99-01; senior mem. board for raising of 'Maine,' 10-12. Rowland prize, Civil Eng., 93, Wellington prize, 26; Fry prize, U. S. Mil. Service Inst., 03; D. S. medal. Civil Eng. Harbors on sandy coasts; river and port improvements; improvements in methods and materials of military engineering.
- Blackader, Dr. A(lexander) D(ougall)**, 581 Sherbrooke, S. W., Montreal, Que., Can. *Medicine*. Montreal, June 19, 47. B.A., McGill, 70, M.D., C.M., 71, LL.D., 21; M.A., London, 17; Vienna, 84; Prague, 88. *Prof. diseases of children, pharmacol. and therapeut.*, McGill, emer. *prof.*, *pres.*, *Alexandra Hosp.*; consulting physician, Montreal, *retired*. Ed, 'Can. Med. Ass. Jour.' A.A.; Pediat. Soc. (pres, 93); Climat. Ass.; Can. Med. Ass. (pres, 17, ed, 'Jour'); Montreal Medico-Chirurg. Soc. (pres, 96); London Royal Col. Surg. Clinical medicine; pediatrics; pharmacology.
- Blackfan, Prof. K(enneth) D(aniel)**, 300 Longwood Ave, Boston, Mass. *Pediatrics*. Cambridge, N. Y., Sept. 9, 83. M.D., Albany Med. Col., 05. Asst. bacter., Bender Lab, Albany, 06; assoc. prof. *pediat.*, Hopkins, 18-20; *prof.*, Cincinnati, 20-23; *Harvard*, 23- Lecturer, Hopkins, 20. A.A.; Pediat. Soc.; Soc. Clin. Invest.; Soc. Exp. Biol. Hydrocephalus; cholesterol in infants; hypersensitiveness to proteins; diuretic effect of acid producing salts; uremia in acute glomerular nephritis.
- Blackman, E(lmer) E(llsworth)**, 136 S. 29th St., Lincoln, Nebr. *Archeology*. Davenport, Iowa, Aug. 16, 63. Pub. schools. Instr. pub. schools, 83-99; *archeologist and curator museum*, *Nebr. Hist. Soc.*, 00- A.A.; Ass. Mus.; Miss. Valley Hist. Ass. Ethnology; history; the archeology and the Indians of Nebraska.

Blackman, Prof. L(eslie) E(verett), Upper Iowa University, Fayette, Iowa. *Chemistry*. McPherson, Kans, April 18, 01. A.B., B.S., McPherson Col, 22; M.S., Kansas Col, 23. Asst. chem, McPherson Col, 20-22; Kansas Col, 22-23; head dept. chem, high sch, Kans, 23-24; Highland, 24-25; research chemist, Delaware, 25-26; head dept. chem, Upper Iowa, 26- A.A.; Chem. Soc; Cent. Ass. Sci. and Math. Teachers. Oxygen and animal life; interfacial tensions of diphasic emulsions; fruit jellies.

Blackman, Dr. M(aulsby) W(illett), N. Y. State College of Forestry, Syracuse, N. Y. *Entomology*. Lawrence, Kans, March 26, 76. A.B., Kansas, 01, A.M., 02; Austin fellow, Harvard, 04-05, Ph.D., 05. Instr. zool. and histol, Kansas, 01-04; comp. anat. and embryol, Western Reserve, 05-07, lecturer histol, 07-09; asst. prof. zool, Syracuse, 09-11, assoc. prof, 11-13; prof. forest entom, N. Y. State Col. Forestry, Syracuse, 13- A.A.; Entom. Soc; Ass. Econ. Entom. Forest entomology; spermatogenesis of myriapods; histology of scent glands of Mephitis; Pityogenes; boring insects; Ipidae; Cerambycidae; Buprestidae; ecology of boring insects; biological control of insects affecting forest trees.

Blackwelder, Dr. Eliot, Stanford University, Calif. **Geology*. Chicago, Ill, June 4, 80. A.B., Chicago, 01, fellow, 02-04, Ph.D., 14. Instr. geol, Chicago, 02-03; Wisconsin, 05-06, asst. prof, 06-09, assoc. prof, 09-10, prof, 10-16; prof. and head dept, Illinois, 16-19; acting prof, Stanford, 19; chief geologist, Argus Oil Co, 19-21; lecturer, Harvard, 21-22; prof. geol, Stanford, 22- Asst, U. S. Geol. Surv, 01-02, asst. geologist, 06-09, geologist, 09-18; asst, Carnegie exped, China, 03-04; Calif. Petrol. Commission, 17. A.A.; Geol. Soc; Ass. Petrol. Geol; Ass. Geog; Min. Eng; Ornith. Union; Wash. Acad. Glacial, stratigraphic, economic and historical geology; sedimentation and physiographic history; ornithology.

Blackwell, Dr. H(oward) L(ane), 4 Riedesel Ave, Cambridge, Mass. **Physics*. East Orange, N. J, July 19, 76. A.B., Harvard, 99, A.M., 00, Ph.D., 05. Eng. offices, Crocker-Wheeler Co, 00-01; asst. physics, Harvard, 01, research fellow, 05- Physical Soc; Elec. Eng. Double refraction in an electrostatic field.

Blackwell, Otto B(ernard), American Telephone and Telegraph Co, 195 Broadway, New York, N. Y. *Electrical engineering*. Bourne, Mass. B.S., Mass. Inst. Tech, 06. *Engineer in charge transmission develop*, Am. Tel. and Tel. Co, 14- Fel. Elec. Eng; Radio Eng. Transmission of speech and telegraph signals over wire circuits or by radio.

Blackwood, Prof. O(swald), University of Pittsburgh, Pittsburgh, Pa. *Physics*. Clay Center, Kans, April 24, 88. A.B., Boston, 09; Ph.D., Chicago, 20. Instr. physics, Reid Christian Col, India, 09-11; Philippines, 12-14; asst, Chicago, 17; asst. prof, Arkansas, 19-20; Pittsburgh, 20-25, assoc. prof, 25- Physicist, Koppers Co, 25- A.A.; Physical Soc. Gaseous ionization; thermal conductivity.

Blain, Dr. Alexander W(illis), 2201 Jefferson Ave, E, Detroit, Mich. *Surgery*. March 4, 85. M.D., Detroit Col. Med, 06. *Prof. surg, Detroit Col. Med; dean and prof. surg, Detroit Post-Grad. Sch. Med.* Attending surgeon, Jefferson Clinic and Diagnostic Hosp; consulting surgeon, St. Mary's and Detroit Gen. Hospitals. A.A.; fel. Col. Surg; Am. Med. Ass; Ornith. Union; Wilson Ornith. Club; Mich. Acad. Ligation of splenic artery; blood transfusion; thyroid diseases; ornithology.

Blain, Prof. Walter L(eroy), 275 E. Thach Ave, Auburn, Ala. *Plant pathology*. Columbia City, Ind, July 6, 92. A.B., Wabash, 16; A.M., Illinois, 21, Ph.D., 26. Asst. plant pathologist, Miss. State Plant Board, 21-22; assoc. plant pathologist and assoc. prof. plant path, Ala. Polytech, 24- A.A.; Bot. Soc; Phytopath. Soc. Pecan scab; diseases of sweet potatoes and cotton.

Blair, Andrew A(lexander), 406 Locust St, Philadelphia, Pa. **Chemistry*. Woodford Co, Ky, Sept. 20, 48. Grad, U. S. Naval Acad, 66. Ensign, U.S.N., 62-69; chief chemist, U. S. Board to test iron, steel and other metals, 75-78; div. mining geol, U. S. Geol. Surv, and tenth census, 79-81; consulting chemist, 82- A.A.; Chem. Soc; Soc. Chem. Indust; Min. Eng; Philos. Soc. Chemical analysis of iron and steel, ores and alloys.

Blair, Prof. A(ugustine) W(ilberforce), 202 Lawrence Ave, New Brunswick, N. C. *Agricultural chemistry*. Archdale, N. C, Sept. 12, 66. B.S., Haverford, 92, A.M., 96. Teacher, Friends' Boarding Sch, Jenkintown, Pa, 92-95; Guilford Col, 96-97; asst. chemist, N. C. Exp. Sta, 97-98; state chemist, N. C, 98-99; asst. chemist, Fla. Exp. Sta, 99-06, chemist, 06-11; assoc. soil chemist, N. J. Exp. Sta, 11-; assoc. prof. agr. chem, Rutgers, 13-17, prof, 17- A.A.; Soc. Agron; Chem. Soc. Soil fertility; the chemical composition of soils.

Blair, Prof. G(ilbert) B(ruce), 1059 Sierra St, Reno, Nev. *Physics, Astronomy*. Blairsburg, Iowa, Sept. 13, 79. A.B., Tabor, 02; A.M., Washburn, 04; fellow, Lick Observatory, 06-07; Kansas, 10-12. Asst. physics and astron, Washburn, 04-05; asst, Allegheny Observatory, 05-06; prof. physics, Morningside Col, 07-10; instr. and asst. prof, Oregon Col, 12-19; asst. prof, Nevada, 19-23, assoc. prof, 23- Observations of Halley's comet and comet A.

Blair, Dr. James S(tuart), Stanford University, Calif. *Chemistry*. Monmouth, Ill, Dec. 18, 97. A.B., Kansas, 19, A.M., 20; Ph.D., Stanford, 24. Research chemist, fixed nitrogen research lab, U. S. Dept. Agr, 20-23; instr. chem, Oregon Col, 24-25; Stanford, 25- A.A.; Chem. Soc. Chemistry of cyanamide derivatives; mixed aquo ammono carbonic acids.

Blair, Dr. John E(dward), 9 Monroe St, New Rochelle, N. Y. *Bacteriology*. Monroe, Maine, May 30, 99. A.B., Clark, 20; M.S., Brown, 21, Arnold fellow, 22-23, Ph.D., 23. Instr. biol, Brown, 21-22; bacter, Stanford, 23-26; bacteriologist, Hosp. for Joint Diseases, 27- A.A.; Soc. Bact. Bacteriophage.

Blair, E(oy) J(ay), Springdale Farm, Ormstown, Que., Can. *Forestry*. Rockburn, Que., July 5, 89. B.A., McGill, 14. Pathologist, Can. Forest Products Laboratories, 15-24; *proprietor*, *Springdale Farm*, 24- A.A.; Soc. Foresters; Phytopath. Soc; Genetic Ass; Can. Soc. Forest Eng; Can. Forestry Ass; Can. Jersey Cattle Club; Can. Phytopath. Soc; Que. Jersey Breeders Ass. Decay of structural timber.

Blair, Prof. Thomas A(rthur), Weather Bureau Office, Lincoln, Nebr. *Meteorology*. Milford, Mo., Feb. 28, 79. A.B., Stanford, 04. Teacher, high schools, Calif., 04-06; asst. observer, *U. S. Weather Bur*, 07-10, observer, 10-19, *meteorologist*, 19-, *Lincoln, Nebr.*, and asst. prof. meteor., *Nebraska*, 24- A.A.; fel. Meteor. Soc. Correlation of weather and wheat yields; weather forecasting; temperature correlations.

Blair, Dr. Vilray Papin, Metropolitan Building, St. Louis, Mo. *Anatomy*. St. Louis, 71. A.M., Christian Brothers Col, 89; M.D., Washington (St. Louis), 93. Instr. sch. med., *Washington (St. Louis)*, 94-97, demonstrator and lecturer anat. and osteol., 97-04, asst. prof. anat., 04-08, *clin. prof. surg.*, 08-, *prof. oral surg.*, *dental dept.*, 07-, *assoc. surgeon*, 14- Chief sect. oral and plastic surg., U.S.A., 17-18, senior consultant maxillo-facial surg., 18, consultant oral and plastic surg., 19. A.A.; Ass. Anat; Surg. Ass; Col. Surg; Am. Med. Ass; Archeol. Inst; Soc. Int. de Chirurg.

Blair, Dr. W(illiam) Reid, N. Y. Zoological Park, New York, N. Y. *Zoology*. Philadelphia, Pa., Jan. 27, 75. D.V.S., McGill, 02. Veterinarian and pathologist, *N. Y. Zool. Park*, 02-22, asst. director, 22-26, *director*, 26- Prof., N. Y. Univ., 05-19; lecturer, Toronto, 13-14. Major, V.C., 17-19. Vet. Med. Ass. (v. pres, 13); N. Y. Vet. Med. Ass. (pres, 10); N. Y. Vet. Med. Soc. (pres, 22-23); fel. N. Y. Zool. Soc. Zoology; mammalogy; diseases of wild animals in confinement; tuberculosis; osteomalacia in primates.

Blair, Dr. W(illiam) R(ichards), Office, Chief Signal Officer, Washington, D. C. *Physics*. Coleraine, Ireland, Nov. 7, 74. B.S., Chicago, 04, Ph.D., 06. Prin. high sch., Kans., 97-99; assoc. physics and math, Wis. State Nor. Sch., Oshkosh, 00-02; asst., Chicago, 02-06; research director, Mt. Weather Observatory, Va., 06-14; chief div. aerol. investigations, U. S. Weather Bur., 14-17; major and officer in command meteor. sect., *Sig. C.*, 17-19, lieut. col., 19-21, *major*, 21- Interallied Committee for Aerial Navig., Paris, 19; Int. Wireless Commission, Paris, 19; Radio Protocol, Wash., 20. Geophys. Union; Physical Soc; Meteor. Soc; Soc. Aeronaut. Eng. (exec. board); Wash. Acad; Wash. Philos. Soc; Royal Meteor. Soc; Int. Commission Meteor. for Aeronaut. Convection systems; change of phase; indices of refraction; mountain and valley temperatures and circulation.

Blaisdell, Dr. F(rank) E(llsworth), 1520 Lake St., San Francisco, Calif. *Biology*. Pittsfield, N. H., March 13, 62. M.D., Cooper Med. Col., 89. County entomologist, San Diego, 86; demonstrator anat. and instr. biol., embryol. and histol., assoc. prof. and prof. anat., Cooper Med.

Col., 00-10; asst. prof. anat. and *prof. surg.*, *Stanford*, 10- A.A.; Entom. Soc; Pacific Coast Entom. Soc. (sec'y, 01-20). Anatomy and development of animals; life histories of insects; taxonomy of Coleoptera.

Blake, Dr. E(dwin) M(ortimer), 145 St. James Place, Brooklyn, N. Y. **Mathematics*. New York, N. Y., June 16, 68. E.M., Columbia, 90, Ph.D., 93. Instr. math., Purdue, 96-98; California, 00-04; prof. math. and mech., Arizona, 04-10. Math. Soc; Econ. Ass. Kinematics; geometric decorative design.

Blake, Dr. Francis G(ilman), New Haven Hospital, New Haven, Conn. **Internal medicine*. Mansfield Valley, Pa., Feb. 22, 87. A.B., Dartmouth, 08; M.D., Harvard, 13; hon. A.M., Yale, 21. House officer, Peter Bent Brigham Hosp., 13-14, assoc. res. physician, 14-15, res. physician, 15-16; Moseley traveling fellow, Harvard, 16-17; asst. prof. med., Minnesota, 17-19; assoc. med., Rockefeller Hosp., 19-20, assoc. mem., Rockefeller Inst., 20-21; *John Slade Ely prof. med.*, Yale, 21- Physician-in-chief, New Haven Hosp. and chief service, med. clinic, New Haven Dispensary. Sec'y, board sci. directors, Rockefeller Inst., 24-; div. med. sciences, Nat. Research Council, 25- A.A.; Am. Med. Ass; Am. Physicians; Soc. Exp. Biol; Ass. Path. and Bact; Soc. Exp. Path; Soc. Bact; Ass. Immunol; Soc. Clin. Invest; Harvey Soc; Conn. Acad. Pneumonia; measles; influenza; scarlet fever.

Blake, Prof. F(rederic) C(olumbus), Ohio State University, Columbus, Ohio. **Physics*. Decatur, Ill., Oct. 30, 77. Ph.B., Colorado, 01; John Tyndall fellow, Columbia, 04-07, Ph.D., 05; Cambridge, 05-06; Berlin, 06-07. Asst. prof. *physics*, *Ohio State*, 07-12, *prof.*, 12- A.A.; Physical Soc; Optical Soc; Eng. Educ; Ohio Acad. (pres, 20). Electric waves; resistance of metals in a magnetic field; standing waves in a Lecher wire system; value of 'h' from X-rays; critical absorption and precision measurements of X-rays; crystal structure of solid solutions; self and mutual elastance.

Blake, Prof. I(rving) H(ill), Lincoln, Nebr. *Zoology*. Augusta, Maine, Feb. 15, 88. A.B., Bates, 11; A.M., Brown, 12; Ph.D., Illinois, 25. Asst. comp. anat., Brown, 12-13; instr. zool. and physiol., Oregon Col., 13-16; zool., Syracuse, 16-18; assoc. prof. biol., Maine, 18-25; zool., Idaho, 25-26; *prof. zool. and anat.*, *Nebraska*, 26- A.A.; Soc. Mammal; Ecol. Soc. Animal ecology; histology of teleost digestive tract.

Blake, J(ames) Henry, 81 College Ave., W. Somerville, Mass. *Conchology*, *Zoology*. Boston, Mass., July 8, 45. Lawrence Sci. Sch., Harvard, 67-72. Asst. and curator conchol., museum comp. zool., Harvard, 72-76; *lecturer and zool. artist*. Artist, U. S. Fish Commission; asst. paleontologist, U. S. Geol. Surv; Hassler exped., 72. Boston Soc. Nat. Hist. Conchology; travels; cetaceans.

Blake, Dr. Joseph A(ugustus), Tarrytown, N. Y. *Surgery*. San Francisco, Calif., Aug. 31, 64. A.B., Yale, 85, Ph.B., 86, hon. A.M., 09; M.D., Columbia, 89. Asst. demonstrator anat., Columbia, 91-00, instr. surg., 00-03, prof., 03-13; *director service*, *Tarrytown Hosp.* Consulting

surgeon, Roosevelt, St. Luke's and Orthopedic Hospitals. Surg. Ass; Soc. Clin. Surg; Am. Med. Ass; Ass. Anat; N. Y. Surg. Soc; N. Y. Acad. Med; fel. N. Y. Acad. Anatomy of the thorax and brain.

Blake, Prof. Maurice A(din), New Brunswick, N. J. *Horticulture*. Millis, Mass, Dec. 1, 82. B.S., Mass. Col, 04. Asst. horticulturist, R. I. Col. and Exp. Sta, 04-05; instr. hort, Mass. Col, 05-06; horticulturist, N. J. Exp. Sta, 06-18, *prof. hort, Rutgers, 14-*, *chief div. hort, 21-* State supt. farm demonstration, N. J, 18-21. A.A; Soc. Hort. Sci. (pres, 15); N. J. Hort. Soc. (pres, 20). Peach growing.

Blake, Dr. S(idney) F(ay), U. S. Department of Agriculture, Washington, D. C. *Botany*. Stoughton, Mass, Aug. 31, 92. A.B., Harvard, 12, A.M, 13, Sheldon traveling fellow, 13-15, Ph.D, 17. Asst. Gray Herbarium, 16-17; asst. botanist, *bur. plant indust, U. S. Dept. Agr, 17-25, assoc. botanist, 25-* Bot. Soc; New Eng. Bot. Club; Wash. Acad; Wash. Biol. Soc; Wash. Biol. Field Club. Taxonomy of phanerogams; Compositae; Polygalaceae.

Blaker, Prof. Ernest, 224 Casterton Ave, Akron, Ohio. *Physics*. Newtown, Pa, Sept. 14, 70. B.S., Kansas, 93; Ph.D, Cornell, 01. Asst. physics, Cornell, 98-01, instr, 01-03, asst. prof, 03-17, prof, 17-20; development dept, *B. F. Goodrich Co, 19-20, manager temperature measurement and heat control, 20-* In charge airplane div. and meteor, Cornell, 17-18. A.A; Physical Soc. Spectrophotometric radiation from carbon; absorption of carbon; atmospheric conduction between high tension transmission wires.

Blakeslee, Dr. A(lbert) F(rancis), Station for Experimental Evolution, Carnegie Institution, Cold Spring Harbor, L. I., N. Y. **Botany*. Geneseo, N. Y., Nov. 9, 74. A.B., Wesleyan, 96; A.M., Harvard, 00, Ph.D, 04; hon. Sc.D, San Marcos (Peru), 24. Asst. bot, Harvard, 99-00, instr, Radcliffe, 00-02, teaching fellow, Harvard, 01-03, collector, Venezuela, crypt. herbarium, Harvard, 03; investigator, Europe, Carnegie Institution, 04-06; instr. bot, Harvard, 06-07; director summer sch. agr. and prof. bot, Conn. Col, 07-14, prof. bot. and genetics, 14-15; res. investigator plant genetics, *sta. for exp. evolution, Carnegie Institution, 12-13, 15-23, asst. director, 23-* A.A. (sec'y, G, 16, v. pres, 18); Soc. Nat. (v. pres, 16); Bot. Soc. (v. pres, 24); Phytopath. Soc; Soc. Exp. Biol; Genetic Ass; Eugenics Soc; Eugenics Research Ass; Torrey Bot. Club (assoc. ed, 'Bul,' 24-); Philos. Soc; Inst. Social Sci; New Eng. Bot. Club; assoc. Soc. Royale de Bot. de Belg; hon. mem. Soc. Nat. Moscow; cor. mem. Neder. Bot. Vereen. Genetics; sexual reproduction in mucors; trees in winter; pigmentation criteria for laying in poultry; inheritance in jimson weed.

Blanchard, Prof. Arthur A(lphonzo), Massachusetts Institute of Technology, Cambridge, Mass. **Chemistry*. Boston, Mass, May 4, 76. B.S., Mass. Inst. Tech, 98, fellow, 00-02; Ph.D, Leipzig, 02. Asst. theore. chem, Mass. Inst. Tech, 98-00; instr, New Hampshire, 02-03; *inorg.*

chem, Mass. Inst. Tech, 03-08, asst. prof, 08-13, assoc. prof, 13- A.A; Chem. Soc; Am. Acad; Forestry Ass. Synthetic and analytical chemistry; migration ratios; decomposition of ammonium nitrite; viscosity of solutions in relation to the constitution of dissolved substances; nickel carbonyl; atomic structure and valence.

Blanchard, Prof. A(rthur) H(orace), University of Michigan, Ann Arbor, Mich. *Highway engineering*. Providence, R. I, Feb. 10, 77. C.E., Brown, 99; A.M, Columbia, 02. Instr. civil eng. and math, Brown, 99-01, 02-03, asst. prof. civil eng, 03-06, assoc. prof, 06-11; *prof. highway eng, Columbia, 11-17; Michigan, 19-20, highway eng. and highway transport, 20-* V. chairman, Fed. Highway Council, 19- Council Nat. Defense, 19; U.S.A, 19. A.A. (sec'y, D, 12-17); Civil Eng; Chem. Soc; Soc. Test. Mat; Road Ass. (pres, 18); Nat. Highway Traffic Ass. (pres, 18-); Nat. Highways Ass; Soc. Munic. Improv; Can. Inst. Eng; Soc. des Ing. civile de France; Int. Ass. Test. Mat; Ass. Int. Perm. des Cong. de la Route. Highway engineering and highway transport.

Blanchard, Dr. Frank N(elson), University of Michigan, Ann Arbor, Mich. *Zoology*. Stoneham, Mass, Dec. 19, 88. A.B., Tufts, 13; fellow, Michigan, 16-18, Ph.D, 19. Instr. zool. and geol, Mass. Col, 13-16; aid, div. reptiles, U. S. Nat. Museum, 18-19; instr. *zool, Michigan, 19-26, asst. prof, 26-* Instr. biol. sta, Michigan, 22-26, asst. prof, 27- A.A; Soc. Zool; Soc. Mammal; Soc. Ichthyol. and Herp; assoc. Ornith. Union; Ecol. Soc; Mich. Acad. Zoogeography; herpetology; taxonomy, life histories, distribution and relationships of snakes; life histories of salamanders; birds of northern Michigan.

Blanchard, Dr. Julian, 463 West St, New York, N. Y. *Physics*. Hertford, N. C, Nov. 10, 85. A.B., Trinity (N. C), 05; A.M, Columbia, 09, Ph.D, 17. Instr. applied math, Trinity (N. C), 05-06; asst. physics, Columbia, 06-09; prof. eng, Trinity (N. C), 09-12; research asst, Columbia, 12-15; physicist, research lab, Eastman Kodak Co, 15-17; *research engineer*, West. Elec. Co, 17-24, *Bell Telephone Laboratories, 24-* Optical Soc. Ionization of gases; retinal sensibility; diameter of the pupil; thermionic vacuum tubes.

Blanchard, Dr. Phyllis (Mrs. Walter W. Lucasse), Child Guidance Clinic, 1711 Fitzwater St, Philadelphia, Pa. *Psychology*. Epping, N. H, March 14, 95. A.B., New Hampshire, 17; A.M, Clark, 18, Ph.D, 19. Research asst. to Pres. G. Stanley Hall, Clark, 19-20; *psychologist*, N. Y. State Reformatory for Women, 20; psychopathic service, Bellevue Hosp, 20-22; child guidance clinic No. 3, *Nat. Committee for Mental Hygiene, 22-24, child guidance clinic No. 1, 24-*; instr. psychol, grad. sch. med, Pennsylvania, 25- A.A; Psychol. Ass. Abnormal psychology; clinical methods and therapy; psychology of childhood and adolescence.

Blanchard, Dr. R(alph) C(arpenter), Canadian Pacific Building, New York, N. Y. *Engineering*. Newport, Ind, Dec. 4, 82. B.S., Rose, 05; Ph.D, Columbia, 13; Munich. Managing director, Old

- York Trust Co, London, 09-14; *consulting engineer*. Min. Eng; fel. Royal Geol. Soc.
- Blanchard, Prof. W(illiam) M(artin)**, Greencastle, Ind. *Chemistry*. Perquimans Co, N. C, Aug. 25, 74. A.B, Randolph-Macon, 94, A.M, 97; Ph.D, Hopkins, 00. Instr, Randolph-Macon Acad, 94-96; Randolph-Macon, 96-97; Rose, 00-01; *prof. chem, De Pauw, 01-* A.A; Chem. Soc; Ind. Acad. Parabromthosulphobenzoic acid and its derivatives; teaching of chemistry in secondary schools.
- Blanchard, Prof. W(illiam) O(scar)**, University of Illinois, Urbana, Ill. *Geography*. Hilbert, Wis, Jan. 13, 86. Ph.D, Wisconsin, 21. Asst. *geog*, Wisconsin, 17-18, instr, 18-21; asst. *prof*, Illinois, 21-25, *assoc. prof*, 25- Economic geography; geography of southwestern Wisconsin, South America and Europe.
- Blanck, Dr. Fred(eric) C(onrad)**, U. S. Department of Agriculture, Washington, D. C. *Chemistry*. Baltimore, Md, Oct. 14, 81. A.B, Hopkins, 03, Ph.D, 07. Asst, Hopkins, 04-05; research asst. *physiol. chem*, Harvard Med. Sch, 07-08; scientist, *bur. soils*, U. S. Dept. Agr, 09-11; chemist and director *bur. food and dairying*, Health Dept, Baltimore, 11-15; *org. chemist, bur. chem*, U. S. Dept. Agr, 15-17; *assoc. chem*, Hopkins, 18-20; director, Md.-Del. inspection service, Nat. Canners Ass, 20-21; *senior chemist in charge food control lab, bur. chem*, U. S. Dept. Agr, 21- Md. State Food and Drug commissioner, 18-20; asst. sec'y, Joint Committee on Definitions and Standards of Foods, 17, mem, 19-20, 21- Chem. Soc. (chairman, Md. sect, 19); Agr. Chem; fel. Pub. Health Ass. (chairman, food and drug sect, 19, 24). Food inspection and food laws; analysis, technology, composition and purity of foods.
- Bland, M(iles) C(arlisle)**, Room 746, City Hall, Philadelphia, Pa. *Engineering*. Philadelphia, July 31, 75. Colo. Col. Asst. div. engineer, Pa. System, 95-01; engineer, bridge companies, 01-05, 08-13; Dyer Co, 05-07; in charge foundations, Detroit-Superior High Level Bridge, Cleveland, 14-15; Bethlehem Steel Co, 16-22; Philadelphia-Camden Suspension Bridge, 23-25; *asst. engineer bridges, bur. eng, Dept. Pub. Works, Philadelphia, 25-* Capt, Ordnance R.C. A.A; Mech. Eng; Civil Eng; Mil. Eng. Stresses in derricks; steel erection.
- Blank, Dr. Horace R(ichard)**, Columbia University, New York, N. Y. *Mineralogy*. Philadelphia, Aug. 8, 98. B.S, Pennsylvania, 19, Ph.D, 24. Instr. *chem*, Pennsylvania, 20-26; *mineralogy, Columbia, 26-* A.A; Chem. Soc; Miner. Soc. Germanium dioxide.
- Blankenhorn, Prof. M(arion) A(rthur)**, Western Reserve University School of Medicine, Cleveland, Ohio. *Internal medicine*. Orrville, Ohio, Nov. 13, 85. Ph.B, Wooster, 09; M.D, Western Reserve, 14, A.M, 20. Instr. *med, Western Reserve*, 19-23, *assoc. prof*, 26- Assoc. visiting physician, Lakeside Hosp, Cleveland; summer, lecturer, West Virginia, 24; Rockefeller Inst, 25-26. Am. Physicians; Soc. Clin. Invest; Soc. Exp. Path. Hepatic and blood diseases; physiology of biliary pigments.
- Blankinship, Prof. J(oseph) W(illiam)**, Kelseyville, Calif. *Botany*. Glasgow, Ill, Feb. 23, 62. A.B, Drury, 89, Sc.D, 22; California, 90-92; A.B, Harvard, 94, A.M, 96, Ph.D, 98; Berlin, 07-08. Prof. science, Hesperian Col, 92-93; asst. bot, Harvard, 94-98; prof, Mont. Col, and botanist, Exp. Sta, 98-05; *consulting plant pathologist, 06-* Asst, Drury, 86-88. A.A; Bot. Soc; Soc. Plant Path; Calif. Bot. Soc; Utah Genetic Soc; Int. Ass. Bot. Ecology; economic botany; smoke injury to vegetation.
- Blasdale, Dr. W(alter) C(harles)**, 2514 College Ave, Berkeley, Calif. *Chemistry, Botany*. Jericho, N. Y, Jan. 10, 71. B.S, California, 92, Ph.D, 00. Instr. *chem, California, 95-03*, asst. *prof*, 03-19, *prof*, 19- A.A; Chem. Soc. Analytical chemistry; equilibrium in salt solutions.
- Blasingame, Prof. R(alph) U(pshaw)**, 306 W. Fairmount Ave, State College, Pa. *Mechanics*. B.S, 08; B.S.A, 10; B.S, Iowa Col, 13. Instr. farm machinery, Pa. State, 13-15; *prof. agr. eng*, Ala. Polytech, 15-18; *farm machinery, Pa. State, 18-* Lecturer, Nat. Tractor Show, Columbus, Ohio, 21. Agr. Eng. (chairman, N. Atlantic sect, 25, chairman, power farming committee, 25). Farm machinery; power farming.
- Blatchley, W(illis) S(tanley)**, 1558 Park Ave, Indianapolis, Ind; Dunedin, Fla. (Nov. to April). *Entomology*. North Madison, Conn, Oct. 6, 59. A.B, Indiana, 87, A.M, 91, LL.D, 21. Instr, high sch, Ind, 87-94; state geologist, Ind, 94-11. Asst, Ark. Geol. Surv, 89; asst, U. S. Fish Commission, 90-93; Scovell science exped, Mex, 91. Fel. Ind. Acad. (pres, 03). Orthoptera, Heteroptera and Coleoptera of eastern United States and Canada.
- Blatherwick, Dr. N(orman) R(obert)**, Potter Metabolic Clinic, Santa Barbara, Calif. *Physiological chemistry*. Rock Valley, Iowa, Feb. 19, 87. B.S, Grinnell, 09; M.S, Illinois, 12; Currier fellow, Yale, 12-14, Ph.D, 14. Asst. *chem*, Illinois, 10-11; asst. chemist, Montefiore Home and Hosp, New York, 14-15; *physiol. chemist, bur. animal indust*, U. S. Dept. Agr, 15-20; *biochemist, Potter Metabolic Clinic, 20-* First lieut. and capt, Sanit. C. Physiol. Soc; Soc. Biol. Chem; Chem. Soc; Soc. Exp. Biol. Water drinking; foods in relation to composition of urine; parathyroidectomy; experimental nephritis; milk secretion; carbohydrate metabolism; insulin.
- Blatz, Dr. W(illiam) E(met)**, University of Toronto, Toronto, Ont, Can. *Psychology*. Hamilton, Ont, June 30, 95. B.A, Toronto, 16, M.A, 17, M.B, 21; fellow, Chicago, 21-22, Ph.D, 24. Instr. *physiol*, Toronto, 16-17; psychol, Chicago, 22-24; *asst. prof. and director research, mental hygiene, Toronto, 24-* Lecturer, Ill. State Inst. for Nursing, 23-25; summers, Northwestern, 23, 24. Mental hygiene.
- Bledsoe, Prof. R. P.**, University of West Virginia, Morgantown, W. Va. *Agronomy*. Staunton, Va, July 15, 88. A.B, Washington and Lee, 08; A.M, Wisconsin, 14. Instr. *agron*, Kansas Col, 14-19; *asst. prof, West Virginia, 19-* A.A; Soc. Agron; S. Agr. Workers Ass. (sec'y and

chairman, agron. sect, 25). Crops; soils; plant breeding.

Beile, Prof. A(lbert) M(artin), Ohio State University, Columbus, Ohio. *Physiology*. Columbus, June 26, 55. *Starling Med. Col.* 73-76; Paris, Leipzig and Vienna, 76-79. Lecturer exp. physiol, *Starling Med. Col.* 80-91; *prof. physiol, Ohio State*, 91- A.A.; Micros. Soc. (pres, 00). Blood sugar; inversion of cane-sugar by gastric juice; death by electric shock; urine in epilepsy; the heart after vagus section; detection and recognition of bloods; innervation of lungs; chemistry of respiration; synthesis of proteins by enzymes.

Bleininger, A(lbert) V(ictor), Newell, W. Va. **Chemistry*. Polling, Germany, July 9, 73. B.S., Ohio State, 01. Shop experience, clay industries, 89-96; instr. ceramics, Ohio State, 01-05, asst. prof, 05-06, assoc. prof, 06-07; asst. prof, Illinois, 07-10, prof. ceramics and director dept, 10-12; in charge clay products laboratories, technol. branch, U. S. Geol. Surv, 08-10; chief ceramics products div, Bur. Standards, 12-21; *chemist, Homer Laughlin China Co*, 21- Asst, Ohio Geol. Surv, 00-04; in charge ceramic investigations, Ill. Geol. Surv, 08-; lecturer, Chicago, 12; Franklin Inst, 17; deputy dist. chief, Fuel Ad, 18. Assoc. ed, 'Indust. and Eng. Chem,' 12-16. Chairman, ceramics committee, Nat. Research Council; consultant, C.W.S., 26; chairman advisory committee ceramics, Bur. Standards, 26. A.A.; Ceramic Soc. (pres, 08, committee on publication and ed, 'Trans', 08); Chem. Soc. (asst. ed, 'Chem. Abstracts', 08); Potters Ass. (chairman, research committee). Technology of clay, glass and cement silicates; manufacture of optical glass; special porcelains and refractories.

Blichfeldt, Dr. Hans Frederik, Stanford University, Calif. **Mathematics*. Denmark, Jan. 9, 73. A.B., Stanford, 96, A.M., 97; Ph.D., Leipzig, 98. Instr. *math, Stanford*, 98-01, asst. prof, 01-06, assoc. prof, 06-13, *prof*, 13- Draftsman, Eng. Dept, City and Co. of Whatcom, Wash, 92-94. Div. physical sciences, Nat. Research Council, 24- Nat. Acad; A.A.; Math. Soc. (v. pres, 12); Math. Ass. Continuous groups; linear homogeneous substitution groups; geometry of numbers.

Blicke, Prof. F(rederick) F(ranklin), 906 Granger Ave, Ann Arbor, Mich. *Organic chemistry*. Bucyrus, Ohio, April 26, 91. Tech. Hochschule, Berlin-Charlottenburg, 12-15; B.S., Ph.D., Michigan. Research assoc. *chem*, Chicago, 17-18; instr, *Michigan*, 21-25, *asst. prof*, 25- Chem. Soc; Chem. Gesell. Trivalency of carbon.

Blish, Dr. M(orris) J(oslin), Lincoln, Nebr. *Biochemistry*. Lincoln, April 21, 89. B.S., Nebraska, 12, A.M., 13; Ph.D., Minnesota, 15. Asst. agr. biochem, Minnesota, 13-15; asst. chemist, food research lab, U. S. Dept. Agr, 15-16; Mont. Exp. Sta, 16-22; *chemist, Nebr. Exp. Sta*, 22- Second lieut, Sanit. C, 18. A.A.; Chem. Soc; Ass. Cereal Chem. Proteins and nitrogen compounds of wheat and flour; humin from proteins; poultry nutrition; sunflower silage.

Bliss, Prof. A(ndrew) Richard, Jr, College of Medicine, University of Tennessee, Memphis, Tenn. *Pharmacology, Chemistry*. New York, N. Y., Nov. 10, 87. Ph.G., N. Y. Col. Pharmacy, 07; Ph.C., Columbia, 07, Phar.D., 08; B.S., Howard Col, 10, A.M., 12; M.D., Alabama, 13. Asst. micros, Columbia, 06-08; *prof. pharmacol, chem, and bacter*, Alabama, 08-09; *pharmacol. and chem*, Birmingham Med. Col, 09-15, dean sch. pharmacy, 10-15; *prof. biochem. and pharmacol, grad. sch. med*, Alabama, 12-15; *pharmacol, Emory*, 15-23; *pharmacol. and physiol, col. med, Tennessee*, 23-, dean sch. pharmacy, 25- Lieut. med. dept, U.S.A., 18-19; passed asst. surgeon, U. S. Pub. Health Service Reserve. A.A.; fel. Inst. Chem; Chem. Soc. (v. pres, Ala. sect); fel. Polit. Sci; Tenn. Acad. (assoc. ed, 'Jour'); Agr. Chem. (assoc. referee, alkaloids); Pharmaceut. Ass. (v. chairman, sci. sect); Columbia Biochem. Ass. (assoc. ed, 'Bul'). Qualitative analysis; anthelmintics; oil of Chenopodium; quinine; strychnine; ipecac; stramonium; hyoseyamus.

Bliss, Dr. Charles B(emis), Shoreham, Vt. *Psychology*. Triangle, N. Y., Jan. 23, 68. A.B., Yale, 90, Ph.D., 93; B.D., Hartford, 03. Asst. psychol. lab, Yale, 93-94; *prof. exp. psychol*, N. Y. Univ, 94-98; *Congregational clergyman*. A.A.; Psychol. Ass; fel. N. Y. Acad. Reaction-time and attention.

Bliss, Prof. Collins P, New York University, New York, N. Y. *Mechanical engineering*. Carlisle, Pa, April 28, 66. A.B., Princeton, 88, A.M., 91; Ph.B., Columbia, 91; Cornell, 97. Draftsman and engineer, various iron works, 91-97; *instr. mech. eng, N. Y. Univ*, 97-00, asst. prof, 00-02, *prof*, 02- A.A.; Mech. Eng; Eng. Educ; Aeronaut. Soc.

Bliss, Prof. G(ilbert) A(mes), University of Chicago, Chicago, Ill. **Mathematics*. Chicago, May 9, 76. B.S., Chicago, 97, M.S., 98, Ph.D., 00; Göttingen, 02-03. Instr. *math*, Minnesota, 00-02; assoc, Chicago, 03-04; asst. prof, Missouri, 04-05; Princeton, 05-08; assoc. prof, Chicago, 08-13, *prof*, 13- Lecturer, Wisconsin, 06; Princeton, 09; Harvard, 11. Assoc. ed, 'Annals of Math,' 06-08. Research Fellowship Board, Nat. Research Council. Sci. expert, range firing sect, U.S.A., 18. Nat. Acad; A.A.; Math. Soc. (v. pres, 11, councilor, 07-09, 16-18; chairman, Chicago sect, 17-19, assoc. ed, 'Trans,' 08-16, pres, 20-22); Math. Ass; Philos. Ass; Ill. Acad; London Math. Soc; Math. Verein; Circolo Mat. di Palermo. Differential equations; calculus of variations; theory of functions of lines.

Bliss, Dr. Malcolm A, 301 Humboldt Building, St. Louis, Mo. *Medicine*. Warsaw, Ill, July 2, 63. M.D., Chicago Med. Col, 90. *Practising physician*. Instr, Washington (St. Louis); chairman advisory board, Psychiatric Clinic, St. Louis. A.A.; Am. Med. Ass; Neur. Ass. Psychiatry; influence of nasal and aural conditions on the fifth nerve supply; paranasal sinuses; behavior in adults and children; psychometric ratings of children; mental disease in criminals.

- Bliss, Prof. Mary Campbell**, Wellesley College, Wellesley, Mass. *Botany*. Newburyport, Mass., April 19, 77. A.B., Wellesley, 99, fellow, 02-04, A.M., 04; Ph.D., Radcliffe, 22. Teacher, high sch., Mass., 00-01; asst. *bot.*, Wellesley, 04-05, instr., 05-15, asst. prof., 15-22, *assoc. prof.*, 22- A.A. Plant morphology; the vessel in seed plants.
- Bliss, Prof. Sidney (William)**, McGill University, Montreal, Que., Can. *Biochemistry*. Cleveland, Ohio, Sept. 23, 92. B.S., Ohio State, 17; Ph.D., Harvard, 25. Teaching fellow *biochem.*, Harvard Med. Sch., 22-25; *asst. prof.*, McGill, 25- Trench-fever investigation exped., Red Cross, France. Chem. Soc. Ammonia formation; carbohydrate metabolism.
- Bliss, Prof. William J (ulian) A (lbert)**, 1026 N. Calvert St., Baltimore, Md. **Physics*. Washington, D. C., Jan. 22, 67. A.B., Harvard, 88; certificate in elec. eng., Hopkins, 90, Ph.D., 94. Asst. elec. eng., Hopkins, 91, lecturer *physics*, 94, lab. asst., 95-98, *assoc.*, 98-01, *collegiate prof.*, 01- Physical Soc. Flocculation; forces on submerged particles; education.
- Blitzsten, Dr. E (lizabeth) P. Wolf**, 2146 Lincoln Park W., Chicago, Ill. *Medicine*. Indianapolis, Ind., 96. B.S., Chicago, 18, Ph.D., M.D., 22. *Chief heart sta.*, Michael Reese Hosp. A.A. Cardiology; electrocardiography; heart condition in diabetes; chemotaxis; capillary changes in disease.
- Blizzard, Prof. A (lpheus) W (esley)**, Eastern Kentucky State Teachers College, Richmond, Ky. *Biology*. Baltimore, Ohio, May 23, 84. B.S., Ohio, 13; Chicago, 14; A.M., Cornell, 16; Ph.D., Columbia, 23. Prof. *biol.*, Jamestown, 13-15; instr. zool., Iowa Col., 16-17; N. Y. Univ., 17-23, asst. prof., 23-26; *prof.*, East. Ky. State Teachers Col., 26- A.A.; Bot. Soc.; Soc. Zool.; Phytopath. Soc.; Torrey Bot. Club. Cytology, mycology and embryology of vertebrates; onion smut; Urocystes Cepulae; botany; zoology; development of agaries.
- Blocher, Prof. John Milton**, 379 Beach St., Berea, Ohio. *Chemistry*. Gettysburg, Pa., Feb. 24, 91. B.S., Gettysburg Col., 13; Ph.D., Hopkins, 16. Research asst., Hopkins, 16-17; *prof. chem.*, Baldwin-Wallace, 17- Chem. Soc. Physical and colloidal chemistry.
- Block, D (avid) Julian**, 194 Fuller Lane, Winnetka, Ill. *Chemistry*. Fort Wayne, Ind., Aug. 13, 74. Heidelberg, 90-95; Armour, 10-13. Supt., Am. Metallizing Co., 07-08; director research lab., Applegren and Block, 08-10; D. Julian Block, 16-22; *director*, Block Laboratories, 22- A.A.; Chem. Soc.; Ill. Acad. Industrial chemistry; adhesives; starch; gums; dextrines; synthetic chemistry; dyes; manufacture of formaldehyde.
- Blodgett, Dr. F (orest) M (ilo)**, 217 Bryant Ave., Ithaca, N. Y. *Plant pathology*. Brocton, N. Y., July 15, 85. B.S.A., Cornell, 10, fellow, 10-14, Ph.D., 14. Assoc. botanist, N. Y. Exp. Sta., 13-15; *asst. prof. plant path.*, Cornell, 15- A.A.; Phytopath. Soc. Hop mildew control; dusting and spraying apples; perithecia of *Sphaerotheca humili*; potato diseases.
- Blodgett, Prof. Frederick H (arvey)**, New York University, New York, N. Y. *Botany*. Rockford, Ill., Sept. 12, 72. B.S., Rutgers, 97, M.S., 99; Columbia, 01; Hopkins, 06-10; Ph.D., 10. Asst. botanist, N. Y. Exp. Sta., Geneva, 00; asst. curator bot., Field Museum Nat. Hist., 01; asst. state plant pathologist, Maryland, 01-06; asst. bot., Hopkins, 06-10; acting prof. *biol.* and *geol.*, Roanoke, 10-12; plant pathologist, Texas Exp. Sta., 12-16, pathologist, exten. service, Agr. and Mech. Col. Texas, 16-19; *prof. biol. sciences*, Conn. State Nor. Sch., Danbury, 19-25; *biol.*, N. Y. Univ., 25- A.A.; fel. Bot. Soc.; Ecol. Soc.; Phytopath. Soc.; Torrey Bot. Club; N. J. Micros. Soc. (sec'y, 96-98). Plant diseases; vegetative reproduction; plant geography; physiological conditions of seed germination; morphology and physiology of angiosperms; lichens.
- Blodgett, Dr. Hugh C (arlton)**, University of California, Berkeley, Calif. *Psychology*. Zamora, Calif., Nov. 21, 98. A.B., California, 21, Ph.D., 25. Teaching fellow *psychol.*, California, 21-22, *research asst.*, 23- Learning problems in animal psychology.
- Bloede, Victor G (ustav)**, Victor G. Bloede Co., Baltimore, Md. *Chemistry*. Dresden, Saxony, March 14, 49. Grad., Cooper Union, 67, hon. Ch.E., 20. Pres. and gen. manager, Victor G. Bloede Co. Lecturer, Cooper Union; director, Md. Hosp. for Consumptives. Medal, Franklin Inst; Cooper Inst. A.A.; Chem. Soc.; Soc. Chem. Indust; Franklin Inst; N. Y. Chemists Club (past v. pres). Compounds and derivatives of starch.
- Blomquist, Prof. H (ugo) L (eander)**, Duke University, Durham, N. C. *Botany*. Sorsele, Sweden, June 5, 88. B.S., Chicago, 16, Ph.D., 21. Asst. prof. *biol.*, Trinity (N. C.), 20-23, *prof. bot.*, Duke, 23- A.A.; Bot. Soc.; Forestry Ass; Sullivant Moss Soc. Anatomy of pteridophytes; morphology of bryophytes.
- Bloodgood, Dr. Joseph Colt**, 904 N. Charles St., Baltimore, Md. *Surgery, Surgical pathology*. Milwaukee, Wis., Nov. 1, 67. B.S., Wisconsin, 88; M.D., Pennsylvania, 91. Res. surgeon, Hopkins Hosp., 93-99, *assoc. surg.*, Hopkins Hosp., and *assoc. prof.*, Hopkins, 99- A.A.; Ass. Path. and Bact; Col. Surg; fel. Surg. Ass; Soc. Clin. Surg; Ass. Cancer Research; Soc. Cancer Control; Am. Med. Ass; S. Surg. and Gynec. Soc; Md. Med. and Chirurg. Faculty. Tumors; cancer.
- Bloomfield, Dr. Arthur L (eonard)**, Stanford University Hospital, San Francisco, Calif. *Medicine*. Baltimore, Md., May 30, 88. A.B., Hopkins, 07, M.D., 11. Asst. instr., *assoc.* and *assoc. prof. med.*, Hopkins, 11-26; *prof.*, Stanford, 26- Ass. Physicians; Soc. Clin. Invest. Clinical and experimental medicine.
- Bloomfield, John J (acob)**, 333 Cedar St., New Haven, Conn. *Public health*. Leningrad, Russia, Oct. 6, 97. B.S., New Hampshire, 20. Research indust. gases, U. S. Bur. Mines, 20-23; indust. hygiene and sanitation, U. S. Pub. Health Service, New Haven, 23- Consultant, Pittsburgh Testing Laboratories, 22-23. Pub.

Health Ass; Chem. Soc. Industrial hygiene; gases; dusts and tuberculosis.

Bloor, Prof. W(alter) R(ay), School of Medicine and Dentistry, University of Rochester, Rochester, N. Y. **Biochemistry*. Ingersoll, Ont, Can, July 2, 77. M.A., Queen's (Can), 02; grad, Ont. Nor. Col, 03; A.M., Harvard, 08, Ph.D., 11. Instr. chem, Wash. Col, 03-05, asst. prof, 05-07; asst. biol. chem, Harvard, 08-10; assoc, Washington (St. Louis), 10-14, assoc. prof, 14; asst. prof, Harvard, 14-18; *prof*, California, 18-22; *biochem. sch. med., Rochester*, 22-Soc. Biol. Chem; Chem. Soc; Soc. Exp. Biol; Physiol. Soc; Soc. de Chim. biol. de France. Clay; carbohydrate esters; saccharin in urine; fat in blood and milk; fat absorption and metabolism; phosphatids in blood; phosphate distribution in blood; fat metabolism.

Blount, Dr. Mary P(utnam), 5742 Kenwood Ave, Chicago, Ill. *Embryology*. Byron, Ill, May 13, 69. B.S., Michigan, 95; Ph.D., Chicago, 07. *Instr.*, Chicago Nor. Col, 12- Early development of the pigeon's egg.

Blue, Gen. Rupert, U. S. Public Health Service, Washington, D. C. *Hygiene*. Richmond Co, N. C., May 30, 67. Virginia, 89-90; M.D., Maryland, 92, Sc.D., 08; grad, London Sch. Trop. Med, 10; D.P.H., Michigan, 13; Sc.D., Wisconsin, 13. Asst. surgeon, U. S. Pub. Health Service, 93, passed asst. surgeon, 97, surgeon, 09, surgeon gen, 12-20, *asst. surg. gen.*, 20- Detailed to Genoa, Italy, cholera and plague prev. work, 99-00; to S. Amer. to investigate epidemic diseases, 10. Provisional pres, Int. Sanit. Bur. of Am. Republics, 12; mem. Permanent Int. Commission of Congresses on Hygiene and Demography; mem. Am. delegation, Int. Opium Conferences, Geneva, 23, 24; Nat. Committee for Mental Hygiene. Pub. Health Ass; Am. Med. Ass; Ass. Mil. Surg; Col. Surg; Royal Inst. Pub. Health; fel. London Soc. Trop. Med. Epidemiology; bubonic plague; malaria, yellow and typhoid fevers.

Blum, Dr. Theodor, 140 W. 57th St, New York, N. Y. *Surgery*. Vienna, Austria, Sept. 25, 83. Gymnasium and Matura, Austria, 04; D.D.S., Pennsylvania, 09, M.D., 11; M.D., Vienna, 12. Nat. Dental Ass; Am. Med. Ass; N. Y. Acad. Med. Oral surgery; conductive anesthesia.

Blum, Dr. William, Bureau of Standards, Washington, D. C. **Chemistry*. Philadelphia, Pa, Dec. 28, 81. B.S., Pennsylvania, 03, Ph.D., 08. Instr. chem, Utah, 03-09; asst. chemist, *Bur. Standards*, 09-18, *chemist*, 18- Medal, Inst. Chem, 26. A.A.; Chem. Soc; Electrochem. Soc. (pres, 26); N. Y. Chemists Club; hon. mem. Electro-Platers Soc. Atomic weight of cadmium; complex inorganic acids; electrochemistry; electrodeposition; electrotyping; electroplating.

Blumberg, Prof. Henry, Ohio State University, Columbus, Ohio. **Mathematics*. Zhagory, Russia, May 13, 86. A.B., Columbia, 07, A.M., 08, fellow, 09-10; Göttingen, Paris and Zurich, 10-12; Ph.D., Göttingen, 12. Instr. *math*, Nebraska, 13-14, asst. prof, 14-18; assoc, Illinois, 18-19, asst. prof, 19-25; *prof*, Ohio State, 25-Summer, asst, Columbia, 07. Assoc. ed, 'An-

nals of Math,' 16-; 'Am. Math. Monthly,' 19-20. A.A.; Math. Soc; Math. Ass. Algebraic properties of linear homogeneous differential expressions; general function theory; point sets.

Blumenstock, Prof. J(ulius), 3702 Wilton Ave, Chicago, Ill. *Physiology*. Ludington, Mich, Feb. 15, 98. B.S., Chicago, 22, M.S., 23. Instr., Chicago, 24-25; assoc. prof. physiol, George Washington, 25-26. The parathyroid glands.

Blumenthal, Dr. Philip L(ee), 316 Parker Ave, Buffalo, N. Y. *Chemistry*. Owensboro, Ky, June 9, 89. B.S., Kentucky, 09; A.M., Yale, 11, Ph.D., 12; Berlin, 12-13. Asst. chem, Yale, 10-12; asst. chemist, Iowa Exp. Sta, 13-15; research chemist, Ky. Exp. Sta, 15-19; junior partner, Babcock Testing Lab, 19-20; *sec'y-treas*, *Lacteal Anal. Lab*, 21- C.W.S., 18. A.A.; Chem. Soc. (sec'y, Lexington sect, 15); Agr. Chem; Ky. Acad. Inorganic analytical and industrial chemistry; soils; milk and milk products.

Blumer, Dr. George, 195 Church St, New Haven, Conn. **Medicine, Pathology*. Darlington, England, March 16, 72. M.D., Cooper Med. Col, 91. Intern, City and Co. Hosp, San Francisco, 92-93; asst. surg, Hopkins Hosp, 93-94, med, 94-95, path, Hopkins, 95-96; director, Bender Hygienic Lab, 96-03; *prof. path. and bacter*, Albany Med. Col, Union, 02-03; assoc. *prof. path*, Cooper Med. Col, 03-04; asst. med, California, 05-06; John Slade Ely *prof. theory and practise of med*, Yale, 06-20, dean med. faculty, 10-20, *David P. Smith prof. clin. med*, 20-Pathologist, Albany Hosp, St. Peter's Hosp. and Child's Hosp; director bur. path. and bacter, N. Y. State Dept. Health. A.A.; Am. Acad. Med; Ass. Path. and Bact; Am. Physicians; Soc. Bact; Pub. Health Ass; Soc. Clin. Invest; N. Y. Acad. Med. Tuberculosis of aorta and of the stomach; typhoid fever; noma; malignant neoplasms; anthrax; thymus tod; thrombosis and embolism; tumor metastases in Douglas' pouch; carcinoma of the prostate; medical education; endocarditis.

Blumer, Dr. G(eorge) Alder, 196 Blackstone Boulevard, Providence, R. I. *Medicine*. Sunderland, England, May 25, 57. M.D., Pennsylvania, 79; L.R.C.P., L.R.C.S., Edinburgh, 84; hon. Litt.D., Brown, 05; L.H.D., Hamilton, 21. Asst. physician, Utica State Hosp, 80-86, med. supt, 86-99; adjunct *prof. insanity*, Albany Med. Col, Union, 93-99; physician-in-chief and supt, *Butler Hosp*, 99-21, *emer. supt*, 22- Sec'y, R. I. Sch. of Design; *emer. ed*, 'Am. Jour. Psychiat.' Psychiat. Ass. (pres, 03); New Eng. Soc. Psychiat. (pres, 17-); Providence Athenaeum (pres, 23-); R. I. Hist. Soc. (pres, 26-); Boston Soc. Psychiat. and Neur. (pres, 04); hon. mem. Royal Medico-Psychol. Soc; Paris Soc. Med. Psychol; Soc. de Psychiat; Belgium Soc. Mental Med.

Blumer, J(acob) C(orwin), Renwick, Iowa. *Botany, Geology*. Engi, Switzerland, Dec. 4, 72. B.S.A., Iowa Col, 01, 02; Michigan, 04-06. U. S. Forest Service, 01-05; asst, desert lab, Carnegie Institution, 07-08; asst. forester, Commission of Conservation, Can, 13-16. Bot. ex-

plorations, 06-07, 08-13. A.A.; Genetic Ass. Forestry; agriculture; plant geography; plant collections; pine seeds; soils; field crops; forests of Saskatchewan; oil geology; stratigraphy; glaciation.

Blumgart, Dr. Herrmann L., Boston City Hospital, Boston, Mass. *Medicine*. Newark, N. J., July 19, 95. B.S., Harvard, 17, M.D., 21. Intern, Peter Bent Brigham Hosp, 21-22; Moseley traveling fellow, 23; *asst.*, *Thorndike Mem. Lab., Boston City Hosp.*, 24- Soc. Clin. Invest. Diabetes insipidus; velocity of the blood flow.

Blunt, Prof. Katharine, 5529 University Ave, Chicago, Ill. *Home economics*. Philadelphia, Pa., May 28, 76. A.B., Vassar, 98; Mass. Inst. Tech, 02-03; fellow, Chicago, 06-07, Ph.D, 07. Asst. chem, Vassar, 03-05; instr. dept. domestic science, Pratt Inst, 07-08; Vassar, 08-13; asst. prof. food chem. and home econ, *Chicago*, 13-18, assoc. prof. *home econ*, 18-25, *prof.*, 25-, *chairman dept.*, 18- Ed-in-chief, col. sect, Food Ad, 18. A.A.; Home Econ. Ass. (ed. board, 'Jour. Home Econ,' pres, 24-26); Chem. Soc.; Soc. Biol. Chem. Basal, mineral and acid metabolism.

Boardman, Prof. H(orace) P(rentiss), University of Nevada, Reno, Nev. *Civil engineering*. Menasha, Wis., Jan. 21, 69. B.S., Wisconsin, 94, C.E., 11. Engineer, sanit. dist. of Chicago, 94-96; asst. engineer, Chicago and Alton Ry, 97-01; C. M. and St. Paul Ry, 01-04; designing engineer, 05; supt, Savage Construction Co, 04-06; *prof. civil eng., Nevada*, 07-, *director, Eng. Exp. Sta.*, 21- Civil Eng; Eng. Educ; West. Soc. Eng. Cement and concrete; wind pressures on roofs.

Boardman, Pres. Harold Sherburne, University of Maine, Orono, Maine. *Engineering*. Bangor, Maine, March 31, 74. B.C.E., Maine, 95, C.E., 98, D.E., 22; Mass. Inst. Tech, 95-96. Tutor drawing, Maine, 96-99; draftsman, Union Bridge Co, Pa, 99-00; Am. Bridge Co, 00-01; instr. civil eng, *Maine*, 01-03, assoc. prof. and head dept, 03-04, prof, 04-26, dean col. technol, 10-26, acting pres, 25-26, *pres.*, 26- Water investigations, Maine, 03-05; U. S. Geol. Surv, 05-11; consulting engineer, Maine State Highway Commission, 13-17; in charge materials testing laboratories, 13-26. Civil Eng; Eng. Educ. (v. pres, 23, chairman, div. deans and administrative officers, 24-26, sec'y, New Eng. sect, 25-26); Land Grant Col. Ass. (chairman, eng. sect, 23); Boston Soc. Civil Eng. (v. chairman, committee on hydraulic power data, 17-20); Maine Ass. Eng.

Boas, Dr. Ernst P(hilip), Montefiore Hospital, Gun Hill Road, New York, N. Y. *Medicine*. Worcester, Mass, Feb. 4, 91. B.S., Columbia, 10, A.M., 12, M.D., 14. Instr. path, Columbia, 17, physiol, 19-20; *med. director, Montefiore Hosp.*, 21- Assoc. ed, 'The Modern Hospital.' Chief med. service, Base Hosp. No. 63, U.S.A., 17-19. Am. Med. Ass; Soc. Clin. Invest; N. Y. Acad. Med. Diseases of the heart and arteries.

Boas, Prof. Franz, 230 Franklin Ave, Grantwood, N. J. **Anthropology*. Minden, Ger-

many, July 9, 58. Heidelberg; Bonn; Ph.D, Kiel, 81; LL.D, Clark, 09; Graz, 23; D.Sc., Oxford, 12. Asst, Royal Ethnog. Museum, Berlin, 85-86; Privatdozent, Berlin, 85-86; docent, Clark, 89-92; first asst, dept. anthrop, Columbia Expos, 92-94; asst. curator, Am. Museum Nat. Hist, 95-00, curator, 00-05; lecturer *anthrop., Columbia*, 96-99, *prof.*, 99- Ed, 'Publication Jesup North Pacific Exped'; 'Columbia Univ. Contributions to Anthrop.' Hon. philologist, Bur. Am. Ethnol, 10-19. Pres, Emergency Soc. German and Austrian Science and Art, 20-27. Nat. Acad; A.A. (v. pres, 94, 07); Anthrop. Ass. (pres, 07-09); fel. Ethnol. Soc. (v. pres, ed, publications); Philos. Soc; cor. mem. Antiq. and Numis. Soc; Am. Acad; Germanistic Soc. Amer. (sec'y, 20-); fel. N. Y. Acad; hon. fel. Anthrop. Inst. Gt. Britain and Ireland; Folk-Lore Soc, England; cor. mem. Anthropol. Societies of Washington, Berlin, Brussels, Florence, Paris, Rome, Stockholm and Moscow; Frankfurt Gesell. für Orient. Sprachen; Prussian Acad; Bavarian Acad; Deutsche Akad. (senator); Vienna Acad; hon. mem. Vienna Anthropol. Gesell; Paris Soc. des Américanistes. Anthropology of America; anthropometry; North American linguistics.

Bock, Dr. A(rlie) V(ernon), Massachusetts General Hospital, Boston, Mass. *Medicine*. New Albin, Iowa, Dec. 30, 88. A.B., Upper Iowa, 10; M.D., Harvard, 15. Moseley traveling fellow, *Harvard Med. Sch.*, 20-21, *asst. prof. med.*, 24- Assoc. Mass. Gen. Hosp, 25-26, assoc. physician, 26- Peruvian high altitude exped, 22. A.A; Am. Med. Ass; Soc. Clin. Invest. Blood volume and flow; acid-base equilibrium in diabetic coma; physico-chemical system of the blood; physiology of muscular exercise.

Bock, Prof. Joseph C(arl), Marquette University School of Medicine, Milwaukee, Wis. *Physiological chemistry*. Vienna, Austria, June 18, 84. Chem.Eng, Polytech, Vienna, 09; Ph.D, Cornell, 17. Chemist, Swift and Co, 09-11; instr. physiol. chem, Mich. State Col, 11-12; research chemist, nutrition lab, Carnegie Institution, 12-13; instr. chem, med. col, Cornell, 13-18; *prof. physiol. chem., Marquette*, 13- Soc. Biol. Chem. Urine analysis; colorimetry; micro blood analysis; micro analytical methods.

Bockstahler, Dr. L(ester) I(rving), Northwestern University, Evanston, Ill. *Physics*. Santa Claus, Ind, July 22, 95. A.B., Indiana, 20, A.M., 21; Ph.D, Northwestern, 24. *Instr. physics, Northwestern*, 21- Physical Soc. Thermionics; ionization potentials; radio.

Bodansky, Dr. Aaron, The Upjohn Co, Kalamazoo, Mich. *Biochemistry*. Elizabethgrad, Russia, May 25, 87. B.S., Cornell, 15, fellow, 15-16, Ph.D, 21. Asst. biochem, Cornell, 16-17, instr, 17-26; *research chemist, Upjohn Co*, 26- A.A; Soc. Biol. Chem; Soc. Exp. Biol; Chem. Soc. Enzymes; effects of thyroxin and insulin on carbohydrate metabolism; vitamins.

Bodansky, Prof. M(eyer), University of Texas School of Medicine, Galveston, Texas. *Biochemistry*. Elizabethgrad, Russia, Aug. 17, 96. A.B., Cornell, 18, Ph.D, 23; A.M., Texas, 22. Instr. *biochem, Texas*, 19-23, adjunct prof,

23-25, *assoc. prof.*, 25- Acting asst. prof., Stanford, 25-26. A.A.; Soc. Biol. Chem.; Chem. Soc., Copper and zinc in animal tissues; digestion; liver injury; carbohydrate tolerance; experimental anemia; blood proteins and lipoids; physiological chemistry.

Bodine, Prof. J(oseph) H(all), University of Pennsylvania, Philadelphia, Pa. **Zoology*. Lake Hopatecong, N. J., Sept. 19, 95. A.B., Pennsylvania, 15, Ph.D., 20. Instr. *zool.*, Pennsylvania, 15-16, 20-25, *asst. prof.*, 25- A.A.; Soc. Zool.; Physiol. Soc.; Phila. Physiol. Soc. General and insect physiology.

Boeck, Dr. William C(harles), Mayo Clinic, Rochester, Minn. *Medicine, Zoology*. Olivia, Minn., Feb. 18, 94. B.S., Carleton Col., 15; A.M., California, 16, fellow, 17-18, Ph.D., 18; Rockefeller fellow, Hopkins, 19-20; fellow, Harvard Med. Sch., 22-26, M.D., 26. Teaching fellow, California, 15-17; asst. zoologist, U. S. Pub. Health Service, 20-21; *assoc. prof. zool.*, Wyoming, 21-22; *fellow med.*, Mayo Clinic, 26- Sergt., M.C., 18. A.A.; Am. Med. Ass.; Soc. Trop. Med.; Soc. Exp. Biol.; Soc. Parasitol.; Boylston Med. Soc.; Wash. Helminth. Soc. Medical zoology; intestinal parasites of man; human intestinal protozoan cysts; cultivation of intestinal Protozoa of man.

Boerker, Dr. Richard H(ans) D(ouai), Box 345, Kingston, N. Y. *Biology*. Brooklyn, N. Y., Oct. 19, 87. A.B., Dartmouth, 09; M.S., Michigan, 11; fellow, Nebraska, 14-15, Ph.D., 15; N. Y. Univ., 18-19; Columbia, 24. Forest asst. and examiner, U. S. Forest Service, 11-17; arboriculturist, Dept. Parks, New York, 17-18; consulting forester, 17-18, 19-21; *teacher biol.*, Boys' High Sch., Brooklyn, 18-19; *high sch.*, Kingston, N. Y., 21- Instr., Nebraska, 14-15; forestry expert, court of claims, U. S. Dept. Justice, 20. A.A.; Forestry Ass.; Ecol. Soc. National forests; forest biology and ecology; biological basis of forest production.

Boeshore, Prof. Irwin, University of Pennsylvania, Philadelphia, Pa. *Botany*. Lickdale, Pa., Nov. 12, 83. B.S., Pennsylvania, 15, Ph.D., 20. Asst. bot., Pennsylvania, 13-16, instr., 16-25, *asst. prof.*, 25- A.A.; Bot. Soc.; Pa. Bot. Soc. (sec'y, 25-). Morphology; paleobotany.

Bogert, Dr. L(otta) Jean, Henry Ford Hospital, Detroit, Mich. *Biochemistry*. Scotland, S. Dak., June 17, 88. A.B., Cornell, 10; Ph.D., Yale, 16. Instr. chem., Simmons, 10-11; Mt. Holyoke, 11-12; asst. path. chem., Yale, 16-18; instr. exp. med., 18-19; prof. food econ. and nutrition, Kansas Col., 19-22; *research chemist, obstet. dept.*, Henry Ford Hosp., 22- A.A.; Soc. Biol. Chem. Human nutrition; blood volume; uric acid in urine and blood; pellagra; metabolism of calcium, magnesium and phosphorus in normal women; calcium and protein content of serum during pregnancy.

Bogert, Prof. Marston T(aylor), Columbia University, New York, N. Y. **Chemistry*. Flushing, N. Y., April 18, 68. A.B., Columbia, 90, fellow, Ph.B., 94; LL.D., Clark, 09. Asst. org. chem., Columbia, 94-97, tutor, 97, instr., 97-01, adjunct prof., 01-04, *prof.*, 04-, head dept., 10-11. Lec-

turer, N. Y. Univ., 19-20. Chairman, Am. Commission Org. Chem. Nomenclature, 12; organizer and chairman, div. chem. and chem. tech., Nat. Research Council, 16-17. Nichols medal, Chem. Soc., 03. Col. C.W.S., 18-19. Nat. Acad.; A.A. (gen. committee, 01-16); Chem. Soc. (chairman, N. Y. sect., 01, chairman, sect. org. chem., 05, pres., 07, 08, director, 14); Soc. Chem. Indust. (v. pres., 02-04, pres., 12); Am. Acad.; Philos. Soc.; N. Y. Chemists Club (sec'y, 98-01, pres., 08); London Chem. Soc.; Chem. Gesell.; Soc. chim. de France (pres., Am. sect., 20); Soc. de Chim. indust. (pres., Am. sect., 20, counselor, 21-); Neder. Chem. Vereen. Synthetic organic chemistry.

Boggs, C(harles) R(eid), 201 Devonshire St., Boston, Mass. *Chemistry*. Nashville, Tenn., Nov. 22, 83. B.S., Mass. Inst. Tech., 05. Asst. electrochem., Mass. Inst. Tech., 05-06; chief chemist, Simplex Wire and Cable Co., 06-17, *factory manager*, 17- A.A.; Chem. Soc. (chairman, rubber div., 24); Soc. Test. Mat.; Elec. Eng. Rubber.

Boggs, Prof. Gilbert H(illhouse), Georgia School of Technology, Atlanta, Ga. *Chemistry*. Memphis, Tenn., Oct. 2, 75. B.S., Georgia, 96; Harrison fellow, Pennsylvania, 99-01, Ph.D., 01. Instr. chem., Maine, 01-03; instr. asst. prof. and *assoc. prof.*, Ga. Tech., 03-25, *prof. and head dept.*, 25- A.A.; Chem. Soc.; Eng. Educ.; Ga. Acad. Separation of vanadic acid from metals; molybdenum in endlicheite.

Boggs, Dr. L(ucinda) Pearl, 811 W. Illinois St., Urbana, Ill. *Psychology, Education*. Hayes, Ill., Nov. 18, 74. A.B., Illinois, 94; Ph.D., Halle, 00; hon. fellow, Cornell, 02. Instr., high sch., Ill., 94-95; preceptress and instr. Greek and Latin, Rice Col. Inst., 95-97; instr. psychol. and supervisor primary training, Wash. State Nor. Sch., 00-02; instr. psychol. and educ., West. Col. for Women, 06-07; *prof. educ.*, Woman's Univ., Nanking, China, 10-12; Taylor, 23-25; *Athens Col.*, 25- Sec'y, Clark Univ. Conf. Child Welfare, 09. A.A.; West. Philos. Ass. Attention and feeling; the psychology of interest and learning; nurture of children.

Boggs, Dr. Thomas R(ichmond), 1013 N. Calvert St., Baltimore, Md. *Internal medicine*. Memphis, Tenn., Oct. 2, 75. B.S., Georgia, 96, 96-97; Pennsylvania, 97-98; M.D., Hopkins, 01; Tübingen, 03. Asst. res. physician, Hopkins Hosp., 01-11; *assoc. med.*, Hopkins, 08-11, *assoc. prof.*, 11-14, *clin. med.*, 14- Physician-in-chief, Baltimore City Hospitals. Am. Med. Ass.; Am. Physicians (recorder, 17-); Soc. Clin. Invest. Laboratory diagnostic methods; medical chemistry; clinical observations.

Bogue, R(obert) H(erman), Bureau of Standards, Washington, D. C. *Physical chemistry*. Boston, Mass., Sept. 27, 89. B.S., Tufts, 12; M.S., Mass. Col., 15; Ph.D., Pittsburgh, 20. Asst. chem., Mass. Col., 12-14, instr., 14-15; asst. prof., Mont. Col., 15-17; fellow, Mellon Inst., 17-22; *assoc. prof.*, Lafayette, 22-24; *research director*, Portland Cement Ass. fellowship, Bur. Standards, 24- Chem. Soc. (sec'y-treas., Lehigh Valley sect., 23, ed., 'Octagon,' 23); Inst. Chem.; Concrete Inst. Ion adsorption; hydroly-

- sis; sodium silicates; colloidal phenomena; glues and gelatins; constitution, phase equilibria, thermal reactions and hydration of Portland cement.
- Bohannon, Prof. R(osser) D(aniel)**, Ohio State University, Columbus, Ohio. *Mathematics*. Mathews, Va, April 20, 55. B.S, C.E, E.M, Virginia, 76; Cambridge, 80-82; Göttingen, 82-83. Prof. math, Emory and Henry, 78-80; acting prof., Virginia, 83-84, asst. prof. math. and physics, 84-87; *prof. math. and astron*, Ohio State, 87-95, *math*, 95- Math. Soc; Eng. Educ.
- Bohart, Dr. G(eorge) S(hambaugh)**, 322 Battery St, San Francisco, Calif. *Chemistry*. Elvira, Iowa, Oct. 14, 83. A.B, Stanford, 11, Ph.D, 15. Instr. org. and inorg. chem, Stanford, 11-16; org. and physical chemist, color lab, bur. chem, U. S. Dept. Agr, 16-18; *research chemist*, Nat. Canners Ass, 19- Reactions between potassium amid and metallic salts; absorption of chlorin by charcoal; canned food.
- Bohnson, Dr. V(an) L(orens)**, 131 Shoreham Drive, La Salle, N. Y. *Chemistry*. Clinton, Iowa, March 19, 91. B.S, Wisconsin, 13, M.S, 16, Ph.D, 20. Chemist, Clinton Sugar Ref. Co, 13-14; instr. chem, Pa. State, 14; asst, Wisconsin, 14-17, instr, 19-21, asst. prof, 21-23; *research chemist*, Oldbury Electrochem. Co, Niagara Falls, 23- Major, C.W.S., 18-19. Chem. Soc; Electrochem. Soc. Physical and inorganic chemistry; catalysis and promoter action in homogeneous systems.
- Bohstedt, Dr. G(ustav)**, Ohio Agricultural Experiment Station, Wooster, Ohio. *Animal industry*. Gneissau, Holstein, Germany, June 22, 87. B.S, Wisconsin, 15, M.S, 16, Ph.D, 25. Asst. animal husbandry, Wisconsin, 15-16; Iowa Col, 16-17; instr. and asst. prof, Wisconsin, 17-21; *chief dept. animal industry*, Ohio Exp. Sta, 21- Soc. Animal Production (see 'y-treas, 21-23, v. pres, 23-25, pres, 25). Animal nutrition.
- Boldt, Prof. Hermann J(ohannes)**, 30 E. 58th St, New York, N. Y. *Medicine*. Near Berlin, Germany, June 24, 56. M.D, N. Y. Univ, 79. Asst. *gynec*, Univ. and Bellevue Hosp. Med. Col, 80-82; instr, N. Y. Post-Grad. Med. Sch, 82-90, *prof*, 90- Consulting gynecologist, Post-Grad, St. Vincent's, Beth Israel and Union Hospitals, and Stuyvesant Polyclinic. Medal, Paris Expos, 00. Hon. mem. Gynec. Soc; Col. Surg; S. Surg. and Gynec. Soc; German Med. Soc. (past pres); N. Y. Obstet. Soc. (past pres); N. Y. Acad. Med; Royal Soc. Med; Gynec. Gesell; Int. Gynec. Soc. Gynecological pathology; action of drugs on animals.
- Bollen, Dr. W(alter) B(eno)**, Idaho Agricultural Experiment Station, Moscow, Idaho. *Soil chemistry, Bacteriology*. Portland, Oregon, April 18, 96. B.S, Oregon Col, 21, M.S, 22; Gypsum Industries research fellow, Iowa Col, 22-24, Ph.D, 24. Asst. bacter, Oregon Col, 21-22; *asst. chemist*, Idaho, and Exp. Sta, 25- Chem. Soc. Sulfur oxidation in soils; biochemical effects of gypsum on soils; replacement of soil bases; analysis of soil solutions.
- Bolley, Prof. Henry L**, Agricultural College, N. Dak. **Botany, Bacteriology*. Holman, Ind, Feb. 1, 65. B.S, Purdue, 88, M.S, 89. Instr. biol, Purdue, 89-90; *prof. bot. and zool*, N. Dak. Col, and *botanist*, Exp. Sta, 90-, *dean div. biol*, 08-, *in charge office exp. sta. lab. and state seed commissioner*, 09- Columbian Expos, 93. A.A; Bot. Soc; Soc. Agron; Phytopath. Soc. Bacteriology of milk, water and soil; phytopathology of smuts and rusts of cereal grains; seed and soil-infesting fungi of cropping plants; breeding for disease resistance.
- Bollinger, Prof. C(lyde) J(ohn)**, 324 E. Emelyn St, Norman, Okla. *Geography*. Charlotte, Mich, Oct. 24, 88. A.B, Michigan, 15; M.S, Chicago, 22. *Head geog*, Oklahoma, 22- Director, Okla. Council Geog. Teachers, 23- Geography of the Western Michigan fruit belt; humidity provinces of Oklahoma; geography of Cleveland County, Oklahoma.
- Bolton, Dr. B(enjamin) Meade**, State Board of Health, Providence, R. I. **Bacteriology*. Richmond, Va, April 7, 57. M.D, Virginia, 79; South Carolina, 82-83; Heidelberg, 83-84; Göttingen, 84-86; Berlin, 86. Asst. fellow by courtesy and assoc. bacter, Hopkins, 86-88, 91-93; *prof. hygiene and bacter*, South Carolina, 88-89; *director bacter*, Hoagland Lab, Brooklyn, 89-91; *pathologist*, Ohio Hosp. for Epileptics, 93; *director hygiene*, Bur. Health, Philadelphia, 93-95; *prof. path. and bacter*, Missouri, 95-96; *path*, St. Louis, 01-04; *expert*, bur. animal indust, U. S. Dept. Agr, 04-20; *pathologist*, New Samaritan Hosp, 20-21; St. Joseph's Hosp, Paterson, N. J, 21-24; *pathologist*, E. I. State Board Health, 27- *Expert*, Estacion Agromonica, Santiago de las Vegas, Cuba, 14-15; *director*, Virchow Lab, St. Louis, 19-20. Emer. mem. Am. Physicians; Am. Med. Ass; St. Louis Acad. Behavior of bacteria in water; action of metal and metallic salts and of electricity in the growth of bacteria; antitoxin in the blood of horses; tetanus toxin in the blood of infected horses; bacteriolytic power of the blood serum of hogs; la pintadilla.
- Bolton, Dr. E(mer) K**, 1201 Shallcross Ave, Wilmington, Del. *Chemistry*. Philadelphia, Pa, June 23, 86. A.B, Bucknell, 08; A.M, Harvard, 10, Ph.D, 13. *Director chem. sect, dye-stuffs dept*, E. I. du Pont de Nemours and Co, 21- Chem. Soc; Soc. Chem. Indust; Chem. Eng; Soc. Dyers and Colorists; Franklin Inst.
- Bolton, Dean F(rank) C(leveland)**, Agricultural and Mechanical College of Texas, College Station, Texas. *Electrical engineering*. Pontotoc, Miss, March 24, 83. B.S, Miss. Agr. and Mech. Col, 05; Chicago; Cornell; Wisconsin; Ohio State. Instr. physics, Miss. Agr. and Mech. Col, 05-09; *assoc. prof. elec. eng, Agr. and Mech. Col. Texas*, 09-10, *prof*, 10-, *dean sch. eng*, 22- Director, Agr. and Mech. Col. Texas, 17-19. Elec. Eng; Eng. Educ.
- Bolton, Prof. Frederick E(mer)**, University of Washington, Seattle, Wash. *Education, Psychology*. Tomah, Wis, May 9, 66. B.S, Wisconsin, 93, M.S, 96; Leipzig, 96-97; hon. fellow, Clark, 97-98, Ph.D, 98. Teacher and prin,

- rural and high schools, Wis, 85-93; prof. psychol. and pedag, State Nor. Sch, Milwaukee, 98-00; head dept. educ, Iowa, 01-12; *Washington (Seattle)*, 12-13, dean, 13- State inst. conductor, Wis, 93-00. Summers, lecturer, Wisconsin, 99, Chicago, 12. Chairman committee to revise sch. laws of Iowa, 07-09. A.A.; Psychol. Ass; Soc. Col. Teachers Educ. (sec'y, 04-10); Soc. Sci. Educ; West. Philos. Ass; Wis. State Teachers' Ass. (pres, nor. dept, 99), and Child Study Soc. (sec'y and treas, 99); Iowa State Teachers' Ass. and Child Study Soc. (pres, 00-). Genetic psychology and the science of education; dramatic instinct; genetic study of morality; individual differences; adolescence.
- Bolton, Reginald Pelham**, 116 E. 19th St, New York, N. Y. *Mechanical engineering*. London, England, Oct. 5, 56. Private instruction. Apprenticeship, England, 73-78; asst. engineer, Edgemoor Iron Works, 79; manager, Appleby Brothers Eng. Works, England, 85; *consulting and expert engineer*, 85- Designer equipment, Bowling Green Offices, Grand Central Station and Ansonia Hotel, New York. Telford gold medal and premium, Civil Eng, 01. A.A.; Mech. Eng; Civil Eng; Heat. and Vent. Eng. (pres, 12); Consult. Eng; hon. mem. N. Y. Hist. Soc; assoc. mem. British Inst. Civil Eng. Hydroelectric and steam economics; adaptation of electrical apparatus to needs of modern buildings; elevators; history.
- Bolton, Prof. Thaddeus L(incoln)**, Temple University, Philadelphia, Pa. **Psychology, Philosophy*. Sonora, Ill, July 27, 65. A.B, Michigan, 89; Ph.D, Clark, 94. Teacher, nor. sch, Worcester, Mass, 93-96; San Jose, Calif, 96-97; prof. philos. and educ, Washington (Seattle), 97-98; asst. prof. psychol, Nebraska, 98-04, prof, 04-10; director, training sch, Tempe, Ariz, 10-12; *prof. philos. and psychol*, Montana, 12-17; *psychol*, Temple, 17-; *lecturer*, Philadelphia Sch. *Occupational Therapy*, 19- Lecturer, Univ. Exten. Soc, Pennsylvania. A.A; Psychol. Ass; West. Philos. Ass. Rhythm; growth of memory; fatigue; space sense of the skin; the ergograph; motor power and intelligence; social laws of personal conduct; genetic view of make-believe; efficacy of consciousness; relation of muscle sense to pressure sense; inheritance of special traits.
- Boltwood, Dr. Bertram B(orden)**, Box 1813, Yale Station, New Haven, Conn. **Chemistry*. Amherst, Mass, July 27, 70. Ph.B, Yale, 92; Munich, 92-94; Leipzig, 96; Ph.D, Yale, 97; John Harling fellow, Manchester, 09-10. Asst. chem, Sheffield Sci. Sch, Yale, 94-96, instr. physical chem, 96-00; research chemist, 00-06; asst. prof. physics, Yale, 06-10, *prof. radiochem*, 10- Acting prof, Yale, and director, Kent Chem. Lab, 18-22. Nat. Acad; A.A; Chem. Soc; Physical Soc; Philos. Soc; Am. Acad. Organic and inorganic chlorids; radium and radioactivity.
- Bolza, Prof. O(skar)**, University of Freiburg, Freiburg i. B, Germany. **Mathematics*. Bergzabern, Germany, May 12, 57. Berlin, 75-76, 81-82; Heidelberg, 77; Strassburg, 78; Göttingen, 80, Ph.D, 86. Reader *math*, Hopkins, 88-89; assoc, Clark, 89-92; assoc. prof, *Chicago*, 93-94, prof, 94-10, *non-res. prof*, 10- Nat. Acad; Math. Soc. (v. pres, 04); Math. Verein. Hyperelliptic functions; calculus of variations.
- Bonar, Dr. Lee**, University of California, Berkeley, Calif. *Botany*. Belleville, W. Va, Aug. 26, 91. A.B, Michigan, 18, A.M, 20, research fellow, 20-22, Ph.D, 22. Asst. bot, Michigan, 19-20; *instr*, California, 22- Summers, field asst, bur. plant indust, U. S. Dept. Agr, 19-22; instr, Michigan, 22; research asst, Carnegie Institution, 23-26. A.A; Bot. Soc; Phytopath. Soc. Mycology; plant physiology; soil algae; fungi; plant diseases.
- Bonar, Prof. Martin Loxley**, Morgantown, W. Va. *Pharmacology*. Moundsville, W. Va, Sept. 26, 89. B.S, West Virginia, 13, M.S, 15; M.D, Western Reserve, 19. Bacteriologist, W. Va. Board Health, 15-17; assoc. prof. *pharmacol*, West Virginia, 20-21, *prof*, 21- Am. Med. Ass. Local anesthetics; mammalian heart strips; autonomic drugs; leukocytosis.
- Bonquet, Dr. P(ierre) A(uguste)**, Lindsay, Calif. *Horticulture*. Near Ypres, Belgium. Grad, Ypres Col, 03; Ph.D, California, 15. Provincial lecturer hort, B. C, 12-13; director lab. agr. research, Spreckels, Calif, 15-16; investigator sugar beet indust, S. Amer, 16-17; metal. chemist, South. Pacific Ry, 18; plant pathologist, Tulare Co, Calif, 19-23; *private lab*, Valla Vista Ranch, 23- Chem. Soc. Plant pathology; curly leaf of sugar beets; tomato blight; June drop of oranges; physiological effect of insect bites on plant tissues; ionization of salts in soil solution and plant health.
- Bond, Dr. Charles S**, Richmond, Ind. *Medicine*. Richmond, June 8, 56. M.D, N. Y. Univ, 83; M.S, Earlham, 87. *General practitioner*, 83- County coroner, 84-88. Tuber. Cong, 08; Int. Tuber. Cong, London, 01. Am. Med. Ass; Am. Physicians; Ind. Med. Soc. (pres); Ind. Acad. Photomicrographic work in blood; bacteria and pathological specimens; tuberculosis; excreta of chronic Bright's disease patients; blood corpuscles in health and disease.
- Bond, Prof. Earl D(anford)**, 4401 Market St, Philadelphia, Pa. *Psychiatry*. St. Paul, Minn, 79. A.B, Harvard, 00, M.D, 08. Instr. neuropath, Harvard, 12-14; *med. director and physician-in-chief dept. mental and nervous diseases*, Pa. Hosp, 13-; *prof. psychiat*, grad. sch. med, Pennsylvania, 19- Clin. director and pathologist, Danvers State Hosp, 12-13; exec. committee, Phila. Child Guidance Clinic. Psychiat. Ass; Neur. Ass. (sec'y); Phila. Psychiat. Soc. (pres, 23-); Phila. Neur. Soc; Boston Soc. Psychiat. and Neur. Personality in mental diseases; behavior disturbances in children following epidemic encephalitis; clinical and anatomical correlations.
- Bond, George M(eade)**, 18 N. Marshall St, Hartford, Conn. *Engineering*. Newburyport, Mass, July 17, 52. M.E, Stevens, 80, D.E, 21. Manager standards and gauge dept, Pratt and Whitney Co, 80-02. Alumni trustee, Stevens, 95-98. A.A. (sec'y, D, 87); Mech. Eng. (v. pres, 08-10); Civil Eng; N. Y. Eng. and Transportation Clubs; Hartford Club; London Royal

Societies Club. Standards for linear dimensions and for interchangeability of products of manufacture.

Bond, Prof. J(ohn) D(avid), University of Tennessee, Knoxville, Tenn. *Mathematics*. Gallatin, Tenn, Sept. 16, 83. A.B, Tennessee, 09; A.M, Illinois, 15; Ph.D, Michigan, 20. Teacher, schools, Tenn. and Ala, 04-07; instr. *math*, Tennessee, 09-11; Agr. and Mech. Col. Texas, 11-16, asst. prof, 16-21; assoc. prof, Louisiana, 21-22; *Tennessee*, 22-26, *prof*, 26- Asst. Illinois, 13-14. Math. Soc; Math. Ass; Hist. Sci. Soc. Trigonometric methods; quadripartitum.

Bond, Prof. Perry A(very), University of Iowa, Iowa City, Iowa. *Chemistry*. Storm Lake, Iowa, July 28, 78. B.S, Iowa, 01, M.S, 08, fellow, 08-09, Ph.D, 15. Instr. chem, Iowa, 08; Armour Inst, 08-11; prof, Iowa State Teachers Col, 11-18; asst. prof. *inorg. chem*, Iowa, 18-25, *assoc. prof*, 25- A.A; Chem. Soc. (sec'y, Iowa sect, 15, pres, 17, councilor, 18). Nitroxylene sulphonic acids and oxidation products; non-aqueous solvents.

Bonde, Reiner, Maine Experiment Station, Orono, Maine. *Plant pathology*. Minneapolis, Minn, Jan. 27, 96. B.S, Minnesota, 22; M.S, Maine, 26. Asst. plant pathologist, U. S. Dept. Agr, 23; with Nebr. Potato Improvement Ass, 24; *asst. plant pathologist, Maine Exp. Sta*, 24- Virus diseases of the potato; *Alternaria solani* as a tuber rot in the potato; potato seed treatment; dusting and spraying for the control of potato diseases.

Bondurant, Dr. Eugene D(uBose), 166 Conti St, Mobile, Ala. *Pathology*. Hale Co, Ala, Jan. 26, 63. Southern, 77-80; M.D, Virginia, 83; Heidelberg and Vienna, 90-91. Asst. physician, New York Insane Hosp, 85; Ala. Insane Hosp, 85-92, asst. supt, 92-97; prof. nervous diseases and path, Alabama, 97-15. A.A; Neur. Ass; Psychiat. Ass; Am. Med. Ass. Neurology.

Bonine, Prof. C(hesleigh) A(rthur), 231 E. Prospect Ave, State College, Pa. *Geology*. Sorrento, Fla. M.E, Lehigh, 12; Hopkins, 15-17. Geol. aid, U. S. Geol. Surv, 12-14, asst. geologist, 14-16; instr. *geol*, Lehigh, 17-18; asst. prof, *Pa. State*, 18-19, assoc. prof, 19-22, *prof. and head dept. geol. and miner*, 22- Consulting geologist; cooperating geologist, Pa. State Geol. Surv. Committee on Sedimentation, Nat. Research Council. Soc. Econ. Geol; Ass. Petrol. Geol; Min. and Metal. Eng; Wash. Geol. Soc. The stratigraphic significance of bentonite in the Ordovician of Pennsylvania; anticlines in the Clinton sand; Elliston, Montana, phosphate field.

Bonner, Prof. W(alter) D(aniel), 1278 E. 13th South St, Salt Lake City, Utah. *Chemistry*. Osceola, Nebr, Oct. 27, 78. B.S, Nebr. Wesleyan, 06; A.M, Princeton, 08; Ph.D, Toronto, 11. Lecturer *chem*, Queen's (Can), 09-11, asst. prof, 11-15; *prof, Utah*, 15- U. S. Bur. Mines, Berkeley, 22-23. A.A; Chem. Soc; Utah Acad. (councilor, 19). Oil shales and solid hydrocarbons; sulfites; sulfurous acid; dithionic acid; constant boiling hydrochloric acid; cyanide solutions of copper salts.

Bonnet, Dr. Frederic, Jr, 9 du Pont St, Ridley Park, Pa. *Physical chemistry*. St. Louis, Mo, Feb. 28, 78. B.S, Washington (St. Louis), 99; M.S, Harvard, 02, Ph.D, 03. Instr. chem, Iowa, 03-04; Worcester, 04-09, asst. prof, 09-13, prof, 13-18; chief chemist, U. S. Ammonium Nitrate Plant, 18; director, Forcite Exp. Lab, Atlas Powder Co, 19-21; Wilmington Exp. Lab, 21-25; *chemist, Am. Viscose Co*, 26- A.A; Chem. Soc. Hydrolytic equilibrium of dissolved chromium sulphate; compressibility of metals; the rare earths and ceramics; decolorizing carbons; cellulose; artificial silk.

Bonns, Dr. W(alter) W(eidenfeld), 228 E. 13th St, Indianapolis, Ind. *Botany*. Milwaukee, Wis, April 9, 77. B.S, Mass. Inst. Tech, 99; B.S.A, Cornell, 09; Lackland research fellow, Mo. Bot. Garden, 15-18; Ph.D, Washington (St. Louis), 18. Horticulturist, Maine Exp. Sta, 09-12; asst. prof. pomol, Citrus Exp. Sta, California, 12-15; director bot. research lab, Eli Lilly and Co, 18-21. A.A. Plant physiology; mycology; fruit propagation; transpiration; enzyme action.

Bonser, Prof. Frederick G(ordon), 525 W. 120th St, New York, N. Y. *Psychology*. Tower Hill, Ill, June 14, 75. B.S, Illinois, 01, fellow, 01-02, M.S, 02; fellow, Teachers Col, Columbia, 05-06. Teacher, pub. schools, Ill, 97-98; Wash, 98-99; asst. psychol, Illinois, 01-02; prof. psychol. and educ, State Nor. Sch, Cheney, Wash, 02-05; State Nor. Sch, Macomb, Ill, 06-10; asst. prof. indust. arts and *prof. educ, Teachers Col, Columbia*, 10- Summers, Illinois, 01, Teachers Col, Columbia, 06. Psychol. Ass. Mental activity and the circulation of blood; influence of early companions; reasoning ability of children; the elementary school curriculum; industrial arts for elementary schools.

Booge, Dr. (James) Eliot, E. I. du Pont de Nemours and Co, Wilmington, Del. *Chemistry*. Sioux City, Iowa, April 27, 90. Ph.G, Iowa, 09, Ph.C, 10, A.B, 14; fellow, Columbia, 15-16, Ph.D, 16. Instr. chem, Iowa, 10-14; asst. Columbia, 14-15, instr, 16-17; *chemist, E. I. du Pont de Nemours and Co*, 17- Chem. Soc.

Book, Prof. W(illiam) F(rederick), Indiana University, Bloomington, Ind. *Psychology*. Princeton, Ind, 73. A.B, Indiana, 00; hon. fellow, Clark, 03-06, Ph.D, 06. *Prof. philos*, Montana, 06-12; *educ, Indiana*, 12-, *head dept. psychol. and philos*, 17- Summers, Indiana, 07, 10, Columbia, 10, 11. A.A; Psychol. Ass; Hygiene Ass. The psychology of skill; why pupils drop out of high school; psychology of the higher thought processes and of learning; the will to learn; learning how to study and work effectively.

Bookman, Dr. S(amuel), 48 E. 82d St, New York, N. Y. *Physiological chemistry*. New York, Dec. 11, 69. Columbia, 86-91; Ph.D, Berlin, 95. Chemist, N. J. Zinc and Iron Co, 95-96; assoc. physiol. chem, N. Y. State Hosp, 96-02; *physiol. chemist, Mt. Sinai Hosp*, 04- A.A; Soc. Biol. Chem; Chem. Soc; Soc. Chem. Indust; Chem. Gesell. Pathological chemistry; normal and pathological metabolism; industrial biological chemistry.

Boomsliker, Prof. G(eorge) P(aul), 21 Wilson Ave, Morgantown, W. Va. *Mechanics*. Grand Haven, Mich, Oct. 10, 79. B.S, Mich. State Col, 06; M.S, Illinois, 14. Draftsman and designer bridges, 06-09; instr. and assoc. theoret. and applied mech, Illinois, 09-20; *prof. mech*, West Virginia, 20- Eng. Educ; Soc. Test. Mat. Materials; acceleration stresses in steel hoisting cables.

Boor, Prof. Alden K(inney), 916 Weaver St, Birmingham, Ala. *Chemistry*. Sandusky, Ohio, April 24, 92. Wisconsin, 10-11; Mass. Inst. Tech, 11-13; B.S, Stetson, 14, M.S, 22; M.S, Chicago, 22. Instr. chem, Stetson, 15-16; med. dept, Georgia, 16-18; chemist in charge lab, South. Cotton Oil Co, Savannah, Ga, 18-20; *prof. chem. in charge dept*, Birmingham-Southern, 20- A.A; Chem. Soc. (sec'y, Ala. sect. educ); fel. Inst. Chem; Ala. Acad. Electrometric methods for separation and determination of strontium and barium; luminescence; proteins.

Boord, Prof. Cecil E(rnest), Ohio State University, Columbus, Ohio. *Chemistry*. Veedersburg, Ind, June 29, 84. A.B, Wabash, 07; fellow, Ohio State, 07-09, A.M, 09, Ph.D, 12. Asst. chem, Ohio State, 09-12, instr, 12-14, asst. prof, 14-24, *prof*, 24- Director, Ohio State research div, Gas W.S, 17-19. Committees, div. chem. and chem. technol, Nat. Research Council, 24- A.A; Chem. Soc. Organic accelerators in the vulcanization of rubber; absorption spectra of organic compounds; mechanism of organic reactions; anti-knocking substances for use in internal combustion engines.

Boot, Prof. G(eorge) W(illiam), 813 Sherman Ave, Evanston, Ill. *Medicine*. Wilton Junction, Iowa, March 3, 70. M.D, Pennsylvania, 98. Asst. prof. ear, nose and throat diseases, Rush Med. Col, Chicago, 19-21; Illinois, 21-23; attending surgeon, Cook County, St. Francis' and Durand Hospitals. A.A; Am. Med. Ass; Col. Surg; Am. Acad. Oto-Laryngol; Chicago Laryngol. Soc; Chicago Acad; Ill. Acad. Brain abscess of otologic origin; the tectorial membrane; cancer.

Booth, Prof. H(arold) S(immons), Western Reserve University, Cleveland, Ohio. *Chemistry*. Cleveland, Jan. 30, 91. A.B, Western Reserve, 15, A.M, 16; Sage fellow, Cornell, 17-18, du Pont fellow, 18-19, Ph.D, 19. Instr. chem, Western Reserve, 19-24, asst. prof, 24- Chem. Soc. (sec'y-treas, Cornell sect, 17, Cleveland sect, 20-24, chairman, 25-); Electrochem. Soc. Electrochemistry; chemical microscopy; gas densities and physical constants of gases; atomic weights; inorganic trinitrides; beryllium.

Boothby, Prof. Walter M(eredith), Mayo Clinic, Rochester, Minn. *Medicine*. Boston, Mass, July 28, 80. A.B, Harvard, 01, M.D, 06, A.M, 07. Assoc. prof. med, Mayo Foundation, Minnesota, head sect. clin. metabolism. Am. Med. Ass; assoc. Am. Physicians; Soc. Clin. Invest; Physiol. Soc; Biochem. Soc; Soc. Exp. Biol. Metabolism.

Boothroyd, Prof. S(amuel) L(atimer), Cornell University, Ithaca, N. Y. *Astronomy*. Love-

land, Colo, Aug. 10, 74. B.S, Colo. Agr. Col, 93, M.S, 04; Chicago, 94-95; Cornell, 04-07. Prof. math. and astron, Mount Morris, 95-97; asst, Lowell Observatory, 97-99; assoc. prof. physics and eng, Colo. Agr. Col, 02-04; instr. civil eng, Cornell, 04-08, asst. prof. geod. and topog. eng, 08-12; assoc. prof. math. and astron, Washington (Seattle), 12-17, astron, 17-21; *prof. astron. and geod*, Cornell, 21- Summers, investigator, Colo, 04, asst. surveyor, Alaskan Boundary Commission, 05-09. A.A; Astron. Soc; Ass. Variable Star Observers; Physical Soc; Math. Soc; Math. Ass; Eng. Educ; Pacific Astron. Soc. Double star measures; spectroscopic binaries; variable stars.

Boose, M(acdonald) C(harles), The Charles Taylor Sons Co, Cincinnati, Ohio. *Ceramics*. Bethany, Ill, Dec. 10, 92. B.S, Illinois, 15. Supt, Medal Paving Brick Co, 15-18; ceramic engineer, U. S. Bur. Mines, 18-20; in charge ceramic div, research laboratories, Norton Co, 20-23; senior fellow, Mellon Inst, 23-26; v. pres. in charge research and development, Chas. Taylor Co, 26- Ceramic Soc; Soc. Test. Mat. Refractories.

Borden, Dr. R(aymond) F(ranklin), George Washington University, Washington, D. C. *Mathematics*. Portsmouth, R. I, Aug. 2, 92. Ph.B, Brown, 14, A.M, 15; Ph.D, Illinois, 18. Asst. math, Illinois, 15-18, instr, 18-20; Brown, 20-24; asst. prof, George Washington, 24- Math. Soc; Math. Ass. Mixed equations.

Boreman, Prof. Rob(ert) W(ells), Carnegie Institute of Technology, Pittsburgh, Pa. *Physics*. Middlebourne, W. Va. M.E, Ohio State, 12, M.S, 19. Cent. Dist. Telephone Co, 12-14; high sch, W. Va, 14-17; Bur. Standards, 17-18; Ga. Tech, 19-20; asst. prof. physics, Carnegie Inst. Tech, 20- U. S. Naval Aviation, 18-19. A.A; Physical Soc; Eng. Educ. Variation in wave form of A. C. generators with change in load; vacuum tubes.

Borger, Prof. Robert Lacey, Ohio University, Athens, Ohio. *Mathematics*. Amherst, Va. A.B, Florida; A.M, Chicago, Ph.D, 07. Prof. math, Florida, 96-04; instr, Missouri, 05-07; assoc, Illinois, 09-16; *prof*, Ohio, 16- A.A; Math. Soc; Math. Ass. Theory of groups; functions of a real variable.

Boring, Prof. Alice M(iddleton), Wellesley College, Wellesley, Mass. *Zoology*. Philadelphia, Pa, Feb. 22, 83. A.B, Bryn Mawr, 04, A.M, 05, fellow, 06-07, Ph.D, 10; fellow, Pennsylvania, 05-06; Würzburg, 08-09; Naples Zool. Sta, 08-09. Instr. zool, Vassar, 07-08; Maine, 09-11, asst. prof, 11-13, assoc. prof, 13-18; asst. biol, Peking Union Med. Col, 18-20; *assoc. prof. zool*, Wellesley, 20- Prof. and acting head dept, Yenching Univ, Peking, 23-27. A.A; Soc. Nat; Soc. Zool; Soc. Exp. Biol; Peking Nat. Hist. Soc. Cytology; regeneration; histology.

Boring, Prof. Edwin G(arrigues), Harvard University, Cambridge, Mass. *Psychology*. Philadelphia, Pa, Oct. 23, 86. M.E, Cornell, 08, A.M, 12, Ph.D, 14. Asst. psychol, Cornell, 11-13, instr, 13-18; prof. exp. psychol, Clark, 19-22, director lab, 21-22; *assoc. prof. psychol*, Harvard, 22-, director lab, 24- Asst, Govt.

- Hosp. for the Insane, Washington, D. C, 12; summers, acting prof, Stanford, 21, California, 24. Capt, psychol. service, U.S.A, 18-19. A.A.; Psychol. Ass. (council, 20-25, sec'y, 20-22); Am. Acad. Theoretical psychology; cutaneous and organic sensations; psychophysics; acoustics.
- Boring, Mrs. Edwin G. (Dr. Lucy Day),** 21 Bowdoin St, Cambridge, Mass. *Psychology*. Framingham, Mass, Aug. 27, 86. A.B, Mount Holyoke, 08; Ph.D, Cornell, 12. Asst. psychol, Mt. Holyoke, 08-09; Cornell, 10; Vassar, 13-14; instr, Wells, 14-15; hon. fellow, Clark, 19-22. A.A.; Psychol. Ass. Comparative psychology; vision.
- Borland, Prof. A(ndrew) A(llen),** 304 S. Burrows St, State College, Pa. *Dairy husbandry*. Sandy Lake, Pa, June 11, 78. B.S, Pa. State, 09-10, John W. White fellow; M.S, Wisconsin, 10. Asst. dairy research, Pa. State, 10-11; head dept. animal and dairy husbandry, Vermont, 11-15; in charge dairy exten, Pa. State, 15-19, head dept. *dairy husbandry*, 19- A.A.; Soc. Animal Production; Dairy Sci. Ass. (v. pres, 20-22, pres, 22-24, pres, east. div, 24-25). Dairy rations; protein requirements of dairy cows.
- Born, Dr. Sidney,** P. O. Box 2064, Tulsa, Okla. *Chemistry*. New York, N. Y, 89. B.S, Columbia, 10, Ph.D, 13. Chief chemist, Empire Refineries, Inc, and Empire Gas and Fuel Co, 16-20; asst. gen. supt, *Transcontinental Oil Co*, 20- Chem. Soc. (past councilor and v. pres, Okla. sect); N. Y. Chemists Club. Petroleum chemistry.
- Borrowman, Dr. George,** 9 S. Clinton St, Chicago, Ill. *Chemistry*. Stillwater, Minn, June 4, 80. B.S, Minnesota, 05; A.M, Nebraska, 07, Ph.D, 16. Instr. chem, Minnesota, 04-05; prof. tech. and indust. chem, Nebraska, 05-18; research chemist, J. E. Teeple, 18-20; *consulting chemist*, 20- Chem. Soc; N. Y. Chemists Club. Geology; ore and water analysis; concrete; clays; water softening; borromite.
- Borsook, Dr. Henry,** 246 Lippincott St, Toronto, Ont, Can. *Biochemistry*. London, England, 97. B.A, Toronto, 21, fellow, 20-23, M.A, 22, Ph.D, 24. *Research fellow*, Toronto, 23- Enzymic synthesis of protein; origin of urea; in vivo oxidations.
- Borthwick, H(arry) A(lfred),** University Farm, Davis, Calif. *Botany*. Otsego, Minn, Jan. 7, 98. A.B, Stanford, 21, A.M, 23. *Teaching fellow*, Stanford, 21-22; *California*, 22- Summers, office cereal investigations, U. S. Dept. Agr, 17-19. Semi-permeability of seed coat, anatomy and germination of asparagus; germination of lettuce.
- Böse, Dr. Emil,** Apartado 64 Bis, Mexico D. F. *Geology*. Hamburg, Germany, June 8, 68. Berlin, 88-89; Ph.D, Munich, 93. Geologist, Mex. Geol. Surv, 98-03, chief geologist, 03-15; geologist, bur. econ. geol, Texas, 15-17; consulting petrol. geologist, 17-23; *geologist*, *Richmond Petrol. Co*, 23- Geol. Verein; cor. mem. Munich Geog. Gesell; Vienna Geol. Gesell. Paleontology; tectonics; earthquakes.
- Boss, Prof. Andrew,** University Farm, St. Paul, Minn. *Agronomy*. Wabasha Co, Minn, June 3, 67. Minnesota. Asst. agriculturist, *Minnesota*, 94-02, assoc. prof. agr, 02-05, agr. and animal husbandry, 05-10, *prof. agr*, 10- V. director, Minn. Exp. Sta, 18. A.A.; Agron. Soc; Farm Management Ass. Crop rotation; farm management.
- Boss, Benjamin,** Dudley Observatory, Albany, N. Y. *Astronomy*. Albany, Jan. 9, 80. A.B, Harvard, 01. Asst. Dudley Observatory, 01-05; U. S. Naval Observatory, 05-06; in charge U. S. Naval Observatory, Tutuila, Samoa, 06-08; sec'y, dept. *meridian astron*, *Carnegie Institution*, 08-12, acting director, 12-15, *director*, 15-; *director*, *Dudley Observatory*, 12- Total solar eclipse exped, 08. Ed, 'Astron. Jour,' 12- A.A.; Astron. Soc. (treas). The proper motions of stars; statistics.
- Bostwick, Dr. Arthur E(lmore),** Public Library, St. Louis, Mo. *Physics*. Litchfield, Conn, March 8, 60. A.B, Yale, 81, Ph.D, 83, fellow, 81-84. Proctor and instr, Yale, 83-84; instr, high sch, N. J, 84-86; asst. ed, 'The Forum,' 90-92; assoc. ed, 'Standard Dict,' 92-95; *science ed*, 'Literary Digest,' 94-; librarian, N. Y. Free Circ. Library, 95-99; Brooklyn Pub. Library, 99-01; chief circ. dept, N. Y. Pub. Library, 01-09; *librarian*, *St. Louis Pub. Library*, 09- Annual summary, progress in physics, 'Appleton's Annual Cyclopedia.' Library Ass. (pres, 07); Library Inst. (pres, 09, 26); Conn. Acad; St. Louis Acad. Influence of light on conductivity of metals; absorption spectra of liquids.
- Boswell, Prof. Foster P(artridge),** Hobart College, Geneva, N. Y. *Psychology*. Rochester, N. Y, Feb. 14, 79. A.B, Hobart, 01; A.M, Harvard, 02, Ph.D, 04. Asst. philos, Harvard, 03-04; psychol, Wisconsin, 04-05; Missouri, 05-06; voluntary asst, Berlin, 07; *asst. prof. psychol*, *Hobart*, 08- A.A; Psychol. Ass. Psychology and physiology of vision; after-images and contrast phenomena; irradiation.
- Boswell, Prof. M(aitland) O(rease),** University of Toronto, Toronto, Ont, Can. *Chemistry*. Cannington, Ont, May 24, 79. B.A.Sc, Toronto, 02, Ph.D, 07; A.M, Harvard, 06. Asst. analyst, Toronto, 02-03; asst. chem, Cornell, 03-04; demonstrator, *Toronto*, 06-08, lecturer, 08-12, *prof*, 12- A.A; Chem. Soc; Soc. Chem. Indust; Can. Inst. Organic compounds; mechanism of reactions; gas reactions in plants.
- Bosworth, Alfred W(illson),** 36 Avalon Road, W. Roxbury, Mass. *Biochemistry*. Warren, R. I, Feb. 1, 79. B.S, R. I. Col, 99; Yale; A.M, Harvard, 13. Asst. chem, R. I. Exp. Sta, 99-04; expert, U. S. Dept. Agr, 04-05; asst. and assoc. chemist, N. Y. Exp. Sta, Geneva, 05-16; director research laboratories, Boston Floating Hosp, 16-21; research fellow pediat, Harvard, 17-21; *consulting chemist*, 21- Asst, Harvard, 12-13. A.A; Chem. Soc. Milk and foods; infant metabolism.
- de Bothezat, Dr. George,** 1854 Seventh Ave, New York, N. Y. *Mathematics*, *Engineering*. St. Petersburg, Russia, June 7, 82. E.E, Electro-

- tech. Inst, Liège, Belgium, 07; Tech.Eng, Tech. Inst, Kharkow, Russia, 08; Göttingen and Berlin, 08-09; Sc.D, Paris, 11. Junior prof. and leader, aeronaut. lab, Polytech. Inst, Petrograd, 12-14, assoc. prof, 14-15, prof, 15-18; lecturer, Mass. Inst. Tech. and Columbia, 18; Chicago and Illinois, 19; *sci. expert, Nat. Advisory Committee for Aeronaut, Washington, D. C.*, 18-; *pres, de Bothezat Impeller Co, Inc, New York*, 25- Sci. expert, War Dept, 13-14; chief constructor and designer, aviation dept, Duflor and Co, 14-15; consulting engineer, factory Tjora, 16-17. Russian Aero Club (pres, sci. committee, 17). Theory of knowledge; elasticity; theory of viscous phenomena; space calculus; aeroplane stability; theoretical aerodynamics; hydrodynamics.
- Botsford, Dr. E(mily) Frances**, 179 Blake St, New Haven, Conn. *Zoology*. Newtown, Conn, Sept. 10, 93. A.B, Mt. Holyoke, 17; M.S, Yale, 22, Sterling fellow, 24-25, Ph.D, 25. Asst. physiol. and biol, Goucher, 17-18; physiol, Mt. Holyoke, 18-20, *instr.*, 20-21; high sch, Conn, 22-26; *zool, Conn. Col.*, 26- Summer, instr, N. C. Col. for Women, 18, Woods Hole, 23. A.A. Protozoology; life history and contractile vacuole of amoëba.
- Bott, Prof. Edward A(lexander)**, 368 Walmer Road, Toronto, Ont, Can. *Psychology*. Ingersoll, Ont, April 11, 87. B.A, Toronto, 12. Instr. *psychol, Toronto*, 16-26, *prof. and director lab*, 26- Visiting assoc. prof, Yale, 25-26. A.A. (v. pres, sect. I, 21); Psychol. Ass. Experimental psychology; vision; muscle action.
- Botts, Dr. E(lbert) D**, 2231 Bancroft Way, Berkeley, Calif. *Chemistry*. Lancaster, Mo, Jan. 2, 93. A.B, Albany (Oregon), 18; M.S, Wisconsin, 21, Ph.D, 24. Asst. prof. chem, Louisville, 23-24; *research chemist, Am. Marine Paint Co*, 24- Titanium; iron corrosion; antifouling compositions.
- Boucher, William J(ames)**, The Port of New York Authority, 75 West St, New York, N. Y. *Engineering*. New Jersey, 75. M.E, Stevens, 96. *Construction engineer, The Port of New York Authority*, 23-
- Boudreau, Dr. Frank G(eorge)**, Ohio State Department of Health, Columbus, Ohio. *Medicine*. New Glasgow, Que, Can, July 18, 86. M.D, C.M, McGill, 10. Intern, Royal Victoria Hosp, Montreal, 10; pathologist, Charity Hosp, Cleveland, 11; *epidemiologist, Ohio State Board Health*, 11-, *director div. communicable diseases*, 13- Instr. and asst, Ohio State, 15-16. Assoc. ed, 'Ohio Pub. Health Jour,' 13-16. Epidemiologist, health sect, League of Nations, Geneva, 25-28. A.A; Am. Med. Ass; Pub. Health Ass; Columbus Acad. Med. Epidemiology; acute poliomyelitis; typhoid fever; pathology.
- Bourne, Prof. A(rthur) I(srael)**, 12 E. Pleasant St, Amherst, Mass. *Entomology*. Kennebunkport, Maine, Oct. 29, 86. A.B, Dartmouth, 07; Mass. Col. Conn. Exp. Sta, 09; bur. entom, U. S. Dept. Agr, 09-10; *asst. research prof. entom, Mass. Exp. Sta*, 10- Ass. Econ. Entom. Economic entomology.
- Bourne, Dr. Wesley**, 920 Medical Arts Building, Montreal, Que, Can. *Pharmacology*. Barba-does, B. W. I, April 24, 86. M.D, C.M, McGill, 11, M.Sc, 24. Demonstrator *pharmacol, McGill*, 14-21, *lecturer*, 21- Asst. anesthetist, Royal Victoria Hosp, 14-18; Western Hosp, Montreal, 14-; Montreal Maternity Hosp, 18-; Montreal Shriners Hosp, 25- A.A; Ass. Anesthetists, U. S. and Can. (pres, 25-26); Can. Med. Ass; Can. Soc. Anesthetists (sec'y, 20-23). Effects of anesthetics on body temperature and blood solids; methylene chloride, nitrous oxide and pure ether; the chemistry of acidosis; the effect of pituitary extract on urine; action of morphine and ether on kidney secretion; pharmacological action of ethylenoxid.
- Bourquin, Prof. Helen**, University of South Dakota, Vermillion, S. Dak. *Physiology*. Aspen, Colo, June 1, 93. A.B, Colo. Col, 15; M.S, Chicago, 16, Ph.D, 22. Prof. biol, Agnes Scott Col, 16-19; instr, Colorado, 21-22; *prof. physiol, South Dakota*, 22- Physiol. Soc. The kidney; placental permeability; diabetes insipidus; secretion of urine.
- Bouton, C(raig) M(iller)**, 4800 Forbes St, Pittsburgh, Pa. *Chemistry*. Lake City, Colo, April 1, 82. A.B, Colorado, 04, M.S, 16. U. S. *Bur. Mines*, 17- Chem. Soc. The determination of mercury; silver in chloride volatilization; reduction of ferric oxide by methane; dust explosions.
- Boutwell, J(ohn) M(ason)**, National Copper Bank, Salt Lake City, Utah. *Geology*. St. Louis, Mo, May 1, 74. Amherst, 93-94; A.B, Harvard, 97, B.S, 98, M.S, 99, 99-00. Asst. physiog, Harvard, 97-00; asst. geologist, U. S. Geol. Surv, 00-04, geologist, 04-08; *consulting mining geologist*, 08- Summers, asst, Harvard, 96-98; field asst, U. S. Geol. Surv, 98-99. A.A; Geol. Soc; Econ. Geol; Seismol. Soc; Min. Eng; Min. and Metal. Soc; Wash. Acad; Soc. Geog. de Lima. Geographical bibliography; physiographic and geologic studies in New England, Dakota, Utah and California; geology of ore deposits in Utah, California, Arizona, Mexico and Peru.
- Boutwell, Prof. P(aul) W(inslow)**, Beloit College, Beloit, Wis. *Chemistry*. Lyndeborough, N. H, Feb. 6, 88. B.S, Beloit, 10; A.M, Wisconsin, 12, Ph.D, 16. Asst. chem, Wisconsin, 12-16; instr, Del. Col, 16-17; agr. chem, Wisconsin, 17-18, asst. prof, 18-20; assoc. prof. chem, Beloit, 20-21, *prof. and head dept*, 21-A.A; Chem. Soc; Wis. Acad. Vitamins; phytic acid of the wheat kernel.
- Bouyoucos, Prof. George J(ohn)**, East Lansing, Mich. *Soils*. Tripolis, Greece. B.S, Illinois, 09; Ph.D, Cornell, 11. Research assoc. *soils, Mich. State Col*, 11-20, *research prof*, 20- U. S. Govt. and Am. Red Cross Commission to Greece, 18-20. The Great Cross, Greece. Soc. Agron; Chem. Soc. The physics and physico-chemistry of soils.
- Bovard, Prof. John F(reeman)**, University of Oregon, Eugene, Oregon. *Zoology*. Los Angeles, Calif, 81. B.S, California, 03, M.S, 06, Ph.D, 17. Instr. zool, *Oregon*, 03-08, asst. prof.

- biol, 08-10, *prof. zool*, 10-, *dean sch. physical educ.* Asst. California, 03; research asst, Mich. Diego Marine Biol. Lab, 03-06; investigator, U. S. Bur. Fisheries, 10; summers, *prof.* Washington (Seattle), 17, 18. A.A.; Physical Educ. Ass. (v. pres, west. dist, 21); Social Hygiene Ass. Nervous system and locomotion in invertebrates; physiology of exercise.
- Bovie, Dr. W(illiam) T**, Harvard Medical School, Boston, Mass. *Biophysics*. Augusta, Mich, Sept. 11, 82. A.B, Michigan, 08; fellow, Missouri, 08-10, A.M, 10; Ph.D, Harvard, 14. Asst. biol, Albion, 02-04; *prof. geol. and biol*, Antioch, 06-07; *research fellow, Cancer Commission, Harvard*, 14-, *instr. bacter*, Harvard *Med. Sch. and asst. prof. biophysics*, 20- A.A; Soc. Nat; Bot. Soc; Physiologist Soc; Physical Soc; Soc. Cancer Research; Chem. Soc; Soc. Trop. Med; Am. Acad. Biological effects of rays.
- Böving, Dr. Adam G(iede)**, U. S. National Museum, Washington, D. C. *Entomology*. Säby, Denmark, July 31, 69. A.B, Copenhagen, 89, M.S, 94, Ph.D, 06; Berlin, Paris, Vimereux, London, Cambridge, 08; London, Holland, Vienna, 09. Asst. curator entom. div, *Zool. museum*, Copenhagen, 02-14; *entomologist, bur. entom.*, U. S. Dept. Agr, 13- Govt. exped, Iceland, 08. A.A; Entom. Soc; Wash. Biol. Soc; Wash. Entom. Soc; Copenhagen Entom. Soc; Copenhagen Nat. Hist. Soc; Stockholm Entom. Soc. Insect morphology; immature stages of coleopterous larvae.
- Bowden, Prof. Joseph**, 363 Grand Ave, Brooklyn, N. Y. *Mathematics*. St. Day, England, Feb. 10, 69. A.B, Yale, 91, Ph.D, 97. Asst. *math.*, Sheffield Sci. Sch, Yale, 92-93, tutor, Yale, 93-97; asst. *prof.*, *Adelphi*, 98-99, *prof.*, 99- Westminster Sch, 98; Col. City of N. Y, 17- Simplified Spelling Board. Math. Soc; Math. Ass; Brooklyn Inst. (pres, math. dept, 01-03, 07-16). Elements of the theory of integers; electromagnetic theory of light; elementary theory of numbers.
- Bowen, Charles F**, 26 Broadway, New York, N. Y. *Geology*. Idaho, 71. A.M, Wisconsin, 03. *Geologist*, U. S. Geol. Surv, 10-19; *Standard Oil Co*, 19- Geol. Soc. Oil geology.
- Bowen, I(ra) S(prague)**, California Institute, Pasadena, Calif. **Physics*. Seneca Falls, N. Y, Dec. 21, 98. A.B, Oberlin, 19. *Instr. physics*, Calif. Inst, 21- Fel. Physical Soc. Extreme ultra-violet spectroscopy.
- Bowen, Dr. N(orman) L(evi)**, Geophysical Laboratory, Washington, D. C. **Geology*. Kingston, Ont, Can, June 21, 87. M.A, Queen's (Can), 07, B.Sc, 09, 1851 Exhib. scholar, 10-11; Ph.D, Mass. Inst. Tech, 12. Geol. field investigator, Ont. Bur. Mines, 07-10; Can. Geol. Surv, 11-12; asst. petrologist, geophys. lab, Carnegie Institution, 12-19; *prof. miner*, Queen's (Can), 19-20; *petrologist, geophys. lab, Carnegie Institution*, 20- Geophys. Union. A.A; Geol. Soc; Wash. Geol. Soc. Geology of Ontario and British Columbia; experimental petrology and mineralogy.
- Bowen, Prof. Robert H(all)**, Columbia University, New York, N. Y. **Zoology*. Medina, N. Y, May 24, 92. A.B, Colby, 14; A.M, Columbia, 16, Ph.D, 20. Asst. *zool.*, Columbia, 19-20, *instr.*, 20-22, *asst. prof.*, 22- Summers, *instr.*, Woods Hole, 17, 19-25, in charge, 22-25. A.A; Soc. Zool. (treas, 23-25). Cytoplasmic structure; spermatogenesis; cytology of secretion.
- Bower, Ernest Clare**, Perkins Observatory, Ohio Wesleyan University, Delaware, Ohio. *Astronomy*. Leonidas, Mich, Aug. 21, 90. B.S, California, 12, 12-13. Computer, U. S. Naval Observatory, 13-14, asst, 14-24, assoc. astronomer, 24-26; *asst. prof. astron. and math.*, Ohio Wesleyan, 26- A.A; Astron. Soc. Equatorial observations; orbits; perturbations.
- Bowers, Dr. Paul C(omer)**, 46 Ziegler Tract, Penns Grove, N. J. *Chemistry*. Muncie, Ind, Dec. 13, 87. B.S, Vanderbilt, 10, M.S, 11, Sc.D, 13. Chemist, Tenn. Geol. Surv, 13-17; *research chemist*, E. I. du Pont de Nemours and Co, 19- Second lieut, C.W.S, 17-19. Chem. Soc. Tellurium; phthalic anhydride; sulphur colors.
- Bowers, Dr. W(illiam) G(ray)**, 1001 12th St, Greeley, Colo. *Chemistry*. Near Franklin, W. Va, June 16, 79. B.S, Ohio Wesleyan, 05; A.M, Indiana, 11; Ph.D, Ohio State, 19. Teacher, pub. schools, W. Va, 95-99; asst. biol, Ohio Wesleyan, 05; prin, high sch, Colo, 06-07; Leesburg, Ohio, 07-08; teacher chem, State Nor. and Indust. Sch, N. Dak, 08-18; *prof. food and sanit. chem*, N. Dak. Col, and state food chemist; *head dept. chem.*, Colo. State Teachers Col. Summer, teacher, State Nor. Sch, Muncie, Ind, 08; v. pres, State Nor. and Indust. Sch, N. Dak. Chem. Soc; N. Dak. Soc. Adv. Sci. Food chemistry; nutrition; soy beans in the human diet; fruit extract analysis; storage batteries.
- Bowie, E(dward) H(all)**, U. S. Weather Bureau, San Francisco, Calif. *Meteorology*. Annapolis Junction, Md, March 29, 74. M.S, St. John's (Md). *Asst. observer to senior meteorologist*, U. S. Weather Bur, 91- Major, Sig.C, 17-18. Meteor. Soc; Physical Soc; Wash. Acad; fel. Royal Meteor. Soc. Weather forecasting; storms of the United States and West Indies.
- Bowie, Dr. William**, U. S. Coast and Geodetic Survey, Washington, D. C. **Geodesy*. Annapolis Junction, Md, May 6, 72. B.S, Trinity (Conn), 93, hon. A.M, 07, Sc.D, 19; C.E, Lehigh, 95, hon. Sc.D, 22. U. S. Coast and Geod. Surv, 95-, in charge div. geod, 09- Pres, geod. sect, Int. Geod. and Geophys. Union, 19- Major, C.Eng, 18-19. Physical Soc; cor. mem. Russian Geog. Soc; for. mem. Norske Videnskaps-Akademi i Oslo. Geodetic surveying; isostasy; geophysics.
- Bowles, F(rancis) T(iffany)**, 148 Marlborough St, Boston, Mass. *Naval architecture*. Springfield, Mass, Oct. 7, 58. Grad. U. S. Naval Acad, 79; Royal Naval Col, England, 79-82. Asst. naval constructor, U.S.N, 81-88, naval constructor, 88-01, chief constructor, 01-03; pres, Fore River Ship Building Co, 03-15; asst. gen. manager, U. S. Shipping Board Emergency Fleet Corps,

- 17-19. Naval Archit. and Marine Eng. (past pres); Am. Acad.; London Inst. Naval Archit.
- Bowles, Oliver**, Bureau of Mines Experiment Station, New Brunswick, N. J. *Mineralogy, Geology*. Ont. Can. Jan. 10, 77. B.A., Toronto, 07, fellow, 07-08, M.A., 08; Ph.D., George Washington, 22. Instr. petrog., Michigan, 08-09; geol. and miner., Minnesota, 09-14; quarry technologist, U. S. Bur. Mines, 14-17, mineral technologist, 17-23; *supt. non-metallic minerals, exp. sta., Rutgers, 23-* A.A.; Min. and Metal. Eng. Structural and ornamental stones of Minnesota; quarrying of marble, sandstone, cement materials, limestone and slate.
- Bowman, Prof. Albert E(lijah)**, University of Wyoming, Laramie, Wyo. *Agriculture*. West Weber, Utah. B.S., Utah Col. Asst. agronomist, Utah Col., 11-13; asst. state leader farm management, Wyoming, 13-14, *director exten. service, agr. col., 14-* Soc. Agron.; Farm Management Ass. Farm surveys.
- Bowman, Prof. H(arry) L(ake)**, Drexel Institute, Philadelphia, Pa. *Engineering*. Philadelphia. B.S., Pa. State, 11; M.S., Mass. Inst. Tech., 14. Am. Bridge Co., 11-15; asst. to C. E. Smith, 15-18; asst. engineer, Phila. and Reading Ry, 18-19; asst. prof. structural eng., Mass. Inst. Tech., 19-26; *prof. civil eng., Drexel Inst., 26-* Assoc. Civil Eng. Structural engineering.
- Bowman, Prof. H(oward) H(iestand) M(inich)**, Toledo University, Toledo, Ohio. *Biology*. Lancaster, Pa., Nov. 3, 86. Ph.B., Franklin and Marshall, 13, M.S., 14; Ph.D., Pennsylvania, 17. Instr. bot., Franklin and Marshall, 14-15; asst. prof., Pennsylvania, 15-17; *prof. biol., Heidelberg (Ohio), 17-18; prof. and head dept., Toledo, 19-* Research assoc., sta. for exp. evolution and dept. marine biol., Carnegie Institution. M.C., U.S.A., 18-19. A.A.; Bot. Soc.; Ecol. Soc.; Soc. Plant Physiol.; Genetic Ass.; fel. Ohio Acad. (v. pres, 24); Mich. Acad. Physiological botany; mangroves; sea-grasses; botanical ecology of the Tortugas; hibernating structure in plants; marine phanerogams.
- Bowman, Dr. Isaiah**, American Geographical Society, Broadway at 156th St., New York, N. Y. **Geography*. Waterloo, Ont. Can., Dec. 26, 78. B.S., Harvard, 05; Ph.D., Yale, 09, hon. A.M., 21; hon. M.Ed., Mich. State Nor. Col., 25. Instr. geog., State Nor. Col., Ypsilanti, Mich., 02-03; asst. physiog., Harvard, 04-05; instr. geog., Yale, 05-09, asst. prof., 09-15; *director and ed., Am. Geog. Soc., 15-* Leader, Yale exped., S. Amer., 07, geographer and geologist, Yale-Peruvian exped., 11; leader, Am. Geog. Soc. exped., Cent. Andes, 13. Chief territorial adviser, Am. Commission to Negotiate Peace, 19. V. chairman, div. geol. and geog., Nat. Research Council, 24, 25, 26. Gold medals, Paris Geog. Soc., 17; Chicago Geog. Soc., 27. Ass. Geog.; Am. Acad.; Philos. Soc.; Explorers Club (see'y, 17-25); cor. mem. Am. Hispan. Soc.; Geog. Societies of Stockholm, Vienna, La Paz and London. Physiography; regional geography; political geography.
- Bown, Dr. Ralph**, 195 Broadway, New York, N. Y. *Physics, Electrical engineering*. Fairport, N. Y., Feb. 22, 91. M.E., Cornell, 13, M.M.E., 15, Ph.D., 17. Instr. physics, Cornell, 13-17; *engineer, Am. Tel. and Tel. Co., 19-* Capt., Sig.C., 17-19. Int. Union for Sci. Radio Telegraphy. A.A.; Physical Soc.; Radio Eng. (chairman, standardization committee, 25-, v. pres, 26, pres, 27). Radio telephony and radio wave transmission.
- Bownocker, Prof. J(ohn) A(dams)**, 185 15th Ave., Columbus, Ohio. *Geology*. St. Paul, Ohio, March 11, 65. B.S., Ohio State, 89, Sc.D., 97; fellow, Chicago, 92-94; Yale, 94-95. Prin. high sch., Ohio, 89-92; asst. geol., Ohio State, 95-98, asst. prof., 98-99, assoc. prof. inorg. geol., 99-01, *prof., 01-18, geol., 18-* Curator museum, Ohio State, 00-17; asst. geologist, Ohio Geol. Surv., 92; N. J. Geol. Surv., 93; asst. geologist, Ohio, 00-06, state geologist, 06- Geol. Soc.; Nat. Gas Ass.; Ohio Acad. Drainage modifications in Ohio; the oil and gas, salt, coal and building stones of Ohio; economic geology of non-metals; sands.
- Boyce, Dr. J(ohn) S(haw)**, New Post Office Building, Portland, Oregon. *Forest pathology*. Belfast, Ireland, Nov. 9, 89. B.S., Nebraska, 11, M.F., 12; Ph.D., Stanford, 17. Forest asst., U. S. Forest Service, 11-12; sci. asst. and asst. pathologist, bur. plant indust., U. S. Dept. Agr., 13-20, *pathologist, office forest path., 20-* Soc. Foresters; Phytopath. Soc.; Bot. Soc. Pathology of forest trees.
- Boyd, Prof. James E(llsworth)**, Ohio State University, Columbus, Ohio. *Mechanics, Physics*. Near Stovertown, Ohio, Nov. 6, 63. B.S., Ohio State, 91; M.S., Cornell, 96. Asst. physics, Ohio State, 91-95, asst. prof., 96-01, assoc. prof. math., 01-06, *prof. mech., 06-* Asst. to judges elec., Columbian Expos., 93; summer, asst., Bur. Standards, 17. A.A.; Mech. Eng.; Eng. Educ. Alternating currents; resistance of the human body; timing shutters; water jets; acceleration apparatus; flow in pipes; reinforced concrete; secondary stresses in bridges; elasticity of porcelain; tapered struts.
- Boyd, Dr. Mark F(rederick)**, 61 Broadway, New York, N. Y. *Epidemiology*. St. Paul, Minn., May 21, 89. M.D., Iowa, 11, M.S., 13; Folsom fellow, Harvard, 13-14; C.P.H., Harvard and Mass. Inst. Tech., 14. Assoc. prof. bacter., Nevada, 14-15; prev. med., Iowa, 15-17; *prof. bacter. and prev. med., Texas, 17-21; field staff, Int. Health Board, Rockefeller Foundation, 21-* Epidemiologist, Iowa, 15-17; visiting bacteriologist, Sealy Hosp., 17-21; director plague lab., U. S. Pub. Health Service, Galveston, 20; station for field studies of malaria, Rio de Janeiro, Brazil, 22-25, Leesburg, Ga., 25, Edentown, N. C., 26. State Board Health, Nev., 14; Nat. Malaria Committee, 25. A.A.; Pub. Health Ass.; Soc. Bact.; Soc. Trop. Med.; Soc. Path. and Bact.; Soc. Parasitol.; Iowa Acad. Epidemiology of typhoid fever, plague, malaria and leprosy; trichomonas infection; pathology of rabies; mycetoma; Fasciola hepatica.
- Boyd, Dean Paul P(rentice)**, University of Kentucky, Lexington, Ky. *Mathematics*. Cameron,

- W. Va, Feb. 26, 77. A.B, Oberlin, 98; A.M, Cornell, 05, fellow, 05-06, Ph.D, 11. *Prof. math. and astron*, Park, 03-04; *math*, Hanover, 06-12; *Kentucky*, 12-, *head dept*, 13-, *dean col. arts and sciences*, 17- Acting pres, Kentucky, 17. A.A; Math. Soc; Math. Ass; Ky. Acad. (exec. committee, 14, treas, 16-18, v. pres, 18-20, pres, 20). Geometric transformations.
- Boyd, Thomas A (Ivin)**, General Motors Corp, Detroit, Mich. *Chemistry*. Fairview, Ohio, Oct. 10, 88. B.Ch.E, Ohio State, 18. Research div, Dayton Metal Products Co, 18-19; *research laboratories*, Gen. Motors Corp, 19- Chem. Soc. The chemistry of motor fuels and the mechanics of their combustion.
- Boyden, Dr. Alan (Arthur)**, Rutgers University, New Brunswick, N. J. *Zoology*. Milwaukee, Wis, June 16, 97. A.B, Wisconsin, 21, Ph.D, 25. Asst. zool, Wisconsin, 21-25; instr, Rutgers, 25-26, asst. prof, 26- A.A; Micros. Soc; Soc. Mammal. Serology; genetics.
- Boyden, Prof. Edward A (Ilen)**, University of Illinois College of Medicine, Chicago, Ill. *Anatomy, Embryology*. Bridgewater, Mass, March 20, 86. A.B, Harvard, 09, A.M, 11, Ph.D, 16; Freiburg, 11-12. Asst. zool, Harvard, 08-11, teaching fellow histol. and embryol, 12-16, instr. comp. anat, 16-19, asst. prof, 19-26; assoc. prof. anat, col. med, Illinois, 26- Acting assoc. prof, Stanford, 21-22. A.A; Ass. Anat; Soc. Zool; Soc. Exp. Biol; Am. Acad. Vestigial gill filaments in Sauropsida; anatomy of the five-day chick; effect of experimental obstruction of Wolfian ducts on development of cloaca, allantois and mesonephros; hydronephrosis and compensatory hypertrophy of embryonic kidney; nitrogen metabolism in chick embryo; the pancreatic and accessory gall bladders in mammals; mechanism of expulsion of bile; behavior and sex differences in human gall bladder.
- Boyd, Dr. Mabel (Josephine) Gregg, (Mrs. Alan)**, Rutgers University, New Brunswick, N. J. *Zoology*. Albuquerque, N. Mex, Nov. 20, 99. A.B, Wisconsin, 21, A.M, 22, Ph.D, 25. Asst. zool, Wisconsin, 21-22, *research asst*, 22-25; Rutgers, 25- A.A. Physiology; serology.
- Boyer, Charles S (umner)**, 6140 Columbia Ave, Philadelphia, Pa. *Botany*. Philadelphia, Sept. 23, 56. A.B, Brown, 79, A.M, 85. A.A; Bot. Soc; Micros. Soc; Phila. Acad; Royal Micros. Soc. Diatomaceae.
- Boyer, Dr. E (dward) (Everett) H (ale)**, State Bureau of Juvenile Research, Columbus, Ohio. *Pathology*. Lynn, Mass, Feb. 15, 93. Fellow, Ohio State, 19, Ph.D, 20. *Pathologist*, Mt. Carmel Hosp, Columbus, 20-25; *State Bur. Juvenile Research*, 25- Soc. Bact. Physical causes of juvenile delinquency; bacterial antigens and benign neoplasms.
- Boyle, Dr. A (Ibert) C (larence), Jr**, Union Pacific Railway System, Laramie, Wyo. *Mining engineering, Geology*. Salt Lake Co, Utah, March, 80. A.B, Utah, 02, B.S, 06; Cornell, 05-06; A.M, Columbia, 10, Ph.D, 13. Instr. physics, Utah, 97-01, mech. arts, 00-07; asst. instr. geol, Columbia, 07-10; prof. mining, metal. and geol, sch. mines, Wyoming, 10-20; consulting geologist, U. P. Ry. System, 18-20, chief geologist, 20- Summer, instr, Columbia, 13. Consulting geologist, U. P. Coal Co; U. P. Water Co; Bully Hill Copper Min. and Smelting Co, 07-13; state assayer and mineralogist, Wyo, 10-21. State Board Coal Miners Inspectors, 10-22; Nat. Research Council. A.A; Min. and Metal. Eng; Eng. Educ; Petrol. Geol; Am. Geog. Soc. Metallurgy; preparation of thin sections of rocks, minerals and ores; forced cupellation; extraction of K₂O from leucite; flotation; geology and ore deposits; copper mines.
- Boyle, Dean R (obert) W (illiam)**, University of Alberta, Edmonton, Alta, Can. *Physics*. Carbonear, Newfoundland, Oct. 2, 83. St. John's (Newfoundland); B.Sc, McGill, 05, M.Sc, 06, Ph.D, 09, 1851 Exhib. scholar, 09. Demonstrator physics, McGill, 05-07, senior demonstrator and special lecturer math, 07-09; research radioactivity, Manchester, 09-11; lecturer physics, McGill, 11, asst. prof, 12; prof, Alberta, 12-, dean faculty applied science, 21- Research, British Admiralty Board Inventions and Research, and Anti-Submarine Div, 16-19. Physical Soc. (past pres, sect. 3); Royal Soc. Can. Properties of matter; adsorption; solution; volatilization of radioactive emanations; high frequency elastic waves.
- Boylston, A (rthur) C (larence)**, 3600 N. Second St, St. Louis, Mo. *Chemistry*. Milton, Mass, June 23, 82. A.B, Harvard, 03, A.M, 06. Austin teaching fellow, Harvard, 06-08; chemist and supt, Mallinckrodt Chem. Works, 08-25, v. pres. and gen. manager, 25- A.A; Chem. Soc. (chairman, St. Louis sect, 17, 18); Chem. Eng. Physical chemistry; pharmacology.
- Boylston, Prof. H (erbert) M (elville)**, 2083 Taylor Road, East Cleveland, Ohio. *Metallurgy, Mining*. Brooklyn, N. Y, Jan. 4, 81. B.S, Harvard, 03, A.M, 05. Asst. metal. chem, Harvard, 03-05, asst. metal, 06-12, instr. min. and metal, 08-09; managing partner, Sauveur and Boylston, 09-21; prof. metal, Case, 20- Mem. board, Eng. Foundation, 21- Carnegie scholar, British Iron and Steel Inst, 15-16. A.A; Soc. Steel Treat. (chairman, publications committee, 20-); Min. Eng. (sec'y, iron and steel committee, 13-15, chairman, sub-committee on chem, physics and metallog, 15-, sec'y, Boston sect, 18-20, chairman, Ohio sect, 20-22, 24-); Soc. Test. Mat. (chairman, committee on heat treatment of iron and steel, 20-); Eng. Educ; British Inst. Metals; British Iron and Steel Inst. Metallography.
- Boynton, Dr. H (enry) C (ook)**, 935 Carteret Ave, Trenton, N. J. *Metallurgy*. Willsborough, N. Y, April 16, 74. A.B, Harvard, 00, Austin fellow, 00-03, M.S, 01, Sc.D, 04; Carnegie research scholar, British Iron and Steel Inst, 05-06, 07-08. Asst. to dean, grad. sch, Harvard, 94-96, instr. metal. and metallog, 03-06; metallurgist, J. A. Roebling's Sons Co, 06- Min. Eng; Soc. Test. Mat. (chairman, metallog. committee); Soc. Steel Treat; British Iron and Steel Inst. Metallography; a definite hardness for the microconstituents of iron and steel; high strength wire for aeroplane stays, balloon cables, mine anchors.

Boynton, Dr. Lyman C(owell), University of Washington, Seattle, Wash. *Biochemistry*. Ashtabula, Ohio, Nov. 4, 93. B.S, Michigan, 16; A.M, Columbia, 22, Ph.D, 24. Research asst. food chem, Columbia, 21-24; instr. *physiol. chem, Washington (Seattle)*, 24-25, *asst. prof*, 25- Acting instr, Stanford, 23. A.A; Chem. Soc. Distribution of vitamin A in the body; antirachitic vitamin in salmon body oils; wood-digesting enzymes in marine borers.

Boynton, Prof. Paul L(ewis), University of Kentucky, Lexington, Ky. *Psychology*. Llano, Texas, July 24, 98. A.B, Sam Houston State Teachers Col, Texas, 20; fellow, Peabody Col, 22-23, A.M, 23. Prin, high sch, Texas, 20-21; instr. *psychol, Kentucky*, 23-24, *asst. prof*, 24-Summer, instr, Appalachian Training Sch, Boone, N. C, 22. Nature, function and testing of intelligence; learning; social psychology.

Boynton, Prof. W(illiam) H(utchins), University of California, Berkeley, Calif. *Veterinary medicine*. Grass Valley, Calif, April 18, 81. California; D.V.M, Cornell, 08. Instr. gen. path, Cornell, 09-10; comp. pathologist, P. I, 10-24; dean vet. col, Philippines, 14-18; chief research lab, Bur. Agr, P. I, 18-24; *prof. vet. science, California*, 24- Lecturer, Philippines, 10-14. Vet. Med. Ass; Philippine Vet. Med. Ass; Bay Counties Vet. Med. Ass. Rinderpest; contagious pleuro-pneumonia, anaplasmosis, anthrax; kidney worm disease in swine; vaccine for hog cholera; bacteriophage.

Boynton, Prof. W(illiam) P(ingry), 267 11th Ave, E, Eugene, Oregon. **Physics*. Weathersfield, Vt, Oct. 28, 67. A.B, Dartmouth, 90, A.M, 93; fellow, Clark, 95-97, Ph.D, 97. Asst. *physics*, Dartmouth, 88-90; prof, Southern California, 90-93; asst, Dartmouth, 93-94; instr, California, 97-01; asst. prof, Oregon, 03-06, *prof*, 06-A.A; Physical Soc. The high frequency induction coil; thermodynamic potentials; measurement of high oscillatory potentials.

Bozell, Harold Veatch, 37 Lincoln St, Larchmont, N. Y. *Electrical engineering*. Beloit, Kans, May 31, 86. B.S, Kansas, 08, E.E, 15. Asst. prof. elec. eng, Oklahoma, 08-09, assoc. prof, 09-11, prof, 11-16; asst. prof, Yale, 16-21; ed, 'Elec. World,' 22-25; *Bonbright and Co*, 25-Ed, 'Elec. Ry. Jour,' 20-22. Elec. Eng; Mech. Eng; Eng. Educ; Illum. Eng. Soc.

Bozorth, Dr. Richard M(ilton), 463 West St, New York, N. Y. *Chemistry, Physics*. Salem, Oregon, April 10, 96. A.B, Reed, 17; du Pont fellow, Calif. Inst, 21-22, Ph.D, 22. Teaching fellow chem, Calif. Inst, 19-21, research fellow, 22-23; *research physicist*, West. Elec. Co, 23-25; *Bell Telephone Laboratories*, 25- Chem. Soc; Physical Soc. Activities of strong electrolytes; crystal structure by means of X-rays; magnetic properties of materials.

Braafladt, Prof. L(ouis) H(enry), Shantung Christian University, Tsinan, China. *Medicine*. Belview, Minn, Feb. 26, 85. A.B, Luther Col, 06; M.S, Chicago, 14, M.D, Rush Med. Col, 16; Ph.D, Hopkins, 23. Asst. *path*, Chicago, 15-16; instr, Hopkins, 21-22; asst. prof, Shantung Christian Univ, 19-23, *prof*.

and head dept, 23- Assoc. ed, 'China Med. Jour.' Rockefeller Foundation fellow, 22-23. Adviser, Provincial Health Board, Shantung, 19-21; mem. med. and sci. terminol. committee, China, 19-21. Decorated by Chinese presidents, 20, 23. Fel. Am. Med. Ass.

Bracken, Prof. Aaron F, Nephi, Utah. *Agronomy*. Freedom, Wyo, Oct. 11, 90. B.S, Utah Col, 14, A.M, 24. Foreman, Nephi Substation, 14-15; instr. agron, Utah Col, 16-17; county agr. agent, 17-18; sci. asst. and supt, Nephi Substation, 18-21; *state supt, Utah*, 21-; *asst. prof. agron, Utah Col*, 24- Soc. Agron; Utah Acad. Plant breeding; nitrate under dry-land conditions; threshing losses.

Bracken, Dr. H(enry) M(artyn), Hampshire Arms Hotel, Minneapolis, Minn. *Medicine*. Noblestown, Pa, Feb. 27, 54. M.D, Columbia, 77; L.R.C.S, Edinburgh, 79. Prof. mat. med. and therapeut, Minnesota, 88-07, prev. med, 07-09; sec'y and exec. officer, Minn. State Board Health, 97-19; surgeon, U. S. Pub. Health Service, 19-23; *senior surgeon, retired*, 23- A.A; Am. Med. Ass; Climat. Ass. Materia medica; therapeutics; smallpox; typhoid fever; tuberculosis; leprosy.

Brackett, Dr. B(yron) B(riggs), University of South Dakota, Vermillion, S. Dak. *Electrical engineering, Physics*. Ira, N. Y, Aug. 13, 65. A.B, Syracuse, 90, A.M, 93; Ph.D, Hopkins, 97. Teacher math, Dickinson Sem, Williamsport, 90-92; col. dept, Adelphi Acad, 92-93; asst. elec, Hopkins, 94-97; teacher elec. eng, Union, 97-98; physics, high sch, Washington, D. C, 98-00; engineer, Rowland Telegraph Co, 00-01; instr. elec. science, Rutgers, 01-03; *prof. physics and elec. eng*, Clarkson Col. Tech, 03-09; *elec. eng*, S. Dak. Col, 09-23; *South Dakota*, 23- Inspector torpedo cable, eng. dept, U.S.A, 98. Chairman, State Board Eng, S. Dak; assoc, Naval Consulting Board. A.A; Elec. Eng; Eng. Educ; S. Dak. Eng. Soc. Magnetic stresses; laboratory methods and instruments; radio.

Brackett, Prof. F(rank) P(arkhurst), Claremont, Calif. *Astronomy*. Provincetown, Mass, June 16, 65. A.B, Dartmouth, 87, A.M, 90; hon. fellow, Clark, 02-03. Instr. *math, Pomona*, 88-90, *prof*, 90-, *director observatory*, 08- Summer, lecturer, California, 10. Astron. exped, Algeria, 11; Smithsonian exped, Calif, 13; director, eclipse exped, Catalina, 23. A.A; Astron. Soc; Math. Soc; Pacific Astron. Soc; S. Calif. Acad; Royal Astron. Soc. Can. Comets and meteors; solar spectroscopy.

Brackett, Prof. F(rederick) S(umner), 1035 Ordway St, Berkeley, Calif. *Physics*. Claremont, Calif, Aug. 1, 96. A.B, Pomona, 18; Ph.D, Hopkins, 22. Asst, Bur. Standards, 18-19; observer, Mt. Wilson Observatory, 19-20; instr. physics, Hopkins, 20-22; asst. physicist, Bur. Standards, 21-22; asst. prof. *physics, California*, 22-25, *assoc. prof*, 25- Physical Soc; Optical Soc. Infra-red spectroscopy; atomic structure; spectral intensity relations.

Brackett, Dr. R(ichard) N(ewman), Clemson College, S. C. *Chemistry, Mineralogy*. Near

- Columbia, S. C, Sept. 14, 63. A.B, Davidson, 83; Ph.D, Hopkins, 87. Chemist, Ark. Geol. Surv., 87-91; asst. chemist, S. C. Exp. Sta., 91-07; assoc. prof. chem., *Clemson*, 91-10, *prof. and director dept.*, 10-; *state chemist*, S. C., 10-; *chemist*, S. C. *Exp. Sta.*, 22- A.A.; Chem. Soc.; Agr. Chem. (past pres). Ethers of benzoic sulphinid; preparation of orthosulphobenzoic acid; peridotite of Pike County, Ark; newtonite and rectorite; phosphoric acid in mixed fertilizers; lint in cotton-seed meal.
- Bradbury, Prof. O(r)a C(lare)**, Wake Forest College, Wake Forest, N. C. *Zoology*. McPherson, Kans., July 17, 90. B.S., Ottawa (Kans.), 14; A.M., Nebraska, 15, Ph.D., 19. Asst. prof. zool., Baylor, 17, prof., 18-23; asst. prof., Denver, 23-25; *prof. biol.*, *Wake Forest*, 25- A.A. Animal ecology; embryology; parasitology.
- Bradbury, Dr. Robert H(art)**, 2100 Shunk St, Philadelphia, Pa. *Chemistry*. Philadelphia, Sept. 25, 70. Ph.D., Pennsylvania, 93. Asst. chemist, Cambria Iron Co, 90-91; chemist, S. P. Wetherill Paint Co, 91-92; prof. chem., Cent. Manual Training Sch., Philadelphia, 93-07; *head dept. science*, *South High Sch.*, 07- Lecturer, Pennsylvania, 94-95. Chem. Soc.; Franklin Inst; Chem. Gesell. Inductive chemistry; molybdic and tungstic acids.
- Bradfield, Prof. Richard**, University of Missouri, Columbia, Mo. *Chemistry*. West Jefferson, Ohio, April 29, 96. A.B., Otterbein Col., 17; Ph.D., Ohio State, 22. Instr. *soils*, *Missouri*, 20-22, asst. prof., 22-23, *assoc. prof.*, 23- A.A.; Chem. Soc.; Soc. Agron. Soil colloids; colloidal clay.
- Bradfield, Wesley**, San Diego Museum, Balboa Park, San Diego, Calif. *Archeology*. Waltz, Mich., Oct. 25, 76. A.B., Alma, 02; M.S.F., Michigan, 05. Curator archeol., N. Mex. Museum and Sch. Am. Research, 17-27; *assoc. director*, *San Diego Museum*, 27- In charge archeol. excavations, N. Mex. and Guatemala. A.A.; N. Mex. Ass. Sci. (v. pres, 25); N. Mex. Archeol. Soc. Excavations in Mimbres region, New Mexico.
- Bradford, Prof. C(larence) G(rary)**, 445 B St, Yuba City, Calif. *Psychology*. Pine Bluff, Ark., Sept. 15, 81. A.B., Arkansas, 11; Pd.M., N. Y. Univ., 13, Ph.D., 14. Supervisor, training sch., E. Cent. State Nor. Sch., Okla., 14-17, prof. psychol., 17-20; Union High Sch., Yuba City, 22-26; *dist. supt. schools*, *Corcoran, Calif.*, 26-A.A.; Psychol. Ass. Experimental psychology; habit formation; lough association tests.
- Bradford, Dr. Edward H(ickling)**, 253 Newbury St, Boston, Mass. *Surgery*. Boston, June 9, 48. A.B., Harvard, 69, M.D., 72. Surgeon, Children's Hosp., 80; Boston City Hosp., 83; instr. clin. surg., *Harvard*, 85-93, asst. prof. *orthop. surg.*, 93-04, prof., 04-12, *emer. prof.*, 12- Trustee, Mass. Hosp. Sch. for Crippled Children; Boston Ear and Eye Infirmary. Surg. Ass; Orthop. Ass; Am. Med. Ass; Am. Acad.
- Bradford, Prof. F(rederick) C(harles)**, Michigan State College, East Lansing, Mich. *Pomology*. Lowell, Mass., Feb. 4, 87. B.S., Harvard, 08; M.S., Maine, 11. Research asst. hort., Oregon Exp. Sta., 11-14; head master, high school, N. H., 14-17; office farm management, U. S. Dept. Agr., 17-19; asst. prof. hort., Missouri, 19-22; *assoc. prof.*, *Mich. State Col.*, 22- Soc. Hort. Sci. Blossom bud differentiation; orchard fertilization; winter injury; root-stocks for fruit trees.
- Bradford, Prof. Robert H(enry)**, University of Utah, Salt Lake City, Utah. *Metallurgy*. Salt Lake City, Dec. 10, 71. B.S., Utah, 95; Chicago, summers, 95, 96; fellow, Columbia, 00-02, Ph.D., 02. Instr. physics, *Utah*, 95-96, miner. and metal, 96-98, asst. prof., 98-03, *prof. metal*, 03- Min. Eng. Reactions of the Ziervogel process and their temperature limits; effect of heat treatment on carbon steel; determinations of silver in hard lead; temperature of the lead button in cupellation; the chloride volatilization process of ore treatment.
- Bradley, Dr. Aubrey O(ttarson)**, 710 W. 28th St, Wilmington, Del. *Organic chemistry*. Wickliffe, Ohio, April 26, 96. A.B., Ohio Wesleyan, 17; M.S., Ohio State, 18, du Pont fellow, 24-25, Ph.D., 25. Chemist, Cincinnati Chem. Works, 19-23; asst. org. chem., Ohio State, 23-24; *research chemist*, *Jackson lab*, *E. I. du Pont de Nemours and Co.*, 25- Chem. Soc. Ultra-violet absorption spectra of phenyl-azo-alpha-naphthol; azo dyes.
- Bradley, C(harles) E(dward)**, Mishawaka Rubber and Woolen Co, Mishawaka, Ind. *Chemistry*. Galesburg, Ill., Feb. 22, 74. M.S., Pacific (Oregon), 99; Chicago, 01; California, 06. Prof. chem., Pacific (Oregon), 00-06; chemist, Oregon Exp. Sta., 06-10; research chemist, Rubber Regenerating Co, 11-13; chemist, Mishawaka Rubber and Woolen Mfg. Co, 13-17; director research laboratories, U. S. Rubber Co, 17-23; *asst. gen. manager*, *Mishawaka Rubber and Woolen Mfg. Co.*, 23- Chem. Soc. Soils; waters; hops; the reaction of lime upon some Oregon soils; the composition of lime-sulphur spray mixture.
- Bradley, Charles S(chenck)**, 419 W. 119th St, New York, N. Y. **Electricity, Chemistry*. Victor, N. Y., April 12, 53. Special course in chem., Rochester. Elec. engineer, Edison Illuminating Co, 81-84; *practising electrician*, 84- Acting prof., Carnegie Tech. Schools, 06-09. A.A.; Elec. Eng. Alternating current; transmission; motors; electrochemistry; fixation of nitrogen; extraction of copper from its ores.
- Bradley, George H(irst)**, U. S. Department of Agriculture, Washington, D. C. *Entomology*. Patch Grove, Wis., July 14, 93. B.S., Cornell, 16, 24-25. Asst. entom., Cornell, 16-17; sci. asst., *bur. entom.*, *U. S. Dept. Agr.*, 19-22, *asst. entomologist*, 22- Summer, field asst., U. S. Dept. Agr., 17. Lieut. and capt., U.S.A., 17-19. A.A.; Ass. Entom.; Entom. Soc.; Soc. Parasitol. Biology and ecology of Culicidae; control of Anopheles mosquitoes.
- Bradley, Prof. H(arold) C(ornelius)**, University of Wisconsin, Madison, Wis. *Physiological chemistry*. Oakland, Calif., Nov. 25, 78. A.B., California, 00; Ph.D., Yale, 05. Asst. *physiol. chem.*, Yale, 04-05, instr., med. sch., 05-06; asst.

prof, *Wisconsin*, 06-12, assoc. prof, 13-17, *prof*, 17- A.A.; Chem. Soc; Physiol. Soc; Soc. Biol. Chem. Physiological chemistry of Mollusca; copper and zinc in a marine mollusc; manganese in fresh-water mussels; human pancreatic juice; lipase; hemoglobins; autolysis and atrophy; distribution of pepsin.

Bradley, Prof. Harry C(yrus), Massachusetts Institute of Technology, Cambridge, Mass. *Civil engineering*, *Descriptive geometry*. Plaistow, N. H., July 7, 71. B.S., Mass. Inst. Tech, 91. Fog signal experiments, U. S. Lighthouse Dept, 93-96; instr. *descriptive geom.*, *Mass. Inst. Tech.*, 97-08, asst. prof, 08-19, *assoc. prof*, 19- Expert irrig. investigations, U. S. Dept. Agr, 01. A.A.; Math. Ass. Fog signals; irrigation; graphical methods.

Bradley, Dr. J(ames) Chester, Cornell University, Ithaca, N. Y. *Entomology*. West Chester, Pa., Feb. 11, 84. A.B., Cent. High Sch., Phila., 03; A.B., Cornell, 06, fellow, 09-10, Ph.D., 10; M.S., California, 07. Asst. entom., Cornell, 05-06; California, 06-07; *Cornell*, 07-09, asst. prof. syst. entom., 11-17, 18-20, *prof. entom.*, 20-, *curator invert. zool.*, 19- Special asst. entomologist, Ga., 09, 10, 13; asst. prof., California, 17-18. Ed., 'Entom. Student,' 00, ed. and manager, 01. A.A.; Soc. Nat; Entom. Soc. (librarian, 03-05); Entom. Soc. Amer. (sec'y-treas, 06-10); Ecol. Soc; Pacific Coast Entom. Soc; Phila. Acad; London Entom. Soc; Soc. entom. de France; Soc. Entom. Belge; Chile Soc. Sci; Chile Entom. Soc. Systematic hymenopterology; wing venation of the Hymenoptera.

Bradley, Dr. J(ohn) H(odgdon), Jr, University of Montana, Missoula, Mont. *Paleontology*. Dubuque, Iowa, Sept. 17, 98. A.B., Harvard, 21; Ph.D., Chicago, 24. Asst. *geol.*, Harvard, 20-21, 22-23; instr., North Carolina, 21-22; asst. prof., *Montana*, 25-26, *assoc. prof.*, 26- A.A.; Paleont. Soc; Boston Soc. Nat. Hist. Invertebrate paleontology; faunas and stratigraphy of Ordovician formations in Iowa, Quebec, Illinois and Missouri.

Bradley, Dr. Leon A(ison), P. O. Box 78, North Amherst, Mass. *Bacteriology*. Naugatuck, Conn., March 23, 96. B.S., Wesleyan, 22; Ph.D., Yale, 25. Asst. gen. bacter., Yale, 24-25; *asst. prof. microbiol.*, *Mass. Col.*, 25- Soc. Bact.

Bradley, Dr. M(anson) J(ames), University of Cincinnati, Cincinnati, Ohio. *Chemical engineering*. Leskard, Ont., Can., May 10, 87. B.A., McMaster, 14, M.A., 15; Ph.D., Illinois, 21. Chemist, Can. Explosives, Ltd, 15; Can. Cement Co. and Armstrong-Whitworth Co, 16; testing engineer, British Munitions Board, Can. Electro Products Co, 17; asst. applied chem., Illinois, 17-21, instr. *chem. eng.*, 21-22, *assoc.*, 22-25; *asst. prof.*, *Cincinnati*, 25- Summer, efficiency engineer, coke dept, Inland Steel Co, 22. Chem. Soc. Decomposition products; lacquers; sulphur in gas and oils.

Bradley, Dean Theodore J(ames), 179 Longwood Ave, Boston, Mass. *Pharmacy*, *Chemistry*. Albany, N. Y., Aug. 8, 74. Ph.G., Union, 95, hon. A.M., 12; B.S., Rensselaer, 04. Instr.

and sec'y, pharmacy dept, Union, 95-12; *prof. chem. and dean*, *Mass. Col. Pharmacy*, 12- Chemist, state departments health and agr., N. Y., 95-05; instr., Albany Acad, 96-12; Albany Med. Col., Union, 97-07; special examiner, N. Y. State Civil Service Commission. A.A.; Pharmaceut. Ass. (pres, 26); Chem. Soc; Pub. Health Ass. Pharmaceutical education; food and drug analysis; water supplies.

Bradley, Dr. W(alter) M(inor), 520 Whitney Ave, New Haven, Conn. *Chemistry*. New Haven, April 14, 73. Ph.B., Yale, 99, Ph.D., 08. Asst. miner, *Sheffield Sci. Sch.*, Yale, 04-09, *instr. chem. and miner*, 09-16, *chem.*, 23- A.A.; Chem. Soc; Electrochem. Soc.

Bradley, Dr. W(alter) P(arke), 400 N. Third St., Millville, N. J. *Chemistry*. Lee, Mass., July 7, 62. A.B., Williams, 84; Ph.D., Göttingen, 89; Sc.D., Wesleyan, 14. Asst. chem., Williams, 86-88; instr., Wesleyan, 89-90, *assoc. prof.*, 90-93, *prof.*, 93-14; director gen. laboratories, U. S. Rubber Co, 12-13, research chemist, 14-19; *pres.*, *Bradstone Rubber Co.*, 19- A.A.; Chem. Soc. Organic chemistry; critical constants of liquids; theory of liquid air production; chemistry of low temperatures.

Bradley, W(ilnot) H(yde), U. S. Geological Survey, Washington, D. C. *Geology*. New Haven, Conn., April 4, 99. Ph.B., Yale, 20, 20-23. Field asst., *U. S. Geol. Surv.*, 20, *geol. aid*, 21-22, asst. geologist, 22-25, *assoc. geologist*, 25- Wash. Geol. Soc. Origin of oil shale and its microfossils; stratigraphy of the Green River formation.

Bradshaw, Dr. Hamilton, 1101 Nottingham Road, Wilmington, Del. *Chemistry*. DeKalb, Ill., Dec. 31, 81. A.B., Beloit, 02; Ph.D., Hopkins, 05. Research chemist, east. lab., *E. I. du Pont de Nemours and Co.*, 05-13, asst. director exp. sta., 13-16, director, 16-21, head cellulose div., chem. dept., 21-22, chem. director cellulose products dept., 22-25, *asst. director chem. dept.*, 25- Chem. Soc.

Bradshaw, Prof. John W(illiam), 1304 Cambridge Road, Ann Arbor, Mich. *Mathematics*. Batavia, Ill., June 14, 78. A.B., Michigan, 00; A.M., Harvard, 02; Ph.D., Strassburg, 04. Instr. *math.*, *Michigan*, 04-09, asst. prof., 09-18, *assoc. prof.*, 18-23, *prof.*, 23- Registrar, Michigan, 06-08. A.A.; Math. Soc; Math. Ass. Differential equations of physics; projective and descriptive geometry.

Bradt, Dr. Wilber Elmore, State College of Washington, Pullman, Wash. *Chemistry*. A.B., Indiana, 23, A.M., 24, Ph.D., 26. Asst., Indiana, 23-26; *instr. chem.*, *Wash. Col.*, 26- Chem. Soc; Ind. Acad. Preparation of 2-4-diamidophenol by chemical, electrolytic and catalytic methods; method for the quantitative estimation of selenium in organic compounds; preparation of selenium organic compounds by the Friedel-Crafts reaction and the preparation of seleno-ketones.

Bragg, Miss Laura M(ary), Charleston Museum, Charleston, S. C. *Botany*. Northbridge, Mass., Oct. 9, 81. Curator, *Charleston Museum*, 09-20, *director*, 20- Ecol. Soc; Torrey Bot. Club.

- Botany of South Carolina and coast region of southeastern United States exclusive of Florida.
- Braham, Dr. Joseph Marvin**, 133 Eldorado St, Syracuse, N. Y. *Chemistry*. Artesian, S. Dak, Feb. 1, 91. B.S, Idaho, 14; M.S, Illinois, 15, Ph.D, 18. Asst. chem, Illinois, 15-16; assoc. chemist, Bur. Standards, 19; research chemist, War Dept, 19-21; chief chem. div, fixed nitrogen research lab, U. S. Dept. Agr, 22-25; *research dept, Atmospheric Nitrogen Corp*, 25- Capt, C.W.S. Nitrogen fixation.
- Brahana, Dr. H(enry) R(oy)**, 707 S. McCullough Ave, Urbana, Ill. *Mathematics*. Lowell, Vt, Aug. 16, 95. A.B, Dartmouth, 16; A.M, Princeton, 17, Ph.D, 20. *Instr. and assoc. math, Illinois*, 20- Math. Soc. Analysis situs.
- Brainin, Dr. Clement S**, 14 Laurel Place, Glen Ridge, N. J. *Physics*. New York, N. Y, April 30, 87. A.B, Columbia, 08, Barnard fellow, 08-11, Ph.D, 17. Physicist, Baker Platinum Works, 17-25; *consulting physicist*, 25- Instr, exten. dept, Columbia, 17- A.A; Physical Soc. X-rays; physical metallurgy; spectroscopy; physics of the precious metals.
- Braisted, Rear Admiral William Clarence**, U.S.N. (retired), West Chester, Pa. *Medicine*. Toledo, Ohio, Oct. 9, 64. Ph.B, Michigan, 83, LL.D, 17; M.D, Columbia, 86; Sc.D, Northwestern, 18; LL.D, Jefferson Med. Col, 18. Private practise, 88-90; asst. surgeon, U.S.N, 90-93, passed asst. surgeon, 93-13, surgeon, 13, med. inspector, 13-14, surgeon gen. with rank of rear admiral, 14-20. Instr, Naval Med. Sch; rep, med. dept, Russo-Japanese War; asst. chief bur. med. and surg, 06-12, chief, 14-; fleet surgeon, Atlantic fleet, 12-14. Past pres, board directors, Columbia Hosp. for Women; board visitors, Govt. Hosp. for Insane; cent. committee and war relief board, Am. Red Cross. D. S. medal; decorated by Emperor of Japan; Order of Bolivar, Venezuela. Am. Med. Ass. (pres, 19-20); Col. Surg. (board governors); Ass. Mil. Surg. (pres, 13); Phila. Col. Phar. (pres, 20-); fel. Edinburgh Royal Col. Surg.
- Braithwaite, Dr. L(eslie) V(ictor)**, 3622 Chestnut St, Philadelphia, Pa. *Chemistry*. Brooklyn, N. Y, July 27, 92. B.S, Brooklyn Polytech, 22; A.M, Columbia, 23, Ph.D, 25. Refrigerating engineer, 13-21; asst. chem, Columbia, 24-25; *instr, Drexel Inst*, 25- Inorganic and physical chemistry.
- Brakefield, Dr. James L**, Howard College, Birmingham, Ala. *Biochemistry*. Gamble Mines, Ala, Sept. 11, 97. A.B, Union (Tenn), 18; A.M, Baylor, 21; Ph.D, California, 25. Instr. chem, Baylor, 20-22; asst. biochem, California, 23-24; *head dept. biol*, Judson Col, 25-26; *Howard*, 26- Chem. Soc; Ala. Acad. Thiocumarin; bile components in jaundice; elimination of certain dyes from animal organism; synthesis of hippuric acid by jaundiced animals.
- Brakel, Prof. Henry L(ouis)**, 4734 Thackeray Place, Seattle, Wash. *Physics*. Traverse City, Mich, Dec. 6, 76. A.B, Olivet, 02; M.S, Washington (Seattle), 05; Ph.D, Cornell. Instr. physics, *Washington (Seattle)*, 05-12, asst. prof, 12-20, *assoc. prof. eng. physics*, 20- Physical Soc. Electricity.
- Braley, Prof. S(ilas) A(lonzo)**, 806 W. Oregon St, Urbana, Ill. *Chemistry*. Cherokee, Iowa, Dec. 10, 89. A.B, Morningside, 13; M.S, Illinois, 15, Ph.D, 17. Instr. chem, *Illinois*, 17-19, assoc, 19-20, *asst. prof*, 20- A.A; Chem. Soc. Analytical chemistry; heterogeneous equilibria between aqueous and metallic solutions; transference in amalgams and mixed salt solutions.
- Braman, Prof. Winfred Waite**, 200 W. Beaver Ave, State College, Pa. *Biochemistry*. Worcester, Mass, March 29, 74. B.S, Worcester, 97; M.S, Pa. State, 08. Asst. chem, Harvard, 97-00; chem. and physics, New Hampshire, 00-02; chem, Lowell Textile Sch, 02-03; asst. instr. and *asst. prof. animal nutrition, Pa. State*, 03- A.A; Chem. Soc. Animal nutrition; carbon balance; energy; carbon dioxide ratio.
- Bramble, Prof. Cha(rlie)s C(linton)**, U. S. Naval Academy, Annapolis, Md. *Mathematics*. Centreville, Md, Aug. 17, 90. Ph.B, Dickinson, 12, A.M, 13; fellow, Hopkins, 16-17, Ph.D, 17. Instr, Montclair Acad, 12-13; lecturer math, Bryn Mawr, 15-16; instr, *U. S. Naval Acad*, 17-19, asst. prof, *post-grad. sch*, 19-21, *assoc. prof*, 21- Math. Soc; Math. Ass. Geometry; finite groups.
- Branch, Prof. Gerald E(yre) K(irkwood)**, University of California, Berkeley, Calif. *Chemistry*. St. Kitts, W. I, April 16, 86. B.Sc, Liverpool, 11, M.Sc, 12; Ph.D, California, 15. Teaching fellow *org. chem, California*, 12-13, asst, 13-15, instr, 15-18, asst. prof, 18-24, *assoc. prof*, 24- Organic chemistry; theory of polarity; free energy of formic acid.
- Branch, Dr. Hazel E**, 3756 E. Douglas Ave, Wichita, Kans. *Zoology*. Concordia, Kans. A.B, Kansas, 08, A.M, 12; Ph.D, Cornell, 21. Preceptress, Col. Sisters of Bethany, 14-18; asst, dept. biol, Cornell, 18-22; chairman, Fairmount, 22-26; *prof. zool, Wichita*, 26- Research, N. Y. Milk Conf. Board, 20-21. A.A; Ass. Med. Progress; Kans. Acad. (exec. committee, 25). Membracidae; Trichoptera; Chironomus cristatus; egg masses of chironomidae; anatomy of Cryptobranchus alleghaniensis.
- Brand, Charles J(ohn)**, 1868 Columbia Road, Washington, D. C. *Botany*. Lac-qui-Parle Co, Minn, Oct. 24, 79. A.B, Minnesota, 02. Asst. curator dept. bot, Field Museum Nat. Hist, 02-04; asst. physiologist, U. S. Dept. Agr, 04-06, physiologist, 07-13, chief bur. markets, 13-19; v. pres. and gen. manager, Am. Fruit Growers, Inc, and director various affiliated companies, 19-22; consulting specialist, U. S. Dept. Agr, 22-25. Mem. Committee Southwest. Cotton Culture, 12-18; delegate, Pan-Am. Financial Conf, 15, 19; Pan-Am. Scientific Cong, 15-16; chairman committee cotton distribution, W. I. B. Nat. Fert. Ass. (exec. sec'y-treas, 25-). Wash. Acad. Agricultural economics; horticulture; business economics.
- Brand, Prof. Louis**, 2603 University Court, Cincinnati, Ohio. *Mathematics*. Cincinnati, Sept. 27, 85. Ch.E, Cincinnati, 07, E.E, 08, A.M, 09; Ph.D, Harvard, 19. Instr. math, *Cincinnati*, 07-09, asst. prof. and assoc. prof, 11-19, *prof*, 19- Math. Soc. Linear equations with an in-

finite number of variables; integral equations; dynamics.

- Brandel, Dr. I(rvin) W(alter)**, 1001 Main St, Alton, Ill. *Chemistry*. Sauk City, Wis, Sept. 25, 77. Ph.G, Wisconsin, 99, fellow, 99-02, B.S, 01, M.S, 02, Ph.D, 06. Instr. pharmacy, Wisconsin, 02-05; asst. prof, Washington (Seattle), 05-09; chem. engineer, 09-14; Midland Chem. Co, 14-17; gen. manager, Basic Chem. Mfg. Corp, 17-25; *production manager, Alton Barium Products Co, 25-* Expert volatile oils, U. S. Pharmacopoeia Revision Committee. Assoc. ed, 'Midland Drug and Phar. Rev.' Chem. Soc; Agr. Chem. (collaborator); Wis. Acad. Organic and plant chemistry; volatile oils; plant pigments; balance; percolation; industrial application of various products of the northwest.
- Brandenburg, Prof. G(eorge) C(linton)**, Purdue University, Lafayette, Ind. *Psychology*. Volga, Iowa, Dec. 2, 78. Ph.B, Drake, 10; A.M, Colorado, 14; fellow, Wisconsin, 14-15, Ph.D, 15. Instr. *educ. psychol, Purdue*, 16-17, asst. prof, 17-18, assoc. prof, 18-20, *prof, 20-* Director, summer nor. sch, Winona Lake, Ind, 20- Applied psychology; child development; trade tests; correlation of mental traits.
- Brandes, Dr. Elmer Walker**, 3259 R St, N. W, Washington, D. C. *Plant pathology*. Washington, July 15, 91. B.S, Mich. State Col, 13, M.S, 15; Ph.D, Michigan, 19. Plant pathologist, P. R. Exp. Sta, 15-16; instr. bot, Michigan, 17-18; *senior plant pathologist in charge office sugar plant investigations, bur. plant indust, U. S. Dept. Agr, 19-* Asst, Mich. Exp. Sta. A.A; Phytopath. Soc. Diseases of tropical plants.
- Brandes, Dr. G(eorge) H(enry)**, Muhlenberg College, Allentown, Pa. *Chemistry*. Oswego, N. Y, April 10, 95. B.Chem, Cornell, 18, Ph.D, 25. Instr. *chem, Cornell*, 20-26; *asst. prof, Muhlenberg, 26-* Chem. Soc. Hydrogen ion concentrations.
- Brandt, Prof. P(hilip) M(artin)**, 128 N. 11th St, Corvallis, Oregon. *Dairy husbandry*. Nevada, Mo, Aug. 6, 88. B.S, Missouri, 10, A.M, 13. Asst. dairy husbandry, Missouri, 11-12, instr, 12-14, supt, short courses and asst. to dean, 14-17; *prof. dairy husbandry, Oregon Col, 17-* A.A; Dairy Sci. Ass; Genetic Ass. Dairy cattle feeding.
- Branham, Dr. Sara E(lizabeth)**, University of Chicago, Chicago, Ill. *Bacteriology*. Oxford, Ga. A.B, Colorado, 19; M.S, Chicago, 21, Ph.D, 23. Asst. bacter, Colorado, 17-19; *Chicago, 19-22*, assoc, 22-23, *instr. hygiene and bacter, 23-* Howard Taylor Ricketts prize, 24. A.A; Soc. Bact; Ass. Immunol. Cultivation of filter passing microorganisms from the respiratory tract in influenza and colds; toxic products of the paratyphoid group of bacteria.
- Brann, Dr. Albert**, 39 Monroe Ave, East Orange, N. J. *Chemistry*. Kent, England, March 14, 86. A.B, Wisconsin, 14, A.M, 16, Ph.D, 18. Instr. chem, Wisconsin, 14-18; *research chemist, Westinghouse Lamp Co, 18-* Chem. Soc; Soc. Glass Technol; Ceramic Soc. Inorganic and physical chemistry; chemicals used in incandescent lamps.
- Brann, Prof. B(ertrand) F(rench)**, 370 College Road, Orono, Maine. *Chemistry*. Bangor, Maine, Jan. 23, 87. B.S, Maine, 09, M.S, 11; M.S, Mass. Inst. Tech, 12. Instr. *chem, Lowell Textile Sch, 13-17*; asst. prof, Maine, 17-19, *assoc. prof, 19-* Chem. Soc.
- Branner, George C(asper)**, State Capitol Building, Little Rock, Ark. *Geology*. Little Rock, Nov. 12, 90. A.B, Stanford, 15; A.M, Chicago, 20. Asst. geologist, Ark. Oil Corp, 20-22, consulting geologist, 22-23; *state geologist, Ark, 23-* Branner sci. exped, Brazil, 11. A.A; Ass. Petrol. Geol; Min. and Metal. Eng; Min. and Metal. Soc. Economic geology; topography; water power.
- Brannon, Prof. J(ames) M(arshall)**, 1204 S. Carle Ave, Urbana, Ill. *Bacteriology*. Lowell, Ind, Dec. 14, 82. A.B, North Dakota, 07; A.M, Wisconsin, 14; Ph.D, Cornell, 20. Instr. bot, North Dakota, 09-12; asst, Wisconsin, 12-15; instr. plant physiol, Cornell, 15-21; *asst. prof. dairy bacter, Illinois, 21-* Biochem. expert, N. Dak. Biol. Sta, U. S. Dept. Agr. A.A; Soc. Bact; Chem. Soc; Bot. Soc; Soc. Plant Physiol; Dairy Sci. Ass. Plant physiology; hydrobiology.
- Brannon, Chancellor M(elvin) A(mos)**, University of Montana, Helena, Mont. *Botany*. Lowell, Ind, Sept. 11, 65. A.B, Wabash, 89, A.M, 90; Ph.D, Chicago, 12; LL.D, Whitman, 17. Teacher, high sch, Ind, 90-94; prof. biol, N. Dakota, 94-14, dean sch. med, 07-11, col. lib. arts, 11-14; pres, Idaho, 14-17; Beloit, 17-23; *chancellor, Montana, 23-* A.A; Soc. Nat; Bot. Soc; Bot. Cent. States; N. Dak. Acad. (pres, 10); Ind. Acad; Wis. Acad. (pres, 22); Northwest Sci. Ass. (pres, 25).
- Branom, Dr. Fred(erick) K(enneth)**, Chicago Normal College, Chicago, Ill. *Geography*. Waverly, Ill, July 27, 91. B.E, Ill. State Nor. Univ, 15; M.S, Chicago, 16; Ph.D, Clark, 23. Teacher, prin. and supt, pub. schools, Ill, 08-15; instr. *geog, high sch, Chicago, 17-19*; *head dept, Chicago Nor. Col, 19-* Lecturer, Miami; DeKalb State Teachers Col; Hyannis State Nor. Sch. Pa, Pittsburgh. Geography in the elementary and junior high schools.
- Branson, Prof. E(dwin) B(ayer)**, 301 S. Glenwood Ave, Columbia, Mo. *Geology*. Belleville, Kans, May 11, 77. A.B, A.M, Kansas, 03; fellow, Chicago, 03-05, Ph.D, 05. Instr. *geol, Oberlin, 05-07*, asst. prof, 07-09, prof, 09-10; *prof. and chairman dept, Missouri, 10-* A.A; Geol. Soc; Paleont. Soc. Devonian, Mississippian and Pennsylvanian stratigraphy; geology of Missouri and Costa Rica; Paleozoic fishes; Triassic amphibians.
- Brant, Dr. Laura**, Judson College, Marion, Ala. *Physics*. R. I, 83. A.B, Brown, 08, A.M, 09; Ph.D, Columbia, 21. Asst, Brown, 08-09; physics, Smith, 09-12; Barnard, 12-17, lecturer, 17-19; instr, Vassar, 19-25; *prof. math. and physics, Judson, 25-* Summers, asst, Columbia, 18-19. A.A; Physical Soc. Magnetic susceptibility of paramagnetic salts in solution;

- the softening of cold glass-hard steel in twenty-four years.
- Brasch, Frederick E(dward)**, Library of Congress, Washington, D. C. *Bibliography*. Mobile, Ala, Dec. 18, 75. Stanford and California, 97-01; Harvard; hon. M.S., Ramsey Inst. Tech, 26. Asst., Harvard Observatory, 02-04; computer, Lick Observatory, 05; Stanford Library, 12-16; asst. reference librarian, John Crerar Library, 17-21; reference librarian, J. J. Hill Library, 21-22; bibliog. research, Nat. Research Council, 22-23; acting librarian, dept. terrestrial magnetism, Carnegie Institution, 23-24; chief Smithsonian div, Library of Congress, 24- A.A. (sec'y, L, 21-24, 25-); Hist. Sci. Soc. (treas. and asst. sec'y, 24, 25, 27-); Astron. Soc. Bibliography of scientific literature; history of science; history of astronomy in America.
- Brasefield, Prof. Stanley Eugene**, Rutgers University, New Brunswick, N. J. *Mathematics*. Easton, Pa, Oct. 2, 73. C.E., Lafayette, 95, M.S., 98; fellow, Cornell, 11-13, Ph.D, 12. Draftsman, Md. Steel Co, 95-97; teacher math, E. Stroudsburg Nor. Sch, 97-01; instr, Mich. State Col, 01-02; instr. and asst. prof, Lafayette, 02-12; asst. prof. and prof. *applied math*, Rutgers, 13- Math. Soc; Eng. Educ. Laplace force fields; vital statistics of college and university professors.
- Brattain, Prof. Paul H(enry)**, 306 Albee Building, Washington, D. C. *Chemical engineering*. Indianapolis, Ind, Feb. 4, 94. B.S., 17; M.S., 19. Chemist, Corby Co, 15-17; indust. fellow, Mellon Inst, 17-19; consulting chemist and chem. engineer, 19-; instr. chem, George Washington, 22-26, prof. chem. eng, 26- Lecturer, George Washington, 23-25. Chem. Soc; fel. Inst. Chem. Baking chemistry; fermentation industry; pharmaceutical chemistry.
- Bratton, Prof. Sam T**, University of Missouri, Columbia, Mo. *Geography*. Johnson Co, Mo, Dec. 16, 78. B.Pd, Mo. State Teachers Col, 05; B.S., Missouri, 16, A.M., 17; Ph.D, Chicago, 25. Prin, high sch, Mo, 09-15; instr, asst. prof. and assoc. prof. *geog*, Missouri, 25-Summer, Cornell, 23.
- Bratton, Prof. W(alter) A(ndrew)**, 570 Boyer Ave, Walla Walla, Wash. *Mathematics*. Stamford, Vt, June 22, 74. A.B., Williams, 95; Berlin, 03-05. Instr. and prof. *math*, Whitman, 95- A.A.; Math. Soc; Math. Ass; Eng. Educ. Number theory; pedagogy of mathematics.
- Brauer, Dr. O(scar) L(eo)**, Orosi, Calif. *Chemistry*. Burney, Calif, June 9, 84. B.S., California, 10, M.S., 11, Ph.D, 15. Asst. chem, California, 10-14; teacher science, Union High Sch, Selma, Calif, 14-18; prin, Union High Sch, Orosi, Calif, 18-21, v. prin, 21-26; instr. nat. sci, Calif. State Teachers Col, San Jose, 26- A.A.; Chem. Soc. Cinchona alkaloids; soils.
- Braun, Dr. Annette F(rances)**, 2702 May St, Cincinnati, Ohio. *Entomology*. Cincinnati, Aug. 28, 84. A.B., Cincinnati, 06, A.M., 08, Ph.D, 11. Asst. zool, Cincinnati, 11-16. A.A.; Entom. Soc; Ohio Acad. Taxonomy, structure and evolution in Microlepidoptera.
- Braun, Dr. E(mma) Lucy**, 2702 May St, Cincinnati, Ohio. *Botany*. Cincinnati, April 19, 89. A.B., Cincinnati, 10, A.M., 12, Ph.D, 14. Asst. geol, Cincinnati, 10-13, bot, 14-17, instr, 17-23, asst. prof, 23- Ed, 'Naturalist's Guide to the Americas.' Bot. Soc; Ecol. Soc; Ohio Acad. (v. pres, bot, 22). Plant ecology.
- Braune, Dean G(ustave) M(aurice)**, University of North Carolina, Chapel Hill, N. C. *Engineering*. Eutaw, Ala, March 3, 72. B.S., Spring Hill Col, 88; C.E., Royal Polytech, Dresden, 95. Consulting engineer, 96-12; asst. prof, assoc. prof. and prof. *civil eng. and head dept*, Cincinnati, 12-21; dean dept. eng, North Carolina, 21- Civil Eng. (director, 25-); Eng. Educ. (councilor, 25-); hon. mem. Cincinnati Eng. Club. Lateral earth pressures; earth pressures on culvert pipes.
- Brauns, Dr. D(irk) H(endrik)**, 14 Cedar Ave, Hyattsville, Md. *Chemistry*. Haarlem, Holland, Sept. 28, 74. Apotheker, Leiden, 99; Ph.D, Marburg, 03. Asst. to Prof. Franchimont, Leiden, 08-09; research chemist, Parke, Davis and Co, 09-13; *organic chemist*, bur. chem, U. S. Dept. Agr, 14- Chem. Soc. Carbohydrate chemistry; crystalline derivatives of fructose halogen acetyl derivatives of sugars; fluoro derivatives; optical rotation and atomic dimension.
- Brantleight, Prof. C(harles) A(ndrew)**, Orono, Maine. *Chemistry*. New Haven, Conn, Sept. 21, 81. Ph.B., Yale, 06, Ph.D, 12. Chemist, Conn. Exp. Sta, 06-09; asst. chem, Sheffield Sci. Sch, Yale, 10-12; instr, Calif. Inst. Tech, 12-13; prof, Fla. State, 13-19; head dept. chem. and chem. eng, Maine, 19- A.A.; Chem. Soc. (councilor, Maine sect); Eng. Educ; New Eng. Ass. Chem. Teachers; Chem. Gesell. Proteins; organic iodine compounds; amino acids; hydantoins; thiotyrosin; pulp and paper chemistry.
- Bray, Prof. A(rchie) W(ilmore) L(eslie)**, Washington University, St. Louis, Mo. *Anatomy*. Sheffield, Eng, Aug. 7, 83. B.A., Cambridge, 09; A.M., Harvard, 18, Sheldon traveling fellow, 19. V. prin. and science master, St. John's (Newfoundland), 09-11; tutor biol, Columbia Col. (B. C), 11-13; instr, Montana, 13-15, asst. prof, 14-17; Austin teaching fellow, Harvard, 17-19; assoc. anat, Washington (St. Louis), 19- A.A. Protozoology; histology; cytology.
- Bray, Prof. H(ubert) E(velyn)**, The Rice Institute, Houston, Texas. *Mathematics*. Great Yarmouth, Eng, March 9, 89. A.B., Tufts, 10; A.M., Harvard, 16; Ph.D, Rice Inst, 18. Instr. math, Tufts, 10-12; Lafayette, 12-15; teaching fellow, Rice Inst, 16-18, instr, 19-24, asst. prof, 24- Computer, ordnance dept, U.S.A., 18. Math. Soc; Math. Ass. Mathematical analysis.
- Bray, Mark W(ilder)**, U. S. Forest Products Laboratory, Madison, Wis. *Chemistry*. Appleton, Wis, Jan. 1, 90. A.B., 12; M.S., 14. Asst. instr, Minnesota, 12-14; Cornell, 15-17; asst. chemist, Picatinny Arsenal, N. J., 17-20; chemist, forest products lab, U. S. Forest Service,

- 20- Chem. Soc. Chemistry of cellulose and pulp; wood decay; wood pulping.
- Bray, Dr. Ulric B(annister)**, 1360 San Pasqual St, Pasadena, Calif. *Physical chemistry*. Crawford, Ga, Sept. 10, 00. B.S, Emory, 21; Coffin fellow, Yale, 24-25, Ph.D, 25. Instr. chem, Emory, 21-22; asst. instr, Yale, 22-24; *Nat. Research Council fellow physical chem*, 25- Chem. Soc. Equilibrium in carbonate systems; activities of ions.
- Bray, Dr. W(illiam) C(rowell)**, University of California, Berkeley, Calif. **Chemistry*. Wingham, Ont, Can, Sept. 2, 79. A.B, Toronto, 02, 1851 Exhib. scholar, 02-04; Ph.D, Leipzig, 05. Research assoc. physical chem, Mass. Inst. Tech, 05-10, asst. prof. physico-chem. research, 10-12; *chem, California*, 12-16, assoc. prof, 16-18, *prof*, 18- C.W.S, U.S.A, 18; assoc. director fixed nitrogen research lab, War Dept, 19. Nat. Acad; A.A; Chem. Soc; Electrochem. Soc; Am. Acad. Chemical kinetics; catalysis; the halogens; qualitative analysis.
- Bray, Prof. William (L)**, Syracuse University, Syracuse, N. Y. **Botany*. Burnside, Ill, Sept. 19, 65. Cornell, 89-91; A.B, Indiana, 93; A.M, Lake Forest, 94; Berlin, 96-07; Ph.D, Chicago, 98. Instr. bot, Lake Forest, 94-95, adjunct prof. biol, 96; instr. *bot*, Texas, 97, adjunct prof, 98-01, assoc. prof, 02-05, *prof*, 05-07; *Syracuse*, 07-, *dean grad. sch*, 18- Acting dean, N. Y. State Col. Forestry, Syracuse, 11-12; field asst, U. S. Biol. Surv, 99; collaborator, bur. forestry, U. S. Dept. Agr, 99-09. A.A; Bot. Soc; Ecol. Soc. Phytogeography, ecology and forest resources of Texas; mistletoe in Texas; development of vegetation in New York and in the Adirondacks.
- Breasted, Prof. James H(enry)**, Hotel del Prado, Chicago, Ill. *Archeology, Oriental history*. Rockford, Ill, Aug. 27, 65. A.B, North Central, 88; Chicago Theol. Sem, 88-90, hon. B.D, 98; A.M, Yale, 91; A.M, Ph.D, Berlin, 94; LL.D, California, 18; D.Litt, Oxford, 22. Asst. Egyptol, Chicago, 94-96, asst. director, *Haskell Oriental Museum*, 95-01, *director*, 01-, instr. Egyptol. and Semitic languages, 96-98, asst. prof, 98-02, assoc. prof, 02-05, *prof. Egyptol. and oriental hist*, 05-, *chairman dept. oriental languages and literatures*, 15-, *director, Oriental Inst*, 19- Morse lecturer, Union Theol. Sem, 12; Earl lecturer, Pacific Sch. of Religion and California, 18; Hale lecturer, Nat. Acad, 19; Messenger lecturer, Cornell, 25. Collector, Univ. Chicago, Egypt, 94-95; collaborator, Egyptian lexicon, Royal Academies of Germany, 99-00; Thomas lecturer, Richmond, 98; director, Univ. Chicago Egyptian exped, Sudan, 05-07; collector, Univ. Chicago, Europe and Egypt, 19-20; director archeol. surv, Oriental Inst, 20. Archeol. Inst; Hist. Sci. Soc. (pres, 26); Oriental Soc. (pres, 18); Philos. Soc; Am. Hist. Ass; Philos. Ass; Berlin Royal Acad; hon. mem. London Soc. Antiquaries; hon. mem. Royal Asiatic Soc. History of Egypt and the ancient Egyptians; history of the Near East and of the civilization of the eastern Mediterranean; the Egyptian language; origins of civilization.
- Breazeale, J(ames) F(rank)**, U. S. Department of Agriculture, Washington, D. C. *Biochemistry*. Anderson, S. C, Dec. 11, 74. B.S, Clemson, 96. *Biochemist, bur. plant indust, U. S. Dept. Agr*. Plant physiology and nutrition; alkali in soils.
- Breckenridge, Prof. James Miller**, Vanderbilt University, Nashville, Tenn. *Chemistry*. A.B, Albion, 03; M.S, Wisconsin, 08, Ph.D, 10. Indust. chemist, 10-12; prof. chem, Carroll, 12; Wabash, 17; asst. director exp. sta, Hercules Powder Co, 17-19; *director sch. chem, Vanderbilt*, 19- Chem. Soc; Electrochem. Soc; Ceramic Soc; Soc. Chem. Indust. Organic and industrial chemistry; aluminothermic alloys; electroplating; static potentials of zinc and copper.
- Breckenridge, John E**, Woodbridge, N. J. *Chemistry*. Palmer, Mass, May 4, 73. A.B, Yale, 96. *Chief chemist, Am. Agr. Chem. Co*, 96- A.A; Chem. Soc; Electrochem. Soc; Soc. Chem. Indust. Activity of nitrogen; sources of nitrogen for fertilizers; toxic materials and plant growth.
- Breckenridge, Prof. L(ester) P(aige)**, North Ferrisburg, Vt. *Mechanical engineering*. Meriden, Conn, May 17, 58. Ph.B, Yale, 81, hon. A.M, 09; D.Eng, Illinois, 10. Water Power Co, Holyoke, Mass, 81-82; instr. *mech. eng*, Lehigh, 82-84, 86-91; mech. engineer with various companies, 84-86; prof, Mich. State Col, 91-93; Illinois, 93-09, director eng. exp. sta, 05-09; prof, Yale, 09-23, *emer. prof*, 23- Consulting engineer, Lehigh Zinc and Iron Co, 86-91; director boiler trials, U. S. Geol. Surv. Coal Tests, World's Fair Sta, St. Louis, 04- Mech. Eng. (v. pres, 08-10); Eng. Educ. Fuel economy; smokeless combustion; power production.
- Breder, C(harles) M(arcus), Jr**, New York Aquarium, Battery Park, New York, N. Y. *Ichthyology*. Jersey City, N. J, June 25, 97. Bur. Fisheries, 19-21; *sci. asst. to field asst. to fisheries expert, N. Y. Aquarium*, 21- Research assoc, Am. Museum Nat. Hist, aquarist to research assoc; rep, Marsh-Darien exped, 24. A. Cressy Morrison prize, N. Y. Acad, 25. Soc. Ichthyol. and Herp; Fisheries Soc; Ornith. Union; N. Y. Linnean Soc. Life histories and habits of fishes; the fish as an animal mechanism.
- Breed, Prof. Charles Blaney**, 6 Beacon St, Boston, Mass. *Civil engineering*. Lynn, Mass, Nov. 28, 75. B.S, Mass. Inst. Tech, 97. Asst. civil eng, *Mass. Inst. Tech*, 99-01, instr, 01-08, asst. prof, assoc. prof. and *prof. ry. and highway eng*, 08- Various ry. companies, 96-04; consulting engineer. Assoc. ed, 'Am. Mining Engineers Handbook'; 'Am. Civil Engineers Pocketbook.' Civil Eng; Ry. Eng; Boston Soc. Civil Eng. Surveying; railroad engineering; earthwork.
- Breed, Prof. Frederick S(tephen)**, 1224 E. 57th St, Chicago, Ill. *Psychology*. Clarion Co, Pa, July 12, 76. A.B, Allegheny, 98; A.M, Harvard, 05, Ph.D, 09, traveling fellow, 09-10. Supt, pub. schools, Pa, 01-04; prin, prep. sch, Allegheny, 05-07; asst. philos, Harvard, 08-10; asst. prof. educ. psychol, Michigan, 10-

- 17; *educ.*, Chicago, 17-26, *assoc. prof.*, 26-Trustee, Allegheny, 17- A.A.; *Psychol. Ass.*; *Educ. Research Ass.* Instincts and habits; educational measurement; instruction and class organization; spelling.
- Breed, Prof. Robert S(tanley)**, New York Agricultural Experiment Station, Geneva, N. Y. *Bacteriology*. Brooklyn, Pa, Oct. 17, 77. B.S, Amherst, 98; M.S, Colorado, 99; Ph.D, Harvard, 02. Instr. biol, Colorado, 98-99; asst. zool, Harvard, 00-02; prof. biol. and geol, Allegheny, 02-13; *chief research bacteriologist*, N. Y. *Exp. Sta.*, Geneva, 13- Prof. Cornell, 20-23. N. Y. state delegate, Int. Dairy Cong, Berne; v. pres, World's Dairy Cong, Washington-Syracuse, 23. A.A. (councilor, 24-); Soc. Bact. (v. pres, 26, pres, 27); Pub. Health Ass; Dairy Sci. Ass. Taxonomic bacteriology; bacterial and cell content of milk; sanitary milk.
- Breese, Dr. B(urtis) B(urr)**, University of Cincinnati, Cincinnati, Ohio. *Psychology*. Chemung Co, N. Y, May 17, 68. A.B, Kansas, 96; A.B, Harvard, 97, A.M, 98; Ph.D, Columbia, 99. *Prof. psychol.* and *ethics*, Tennessee, 02-04; *psychol.*, Cincinnati, 04- A.A; *Psychol. Ass.* Inhibition; binocular rivalry; motor activity and conscious activity.
- Breeze, Prof. Frederick J(ohn)**, 401 Beechwood Ave, Muncie, Ind. *Geography*, *Geology*. Welshpool, Wales, Aug. 10, 73. Grad. Ind. State Nor. Sch, 99; B.S, Purdue, 10, M.S, 12; Indiana; Columbia. Teacher and supt, schools, Ariz. and Ind, 92-09; instr. forestry, Purdue, 10-11; ed, Am. Book Co, 12-16; *prof. geog. and geol.*, Ind. State Nor. Sch, 18-, *dean science*, 22- Fel. Am. Geog. Soc; Nat. Council Geog. Teachers; Ind Acad. Physiographic influences in southeastern Indiana; ground water of eastern Indiana; geographic interests of school children.
- Bregman, Dr. E(lsie) O(schrein)**, 99 Claremont Ave, New York, N. Y. *Psychology*. Newark, N. J, Nov. 30, 96. A.B, Columbia, 18, Ph.D, 22. Psychologist, R. H. Macy and Co, 19-21; research asst, Teachers Col, Columbia, 22-25; *assoc.*, *Psychol. Corp.*, 24-25, *asst. sec'y*, 25-; *research asst.*, *div. psychol.*, *Inst. Educ. Research*, Teachers Col, Columbia, 26- Personnel Research Federation. A.A; *Psychol. Ass.*; N. Y. State Ass. Consulting Psychologists. Industrial psychology; individual differences.
- Breisacher, Dr. Leo**, D. Whitney Building, Detroit, Mich. *Medicine*. Detroit, Oct. 1, 66. Berlin, 88-91; M.D, Pennsylvania, 92. Demonstrator comp. physiol, Pennsylvania, 88-92, lecturer, 92-93; *consultant gastroenterol.*, Harper Hosp. Soc. Nat; *Physiol. Soc.* Physiology of thyroid gland; minimum albumen diet; physiology of sleep; physiology of the superior laryngeal nerve; metabolism; artificially prepared foods; gall-stones; diet in health and disease.
- Breit, Dr. Gregory**, Department of Terrestrial Magnetism, 36th St. and Broad Branch Road, Washington, D. C. **Physics*. Dept. Terrestrial Magnetism, Carnegie Institution. A.A; *Physical Soc*; Math. Soc; Wash. Acad. Terrestrial magnetism.
- Breitenbecher, Dr. J(oseph) K(umler)**, McGill University, Montreal, Que, Can. *Zoology*. Jacksonboro, Ohio, Oct. 28, 88. A.B, Miami, 10; fellow, Chicago, 11-13, Ph.D, 13. Asst. zool, Miami, 07-10; research asst, desert lab, Carnegie Institution, 10-13; instr. biol, Western Reserve, 13-16, asst. prof, 16-20; *assoc. prof.* zool, Oklahoma, 20-24; research, Woods Hole, 24-25; lecturer zool, McGill, 25-26, *Philip Carpenter fellow*, 26- Summers, asst, Woods Hole, 13, research, Cold Spring Harbor, 19. A.A; Ecol. Soc; Eugenics Research Ass; Soc. Animal Production; fel. Okla. Acad. (treas, 23). Water content, transpiration and behavior of desert insects; genetics; hereditary shortness of human thumbs.
- Breithut, Dr. Frederick E(rnest)**, College of the City of New York, New York, N. Y. *Chemistry*. New York, Aug. 15, 80. B.S, Col. City of N. Y, 00; Sc.D, N. Y. Univ, 09. Instr, asst. prof. and *prof. chem.*, Col. City of N. Y, 03- Lecturer, Dept. Educ, New York; chemist, N. Y. State Factory Commission; advisory council, Board Health, and sci. staff, Bur. Munic. Research, New York; chairman chem. group, W. T. B; director bur. conservation, Fed. Food Board. Major, C.W.S, 18. Chem. trade commissioner to Europe, U. S. Dept. Commerce, 23. Chem. Soc; Soc. Chem. Indust; N. Y. Chemists Club. Economic chemistry; partial vapor pressures of binary mixtures; detection of diethylphthalate; dye industries of Europe.
- Breitwieser, Prof. J(oseph) V(alentine)**, University of California, Berkeley, Calif. *Educational psychology*. Jasper, Ind, March 31, 84. A.B, Indiana, 07, A.M, 08; Ph.D, Columbia, 11. Asst. psychol, Indiana, 06-07, psychol. and philos, 07-08; psychol, Columbia, 08-10; asst. prof. psychol. and educ, Colo. Col, 10-11, prof, 11-19; *assoc. prof. educ.*, California, 19- A.A; *Psychol. Ass.* Attention and movement; advertising; visual fusion; vocabulary tests.
- Breitzke, Charles F(rederick)**, 412 William St, Boonton, N. J. *Civil and sanitary engineering*. Newton Center, Mass, July 8, 84. B.S, Mass. Inst. Tech, 06. Asst. engineer, Board Water Supply, New York, and to John M. Farley, 06; chemist, Hazen and Whipple, 07; bacteriologist, Jerome Park Exp. Sta, New York, 07; asst. engineer, Hering and Fuller, and N. Y. State Dept. Health, 07-10; Board Water Supply, New York, 10-12; Johnson and Fuller, 12-13; sanit. engineer, bur. water, Jersey City, 13-25; hydraulic engineer, Nicholas S. Hill, Jr, 25-26; *consulting engineer*, N. J. State Water Policy Commission, 26- A.A; Civil Eng; Water Works Ass; Ass. Eng. Sanitation; water supply; sewage disposal; cost of living and family budgets.
- Brem, Dr. Walter V(ernon)**, 1003 Pacific Mutual Building, Los Angeles, Calif. *Pathology*. Charlotte, N. C, Nov. 5, 75. B.S, North Carolina, 96; M.D, Hopkins, 04. Med. house officer, Hopkins Hosp, 04-05; chief med. service, Colon Hosp, C. Z, 07-11; prof. bacter. and path, California at Los Angeles, 11-14; director south. div, Calif. State Hygienic Lab, 13-16; *consulting epidemiologist*, Calif. State Board Health, 22- Calif. State Board Med. Examiners,

- 23-25. Certificate of honor, Am. Med. Ass, 11. Major, M.C. 17-19. Am. Med. Ass; Tuber. Ass; Pub. Health Ass; Calif. Acad. Med; S. Calif. Med. Soc. (pres, 20); Los Angeles Co. Med. Ass. (pres, 21). Clinical pathology; malarial fever; amebiasis; tuberculosis; influenzal meningitis; vaccine treatment of typhoid bacillus carrier; syphilis; tetanus; paroxysmal hemoglobinuria; blood transfusion and grouping; pathology and the practice of medicine; governmental activities in the health field.
- Bremer, Dr. J(ohn) L(ewis)**, Harvard Medical School, Boston, Mass. *Embryology*. New York, N. Y., Nov. 3, 74. A.B. Harvard, 96, M.D., 01; Oxford, 96-97. Asst. histol. and embryol, *Harvard*, 02, instr. 02-06, demonstrator *histol*, 06-11, asst. prof. 12-14, *assoc. prof.*, 15- A.A.; Ass. Anat.; Am. Acad.; Boston Soc. Nat. Hist.; Boston Soc. Med. Sci. (sec'y, 08). Pulmonary arteries of vertebrates; lung of opossum; aberrant roots of cranial nerves; development of blood vessels; interrelations of fetal excretory organs and placenta; experimental alteration of embryonic vessels.
- Breneman, Prof. A(bram) A(dam)**, 97 Water St, New York, N. Y. *Chemistry*. Lancaster, Pa, April 28, 47. B.S. Pa. State, 66, M.S., 71. Acting prof. chem, Pa. State, 68-69, prof. 69-72; asst. prof. Cornell, 75-79, prof. indust. chem, 79-82; *chem. expert*, 82- Chairman jury mineral waters, Columbian Expos, 93; La. Purchase Expos, 04; expert, Munic. Explosives Commission, New York, 06-10. Chem. Soc. (v. pres, 89-92, ed. 'Jour,' 84-93, chairman, N. Y. sect, 06); N. Y. Chemists Club; cor. mem. Phila. Acad. Industrial chemistry; water analysis and supply; fixation of atmospheric nitrogen.
- Brenke, Prof. W(illiam) C(harles)**, University of Nebraska, Lincoln, Nebr. *Mathematics, Astronomy*. Berlin, Germany, April 12, 74. B.S. Illinois, 96, 97, M.S., 99; Ph.D. Harvard, 07. Instr. math, Illinois, 96-00, math. and astron. and in charge observatory, 00-03; *assoc. prof. math, Nebraska*, 07-13, *prof.*, 13- A.A.; Math. Soc; Math. Ass; Statist. Ass; Math. Verein; Circolo Mat. di Palermo. Variable stars; infinite series.
- Brennan, Dr. Martin S(tanislaus)**, 6304 Minnesota Ave, St. Louis, Mo. *Astronomy, Geology*. St. Louis, July 23, 45. A.B. Christian Brothers, 65, A.M., 69, Sc.D., 00. *Pastor*, St. Thomas Aquinas Church, 84-92; *St. Lawrence's Church*, and *prof. astron. and geol, Kenrick Theol. Sem.*, St. Louis, 92- A.A.; Astron. Soc; Pacific Astron. Soc; St. Louis Acad; British Ass. Electricity.
- Brenneman, Prof. J(esse) L(aMar)**, Kansas State Agricultural College, Manhattan, Kans. *Electrical engineering*. Goshen, Ind, Aug. 26, 86. B.S. Chicago, 08; E.E. Wisconsin, 13. Teacher, high sch, Ill, 08-09; *prof. physics and applied math, Westminster (Mo)*, 09-11; testing dept, Gen. Elec. Co, Schenectady, N. Y., 13-14; *prof. physics and elec. eng*, New Mexico, 14-17; physics and automobile elec, Okla. Sch. Mines, 19-20; *assoc. prof. elec. eng, Kansas Col*, 20- A.A.; Elec. Eng; Ass. Eng. Societies. Distribution of potential on high tension insulators.
- Brentzel, Dr. Wanda W(eniger)**, North Dakota Agricultural College, Fargo, N. Dak. *Botany, Plant pathology*. Milwaukee, Wis, Dec. 5, 95. B.S. Oregon Col, 15; M.S. Wisconsin, 16; fellow, Chicago, 16-18, Ph.D., 18. Instr. bot, William and Vashti, 18; asst. botanist and plant pathologist, N. Dak. Exp. Sta, 18-23, plant pathologist, 23-25. A.A.; Bot. Soc; Phytopath. Soc. Cytology of fertilization in plants; cytology of rusts; cereal diseases.
- Brentzel, W(illiam) E(dward)**, North Dakota Agricultural College, Fargo, N. Dak. *Plant pathology*. Kelso, Mo, March 27, 89. B.S. Missouri, 15, A.M., 17. Asst. bot, Missouri, 15-17; *prof. biol, Western Maryland*, 17-18; asst. pathologist, U. S. Dept. Agr, 18-25; *plant pathologist, N. Dak. Exp. Sta*, 25- A.A.; Bot. Soc; Phytopath. Soc. Crown rust of oats; flax diseases.
- Bretnall, Prof. G(eorge) H(erbert)**, Baker University, Baldwin, Kans. *Botany*. London, England, Feb. 12, 71. A.B. Cornell (Iowa), 96, A.M., 97; Chicago, 01-02, summers, 05, 07, 10. Instr. science, Epworth Sem, 99-01; prin, Port Byron Acad, 02-03; *head dept. biol, Monmouth*, 03-11; Wis. State Nor. Sch, Lacrosse, 11-18; Va. State Nor. Sch. for Women, Farmville, 18-21; dept. geol, Dubuque, 21-22; *dept. biol, Baker*, 22- A.A.; Bot. Soc; Ecol. Soc; Eugenics Soc.
- Bretz, Prof. J H(arlen)**, University of Chicago, Chicago, Ill. *Geology*. Ionia Co, Mich, Sept. 2, 82. A.B. Albion, 05; Ph.D., Chicago, 13. Instr. high schools, Mich. and Wash; asst. prof. *geol, Washington (Seattle)*, 13-14; *Chicago*, 15-21, *assoc. prof.*, 21-26, *prof.*, 26- Assoc. ed, 'Jour. Geol.' 23- A.A.; fel. Geol. Soc. Physiography, sedimentation, Cenozoic history of the Pacific Northwest.
- Brewbaker, H(arvey) E(dgar)**, University Farm, St. Paul, Minn. *Plant genetics*. Near Bushnell, Ill, May 10, 95. B.S. Illinois, 21; M.S. Minnesota, 23, Ph.D., 26. Asst. plant breeding, *Minnesota*, 21-23, *asst. plant breeder and instr*, 23- Summer, Ill. Soil Surv, 16; U. S. Dept. Agr, 20-22. A.A.; Soc. Agron. Plant genetics and economic plant breeding.
- Brewer, Dr. Aubrey Keith**, 1360 San Pasqual St, Pasadena, Calif. *Physical chemistry*. Richland Center, Wis, Oct. 20, 93. Ph.B. Wisconsin, 15, M.S., 21, Ph.D., 24. Asst. chem, Wisconsin, 21-24, asst. physics, 23-24; *Nat. Research Council fellow physical chem, Calif. Inst*, 24- Ionization in gases during chemical action.
- Brewer, Dr. G(eorge) E(merson)**, 151 E. 79th St, New York, N. Y. *Surgery, Anatomy*. Westfield, N. Y., July 28, 61. A.B. Hamilton, 81, A.M., 84, LL.D., 16; M.D. Harvard, 85. Demonstrator anat, Columbia, 91-99, instr. surg, 99-03, lecturer clin. surg, 03, *prof.*, 04-13; *prof. surg. and surg. director, Presb. Hosp*, 13-17. Consulting surgeon, Presb. Hosp; Woman's Hosp; St. Vincent's Hosp; Manhattan Eye and Ear Infirmary; City Hosp; Perth Amboy Hosp; Muhlenberg Hosp, Plainfield, N. J. Fel. Surg. Ass; fel. Ass. Genito-Urinary Surg; fel. N. Y. Surg. Soc; fel. N. Y. Acad. Med; cor. mem. Ass.

française d'Urologie; Int. Surg. Soc. Surgical anatomy.

Brewster, Prof. C(arl) M(ilton), 900 Campus Ave., Pullman, Wash. *Chemistry*. Chagrin Falls, Ohio, May 19, 81. A.B., Oberlin, 03; A.M., Harvard, 06, Parkman fellow, 08-09; Heidelberg, 09-10. Asst. chem., Harvard, 05-08; prof. chem. and physics, Mt. Union, 10-12; asst. prof. chem., Wash. Col., 12-14, assoc. prof., 14-18, *prof.*, 18- Chem. Soc. Organic condensations; essential oils and perfumes.

Brewster, Donald R(oss), 349 Hawthorne St., Memphis, Tenn. *Forestry*. Minneapolis, Minn., April 6, 88. B.S., Minnesota, 10. Forest asst., U. S. Forest Service, 10-12, forest examiner, 12-20; *consulting dry kiln engineer*, 20- A.A.; Soc. Foresters; Ecol. Soc. Silviculture; forest utilization and management; forest ecology; kiln drying and seasoning of wood.

Brewster, E(dwin) T(enney), 8 Judson Road, Andover, Mass. *Biology*. Lawrence, Mass., Oct. 11, 66. A.B., Harvard, 90, A.M., 91. Instr. sciences, Wolfeboro, N. H., 90-92; Phillips Acad., 96-03, physics, 07-08, geog., 16-24. A.A.; Boston Soc. Nat. Hist.

Brewster, Dr. J(oseph) F(ergus), Louisiana Sugar Experiment Station, Baton Rouge, La. *Chemistry*. Barksdale, Md., Aug. 24, 79. A.B., Del. Col., 98, A.M., 03; Ph.D., Berlin, 12. Instr. chem., Del. Col., 00-05; commercial chemist, 05-09; asst. chemist, N. C. Exp. Sta., 12-13; org. chemist, bur. chem., U. S. Dept. Agr., 14-21. Capt., Sanit. C. and C.W.S., 18-19. Chem. Soc. Enzymes; brucin; l-oxyprolin; kafirin; p-nitrotoluene; sugar cane chemistry and technology.

Brewster, Prof. R(ay) Q(uincy), University of Kansas, Lawrence, Kans. *Chemistry*. Guthrie, Okla., Nov. 27, 92. A.B., Ottawa (Kans.), 14; fellow, Kansas, 14-15, A.M., 15; fellow, Chicago, 17-18, Ph.D., 19. Asst. instr. chem., Kansas, 15-17, asst. prof., 19-21, *assoc. prof.*, 21- Chem. Soc.; Kans. Acad. Organic chemistry; salophen; thiourea and thiazoles; organic halids.

Breyer, Frank G(ottlob), Palmerton, Pa. *Chemistry, Physics*. Baltimore, Md., Dec. 21, 86. A.B., Hopkins, 08, A.M., 10. Research chemist, N. J. Zinc Co., Pa., 10-12, chief chemist, 12-17, *chief research div.*, N. Y., 17- Chem. Soc. (chairman, Lehigh Valley sect., 18, counselor, 18, 19); Electrochem. Soc.; Min. Eng.; Soc. Test. Mat. (chairman, committee, D¹¹); Ceramic Soc.; Faraday Soc. Analytical chemistry; paint; rubber; metals; chemical and metallurgical engineering; inventions.

Bridge, Prof. Josiah, Box 563, Rolla, Mo. *Geology*. Norwood, Ohio, July 17, 90. A.B., Cincinnati, 13; fellow, Chicago, 15-17, M.S., 17. Asst. geol., Cincinnati, 13-14; instr., Mo. Sch. Mines, 14-15; geologist, Standard Oil Co. of Calif., 19-20; asst. prof. geol., Mo. Sch. Mines, 20-23, *assoc. prof.*, 23- Summers, geologist, Mo. Bur. Geol. and Mines, 22- Paleont. Soc. Invertebrate paleontology; stratigraphy.

Bridges, Dr. Calvin B(lackman), 475 Grand Ave., Leonia, N. J. *Genetics*. Schuyler's Falls, N. Y., Jan. 11, 89. B.S., Columbia, 12, fellow, 15-16, Ph.D., 16; Cold Spring Harbor, 14. Private

research asst. to Prof. T. H. Morgan, Columbia, 10-15; asst. under grants from *Carnegie Institution*, 15-19, *mem. staff.*, 19- Soc. Nat. The genetics of the fruit fly; chromosome theory of heredity and sex determination.

Bridges, Prof. J(ames) W(infred), McGill University, Montreal, Que., Can. *Psychology*. Cascumpee, P. E. Island, Sept. 14, 85. B.A., McGill, 11; A.M., Harvard, 12, fellow, 12-13, Ph.D., 15. Teacher, pub. schools, P. E. Island, 03-08; asst. *psychol.*, Harvard, and intern, Psychopathic Hosp., Boston, 13-14; lecturer, Alberta, 14-15; instr., Ohio State, 15-17, asst. prof., 17-21; Toronto, 21-22, *assoc. prof.*, 22-24; *med. faculty*, McGill, 24- Psychologist, Can. Nat. Committee for Mental Hygiene, 24- A.A.; Psychol. Ass. Decision types; measuring mental ability; intelligence and social status; abnormal psychology; problem children.

Bridgman, Prof. B(enjamin) W(illiams), State Normal School, Eau Claire, Wis. *Physics*. Darlington, Wis., June 2, 72. Ph.B., Wisconsin, 06, A.M., 08. Instr. physics, Wisconsin, 06-08; *prof.*, Westminster (Pa.), 08-16; *Wis. State Nor. Sch.*, Eau Claire, 16- Physical Soc. Melting points of tantalum and tungsten.

Bridgman, Dr. Olga (Louise), 1955 Leavenworth St., San Francisco, Calif. *Psychology*. Jackson, Mich., March 30, 86. A.B., Michigan, 08, M.D., 10; A.M., California, 14, fellow, 14-15, Ph.D., 15. Res. physician, State Sch. for Girls, Geneva, Ill., 10-12; asst. physician, Lincoln State Sch. for Feeble-Minded and Epileptics, 12-13; instr. psychol., California, 15-19, asst. clin. prof. *abnorm. psychol.*, 19-22, *assoc. prof.*, 22- Abnormal psychology of childhood.

Bridgman, Dr. P(ercy) W(illiams), Harvard University, Cambridge, Mass. **Physics*. Cambridge, April 21, 82. A.B., Harvard, 04, A.M., 05, Ph.D., 08. Research fellow and asst. physics, Harvard, 08-13, asst. prof., 13-19, *prof.*, 19-26, *Hollis prof. math. and nat. philos.*, 26- Rumford medal, Am. Acad. Nat. Acad.; A.A.; Physical Soc.; Philos. Soc.; Am. Acad.; Wash. Acad. Physical effects of high pressures; electrical conduction in metals.

Brierley, Prof. W(ilfrid) G(ordon), University Farm, St. Paul, Minn. *Horticulture*. Dover, N. H., Sept. 9, 85. B.S.A., Cornell, 06; M.S., Wash. Col., 13. Instr. bot. and hort., Nat. Farm Sch., 07-08; *hort.*, Wash. Col., 09-13; asst. prof., Minnesota, 13-17, *assoc. prof.*, 17- Soc. Hort. Sci. Fruit growing.

Briggs, Prof. A(lfred) P(oyneer), School of Medicine, St. Louis University, St. Louis, Mo. *Medicine*. Aberdeen, S. D., Nov. 10, 88. B.S., Colorado, 12; M.D., Washington (St. Louis), 22. Asst. biochem., Washington (St. Louis), 20-23, *internal med.*, 22-24; instr., St. Louis, 24-25, *assoc. prof.*, 25- Soc. Exp. Biol.; Soc. Biol. Chem.

Briggs, Arthur J(ames), 107 Victoria Place, Syracuse, N. Y. *Mechanical engineering*. Bristol, N. Y., Aug. 13, 72. Genesee Wesleyan Sem., 92-95; Cornell, 00. Designer and inventor, Am. Mutoscope and Biograph Co., 00-04; mech. engineer, Smith Premier Typewriter

Co, 04-09, eng. manager, 09-11; *consulting engineer and inventor, Remington Typewriter Co, 11-* Mech. Eng; Syracuse Tech. Club (v. pres, 16). Moving pictures; typewriters; machine tools; sewing machines; letter handling devices.

Briggs, C(lark) A(rthur), U. S. Department of Agriculture, Washington, D. C. *Physics, Engineering.* Joplin, Mo, June 19, 83. B.S. (E.E.), Missouri, 07, A.M, 10. Asst. physics, Missouri, 08-10; asst. Bur. Standards, 10-12, asst. physicist, 12-14, assoc. physicist, 14-23; *livestock weight supervisor, packers and stockyard administration, U. S. Dept. Agr, 23-* Committee weighing and measuring devices, Fed. Specification Board. Physical Soc; Ry. Eng. (sub-committee on ry. scales, yards and terminals committee); Wash. Philos. Soc. Standardization of Ohm tube; large scale construction; test and specifications of railroad track scales and grain scales.

Briggs, Dr. Fred N, University of California, Berkeley, Calif. *Plant pathology.* Center, Mo, March 9, 96. B.S. Missouri, 18; M.S. California, 22, Ph.D, 25. *Asst. pathologist, bur. plant indust, U. S. Dept. Agr, 19-* Second lieut, U.S.A, 18. A.A; Phytopath. Soc; Genetic Ass; Soc. Agron. Cereal smut control; the genetics of smut resistance.

Briggs, Dr. Lyman J(ames), Bureau of Standards, Washington, D. C. **Physics.* Assyria, Mich, May 7, 74. B.S. Mich. State Col, 93; M.S. Michigan, 95; Ph.D, Hopkins, 01. Physicist, bur. soils, U. S. Dept. Agr, 96-06, physicist in charge biophys. investigations, bur. plant indust, 07-19; *physicist and chief div. mechanics and sound, Bur. Standards, 20-* Shared Magellan medal. A.A; Physical Soc; Wash. Philos. Soc. (sec'y, 06, pres, 16); Wash. Acad. (pres, 18). Aerodynamical characteristics of projectiles, bombs and aerofoils in a high-speed wind-stream; acceleration of gravity at sea; gyroscopic stabilization; aerodynamics; properties of liquids under negative pressures.

Briggs, Prof. T(homas) R(oland), 113 Ithaca Road, Ithaca, N. Y. *Physical chemistry.* Huddersfield, England, Sept. 2, 87. A.B. Cornell, 09, Ph.D, 13. Instr. chem, Worcester, 12-14; asst. prof. physical chem. and electrochem, *Cornell, 15-25, prof. physical chem, 25-* Chem. Soc. Colloid chemistry; electrochemistry.

Brigham, Prof. Albert P(erry), Hamilton, N. Y. **Geology, Geography.* Perry, N. Y, June 12, 55. A.B. Colgate, 79, A.M, 82, LL.D, 25; A.M, Harvard, 92; Sc.D, Syracuse, 18; L.H.D, Franklin, 21. Clergyman, 82-91; *prof. geol, Colgate, 92-* Instr. Harvard, 95, 96, 00. Summers, lecturer, Cornell, 01-04, Wisconsin, 06, Oxford, 08, 14, 22, Hilary term, 24, London, 24; chief examiner geog. col. ent. exam. board, 02-13; pres. Nat. Council Geog. Teachers, 18, 19. A.A; Geol. Soc; Ass. Geog. (sec'y, 04-13, pres, 14); N. Y. State Sci. Teachers Ass. (pres, 05). Physiography; glacial geology; anthropogeography.

Brigham, Prof. Carl C(ampbell), Princeton University, Princeton, N. J. *Psychology.* Marlboro, Mass, May 4, 90. Litt.B, Princeton, 12, A.M, 13, Ph.D, 16. Instr. psychol, Princeton,

16-17; asst. to chief rehabilitation, Fed. Board for Vocational Educ, 19-20; asst. prof. *psychol, Princeton, 20-24, assoc. prof, 24-* Chairman, Col. Entrance Exam. Board, 25-; adviser, Can. Mil. Hosp. Commission, 17. Lieut, Tank C, 17-18. A.A; Psychol. Ass. Intelligence tests.

Brigham, Prof. L(ewis) A(lanson), 688 Boylston St, Boston, Mass. *Astronomy.* Greenfield, Mass, Aug. 14, 89. B.S. Boston, 13, A.M, 17. Instr. math, Boston, 15-20, *asst. prof. astron. and math, 20-* Lick Observatory, California, 26-28. Astron. Soc; Math. Ass; Pacific Astron. Soc.

Brigham, Dr. Reed O(shea), 1320 Monroe St, Toledo, Ohio. *Medicine.* Toledo, Dec. 20, 88. B.S. Ohio State, 12; M.S. Illinois, 14; Ph.D, Michigan, 16, M.D, 21. Instr. bot, Cincinnati, 17-18; *staff, Robinwood Hosp, Toledo, 23-* Summers, instr, Winona, 13-18. Am. Med. Ass; Genetic Ass; Eugenics Soc.

Bright, Graham, Bryn Mawr Road, Wilkesburg, Pa. *Electrical engineering.* Pittsburgh, Pa, Nov. 19, 76. E.E. Pittsburgh, 97. Electrician, Consol. Traction Co, 98-99; engineer, 99-01; Nernst Lamp Co, 01-13; ry. engineer, Westinghouse Elec. and Mfg. Co, 03-10, engineer in charge mining sect, eng. dept, 10-23; mem. firm Howard N. Eavenson and Associates, 23-26; *sales engineer in charge mining dept, Mine Safety Appliances Co, 26-* Prof. in charge elec. dept, Westinghouse Technical Night Sch, 09-16. Fel. Elec. Eng. (past chairman mines committee); Min. and Metal. Eng. (chairman, Pittsburgh sect. mines equipment); Min. Cong; Coal Min. Inst; West. Pa. Eng. Soc. Electrification of railways and mines.

Brightman, Prof. Charles L(ewis), 852 Ackerman Ave, Syracuse, N. Y. *Physics.* Providence, R. I, Dec. 20, 83. Ph.B. A.M. Brown, 09; fellow, Clark, 13-15, Ph.D, 15. Asst. physics, Wesleyan, 09-10; instr, Mt. Holyoke, 10-13; De Pauw, 15-16; *Syracuse, 16-18, asst. prof, 18-20, assoc. prof, 20-26, prof, 26-* A.A; Physical Soc. Recalescence of steel; thermoelastic relations of steel at high temperatures; indicator solutions; thermal expansion of wood.

Brighton, Dr. Thomas B(ow), 219 K St, Salt Lake City, Utah. *Chemistry.* Salt Lake City, Jan. 17, 87. B.S. Utah, 13; M.S. California, 16, Ph.D, 17. Chemist, Utah Consol. Smelter Co. and Utah Copper Co, 05-07, 09-19; *instr. chem, Utah, 12-14, asst. prof, 17-21, assoc. prof, 21-* A.A; Chem. Soc; Utah Soc. Eng. Physical chemistry.

Brill, Dr. A(braham) A(rden), 15 W. 70th St, New York, N. Y. *Psychiatry.* Kanczuga, Austria, Oct. 12, 74. Ph.B. N. Y. Univ, 01; M.D, Columbia, 03. Asst. physician, Cent. Islip State Hosp, 03-08; Psychiat. Clinic, Zurich, 07-08; asst. mental diseases, Bellevue Hosp, 08-11; asst. visiting physician, Neur. Hosp, 09-11; chief neur. dept, Bronx Hosp, 12; asst. neur. and psychiatrist, Vanderbilt Clinic, 08-14; lecturer abnor. psychol. and psychoanal. N. Y. Univ, 14-25. Chief psychiat. clinic, Columbia, 13-14; adjunct prof, N. Y. Post-Grad. Med. Sch, 14-16. A.A; Psychiat. Ass; Psychoanal. Ass; Psychopath. Ass; Am. Med. Ass; N. Y.

- Psychoanal. Soc. (pres, 10-12); N. Y. Neur. Soc; fel. N. Y. Acad. Med; N. Y. Soc. Clin. Psychiat; Int. Verein Med. Psychol. und Psychotherapie. Abnormal psychology; psychoanalysis; psychopathology of the only child; neurology; psychiatry.
- Brill, George M(ackenzie)**, 72 Pine St, New York, N. Y. *Mechanical engineering*. Poughquag, N. Y, March 24, 66. M.E, Cornell, 91, M.M.E, 05. Engineer of tests, Solvay Process Co, Syracuse, N. Y, 91-96; chief engineer, Detroit, Mich, 96-97; gen. engineer, Swift and Co, Chicago, Ill, 97-00; *consulting engineer*, 00- Major, O.R.C, 17; chief requirements sect, Emergency Fleet Corp, 18. Chairman jury awards, Panama-Pacific Expos, 15. A.A; Mech. Eng. (manager, 04-07, v. pres, 10-12); Am. Geog. Soc.
- Brill, Prof. Harvey C(layton)**, Oxford, Ohio. *Chemistry*. Camden, Ohio, Dec. 29, 81. A.B, Miami, 08; Ph.D, Michigan, 11. Asst. prof. chem, Miami, 11-13; org. chemist, Bur. Science, P. I, 13-16, chief div. org. chem, 16-18; *prof. chem. and head dept, Miami*, 18- Board Food and Drug Inspection, P. I, 14-17. Edible and other commercial oils; alcoholic and enzymic fermentation; medicinal plants of the Philippine Islands; synthetic drugs.
- Brimhall, Dr. Dean R.**, 1373 Butler Ave, Salt Lake City, Utah. *Psychology*. Provo, Utah, Dec. 11, 86. A.B, Brigham Young, 13; A.M, Columbia, 16, Ph.D, 20. Prof. psychol, Brigham Young, 16-22; sec'y-treas, Psychol. Corp, 22-26. Asst, Columbia, 17-18. Co-editor, 'Am. Men of Science,' 21. A.A; Psychol. Ass. Inheritance of mental traits.
- Brimley, C(lement) S(amuel)**, 515 Washington St, Raleigh, N. C. *Zoology*. Great Linford, England, Dec. 18, 63. Bedford Co. Sch, England. *Asst. insect surv.*, N. C. Dept. Agr, 19- Soc. Mammal; Ass. Econ. Entom; Soc. Ichthyol. and Herp; N. C. Acad. (pres, 13); Wash. Biol. Soc; Raleigh Nat. Hist. Club (sec'y, 08-14, v. pres, 15, pres, 16). Entomology and herpetology of North Carolina.
- Brink, Dr. Raymond W(oodard)**, University of Minnesota, Minneapolis, Minn. *Mathematics*. Newark, N. J, Jan. 4, 90. B.S, Kansas Col, 08, B.S.(E.E), 09; A.M, Harvard, 15, Ph.D, 16, traveling fellow, Paris, 16-17. Instr. math, Idaho, 09-12; *Minnesota*, 12-13, 17-19, *assoc. prof.*, 19- Lecturer, Edinburgh, 19-20. Math. Soc; Math. Ass; Edinburgh Math. Soc. Analysis.
- Brink, Prof. R(oyal) Alexander**, University of Wisconsin, Madison, Wis. *Genetics. Plant physiology*. Woodstock, Ont, Can, Sept. 16, 97. B.S.A, Toronto, 19; M.S, Illinois, 21; Sc.D, Harvard, 23. Asst. chemist, West. Can. Flour Mills, 19-20; *asst. prof. genetics, Wisconsin*, 22- Nat. Research Council fellow genetics, Berlin and Birmingham, 25-26. A.A; Genetic Ass; Bot. Soc; Wis. Acad. Pollen physiology; rôle of the gametophyte in inheritance; dynamics of the gene; plant breeding.
- Brinkley, Dr. J(ohn) R(ichard)**, Milford, Kans. *Surgery*. Beta, N. C, July 8, 85. A.B, Milton Acad; M.D, Royal Univ, Pavia, Italy; Sc.D, Chicago Sch. Law; L.B.M.C. *Chief surgeon, Brinkley-Jones Hosp. Ass, Milford, Kans*, 18- Regimental surgeon, Ft. Bliss, Texas, 17; demonstrator, Hosp, Shanghai, 23. A.A; Ass. Study Int. Secretions; Kans. Acad; Inst. Social Sci. Experimental surgery; the implantation of animal tissue into human beings.
- Brinkley, Prof. Stuart R(ober) t**, 334 Yale Ave, New Haven, Conn. *Physical chemistry*. Augusta, Ga, March 18, 89. A.B, Emory, 09; A.M, Columbia, 14; Ph.D, Yale, 20. Instr. science, Presbyterian Inst, Blackshear, Ga, 09-11; prof, Morris Harvey, 11-13; instr. chem, Mich. Col. Mines, 14-18; *Yale*, 20-23, *asst. prof.*, 23- A.A; Chem. Soc. (treas, New Haven sect, 24, 25). General chemistry; vapor pressure and solubilities in liquid ammonia solutions; chemical education.
- Brinsmade, Prof. J(ames) B(eebie)**, Stetson Court, Williamstown, Mass. *Physics*. Everett, Pa, May 12, 84. A.B, Yale, 06; A.M, Harvard, 13, Ph.D, 17. Asst. physics, Harvard, 13-17, instr, 17-18; *Williams*, 19-20, *asst. prof.*, 20- Lieut, A.S, 18-19. A.A; Physical Soc. Infrared absorption bands.
- Brinsmade, Robert Bruce**, Calle Apartado 27, Mexico City, Mex. *Mining engineering*. Elmira, N. Y, Aug. 27, 73. B.S, Washington (St. Louis), 95; E.M, Lehigh, 95. Prof. mining eng, N. Mex. Sch. Mines, 05-06; director, Wis. Mining Trade Sch, 07-08; prof. mining eng, West Virginia, 10-11; *consulting engineer*, 11- Exploration, Argentina, 01-02, Santo Domingo, 08-09; economist, Ministry Finance, Mex, 20-24. Geology; metallurgy; mining; mining without timber; education; banking; land valuation; taxation.
- Brinton, C(lement) S(tarr)**, 213 Euclid Ave, Haddonfield, N. J. *Chemistry*. West Chester, Pa, Feb. 3, 75. Pa. State Nor. Sch, West Chester; Pennsylvania. Asst. science, Pa. State Nor. Sch, West Chester, 93-96; asst. chemist, State Food Inspection Lab, West Chester, Pa, 96-04; *food inspection chemist, bur. chem, U. S. Dept. Agr*, 04-06, in charge Philadelphia branch, 06- Chem. Soc. (sec'y, Phila. sect, 10-15, chairman, 16, sec'y, agr. and food div, 22-); Pharmaceut. Ass; Agr. Chem; Franklin Inst. Food and drug analysis.
- Brinton, Prof. Paul H(enry) M(allet)-P(revost)**, 1112 Sixth St, S. E, Minneapolis, Minn. *Chemistry*. Richmond, Va, May 8, 82. B.S, Minnesota, 12, M.S, 13, Ph.D, 16. Commercial chemist, 02-07; instr. chem, Minnesota, 09-12; asst. prof, Arizona, 12-13, assoc. prof, 13-14, prof. anal. chem, 14-21; chief div, Minnesota, 21-27; *private research*, 27- Capt, C.W.S. A.A; Chem. Soc; Chem. Gesell. Analytical and physical-inorganic chemistry; rare elements.
- Briscoe, Dr. C(harles) F(rancis)**, Agricultural College, Miss. *Bacteriology*. De Pauw, Ind, Nov. 1, 68. A.B, Indiana, 99; A.M, Illinois, 07, Ph.D, 12. Teacher and prin. schools, Ill, 88-93, 99-03; teacher, Ohio Valley Nor. Col, 96-97; instr. bacter, Illinois, 05-12; *prof, Miss. Agr. and Mech. Col*, 12- A.A; Soc. Bact. Tubercle bacilli and tuberculosis of farm animals; bacteriological effects of green manures; sero-diagnosis of pregnancy in mares.

Briscoe, Prof. Herman T(hompson), Indiana University, Bloomington, Ind. *Chemistry*. Shoals, Ind, Nov. 6, 93. A.B, Indiana, 17, A.M, 23, Ph.D, 24. Instr. *chem*, Colby, 20-22; *Indiana*, 22-24, *asst. prof*, 24- Chem. Soc. Inorganic and physical chemistry; dolomite limestones and limes; adsorption; analytical methods.

Bristol, Prof. Charles L(awrence), New York University, New York, N. Y. **Zoology*. Ballston Spa, N. Y, Sept. 29, 59. B.S, N. Y. Univ, 83, M.S, 88; fellow, Clark, 91; fellow, Chicago, 92-93, Ph.D, 95. Instr, Riverview Acad, Poughkeepsie, N. Y, 84-88; *prof. zool*, South Dakota, 88-91; *N. Y. Univ*, 94-25, *emer. prof*, 25- Director, N. Y. Univ. zool. expeditions to Bermuda, 97-; *assoc. director*, Bermuda Biol. Lab. for Research, 04-07. A.A; Soc. Nat; fel. N. Y. Acad. Metamerism in leeches; the marine fauna of Bermuda.

Bristol, Dr. L(everett) D(ale), 325 E. 38th St, New York, N. Y. *Public health*. Chicago, Ill, June 2, 80. B.S, Wesleyan, 03; M.D, Hopkins, 07; D.P.H, Harvard, 18. Instr. bacter. and path, Syracuse, 07-08; *clin. asst. med*, Minnesota, 08-12; *asst. prof. bacter*, Syracuse, 12-13, *assoc. prof*, 13-14; *prof. bacter. and hygiene*, North Dakota, and *director state pub. health laboratories*, 14-16; *asst. prev. med. and hygiene*, Harvard, 17; *state commissioner of health*, Maine, 17-21; *prof. pub. health*, Minnesota, 22-23; *health officer and director*, Health Demonstration, Cattaraugus County, N. Y, 23-25; *exec. officer*, Bellevue-Yorkville Health Demonstration, Milbank Mem. Fund, New York, 25- Director, Anti-Tuber. Dispensary, St. Paul, 11-12; *lecturer*, Columbia, 25. Soc. Bact; Ass. Path. and Bact; Pub. Health Ass; Tuber. Ass; Public health; tuberculosis; mediastinal tumors; etiology of cancer; infectious diseases; rural sanitation.

Bristol, Prof. W(illiam) H(enry), Waterbury, Conn. *Mathematics, Physics*. Waterbury, July 5, 59. M.E, Stevens, 84. Instr, manual dept, workman's sch, Soc. for Ethical Culture, New York, 83-86; *math*, Stevens, 86-88, *asst. prof*, 88-99, *prof*, 99-06. Pres, Bristol Co, Waterbury, Conn. A.A; Mech. Eng; Elec. Eng; Electrochem. Soc. Development of Bristol's recording instruments for pressure, temperature and electricity; recording pyrometer for temperature above 1000° F; talking and synchronized moving pictures.

Brittain, Dr. W(illiam) H(arold), Macdonald College, Ste. Anne de Bellevue, Que, Can. *Entomology*. Fredericton, N. B, Sept. 30, 89. B.S.A, McGill, 11; M.S.A, Cornell, 20, Ph.D, 22. Asst. biol, McGill, 11; provincial entomologist and plant pathologist, B. C, 12-14; provincial entomologist, N. S, and *prof. zool*, Agr. Col, Truro, 14-26; *entom*, McGill, 26- A.A. Fruit insects.

Britton, Mrs. N. L. (Elizabeth Gertrude), 2965 Decatur Ave, New York, N. Y. **Botany*. New York, Jan. 9, 58. N. Y. City Nor. Col, 75. Critic teacher pedag, training dept, N. Y. City Nor. Col, 75-82, teacher bot, 82-85; *hon. assoc*, *instr. and curator moss collections*, N. Y. Bot.

Garden. Bot. Soc; Sullivant Moss Soc. (pres, 18); Wild Flower Preservation Soc. (sec'y-treas, 12-16, 18-27); Torrey Bot. Club (ed, 'Bul', 86-89). Anatomy and classification of mosses, especially of North America.

Britton, Dr. N(athaniel) L(ord), New York Botanical Garden, New York, N. Y. **Botany*. New Dorp, S. I, N. Y, Jan. 15, 59. E.M, Columbia, 79, Ph.D, 81, hon. Sc.D, 04; LL.D, Pittsburgh, 12. Asst. geol, Columbia, 79-87, *instr. bot*, 87-90, *adjunct prof*, 90-91, *prof*, 91-96, *emer. prof*, 96-; *director-in-chief*, N. Y. Bot. Garden, 96- Botanist and asst. geologist, N. J. Geol. Surv, 80-90; *field asst*, U. S. Geol. Surv, 82; *adviser in bot*, Carnegie Institution, 02, *biol. board*, 08- Nat. Acad; A.A. (v. pres, 96); Bot. Soc. (pres, 98, v. pres, 07, pres, 20); Am. Acad; Torrey Bot. Club (ed, 'Bul', 88-97); fel. N. Y. Acad. (v. pres, 01, pres, 07, chairman, committee on sci. surv, Porto Rico and Virgin Islands); N. Y. Hort. Soc; N. Y. Micros. Soc; hon. mem. Phila. Col. Pharmacy; Staten Isl. Inst. Arts and Sci. (pres, 88-91); Wash. Biol. Soc; for. mem. London Linnean Soc. American systematic botany; North American flora (Crassulaceae, Cactaceae, Cyperaceae); flora of the West Indies, Bolivia and Paraguay.

Britton, Dr. S(ydney) W(illiam), Harvard Medical School, Boston, Mass. *Physiology*. Devon, England, Feb. 24, 92. B.Sc, McGill, 22, Cooper fellow, 21-23, M.D, C.M, 24. Demonstrator physiol, McGill, 21-23, *asst*, 23-24; *Nat. Research Council fellow med. sciences*, Harvard, 24- Temperature effects on animals; adrenals; pancreas.

Britton, Dr. W(ilton) E(verett), Agricultural Experiment Station, New Haven, Conn. *Entomology, Botany*. Marlboro, Mass, Sept. 18, 68. B.S, New Hampshire, 93; Cornell, 93-94; Ph.D, Yale, 03. Horticulturist, Conn. Exp. Sta, 94-01, *entomologist and state entomologist*, 01-; *supt. state geol. and nat. hist. surv*, 25- Lecturer, forest sch, Yale, 01-05; entomologist, Conn. State Board Agr, 04. Chairman, Conn. Tree Protection Examining Board. A.A; Ass. Econ. Entom. (pres, 09); Entom. Soc; Conn. Pomol. Soc; Conn. Bot. Soc; Wash. Entom. Soc. Nutrition of plants; life histories of insects; methods of combating injurious species; insects of Connecticut; economic insects; flora of the North Haven (Conn.) sand-plains.

Broadhurst, Prof. J(ean), Teachers College, Columbia University, New York, N. Y. *Bacteriology*. Stockton, N. J, Dec. 29, 73. B.S, Teachers Col, Columbia, 03, A.M, Columbia, 08; Ph.D, Cornell, 14. Teacher, N. J. State Nor. Sch, 03-06; *instr. biol*, Teachers Col, Columbia, 06-14, *asst. prof*, 14-20, *assoc. prof*, 20- A.A; Soc. Bact. (councilor). Bacteria in relation to man; disease resistance; home and community hygiene.

Brock, Rev. Henry M, S.J, Fairview, Weston, Mass. *Physics*. Boston, Mass, May 8, 76. A.B, Boston, 97; B.S, Mass. Inst. Tech, 00; Woodstock, 03-05, A.M, 22; Ore Seminary, England, 09-13. *Prof. physics*, Holy Cross, 05-09; Boston, 13-14; Woodstock, 15-24; *Fairview*, 24- A.A; Physical Soc; Meteor. Soc; Hist. Sci. Soc. Methodology; scientific biography.

- Brock, Dr. R(eginald) W(alter)**, University of British Columbia, Vancouver, B. C., Can. *Geology*. Perth, Ont., Jan. 10, 74. Toronto, 90-92; M.A., Queen's (Can.), 95, LL.D., 21; Heidelberg, 95, 00-01. Instr. miner, Sch. Mining, Kingston, 96-97; geologist, Can. Geol. Surv., 97-08, director, 08-14; prof. geol., Sch. Mining, 02-10; *deputy minister mines, Can.*, 14-; *dean faculty applied science, British Columbia*. Consult. geologist, Crown Colony, Hongkong, 22-27. Major, C.E.F., 15-19; consulting geologist, Egyptian E. F. Commissioner, Frank Landslide Injury, 03; gen. sec'y, Int. Geol. Cong., 13-22; Pan-Pacific Cong., 23. A.A. (v. pres, 09); Geol. Soc. (v. pres, 25); Min. Eng; Min. and Metal. Soc; Min. and Metal. Eng; Ass. Geog; fel. Royal Soc. Can. (pres, sect. IV, 25); Can. Min. Inst. Economic geology.
- Brockbank, Dr. T(homas) W(illiam)**, Mayo Clinic, Rochester, Minn. *Psychology*. Du Bois, Pa., Sept. 19, 93. A.B., 15, A.M., 16, Ph.D., 18, M.D., 24. Instr. psychol., Catholic Univ., 19-24. Special psychol. examiner, U.S.A., 18. A.A.; Psychol. Ass; S. Soc. Philos. and Psychol. Neurology.
- Brockman, Prof. C(harles) J(oseph)**, 336 Hill St, Athens, Ga. *Chemistry*. Nazareth, Pa., July 23, 97. A.B., Lehigh, 19, A.M., Ch.E., 21. Instr. chem., Georgia, 21-24, asst. prof., 24-26, *assoc. prof.*, 26- Capt., C.W.S., O.R.C., 25- Chem. Soc; Electrochem. Soc; Soc. chim. de France; Soc. chim. de Suisse. Electro and organic chemistry; the electronic structure of complex compounds; theories of dissociation in solution; the history of chemistry.
- Brode, Prof. H(oward) S(tidham)**, 433 E. Alder St, Walla Walla, Wash. *Zoology*. Stark Co, Ill., Aug. 28, 66. Fellow, Chicago, 94-96, B.S., Ph.D., 96. Asst. zool., Illinois, 89-93; *prof. biol.*, Whitman, 99- Summers, instr., Woods Hole, 95, Puget Sound Biol. Sta., 05-25. A.A.; Ecol. Soc; Soc. Mammal; Pub. Health Ass; Wash. Tuber. Ass. (pres, 24-). Morphology of annelids; ecology.
- Brode, Dr. R(obert) B(igham)**, Friedlander Weg 11, Göttingen, Germany. *Physics*. Walla Walla, Wash., June 12, 00. B.S., Whitman, 21; Ph.D., Calif. Inst., 24. Rhodes scholar, Oxford, 24-25; *Nat. Research Council fellow physics, Göttingen*, 25- Summers, Bur. Standards, 22, 24. The mean free path of slow electrons in gases.
- Brode, Dr. Wallace R(eed)**, 4600 30th St, N. W., Washington, D. C. *Chemistry*. Walla Walla, Wash., June 12, 00. B.S., Whitman, 21; M.S., Illinois, 22, Ph.D., 25. Asst. chem., Illinois, 21-23; asst. chemist, Bur. Standards, 23-26; *Guggenheim fellow*, Leipzig, Zurich, 26-27; *Liverpool*, 27- Chem. Soc. Organic chemistry; mechanism of dyeing; optically active, visible and ultraviolet absorption spectra of dyes; determination of hydrogen ion concentration.
- Brödel, Prof. Max**, Johns Hopkins University, Baltimore, Md. *Medical illustration*. Leipzig, Germany, June 8, 70. Acad. of Fine Arts, Leipzig, 85-90. Instr. art applied to med., Hopkins, 05-06, *assoc. prof.*, 06- Ass. Anat; hon. mem. Md. Med. and Chirurg. Faculty. Embryology; methods of scientific illustration.
- Broderick, Dr. Thomas M(onteith)**, Calumet, Mich. *Economic geology*. Waukesha, Wis., Aug. 30, 89. A.B., Minnesota, 13; M.S., Wisconsin, 14; Ph.D., Minnesota, 17. Asst. prof. geol., Minnesota, 14-20; *geologist, Calumet and Hecla Consol. Copper Co.*, 20- Geologist, Minn. and Wis. Geol. Surveys, 14-20. Iron and copper ores.
- Broders, Dr. A(lbert) C(ompton)**, 940 Ninth Ave, S. W., Rochester, Minn. *Surgical pathology*. Fairfax Co, Va., Aug. 8, 85. M.D., Med. Col. of Va., 10; M.S., Minnesota, 20. Asst. surg. pathologist, Mayo Clinic, 12-19, *assoc. surg. pathologist*, 19-22; *surg. pathologist, Colonial, Kahler and Worrell Hospitals, and assoc. prof. path., Mayo Foundation, Minnesota*, 22- Soc. Clin. Path; Ass. Path. and Bact; Am. Med. Ass; Col. Physicians; Richmond Acad. The thyroid gland; chronic gastric ulcer and gastric carcinoma; epithelioma; tuberculosis associated with malignant neo-plasia; tumor of the extremities; cancer.
- Broderon, Dr. H(enry) J(ohn)**, Standard Oil Co, Whiting, Ind. *Chemistry*. Minneapolis, Minn., Oct. 7, 83. A.B., Nebraska, 09; A.M., Kansas, 11; Ph.D., Cornell, 13. Instr. chem., Illinois, 13-17; *chemist, Standard Oil Co. of Ind.*, 17- Petroleum products.
- Brodie, R(enton) K(irkwood)**, Procter and Gamble Co, Ivorydale, Ohio. *Chemistry*. Portland, Oregon, Sept. 12, 87. B.S., Oregon Col., 08; Chicago, 10, M.S., 11. Instr. chem., Oregon Col., 09-12, asst. prof., 13-15, *assoc. prof.*, 15-18; fellow, Mellon Inst., 18-19; chemist, *Procter and Gamble Co.*, 19-22, chem. supt., 22-26, *director mfg. and tech. research*, 26- A.A.; Chem. Soc; Oil Chem. Soc. Oil; fat; soap; glycerin.
- Brody, Prof. J(acob) George**, University of Georgia, Athens, Ga. *Physiology, Pharmacology*. Vilna, Russia, Jan. 17, 77. A.B., A.M., M.D. Instr. pharmacol., Cornell, 10-22; teaching fellow, Western Reserve, 22-25; *asst. prof. physiol. and pharmacol., Georgia*, 25- Demonstrator, Western Reserve, 23. Standardization of drugs; standardizing of digitalis.
- Brody, Prof. Samuel**, University of Missouri, Columbia, Mo. *Physiology, Biochemistry*. Garbatchi, Lithuania, Feb. 8, 90. A.B., California, 17, A.M., 20. Asst. biochem., California, 19-20; *asst. prof. dairy husbandry, Missouri*, 20- Subcommittee standardization, div. genetics, Nat. Research Council. A.A.; Chem. Soc; Dairy Sci. Ass; Soc. Animal Production. The time relations of growth, senescence, milk secretion and related processes.
- Brokaw, Dr. Albert D(udley)**, 120 Broadway, New York, N. Y. *Geology*. Granville, Ill., Oct. 9, 80. B.S., Chicago, 08, fellow, 10-11, Ph.D., 13. Asst. chem., Chicago, 08-12, instr. miner. and econ. geol., 12-13, asst. prof., 14-18, *assoc. prof.*, 18-19; *consulting geologist*, 19- Geol. Soc; Soc. Econ. Geol; Ass. Petrol. Geol; Min. and Metal. Eng; Petrol. Tech; Chem. Soc. Solution of gold in the surface alteration of ore bodies; precipitation of gold; paraffin dirt of the gulf coast oil fields.

Brombacher, Dr. William G(eorge), 6314 Ridgewood Ave, Chevy Chase, Md. *Physics*. Cleveland, Ohio, Feb. 23, 91. A.B., Lake Forest, 15, A.M., 17; Ph.D., Hopkins, 22. Instr. physics, Hopkins, 19-22; *assoc. physicist, Bur. Standards*, 22-; *chief aeronaut. instruments sect.*, 26-Physical Soc; Optical Soc; Mech. Eng. (committee, mech. springs); Nat. Aeronaut. Ass; Wash. Philos. Soc; Wash. Acad. Aeronautic instruments; springs for instruments.

Bronfenbrenner, Dr. J(acques) J(acob), 410 W. 128th St, New York, N. Y. *Bacteriology*. Cherson, Russia, Nov. 21, 83. Imperial Univ, Odessa, 02-06; Pasteur Inst, Paris, 07-09; Ph.D., Columbia, 12; D.P.H., Harvard, 19. Asst, Pasteur Inst, Paris, 08-09; scholar, fellow and asst, Rockefeller Inst, 09-13; director research and diagnostic laboratories, West. Pa. Hosp, Pittsburgh, 13-17; asst. prof. prev. med. and hygiene, Harvard, 17-23; *assoc. mem., Rockefeller Inst*, 23- A.A.; Soc. Bact; Ass. Path. and Bact; Ass. Immunol; Soc. Exp. Biol; Harvey Soc; Tuber. Ass; Chem. Soc. Immunity; anaphylaxis; serum ferments; food poisoning; identification of bacteria; bacteriophage.

Bronk, Prof. Detlev W(ulf), Swarthmore, Pa. *Physiology, Physics*. New York, N. Y., Aug. 13, 97. A.B., Swarthmore, 20, Lippincott traveling fellow, 21-22; M.S., Michigan, 22, Ph.D., 26. Instr. physics, Pennsylvania, 21; Michigan, 21-24, physiol, 24-26, asst. prof, 26; *physiol. and biophysics, Swarthmore*, 26-; *physiol., Pennsylvania*, 26- A.A.; Physical Soc; Optical Soc. Infra red spectroscopy; electrical properties of glands; cell permeability; volume flow of blood.

Bronner, Dr. Augusta F(ox), 40 Court St, Boston, Mass. *Psychology*. Louisville, Ky, July 22, 81. B.S., Columbia, 06, A.M., 10, Ph.D., 14. Teacher, high sch, Ky, 06-11; asst. educ. Teachers Col, Columbia, 11-13; clin. psychologist, Psychopathic Inst, Chicago, 13-17; *assoc. director, Judge Baker Foundation*, 17- Lecturer, Boston, 21-; summer, Wellesley, 25- Psychol. Ass; Psychopath. Ass; Orthopsychiat. Ass; Clin. Psychol. (sec'y-treas, 19-21). Juvenile delinquency; personality problems; educational psychology; mental tests.

Bronson, Prof. Howard L(ogan), Dalhousie University, Halifax, N. S., Can. *Physics*. Washington, Conn, July 12, 78. A.B., Yale, 00, Ph.D., 04. Instr. physics, Lehigh, 00-01; asst, Yale, 01-04; demonstrator, McGill, 04-07, lecturer, 07-09, asst. prof, 09-10; *Munro prof., Dalhousie*, 10- A.A.; Physical Soc; fel. Royal Soc. Can; N. S. Inst. (pres, 18-20). Radioactivity; high resistances; standard cells.

Brooke, Will(iam) E(lsworth), University of Minnesota, Minneapolis, Minn. *Mathematics, Engineering*. Minier, Ill, Oct. 7, 70. B.C.E., Nebraska, 92, fellow, 94-97, A.M., 96. Asst. math., Nebraska, 94-97; instr, high sch, Nebr, 97-01; *math. and mech., Minnesota*, 01-05, asst. prof. and prof, 05-12, *head prof.*, 12- A.A.; Math. Soc; Eng. Educ; Math. Verein; Circolo Mat. di Palermo. Irrational integrals.

Brooks, Allan (Cyril), Okanagan Landing, B. C., Can. *Ornithology*. Etawah, N. W. F., India,

Feb. 15, 69. D.S.O. Fel. Ornith. Union; Soc. Mammal; Audubon Soc; Cooper Ornith. Club; Wash. Biol. Soc; British Ornith. Union. Mammalogy; fauna of British Columbia.

Brooks, A(lonzo) B(eecher), West Virginia Game and Fish Commission, Charleston, W. Va. *Forestry*. French Creek, W. Va., May 6, 73. B.S.A., West Virginia, 12. Forester, W. Va. Geol. Surv, 10-11; W. Va. Exp. Sta, 13-16; forest pathologist, bur. plant indust, U. S. Dept. Agr, 17-21; *chief game protector, W. Va. Game and Fish Commission*, 21- Appalachian Forest Research Council. Soc. Foresters; Ecol. Soc. Forests of West Virginia; chestnut blight; white pine blister rust.

Brooks, Prof. Ansel, Newark Technical School, Newark, N. J. *Mechanical engineering*. Worcester, Mass, 76. Ph.B., Yale, 98, M.E., 01. Asst. mech. eng, Yale, 98-01; instr. mech., Brown, 03-04, asst. prof, 04-08, *assoc. prof.*, 08-18; *Newark Tech. Sch.*, 24- A.A.; Mech. Eng. Aeronautics.

Brooks, Prof. Barney, Vanderbilt University, Nashville, Tenn. *Surgery*. Jacksboro, Texas, Dec. 17, 84. B.S., Texas, 05; M.D., Hopkins, 11. Asst. instr, assoc. and assoc. prof. *surg.*, Washington (St. Louis), 12-25; *prof., Vanderbilt*, 25- Surg. Ass; Soc. Clin. Surg; S. Surg. Ass; West. Surg. Ass. Growth and regeneration of bone; intestinal obstruction; disease of joints and of blood vessels.

Brooks, Dr. Benjamin T(albott), Chemists Club, 52 E. 41st St, New York, N. Y. **Chemistry*. Columbus, Ohio, Dec. 29, 85. A.B., Ohio State, 06; Ph.D., Göttingen, 12. Asst. chemist, Bur. Standards, 06-07; research chemist, Bur. Science, P. I., 07-11; fellow, Mellon Inst, 12-17; prof. chem. eng, Pittsburgh, 13-17; chief chemist, Commercial Research Co, 17-18, consulting chemist, 18-19; chem. engineer, Mathieson Alkali Works, 19-24; *consulting chemist*, 24- Major, C.W.S. Chairman committee petrol. chem, Nat. Research Council. Chem. Soc; London Soc. Chem. Indust; London Inst. Petrol. Technol. Organic chemistry; petroleum; gasoline by cracking; essential oils.

Brooks, Dr. Charles, U. S. Department of Agriculture, Washington, D. C. *Plant pathology*. Salem, Ind, April 4, 72. A.B., Indiana, 04; A.M., Missouri, 05, Ph.D., 08. Instr. bot, New Hampshire, 05-06; prof. and botanist, Exp. Sta, 06-12; *pathologist, bur. plant indust, U. S. Dept. Agr.*, 12- Bot. Soc; Phytopath. Soc. (v. pres, 17); Wash. Bot. Soc. Fruit diseases, especially those of apples.

Brooks, Dr. Charles E(dward), Beaver Building, Madison, Wis. *Mathematics*. Baltimore, Md, Aug. 26, 79. A.B., Hopkins, 00, Ph.D., 04. Computer, Prudential Ins. Co, 04-05; actuary, South. Life Ins. Co, 06-09; instr. math. and insurance, Northwestern, 10-13; asst. prof. insurance, California, 15-17; actuary, Carnegie Foundation Adv. Teaching, and Teachers Ins. and Annuity Ass, 17-19; consulting actuary, 19-24; *actuary, Wis. Retirement System*, 24- Lecturer, Hopkins, 09; consultant, Bur. War Risk Ins, 17. Medal, Panama-Pacific Expos, 15. Math. Soc; Econ. Ass; Inst. Actuaries.

Economics of insurance and retirement annuities.

Brooks, Dr. Charles F(ranklin), Clark University, Worcester, Mass. *Meteorology, Climatology*. St. Paul, Minn, May 2, 91. A.B, Harvard, 11, A.M, 12, Ph.D, 14. Research asst, Blue Hill Observatory, 12-13; asst. meteor. Harvard, 13-14; asst. physical geog, Harvard and Radcliffe, 14; asst. and collaborator, office farm management, U. S. Dept. Agr, 14-18; instr. geog, Yale, 15-18; meteorologist and ed, U. S. Weather Bur, 18-21; assoc. prof. meteor. and climat, Clark, 21-26, prof, 26- Ed, 'Monthly Weather Rev.', 19-21; ed, 'Bul. Am. Met. Soc.', 20-25; Sci. Serv. daily feature, 'Why the weather?', 23- Asst. instr. Sig.C, 18. A.A; fel. Meteor. Soc. (see'y, 20-); Ass. Geog. (v. pres, 20); Am. Geog. Soc; Wash. Acad; Royal Meteor. Soc; Hungarian Meteor. Soc. Snowfall of the United States; seasonal work on farm crops; clouds; ocean temperatures and the weather; climatology of North America.

Brooks, Dean Clyde, University of Alabama School of Medicine, Tuscaloosa, Ala. *Physiology*. Paris, Mo, Aug. 30, 79. A.B, Missouri, 05; fellow, Chicago, 06-07, 08-09, Ph.D, 11, M.D, Rush Med. Col, 13. Asst. physiol, Missouri, 05; instr. physiol. and pharmacol, Washington (St. Louis), 07-08; asst. pharmacol. and exp. therapist, Chicago, 09-10; instr. physiol. and pharmacol, Pittsburgh, 10-11, asst. prof, 11-16; prof. and head dept. physiol, physiol. chem. and pharmacol, Ohio State, 16-20; prof. physiol. and pharmacol. and dean sch. med, Alabama, 20- A.A; Physiol. Soc; Soc. Pharmacol; Am. Med. Ass; Soc. Exp. Biol; Fed. Am. Societies Exp. Biol. The circulation; blood pressure; physiology of central nervous system; experimental therapeutics; foreign protein; pharmacology and therapy.

Brooks, Prof. Fowler D(ell), Johns Hopkins University, Baltimore, Md. *Psychology*. Adelphi, Ohio, Jan. 16, 85. A.B, A.M, Baker, 11; A.M, Oklahoma, 15; A.M, Columbia, 16, Ph.D, 21. Asst. prof. psychol. and educ, Oklahoma, 15-17; director training sch, State Teachers' Col, Mankato, Minn, 17-20; assoc. educ, Hopkins, 21-24, assoc. prof, 24- A.A; Psychol. Ass; Nat. Soc. Study Educ; Educ. Research Ass. Education; applied psychology; the psychology of learning; individual differences; intelligence tests; mental ages and intelligence quotients; the curve of work; the prediction of scholastic success; mental development.

Brooks, Prof. Frank G(ary), 1624 W. 21st St, Oklahoma City, Okla. *Cytology, Parasitology*. Berlin, Pa, April 8, 93. B.S, Allegheny, 15; A.M, Oklahoma, 22. Teacher and prin, high sch, Pa, 15-18; asst. prof. biol, Okla. City Col, 19-22, prof, Okla. City Univ, 22- A.A; Soc. Parasitol; Okla. Acad. (treas, 24). Spermatogenesis.

Brooks, Fred E(rnest), French Creek, W. Va. *Entomology, Mammalogy*. French Creek, June 8, 68. Pub. sch; Buckhannon Business Col. Assoc. entomologist, fruit insect investigations, bur. entom, U. S. Dept. Agr. Assoc. entomologist, W. Va. Exp. Sta, 03-10; statist. agent

for W. Va, bur. statist, U. S. Dept. Agr, 04-08; lecturer, farmers' institutes. A.A; Ass. Econ. Entom; Entom. Soc; Soc. Mammal; W. Va. Hort. Soc. (see'y-treas, 02-09). Insect enemies of grapes and apples; feeding habits of mice, moles and shrews; boring insects of fruit trees; codling moth; nut-attacking insects.

Brooks, Dr. Frederick A(ugustus), 10 Poplar St, Berkeley, Calif. *Engineering*. Minneapolis, Minn, May 1, 95. B.S, Illinois, 17; M.S, Mass. Inst. Tech, 19, Sc.D, 20. *Engineer, Johnson Gear Co.* Assoc. Mech. Eng.

Brooks, Dr. Harlow, 47 W. Ninth St, New York, N. Y. *Pathology, Internal medicine*. Medo, Minn, March 31, 71. M.D, Michigan, 95; Freiburg, 98. *Prof. clin. med, Univ. and Bellevue Hosp. Med. Col, 08-* Pathologist, N. Y. Zool. Park; visiting physician, New York Hosp. and Montefiore Hosp; consulting physician, Mem. and Beth Israel Hospitals. Col, M.R.C. A.A; Ass. Path. and Bact; Soc. Exp. Biol; Am. Physicians; Harvey Soc; N. Y. Path. Soc; N. Y. Zool. Soc; N. Y. Acad. Med. Pathological anatomy; internal medicine.

Brooks, Dr. Helen Clark, care of McClure's Magazine, 250 Park Ave, New York, N. Y. *Psychology*. Cortland, N. Y, Feb. 20, 90. A.B, Vassar, 13; fellow, Illinois, 14-16, Ph.D, 16. Instr. psychol, Vassar, 16-18; Reed, 19-20; Minnesota, 20-21. Summers, instr, Rutgers, 14-17. Psychol. Ass. Experimental and social psychology.

Brooks, H(erbert) B(arton), Bureau of Standards, Washington, D. C. *Physics*. New Bremen, Ohio, Jan. 25, 69. M.E. (E.E), Ohio State, 03; Ph.D, Hopkins, 26. Asst. physics, Ohio State, 00-02, elec. eng, 02-03; lab. asst, Bur. Standards, 03-05, asst. physicist, 05-10, assoc. physicist, 10-18, physicist, 18- Physical Soc; Elec. Eng; Wash. Acad. Precision electrical measurements; potentiometer; moving-coil galvanometers; instrument transformers; absolute measurement of high voltages.

Brooks, Dr. Herbert T(homas), 45 W. Main St, Alhambra, Calif. *Medicine*. Walton, Texas, March 2, 82. A.B, Presbyterian (S. C), 01; M.D, Tennessee, 06; Harvard Med. Sch, 10, 13; Vienna, 12, 14. Prof. path, Tennessee, 11-18, dean col. med, 13-17; prof. clin. med, Col. Med. Evangelists. Ass. Path. and Bact.

Brooks, Pres. John P(ascal), Clarkson College of Technology, Potsdam, N. Y. *Civil engineering*. Kittery, Maine, Sept. 24, 61. B.S, Dartmouth, 85, M.S, 93, Sc.D, 15. Instr. civil eng, Lehigh, 90-97; prof, Kentucky, 97-06; assoc. prof, Illinois, 06-11; pres, Clarkson Col. Tech, 11- Assoc. mem. Civil Eng. Street railway location; reinforced concrete; the bearing power of earth; stresses in highway bridge trusses.

Brooks, M(atilda) M(olderhauer), 3809 Yuma St, Washington, D. C. *Physiology*. Pittsburgh, Pa. A.B, M.S, Pittsburgh, 13; Ph.D, Radcliffe, 20. Bacteriologist, research inst, Nat. Dental Ass, 17; asst. biologist, hygienic lab, U. S. Pub. Health Service, 20-24, assoc. biologist, 24- Physiol. Soc; Soc. Exp. Biol.

Respiration of bacteria; the antagonism of salts; the effects of arsenic on cells; permeability of cells.

Brooks, Prof. Morgan, University of Illinois, Urbana, Ill. *Engineering*. Boston, Mass, March 12, 61. Ph.B, Brown, 81; M.E, Stevens, 83. Practising engineer, 83-98; *prof. elec. eng.*, Nebraska, 98-01; *Illinois*, 01- Lecturer, Minnesota, 93-98. Mech. Eng; Elec. Eng. (manager and v. pres, 07-11); Illum. Eng. Soc; West. Soc. Eng. Alternating currents and telephony; self-synchronizing of alternators; reactance coils; illumination.

Brooks, Dr. S(umner) C(ushing), University of California, Berkeley, Calif. *Physiology*. Sapporo, Japan, Aug. 17, 88. B.S, Mass. Col, 10; Ph.D, Harvard, 16. Biochemist, research inst, Nat. Dental Ass, 16; research fellow, Western Reserve, 17; trop. med, Harvard, 17-19; assoc. prof. physiol. and biochem, Bryn Mawr, 19-20; biologist, hygienic lab, U. S. Pub. Health Service, 20-26; *prof. physiol. and biochem*, Rutgers, 26-27; *zool, California*, 27- A.A; Physiol. Soc; Soc. Exp. Biol; Chem. Soc; Bot. Soc. Uranium poisoning; biological effects of light; immunochemistry; permeability of cells to electrolytes.

Brooks, Dr. W(illiam) P(enn), Amherst, Mass. *Agronomy*. Norwell, Mass, Nov. 19, 51. B.S, Mass. Col, 75; Ph.D, Halle, 97; Nogaku Hakushi, Japan, 18. Prof. agr, Imp. Col. Agr, Sapporo, Japan, 77-89; prof. agr, Mass. Col, and agriculturist, Hatch Exp. Sta, 89-05, acting pres. and director, 05-06; director and agriculturist, Mass. Exp. Sta, 06-18; consulting agriculturist, 18-21; *retired*. Pres. ad interim, Imp. Col. Agr, Japan, 80-83, 86-87. Awards, Columbian and Pan-Am. Expositions. A.A; Pub. Health Ass; Mass. Forestry Ass; Ass. Agr. Colleges and Exp. Stations (2d v. pres, 09). Plant nutrition; agriculture; poultry.

Broomall, Henry L(ewis), Media, Delaware Co, Pa. *Anthropology*. Chester, Pa, April 12, 60. Swarthmore, 73-77. A.A; Anthropol. Ass; Del. Co. (Pa) Inst. Sci. (v. pres, 95-12); Phila. Acad. Linguistics; Spanish dialects; El Moro inscriptions; nautical English; grammar and phonetics in living Indo-European languages; psychological processes in acquisition and loss of the vernacular.

Brophy, Dr. Dorothy Hall, General Electric Co, Schenectady, N. Y. *Analytical chemistry*. Toledo, Ohio, Sept. 20, 96. B.S, Michigan, 18, fellow, 18-20, Ph.D, 20. Asst. anal. chem, Michigan, 17-20; *research chemist, Gen. Elec. Co*, 20- Methods of analysis; cobalt; molybdenum; aluminum; boron; zirconium; thorium and other impurities in tungsten.

Brossard, Dr. E(dgar) B(ernard), Logan, Utah. *Agriculture*. Oxford, Idaho, April 1, 89. B.S, Utah Col, 11; M.S, Minnesota, 17, Ph.D, 20. Instr. math, Utah Col, 09-10; farm management demonstrator for Utah, 14-16; instr. farm management, Minnesota, 18-19; prof, Utah Col, and in charge agr. econ. and farm management investigations, Exp. Sta, 19-23; economist, U. S. Tariff Commission, 23-25, *commissioner*, 25- Farm Econ. Ass. Farm management; agricul-

tural economics; farming in Utah; tariffs and international trade.

Brotemarkle, Dr. R(obert) A(rchibald), University of Pennsylvania, Philadelphia, Pa. *Psychology*. Lonaconing, Md, Nov. 12, 92. A.B, Princeton, 16, A.M, 18; Ph.D, Pennsylvania, 22. *College personnel officer and instr. psychol. and clin. examiner, Pennsylvania*, 19- Prof. and dean faculty, Phila. Sch. for Christian Workers, 25- Clinical psychology; the psychology of morality; memory-span and moral-concept tests.

Brotherton, Wilber, Jr, Brotherton-Kirk Seed Co, Bozeman, Mont. *Botany*. Detroit, Mich, March 1, 96. A.B, Michigan, 16, M.S, 17, Ph.D, 22. Asst. pathologist, office cotton, truck and forage crop disease investigations, bur. plant indust, U. S. Dept. Agr, 18-25; *Brotherton-Kirk Seed Co*, 25- Bot. Soc. Genetics; disease resistance in plants.

Broun, Prof. G(oronwy) O(wen), St. Louis University School of Medicine, St. Louis, Mo. *Internal medicine*. Mobile, Ala, July 31, 95. A.B, Spring Hill Col, 14; M.D, St. Louis, 18. Intern, Bethesda Hosp, St. Louis, 17; Jewish Hosp, St. Louis, 18-19, res, 19; asst. med, St. Louis, 19-20; fellow, Rockefeller Inst, 20-21, asst, 21-22; asst. med, Harvard, and res. physician, Thorndike Mem. Lab, Boston City Hosp, 22-24; *assoc. prof. med, St. Louis*, 24- Assoc. physician, St. Mary's Hosp, St. Louis, 24- M.R.C, U.S.A, 18-19, capt, M.O.R.C. Soc. Clin. Invest; Soc. Exp. Path; Harvey Soc. Exercise and the blood; liver physiology and pathology; pernicious anemia; bone marrow; influenza; gonorrhea; nephritis.

Brousseau, Prof. Kate, 2617 Cole St, Oakland, Calif. *Psychology*. Ypsilanti, Mich. Leipzig; Göttingen; Col. de France; Dr, Paris, 04; Chicago; Minnesota; California. Teacher, high sch, Calif; instr. *psychol*, State Nor. Sch, Los Angeles, Calif, 97-03; *prof, Mills*, 07- Psychol. surv, Sonoma State Home for the Feeble-Minded, Calif, 14-16; asst. to Dr. Toulouse, examination of street ry. employees, Paris, 17. Directrice des foyers du soldat, French Army, 17-19. A.A; Mental Hygiene Soc; Ligue d'Hygiène Mentale, Paris. Education of negroes in the United States; mental and physical characteristics of Mongolian imbeciles; exceptional children.

Brown, Dr. Alfred J(erome), 1618 Medical Arts Building, Omaha, Nebr. *Surgery*. New York, N. Y, Aug. 27, 78. A.B, Yale, 99; M.D, Columbia, 03. Asst. anat, Columbia, 09-11, instr, 11-18; *asst. prof. surg, col. med, Nebraska*, 19- Major, M.C, 18-19. Ass. Anat; Col. Surg; West. Surg. Ass. Post cardinalomphalomesenteric communications in the adult mammal; perforated ulcer in typhoid fever; cephalic tetanus; foreign bodies in body tissues; pulmonary vein in the domestic cat; angiodia of the intestine; cholecystectomy for cholelithiasis; hypoglossofacial anastomosis for facial paralysis.

Brown, Bailey E(dgar), U. S. Department of Agriculture, Washington, D. C. *Chemistry*. Cookeville, Tenn, Nov. 10, 79. B.S, Ala. Poly-

- tech, 99, M.S., 00. Meat inspector, Birmingham, Ala., 00; chemist, Dimmick Cast Iron Pipe and Foundry Co., 00-01; *biochemist*, U. S. Dept. Agr., 01- Detailed by U. S. Dept. Agr., asst. prof., Pa. State, 07-11. Soc. Agron.; Potato Soc. Fertilizer requirements of soil types; soil investigations in field, greenhouse and laboratory.
- Brown, Prof. B(ancroft) H(untington)**, Balch St., Hanover, N. H. *Mathematics*. Hyde Park, Mass., Nov. 11, 94. A.B., Brown, 16, A.M., 17; Ph.D., Harvard, 22. Instr. *math*, Harvard, 19-21; *Dartmouth*, 22-24, *asst. prof*, 24- A.A.; Math. Soc.; Math. Ass. Geometry.
- Brown, Barnum**, American Museum of Natural History, New York, N. Y. *Vertebrate paleontology*. Carbondale, Kans., Feb. 12, 73. A.B., Kansas, 07. Asst. curator *dept. vert. paleont*, *Am. Museum Nat. Hist.*, 97-11, *assoc. curator*, 11-27, *curator*, 27-. Geol. explorations and fossil hunting expeditions, North and South Amer., Europe, Africa and Asia, 97- Paleont. Soc.; Geol. Soc.; Kans. Acad. Economic geology; oil and gas; mammals; dinosaurs; Cretaceous birds.
- Brown, Baxter L(amont)**, Merchants-Laclede Building, St. Louis, Mo. *Civil engineering*. Rush, N. Y., June 20, 64. Pub. schools. Chief engineer, St. Louis Valley Ry., 01-05; *practising engineer*, 05- Civil Eng. (director, 21-23); St. Louis Eng. Club (pres, 19).
- Brown, Prof. Benj(amin) H**, Walla Walla, Wash. *Physics*. Wis., 66. A.B., Ripon, 94, A.M., 96. Prof. physics, *Whitman*, 95-26, *lecturer geol. and astron*, 26- A.A.; Physical Soc. Pulling loads.
- Brown, Dr. Calvin S(mith)**, University, Miss. *Geology, Archeology*. Obion Co., Tenn., Feb. 13, 66. B.S., Vanderbilt, 88, M.S., 91, Sc.D., 92; Ph.D., Colorado, 99; Paris and Leipzig, 94-95; Spain, Italy and Greece, 03-04. Instr. English, Vanderbilt, 95-96; comp. lit., Colorado, 98-00; acting prof. modern languages, Mississippi, 02; acting asst. prof. *Romance languages*, Missouri, 04-05; *prof*, *Mississippi*, 05- Archeologist, Miss. Geol. Surv. Collector of flora of Azores. A.A.; Anthropol. Ass.; Soc. des Américanistes. Coal flora of Tracy City, Tenn.; lignite of Mississippi; archeology of Mississippi.
- Brown, Charles Barto**, 9 Center St., New Haven, Conn. *Civil engineering*. New Haven, Sept. 22, 73. Ph.B., Yale, 94, C.E., 96. Prof. railroad eng., Maine, 08-16, civil eng., 16-19; head salesman, Frederick W. Ward Co., 19-27; *real estate financing*, 27- Civil Eng. Cement, concrete, brick and stone.
- Brown, Charles Carroll**, 848 Orange Park Ave., Lakeland, Fla. *Civil engineering*. Austinburg, Ohio, Oct. 4, 56. Cornell, 74-75; C.E., Michigan, 79; hon. A.M., 13. Prof. civil eng., Rose, 83-86; Union, 86-93; city engineer, Indianapolis, 93-95; asst. city engineer, Omaha, 96-97; asst. ed., 'Munic. Eng. Magazine,' 97-99, ed-in-chief, 00-17; prof. civil eng., Valparaiso, 17-20, dean col. applied sciences, 19-20; *city engineer*, St. Petersburg, Fla., 21-23; *Lakeland*, 23- Consulting engineer, N. Y. State Board Health, 87-93. Civil Eng.; Ass. Eng.; Soc.
- Munic. Improv. (past pres, sec'y, 13); Water Works Ass.; Fla. Eng. Soc.; Sigma Xi (past pres). Stream pollution; sewage disposal; sewerage; water supply; geodetic surveys; paving; effect of variations of rainfall on water powers; calcareous cements and their uses; water purification; irrigation and drainage; asphalt and concrete.
- Brown, Prof. Charles W(ilson)**, Brown University, Providence, R. I. *Geology, Geography*. Overton, Nebr., Aug. 11, 74. Boston, 96-97; Ph.B., Brown, 00, A.M., 01; Harvard, 03-04. Asst. geol., Brown, 00-01; prin., high sch., R. I., 01-03; instr. geol., Lehigh, 04-05; instr. *geol. and head dept*, Brown, 05-06, asst. prof., 06-13, *assoc. prof*, 13- Field asst., U. S. Geol. Surv., 02-03, geol. aid, 04-08; supt., Nat. Resources Surv., R. I., 09-; summer, asst., Harvard, 03. A.A.; Geol. Soc.; Am. Geog. Soc.; Seismol. Soc.; Min. and Metal. Eng.; Harvard Travelers Club; Phila. Geog. Soc. Areal geology of Vermont, Maine and Rhode Island; Jamaica earthquake.
- Brown, Prof. D(enton) J(acobs)**, University of Nebraska, Lincoln, Nebr. *Chemistry*. Hampton, Pa., April 13, 82. A.B., Texas, 10; Ph.D., Chicago, 18. Instr. *chem*, Texas, 10-14, 17-18; asst. prof., Agr. Texas and Mech. Col. Texas, 15-17; *assoc. prof*, *Nebraska*, 18- Chem. Soc. Electroanalysis; peroxides; oxidation and reduction.
- Brown, E(dgar)**, Lanham, Md. *Botany*. Farmington, N. Y., Sept. 25, 71. Ph.B., Union, 95. *Botanist in charge seed lab*, U. S. Dept. Agr., 02- A.A.; Wash. Acad. Seed testing.
- Brown, Prof. E(dgar) D(ewight)**, University of Minnesota, Minneapolis, Minn. *Pharmacology*. Albion, N. Y., April 4, 69. Ph.G., N. Y. Col. Pharmacy, 98, Phar.D., 99; M.D., Western Reserve, 02. Demonstrator pharmacol. and mat. med., Western Reserve, 03-06, instr. pharmacol., 06-07; asst. prof. *mat. med. and pharmacol*, *Minnesota*, 07-09, *prof*, 09- A.A.; Physiol. Soc.; Soc. Pharmacol. (sec'y, 17-); Soc. Exp. Biol.; Fed. Am. Societies for Exp. Biol. (sec'y, exec. committee, 18, 23); Am. Med. Ass.
- Brown, Edward L(eroy)**, 1027 Washington St., Denver, Colo. *Mathematics*. Columbus, Ohio, Oct. 29, 66. A.B., Capital Univ., Columbus, 86; Ohio State, 87-88; A.M., Cornell, 90. Teacher math., Clinton Liberal Inst., Ft. Plain, N. Y., 90-91; Halsey Col. Inst., N. Y., 91-92; instr. math. and astron., Lehigh, 92-94; prof., Capital Univ., 94-96; instr. math., Colorado, 97-98; head dept. math., North Side High Sch., Denver, 98-00, prin., 00-24, *asst. supt. schools*, 24- Lecturer, Texas-Colo. Summer, Chautauqua, 98. Math. Soc.; Colo. Math. Soc. (pres, 07-09). The ellipse.
- Brown, Dr. Elmer B**, Fleischmann Laboratories, 158th St. and Mott Ave., New York, N. Y. *Chemistry*. Sunset, Texas, June 27, 92. Hirsch fellow, Texas, 18-20, A.B., 19, A.M., 20; Tuber. Ass. fellow, Yale, 21-23, Ph.D., 22. Teacher, pub. schools, Texas, 09-17; tutor chem., Texas, 18-19; asst., Yale, 20-21; *research chemist*, *Fleischmann Laboratories*, 23- Chem. Soc. Organic and pharmaceutical chemistry; biochemistry; catalysis; tubercle bacilli; fermentation; industrial chemistry.

Brown, Prof. Ernest W(illiam), Yale University, New Haven, Conn. **Mathematics, Astronomy*. Hull, Eng, Nov. 29, 66. B.A, Cambridge, 87, M.A, 91, fellow, Christ's Col, 89-95, D.Sc, 97, hon. fellow, 12-; hon. D.Sc, Adelaide, 14. Instr. math, Haverford, 91-93, *prof.* applied math, 93-00, *math*, 00-07; *Yale*, 07- Assoc. ed, 'Astron. Jour,' 11. Medal, Royal Astron. Soc, and J. C. Adams prize, Cambridge, 07; Pontécoulant prize, Paris Acad. Sci, 10; Bruce gold medal, Pacific Astron. Soc, 20. A.A. (v. pres, 09-); Math. Soc. (ed, 'Trans,' 00-07, 'Bul,' 10-12, v. pres, 04, pres, 14-16); Astron. Soc. (v. pres, 23-25); Philos. Soc; Am. Acad; fel. Royal Soc; fel. Royal Astron. Soc; fel. London Math. Soc; fel. Cambridge Philos. Soc. Lunar theory; celestial mechanics; new lunar theory and tables; periodic orbits; Trojan group of asteroids; evolution of nebulae and solar system.

Brown, Prof. F(ay) C(luff), 3030 Newark St, Washington, D. C. **Physics*. Washington, Ohio, Nov. 23, 81. A.B, Indiana, 04; A.M, Illinois, 06; fellow, Princeton, 07-08, Ph.D, 08. Instr, high sch, Ill, 03-04; physics, Illinois, 04-07; Iowa, 09-10, asst. prof, 10-13, assoc. prof, 13-19; sci. asst. to director, *Bur. Standards*, 19-20, *asst. director*, 20- Summer, lecturer, California, 15. Major, ordnance dept, 18-19. A.A; Physical Soc. (councilor); Optical Soc; Wash. Acad; Wash. Philos. Soc; Gesell. Tech. Phys. Physical properties of selenium cells and selenium crystals; heats of solution of milk sugars; radioactivity and thermionics; electron theory; process of freezing; ballistics of airplane drop bombs.

Brown, Dr. Forest B(uffen) H(arkness), Bishop Museum, Honolulu, Hawaii. *Botany*. Rushville, N. Y, Dec. 11, 73. A.B, Michigan, 02, M.S, 03; Ph.D, Yale, 18. Instr, Mich. Nor. Col, 98-00; curator bot. garden, Michigan, 08-09; in charge bot. gardens and instr. plant anat, Ohio State, 11-16; research fellow, Yale, 18-19; *botanist, Bishop Museum, Honolulu*, 19- Mich. Biol. Surv, 03-15. A.A; Bot. Soc; Ecol. Soc; Mich. Acad; Ohio Acad; Hawaiian Bot. Soc; Hawaiian Acad. Plant anatomy; taxonomy; ecology; Hawaiian woody plants; flora of the Marquesas Islands.

Brown, Mrs. Forest Buffen Harkness (Dr. Elizabeth Dorothy W(ist)), Bishop Museum, Honolulu, Hawaii. *Botany*. Dayton, Ohio, July 22, 80. Antioch; A.B, Maryville, 05, A.M, 11; A.B, Michigan, 08, M.S, 09, Ph.D, 12. Teacher, high sch, Tenn, 05-07; asst. bot, Michigan, 09-12; head dept. biol, Winthrop State Nor. Col, 12-13; instr, De Pauw, 13-14; prof. bot. and nature study, Wis. State Nor. Sch, Milwaukee, 14-15; Theresa Seessel fellow, Yale, 15-18; *research fellow bot, Bishop Museum*, 20- A.A; Bot. Soc; Hawaiian Bot. Soc; Hawaiian Acad. Cryptogams; physiology of the gametophytes of the Pteridophytes.

Brown, Prof. Francis J(ames), University of Rochester, Rochester, N. Y. *Educational psychology*. Cherokee, Iowa, Nov. 10, 94. A.B, Iowa, 18; A.M, Columbia, 23; Beaune, France. Prin. schools, Idaho, 19-22; *asst. prof. educ*, Roch-

ester, 23- Incentives to learning; objective measurement of character.

Brown, Prof. F(rank) E(merson), Iowa State College, Ames, Iowa. *Chemistry*. Cuba, Kans, Feb. 9, 82. A.B, Kansas State Teachers Col, Emporia, 11; B.S, Chicago, 13, Ph.D, 18. Teacher, prin. and supt. pub. schools, Kans. and Okla, 99-12; instr. chem, Fresno Junior Col, 14; physics and chem, Cent. Y. M. C. A, Chicago, 14-16; asst. prof. *chem*, Iowa Col, 17-18, assoc. prof, 18-23, *prof*, 23- Abstractor, 'Chem. Abstracts.' A.A; Chem. Soc. (sec'y-treas, Ames sect, 18-19, chairman, 21-22); Iowa Acad. Surface tension; decomposition of potassium chlorate; vanadium oxytrichloride as a solvent; density and hydration of gelatin; equilibrium under varying pressure of gaseous reactants.

Brown, Frederick L(yons), P. O. Box 52, University, Va. *Astronomy, Physics*. Mexico City, Mex, Oct. 23, 90. A.B, Park, 14; A.M, Northwestern, 16, Ph.D, 22. Instr. astron, Northwestern, 16-17, math, 19-22; *asst. prof. physics, Virginia*, 22- Sig.C, U.S.A, 17-19. Astron. Soc; Physical Soc; Va. Acad. Physical optics; the cluster N.G.C. 6633; interferometer wavelengths of titanium.

Brown, Prof. George Granger, 1057 Lincoln Ave, Ann Arbor, Mich. *Chemical engineering*. New York, N. Y, Sept. 3, 96. Vernon Damarel fellow, B.S, N. Y. Univ, 17, Ch.E, 25; M.S.E, Michigan, 22, Ph.D, 24. Research engineer, Aluminum Co. of Amer, 17-18; chief engineer, Universal Aniline Dyes and Chem. Co, 18-19; production manager, Union Special Machine Co, 19-20; instr. *chem. eng, Michigan*, 20-24, *asst. prof*, 24-; *director research, Ass. Nat. Gasoline Manufacturers*, 26- Consulting chem. eng, Mich. Geol. Surv, 21- C.W.S, U.S.A, 18. Chem. Soc; Chem. Eng. Fuels; furnaces; liquid fuel utilization; gaseous explosives; clay and sand resources of Michigan.

Brown, G(eorge) H(erbert), Rutgers University, New Brunswick, N. J. *Ceramics*. Miamisburg, Ohio, May 18, 84. Cer.E, Ohio State, 08. Asst. ceramic chemist, Bur. Standards, 10-14, assoc, 14-16; *director dept. ceramics, Rutgers*, 16- Ceramic Soc. (pres, 17). Porcelain; kaolins; refractories; structural clay products; pottery products.

Brown, Dean G(eorge) L(incoln), Brookings, S. Dak. *Mathematics, Astronomy*. Bates Co, Mo, Jan. 25, 69. B.S, Missouri, 92, M.S, 93; fellow, Chicago, 94-96, Ph.D, 02. Teaching fellow *math*, Missouri, 92-93; instr, high sch, Ill, 96; *prof*, S. Dak. Col, 97-, *dean faculty*, 10-, v. pres, 13-, *dean div. gen. science*, 24-, acting pres, 08, 14, 18-19, 22. A.A; Math. Soc. The linear transformation group of order 3×360 .

Brown, Dr. Glenn V(inton), Bureau of Engineering, Pennsylvania State Department of Health, Harrisburg, Pa. *Chemistry*. Baltimore, Md, June 7, 76. Ph.B, Dickinson, 98, A.M, 99; Hopkins, 98-99; Ph.D, Pennsylvania, 20. Instr. physics, Pennsylvania, 07-09; prof, St. John's (Brooklyn), 10-11; Teachers Col. (H.M.S), 11-12; chem. eng, Bucknell, 12-26; *chem. engineer*,

Sanitary Water Board, Pa., 26- A.A.; Chem. Soc.; Inst. Chem. (councilor, 24, chairman, Pa. sect, 25-). Colorimetry; industrial wastes and stream pollution.

Brown, Dr. Harry B(ates), Baton Rouge, La. *Botany*. Delphi, Ind, June 9, 76. A.B, Indiana, 06, A.M., 07; Ph.D., Cornell, 10. Instr. bot, Cornell, 08-11; prof, Miss. Agr. and Mech. Col, 11-15, plant breeding, Exp. Sta, 15-22, v. director, 19-22; plant breeder, Stoneville Pedigreed Seed Co, 22-26; *cotton breeder, La. Agr. Exp. Sta.*, 26- Summer, instr, Indiana, 07. A.A.; Bot. Soc. Algal periodicity; mycology; development of *Xylaria*; development and poisonous properties of *Claviceps paspali*; anatomy of plant hybrids; heredity in cotton and corn.

Brown, Harry Fletcher, E. I. du Pont de Nemours and Co, Wilmington; Del. *Chemistry*. Natick, Mass, July 10, 67. A.B, Harvard, 90, A.M., 92. Chief chemist, torpedo sta, bur. ordnance, U. S. Navy Dept, 93-00; Int. Smokeless Powder and Chem. Co, 00-01, gen. supt, 01-04; chem. director, *E. I. du Pont de Nemours and Co*, 04-11, director, 11-15, v. pres, 15- Chem. Soc; Chem. Eng. Smokeless powder.

Brown, Dr. H(arry) P(hilip), New York State College of Forestry, Syracuse, N. Y. *Botany*. W. Winfield, N. Y, March 29, 87. A.B, Cornell, 09, A.M., 10, Ph.D., 14. Xylotomist, U. S. Forest Service, 11; instr. bot, Cornell, 12-14; asst. prof. forest bot, *N. Y. State Col. Forestry, Syracuse*, 15-17, prof. wood technol, 18- Wood technologist, Forest Research Lab, Dehra Dun, India, 22-23. A.A.; Bot. Soc; Soc. Foresters. Dendro-technology; growth in forest trees; trees of New York State; wood technology of India; medullary spots.

Brown, Prof. H(oward) D(exter), Agricultural Experiment Station, Lafayette, Ind. *Agriculture*. Selma, Ill, Dec. 7, 91. B.S, Illinois, 14, M.S, 17. Asst. instr. and assoc. geologist and Exp. Sta, 14-18; *assoc. prof. vegetable gardening, Purdue*, 19- Second lieut, U.S.A, 18-19. A.A.; Soc. Hort. Sci; Ind. Acad. Vegetable gardening; greenhouse soil sterilization; tomato cultural practise and improvement.

Brown, Dr. James, 30 Beech St, East Orange, N. J. *Chemistry*. Glasgow, Scotland, March 30, 81. A.B, Yale, 02, A.M., 03, Ph.D., 05. Prof. chem, Ill. Col, 05-08; William and Vashti Col, 08-11; Butler, 11-18; Brooklyn Polytech, 18-19; mfg. chemist, H. Kohstamm and Co, 18-19; Zinsser and Co, 19-20; Calco Chem. Co, 20-24; chief chemist, *Am. Ink Co*, 24-27, *consulting chemist*, 27- Chem. Soc. Analytical, mineral and organic chemistry; organic manufacture; dyes, intermediates and printing inks.

Brown, Prof. James Greenlief, University of Arizona, Tucson, Ariz. *Botany*. St. Clair, Mich, Nov. 21, 80. B.S, Chicago, 16, M.S, 17, Ph.D., 25. Teacher science, Cebu Nor. Sch, P. I, 04-07; instr. bot, *Arizona*, 09-15, asst. prof, 16-20, *prof. plant path*, 20-, *head dept. agr.*, 22- A.A.; Phytopath. Soc; Soc. Plant Physiol. Effect of desiccation on the tissues of cacti; abnormal development of stomata in cactus;

effect of alkali soils on the prevalence of angular leaf-spot in cotton.

Brown, Dr. J(ames) Howard, Johns Hopkins University, Baltimore, Md. *Bacteriology*. Jacksonville, Ill, May 18, 84. B.S, Ill. Col, 06; M.S, Illinois, 09; Ph.D, Harvard, 17. Austin teaching fellow and asst. comp. path, Harvard Med. Sch, 12-17; in charge sera production, Rockefeller Inst. and Auxiliary Lab. No. 1, U.S.A. and N, 17-19, assoc, 19-23; *assoc. prof. bacter, Hopkins*, 23- A.A.; Soc. Bact; Soc. Exp. Biol. Animal pathology; blood transfusion; streptococci from milk-borne epidemics of tonsilitis; use of blood-agar for the study of streptococci; *corynebacterium pyogenes*; anaerobic bacteria; bacteria of the female genital tract; bacteriological technique.

Brown, Dr. J(ohn) B(ernis), Ohio State University, Columbus, Ohio. *Chemistry*. Rock Falls, Ill, Dec. 25, 93. B.S, Illinois, 15, M.S, 17, Ph.D., 21. Asst. chem, Illinois, 15-21; assoc. chem. in pharmacol, Pennsylvania, 21-23; research chemist, Swift and Co, Chicago, 23-24; *asst. prof. physiol. chem, Ohio State*, 24- Chem. Soc. Chemistry of fats and oils; yeast metabolism; enzymes; endocrine glands.

Brown, Prof. J(ohn) Maughs, Pierre, S. Dak. *Civil engineering*. New Market, Mo, Aug. 14, 84. B.S, N. Mex. Col, 08, C.E, 20. Practising engineer, 08-12; *prof. civil eng. and head dept, South Dakota*, 12-; *staté highway engineer, S. Dak.* Civil Eng; Ass. Eng; Eng. Educ; Soc. Test. Mat; S. Dak. Soc. Eng. and Archit. (see'y-treas, 18, pres, 20). Engineering astronomy; higher surveying; the reaction of concrete structures to weather changes.

Brown, Dr. J(ohn) S(tafford), 520 W. Third St, Joplin, Mo. *Geology*. Thomas Co, Kans, Sept. 26, 94. B.S, Mo. Sch. Mines, 17; M.S, George Washington, 22; Ph.D, Columbia, 25. Geologist, Mo. Geol. Surv, 17; asst. geologist, U. S. Geol. Surv, 17-19, assoc. geologist, 19-25; *geologist, Kans. Explorations, Inc*, 25- Instr, Mo. Sch. Mines, 23-24. Fel. Geol. Soc; Min. and Metal. Eng. Geology and ground water of Salton Sea, of New Haven, Conn, and of Haiti; coastal groundwater problems; Alabama graphite; Nixon Fork region, Alaska; map interpretation.

Brown, Dr. John W(esley), Cleveland Electro Metals Co, Cleveland, Ohio. *Industrial chemistry*. Rye, N. H, July 23, 77. B.S, Mass. Inst. Tech, 00; Ph.D, Heidelberg, 03. Asst. anal. chem, Mass. Inst. Tech, 00-01, instr. theoret. chem, 03-06; director research lab, Nat. Carbon Co, 06-12; *pres, Cleveland Electro Metals Co*, 12- Chem. Soc. (treas, N. E. sect, 04); Electrochem. Soc. Catalysis in sulphuric acid solution; rate of the decomposition of hydrogen peroxid complex compounds; partition coefficient of sulphurous and various other acids; investigation of dry cells, with special reference to ignition service; improvement of wet and dry primary cells and of carbon products for electrical uses; smelting of aluminum.

Brown, Prof. Joseph G(rant), 1013 Ramona St, Palo Alto, Calif. *Physics*. Stillman Valley, Ill,

Feb. 8, 69. A.B., Stanford, 01, A.M., 03. Instr. physics and chem, Ill. Nor. Univ., 94-98; *physics, Stanford*, 01-06, asst. prof., 06-25, *assoc. prof.*, 25- A.A.; *assoc. Physical Soc.*

Brown, Prof. Julius Arthur, American University, Beirut, Syria. *Astronomy*. New York, N. Y., May 8, 80. A.B., Dartmouth, 02, A.M., 04; Rhodes scholar, Oxford, 04-07, B.Sc., 06. Instr. physics, Dartmouth, 03-04; demonstrator, Oxford, 07; asst. prof., Dartmouth, 08-09; prof., Syrian Protestant Col., Beirut, Syria, 09-14; lecturer, Columbia, 15-17; *prof. astron. and director observatory, Am. Univ., Beirut, Syria*, 17- Research asst., Yerkes Observatory, 04; Mt. Wilson Observatory. A.A.; Physical Soc.; Astron. Soc.; Meteor. Soc.; Royal Astron. Soc. Stellar photometry; variable stars.

Brown, Dr. Lawrason, 104 Main St., Saranac Lake, N. Y. *Clinical medicine*. Baltimore, Md., Sept. 29, 71. A.B., Hopkins, 95, M.D., 00. Res. physician, Trudeau Sanitarium, 01-12, *chairman med. board*, 12- A.A.; Am. Physicians; Am. Med. Ass.; Am. Sanit. Ass. (pres, 20); Pub. Health Ass.; Climat. Ass. (pres, 20); Tuber. Ass. (pres, 23). Pulmonary tuberculosis; immunity from tuberculosis.

Brown, L(awrence) T(racy), University of Illinois, Urbana, Ill. *Physiology*. Norfolk, Nebr., Aug. 5, 94. A.B., Colorado, 23. Instr. physiol. and anat., Illinois, 23-25. Muscle tonus; physiology of exercise.

Brown, Prof. Linwood A(rnold), 819 S. Limestone St., Lexington, Ky. *Chemistry*. Hawesville, Ky., Sept. 21, 81. Ph.D., Louisville Col. Pharmacy, 03; Ph.C., Michigan, 04. Asst. chem., Michigan, 04-05; asst. chemist, Can. Copper Co., 05; Merck and Co., 05-06; asst. prof. pharmacy, N. Dak. Col., 06-08, prof., 08-09, drug chemist, Exp. Sta., 06-09; chemist, drug div., Ky. Exp. Sta., 09-21; *head dept. pub. service laboratories, Kentucky*, 21- Ky. State Board Pharmacy, 19-24, 25- A.A.; Chem. Soc.; Pharmaceut. Ass.; Ky. Acad.; Ky. Pharmaceut. Ass. Pharmacy; analytical chemistry.

Brown, Lucius P(olk), Ewell Farm, Spring Hill, Tenn. *Chemistry*. Maury Co., Tenn., Aug. 1, 67. Grad., Virginia, 89. Chemist, Tenn. Exp. Sta., 89-90; anal. chemist, Nashville, 93-15; state food commissioner and chemist, Tenn., 08-15; director, Bur. Food and Drugs, New York, 15-20. Capt. Sanit. C., 18-19. A.A.; Pub. Health Ass.; Tenn. Acad. Chemistry and geology of phosphates; food inspection; food supply.

Brown, Dr. Mabel Mary, Durham, N. H. *Botany*. Belmont, Wis. A.B., Wisconsin, 15, A.M., 16, fellow, 18-19, Ph.D., 19. Asst. bot., Wisconsin, 15-18; instr., Missouri, 19-20; *asst. prof., New Hampshire*, 20- A.A.; Bot. Soc.; Phytopath. Soc.; Wis. Acad. Plant morphology and cytology.

Brown, Dr. Mortimer Jay, 14 Ericson Place, Niagara Falls, N. Y. *Chemistry*. Chester, Nebr., Dec. 25, 82. B.S., Nebraska, 05; Ph.D., Cornell, 11. Chief chemist, works manager and asst. to second v. pres., Niagara Electro Chem. Co. and Roessler and Hasslacher Chem. Co., 11-26; *gen. supt.*, 26-; *v. pres. and exec.*, Pacific R

and H Chem. Corp., 19-; *v. pres. and supt.*, Niagara Electro Chem. Co., 26- Chem. Soc.; Electrochem. Soc. Electrolysis of fused salts; production of alkali metals; silver peroxyhydrate; fixation of nitrogen; cyanides; bleaching; fumigating.

Brown, Nathan Clifford, 218 Middle St., Portland, Maine. *Ornithology*. Portland, Oct. 13, 56. A.B., Bowdoin, 83. Fel. Ornith. Union; Nat. Ass. Audubon Societies; Maine Ornith. Soc.; Portland Soc. Nat. Hist. Distribution and habits of North American birds.

Brown, Miss Nellie A(dalesa), U. S. Department of Agriculture, Washington, D. C. *Plant pathology*. Marine City, Mich., Feb. 21, 77. A.B., Michigan, 01. Teacher, high sch., Mich., 01-03; Fla., 03-05; sci. asst., sugar plant lab, *bur. plant indust., U. S. Dept. Agr.*, 06-10, asst. pathologist, *lab. plant path.*, 10-24, *assoc. pathologist*, 24- A.A.; Phytopath. Soc. Bacteriology; plant tumors; bacterial plant diseases.

Brown, Prof. Nelson C(ourtland), N. Y. State College of Forestry, Syracuse, N. Y. *Forestry*. South Orange, N. J., March 1, 85. A.B., Yale, 06, M.F., 08. U. S. Forest Service, 08-11; asst. prof. forestry, Iowa Col., 11-12; *prof. forest utilization, N. Y. State Col. Forestry, Syracuse*, 12- A.A.; Soc. Foresters. Forest products.

Brown, Prof. O(liver) W., 526 N. Washington St., Bloomington, Ind. *Physical and Electro chemistry*. Vermilion Grove, Ill., June 25, 73. B.S., Earlham, 95; A.M., Indiana, 96; Cornell, 97-99; hon. fellow, Wisconsin, 03-04. Demonstrator chem., Indiana, and chemist, J. N. Hurty Lab., 96-97; asst. chem., Cornell, 98-99; instr., Indiana, 99-03, asst. prof., 04-05; instr. chem. eng., Wisconsin, 05-06; *assoc. prof. chem., Indiana*, 06-21, *prof.*, 21- Summer, electro chemist, Battery Power Co., Milwaukee, 06; storage battery engineer, Prest-O-Lite Co., 15-17. Electrochem. Soc.; Chem. Soc. Storage batteries; contact catalysis.

Brown, Dr. Orville Harry, Goodrich Building, Phoenix, Ariz. *Pathology, Physiology*. Sabetha, Kans., July 13, 75. A.B., Kansas, 01; Ph.D., Chicago, 05; M.D., St. Louis, 05. Asst. physiol., Kansas, 01-02; asst. instr., Chicago, 02-04; asst. prof. pharmacol., St. Louis, 04-07; physician-in-chief, Mo. State Sanatorium for Tuberculosis, 07-08, supt., 08-10; asst. prof. physiol., St. Louis, 10, med., 10-16; state supt. pub. health, Ariz., and field director for Ariz., U. S. Pub. Health Service, 18-19. Physiol. Soc.; Am. Med. Ass.; Soc. Biol. Chem.; Tuber. Ass.; Royal Soc. Med. Internal medicine; effects of ions on enzymes; relative values of alkaloidal salts; tuberculosis; asthma.

Brown, Prof. P(ericy) E(dgar), Iowa State College, Ames, Iowa. *Soil chemistry, Bacteriology*. Woodbridge, N. J., Oct. 9, 85. B.S., Rutgers, 06, A.M., 09, Ph.D., 12. Asst. soil chem., Rutgers, 06-10; *prof. soils, Iowa Col.*, 10, *chief soil chem. and bacter. and assoc. in charge soil surv., Exp. Sta.*, 10- Expert, Nat. Research Council. Consulting ed., 'Soil Science.' A.A. (sec'y, O); Chem. Soc.; Soc. Bact. (councilor, 13); Soc. Agron. (sec'y-treas); Soil Surv. Ass. (pres);

fel. Iowa Acad. Soil bacteriology and chemistry; soil fertility and management; soil survey.

Brown, Dr. Philip King, 909 Hyde St, San Francisco, Calif. *Medicine*. Napa, Calif, June 24, 69. A.B., Harvard, 90, M.D., 93; Berlin; Göttingen; Prague; Vienna; Paris. Assoc. prof. clin. med, California, 96-98, instr. animal path, 96-99; assoc. med. and instr. clin. path, Cooper Med. Col, 99-02; instr. clin. path, California, 02-08; prof. med, Polyclinic Post-Grad. Sch, 07-17. Visiting physician and consulting pathologist, hospitals, San Francisco; founder and director, Arequipa Sanatorium, Manor, Marin Co, Calif. Am. Med. Ass; Am. Physicians; Climat. and Clin. Soc; Calif. Acad. Med. Blood conditions in leprosy and bone tuberculosis; pathology of the nervous system of animals; malarial fevers of the west coast of United States; intestinal parasites; muscular irritability in eclampsia; goiter in man and animals on the Pacific slope; heart disease; surgery of lung disease; angina pectoris.

Brown, Dr. Ralph H(all), 985 Gilbert St, Boulder, Colo. *Geography*. Ayer, Mass, Jan. 12, 98. B.S., Pennsylvania, 21; Ph.D., Wisconsin, 25. Asst. instr. *geog*, Wisconsin, 21-25; *instr*, Colorado, 25- Summers, Iowa State Teachers Col, 22, Peabody Col, 24-26. A 'Blue Ridge' in New England; Muscle Shoals.

Brown, Dr. Ralph L(yman), U. S. Bureau of Mines, Pittsburgh, Pa. *Chemistry*. Blair, Ill, July 23, 90. A.B., Missouri, 13; fellow, Chicago, 16-17, Ph.D., 17. Asst. chem, Missouri, 13-14; org. preparations, Chicago, 15-16; research chemist, Inland Steel Co, 15; Koppers Co, Mellon Inst, 16-17, in charge research div, 19-21; *org. chemist*, U. S. *Bur. Mines*, 21- Lieut. Lab. des Etudes chim. de Guerre, Paris, 17-19. Beal medalist, 24. A.A.; Chem. Soc; Soc. chim. de France. Molecular rearrangement; chemical warfare gases; coke oven by-products; unsaturated hydrocarbons; carburetion of water-gas; organic synthesis under pressure-methanol; composition low temperature tar.

Brown, Robert Marshall, Rhode Island College of Education, Providence, R. I. *Geography*, *Geology*. Fisherville, Mass, March 11, 70. A.B., Brown, 93; A.M., Harvard, 02. Instr. high sch, N. H., 94-98, prin, 98-00; instr. Mass, 02-03; *geog*, Mass. State Nor. Sch, Worcester, 03-13; *prof*, R. I. *Col. Educ*, 13-; *geol*, R. I. *Col*, 19-22. Summers, North Carolina and Cornell. A.A.; Ass. Geog. The Mississippi River; economic geography; racial factors; waterways.

Brown, Dr. Samuel Horton, 1901 Mt. Vernon St, Philadelphia, Pa. *Medicine*. Philadelphia, Nov. 16, 78. M.D., Pennsylvania, 99. Asst. ophthalmologist, Pa. Hosp; ophthalmologist, Mt. Sinai Hosp; clin. asst, Wills Eye Hosp; *asst. ophthal. surgeon*, Episcopal Hosp. Assoc. ed. and collaborator, 'Am. Year-Book Med. and Surg,' 04-05; 'Therapeut. Rev,' 04; 'Jour. Cutaneous Diseases,' 05-06; 'Am. Med,' 05; 'Annals of Ophthal,' 05-06; ed, seventh, eighth and ninth editions of 'Hughes' Manual of Practice of Med.' Am. Med. Ass; Acad. Ophthal. and Otolaryngol; Am. Acad. Med; fel. Phila. Col.

Physicians; Phila. Med. Club; Phila. Geog. Soc. Eczema; ophthalmology; medical sociology.

Brown, Dr. Sanger, II, 173 E. 70th St, New York, N. Y. *Psychiatry*. White Plains, N. Y., May 28, 84. M.D., Columbia, 07. Physician, Dixmont Hosp, Pa, 07-09; Shepard and Enoch Pratt Hosp, Towson, Md, 10-11; Manhattan State Hosp, Ward's Island, N. Y., 11-12; Bloomingdale Hosp, White Plains, 12-17. M.C., U.S.A., 17-19. Psychiat. Ass; Psychopath. Ass; Am. Med. Ass; N. Y. Neur. Soc. Ethnology and psychiatry; childhood delinquency.

Brown, Prof. S(impson) L(eroy), University Station, Austin, Texas. *Physics*. Indianapolis, Ind, Nov. 23, 81. A.B., Indiana, 05, A.M., 07; Whiting fellow, California, 07-09, Ph.D., 09. Asst. instr. *physics*, Purdue, 05-07; Lehigh, 09-11; Texas, 11-13, adjunct prof, 13-17, assoc. prof, 17-23, *prof*, 23- Head div. wireless, U.S.A. Sch. Mil. Aeronaut, Texas, 17-18, pres, acad. board, U.S.A. Sch. Radio Operators, 18-19. A.A.; Physical Soc; Eng. Educ. Distributed capacity and inductance; oxid resistance thermometers; radiation pyrometers; high frequency current measurements.

Brown, Prof. Theodore H(enry), 25 Meadow Way, Cambridge, Mass. *Mathematics*. Mystic, Conn, Oct. 5, 88. A.B., Yale, 10, A.M., 11, Ph.D., 13. Instr. math, Sheffield Sci. Sch, Yale, 13-15; Brown, 15-18, *asst. prof*, 18-19, nautical science, 19-20, econ, 20-21; business sch, Columbia, 21-25; bur. business research, Harvard, 25-26, *business statistics*, 26- A.A.; Math. Soc; Math. Ass; Statist. Ass; Econ. Soc; Astron. Soc. Applied mathematics; statistics; astronomy.

Brown, Prof. Thomas B(enjamin), George Washington University, Washington, D. C. *Physics*. Bath, N. Y., April 4, 92. A.B., Cornell, 12, Ph.D., 16. Asst. instr. *physics*, Cornell, 12-13, instr, 13-17; *asst. prof*, George Washington, 17-20, *prof*, 20- Summer, asst. physicist, Bur. Standards, 18. Physical Soc; Optical Soc; Wash. Philos. Soc. Cathodo-fluorescence; wave motion.

Brown, Prof. Thomas C(lachar), Fitchburg, Mass. *Geology*. Lunenburg, Mass, March 28, 82. A.B., Amherst, 04; A.M., Columbia, 05, Ph.D., 09. Asst. geol, Columbia, 05-07; eng. bur, N. Y. City Board Water Supply, 07-09; *asst. prof. geol*, Middlebury, 09-11; Pa. State, 11-12; Bryn Mawr, 12-17; Fitchburg High Sch, 18- Lecturer, Norwich, 09. A.A.; Geol. Soc; Paleont. Soc. Morphology and development of Paleozoic corals; origin of oolites and oolitic texture; Paleozoic stratigraphy.

Brown, Dr. Wade H(ampton), Rockefeller Institute, New York, N. Y. *Pathology*. Sparta, Ga, Oct. 18, 78. B.S., Nashville, 99; M.D., Hopkins, 07. Instr. path, Virginia, 07-08; Wisconsin, 08-10, asst. prof, 10-11; prof, North Carolina, 11-13; assoc, Rockefeller Inst, 13-14, assoc. mem, 14-22, *mem*, 22- A.A.; Ass. Path. and Bact; Soc. Exp. Path; Am. Physicians; Soc. Exp. Biol; Soc. Pharmacol; Harvey Soc. Experimental syphilis; chemotherapy of trypanosome and spirochete infections; physical constitution and environment in relation to disease.

Brown, Prof. Walter Sheldon, 215 N. Eighth St., Corvallis, Oregon. *Horticulture*. Portville, N. Y., Jan. 24, 78. A.B., Alfred, 99; B.S., Cornell, 04; M.S., Wisconsin, 06. Instr., Wisconsin, 04-06; head dept. hort., Winona Agr. Inst.; pres. and gen. manager, Corvallis Orchard Co., 08-13; exten. specialist, *Oregon Col.*, 13-19, pomologist, 19-20, *chief div. hort.*, 20- Soc. Hort. Sci.; Pomol. Soc.; Oregon Hort. Soc. Pears; economic status of pear industry; cranberries and blueberries in the northwest.

Brown, Dr. Warner, University of California, Berkeley, Calif. **Psychology*. Greensboro, Ga., Feb. 9, 82. A.B., California, 04, A.M., 05; Ph.D., Columbia, 08. Asst. psychol., California, 04-06; philos., Columbia, 06-07, *psychol.*, 07-08; instr., *California*, 08-13, asst. prof., 13-20, assoc. prof., 20-23, *prof.*, 23- A.A.; Psychol. Ass. Psychology of rhythm; the conception of the threshold; judgment; recognition; visual space; individual differences; learning.

Brown, Prof. W(ilbur) V(incent), Greencastle, Ind. *Astronomy*. Hope, N. J., March 27, 60. B.S., Stevens, 80, Ph.D., 89. Asst. prof. math. and astron., *De Pauw*, 85-95, *prof.* astron., 94-96, *math. and astron. and director observatory*, 96- Determination of longitude, Greencastle to St. Louis; effect on collimation of a tip in the object glass; personal equation with single and double line reticles; the oblique sections of the anchor ring; use of a classified cabinet of weather maps in improving weather forecasts.

Brown, Dr. W(illiam) Byron, 12 W. Kirke St., Washington, D. C. *Physics*. Fort Bragg, Calif., Nov. 23, 94. A.B., California, 16; Ph.D., Ohio State, 22. Assoc. physicist, Bur. Standards, 17-20; *prof. physics*, Judson Col., India, 22-23; Franklin, 23-24; Howard (Ala.), 24-25; *Emory and Henry*, 25- Physical Soc. Thermal conductivity; heat transfer between fluids and solids.

Brown, Prof. W(illiam) H(enry), Bureau of Science, Manila, P. I. *Botany*. Richmond, Va., Oct. 6, 84. B.S., Richmond, 06; fellow, Hopkins, 09-10, Bruce fellow, 10, Ph.D., 10. Sci. asst., U. S. Fisheries Lab., Beaufort, N. C., 08; asst., Hopkins, 08-09; desert lab., Carnegie Institution, 10; instr., Mich. State Col., and sci. asst., Exp. Sta., 10-11; plant physiologist, Bur. Science, P. I., 11-23; assoc. prof. bot., Philippines, 15-19, prof. and chief dept., 19-24; *director*, Bur. Science, P. I., 24- Chief div. investigation, Bur. Forestry, P. I., 18-20; assoc. ed., 'Philippine Jour. Sci.', 12-24, ed-in-chief, 24- A.A.; Bot. Soc.; Ecol. Soc.; Meteor. Soc. Ecology; forest products; life history of dicotyledons; cytology of fungi; water relations and movements of plants.

Brown, Dr. W(illiam) Horatio, University of Arizona, Tucson, Ariz. *Geology*. Richmond, Va., Oct. 22, 99. B.S., Va. Polytech., 20; E.M., Colo. Sch. Mines, 21; Ph.D., Minnesota, 24. Instr. geol., Minnesota, 22-24; mining geologist, 24-25; *instr. geol. Arizona*, 25- Assoc. Min. Eng. Mineralography; zonal deposition of ores.

Brown, Prof. William M(oseley), Washington and Lee University, Lexington, Va. *Psychology*.

Lynchburg, Va., Feb. 27, 94. A.B., Washington and Lee, 14, A.M., 15; Centre, 17; A.M., Columbia, 22, Ph.D., 23. Instr. German, Washington and Lee, 13-17, biol., 15-16; asst. prin., high sch., Va., 19, prin., 19-20; assoc. prof. educ., *Washington and Lee*, 20-22, *prof. educ. and psychol. and director vocational guidance*, 22- Summers, prof., Virginia, 24-26; see'y, Board Educ., Danville, Va., 19-20; psychol. examiner, Va. State Board Pub. Welfare. Personnel Research Federation. Second lieut., Inf. and A.S., 17-18. A.A.; Psychol. Ass.; Soc. Study Educ. Sociol.; Va. Acad. (councilor, 25-27). Character tests; vocational guidance; mental hygiene; predictive value of psychological tests.

Brown, Dr. William S(Stephen), Standard Underground Cable Co., Pittsburgh, Pa. *Electrical engineering*. Washington, D. C., Oct. 5, 91. E.E., Rensselaer, 13; Ph.D., Hopkins, 16. *Elec. engineer*, *Standard Underground Cable Co.*, 17- Elec. Eng. Corona in air at high potentials.

Browne, Prof. Arthur Wesley, Cornell University, Ithaca, N. Y. **Chemistry*. Brooklyn, N. Y., Nov. 24, 77. B.S., Wesleyan, 00, M.S., 01; Ph.D., Cornell, 03. Instr. chem., *Cornell*, 03-06, asst. prof., 06-10, *prof. inorg. and anal. chem.*, 10-22, *inorg. chem.*, 22- Acting head dept., Cornell, 25. Chem. Soc. A thermostat sensitive to one thousandth of a degree; synthetic analysis in ternary systems; resistance of glass tubing to bursting pressure; hydronitric acid and the inorganic trinitrides; effect of mechanical vibration upon carbon dioxide; oxidation of hydrazine; electrolysis of potassium trinitride; gas generators; the hydronitrogens and their derivatives; electrolysis of liquid ammonia solutions; nitridation; binary systems; halogenoids; azido-carbondisulphide; azido-dithiocarbonic acid and its compounds; theory of photosensitivity.

Browne, Dr. C(harles) A(lbert), U. S. Department of Agriculture, Washington, D. C. **Agricultural chemistry*. North Adams, Mass., Aug. 12, 70. A.B., Williams, 92, A.M., 96, hon. Sc.D., 24; Ph.D., Göttingen, 01; hon. Sc.D., Stevens Inst., 25. Asst. chemist, commercial lab., New York, 92-94; instr. chem., Pa. State, 95-96; asst. chemist, Pa. Exp. Sta., 96-02; chemist, La. Sugar Exp. Sta., 02-06; chief sugar lab., bur. chem., U. S. Dept. Agr., 06-07; chemist in charge, N. Y. Sugar Trade Lab., 07-23; *chief bur. chem.*, U. S. Dept. Agr., 23- U. S. delegate, Int. Cong. Applied Chem., Rome, 06; Int. Commission Method of Sugar Anal.; gold and silver medals, St. Louis Exhib., 04. A.A.; Agr. Chem. (pres., 24-25); Chem. Soc. (asst. ed., 12-22, chairman, div. sugar chem., 19-21, sect. hist. chem., 22-23, N. Y. sect., 23, councilor, 24-27); Metric Ass.; Hist. Sci. Soc.; Wash. Acad.; N. Y. Chemists Club; Int. Soc. Sugar Cane Tech.; cor. mem. Ass. chim. de Sucre de France. Sugar chemistry; chemistry of butter-fat, apples, cider and vinegar, sugar-cane and sugar, rice, carbohydrates; rancidity of fats; deterioration of foods; polarimetry in sugar analysis; history of chemistry and alchemy.

Browne, Prof. Edward T(ankard), Box 170, Chapel Hill, N. C. *Mathematics*. Lillian, Va.,

- Nov. 22, 94. A.B., Virginia, 15, A.M., 17; fellow, Chicago, 19-20, Ph.D., 26. Instr. *math.*, Virginia, 15-17, 19-20; asst. prof., Trinity (Conn.), 21-22; *North Carolina*, 22-26, *assoc. prof.*, 26- Capt., U. S. Artillery, 18-19. Math. Soc.; Math. Ass.; N. C. Acad. (sec'y, math. div., 25-). Higher algebra; involutions in n -ary algebra.
- Browne, Dr. Frederick L (incoln)**, 119 Ash St., Madison, Wis. *Chemistry*. New York, N. Y., Feb. 13, 95. B.Chem., Cornell, 17; du Pont fellow, Wisconsin, 18-21, M.S., 20, Ph.D., 21. Prof. chem. and physics, Col. of Charleston, 17-18; asst. chemist, forest products lab., U. S. Forest Service, Madison, 18-21; Nat. Research Council fellow chem., Wisconsin, 21-22; *chemist, forest products lab., U. S. Forest Service*, 22- Lecturer, Wisconsin, 23- A.A.; Chem. Soc.; Wis. Acad. Thermal chemistry of colloids; ferric oxide hydrosol; chemistry of glues and wood finishes.
- Browne, Dr. Louise McDanell (Mrs. C. A.)**, 3408 Lowell St., N. W., Washington, D. C. *Physiological chemistry*. Gallatin Co., Ky., Feb. 16, 83. B.S., Nashville, 02; A.B., Stanford, 06; A.M., Columbia, 12; Md. Ass. Prom. Univ. Educ. of Women fellow, Yale, 15-17, Ph.D., 17. Teacher, high sch., Ga., 02-03; pub. sch., Calif., 03-05, high sch., 06-11; asst. prof. home econ., Wash. Col., 12-13; Minnesota, 13-15; assoc. prof., Goucher, 17-18. A.A.; Home Econ. Ass.; Ass. Med. Progress; Nature Ass. Carbohydrate metabolism.
- Browne, Prof. W (illia)m Hand, Jr**, West Raleigh, N. C. *Electrical engineering*. Baltimore Co., Md., July 21, 68. A.B., Hopkins, 90, certificate in elec. eng., 92; B.E., 27. Eng. work, 92-96; instr. elec. eng., Nebraska, 96-98; asst. prof., Illinois, 98-02; tech. ed., 'Elec. Rev.', 02-08; *prof. physics and elec. eng., N. C. State*, 08-18, *elec. eng.*, 18- Elec. Eng.; Eng. Educ.; Illum. Eng. Soc.
- Browne, Prof. William W (ard)**, College of the City of New York, New York, N. Y. *Bacteriology*. Providence, R. I., Dec. 10, 84. A.B., Brown, 08, A.M., 09, Ph.D., 12. Instr. *bacter.*, Col. City of N. Y., 12-17, *asst. prof.*, 17- Bacteriologist, various city health departments; N. Y. State Commission on Ventilation. A.A.; Soc. Nat.; Soc. Bact.; Pub. Health Ass.; Soc. Exp. Biol. Bacteria of intestinal tract, air, fish, fish products and eggs.
- Browning, Prof. Harold W (illiam)**, North Road, Kingston, R. I. *Botany*. Wakefield, R. I., Jan. 25, 93. B.S., R. I. Col., 14; M.S., Wisconsin, 16, fellow, 16-17, Ph.D., 20. *Asst. bot.*, Wisconsin, 14-16, instr., 19-20; *prof., R. I. Col.*, 20- U.S.N., 17-19. A.A.; Bot. Soc.; Soc. Plant Physiol.; Wis. Acad. Physiology of fungi.
- Browning, Prof. Philip E (mbury)**, Yale University, New Haven, Conn. **Chemistry*. Rhinebeck, N. Y., Sept. 9, 66. A.B., Yale, 89, Ph.D., 92; Munich, 93-94; Paris and Delft, 13-14. Asst. chem., Yale, 89-93, instr., 94-98, *asst. prof.*, 98- Am. Commission Inorg. Chem. Nomenclature, 12. A.A.; Chem. Soc. Analytical chemistry of the rarer elements; separation of the cerium earths; estimation of vanadium, thallium, tellurium; extraction and separation of germanium, gallium, indium.
- Browning, Prof. William**, 54 Lefferts Place, Brooklyn, N. Y. *Neurology, Anatomy*. Norwich, Conn., July 7, 55. Ph.B., Yale, 76; diploma in anat., Pennsylvania, 78; M.D., Leipzig, 81. Lecturer anat. and physiol. of nervous system, *L. I. Col. Hosp.*, 87-00, *prof. neur.*, 01- Neurologist to 12 Brooklyn hospitals; ed., 'Neurographs.' Commissioner inebriety, New York, 13-18. A.A.; Neur. Ass.; Ass. Anat.; Ass. Med. Librarians (pres., 17-19). Encranial circulation; medical sociology, history and libraries; the moral center; infections and neuroses.
- Brownlee, Dr. R (oy) H (utchison)**, 223 Fourth Ave., Pittsburgh, Pa. *Chemistry*. Alexis, Ill., Dec. 12, 76. A.B., Monmouth, 93; Hopkins, 98; Ph.D., Chicago, 06. Prof. nat. sciences, Occidental, 00-01; asst. chem., Chicago, 01-03, instr., Univ. Chicago High Sch., 03-07; chemist and asst. supt., paraffine works, Standard Oil Co. of Ind., 07-12; fellow, Mellon Inst. and prof., Pittsburgh, 12-14; *pres., R. H. Brownlee Lab.*, 14- Petrol. committee, Nat. Research Council. Chem. Soc.; Petrol. Inst.; Petrol. Tech. Eng. Technical processes for oil and gas; chemical welding and cutting of metals; petroleum refining; pharmaceutical preparations.
- Brubaker, Prof. Albert P (hilton)**, 3426 Powelton Ave., Philadelphia, Pa. *Physiology*. Somerset, Pa., Aug. 12, 52. M.D., Jefferson Med. Col., 74. Prof. physiol., Pa. Col. Dental Surg., 85-09; adjunct prof. physiol. and hygiene, *Jefferson Med. Col.*, 96-09, *prof. physiol. and med. juris.*, 09- Lecturer, Drexel Inst., Phila., 92-14. Physiol. Soc.; Philos. Soc.; Phila. Col. Physicians. Electrophysiology.
- Brubaker, Prof. H (oward) W (inter)**, 1929 Leavenworth St., Manhattan, Kans. *Chemistry*. Ridgeville, Ohio, May 27, 77. B.S., Carleton Col., 99; Ph.D., Pennsylvania, 04. Prof. chem., Whitman, 04-11; instr., Carnegie Inst. Tech., 12-13; asst. prof., *Kansas Col.*, 13-18, assoc. prof., 18-22, *prof.*, 22- Hon. fellow, Cornell, 11-12. Chem. Soc. Quantitative analysis; vegetable oils; ether extracts of alfalfa.
- Bruce, Donald**, U. S. Forest Service, Washington, D. C. *Forestry*. Newtonville, Mass., July 23, 84. A.B., Yale, 06, M.F., 10. Forest asst., examiner and supervisor, U. S. Forest Service, 10-15; prof. forestry, California, 15-24; *silviculturist, U. S. Forest Service*, 24- Forest engineering and mensuration.
- Bruce, Dr. E (verend) L (ester)**, 98 Bagot St., Kingston, Ont., Can. *Geology, Mineralogy*. Toledo, Ont., Aug. 3, 84. B.Sc., Queen's (Can.), 09, B.A., 11; A.M., Columbia, 12, Ph.D., 15. Chemist, Can. Copper Co., 10; asst. miner, Columbia, 11-14; geologist, Can. Geol. Surv., 14-20; Whitehall Petrol. Corp., London, 20; *prof. miner, Queen's (Can.)*, 20-; *field geologist, Ont. Dept. Mines*, 21- Fel. Geol. Soc.; Can. Min. Inst.; fel. Royal Soc. Can. Mineralogy; economic geology.
- Bruce, H (erbert) D (ale)**, U. S. Bureau of Standards, Washington, D. C. *Physical chemistry*. Victor, Colo., July 14, 98. B.S., Nevada, 20;

M.S., Lafayette, 22. Research chemist, Atlas Powder Co, 20-21; prof. chem, Alaska Agr. Col, 22-24; *asst. chemist, Bur. Standards*, 24- Asst. chemist, U.S.N., 18. Chem. Soc. Yield value and mobility of paints; the plastometer as an instrument for process control; hiding power of paints.

Bruce, Prof. Robert E(rnest), Boston University, Boston, Mass. *Mathematics*. Stoneham, Mass., Oct. 14, 77. A.B., Boston, 01, A.M., 05, Ph.D., 12; A.M., Harvard, 11. Instr. *math*, Pomona, 02-03; *Boston*, 03-05, asst. prof., 05-12, *prof*, 12- A.A.; Math. Soc.; Math. Ass. Modern geometry.

Bruce, Dr. W(illiam) H(erschel), Denton, Texas. *Mathematics*. Troup Co, Ga, April 8, 56. A.B., Ala. Polytech, 83; Ph.D., Mercer; A.M., Baylor; LL.D., Trinity. Supt. schools, Texas, 85-99; pres, John Tarleton Col, 99-00; prof. *math*, North Texas State Nor. Col, 01-06, pres, *North Texas State Teachers Col*, 06-23, *emer. pres*, 23- Summers, instr, Texas, 97, 98, 00; chairman, Texas State Board Examiners, 05-10. A.A.; fel. Texas Acad; Texas State Teachers' Ass. (pres, 05). Plane and solid geometry; heredity.

Bruecken, Dr. Albert Joseph, St. Francis Hospital, Pittsburgh, Pa. *Bacteriology*. Pittsburgh, Feb. 1, 92. M.D., Pittsburgh, 13. Res. pathologist and bacteriologist, Mercy Hosp, Pittsburgh, 13-14; demonstrator path. and bacter., Pittsburgh, 14-15; pathologist and bacteriologist, Mercy Hosp, 15-16, 18-19; Tuber. League Hosp, 16-18; *prof. bacter*, *Marquette*, 19- Soc. Bact; Am. Med. Ass; Int. Ass. Med. Mus. Pathology; pneumococcus infections; vascular obstruction; hemolysis.

Brues, Prof. C(harles) T(homas), Bussey Institution, Forest Hills, Boston, Mass. *Zoology*. Wheeling, W. Va, June 20, 79. B.S., Texas, 01, fellow, 01-02, M.S., 02; fellow, Columbia, 02-03. Special field agent, U. S. Dept. Agr, 04-05; curator invert. zool, Milwaukee Pub. Museum, 05-09; instr. *econ. entom*, *Harvard*, 09-14, asst. prof., 14-26, *assoc. prof*, 26- Ed, 'Psyche,' 10-; staff, Woods Hole, 02-03; Puget Sound Biol. Sta, 09; entomologist, Health Dept, New York, 16; div. med. zool, Nat. Research Council, 17-19. A.A.; Soc. Nat; Entom. Soc; Ass. Econ. Entom; Soc. Parasitol; Soc. Exp. Biol; Am. Acad; Wis. Nat. Hist. Soc. (sec'y, 06-09, ed, 'Bul,' 07-10); Wis. Acad; Wash. Acad; Cambridge Entom. Club. Applied and medical entomology; relations of insects to microorganisms; embryology, ethology and taxonomy of insects, especially of the Hymenoptera and Diptera; applied entomology; fossil Hymenoptera; fauna of thermal springs; food selection by insects.

Bruman, A(braham) J(oseph), U. S. Department of Agriculture, Washington, D. C. *Plant pathology*. Odessa, Russia, July 4, 94. B.S., Nebraska, 18. Field asst. plant path, Cornell, 19; *plant pathologist, U. S. Dept. Agr*, 19- Phytopath. Soc; Wash. Bot. Soc. Nematode diseases; plant quarantine; plant geography.

Brumfield, Dr. W(illiam) A(ndrew), Blacksburg, Va. *Biology*. Pittsylvania Co, Va, May 26, 75.

M.D., Virginia, 97. Field agent, Rockefeller Sanit. Commission, 09-14; district health officer, Va. State Board Health, 14-17, asst. health commissioner, 17-18, director bur. social hygiene, 18-20; *health officer and prof. hygiene, Va. Polytech*, 20- Surgeon, U. S. Pub. Health Service, 18-19, reserve, 19-24; major, M.O.R.C., 24- Pub. Health Ass; Am. Med. Ass; Ass. Mil. Surg; S. Med. Ass. Intestinal parasites and mosquitoes in Virginia.

Bruner, Dr. Frank G, Board of Education, Chicago, Ill. *Psychology*. Streator, Ill, March 28, 74. Fellow, A.B., Nebraska, 03; Ph.D., Columbia, 08, M.D., 12. Supt. schools, Ill, 99-01; asst. psychol, Nebraska, 02-03; Columbia, 03-05; asst. director dept. child study, *pub. schools, Chicago*, 05-17, *director special schools and special classes*, 17- Asst. supt. sect. psychometry and anthropometry, La. Purchase Expos, 04. A.A.; Psychol. Ass. Color range of adults; the hearing of primitive peoples; accuracy of reflex adjustments; child psychology; clinical psychology; tests.

Bruner, Prof. H(enry) L(ane), Irvington, Indianapolis, Ind. *Zoology*. Knox Co, Ill, Jan. 10, 61. A.B., Abingdon, 80; Sheffield Sci. Sch, Yale, 80-81; Ph.D., Freiburg, 96. *Prof. nat. science*, Abingdon, 81-84; *Eureka*, 84-86; *biol. and geol*, Drake, 91-92; *Butler*, 92- Summers, asst, U. S. Fish Commission, 81-84, prof, Indiana, 20; Harrison fellow, Pennsylvania, 10-11; lecturer, Ind. Dental Col. A.A; Soc. Zool; Eugenics Soc; Iowa Acad; fel. Ind. Acad. (ed, 09, pres, 19). Heart of lungless salamanders; cephalic veins and sinuses of Reptilia; molting mechanism in the heads of reptiles; the respiratory mechanism of amphibians.

Bruner, Prof. Lawrence, University of Nebraska, Lincoln, Nebr. *Entomology, Ornithology*. Catsauqua, Pa, March 2, 56. B.S., Nebraska. Field agent, U. S. Dept. Agr, 80-88; entomologist, Nebr. Exp. Sta, 88-90; instr. entom, *Nebraska*, 90-95, prof. entom. and ornith, 05-06, head prof. entom, 06, *emer. prof*. Investigator locust plague, Argentine Rep, 97-98. A.A; Entom. Soc. Locusts; life histories of insects; Nebraska birds; locusts of Paraguay and Argentina; Orthoptera of Trinidad; saltatorial Orthoptera of Brazil, British Guiana, East Bolivia, West Africa and Madagascar; Acrididae of Peru.

Bruner, Stephen C(ole), Estacion Experimental Agronomica, Santiago de las Vegas, Cuba. *Plant pathology, Entomology*. Raleigh, N. C, Aug. 18, 91. B.S., N. C. State, 12. Agent, office forest path, U. S. Dept. Agr, 12-14; asst. pathologist, *Cuba Exp. Sta*, 15-18, pathologist, 18-19, *chief dept. plant path. and entom*, 19- A.A; Phytopath. Soc; Ornith. Union; Cooper Ornith. Club; N. C. Acad; Int. Soc. Sugar Cane Tech; Cuban Nat. Hist. Soc. Economic entomology; diseases of sugar cane and other tropical plants; neotropical Hemiptera.

Bruner, W(illiam) E(dward), University of Nebraska, Lincoln, Nebr. *Plant ecology*. Red Cloud, Nebr, Feb. 15, 97. B.Sc., 21, M.S., 22. Teacher, pub. sch, 14-17; asst, 19-22; *instr*, Oklahoma, 22-26; *Nebraska*, 26- Ecol. Soc; Brit-

ish Ecol. Soc. Size and structure of leaves of cereals in relation to climate; root systems in vegetable crops.

Brunett, E(arl) L(ouis), 413 Dryden Road, Ithaca, N. Y. *Pathology*. Utica, N. Y. 98. D.V.M., Cornell, 23. *Avian pathologist*, N. Y. *State Vet. Col., Cornell*, 23- Vet. Med. Ass; Soc. Bact. Fowl plague; bacillary white diarrhea; neuritis in poultry.

Brunquist, Dr. E(rnest) H(erman), 4200 E. Ninth Ave, Denver, Colo. *Physiology*. Wakefield, Mass, Jan. 23, 88. A.B., Bates, 12; Michigan, 15-16, 17-18, fellow, A.M., 20; fellow, Stanford, 22-23, Ph.D., 23. Grad. asst. biol., Bates, 12-13; prof. nat. sciences, Hillsdale, 13-15; instr. zool., Wooster, 16-17; teaching asst. med. bacter., Michigan, 18-19, grad. asst. zool., 19-20; *instr.*, Northwestern, 20-21; pharmacol., Wisconsin, 21-22; *physiol. and pharmacol., Colorado*, 23- Summer, instr., Wisconsin, 22. A.A. Metabolism in anoxemia; survival processes in excised muscle.

Brunson, Dr. A(rthur) M(axwell), 1730 Fairview, Manhattan, Kans. *Genetics*. Joliet, Ill, March 26, 91. B.S., Illinois, 13; Ph.D., Cornell, 23. Asst. and assoc. plant breeding, Illinois, 13-20; asst., Cornell, 20-23; *assoc. agronomist, bur. plant indust., U. S. Dept. Agr.*, 23- A.A.; Soc. Agron. Corn breeding.

Brunswick, Dr. David, Harvard Medical School, Boston 17, Mass. *Physiology, Psychology*. New York, N. Y., Dec. 19, 96. Harvard, 14-19; A.B., Hopkins, 21, Ph.D., 24. Teaching fellow *physiol., Harvard Med. Sch.*, 23-25, instr., 25-26, *Nat. Research Council fellow psychol.*, 26- Physiology of emotions and of nerve conduction.

Brunton, D(avid) W(illiam), 730 Symes Building, Denver, Colo. *Mining engineering*. Ayr, Ont, Can, June 11, 49. Michigan, 75; hon. Sc.D., Colorado, 26. Mine examinations and management, 75-98; *consulting mining engineer, Denver*, 98- Chairman board consulting engineers, Moffat Tunnel Commission, 22-; chairman, War Committee Tech. Societies; inventions sect, advisory board, Gen. Staff, U.S.A.; Naval Consulting Board; Nat. Research Council. Trustee, Natural Hist. Museum. Telford prize, 97; Saunders medal, Inst. Min. and Metal. Eng. 26. Min. Eng. (pres, 09-10); Min. and Metal. Eng. (v. pres, 97, pres, 09, 10); Min. Cong; Mech. Eng; Colo. Sci. Soc. (v. pres, 09); London Inst. Civil Eng. Mine tunneling; ore valuation.

Brush, Dr. Charles F(rancis), 3725 Euclid Ave, Cleveland, Ohio. **Physics*. Euclid, Ohio, March 17, 49. M.E., Michigan, 69, hon. M.S., 99, Sc.D., 12; Ph.D., Western Reserve, 80, LL.D., 00; Kenyon, 03. Chem. expert, Cleveland, 70-73; iron and ore indust, 73-77; founder, Brush Elec. Co, 80; *pres, Cleveland Arcade Co*, 87-; *private research*, 91-; founder and first pres, Linde Air Products Co. Trustee, Western Reserve Adelbert Col, Cleveland Sch. Arts; corporator, Case. Chevalier, Légion d'honneur, 81; Rumford medal, Am. Acad, 99; Edison medal, Inst. Elec. Eng, 13. A.A.; Physical Soc; Elec. Eng; Mech. Eng; Min. and Metal. Eng; Nat. Elec. Light

Ass; Illum. Eng. Soc; Archeol. Inst; Chem. Soc; fel. Am. Geog. Soc; Philos. Soc; Franklin Inst; hon. mem. Soc. Steel Treat; fel. Am. Acad; Historical Ass; British Ass; Royal Soc. Arts; fel. N. British Acad. Electricity; practical electric arc lighting; molecular physics; ether; gravitation.

Brush, Dr. E(dward) N(athaniel), Towson, Md. *Psychiatry*. Glenwood, N. Y., April 23, 52. M.D., Buffalo, 74. Lecturer electro-therapeut, Buffalo, 77-79; asst. physician, State Hosp, Utica, N. Y., 78-84, senior asst. physician, 80-84; Pa. Hosp. for Insane, West. Phila., 84-91; supt. and chief physician, *Sheppard and Enoch Pratt Hosp.*, 91-20, *emer. supt.*, 20-; *prof. psychiat, Col. Physicians and Surg, Baltimore*, 99-20, *emer. prof.*, 20- Assoc. ed, 'Am. Jour. Insanity,' 78-84, managing ed, 97-21; 'Am. Jour. Psychiat,' 21- Psychiat. Ass. (pres, 15); Neur. Ass; Md. Soc. Mental Hygiene (pres, 15); Md. Med. and Chirurg. Faculty (pres, 05); hon. mem. Medico-Psychol. Ass. Gt. Britain and Ireland; hon. mem. Soc. de Méd. mentale de Belg; for. assoc. Soc. Médico-Psychol. de Paris.

Bryan, Edwin H(orace), Jr, Bishop Museum, Honolulu, Hawaii. *Entomology*. Philadelphia, Pa, April 13, 98. B.S., Col. of Hawaii, 20, M.S., Hawaii, 24; Ph.B., Yale, 21. Asst. entomologist, *Bishop Museum*, 19-25, *entomologist*, 26-; *instr. entom., Hawaii*, 25- Asst., Yale, 20-21; Kamehameha schools, 21-22; exten. lecturer, Hawaii, 22, 25- Pacific entom. exploration; Tanager exped, 23; Whitney South Sea exped, 24. A.A.; Entom. Soc; Hawaiian Entom. Soc; Hawaiian Bot. Soc; Hawaiian Acad. (sec'y, organization committee, sec'y, 26-). Economic entomology; Diptera of Hawaii; distribution and taxonomy of Pacific insects; botany; topography.

Bryan, Dr. G(eorge) S(mith), 803 State St, Madison, Wis. *Botany*. Charleston, S. C., May 2, 79. A.B., Furman, 00; fellow, Chicago, 12-14, Ph.D., 14. Instr. bot., *Wisconsin*, 14-17, asst. prof., 20-25, *assoc. prof.*, 25- Bot. exploration, Peru, 23. Capt. and major, Inf, U.S.A., 17-19, major, O.R.C., 20- A.A.; Bot. Soc; Wis. Acad. Morphology of the Bryophyta.

Bryan, Dr. Kirk, U. S. Geological Survey, Washington, D. C. *Geology*. Albuquerque, N. Mex, July 22, 88. A.B., New Mexico, 09; A.B., Yale, 10, Ph.D., 20. Geol. aid, *U. S. Geol. Surv.*, *geologist, ground water div.*, 20- Instr., Yale, 14-17; lecturer, Harvard, 26. Geologist, fed. investigation, Columbia Basin Project, 23; Pueblo Bonito exped, Nat. Geog. Soc, 24-25. Second lieut, geol. sect, gen. hdqrs, U.S.A., 18-19. A.A.; Geol. Soc; Ass. Geog; Soc. Mil. Eng; Wash. Geol. Soc. (sec'y, 20). Ground water; hot springs; geology of dam sites; physiography of arid regions.

Bryan, Miss Mary K(atherine), U. S. Department of Agriculture, Washington, D. C. *Plant pathology*. Prince George Co, Md, Feb. 13, 77. A.B., Stanford, 08. Sci. asst, *lab. plant path, bur. plant indust., U. S. Dept. Agr.*, 09-18, *asst. pathologist*, 18- A.A.; Phytopath. Soc; Soc. Bact. Bacterial diseases of plants.

Bryan, Prof. Noah R(osenberger), 8 Juniper St, Orono, Maine. *Mathematics*. Perkasio, Pa,

- July 11, 81. A.B., Pa. State, 13; A.M., Pennsylvania, 18; Ph.D., Columbia, 21. Teacher and prin., P. I., 04-19; acting head dept. math., Gettysburg, 19-20; Dickinson, 21-22; *assoc. prof. math., Maine, 22-* Math. Soc; Math. Ass. Calculus; statistics; theory of numbers.
- Bryan, Prof. O(lie) C(lifton)**, University of Florida, Gainesville, Fla. *Agronomy*. Elba, Ala., July 30, 94. B.S.A., Ala. Polytech, 18; M.S., Wisconsin, 21, Ph.D., 22. Asst. soil chemist, West Virginia, 22-23; asst. prof. *agron., Florida, 23-25, prof, 25-* A.A.; Soc. Agron. Soils.
- Bryan, Dr. T(homas) J(oseph)**, Calumet Baking Powder Co., 4100 Fillmore St., Chicago, Ill. *Chemistry*. Warwickshire, Eng., Sept. 26, 69. A.B., Colgate, 93, A.M., 95, Sc.D., 14; Göttingen, 99; Heidelberg, 00; Ph.D., Freiburg, 01. Asst. chem., Colgate, 93-95, 97-99; Wesleyan, 01-02; instr., Williams, 02-03; Illinois, 03-06; state analyst, Ill. State Food Commission, 06-14; chief chemist, *Calumet Baking Powder Co., 14-23, v. pres. in charge manufacture, 23-* Ill. State Food Standards Commission, 24- A.A.; Chem. Soc. (chairman, Chicago sect, 10, councilor, 16, 20, chairman, agr. and food div, 17, sec'y, 19); Agr. Chem. Soc; Soc. Milling and Baking Tech. Action of mustard oils on phenols; analysis of oils; foods; baking powder.
- Bryan, Prof. W(alker) E(dward)**, University of Arizona, Tucson, Ariz. *Plant breeding*. Gadsden, Ala., Jan. 24, 85. B.S., Ala. Polytech, 11; M.S., Wisconsin, 15. Instr. science, Second Dist. Agr. Sch., 11-14; agron., Louisiana, 15-16; asst. prof. *plant breeding, Arizona*, asst. plant breeder, *Exp. Sta., 16-19, prof. and plant breeder, 19-* Soc. Agron; Genetic Ass. Heredity in wheat, cotton, alfalfa, corn and seedling dates.
- Bryan, W(illia)m Alanson**, Los Angeles Museum of History, Science and Art, Los Angeles, Calif. *Zoology*. New Sharon, Iowa, Dec. 23, 75. B.S., Iowa Col., 96. Asst. in charge museum, Iowa Col., 93; lecturer museum methods, Minnesota, Indiana, Chicago, Purdue, Iowa Col. and Drake, 95-97; asst. curator in charge dept. ornith., Field Museum Nat. Hist., 98-99; investigator fauna, Hawaii, U. S. Dept. Agr., 99; curator, Bishop Museum, Honolulu, Hawaii, 00-07; *pres., Pacific Sci. Inst., 08-*; *director, Los Angeles Museum, 21-* Exped., Big Stone Lake, 94; Polynesia, 09; prof., Hawaii, 09-20. A.A.; Ornith. Union; Ass. Mus; Minn. Acad. (hon. curator ornith., 04); Cooper Ornith. Club. Ichthyology; birds of the Hawaiian group; ethnological and biological survey of the Pacific Islands.
- Bryan, Pres. William Lowe**, Bloomington, Ind. **Psychology*. Bloomington, Nov. 11, 60. A.B., Indiana, 84, A.M., 86; Berlin, 86-87; Ph.D., Clark, 92; Paris and Würzburg, 00-01. Instr. Greek, *Indiana, 85, assoc. prof. philos., 85-87, prof., 86-02, v. pres., 93-02, pres., 02-* Trustee, Carnegie Foundation, 10- A.A.; Soc. Nat; Psychol. Ass. (pres, 03); Philos. Ass. Experimental psychology; the development of motor ability; the psychology of occupations.
- Bryans, Prof. W(illia)m R(emington)**, New York University, New York, N. Y. *Engineering*. New York, June 30, 84. B.S., 06, M.E., 09. Instr., *N. Y. Univ., 07-09, asst. prof. eng. drawing, 09-16, assoc. prof. eng. mech., 16-24, prof., 24-* A.A.; Mech. Eng; Eng. Educ. Engineering mechanics.
- Bryant, Arthur P(eyton)**, Clinton Corn Syrup Refining Co., Clinton, Iowa. *Chemistry*. South New Market, N. H., May 7, 68. B.S., Wesleyan, 92, M.S., 95. Instr., high sch., R. I., 92-93; chem., Swarthmore, 93-94; U. S. Dept. Agr., 95-02; chemist, Conn. Exp. Sta., 01-02; chief chemist, Glucose Sugar Ref. Co. and Nat. Starch Co., 02-06; Bryant Miner. Laboratories, 06; directing chemist, *Clinton Corn Syrup Ref. Co., 07-22, manager operations, 22-* Consulting chemist, Nat. Candy Co; Nat. Confectioners' Ass. A.A.; Chem. Soc; Soc. Chem. Indust. Human nutrition; starch and its hydrolytic products; sugar.
- Bryant, Prof. Ernest C(alvin)**, Middlebury, Vt. *Physics*. Manchester, N. H., April 22, 67. B.S., Middlebury, 91, hon. Sc.D., 25; Mass. Inst. Tech., 93; Cambridge, 13-14. Can. Bridge and Iron Co., 93-94; *prof. math. and physics, Middlebury, 95-12, physics, 12-* A.A.; Physical Soc.
- Bryant, Dr. Harold C(hild)**, California Museum of Vertebrate Zoology, Berkeley, Calif. *Zoology*. Pasadena, Calif., Jan. 30, 86. B.S., Pomona, 08; M.S., California, 10, fellow, 10-12, Ph.D., 13. Teacher science, Yale Sch., Los Angeles, 08-09; reader zool., *California, 13*, asst. curator birds, *museum vert. zool., 13-14, econ. ornithologist, 14-* Summer, field party, museum vert. zool., California, 10; lecturer and instr., exten. div, 16-; game expert, Calif. Fish and Game Commission and ed., 'Calif. Fish and Game,' 14- A.A.; Soc. Mammal; Ornith. Union; Cooper Ornith. Club; Calif. Acad. Economic ornithology and mammalogy; paleontology; fish and game conservation.
- Bryant, Henry G(rier)**, 804 Flanders Building, Philadelphia, Pa. *Geography*. Allegheny City, Pa., Nov. 7, 59. A.B., Princeton, 83, A.M., 86; LL.B., Pennsylvania, 86. In charge, Labrador exped., 91, 12; Peary auxil. exped., 94; Mt. St. Elias exped., 97. Officier d'Acad. Delegate, Int. Geog. Cong., Berlin, 99; Geneva, 08. A.A.; Ass. Geog. (pres, 13); Philos. Soc; Am. Alpine Club (pres, 13-16); Phila. Geog. Soc. (pres, 20-); fel. Royal Geog. Soc; hon. mem. Club Alpin français; cor. mem. Swedish Soc. Anthropol. and Geog; cor. mem. Soc. de Géog. de Genève. Geographical exploration; ethnology; drift casks to determine Arctic currents.
- Bryant, Dr. John**, 282 Berkeley St., Boston, Mass. *Anatomy*. Cohasset, Mass., Sept. 29, 80. A.B., Harvard, 03, M.D., 07; European study, 12-14. Instr. path. and neuropath., Harvard Med. Sch., 07-08, asst. anat., 14-17; U.S.A. service, 17-19; *med. asst. convalescence, Mass. Gen. Hosp., 19-* Mass. Gen. Hosp., 10. Am. Med. Ass; Gastro-Enterol. Ass; New Eng. Pediat. Soc. Gastroenterology; convalescence.
- Bryant, Prof. J(ohn) M(yron)**, University of Texas, Austin, Texas. *Electrical engineering*.

- East Templeton, Mass, 77. B.S, Worcester, 01, E.E, 09; M.S, Illinois, 11. Asst. dept. testing and draughting, Gen. Elec. Co, Schenectady, N. Y, 01-03; electrician, Oriental Powder Co, 03; instr. in charge elec. laboratories, Illinois, 03-07, assoc, 07-09, asst. prof, 09-14; *prof. elec. eng, Texas, 14-* Summer, lecturer, Wisconsin, 04; pres, acad. board, and chairman board control, U.S.A. schools, Texas, 17-19. A.A; Elec. Eng. (director); Mech. Eng; Eng. Educ; Illum. Eng. Soc. (dist. rep). Street and interior illumination; power plant economics and rates; commercial production of ozone; insulating materials; alternating-current circuits; testing of electro-magnetic machinery.
- Bryant, Prof. R(alph) C(lement)**, 205 Prospect St, New Haven, Conn. *Forestry*. Princeton, Ill, Jan. 22, 77. F.E, Cornell, 00; hon. A.M, Yale, 11. Forester, N. Y. Forest, Fish and Game Commission, 00-01; Bur. Forestry, Manila, P. I, 01-02, asst. chief, 02-05; inspector, U. S. Forest Service, 05-06; instr. forestry, Yale, 06-09, asst. prof. *lumbering*, 09-11, *prof*, 11- A.A; Soc. Foresters. Logging and lumber manufacture.
- Bryant, William L**, Park Museum, Roger Williams Park, Providence, R. I. *Paleontology*. Buffalo, N. Y, 71. *Director* museum, Buffalo Soc. Nat. Sciences, 09-24; *Park Museum, Providence, 25-* Hon. curator fossil fishes, N. Y. State Museum. U. S. delegate, Int. Cong. of Americanists, Brazil. A.A; Paleont. Soc; fel. Ohio Acad; fel. Royal Geog. Soc. Paleozoic fossil fishes.
- Brydone-Jack, Dr. E(rnest) E(dmund)**, Public Works of Canada, 327 Post Office Building, Victoria, B. C, Can. *Civil engineering*. Fredericton, N. B, Nov. 9, 71. B.A, New Brunswick, 91, hon. D.Sc, 26; C.E, Rensselaer, 94. Draftsman, Pottsville Iron and Steel Co, 94-95; draftsman and checker, Pa. Steel Co, 95-98; engineer in charge, Siebert House Branch Office, Keystone Bridge Works, 98-00; detail designer, Fort Pitt Bridge Works, Pa, 00-01; prof. civil eng, New Brunswick, and city engineer, Fredericton, N. B, 01-05; engineer in charge detail design, Va. Bridge and Iron Works, 05; prof. civil eng, Dalhousie, 05-07; Manitoba, 07-17; *supervising engineer, Pub. Works of Can, 17-* Summers, Crown Land Office, Provincial Govt, N. B, 90, Buffalo, Rochester and Pittsburgh Ry, N. Y, 92, Del. and Hudson Canal Co, Albany, N. Y, 93; railways, docks and bridges, Can, 02-; consulting engineer, 02-17. Civil Eng; Eng. Educ; Ass. Prof. Eng. B. C; Eng. Inst. Can. (councilor, 11-13, v. pres, 15); British Inst. Civil Eng. Control of water levels of Lake Okanagan and headwaters of Yukon River; navigation of Peace River.
- Bubb, Prof. Frank W(illiam)**, Washington University, St. Louis, Mo. *Mathematics*. Nevada, Mo, July 3, 92. B.S, Washington (St. Louis), 16, A.M, 17; Ph.D, Chicago, 25. Instr. math, Washington (St. Louis), 18; improvement engineer, Am. Car and Foundry Co, 19; asst. prof. *applied math, Washington (St. Louis), 19-24, assoc. prof, 25-* Nat. Research Council fellow physics, Chicago, 24-25. Wayman Crow medal.
- Math. Soc; Physical Soc. Asymmetries in direction of ejection of photo-electrons by high-frequency radiation; quantum theory of radiation; relativity theory.
- Buchanan, Prof. D(aniel)**, University of British Columbia, Vancouver, B. C, Can. *Mathematics*. Clearville, Ont, April 14, 80. B.A, McMaster, 06, M.A, 08; fellow, Chicago, 09-11, Ph.D, 11. Asst. prof. *math*, Queen's (Can), 11-14, assoc. prof, 14-16, prof, 16-20; *British Columbia and head dept, 20-* Math. Soc; Astron. Soc; fel. Royal Astron. Soc. Can; Circolo Mat. di Palermo. Astronomy; the problem of three bodies (four cases); oscillations near the isosceles-triangle solutions; periodic orbits on a smooth surface; asymptotic satellites and planetoids; periodic orbits of the second genus.
- Buchanan, Prof. Herbert Earle**, Tulane University, New Orleans, La. *Mathematics*. Cane Hill, Ark, Oct. 4, 81. A.B, Arkansas, 02; A.M, Chicago, 03, Ph.D, 09. Instr. *math*, Wisconsin, 09-11; assoc. prof, Tennessee, 11-12, *prof*, 12-20; *Tulane, 20-* Math. Soc; Math. Ass; Tenn. Acad. Mathematical astronomy; celestial mechanics; uniform convergence of monotonic functions.
- Buchanan, Prof. J(ames) William**, Yale University, New Haven, Conn. *Biology*. Basil, Ohio, Jan. 30, 88. B.S, Ohio State, 13; fellow, Chicago, 15-16, Ph.D, 21; London, 19. Assoc. prof. biol, Mississippi, 13-15; instr. zool, N. Y. Univ. 16-17; *biol*, St. Ignacius, 19-21; *Yale, 21-23, asst. prof, 23-* Summers, asst, Chicago, 16, 17, 19-21; senior instr, U.S.A, Coblentz, 19. A.A; Soc. Zool. General physiology; regeneration.
- Buchanan, L(ee) L**, U. S. Department of Agriculture, Washington, D. C. *Entomology*. Solon, Iowa, Oct. 27, 93. A.B, Iowa, 16. Asst. zool, Iowa, 15-16; asst. biologist, *biol. surv, U. S. Dept. Agr, 17-* Taxonomy of Rhynchophora.
- Buchanan, Prof. Margaret**, 145 Waitman St, Morgantown, W. Va. *Mathematics*. Clinton, Pa, Aug. 18, 85. A.B, West Virginia, 06; Ph.D, Bryn Mawr, 22. Instr, Marshall Col, 06-07; West Virginia, 08-12; teacher, Baldwin Sch, Bryn Mawr, Pa, 13-14; high sch, W. Va, 14-15; instr. *math, West Virginia, 15-18, asst. prof, 22-25, assoc. prof, 25-* Math. Soc; Math. Ass. Theory of integral equations.
- Buchanan, Prof. R(obert) E(arle)**, Station A, Ames, Iowa. *Bacteriology*. Cedar Rapids, Iowa, March 27, 83. B.S, Iowa Col, 04, M.S, 06; Ph.D, Chicago, 08. Instr. *bacter*, Iowa Col, 05-06; asst, Chicago, 07-08; assoc. prof, *Iowa Col, 08-09, prof, 09-*, dean indust. science, 13-19, *grad. col, 19-* A.A; Soc. Bact. (pres, 18); fel. Iowa Acad. Systematic and physiological bacteriology.
- Buchanan, Dr. Ruth (Mrs. Keivin Burns)**, West Virginia Experiment Station, Morgantown, W. Va. *Chemistry*. Glenwillard, Pa, Feb. 5, 94. B.S, Pittsburgh, 16; M.S, George Washington, 20, Ph.D, 24. Chemist, bur. chem, U. S. Dept. Agr, 18-25; *home economist, W. Va. Exp. Sta, 25-* Chem. Soc; Ass. Cereal Chem; Agr. Chem. Food chemistry; cereals; standardization of cherry preserves.

- Bucher, Dr. John E(mery)**, care of Daniel Eldridge, 57 Davenport St, North Adams, Mass. **Chemistry*. Hanover, Pa, Aug. 17, 72. A.C. Lehigh, 91; Ph.D, Hopkins, 94; Sc.D, Brown, 17. Instr. chem, Tufts, 94-97; assoc. prof, R. I. Col, 97-01; Brown, 01-15, prof. and head dept, 15-17; *penman*, *Littlehales Chem. Co*, 17-A.A; Chem. Soc; Chem. Gesell. Organic chemistry; action of acetic anhydrid on unsaturated acids; the phenylanthralene, fluorene and diphenyl series; the benzene polycarboxylic acids; fixation of nitrogen.
- Bucher, Dr. Walter H(ermann)**, University of Cincinnati, Cincinnati, Ohio. *Geology*. Akron, Ohio, March 12, 88. Ph.D, Heidelberg, 11. Instr. *geol*, *Cincinnati*, 13-15, asst. prof, 16-20, assoc. prof, 20-24, *prof*, 24- A.A; Geol. Soc; Ohio Acad; Ky. Acad; Geol. Gesell. German Tertiary; oolites; ripples; sedimentation; structural geology; joints; cryptovolcanic structures; orogenesis.
- Buchholz, Prof. John T(heodore)**, University of Texas, Austin, Texas. *Botany*. Polk Co, Nebr, July 14, 88. B.S, Iowa Wesleyan, 09; A.B, Iowa, 09; M.S, Chicago, 14, fellow, 16-17, Ph.D, 17. Instr. biol, Ark. State Nor. Sch, 09-11, head dept. science, 11-18; *prof*. biol, W. Texas State Nor. Col, 18-19; *bot*. and head dept, Arkansas, 19-26; *Texas*, 26- Summer, investigator, sta. for exp. evolution, Carnegie Institution, 21- A.A; Bot. Soc; Ecol. Soc. Evolution of polyembryony and embryogeny of conifers; pollen tubes.
- Buchler, Dr. Clifford C(harles)**, 803 S. Durbin St, Casper, Wyo. *Chemistry*. Washington, D. C, June 22, 97. B.S, 19, M.S, 21, Ph.D, 22. *Research chemist*, Nat. Aniline and Chem. Co, Buffalo, 22-23; *Standard Oil Co. of Ind*, 23-
- Buchner, Prof. Edward F(ranklin)**, Johns Hopkins University, Baltimore, Md. **Psychology*, *Philosophy*, *Education*. Paxton, Ill, Sept. 3, 68. A.B, Leander Clark, 89; Ph.D, Yale, 93. Lecturer pedag. and philos, Yale, 92-94, instr, 94-97; *prof*. anal. psychol, N. Y. Univ, 96-01; docent philos, Clark, 01-03; *prof*. philos. and educ, Alabama, 03-08; *Hopkins*, 08-15, *educ*, 15- Asst. psychol. lab, Columbian Expos, 93; lecturer, Brooklyn Inst, 98-00. A.A; Soc. Nat; Psychol. Ass; Philos. Ass; Soc. Sci. Educ; Soc. Col. Teachers Educ; S. Soc. Philos. and Psychol. (sec'y, 04-09, pres, 10); fel. N. Y. Acad. Kant's psychology; Kant's educational theory; history of modern psychology; educational psychology.
- Buchta, Dr. J. W(illiam)**, University of Minnesota, Minneapolis, Minn. *Physics*. Osceola, Nebr, Sept. 18, 95. B.S, Nebraska, 20, A.M, 21; Ph.D, Minnesota, 25. *Instr. physics*, *Minnesota*, 22- A.A; Physical Soc; Optical Soc. Electron-beam oscillograph; thermionics.
- Buck, A(lonzo) Morris**, McGraw-Hill Publishing Co, Tenth Ave. and 36th St, New York, N. Y. *Engineering*. Washington, D. C, Jan. 17, 81. M.E, Cornell, 04; E.E, Illinois, 17. Instr. elec. eng, Cornell, 05-06; engineer, Westinghouse Elec. and Mfg. Co, 04-07; asst. prof. elec. eng, New Hampshire, 08-10; *prof*, Clarkson Col. Tech, 10-11; asst. prof. ry. elec. eng, Illinois, 11-17; consulting engineer, 17-23; assoc. ed, '*Elec. Ry. Jour.*', 23-24, *managing ed*, 25- A.A; fel. Elec. Eng; Eng. Educ. Mechanical, electrical and railway engineering.
- Buck, Harold Winthrop**, 49 Wall St, New York, N. Y. *Electrical engineering*. New York, May 7, 73. Ph.B, Yale, 94; E.E, Columbia, 95. Elec. engineer, Gen. Elec. Co, 95-00; Niagara Falls Power Co, 00-06; *v. pres*, *Viele, Blackwell and Buck, Engineers*. A.A; Elec. Eng. (pres, 16).
- Buck, Dr. Thomas**, University of California, Berkeley, Calif. *Mathematics*. Orland, Maine, Dec. 25, 81. B.S, Maine, 01; Ph.D, Chicago, 09. Instr. *math*, Maine, 02-06; Illinois, 09-11; *California*, 11-18, asst. prof, 18-23, *assoc. prof*, 23- A.A; Math. Soc.
- Buckborough, Dr. Siegel A**, 2101 Maple Ave, Evanston, Ill. *Chemistry*. Ont, Can, Feb. 4, 72. B.A, McMaster, 02; A.B, Harvard, 03; M.S, Chicago, 10; Ph.D, Northwestern, 15. *Prof. chem*, Fairmount, 03-05; *instr*, *high sch*, *Evanston*, 07- Organic chemistry; molecular structure of maltose sugar.
- Buckingham, Prof. B(urdette) R(oss)**, Ohio State University, Columbus, Ohio. *Education*. Riverhead, N. Y, Dec. 9, 76. A.B, Wesleyan, 99, A.M, 00; Ph.D, Columbia, 13; hon. Ed.D, Miami, 24. Teacher, prin. and supt, schools, New York, 01-14; chief statistician, office supt. schools, 14-16; educ. statistician, Wis. State Board Educ, 16-18; *prof*. educ. and *director bur. educ. research*, Illinois, 18-21; *Ohio State*, 21- A.A; Statist. Ass; Nat. Ass. Directors Educ. Research (v. pres, 17, pres, 18-19); Psychol. Ass; fel. Royal Statist. Soc. Measurement of results of teaching school subjects.
- Buckingham, Prof. Earle**, 27 Cedar Road, Belmont, Mass. *Mechanical engineering*. Bridgeport, Conn, Sept. 4, 87. U. S. Naval Acad, 04-06. Draftsman, Am. Graphophone Co, 06-08; Winchester Repeating Arms Co, 08-09; Veeder Mfg. Co, 09-11; Royal Typewriter Co, 11-14; chief gage inspector, Can. Car and Foundry Co. on Russian Munitions, 15-16; chief inspector for subcontracts on fuses, Eddystone Ammunition Co, 16; asst. equipment engineer, Winchester Repeating Arms Co, 16-17; engineer, Pratt and Whitney and Niles Bement Pond Co, 19-25; *assoc. prof. eng. standards and measurements*, *Mass. Inst. Tech*, 25- Nat. Screw Thread Commission, 21- Capt. and major, ordnance dept, 17-18. Assoc. Mech. Eng; Automotive Eng. Machine shop practice; interchangeable manufacturing; side-cutting of thread milling hobs; gears.
- Buckingham, Edgar**, Bureau of Standards, Washington, D. C. **Physics*. Philadelphia, Pa, July 8, 67. A.B, Harvard, 87; Strassburg, 89-90; Ph.D, Leipzig, 93. Asst. physics, Harvard, 88-89; Strassburg, 89-90; Harvard, 91-92; assoc. physics and physical chem, Bryn Mawr, 93-98, assoc. prof, 98-99; instr. physics, Wisconsin, 01-02; *asst. physicist*, bur. soils, U. S. Dept. Agr, 02-06; *Bur. Standards*, 06- Lecturer, grad. sch, U. S. Naval Acad, 10, 11-12; assoc.

- sci. attaché, U. S. Embassy, Rome, 18. Physical Soc. (ed. board, 15-17); Naval Eng; Wash. Philos. Soc. (pres, 15); Soc. de Physique. Thermo and fluid dynamics; engineering physics.
- Buckley, Dr. Albert C(oulson)**, Friends Hospital, Frankford, Philadelphia, Pa. *Neurology, Psychiatry*. Philadelphia, Pa, Aug. 6, 73. A.B, Cent. High Sch, Phila, 94, A.M, 00; M.D, Medico-Chirurg. Col, 97. Asst. demonstrator anat. and demonstrator nor. histol, Medico-Chirurg. Col, 97-98, assoc. prof. nor. histol, 99-09, clin. prof. mental diseases, 09-18; *assoc. prof. psychiat, grad. sch. med, Pennsylvania, 19-*; *med. supt, Friends Hosp, 18-* Lecturer, Medico-Chirurg. Col, 07; asst. neurologist, Phila. Gen. Hosp, 07-16; visiting physician, psychopathic wards, 16-18; alienist in charge mental clinic, Phila. Orthop. Hosp. and Infirmary for Nervous Diseases, 12-18. A.A; Neur. Ass; Psychiat. Ass; Am. Med. Ass; Phila. Col. Physicians; Phila. Neurol. Soc; Phila. Psychiat. Soc. (pres, 22-). Neuropathology; clinical psychiatry; basis of psychiatry.
- Buckley, Dr. O(liver) E(llsworth)**, 36 Clinton Ave, Maplewood, N. J. *Physics*. Sloan, Iowa, Aug. 8, 87. B.S, Grinnell, 09; Ph.D, Cornell, 14. Instr. physics, Grinnell, 09-10; Cornell, 10-14; research physicist, West. Elec. Co, 14-25; *Bell Telephone Laboratories, 25-* Major, Sig.C, U.S.A, 17-18. Physical Soc; Elec. Eng. Hall effect; ionization manometer; loaded submarine cable; magnetic materials.
- Buckman, Prof. H(arry) O(liver)**, 118 Wait Ave, Ithaca, N. Y. *Agronomy*. West Liberty, Iowa, July 4, 83. B.S.A, Iowa Col, 06, M.S.A, 08; Ph.D, Cornell, 12. Asst. chemist, Iowa Exp. Sta, 06-07; asst. agronomist, Mont. Exp. Sta, 07-09; asst. prof. *soils, Cornell, 12-17, prof, 17-* A.A; Soc. Agron; Soil Surv. Ass. Formation of residual clay; soils.
- Buckner, Dr. G(arrett) Davis**, 461 N. Limestone St, Lexington, Ky. *Biological chemistry*. Lexington, May 17, 85. B.S, Kentucky, 08; Ph.D, Princeton, 12; Pasteur Inst, France, 22; Oceanographic Inst, Monaco, 23. Asst. food chemist, Ky. Exp. Sta, 08-09; sugar chemist, Sterling Sugar Factory, 09; asst. instr. chem, Princeton, 09-12; *research chemist, Ky. Exp. Sta, 12-* A.A; Soc. Biol. Chem; Chem. Soc; Ky. Acad. Nutrition; calcium metabolism.
- Buddington, Dr. A(rthur) F(rancis)**, Princeton University, Princeton, N. J. *Geology*. Wilmington, Del, Nov. 29, 90. Ph.B, Brown, 12, M.S, 13; Ph.D, Princeton, 16. Proctor fellow geol, Princeton, 16-17; instr, Brown, 17-19; petrologist, geophys. lab, Carnegie Institution, 19-20; asst. prof. *geol, Princeton, 20-26, assoc. prof, 26-* Asst. N. Y. State Geol. Surv, 16-19; asst. geologist, U. S. Geol. Surv, 19-23, assoc. geologist, 23- Geol. Soc; Soc. Econ. Geol. Precambrian rocks; the mellite group of minerals; geology of southeastern Alaska.
- Budington, Prof. Robert A(lynn)**, Oberlin College, Oberlin, Ohio. *Zoology*. Leyden, Mass, Oct. 22, 72. A.B, Williams, 96, A.M, 99; Columbia, 99-02. Asst. zool, Williams, 98-99; asst. demonstrator physiol, Columbia, 00-02; instr. zool. and physiol, Mt. Hermon Sch, 02-05; biol, Wesleyan, 05-08; assoc. prof. *zool, Oberlin, 08-13, prof, 13-* Instr, Woods Hole, 99-18. A.A; Soc. Nat; Soc. Zool. (v. pres, 23); Ohio Acad. Experimental embryology; physiology; physiological characteristics of annelid muscle; effect of thyroid extract on Protozoa and on plant root-tips.
- Buehler, Prof. C(alvin) A(dam)**, University of Tennessee, Knoxville, Tenn. *Chemistry*. Stone Creek, Ohio, Nov. 29, 96. B.Ch.E, Ohio State, 18, M.S, 20, du Pont fellow, 21-22, Ph.D, 22. Research chemist, Barrett Co, Phila, 18-19; asst. prof. chem, Tennessee, 22-24, *assoc. prof, 24-* Chem. Soc. Oxidation of carbohydrates; molecular organic compounds.
- Buehler, H(enry) A(ndrew)**, Rolla, Mo. *Geology*. Monroe, Wis, April 27, 76. B.S, Wisconsin, 01; hon. Sc.D, Missouri, 25. Geologist, Mo. Bur. Geol. and Mines, 01-07; Federal Lead Co, 07-08; *state geologist and director, Mo. Bur. Geol. and Mines, 08-* A.A; Geol. Soc; Soc. Econ. Geol; Ass. Petrol. Geol; Min. and Metal. Eng; Wis. Acad; St. Louis Acad. Theory of ore deposits; oxidation of sulphides.
- Buehrer, Prof. Theo(phil) F(rederic)**, University of Arizona, Tucson, Ariz. *Chemistry*. Brenham, Texas, Dec. 20, 91. A.B, Texas, 16, A.M, 18; fellow, California, 19-21, Ph.D, 21. Tutor chem, Texas, 16-18; instr, Arizona, 21-22, asst. prof, 23-25, *assoc. prof, 25-* Contributing ed, 'Jour. Chem. Educ,' 26- Junior chemist, U. S. Bur. Mines and C.W.S, 18. A.A; Chem. Soc. Solubility; potential of the gold electrode.
- Buell, Dr. Mary V(an Rensselaer)**, Johns Hopkins University, Baltimore, Md. *Biological chemistry*. Madison, Wis, 93. A.B, Wisconsin, 14, A.M, 15, Ph.D, 19. Asst. *gen. chem, Illinois, 15-16; Wisconsin, 17-19, instr, 19-20; asst. prof, Iowa, 20-21; asst. sch. med, Hopkins, 21-22, assoc, 22-* Chem. Soc; Soc. Biol. Chem. Blood regeneration; fat soluble vitamin; phosphorus compounds of normal blood.
- Buerger, Dr. Leo**, 1000 Park Ave, New York, N. Y. *Surgery*. Vienna, Austria, Sept. 13, 79. A.B, Col. City of N. Y, 97; A.M, M.D, Columbia, 01; Surg. Clinic, Breslau, Germany, 05-06. *Prof. urol. surg, N. Y. Polyclinic Med. Sch. Col. Surg; Harvey Soc. Urological diagnosis; thrombo-angiitis obliterans; application of radium in malignant bladder tumors; circulatory affections of the extremities.*
- Buffington, Dr. R(alph) M(ulvaney)**, 2610 Durant Ave, Berkeley, Calif. *Physical chemistry*. Ness City, Kans, Dec. 20, 96. A.B, Kansas, 18, A.M, 21; Ph.D, California, 23. *Nat. Research Council fellow and research assoc. chem, California, 24-* Chem. Soc. Liquefaction of hydrogen; thermometric measurements and coefficients of thermal expansion of solids at low temperatures.
- Buffum, Prof. Burt C**, 2837 W. 35th Ave, Denver, Colo. *Agriculture*. South Bend, Ind, April 7, 68. B.S, Colo. Agr. Col, 90, M.S, 93. Asst. irrig. eng, Colo. Agr. Col, 90-91; prof. hort, Wyoming, 91-94, agr. and hort, 94-00, v. di-

- rector, Exp. Sta, 95-00; prof. agr, Colo. Agr. Col, 00-02; agr. and hort, Wyoming, and director, Exp. Sta, 02-07; *plant breeder and manager, Wyo. Plant and Seed Breeding Co, 07-19*; Treas, Emmer Products Co, 19. Ed, 'Agricola Aridus'; 'Ranchman's Reminder.' A.A; Pomol. Soc. Irrigation; arid agriculture.
- Bugbee, Prof. Edward E(verett)**, Massachusetts Institute of Technology, Cambridge, Mass. *Metallurgy*. Brookline, Mass, Oct. 5, 76. B.S, Mass. Inst. Tech, 00. Asst. instr. metal, Mass. Inst. Tech, 00-01; chemist and metallurgist, Brookfield Mining Co, 01; asst. instr. ore dressing, Mass. Inst. Tech, 02-03; special agent, U. S. census, 03; asst. prof. *mining eng. and metal*, Iowa Col, 03-06; Washington (Seattle), 06-07; *Mass. Inst. Tech*, 07-23, *assoc. prof*, 23- Asst. geologist, U. S. Geol. Surv, 07-25. Min. Eng. Fire assaying.
- Buie, Thomas S(Stephen)**, Clemson College, S. C. *Agronomy*. Marlboro Co, S. C, Feb. 5, 96. B.S, Clemson, 17; M.S, Iowa, 27. *Agronomist*, Ga. Exp. Sta, 19-20; asst. agronomist, S. C. Exp. Sta, 20-23, *assoc. agronomist*, 23-25; acting head *agron. div*, *Clemson*, 25-27, *head*, 27- Rothamsted Exp. Sta, Eng, 19. Soc. Agron; Soil Surv. Workers. Fertilizers and crops.
- Bulger, Dr. J(acob) W(ork)**, U. S. Department of Agriculture, Washington, D. C. *Entomology*. Oakley, Kans, Nov. 25, 87. B.S, South Dakota, 19; M.S, Ohio State, 22, Ph.D, 24. Teacher, schools, 10-14, high sch, 20-22; asst. zool, Ohio State, 21-22, Nat. Research Council fellow, 22-24; *asst. insect physiologist, bur. entom*, U. S. Dept. Agr, 24- A.A; Soc. Entom; Ass. Econ. Entom; Ohio Acad. Insect physiology; greenhouse and soil insecticides; mineral and gross analysis of the cockroach.
- Bull, Dr. Arthur W(alker)**, Dorr Company, 247 Park Ave, New York, N. Y. *Chemistry*. Keeseville, N. Y, Oct. 6, 97. Ch.B, Cornell, 19, Ph.D, 22. Instr. chem, Haverford, 19-20; *research chem. eng*, *Dorr Co*, 22- Chem. Soc. Physical chemistry of dyeing; physical and colloid chemistry in chemical engineering.
- Bull, Dr. Carroll G(ideon)**, 310 W. Monument St, Baltimore, Md. *Pathology*. Knoxville, Tenn, June, 83. B.S, Peabody, 07; M.D, Nashville, 10. Teacher bacter. and path, Lincoln Mem. Univ, 10-12; fellow, Nelson Morris Inst, Chicago, 12-13; asst. and *assoc. path. and bacter*, Rockefeller Inst, 13-17; *assoc. prof. immunol. sch. hygiene and pub. health*, *Hopkins*, 18-22, *prof*, 22- Major, M.C, 17-18. Ass. Path. and Bact; Soc. Bact; Soc. Exp. Biol; Chicago Path. Soc. Bacteriology; ferment actions; immunity; septicemias in rabbits; agglutination of bacteria in vivo; antitoxin for *B. welchii*.
- Bull, Prof. C(oates) P(reston)**, St. Paul, Minn. *Agronomy*. Edina Mills, Minn, Oct. 11, 72. B.S, Minnesota, 01. Asst. dept. agr, Minnesota, 97-01; asst. prof. agron, Illinois, 01-02; asst. agr, Minnesota, 02-07, asst. prof, 07-09, *assoc. prof*, 09-12, *prof*, 12-19; St. John and Bull Seed Co, 19-21; *special asst, State Dept. Agr, Minn*, 21- Manager, Nat. Corn Expos, Texas, 13-14. Capt, Red Cross, Serbia, 18. Soc. Agron; Nat. Corn Ass. (state v. pres. and director); Minn. Field Crop Breeders' Ass. Plant breeding; plant biology; weed control.
- Bull, R(obert) A(lexander)**, 541 Diversey Parkway, Chicago, Ill. *Metallurgy*. New Albany, Ind, June 28, 74. A.B, Butler, 97; A.M, St. Louis, 14. Steel foundries; *director, Electric Steel Founders' Research Group*. A.A; Min. and Metal Eng; Am. Iron and Steel Inst; Weld. Soc; Soc. Test. Mat; Foundrymen's Ass. (pres, 15, 16); Electrochem. Soc; Inst. British Foundrymen; British Iron and Steel Inst. Metallurgy of iron and steel; steel foundry practice.
- Bull, Prof. Sleeter**, 706 Michigan Ave, Urbana, Ill. *Animal husbandry*. Sidney, Ohio, Dec. 23, 87. B.S, Akron, 09; B.S.A, Ohio State, 10; M.S, Pa. State, 11. *Assoc. prof. animal husbandry, Illinois*. Soc. Animal Production. Meats.
- Bullard, Dr. H(erbert) Hays**, University of Western Ontario Medical School, London, Ont, Can. *Pathology*. St. Louis Co, Mo, Aug. 9, 83. A.B, Missouri, 08, A.M, 09; Ph.D, Tulane, 12; M.D, Hopkins, 16. Instr. anat, Tulane, 09-12; anat. and neur, Pittsburgh, 12-14; asst. instr. and *assoc. path*, Hopkins, 16-20, *res. pathologist*, Hopkins Hosp, 18-20; *prof. path. and chief dept. path. and bacter, med. sch*, *Western Ontario*, 20- A.A; Ass. Path. and Bact; Ass. Anat; Int. Ass. Med. Mus. Bacteriology; histology.
- Bullard, Prof. J(ames) A(tkins)**, 262 King George St, Annapolis, Md. *Mathematics*. Parsippany, N. J, Feb. 23, 87. A.B, Williams, 08; hon. fellow, Clark, 13-14, Ph.D, 14. Instr. *math*, Worcester, 08-16; U. S. Naval Acad, 16-18, asst. prof, 18-20, *assoc. prof*, 20- Math. Soc; Math. Ass. Group theory; mechanics.
- Bullard, Prof. Ralph H(adley)**, The Pulteney, Park Place, Geneva, N. Y. *Chemistry*. Worcester, Mass, Dec. 6, 95. A.B, Clark, 17, A.M, 18; Rice fellow, Brown, 24-25, Ph.D, 25. Chemist, U. S. Fuel Oil Testing Plant, 18; instr. chem, Hobart, 18-19; research chemist, Roessler and Hasslacher Chem. Co, 19-20; instr. *chem*, *Hobart*, 20-21, asst. prof, 21-25, *prof*, 25- A.A; Chem. Soc. Metallo-organic chemistry; organic compounds of tin.
- Bullard, Prof. Warren G(ardner)**, 117 Redfield Place, Syracuse, N. Y. *Mathematics*. Hinsdale, N. Y, Feb. 25, 67. A.B, Brown, 92; Ph.D, Clark, 96. Instr. *math*, Free Acad, Elmira, N. Y, 92-93; St. Lawrence, 94; Vermont, 96-00; *Syracuse*, 00-01, *assoc. prof*, 01-09, *prof*, 09- A.A; Math. Soc; Math. Ass; Math. Verein; Circolo Mat. di Palermo. Plane curves; cubic and quartic curves.
- Bullard, Dr. William N(orton)**, 89 Marlborough St, Boston, Mass. *Medicine*. Newport, R. I, Aug. 23, 53. A.B, Harvard, 75, M.D, 80. Med. house officer, Mass. Gen. Hosp, 79-80; physician, dept. neur, Boston City Hosp; neurologist, Children's Hosp; visiting physician and consulting neurologist, Carney Hosp. Chairman board trustees, Monson State Hosp, 95-13. A.A; Am. Med. Ass; Neur. Ass. (pres); Ass. for Feeble-Minded (past pres); Boston Soc. Psychiat. and Neur. (pres).

- Buller, Prof. A(rthur) H(enry) Reginald**, University of Manitoba, Winnipeg, Man, Can. *Botany*. Birmingham, Eng, Aug. 19, 74. Birmingham, 91-97, 1851 Exhib. scholar, 98-01, D.Sc. 03; B.Sc. London, 96; Ph.D, Leipzig, 99; Munich, 99-01; Naples Biol. Sta., 00, 01; LL.D, Manitoba, 24. Lecturer *bot*, Birmingham, 01-04; *prof*, *Manitoba*, 04- A.A.; Phytopath. Soc; Bot. Soc. (v. pres, 26); Soc. Psychological Research; Can. Phytopath. Soc. (pres, 20); fel. Royal Soc. Can. (v. pres, 27, pres, sect. 4, 14); British Ass. (sec'y, K, 09); British Mycol. Soc. (pres, 13); assoc. Soc. Royale de Bot. de Belg. Chemotaxis of the spermatozoa of ferns and of sea-urchins; destruction of wood by fungi; bacteria; enzymes; physiology and morphology of fungi; sex problems in Hymenomyces; the history of wheat growing and wheat breeding.
- Bullington, Prof. W(alter) E(dward)**, Randolph-Macon College, Ashland, Va. *Zoology*. Bulls Gap, Tenn, Nov. 17, 90. B.S.A, Tennessee, 21, M.S, 22; Ph.D, Kansas, 25. Instr. zool, Tennessee, 22-24; asst. instr, Kansas, 24-25; *prof. biol*, *Randolph-Macon*, 25- A.A. Protozoa; spiral movement in ciliate infusoria.
- Bullitt, Prof. James B(ell)**, University of North Carolina, Chapel Hill, N. C. *Pathology*. Louisville, Ky, Jan. 18, 74. A.B, Washington and Lee, 94, A.M, 95; M.D, Virginia, 97. Demonstrator anat, Virginia, 98-03; *prof*, Mississippi, 03-13; *path*, *North Carolina*, 13- Major, U.S.A, 18-19. A.A; Soc. Clin. Path; Am. Med. Ass; Micros. Soc; N. C. Acad. Hookworm; trichinosis; tuberculosis; influenza; pneumonia.
- Bullock, Dr. Frederick D**, 550 W. 190th St, New York, N. Y. *Pathology*. Lexington, Ky, Nov. 20, 78. B.S, Ky. Col, 99; M.D, Hopkins, 07. Assoc. cancer research, *Crocker Research Fund*, *Columbia*, 09-25, *asst. prof*, 25- Experimental production of tumors.
- Bullock, William E(dward)**, 29 W. 39th St, New York, N. Y. *Mechanical engineering*. Hingham, Eng, July 9, 88. B.S, London, 10; M.E, London Inst, 10. Ransomes Sims and Jeffries, Ipswich, Eng, 04-07; Baldwin Locomotive Works, Phila, 10-11; sec'y to committee science and arts, and asst. director sch. mech. arts, Franklin Inst, 11-15; asst. sec'y, Am. Soc. Mech. Eng, 15-26; *consulting mechanical engineer*, 26- Yarrow student, Inst. Civil Eng, 07-10. Bramwell medal, London Inst, 10. A.A; assoc. Mech. Eng. Engineering education; engineering economics.
- Bullowa, Dr. Jesse G(odfrey) M**, 62 W. 87th St, New York, N. Y. *Medicine*. New York, Oct. 19, 79. A.B, Col. City of N. Y, 99; M.D, Columbia, 03. Adjunct prof. clin. med, N. Y. Polyclinic Med. Sch, 16-19; *prof*, Fordham, 20-23. Visiting physician, Willard Parker Hosp; Riverside Sanitarium; Munic. Sanitarium, Otisville; asst. visiting physician, Bellevue and Allied Hospitals, Harlem div. A.A; Am. Med. Ass; N. Y. Acad. Med. Colloidal chemistry; adrenalin in asthma; bronchial function; pulmonary segment reflexes; pneumonia.
- Bumpus, Dr. H(ermon) C(arey)**, Duxbury, Mass. **Biology*. Buckfield, Maine, May 5, 62. Ph.B, Brown, 84, hon. Sc.D, 05; fellow, Clark, 89-90, Ph.D, 91, LL.D, 09; hon. Sc.D, Tufts, 05. Prof. biol, Olivet, 86-89; asst. prof. zool, Brown, 90-91, assoc. prof, 91-92, prof. comp. anat, 92-01; asst. to pres. and curator invert. zool, Am. Museum Nat. Hist, 01-02, director, 02-11; business manager, Wisconsin, 11-14; pres, Tufts, 14-19. Asst. director, Woods Hole, 93-95, trustee, 05-; commissioner inland fisheries, R. I, 97-01; director biol. lab, U. S. Fish Commission, 98-01; consulting director museum, Buffalo Soc. Nat. Hist; consulting director, Buffalo Mus. Science, 24-; board fellows, Brown, 05-; sec'y, corp, Brown Univ, 24-; board managers, Cold Spring Harbor; trustee, Mt. Desert Biol. Lab, 24-; Home for Feeble-Minded, Waverley, Mass; patron, Am. Museum Nat. Hist; hon. fel. Met. Museum Art, New York; chairman, exec. committee, museums nat. parks, 24- Fourth Int. Fishery Cong, 08 (pres); Int. Zool. Cong. Graz, 10. A.A; Soc. Nat; Soc. Zool. (pres, 03); assoc. Ornith. Union; Fisheries Soc; Nat. Ass. Audubon Societies; Ass. Mus. (pres, 06); Philos. Soc; Am. Acad; N. Y. Audubon Soc. (v. pres, 05-); N. Y. Linnean Soc; fel. N. Y. Acad. (sec'y, 05); N. Y. Zool. Soc; Boston Soc. Nat. Hist; N. Y. Bot. Garden; cor. mem. Senckenbergische Naturforsch. Gesell; hon. mem. K.K. Oester. Fischerei Gesell. Heredity; marine biology; larval development of crustacea.
- Bumsted, Dr. Clarence Van Reynegon**, 235 Grafton Ave, Newark, N. J. *Internal medicine*. Jersey City, N. J, April 7, 79. Ph.B, Brown, 03; M.D, Pennsylvania, 07. Intern, Episcopal Hosp, Phila, 07; acting attending physician, German Hosp, Newark, 10-15; asst. attending physician, St. Michael's Hosp; attending physician, St. Barnabas Hosp. A.A; Am. Med. Ass; Miner. Soc; N. Y. Acad. Med. Pediatrics; tuberculosis; goiter-oral sepsis.
- Bunch, Prof. C(ordia) C**, 201 Ferson Ave, Iowa City, Iowa. *Psychology*. Tama Co, Iowa, April 30, 85. A.B, Iowa State Teachers Col, 16; A.M, Iowa, 17, Ph.D, 20. Teacher and supt, pub. and high schools, 03-04; instr. psychol, Iowa, 17, research asst. psychol-otol, 17-25, *assoc. prof. oto-laryngol*, 25- Psychol. Ass. Audition; otology.
- Bunker, Prof. J(ohn) W(ymond) M(iller)**, Massachusetts Institute of Technology, Cambridge, Mass. *Bacteriology*. Tounogo, Burma, July 10, 86. A.B, Brown, 09, A.M, 10, Ph.D, 11. Instr. sanit. biol, Harvard, 11-15, sanit. inspector, 15; director bacter. laboratories, Digestive Ferments Co, 15-21; asst. prof. *physiol. and biochem*, *Mass. Inst. Tech*, 21-24, *assoc. prof*, 24- A.A; Soc. Bact. (councilor, 18-20, asst. sec'y, 20, exec. sec'y, research council, 20); Chem. Soc; Pub. Health Ass; Boston Bact. Soc. Sanitary biology; bacterial metabolism; enzymes and toxins.
- Bunting, Dr. C(harles) H(enry)**, University of Wisconsin, Madison, Wis. **Pathology*. La Crosse, Wis, May 22, 75. B.S, Wisconsin, 96, fellow, 96-97; M.D, Hopkins, 01. Asst. demonstrator *path*, Pennsylvania, 02-03; asst, Hopkins, 03-04, instr, 04-05, assoc, 05-06; *prof*, Virginia, 06-08; *Wisconsin*, 08- Consulting pathologist, C.W.S. A.A; Ass. Path. and Bact;

Soc. Exp. Path; Am. Physicians; Ass. Anat; Soc. Exp. Biol; Am. Med. Ass; Chicago Path. Soc. Hematology.

Bunting, Dr. Elmer N(ewman), U. S. Bureau of Standards, Washington, D. C. *Chemistry*. Chicago, Ill, March 19, 92. B.S, Chicago, 15, Ph.D, 18. Asst. chem, Chicago, 15-18; chemist, Bausch and Lomb Optical Co, 18-19; research assoc, Illinois, 20-24; research chemist, Bell Telephone Laboratories, Inc, 24-25; Nat. Research Council, 25-26; *assoc. chemist, Burr. Standards, 26-* A.A; Chem. Soc; Ceramic Soc. Inorganic and physical chemistry; glass; high temperature technique; microphone carbon.

Bunting, Dr. Martha, 4306 Chestnut St, Philadelphia, Pa. *Biology*. Philadelphia, Dec. 2, 61. B.L, Swarthmore, 81; Pennsylvania, 88-91, 16-17, fellow by courtesy, 19-24, 26-27; Bryn Mawr, 91-93, Ph.D, 95; Woods Hole, 91, 92, 99; Columbia, 98-99. Instr. biol, Goucher Col, 93-97; teacher, high sch, Philadelphia, 97-98; New York, 00-10; research asst, Pennsylvania, 10-16. War relief work, 16-18. A.A; Phila. Acad. Sex cells in Hydraetia and Podocoryne; otoliths and the geotropic functions of Astacus; the cork tissues in the roots of rosaceous genera; the life cycles of Protozoa.

Bunting, Prof. R(ussell) W(elford), 916 Church St, Ann Arbor, Mich. *Pathology*. Ann Arbor, June 2, 81. D.D.S, Michigan, 02, D.D.Sc, 08. Instr. *dental histol. and path, Michigan, 04-10*, asst. prof, 10-14, *prof, 14-* Sec'y, col. dental surg, Michigan, 09-23. A.A; fel. Col. Dent; Inst. Dental Teachers (pres, 19); Soc. Exp. Biol. Dental pathology; etiology and control of dental caries.

Bunting, Prof. T(homas) G(ordon), Macdonald College, St. Anne de Bellevue, Que, Can. *Horticulture*. St. Catharines, Ont. B.S.A, Toronto, 07. Asst. hort, New Hampshire, 09-10; asst. to Dominion horticulturist, Can. Dept. Agr, 10-12; *prof. hort, Macdonald Col, 12-* Soc. Hort. Sci. (v. pres, 23); Can. Soc. Tech. Agr. Fruit growing.

Bunzell, Dr. H(erbert) H(orace), Box 75, Grand Central Terminal, New York, N. Y. *Chemistry*. Jan. 13, 87. B.S, Chicago, 06, Ph.D, 09. Asst. physiol. chem, Chicago, 06-10; biochemist, bur. plant indust, U. S. Dept. Agr, 10-11, chem. biologist, 11-16; prof. chem, George Washington, 14-16; special lecturer and assoc. prof, Georgetown, 15-16; assoc. prof. biochem, Cincinnati, 16-17, *prof. and head dept, med. sch, 17-18; chem, Woman's Med. Col. of Pa, 20-* Consulting chemist, New York, 18- A.A; Soc. Biol. Chem. Oxidation of sugars; galvanic polarization; toxicity of the metal ions towards living organisms; the oxidation of uranous salts and glucose; the active element in the internal secretion of the testicles; plant oxidases; poisonous plants.

Burbridge, Dr. Harry C(arleton), California State Teachers College, Fresno, Calif. *Physics*. Greeley, Iowa, July 4, 85. A.B, Stanford, 09, Ph.D, 13. Teacher, high sch, 08-09; instr. physics, Stanford, 13-14; assoc. physicist, Burr. Standards, 18-20; research physicist, Assoc. Oil Co, 20-21; *assoc. prof. physics, Calif. State*

Teachers Col, Fresno, 21- Lubrication; Volta effect.

Burchard, Ernest F(rancis), U. S. Geological Survey, Washington, D. C. *Geology*. Independence, Kans, May 20, 75. B.S, Northwestern, 00, M.S, 03. Instr, high sch, Iowa, 00-03; asst. geologist, Wis. Geol. and Nat. Hist. Surv, 03; geol. aid, *U. S. Geol. Surv, 04-06*, asst. geologist, 06-10, *geologist, 11-*, in charge sect. non-metal resources, 15, *sect. iron and steel metals, 17-* Geol. Soc; Soc. Econ. Geol; Min. Eng; Wash. Geol. Soc; Ill. Acad; Sioux City Acad. Physiography; areal geology; Nebraska lignite deposits; lead and zinc ores in Arkansas and Wisconsin; iron ore deposits in the United States and South America; marble resources of Alaska; chromite and manganese of Cuba; petroleum resources of Philippine Islands and Bolivia; ores and non-metallic minerals as pigments; Clinton iron ores; fluorspar; bauxite; structural materials.

Burckhardt, Dr. Carlos (E), 69 Avenida Michoacan Sur Mixcoac, Mexico, D. F. *Geology, Paleontology*. Basle, Switzerland, March 26, 69. Ph.D, Zurich; Basle; Vienna; Munich. Geologist, explorations, La Plata Museum, 96-00; asst. geognosy, Bur. Oberbergamt, Munich, 03-04; geologist, Geol. Inst. of Mexico, 04-15. Soc. géol. de France; Geol. Verein; Schweiz. Geol. Gesell; Schweiz. Naturforsch. Gesell; Wien Geol. Gesell; cor. mem. Basler Naturforsch. Gesell. Geology of Swiss Alps; geology and paleontology of the Argentine-Chilean Andes and of Mexico.

Burd, Prof. J(ohn) S(edgwick), 81 Parkside Drive, Berkeley, Calif. *Agricultural chemistry*. Indianapolis, Ind, Sept. 20, 76. B.S, California, 99. Instr. agr. chem, *California, 06-08*, asst. prof, 08-10, assoc. prof, 10-12, *prof, 12-21*, *plant nutrition, 21-* State director fertilizer control, Calif, 06-20. Chem. Soc; West. Soc. Plant Nutrition and Soil Management. Plant nutrition; soil solution; phosphate behavior in soils.

Burdon, Dr. Kenneth L(ivingston), Washington University School of Medicine, St. Louis, Mo. *Bacteriology*. Providence, R. I, Nov. 9, 95. Ph.B, Brown, 18, M.S, 20, Ph.D, 22. Asst. biol, Brown, 19-22; *instr. bacter. and pub. health, Washington (St. Louis), 22-* Chief inspector, mosquito control operations, Health Dept, Providence, 19-21; asst. city bacteriologist and asst. bacteriologist, Providence City Hosp, 20-21. A.A; Soc. Bact. Public health; anaerobic flora of the mouth; etiology of Vincent's angina.

Burge, Prof. W(illiam) E(dward), University of Illinois, Urbana, Ill. *Physiology*. Lynchburg, Va, Sept. 17, 81. A.B, Randolph-Macon, 03, A.M, 06; fellow, Hopkins, 08-09, Ph.D, 09. Physical director, Randolph-Macon, 04-06; instr. *physiol*, Univ. and Bellevue Hosp. Med. Col, 09-10; asst, Hopkins, 10-11, instr, 11-12; *assoc. prof. and acting head dept, Illinois, 12-* Nela Research Lab, 16-19. Ninth Int. Physiol. Cong; Physiol. Cong, Paris, 20. Physiol. Soc; Nat. Anesthesia Research Soc. Normal and cataractous lenses; effect of radiant energy on lenses; separation of rennin and pepsin; oxidation of enzymes and pro-enzymes; catalase and

- phosphorus poisoning; thyroid feeding; pyretics; starvation; alcohol; narcotics; diabetes; acidosis; adrenalin.
- Burger, Dr. O(wen) F(rancis)**, Florida Agricultural Experiment Station, Gainesville, Fla. *Plant pathology*. Freeland, Pa, June 8, 85. A.B., Indiana, 09; M.S., Florida, 11; Harvard, 15, Sc.D, 16. Asst. to plant pathologist, Fla. Exp. Sta, 09-11, asst. pathologist, 11-13; instr. plant path, California, 16-18; *pathologist, fruit disease investigations, bur. plant indust, U. S. Dept. Agr, 18- A.A.*; Phytopath. Soc. Diseases of vegetables and peaches in Florida; variations in *Colletotrichum*; sexuality in the genus *Cunninghamella*.
- Burger, Prof. William H(enry)**, Northwestern University, Evanston, Ill. *Civil engineering*. Caribou, Colo, May 1, 74. B.S., Colorado, 96, 96-97. Eng. dept, Colo, N. W. Ry, 97-99; aid, U. S. Coast and Geod. Surv, 99-03, asst, 03-10; asst. prof. *civil eng, Northwestern*, 10-15, *prof, 15-* Civil Eng; Eng. Educ; West. Soc. Eng; Ill. Soc. Eng.
- Burgess, A(lbert) F(ranklin)**, U. S. Department of Agriculture, Melrose Highlands, Mass. *Entomology*. Rockland, Mass, Oct. 2, 73. B.S., Mass. Col, 95, M.S., 97. Asst. entomologist, Mass. State Board Agr, 95-99; asst. entom., Illinois, 99-00; asst. inspector nurseries and orchards, Ohio, 00-02, chief inspector, 02-07; *asst. entomologist, bur. entom, U. S. Dept. Agr, 07-* A.A.; Ass. Econ. Entom. (sec'y, 03, 06-23, assoc. ed, 'Jour,' 08-09, business manager, 10-24, pres, 24); Entom. Soc; assoc. mem. Soc. Foresters; Wash. Acad; Wash. Entom. Soc; Cambridge Entom. Club (pres, 15); Ohio Acad. Economic entomology; insecticides and fungicides; parasitic and predatory insects.
- Burgess, Prof. C(harles) F(rederick)**, 111 W. Monroe St, Chicago, Ill. **Electrochemistry*. Oshkosh, Wis, Jan. 5, 73. B.S., Wisconsin, 95, E.E., 98, hon. Sc.D, 26. Instr. elec. eng, *Wisconsin*, 95-00, asst. prof, 00-04, assoc. prof, 04-05, *prof. applied electrochem, 05-09, chem. eng, 09-*; *pres, C. F. Burgess Lab, 10-* Pres, Burgess Battery Co. Electrochem. Soc. (past pres); Elec. Eng; Chem. Soc; Soc. Chem. Indust; Eng. Educ. Electrolytic rectifiers; electrolytic purification of iron; separation and concentration of ores; electric furnace applications; electrolytic corrosion of underground structures; dry batteries.
- Burgess, Prof. Edward S(anford)**, 61 Ridge Road, Yonkers, N. Y. *Botany, Anthropology*. Little Valley, N. Y., Jan. 19, 55. A.B., Hamilton, 79, A.M., 82, hon. Sc.D, 04; fellow, Hopkins, 81-82; Ph.D, Columbia, 99. Instr. bot, Del. Lit. Inst, Franklin, N. Y., 79-80; high schools, Washington, D. C., 82-95; prof. nat. science, Hunter, 95-25, *retired*. Instr. Summer Inst, Martha's Vineyard, 80-95; Hopkins, 85. A.A.; Bot. Soc; Anthropol. Ass; Folk-Lore Soc; Torrey Bot. Club (sec'y, 97, v. pres, 06-09, pres, 09); N. Y. Acad. Asters and related Compositae; flora, Indian history and locality-lore of Martha's Vineyard; prehistoric man; New England local history.
- Burgess, Dr. Geo(rge) K(imball)**, Bureau of Standards, Washington, D. C. **Physics, Metallurgy*. Newton, Mass, Jan. 4, 74. B.S., Mass. Inst. Tech, 96, fellow, 98-00; Sc.D, Paris, 01; D.Eng, Case, 23; Lehigh, 25. Asst. physics, Mass. Inst. Tech, 96-98; instr, Michigan, 00-01; California, 01-03; asst. physicist, *Bur. Standards*, 03-05, assoc. physicist, 05-13, physicist and chief div. metal, 13-23, *director, 23-* Committees, Nat. Research Council, 17- Requirements div, W.I.B., 18; adviser, duplication in govt. departments, Bur. Efficiency, 19-; ordnance dept, U.S.A., 19-; chairman light alloys committee, Nat. Advisory Committee for Aeronaut, 17-18, chairman committee on metals, 19-, chairman committee on aircraft materials, 23-; Int. Aircraft Standards Board, 17-18; chairman, Nat. Screw Thread Commission, 23-; chairman, Federal Specifications Board, 23- Silver medal, Pan-Am. Expos, 15. Nat. Acad. (treas, 24-); A.A.; Physical Soc. (councilor, 14-17, 19-23, ed, 18-20); Optical Soc. (assoc. ed, 19-, eng. standards committee, 19-); Soc. Steel Treat. (pres, 24); Min. and Metal. Eng. (v. pres, 15); Soc. Test. Mat. (mem. exec. committee, 18, pres, 22-23); Wash. Acad. (sec'y, 12-16, v. pres, 18); Wash. Philos. Soc. (sec'y, 05-09, v. pres, 11-17, pres, 18); British Iron and Steel Inst. Gravitation constant vapor pressure of solutions; physical metallurgy; pyrometry; radiation.
- Burgess, Prof. Horace T(homas)**, 37 Beers St, New Haven, Conn. *Mathematics*. Harveysburg, Ohio, Oct. 17, 81. A.B., Yale, 06, A.M., 07, Ph.D, 09. Instr. *math, Yale*, 07-09; *Wisconsin*, 09-13, *asst. prof, 13-* A.A.; Math. Soc. Modern geometry from standpoint of transformation theory; point-circle transformations.
- Burgess, Dr. L(aurie) L(orrie)**, Harvard University, Cambridge, Mass. *Chemistry*. Kinsmans Corners, N. S. Can, Oct. 21, 82. B.S., Dalhousie, 05; A.M., Harvard, 06, Thayer scholar, 07, 09, Ph.D, 09. Asst. chem, Harvard, 05-08; instr, Illinois, 09-12; asst. prof. anal. chem, Saskatchewan, 12-14, prof, 14-16; chief chemist and asst. supt, Allegheny By-Product Coke Co, 16-17; research chemist, E. I. du Pont de Nemours and Co, 17-24; chief control lab, Granton Chem. Co, 24-26; *acting asst. director chem. lab, Harvard, 26-* Summers, instr, Maine, 07-09. Chem. Soc. Heats of solution of metals in acids; refractive index of water; spark spectrum of cadmium.
- Burgess, Louis, P. O. Box 276, Elizabeth, N. J.** *Chemical engineering*. New York, N. Y., Sept. 27, 89. LL.B., St. Lawrence, 10. Lab. work, 17-21; *chem. eng. and development work, Standard Oil Co. of N. J., 21-* Chem. Soc; Electrochem. Soc; Min. and Metal. Eng. Direct reduction of bauxite to aluminum carbide and alloys; manufacture of anhydrous chlorides of aluminum, beryllium and zirconium.
- Burgess, Prof. Paul S(teere)**, 2030 Speedway, Tucson, Ariz. *Agricultural chemistry*. Providence, R. I., March 17, 85. B.S., R. I. Col, 10; M.S., Illinois, 11; fellow, California, 19-20, Ph.D, 20. Instr. bacter, Illinois, 11-12; asst. prof. soil chem. and bacter, California, 12-15; chemist and bacteriologist, Exp. Sta, Hawaiian

- Sugar Planters' Ass, 15-19; chemist, R. I. Exp. Sta., 20-24; *prof. agr. chem., Arizona, and chemist, Exp. Sta., 24-* A.A.; Chem. Soc; Soc. Agron. Soil chemistry; bacteriology.
- Burgess, Dr. Robert W(ilbur)**, Western Electric Co, 195 Broadway, New York, N. Y. *Mathematics.* Newport, R. I., July 25, 87. A.B., Brown, 08; B.A., Oxford, 10, Rhodes scholar, 08-11; Ph.D., Cornell, 14. Instr. math, Purdue, 11-12; asst, Cornell, 12-14, instr., 14-16; Brown, 16-17, asst. prof., 19-25; *senior statistician, West. Elec. Co., 24-* Lieut. capt. and major, ordnance dept, and statist. branch, Gen. Staff, 17-19. A.A.; Math. Soc; Statist. Ass. Approximate solutions of differential equations; statistical analysis.
- Burgess, Dr. Wayland M(cColley)**, 3909 Edwards Road, Cincinnati, Ohio. *Chemistry.* Providence, R. I., May 22, 97. B.S., R. I. Col., 19; Ph.D., Brown, 25. Instr. chem., R. I. Col., 19-20; Worcester, 20-24; *asst. prof., Cincinnati, 25-* Chem. Soc. Physical chemistry.
- Burget, Prof. G(eorge) E(manuel)**, University of Oregon Medical School, Portland, Oregon. *Physiology.* Kempton, Ind., May 18, 89. A.B.; Ph.D., Chicago, 16. Assoc. *physiol.* Chicago, 16-17; *prof., Oregon, 17-* *Physiol. Soc.* Glands of internal secretion; physiology of gastro-enterostomy; flora of the stomach; respiration.
- Burghart, L(oyd) M(eeks)**, 3804 Woodland Ave, Baltimore, Md. *Organic chemistry.* Sidney, Ill., Aug. 29, 83. A.B., Lake Forest, 06; Illinois, 09-10; A.M., Maine, 12. In charge control laboratories, Corn Products Ref. Co, Ill., 06-09; asst. anal. chem., Illinois, 09-10; instr., Maine, 10-12, asst. prof. in charge quantitative analysis, 12-17; research chemist, *U. S. Indust. Alcohol Co., 17-26, director research, 26-* A.A.; Chem. Soc. (sec'y, Maine sect., 16). Ethyl and other aliphatic alcohols and their derivatives, especially ethers, aldehydes, acids and esters; solvents; anesthetics.
- Burka, Dr. Samuel M(oses)**, McCook Field, Dayton, Ohio. *Physics.* Union Springs, Ala., May 26, 91. A.B., Hopkins, 13, A.M., 16, Ph.D., 19. Lab. asst, Bur. Standards, 17-18, asst. physicist, 18-20; *eng. div., Air Service, U.S.A., 20-* Physical Soc; Optical Soc; Royal Photog. Soc. Aerial photography and mapping.
- Burke, Dr. C(harles) E(ldrid)**, Box 525, Wilmington, Del. *Chemistry.* Hartford, Ont., Can., July 7, 81. B.A., McMaster, 07, M.A., 09; fellow, Illinois, 09-11, Ph.D., 11. Instr. chem., California, 11-14; asst. prof., Vermont, 15-18; dye intermediates, *E. I. du Pont de Nemours and Co., 18-22, chem. dept., 22-* Chem. Soc. (sec'y, Vt. sect., 17, chairman, south. N. J. sect.). Terpenes and essential oils; aromatic nitro-derivatives; cellulose esters.
- Burke, Edmund**, Agricultural Experiment Station, Bozeman, Mont. *Chemistry.* Niles, Mich., April 26, 65. B.S., Mont. Col., 07. Instr. chem., Mont. Col., 01-06, asst. prof., 06-07; asst. chemist, *Mont. Exp. Sta., 00-08, chemist, 08-, meteorologist, 06-* Lecturer, agr. chem. Chem. Soc. Salicylic acid in fruits; effect of alkali on Portland cement; the incubation of eggs; the climate and soils of Montana; nitrate nitrogen and the yield and quality of wheat.
- Burke, H(arry) E(ugene)**, Palo Alto, Calif. *Entomology.* Paradise Valley, Nev., May 19, 78. B.S., Wash. Col., 02, M.S., 08; Ph.D., Stanford, 23. *Entomologist, forest insect investigations, bur. entom., U. S. Dept. Agr., 02-* A.A.; Ass. Econ. Entom.; Soc. Forest Entom. (v. pres, 13); Pacific Coast Entom. Soc.; Wash. Entom. Soc. (rec. sec'y, 08). Insects injurious to forest and shade trees; taxonomy of buprestid larvae.
- Burke, Prof. Victor**, 2002 Monroe St, Pullman, Wash. *Zoology.* Kent, Wash., March 12, 82. A.B., Stanford, 07, A.M., 08, Ph.D., 12; fellow, Columbia, 09. Instr. *bacter.* Stanford, 17-19; asst. prof., *Wash. Col., 21-23, assoc. prof., 23-24, prof., 24-, head dept., 25-* Asst. naturalist, 'Albatross' exped, Japan, 06; research investigator, Interdepartmental Social Hygienic Board, 21. Bacteriology; ichthyology.
- Burke, W(illiam) E(dmund)**, American Trona Corp, Trona, Calif. *Chemical engineering.* Mountain View, Calif. A.B., Stanford, 07. Chemist, Exp. Sta., Hawaiian Sugar Planters' Ass, 07-08; instr. chem., Stanford, 16-20; *director research and development, Am. Trona Corp., 20-* A.A.; Chem. Soc; Electrochem. Soc. Solubility of inorganic salts in water.
- Burkett, Prof. Charles W(illiam)**, 270 Riverside Drive, New York, N. Y. *Agronomy.* Thornville, Ohio, Jan. 3, 73. B.S., Ohio State, 95, M.S., 98. Asst. agr., Ohio State, 95-98; prof., New Hampshire, and agriculturist, Exp. Sta., 98-01; N. C. Col. and Exp. Sta., 01-06; director, Kans. Exp. Stations, 06-08; *ed., 'Am. Agriculturist,' 08-* Kans. agr. investigator, Russia, 07. Animal husbandry and nutrition; soils; crops.
- Burkett, Prof. Frederick J. H.**, Trinity College, Hartford, Conn. *Mathematics.* Malden, Mass., June 28, 94. A.B., N. Y. Univ., 17, fellow, 26-27; A.M., Pittsburgh, 22. Instr. *math.* N. Y. Univ., 19; Penn. State, 19-20; Pittsburgh, 20-22; *asst. prof., Trinity (Conn.), 22-* Math. Soc; Math. Ass.
- Burkholder, Dr. W(alter) H.**, Cornell University, Ithaca, N. Y. *Plant pathology.* Crawfordsville, Ind., Feb. 1, 91. A.B., Wabash, 13; fellow, Cornell, 13-17, Ph.D., 17. Investigator *plant path., Cornell, 17-21, asst. prof., 21-* Collaborator, bur. plant indust, U. S. Dept. Agr., 17-21. A.A.; Bot. Soc; Phytopath. Soc; Soc. Bact; Ecol. Soc. Diseases of beans; anthracnose of raspberry.
- Burks, Dr. H(arry) G(ray), Jr**, 439 Union Ave, Elizabeth, N. J. *Physical chemistry.* Bedford, Va., Aug. 7, 99. A.B., Virginia, 19, A.M., 20; Ph.D., Mass. Inst. Tech., 24. *Development dept., Standard Oil Co. of N. J., 24-* Chem. Soc. Gaseous mixtures.
- Burling, Lancaster D(emorest)**, Vassar College, Poughkeepsie, N. Y. *Geology.* Anita, Iowa, Nov. 2, 82. B.S., Wisconsin, 05. Asst. to Charles D. Walcott, 05-12; asst. geologist, U. S. Geol. Surv., 05-07; asst. curator, U. S. Nat. Museum, 07-12; invert. paleontologist, Can.

- Geol. Surv, 13-20; geologist, Whitehall Petrol. Corp, London, 20-24; instr. *geol.*, Vassar, 24-25, *assoc. prof.*, 25- Gold medal, Min. and Geol. Inst, India, 23. A.A.; Geol. Soc; Ass. Petrol. Geol; Paleont. Soc; Min. and Metal. Eng; Hist. Sci. Soc; Aristotelian Soc. Paleontology; stratigraphy; experimental geology; Cambrian and Precambrian rocks and faunas; education.
- Burlingame, Prof. Leonas L(ancelot)**, Stanford University, Calif. *Botany*. Guernsey Co, Ohio, Aug. 25, 76. Ph.B, Ohio Northern, 01; fellow, Chicago, 04-08, A.B, 06, Ph.D, 08. Prof. biol. and geol, Ohio Northern, 02-04; asst. *bot.*, Chicago, 06-08; instr, *Stanford*, 08-09, asst. prof, 09-16, *assoc. prof.*, 16-25, *prof.*, 25- Summers, East. Ill. State Nor. Univ, 06; field asst, U. S. Dept. Agr, 18; prof, Oregon, 24, 25. A.A.; Soc. Nat; fel. Bot. Soc; Genetic Ass; Pacific Coast Biol. Ass. (sec'y-treas, 15-17); Calif. Acad. Cytology; genetics; morphology of pteridophytes and gymnosperms.
- Burlingham, Dr. Gertrude S(immons)**, 556 Lafayette Ave, Brooklyn, N. Y. *Botany*. Mexico, N. Y, April 21, 72. A.B, Syracuse, 96; Ph.D, Columbia, 08. Preceptress, high sch, N. Y, 96-98, teacher, 98-05; Trenton Nor. Sch, 08; *asst. teacher*, East. Dist. High Sch, Brooklyn, and *grade adviser*, 08- Bot. Soc; Torrey Bot. Club. Mycology; Russula; Lactaria.
- Burlison, Dr. W(illiam) L(eonidas)**, University of Illinois, Urbana, Ill. *Agronomy*. Harrison, Ark, Sept. 3, 82. B.S, Okla. Agr. and Mech. Col, 05; M.S, Illinois, 08, Ph.D, 15. Asst. agronomist, Okla. Agr. and Mech. Col, 05-08, asst. prof, 08-10; *assoc. ed.*, 'Orange Judd Weeklies,' 10-12; *assoc. crop production*, Illinois, 12-15, *assoc. prof.*, 15-17, *prof. and chief*, Exp. Sta, 17-, *head dept. agron.*, 20- Soc. Agron. (v. pres, 24-26, pres, 27-). Physiological botany; crop production; plant nutrition.
- Burnett, Dr. C(harles) T(heodore)**, Brunswick, Maine. *Psychology*. Springfield, Mass, June 24, 73. A.B, Amherst, 95; A.M, Harvard, 00, Ph.D, 03. Asst. *philos.*, Harvard, 00-02; instr, Bowdoin, 04-06, asst. prof, 06-09, *prof.*, 09-A.A; Psychol. Ass. The judgment of numbers; dissociation.
- Burnett, Dr. C(lough) T(urrill)**, Imperial Building, Denver, Colo. *Internal medicine*. Lapeer, Mich, Jan. 30, 83. Mich. State Col, 01-03; M.D, Michigan, 08. Asst. bacter, Mich. State Col, 02-03; first asst, Michigan, 05-07; asst. prof, Colorado, 08-10, prof, 10-19, *asst. prof. med.*, 19- Soc. Internal Med; Col. Physicians; Pub. Health Ass; Soc. Bact; Mich. Acad. Flagellum staining of Spirochaeta obermeieri; bacteriology of milk; anaphylaxis; tuberculosis; the heart.
- Burnett, E(arle) S(mead)**, P. O. Box 602, Fort Worth, Texas. *Engineering physics*. River Falls, Wis, Feb. 16, 80. B.S, Wisconsin, 05, 05-06. Research asst. mech. eng, Wisconsin, 06-10; instr. exp. eng, Cornell, 10-14; consulting engineer, 14-15; research engineer, Precious Metals Tempering Co, 16; tech. engineer, Rock Tunneling Machine Co, 16-17; research and sales engineer, Normalair Co, and Bahnson Humidifier Co, 17-21; Wisconsin, 22; *mech. engineer*, cryogenic lab, U. S. Bur. Mines, 22-23, U. S. Helium Production Plant, 23- Assoc. Mech. Eng; Heat. and Vent. Eng; Soc. Mil. Eng. Cryogenics; porous plug expansion of fluids; hydro-pneumatic relations; thermal properties of fluids; low temperature separation of the components of fluid mixtures.
- Burnett, Prof. E(dgar) A(ibert)**, 3256 Holdrege St, Lincoln, Nebr. *Agriculture*. Oakland Co, Mich, Oct. 17, 65. B.S, Mich. State Col, 87, Sc.D, 17. Instr. agr, Mich. State Col, 89-91, asst. prof, 91-93; manager, Hiram Walker Farms, 94; prof. animal husbandry, S. Dak. Col, 96-99; Nebraska, 99-07, *assoc. dean agr. instruction*, 01-09, *dean agr. col.*, 09-, *director*, Exp. Sta, 01- Educ.C, U.S.A, 19. Animal nutrition.
- Burnett, Dr. J(erome) B(enjamin)**, Apartado 172, Maracaibo, Venezuela, S. A. *Geology*. Nebraska City, Nebr, April 5, 91. B.S, Nebraska, 16, Ph.D, 21. Geologist, Empire Gas and Fuel Co, 16-19; geologist in charge for. dept, Emerald Oil Co; district geologist, Mex. Eagle Oil Co, 21-24; *asst. chief geologist*, Mex. Eagle Oil Co. and La Corona Oil Co, 24-; *chief geologist*, Lago Petrol. Corp. Ass. Petrol. Geol; Min. and Metal. Eng. Tectonic and stratigraphic geology.
- Burnett, Lyman Crane**, Iowa Agricultural Experiment Station, Ames, Iowa. *Agronomy*. Shiawassee Co, Mich, March 15, 81. B.S, Nebraska, 03; M.S.A, Iowa Col, 06. Sugar chemist, Standard Beet Sugar Co, 02-05; *chief cereal breeding*, Iowa Exp. Sta, and *agent*, bur. plant indust, U. S. Dept. Agr, 06- Soc. Agron; Genetic Ass. Cereal breeding in small grains and corn.
- Burnett, Dr. T(heodore) C(rété)**, University of California, Berkeley, Calif. *Physiology*. Brooklyn, N. Y, Dec. 6, 61. M.D, Columbia, 87. *Ophthalmologist*, House of Mercy, Pittsfield, Mass, 95-98; *students' infirmary*, California, 09-, asst. *physiol.*, California, 04-10, instr, 10-13, asst. prof, 13-23, *assoc. prof.*, 23- A.A; Physiol. Soc; Soc. Exp. Biol; Ass. Study Int. Secretions. Catalase; muscle tonus; influence of temperature on striped muscle.
- Burnett, Dr. W(aldo) B(riggs)**, Mellon Institute, Pittsburgh, Pa. *Chemistry*. Dallas, Texas, April 29, 98. A.B, Southern Methodist, 19; M.S, Illinois, 21, Ph.D, 23. *Indust. fellow chem.*, Mellon Inst, 23- Chem. Soc. Rubber accelerators; local anesthetics; naval stores.
- Burnham, S(tewart) H(enry)**, Cornell University, Ithaca, N. Y. *Botany*. Vaughns, N. Y, Oct. 6, 70. Stanford, 93-95; B.S, Michigan, 99. Museum aid, N. Y. Bot. Garden, 01-03; asst. bot, Cornell, 04-05; asst. state botanist, N. Y, 05-13; asst. *bot.*, Cornell, 20-22, *asst. curator*, 22-A.A; Bot. Soc; Micros. Soc; Fern Soc. (sec'y, 19-22); Ornith. Union; Forestry Ass; Wild Flower Preservation Soc; Torrey Bot. Club; Vt. Bot. Club; Sullivant Moss Soc; Sierra Club. Pteridophyta and Phanerogamia; systematic botany; mycology; cryptogamic plants.
- Burnham, Prof. William Henry**, Clark University, Worcester, Mass. *Psychology*. Dunbar-

- ton, N. H., Dec. 3, 55. A.B., Harvard, 82; Ph.D., Hopkins, 88. Instr., Wittenberg, 82-93; State Nor. Sch., Potsdam, N. Y., 83-85; psychol., Hopkins, 88-89; docent, *Clark*, 90-92, instr. pedag., 92-00, asst. prof., 00-06, prof. pedag. and sch. hygiene, 06-26, *emer. prof.*, 26- Int. Cong. Sch. Hygiene; advisory board, Life Exten. Inst. A.A.; Soc. Nat; Psychol. Ass; Sch. Hygiene Ass. (council). Memory; school and mental hygiene.
- Burns, Prof. B(eryl) I(les)**, University of Utah, Salt Lake City, Utah. *Anatomy*. Unionville, Mo., April 22, 89. A.B., Missouri, 16; A.M., Michigan, 18; M.D., Iowa, 24. Asst. *anat.*, Michigan, 16-17, instr., 17-18; Iowa, 18-24, asst. prof., 24-25; *prof.*, *Utah*, 25- Ass. *Anat.* Embryology of the nose and forebrain; development of the cartilaginous nasal capsule.
- Burns, Dean Eleanor I(rene)**, Constantinople College, Constantinople, Turkey. *Physics*. Philadelphia, Pa., July 16, 83. A.B., Cornell, 04; Sc.D., Lafayette, 14. Instr. physics, Wellesley, 05-08; *prof.*, *Am. Col. for Girls*, Constantinople, 08-24, *dean*, 24- A.A.; assoc. mem. Physical Soc. Meteorological conditions, past and present, of Constantinople and the west coast of Asia Minor.
- Burns, Frank(lin) L(orenzo)**, Berwyn, Pa. *Zoology*. Chester Co, Pa., Jan. 18, 69. Ornith. Union; Soc. Mammal; Wilson Ornith. Club; Cooper Ornith. Club. Ornithology; mammalogy; bird behavior.
- Burns, Dr. George P(lumer)**, University of Vermont, Burlington, Vt. *Botany*. Maroa, Ill., Oct. 30, 71. B.S., A.M., Ohio Wesleyan, 98; Ph.D., Munich, 00. Instr. *bot.*, Ohio Wesleyan, 97-98; Michigan, 02-07, asst. prof. and director bot. garden, 07-10; *prof.*, *Vermont*, 10- A.A.; Bot. Soc.; Phytopath. Soc.; Ecol. Soc.; Mich. Acad. (librarian, 07-10). Ecology; silvics; tolerance of forest trees; reproduction of forests; formation of peat deposits in Dead Lake and in local bogs.
- Burns, Dr. G(eorge) Richard**, 453 S. Willard St., Burlington, Vt. *Organic chemistry*. Munich, Germany, Aug. 20, 99. Ph.B., Vermont, 22; A.M., Princeton, 23, Ph.D., 25. Asst., Princeton, 23-25; dyestuffs research, E. I. du Pont de Nemours and Co, 25-26; *instr.*, *Yale*, 26- Chem. Soc. Substituted hydroxylamines.
- Burns, Dr. Keivin**, Allegheny Observatory, Pittsburgh, Pa. *Astronomy*. Pleasant Ridge, N. B. Can., March 1, 81. A.B., Minnesota, 03, Ph.D., 10; fellow, Lick Observatory, 11-12. Lick Observatory, 04-07, 10; asst., Minnesota, 07-10; assoc. physicist, Bur. Standards, 13-17, physicist, 18-19; *astronomer*, *Allegheny Observatory*, 20-A.A.; Astron. Soc.; Physical Soc.; Optical Soc.; Wash. Philos. Soc. Spectroscopy; orbit of λ Andromedae; spectrum of ring nebula in Lyra; Orion region; arc spectrum iron 2373-8824; secondary standards of wave-length; stellar parallax and photometry.
- Burns, Dr. R(obert) M(artin)**, 463 West St., New York, N. Y. *Chemistry*. Longmont, Colo., Jan. 9, 90. A.B., Colorado, 15, A.M., 16; fellow, Princeton, 20-21, Ph.D., 21. Instr. chem., Colorado, 16-17; *research chemist*, Barrett Co, 21-22; West. Elec. Co, 22-25; *Bell Telephone Laboratories*, 25- Second lieut., C.W.S., 18-19. Chem. Soc.; Electrochem. Soc.; British Inst. Metals. Adsorption; catalysis; corrosion of metals; electrode reactions and electrodeposition of metals; equilibrium in solutions.
- Burr, Dr. Charles W(alts)**, 1918 Spruce St., Philadelphia, Pa. *Neurology, Psychiatry*. Philadelphia, Nov. 16, 61. B.S., Pennsylvania, 83, M.D., 86. *Prof. mental diseases*, *Pennsylvania*, 01-Neurologist, Phila. Hosp; Orthop. Hosp; Infirmary for Nervous Diseases. Neur. Ass. (past pres); Phila. Neur. Soc. (past pres); Phila. Path. Soc. (past pres); Phila. Col. Physicians. Pathology of Friedrich's ataxia; asthenic bulbar palsy; nervous symptoms of peripheral arterial disease; the blood in chorea; pernicious anemia; trauma of the head and insanity; visual hallucinations in hemianopsia.
- Burr, Prof. Freeman F(oster)**, St. Lawrence University, Canton, N. Y. *Economic geology*. Medford, Mass., March 7, 77. B.S., Harvard, 00; Yale, 08; A.M., Columbia, 13. Teacher science, high sch., 00-04; Conn. State Nor. Sch., New Haven, 04-12; geologist, Maine State Commissions, 14-22; *head dept. geol.*, *St. Lawrence*, 22-Lecturer, Barnard, 12-13; N. Y. Pub. Library Sch., 12-14; Columbia, 13-14. Geologist, Central Maine Power Co, 18-22. A.A.; Ass. State Geol. Heat; feldspar; minerals.
- Burr, Dr. George O(swald)**, University of California, Berkeley, Calif. *Anatomy, Biochemistry*. Conway, Ark., Oct. 6, 96. A.B., Hendrix, 16; A.M., Arkansas, 20; fellow, Illinois, 20-21; Ph.D., Minnesota, 22; Chicago. Prin., high sch., Ark., 16-17; *prof. chem. and physics*, Ky. Wesleyan, 17-18; *research asst. physics*, Minnesota, 20-22; Nat. Research Council fellow *chem.*, *California*, 22-24, *research assoc.*, 22- Summers, field asst., U. S. Dept. Agr., 23-26. Chem. Soc.; Soc. Exp. Biol. Organic arsenicals; protein chemistry; nutrition; corn-stalk sugar chemistry; chemistry of reproduction of animals.
- Burr, Prof. H(arold) Saxton**, Yale University, New Haven, Conn. *Anatomy*. Lowell, Mass., April 10, 89. Ph.B., Yale, 11, Ph.D., 15. Instr. *anat.*, *Yale*, 14-19, asst. prof., 19-26, *assoc. prof.*, 26- A.A.; Ass. *Anat.*; Soc. Exp. Biol. Experimental embryology; neuro-anatomy; regeneration and development of the nervous system; the human vascular system.
- Burr, Prof. W(illiam) H(ubert)**, New Canaan, Conn. *Civil engineering*. Watertown, Conn., July 14, 51. C.E., Rensselaer, 72, D.Eng., 18. Practising civil engineer, 72-76; *prof. rational and tech. mech.*, Rensselaer, 76-84; asst. to chief engineer and gen. manager, Phoenix Bridge Co, 84-91; *prof. eng.*, Harvard, 92-93; *civil eng.*, *Columbia*, 93-16, *emer. prof.*, 16-; *consulting engineer*. First and second Isthmian Canal Commissions; consulting engineer, munic. departments, New York, 93- A.A.; Civil Eng.; Am. Acad.; Wash. Acad.; British Inst. Civil Eng.
- Burr, Prof. W(illiam) W(esley)**, Agricultural Experiment Station, Lincoln, Nebr. *Agriculture*. Goodland, Ind., March 26, 80. B.S., Nebraska,

06. Asst. crops and soils and in charge co-operative work, Nebr. Exp. Sta. and office dry land agr, U. S. Dept. Agr, 06-13, asst. agriculturist, 13-16; *prof. agron. and head dept., Nebraska, and v. director, Exp. Sta., 16-* A.A.; Soc. Agron. Soil moisture; crop production and principles of cultivation; tillage methods; dry land agriculture.
- Burrell, Dr. George A.**, 503 Columbia Bank Building, Pittsburgh, Pa. **Chemical engineering.* Cleveland, Ohio, Jan. 23, 82. Ch.E, Ohio State, 18; hon. Sc.D, Wesleyan, 19. U. S. Geol. Surv, 04-08; in charge gas and gasoline investigations, U. S. Bur. Mines, 08-16; pres. and in charge constr, Island Ref. Co; v. pres. and in charge constr, Raritan Ref. Co, New York, 19-20; in charge constr, ref. plants, 20-22; consulting chem. engineer, Pittsburgh, 16-17, 22-25; *pres., Burrell Oil and Gasoline Co, 22-* Asst. to director, U. S. Bur. Mines, in charge war gas investigation, 17; col. C.W.S, 18-19. D.S.O. Chem. Soc. (chairman, Pittsburgh sect, 16, sec'y, petrol. div); Petrol. Inst; Nat. Gas Ass; Min. Eng; Automotive Eng. Oil; gas; gasoline; helium; petroleum engineering; charcoal process of extracting gasoline from natural gas; refining of petroleum.
- Burrell, Dr. B(obin) C(harles)**, Ohio State University, Columbus, Ohio. *Biochemistry.* Northfield, Ohio, March 14, 96. B.S, Mt. Union, 18; A.M, Ohio State, 21, Ph.D, 25. Asst. chem, Ohio State, 19-21; assoc. prof, Richmond, 21-23; instr. *agr. chem, Ohio State, 23-25, asst. prof, 25-* Chem. Soc. Nitrogen metabolism of plants.
- Burrill, A(lfred) C(ummings)**, State Museum, Jefferson City, Mo. *Zoology.* Boston, Mass, Aug. 14, 81. B.S, Harvard, 05; M.S, Wisconsin, 15. Sci. asst, Am. Museum Nat. Hist, 07-08; lecturer, Pub. Museum, Milwaukee, Wis, 08-10; instr. econ. entom. and lecturer forest, fish and game conservation, Wisconsin, 10-15; prof. entom. and zool, Idaho, and entomologist, Exp. Sta, 16-18; field agent, bur. entom, U. S. Dept. Agr, 18-20, sci. asst, 20; exten. prof. entom. and plant path, Missouri, 20-22; *curator, Mo. Resources Museum, 22-* A.A; Soc. Nat; Entom. Soc; Ass. Econ. Entom; Soc. Mammal. Insect carriers of disease; ecology of ants, aphids and birds; habits of animals; classification.
- Burroughs, Prof. W(ilbur) G(reeley)**, Berea, Ky. *Geology, Geography.* Shortsville, N. Y, Dec. 7, 86. A.B, Oberlin, 09, A.M, 11. Asst. geologist, Ohio Geol. Surv, 12-14; geol. and educ. work, 14-20; *prof. geol. and geog. and head dept, Berea, 20-, Nathaniel Southgate Shaler Mem. prof, 23-* Summers, prof, Chautauqua, N. Y, 12-; consulting geologist, Cleveland, Ohio, 21; asst. geologist, Ky. Geol. Surv, 22-; geologist, Mineral Resource Surv, Louisville, Ky, 25; indust. surv, Frankfort, Ky, 26, Louisville, Ky, 27. Ky. Acad. (v. pres, 25). Economic and historical geology and geography; methods of mining non-metallic minerals; geography of the Kentucky Knobs; western Kentucky coalfields.
- Burrow, Dr. Trigant**, Tuscany Apartments, Baltimore, Md. *Psychology.* Norfolk, Va, Sept 7, 75. A.B, Fordham, 95; M.D, Virginia, 99; Ph.D, Hopkins, 09. Demonstrator biol, Virginia, 99-00; asst. psychol, Hopkins, 07-09, *asst. clin. psychiatrist, 09-* Intern, Univ. Frauenklinik, Munich, 00. A.A; Psychol. Ass; Psychopath. Ass; Psychoanal. Ass; Am. Med. Ass; S. Soc. Philos. and Psychol; Md. Med. and Chirurg. Faculty; Md. Psychiat. Soc. Attention; abnormal psychology; social psychiatry.
- Burrows, Alfred Granville**, Department of Mines, Toronto, Ont, Can. *Geology.* Napanee, Ont, Jan. 21, 78. M.A, B.Sc, Queen's (Can). Can. Inst. Min. and Metal; Soc. Econ. Geol; Royal Soc. Can.
- Burrows, Prof. Geo(rge) H(oward)**, University of Vermont, Burlington, Vt. *Chemistry.* Wyoming, Ohio, 75. B.S, Vermont, 99; Ph.D, Mass. Inst. Tech, 14. Asst. physics, Pratt Inst, 99-00; *chem, Cornell, 00-03; asst. prof, Vermont, 03-14, prof, 14-* A.A; Chem. Soc. Equilibrium measurements in organic chemistry.
- Burrows, Prof. M(ontrose) T(homas)**, Washington University School of Medicine, St. Louis, Mo. *Experimental surgery.* Halstead, Kans, Oct. 31, 84. A.B, Kansas, 05; M.D, Hopkins, 09; fellow, Rockefeller Inst, 09-10. Asst. path, Rockefeller Inst, 10-11; instr. anat, Cornell, 11-15; assoc. path, Hopkins, and res. pathologist, Hopkins Hosp, 15-17; *assoc. prof. path, Washington (St. Louis), 17-20, esp. surg. and director research lab, Barnard Free Skin and Cancer Hosp, 20-* A.A; Ass. Anat; Ass. Path. and Bact; Soc. Exp. Path; Soc. Zool; Soc. Exp. Biol; Physiol. Soc; Soc. Cancer Research; N. Y. Path. Soc. Tissue cultivation; mechanism of growth; division of cells; heart muscle contraction; normal rhythm in isolated heart muscle cells; intracranial pressure; epidemiology; cancer; growth in wounds and development.
- Burt, Prof. C(harlotte) Pauline**, 277 Crescent St, Northampton, Mass. *Chemistry.* Uhrichsville, Ohio, 90. A.B, Pa. Col. for Women, 14; fellow, Mt. Holyoke, A.M, 16; Ph.D, Yale, 25. Asst. chem, Mt. Holyoke, 14-17; instr, Vassar, 17-19; *Smith, 19-22, 24-25, asst. prof, 25-* Chem. Soc. Organic chemistry.
- Burt, Prof. E(dward) A(ngus)**, 4542 Tower Grove Place, St. Louis, Mo. **Botany.* Athens, Pa, April 9, 59. A.B, Harvard, 93, A.M, 94, Ph.D, 95. Teacher, Albany Acad, 80-85; prof. nat. science, N. Y. State Nor. Sch, Albany, 85-91; nat. hist, Middlebury, 95-13; librarian and mycologist, Mo. Bot. Garden, and prof. bot, Washington (St. Louis), 13-25, *retired, 25.* Examiner, Univ. State of N. Y, 83-86; construction committee, Middlebury Water Works, 00-02. A.A; Bot. Soc; New Eng. Bot. Club; Int. Ass. Bot. Morphology and physiology of fungi; taxonomy of Basidiomycetes; North American Thelephoraceae.
- Burt, H(enry) J(ackson)**, 104 S. Michigan Boulevard, Chicago, Ill. *Civil engineering.* Urbana, Ill, Feb. 6, 73. B.S, Illinois, 96, C.E, 14. Asst. prof. civil eng, Iowa Col, 00-01; contracting manager, Am. Bridge Co, 01-11; *consulting structural engineer, Holabird and Roche, 11-* Construction div, U.S.A, 17-18. Civil Eng; Eng. Educ; Soc. Test. Mat; West. Soc. Eng.

(pres, 17). Structural engineering; building materials.

Burt, Robert C(ady), 327 S. Michigan Ave, Pasadena, Calif. *Physics*. Battle Creek, Mich, Dec. 2, 96. E.E. Cornell, 21; Ph.D, Calif. Inst. 26. Research, Gen. Elec. Co, 18-20; West. Elec. Co, 20-21; *research fellow, Calif. Inst.*, 21- A.A.; Physical Soc; Elec. Eng. Photo-electricity; electrolysis through glass.

Burt-Gerrans, Prof. J(ames) T(resawna), 46 Dewson St, Toronto, Ont, Can. *Electrochemistry*. Kent Bridge, Ont, Jan. 8, 78. Pharm.B, Toronto, 03, B.A, 11, M.A, 15, Ph.D, 24. Retail drug business, Toronto, 02-07; demonstrator *electrochem, Toronto*, 11-12, lecturer, 12-20, asst. prof, 20-23, *assoc. prof*, 23- Director electrochem. lab, Toronto Cent. Tech. Sch, 13-14; tech. supt, Visible Storage Battery Co, 18-20. *Electrochem. Soc*; *Soc. Chem. Indust.* (treas, Toronto sect, 18-22, chairman, 23); Faraday Soc; fel. Can. Inst. Chem. (sec'y, Toronto branch, 24). *Electrothermics*; storage batteries; diffusion of copper in solution; electric furnaces.

Burton, Prof. A(lfred) E(dgar), Carmel, Calif. *Geodesy, Topographical surveying*. Portland, Maine, March 24, 57. B.S. Bowdoin, 78, C.E, 81, Sc.D, 13. Aid, U. S. Coast and Geod. Surv, 79-82; instr. *topog. eng, Mass. Inst. Tech.*, 82-84, asst. and assoc. prof, 84-96, prof, 96-22, *emer. prof*, 22-; dean, 02-22. Mass. Topog. Surv. Committee, 95-01; in charge sci. exped, Greenland, 96; eclipse exped, Ga, 00; Mass. Inst. Tech. eclipse exped, Sumatra, 01. In charge instruction, Free Navig. Schools, U. S. Shipping Board, 17; pres, city planning commission, Carmel, 23-, school trustee, 24- *Astron. Soc*; *Civil Eng*; fel. Am. Acad. Geodetic measurements; base line apparatus.

Burton, Dr. E(li) F(ranklin), University of Toronto, Toronto, Ont, Can. *Physics*. Green River, Ont, Feb. 14, 79. A.B, Toronto, 01, fellow, 01-03, Ph.D, 10; 1851 Exhib. scholar, Cambridge, 04-06, B.A, 06. Asst. demonstrator *physics, Toronto*, 02-04, senior demonstrator, 06-11, *assoc. prof*, 11-24, *prof*, 24- *Physical Soc*; Royal Soc. Can. Radioactivity of crude petroleum; physical properties of colloidal solutions; action of electrolytes on colloids.

Burton, Dr. Georgia W(inifred), Alabama Polytechnic Institute, Auburn, Ala. *Chemistry*. Providence, R. I, Oct. 25, 94. A.B, Randolph-Macon, 16; M.S, Chicago, 19; Ph.D, Columbia, 25. Prof. chem, Blackstone, 16-18; prof. chem. and head dept. science, Greenville Women's Col, 19-23; *director home econ. research, Ala. Exp. Sta*, 25- *Chem. Soc*. Food; nutrition.

Burton, H(arry) E(dward), U. S. Naval Observatory, Washington, D. C. *Astronomy*. Onawa, Iowa, June 11, 78. A.B, Iowa, 01, fellow, 02-03, M.S, 03. Instr. math. and astron, Iowa Wesleyan; computer, Yerkes Observatory; observatory asst, Iowa; head dept. math. and astron, Parsons, 07-08; computer, U. S. Naval Observatory, 09-10, asst, 10-20, *asst. astron*, 20-24, *assoc*, 24- *Astron. Soc*; *Meteor. Soc*. Observations of sun, moon, planets and stars with the 9-inch

transit circle; occultations, comets, asteroids and satellites, with the 26-inch equatorial.

Burton, Dr. William Merriam, Standard Oil Co. of Indiana, Chicago, Ill. *Chemistry*. Cleveland, Ohio, Nov. 17, 65. A.B, Western Reserve, 86; Ph.D, Hopkins, 89. Chemist, *Standard Oil Co. of Ind*, 89-15, v. pres, 15-18, *pres*, 18- Willard Gibbs medal, 18; Perkin medal, 22. *Chem. Soc*; *Soc. Chem. Indust.* Atomic weight of zinc and magnesium.

Burton-Opitz, Prof. R(ussell), Palisade, N. J. **Physiology, Internal medicine*. Fort Wayne, Ind, Oct. 25, 75. M.D, Rush Med. Col, 95, B.S, Chicago, 98, M.S, 02, Ph.D, 05; Vienna, 98; Naples Zool. Sta, 01. Asst. *physiol*, Breslau, 98-01; Harvard, 01-02; demonstrator, *Columbia*, 02-04, adjunct prof, 04-10, *assoc. prof*, 10-23, *lecturer*, 23-; *assoc. prof. med*, N. Y. *Post-Grad. Med. Sch.* Attending cardiologist, Lenox Hill Hosp; Cumberland Hosp; attending physician, Unity Hosp; consulting cardiologist, French, Englewood, North Hudson and Holy Name Hospitals. A.A; *Soc. Nat*; *Physiol. Soc*; *Am. Med. Ass*; *Soc. Exp. Biol*; *Soc. Biol. Chem*; *Harvey Soc*; *Soc. Pharmacol*; *Kings County Cardiol. Soc*; *Physiol. Gesell.* Viscosity of blood and body fluids; vasomotor nerves; blood pressure; blood flow; secretion of saliva and bile; practical physiology.

Burt, Dr. Harold E(rnest), Ohio State University, Columbus, Ohio. *Psychology*. Haverhill, Mass, April 26, 90. A.B, Dartmouth, 11; A.M, Harvard, 13, Ph.D, 15. Instr. *psychol*, Simmons, 15-18; Harvard, 16-18; *Ohio State*, 19-20, asst. prof, 20-22, *prof*, 22- Consulting psychologist, Can. Consol. Rubber Co; sec'y, Ohio branch, *Psychol. Corp.* Capt, Air Service. A.A; *Psychol. Ass.* Experimental and applied psychology; aviation and vocational tests.

Burwash, Dr. E(dward) M(ore Jackson), University of British Columbia, Vancouver, B. C, Can. *Geology*. Cobourg, Ont, July 10, 73. B.A, Toronto, 93, M.A, 97, Ph.D; B.D, Victoria (Can), 03; fellow, Chicago, 10-12, Ph.D, 15. Sec'y to chancellor, Victoria (Can), 02-05; prof. nat. science, *Columbian Methodist Col*, 05-10; science master, Upper Can. Col, 13-14; asst. prof. geol. and miner, Manitoba, 19-22; *lecturer geol, British Columbia*, 23- Asst, Can. Geol. Surv, 93, 11; asst. geologist, Ont. Bur. Mines, 95, field geologist, 96, 19-21; mining geologist, Mex. and Can. A.A; *Geol. Soc*; *Can. Inst. Min. and Metal.* (v. pres, Manitoba branch, 21-22); B. C. Acad. (organizer and sec'y, 09); *British Ass*; *Soc. Belge d'Astron.* Canadian geology; Cretaceous invertebrates.

Burwell, Dean William R(ussell), Brown University, Providence, R. I. *Mathematics, Education*. Providence, March 23, 94. A.B, Brown, 15, A.M, 16; Rhodes scholar, Oxford, 16-17, 19-21, B.A, M.A, 20, Ph.D, 21. Instr. *math*, Brown, 18-19; *asst. prof*, Tennessee, 22; *dean of freshmen*, Brown, 22- Statistician, W.I.B, 17-18. *Math. Soc*; *Math. Ass*.

Busck, August, U. S. National Museum, Washington, D. C. *Entomology*. Randers, Denmark, Feb. 18, 70. Ordrup Col, Denmark, 87-89; A.M, Ph.B, Royal Univ, Copenhagen, 93. Instr.

- zool. and math, Ordrup Col, 89-93; *asst. bur. entom.*, U. S. Dept. Agr, 96- A.A.; Ass. Econ. Entom.; Wash. Acad.; Wash. Entom. Soc. (pres, 13); Wash. Biol. Soc.; Stockholm Entom. Soc.; Copenhagen Entom. Soc. American Microlepidoptera.
- Bush, Prof. A(rthur) D(ermont)**, Emory University, Ga. *Pharmacology*. Townsend, Mass, Aug. 18, 75. B.S. Tufts, 14; M.D. Emory, 01. Instr. physiol. and pharmacol. Vermont, 11-14; prof. biol. Olivet, 15-16; *physiol. and pharmacol.*, Southern California, 16-18; acting prof, Missouri, 18-19; *prof.*, North Dakota, 19-23; *Emory*, 23- A.A.; Am. Med. Ass. Tobacco smoking and mentality; disease toxins and drug action; perfusion of isolated medulla of turtle with drugs; the kidney and the prostate gland; color fields; Weber's law; relative drug potency.
- Bush, Dr. Katharine J(eannette)**, Farmington, Conn. *Natural science*. Scranton, Pa, Dec. 30, 55. Ph.D. Yale, 01. Asst. zool. dept, Peabody Museum, Yale, *retired*. Asst. U. S. Fish Commission, 81-88. 'Webster's Int. Diet,' 82-90. U. S. Nat. Museum, 91-92, 94-98. Soc. Nat.; Soc. Zool. Marine mollusks and annelids; annelids of the Harriman Alaska and Bermuda expeditions.
- Bush, Prof. V(annevar)**, West Medford, Mass. *Electrical engineering*. Everett, Mass, March 11, 90. B.S. M.S. Tufts, 13; D.Eng. Mass. Inst. Tech. and Harvard, 16. Instr. and asst. prof. elec. eng. Tufts, 14-17; assoc. prof, *Mass. Inst. Tech.*, 19-23, *prof. elec. power transmission*, 23-; *in charge grad. work*. Consulting engineer, 19- Fel. Elec. Eng; Eng. Educ; fel. Physical Soc; fel. Am. Acad. Oscillating current circuit theory; submarine detection.
- Bushey, Prof. A(lfred) L(eland)**, 725 12th Ave, Brookings, S. Dak. *Agronomy*. De Smet, S. Dak, Aug. 29, 89. B.S. S. Dak. Col, 14; M.S. Purdue, 16. Instr. agr. chem, Purdue, 14-18; county agent, S. Dak, 18-20; *assoc. prof. agron.*, S. Dak. Col, 20- Soc. Agron; S. Dak. Acad. The development of the corn plant; analysis of soils.
- Bushnell, Dr. John (White)**, Ohio Agricultural Experiment Station, Wooster, Ohio. *Horticulture*. Minneapolis, Minn, March 12, 93. B.S. Missouri, 16; M.S. Minnesota, 18; fellow, Chicago, 22-23, Ph.D, 25. Asst. hort, Minnesota, 17-23; *asst. horticulturist*, *Ohio Exp. Sta.*, 23- Soc. Hort. Sci; Soc. Plant Physiol; Potato Ass. Physiology of the potato.
- Bushnell, Prof. Leland D(avid)**, Kansas State Agricultural College, Manhattan, Kans. *Bacteriology*. Bronson, Mich, Oct. 19, 80. B.S. Mich. State Col, 05; M.S. Kansas, 15; George Cheyne Shattock fellow, Harvard, 15-16, Ph.D, 21. Asst. bacter, Mich. State Col, 05-07; dairy bacter, bur. animal indust, U. S. Dept. Agr, 07-08; *asst. bacter*, *Kansas Col*, 08-09, instr, 09-10, *asst. prof*, 10-12, *prof. and head dept. and bacteriologist*, *Exp. Sta.*, 12- A.A.; Soc. Bact; Kans. Acad. Bacteriology of cheese ripening, eggs, silage fermentation and canned foods; anaerobic bacteria; high vacuum and the growth of bacteria; chicken cholera.
- Bushnell, L(yman) S(eldon)**, Box 306, Freeport, Texas. *Chemistry*. Carrollton, Ill, Oct. 3, 80. Valparaiso. Chemist, Armour and Co, 05-07, *chief chemist*, 07-18; Hammond Packing Co, Mo, and Fowler Packing Co, Kans, 13-18; *Freeport Sulphur Co. and Freeport Asphalt Co.*, 18- Trustee, Freeport Board Educ. A.A.; Chem. Soc. (chairman, Kansas City sect, 13, councilor, 17-18, 22, chairman, S. E. Texas sect, 23); Chem. Eng. The analysis of sulphur; corrosion of metals; asphalt testing.
- Bushong, F(rancis) W(illiam)**, Gulf Refining Co, Port Arthur, Texas. *Chemistry*. Near Lancaster, Pa, March 17, 64. A.B. Franklin and Marshall, 85, A.M. 88; Leipzig, 85-87; hon. Sc.D. Emporia, 00; fellow, Chicago, 00-02; fellow, Kansas, 08-10, 11-13. Prof. nat. science and German, Emporia, 95-00; *asst. prof. org. chem.*, Kansas, 03-10, *assoc. prof. indust. research*, 10-13; fellow, Mellon Inst, 13-14; research chemist, *Gulf Ref. Co.*, 15-23, *librarian*, *dept. research*, 23- Chem. Soc; Kans. Acad; Chem. Gesell. Esters of sulphuric acid; naphthenic acids; specific heat of petroleum at different temperatures.
- Buss, Prof. Fred. (E)**, Box 1707, Stanford University, Calif. *Geology, Physiography*. Sherman, N. Y, Aug. 8, 79. A.B. Brigham Young, 13; A.M. Stanford, 23, 23-26. Instr. *asst. prof. and prof. geol. and geog.*, Brigham Young, 13-24; *assoc. prof. nat. science*, *San Jose State Teachers Col*, 24- Summer, *assoc. prof.*, Stanford, 24. A.A. Plant geography.
- Bussell, Prof. Frank P**, 205 Wyckoff Ave, Ithaca, N. Y. *Botany*. Abilene, Kans, Sept. 3, 78. A.B. Colgate, 01; Ph.D. Cornell, 19. Asst. prof. *plant breeding*, *Cornell*, 19-24, *prof*, 24- Mendelian inheritance in barley.
- Bussey, Prof. W(illiam) H(enry)**, University of Minnesota, Minneapolis, Minn. *Mathematics*. Chicago, Ill, Oct. 24, 79. A.B. Northwestern, 00; A.M. Harvard, 02; fellow, Chicago, 02-04, Ph.D, 04. Instr. *math. acad.*, Northwestern, 04-05; tutor, Barnard, Columbia, 05-07; *asst. prof.*, *Minnesota*, 07-14, *assoc. prof.*, 15-20, *prof*, 20-, head dept, 20-26, *asst. dean junior col.* Ed-in-chief, 'Am. Math. Monthly,' 27- A.A.; Math. Soc. Generational relations for the abstract group simply isomorphic with the group $LF(2, p^n)$; Galois field tables; finite projective geometries.
- Buswell, Prof. Arthur M(oses)**, Urbana, Ill. *Chemistry*. Madison, Wis, March 20, 88. A.B. Minnesota, 10; A.M. Maine, 12; fellow, Columbia, 13, Ph.D, 17. Instr. chem, Maine, 10-12; Columbia, 13-20; *chief*, *Ill. State Water Surv.*, 20-; *prof. sanit. chem.*, *Illinois*, 23- Asst. sanit. officer, U.S.A., 17-19. A.A.; Chem. Soc; fel. Pub. Health Ass; Water Works Ass; Micros. Soc. Treatment of water, sewage and trade wastes.
- Buswell, Prof. Guy Thomas**, University of Chicago, Chicago, Ill. *Educational psychology*. Lincoln, Nebr, Jan. 21, 91. A.B. York Col, 13; A.M. Chicago, 16, Ph.D, 20. Prof. educ, York Col, 15-18; *asst. prof. educ. and psychol.*, *Hamline*, 19-20; *educ. psychol.*, *Chicago*, 20-23,

assoc. prof., 23— A.A.; Psychol. Ass; Educ. Research Ass; Soc. Study Educ. Eye movement in reading; the psychology of arithmetic; the reading of foreign languages.

Butler, Amos W(illiam), 52 Downey Ave, Indianapolis, Ind. *Anthropology, Zoology, Sociology*. Brookville, Ind, Oct. 1, 60. Hanover, 77, LL.D, 15; A.B, Indiana, 94, A.M, 00, LL.D, 22. Sec'y, Ind. Board State Charities, 98-23. Pres. Nat. Conf. Charities and Correction, 07; chairman gen. committee, and v. pres, Int. Prison Cong, Washington, 10, v. pres, London, 25; pres, Ind. State Conf. Charities, 15; non-res. lecturer, Indiana, 20— Ornithologist, dept. geol. and nat. resources of Ind, 96. A.A. (sec'y, H, 86, F, 98, gen. sec'y, 92, v. pres, 00); Ornith. Union; Soc. Mammal. (founder); Anthropol. Ass. (founder); Am. Prison Ass. (sec'y, 05-08, pres, 10); Ind. Acad. (sec'y, 85-93, v. pres, 94, pres, 95); Ind. Soc. Mental Hygiene (founder, pres, 25-); Ind. Audubon Soc. (founder); Soc. Cient. Ant. Alz. Birds; mammals; reptiles; antiquities of Ohio Valley; applied sociology; dependency, defectiveness and delinquency; public charities.

Butler, B(ert) S., U. S. Geological Survey, Washington, D. C. **Geology*. Gainesville, N. Y, March 30, 79. A.B, Cornell, 05, A.M, 07. Asst. geol, Cornell, 04-05, instr. geol. and physical geog, 05-07; junior geologist, U. S. Geol. Surv, 07-09, asst. geologist, 09-11, *geologist*, 11-20; Calumet and Hecla Co, 20-24; *U. S. Geol. Surv.*, 24— A.A; Geol. Soc; Soc. Econ. Geol; Min. and Metal. Soc; Wash. Geol. Soc. Petrography; areal geology of the Yakutat Bay region; copper mineral resources of the United States; petrography and geology of copper district, California and Michigan; ore deposits of Utah.

Butler, Capt. C(harles) S(t. John), Navy Department, Washington, D. C. *Medicine*. Bristol, Tenn, March 1, 75. A.B, Emory and Henry; M.D, Virginia, 97. From lieut. to capt, M.C, U.S.N; instr. bacter. and trop. med, U. S. Naval Med. Sch, 07-24, commanding officer, 21-24; *sanit. engineer, Republic of Haiti*, 24— Lecturer, George Washington, 09-11, 22-24; Jefferson Med. Col, 22-23; Hahnemann Med. Col, 23-24. A.A; fel. Am. Med. Ass; fel. Col. Physicians; Soc. Trop. Med; fel. Col. Surg; Ass. Mil. Surg; Soc. Bact. (pres, Wash. branch, 23-24); Soc. Clin. Path; Soc. Parasitol; Ass. Immunol; Wash. Acad; Wash. Helminth. Soc. Bacteriology; sanitation; tropical medicine.

Butler, Dean G(urdon) M(ontague), University of Arizona, Tucson, Ariz. *Geology*. Lake Geneva, Wis, March 26, 81. E.M, Colo. Sch. Mines, 02, Sc.D, 22. Instr, asst. prof. and assoc. prof. geol. and miner, Colo. Sch. Mines, 03-13; assoc. prof. mining eng, Oregon Col, 13-14, prof. geol, 14-15; *dean col. mines and eng, Arizona*, 15—, *prof. miner. and petrol*, 17-22, *mining eng*, 22— Geologist, Colo. Geol. Surv, 08-13; Oregon Bur. Mines and Geol, 14-15; director, Ariz. Bur. Mines, 15—; consulting mining engineer and geologist. A.A; Geol. Soc; Miner. Soc; Am. Geog. Soc; Ass. Eng. (1st v. pres, 23); Min. and Metal. Eng; Min. and Metal. Soc; Seismol. Soc. Mining and petroleum geology; mineralogy; clays.

Butler, Dr. O(rmond) R(ourke), University of New Hampshire, Durham, N. H. *Botany*. Melbourne, Australia, Aug. 14, 77. Ph.D, Cornell, 10. Instr. hort, Wisconsin, 10-12; *prof. bot, New Hampshire, and botanist, Exp. Sta.*, 12— A.A; Phytopath. Soc; Soc. Agron. Plant physiology; physiological diseases of plants; fungicides and insecticides.

Butterfield, Prof. Arthur D(exter), University of Vermont, Burlington, Vt. *Mathematics*. Dunstable, Mass, Oct. 13, 70. B.S, Worcester, 93, M.S, 98; A.M, Columbia, 04. Asst. civil eng, Worcester, 94-98; instr. math. eng. dept, Vermont, 98-00, asst. prof, 00-04, prof. mech. and math, 04-08; asst. prof. math, Worcester, 08-10, prof, 10-14, math. and geod, 14-17, 19-20; educ. director, Norton Co, 20-22; *prof. math. and geod, Vermont*, 22— U. S. Light-house Service, 93-94; summers, Mass. Topog. Surv, 95-98, 00-03, U. S. Geol. Surv, 04— Capt. Air Service, 17-18, major, 18-19, lieutenant, 19. Chevalier, Légion d'honneur; K. C. M. G. A.A; Eng. Educ. Geodesy; triangulation in Massachusetts; base line measurements; the determination of the figure of the earth.

Butterfield, Pres. Kenyon L(eech), Michigan State College, East Lansing, Mich. *Rural sociology*. Lapeer, Mich, June 11, 68. B.S, Mich. State Col, 91; Michigan, 00-03, A.M, 02; LL.D, Amherst, 10; R. I. Col, 21. Ed, 'Mich. Grange Visitor,' 92-95; supt, Mich. Farmers' Institutes, 95-99; *pres*, R. I. Col, 03-06; Mass. Col, 06-24; *Mich. State Col*, 24— Lecturer, Michigan, 02; collaborator in charge agr, dept. econ. and sociol, Carnegie Inst; Carew lecturer, Hartford Theol. Sem, 09. Roosevelt Country Life Commission, 08; Am. Commission Study Rural Credit in Europe, 13; China educ. commission, 21; army educ. commission, France, 18. A.A; Sociol. Soc; Econ. Ass. Rural social life.

Butters, Prof. Frederic K(ing), University of Minnesota, Minneapolis, Minn. *Botany*. Minneapolis, Feb. 8, 78. B.S, Minnesota, 99; A.B, Harvard, 00, Ph.D, 17. Instr. bot. and pharmacog, *Minnesota*, 01-10, asst. prof. bot, 10-19, *assoc. prof.*, 19— A.A; Bot. Soc; Ecol. Soc; Torrey Bot. Club; Fern Soc; Am. Geog. Soc; New Eng. Bot. Club; Royal Geog. Soc. Plant geography; taxonomy of ferns.

Butts, Charles, U. S. Geological Survey, Washington, D. C. **Geology*. Portville, N. Y, Sept. 18, 63. B.S, Alfred, 99, M.S, 00. Field asst, U. S. Geol. Surv, 00; asst. to N. Y. state paleontologist, 00-01; asst. geologist, *U. S. Geol. Surv.*, 01-09, paleontologist, 09-12, *geologist*, 12— Geol. Soc; Paleont. Soc; Wash. Geol. Soc. Areal, structural and stratigraphic geology; geology of Pennsylvania, Alabama, Tennessee, Kentucky, Illinois, Virginia and New York.

Butts, Prof. William H(enry), 1122 Hill St, Ann Arbor, Mich. *Mathematics*. Harmony, N. Y, Feb. 16, 57. A.B, Michigan, 78, A.M, 79; Ph.D, Zurich, 07. Prin, Mich. Mil. Acad, Orchard Lake, 83-98; asst. prof. *math, Michigan*, 05-08, assoc. prof, 08-20, prof, 20-22, *emer. prof.*, 22—, asst. dean, col. eng, 08-22. Math.

- Soe; Circolo Mat. di Palermo. Elliptic cylinder function of class K.
- Buwalda, Prof. John P(eter)**, California Institute, Pasadena, Calif. **Geology*. Zeeland, Mich., Dec. 16, 86. B.S., California, 12, Ph.D., 15. Instr. *geol.*, California, 15-17; asst. prof., Yale, 17-21; assoc. prof., California, 21-25, *prof.*, 25; *Calif. Inst.*, 26- U. S. Geol. Surv., 15-; summers, dean, California, 23, 24; assoc., Carnegie Institution, 25-26. Geol. Soc. (sec'y, Cordilleran sect, 22-) Paleontology; physiography.
- Buys, Dr. John L.**, St. Lawrence University, Canton, N. Y. *Entomology*. Sodus Point, N. Y., Nov. 18, 97. B.S., Cornell, 19, M.S., 21, Ph.D., 22. Instr. entom., Cornell, 19-22; asst. prof. *biol.*, Akron, 22-23; *prof.*, St. Lawrence, 23-Summers, instr., Cornell, 23-25. A.A.; Entom. Soc.; Ass. Econ. Entom.; Soc. Parasitol. Taxonomy of cicadellidae.
- Buys, Dr. Kathryn S(lingerland)** (Mrs. John L.), Canton, N. Y. *Zoology*. Ithaca, N. Y., June 2, 95. A.B., Smith, 18; fellow, Cornell, 18-20, A.M., 19, Ph.D., 22. Asst. prof. zool., Transylvania Col., 20-21; asst. instr., Cornell, 21-22; instr., St. Lawrence, 24-25. Adipose tissue in insects.
- Buzzard, Prof. Robert G(uy)**, Illinois State Normal University, Normal, Ill. *Geography*. Sumner, Ill., Dec. 14, 90. B.S., Chicago, 16, M.S., 17, fellow, 17-18; fellow, Clark, 24-25, Ph.D., 25. Instr., Harvard Sch. for Boys, Chicago, 14-16; *prof. geog.*, North. Ill. State Teachers Col., De Kalb, 19-20, 21-22; *Ill. State Nor. Univ.*, 22- Second lieut., Sig.C., 19. Nat. Council Geog. Teachers (pres, 27); Ill. Acad.
- Byars, Dr. L(uther) P(arris)**, U. S. Department of Agriculture, Washington, D. C. *Plant pathology*. Forest City, N. C., Sept. 25, 87. B.S., Clemson, 09; M.S., Wisconsin, 13, Ph.D., 19. Asst. plant path., S. C. Exp. Sta., 10-11; bot., Wisconsin, 12-14; *pathologist, bur. plant indust.*, U. S. Dept. Agr., 14- A.A.; Bot. Soc.; Phytopath. Soc.; Wash. Bot. Soc. Diseases of plants due to nematodes.
- Bybee, Prof. H(al) P(leasant)**, 509 Rust Building, San Angelo, Texas. *Geology*. Rochester, Ind., Jan. 7, 88. B.S., Rochester (Ind.), 08; A.B., Indiana, 12, fellow, 12-14, A.M., 13, Ph.D., 15. Teacher, schools, Ind., 08-11; instr. *geol.*, Texas, 14-16, adjunct prof., 16-20, assoc. prof., 20-25; *geologist, Dixie Oil Co.*, 25- A.A.; Geol. Soc.; Ass. Petrol. Geol.; Ind. Acad. Stratigraphy, field and petroleum geology.
- Byerly, Dr. Perry**, University of California, Berkeley, Calif. *Seismology*. Clarinda, Iowa, May 28, 97. A.B., California, 21, fellow, 20-24, A.M., 22, Ph.D., 24. Instr. physics, Nevada, 24-25; *seismol. and in charge seismographic sta.*, California, 25- Summer, instr., California, 25. Seismol. Soc.; Physical Soc. Distribution of energy in earthquake waves; dispersion of transverse earthquake waves; Chilean and Montana earthquakes.
- Byerly, Prof. W(illiam) E(lwood)**, 39 Hammond St., Cambridge, Mass. **Mathematics*. Philadelphia, Pa., Dec. 13, 49. A.B., Harvard, 71, Ph.D., 73. Asst. prof. *math.*, Cornell, 73-76; *Harvard*, 76-81, prof., 81-13, *emer. prof.*, 13-Ed., 'Annals of Math.', 99- Math. Soc.; Am. Acad.
- Byers, Dr. H(orace) G(reeley)**, Cooper Union Institute, New York, N. Y. *Chemistry*. Pulaski, Pa., Dec. 26, 72. A.B., B.S., Westminster (Pa.), 95, A.M., 98; Ph.D., Hopkins, 99; LL.D., Westminster (Pa.), 26. Prof. chem., Tarkio, 95-96; instr., Maryland, 98-99; prof., Washington (Seattle), 99-19; *head dept. chem., Cooper Union*, 19- Summers, instr., Chicago, 02-04, Columbia, 16; Leipzig, 07-08; Northwestern, 15-16. Chief chemist, bur. soils, U. S. Dept. Agr., 19. Capt., C.W.S., 18; lieut. col., C.W.S., O.R.C., 24- A.A.; Chem. Soc.; Inst. Chem. (pres, 23). Passivity of metals; electrochemical reductions.
- Byers, Marshall S(ummer)**, Hercules Powder Co., Brunswick, Ga. *Chemistry*. Seattle, Wash., June 26, 02. B.S., Washington (Seattle), 23. Chemist, *Hercules Powder Co.*, Kenil, N. J., 23, Brunswick, Ga., 23-24, chief chemist, Hattiesburg, Miss., 24-26, *supervising chemist, Brunswick, Ga.*, 26- Chem. Soc. Chemical constituents and industrial applications of turpentine, pine oil, wood rosin, rosin oil and allied products.
- Byford, Dr. Henry T(urman)**, Peoples Gas Building, Chicago, Ill. *Gynecology*. Evansville, Ind., Nov. 12, 53. M.D., Northwestern, 73. Prof. clin. gynee, Woman's Med. Col., Northwestern, 90-08; consulting gynecologist, St. Luke's Hosp.; prof. gynee, Illinois, 92-14. Lecturer, Rush Med. Col., 89. Am. Med. Ass.; Gynee. Soc.; Col. Surg.; West. Surg. Ass.; Chicago Gynee. Soc. (pres, 89); Int. Cong. Gynee. and Obstet. (hon. pres, 96). Anemia in women; cancer; eczema; sugar and the public health.
- Byrd, Dr. Hiram**, Bradenton, Fla. *Biology*. Blackshear, Ga., Aug. 3, 74. B.S., N. N. Univ., 95; M.D., Georgia, 02. Special agent, Fla. State Board Health, 03-05; asst. state health officer, Fla., 05-13; pres., Fla. Tuber. Sanatorium, 14-16; sci. sec'y, Fla. State Board Health, 17-19; *director dept. hygiene*, Mississippi, 19-20; *Alabama*, 20- Lecturer, Am. Med. Ass., 12-13. A.A.; Am. Med. Ass.; Pub. Health Ass. Typhoid fever; latent material carriers; hookworm; citrus canker; Meckles ganglion and glaucoma; pain at the nasal ganglia; pathological impulses.
- Byrd, Dr. Mary E(mma)**, Box 77, R. R. 9, Lawrence, Kans. *Astronomy*. Le Roy, Mich., Nov. 15, 49. A.B., Michigan, 78; Harvard Col. Observatory, 82-83; Ph.D., Carleton Col., 04. Prin. high sch., Ind., 79-82; first asst., observatory, Carleton Col., 83-87; director observatory, Smith, 87-06, prof. astron., 98-06. Astron. Soc. Comet positions by filar micrometer.
- Byrne, Prof. Joseph**, Fordham University, New York, N. Y. *Physiology*. Bagenalstown, Ireland, March 21, 70. B.A., Royal Univ. Ireland, 90; A.M., St. Francis Xavier, 93; M.D., Columbia, 95; LL.B., N. Y. Law Sch., 00; LL.D., Fordham, 21. Prof. neur. and physiol. psychol., Fordham, 12-21, dean sch. med., 17-21. Advisory board, Health Dept., New York. Alumni Ass. prize, Columbia, 10. Neur. Soc.; Soc. Exp. Biol.; N. Y. Acad. Med.; Royal Col. Surg. Semicircular

canals; seasickness; tabes; pain; paradoxical pupil dilation and constriction; iris movements; mechanism of pain; sensory dissociation in lesions of the brain, spinal cord and peripheral nerves; physiological basis of mind.

Byrnes, Dr. C(harles) M(etcalfe), 207 E. Preston St, Baltimore, Md. *Biology, Medicine*. Claiborne Co, Miss, Nov. 4, 81. B.S, North Carolina, 02; M.D, Hopkins, 06. Demonstrator anat, Hopkins, 02-03; adjunct prof, Virginia, 06-09; instr. *neur*, Hopkins, 09-18, *assoc*, 18- A.A; Neur. Ass; Phila. Neur. Ass. (pres, 24). Pathological and clinical neurology.

Byrnes, Dr. Esther F(ussell), 193 Jefferson Ave, Brooklyn, N. Y. *Biology*. Philadelphia, Pa, Nov. 3, 67. A.B, Bryn Mawr, 91, A.M, 04, fellow, 94-95, Ph.D, 98; Woods Hole, 91. Demonstrator biol, Vassar, 91-93; Bryn Mawr, 95-97; *instr. physiol. and teacher biol*, Girls' High Sch, Brooklyn, 98- A.A; Soc. Nat; Soc. Zool; Marine Biol. Ass; Genetic Ass; fel. N. Y. Acad; N. Y. Ass. Biol. Teachers (v. pres). Cytology; maturation and fertilization.

C

Cable, Dr. Donald E(imer), 7802 Fourth Ave, Brooklyn, N. Y. *Chemistry*. Harvey, Ill, Aug. 6, 96. B.S, Armour, 18; M.S, Wisconsin, 20; fellow, Columbia, 22-23, Goldschmidt fellow, 23-24, Ph.D, 25. Asst. chemist and asst. engineer, forest products lab, U. S. Forest Service, Wis, 18-20; asst. research chemist, Wyo. Exp. Sta, 20-22; *asst. director research dept*, Oxford Paper Co, Brooklyn, 24- Chem. Soc; Soc. Chem. Indust; Ass. Pulp and Paper Indust. Pulp and paper manufacturing processes.

Cable, Prof. E(mmett) J(ames), 1016 Washington St, Cedar Falls, Iowa. *Geography*. Eldora, Iowa, 78. B.S, Cornell (Iowa), 00, M.S, 02; Chicago, 03-05; Ph.D, Iowa, 17. Supt, pub. sch, Iowa, 00-03; asst. prof. *geog*, Iowa Teachers' Col, 05-10, *prof*, 10- Head nat. science, Iowa Teachers' Col, 16-17. Summer, asst. state geologist, Ind, 05. Iowa Acad. Pleistocene of Iowa.

Cabot, Prof. Hugh, University of Michigan, Ann Arbor, Mich. *Surgery*. Beverly Farms, Mass, Aug. 11, 72. A.B, Harvard, 94, M.D, 98; LL.D, Queen's (Ireland), 25. Visiting surgeon, New Eng. Baptist Hosp, 00-20; surgeon, out-patient dept, Mass. Gen. Hosp, 04-10; instr. genito-urinary surg, Harvard Med. Sch, 10-12; chief genito-urinary dept, Mass. Gen. Hosp, 10-13; asst. prof. genito-urinary surg, Harvard Med. Sch, 13-18, prof, 18-19; *surg, med. sch*, Michigan, 19-, *dean*, 21- Chief surgeon, Harvard Unit, B.E.F, 16-17, commanding officer, 17-18. Surg. Ass; Ass. Genito-Urinary Surg. (pres, 14); Col. Surg; Am. Med. Ass; Urol. Ass. (pres, 10-12); Ass. Am. Med. Col. (pres, 25-27); Miss. Valley Med. Ass. (pres, 15); Ass. Int. d'Urol.

Cabot, Dr. Richard Clarke, 10 Brattle St, Boston, Mass. **Medicine*. Brookline, Mass, May 21, 68. A.B, Harvard, 89, M.D, 92, Dalton scholar, 94-95. Asst. clin. med, Harvard, 98-03, instr, 03-08, asst. prof, 08-19, *prof. med*, 19-, *social ethics*, 20- Lecturer, Harvard, 02-03. Visit-

ing physician, Channing Home, 96-97; physician, Mass. Gen. Hosp, 97-08, asst. visiting physician, 08-; consulting physician, Mass. Eye and Ear Infirmary, 00-; New England Hosp, 02- Am. Physicians; Am. Med. Ass; Boston Soc. Med. Improv; Boston Soc. Med. Sci. Blood; methods of examining the chest; action of alcohol and strychnin in fevers; serum diagnosis in disease; abdominal tumors; habits of healthy human beings in American cities as regards food, sleep and exercise; alcohol in arteriosclerosis; heart disease.

Cade, A(rthur) R(osson), 4621 Beard Ave. S, Minneapolis, Minn. *Organic chemistry*. March 30, 93. B.S, Worcester, 15; M.S, Minnesota, 17. Instr. chem, Minnesota, 17-19; Hamline, 19; special lecturer chem, Pittsburgh, 22-24; *chief chemist*, Lavoris Chem. Co, 24- Indust. fellow, Mellon Inst. Chem. Soc. Chemical and metallurgical engineering; commercial ethylations with diethyl sulphate.

Cadwell, Dr. Sidney M(arsh), 15 Brook Terrace, Leonia, N. J. *Chemistry*. Bozeman, Mont, March 5, 93. B.S, Chicago, 14, Ph.D, 17. Research asst. to Prof. Julius Stieglitz, Chicago, 14-16; *assoc. mem*, Sprague Mem. Inst, 16-17; *research chemist*, Fed. Dyestuffs and Chem. Co, 17; *gen. laboratories*, U. S. Rubber Co, 19- Capt, C.W.S, 18. Chem. Soc. Retardation of rubber deterioration; accelerators of vulcanization.

Cady, Dr. Bertha Chapman, 1757 Astor Ave, New York, N. Y. *Entomology*. Santa Barbara, Calif, 73. A.B, Stanford, Ph.D, 23; A.M, Chicago. Head dept. biol. and director nature study, high schools, Calif, 00-07; asst. nature study, Chicago, 07-09; dept. biol, Calif. State Teachers Col, 18; U. S. Interdepartmental Board, Stanford and Calif. State Teachers Col, 21-23; *girl scout naturalist*, 24- Lecturer and adviser, Chicago, 08; California, 15; Columbia, 20; Stanford, 21-23; lecturer and field sec'y, Social Hygiene Ass, 14-24; sec'y, coordinating council on nature. A.A; Forestry Ass. (v. pres); Calif. Entom. Soc; Calif. Ornith. Soc; N. Y. Entom. Soc. Natural history.

Cady, F(rancis) E(lmore), Research Laboratory, Nela Park, Cleveland, Ohio. *Physics*. Oberlin, Ohio, Aug. 13, 76. B.S, Mass. Inst. Tech, 01, 02-03. Photometric sect, Bur. Standards, 03-08; physicist asst. to director, Nela Research Lab, 08-20, manager research service dept, 20-24, *physicist*, 24- Physical Soc; Optical Soc; Electrochem. Soc; Illum. Eng. Soc. (chairman, progress committee, 13-, past director); Soc. française des Elec. Optics; optical and electrical properties of incandescent electric lamps; radiation; spectrophotometry; photometry.

Cady, Gilbert H(aven), Urbana, Ill. *Geology*. Chicago, Ill, Dec. 18, 82. A.B, Northwestern, 05, fellow, 07-08, M.S, 11; Yale, 09-10; Illinois, 11-12; Chicago, 12-13, Ph.D, 17. Asst. geologist, Ill. Geol. Surv, 10-13; instr. geol, Northwestern, 13-14; geologist, Ill. Geol. Surv, 14-19; Yunnan Ming Hsing Mining Co, China, 19-20; prof. geol, Arkansas, 20-26; *senior geologist*, Ill.

- Geol. Surv.*, 26— Fel. Geol. Soc. Geology and coal resources of Illinois coal basin.
- Cady, Prof. H(amilton) P(erkins)**, University of Kansas, Lawrence, Kans. **Physical chemistry*. Morris Co, Kans, 74. A.B, Kansas, 97, Ph.D, 03. Asst. prof. chem, Kansas, 99–05, assoc. prof, 05–11, prof. and chairman dept, 11–A.A; Chem. Soc; Kans. Acad. Liquid ammonia as a solvent; helium and other rare gases in natural gas.
- Cady, Prof. Walter G(uyton)**, 49 High St, Middletown, Conn. **Physics*. Providence, R. I, Dec. 10, 74. Ph.B, Brown, 95, A.M, 96; Ph.D, Berlin, 00. Instr. math, Brown, 95–97; *physics*, Wesleyan, 02–03, assoc. prof, 03–07, prof, 07–Magnetic observer, U. S. Coast and Geod. Surv, 00–02. Lieut. commander, U.S.N.R.F. A.A; Physical Soc; Optical Soc; Elec. Eng; Radio Eng; Am. Acad. (chairman, Conn. Valley sect). Cathode rays; magnetic declinograph; electric arc; electric oscillations; piezo-electric resonator and oscillator.
- Caesar, L(awson)**, Ontario Agricultural College, Guelph, Ont, Can. *Entomology*. Mono Road, Ont, Feb. 15, 70. B.A, Toronto, 95; B.S.A, Ont. Agr. Col, 08. Classical master, high sch, Can, 00–05; demonstrator fungous diseases and insect pests, *Ont. Agr. Col*, 08–20, prof. econ. entom, 20–; *Provincial entomologist*, Ont. A.A; fel. Entom. Soc. (v. pres, 25); Ont. Entom. Soc. (pres, 17–19). Codling moth; apple and cabbage maggots; cherry fruit flies; European corn borer; striped cucumber beetle.
- Caffrey, D(onald) J(ohn)**, U. S. Department of Agriculture, Washington, D. C. *Entomology*. Brooklyn, N. Y, Nov. 17, 86. B.S, Mass. Col, 09; hon. B.S, Boston, 09. Conn. Exp. Sta, 10–13; *bur. entom*, U. S. Dept. Agr, 13–, assoc. entomologist. A.A; Entom. Soc; Ass. Econ. Entom; Ecol. Soc. Gipsy moth; New Mexico range caterpillar; grain bug; European corn borer.
- Cahn, Dr. A(lvin) R(obert)**, University of Illinois, Urbana, Ill. *Zoology*. Chicago, Ill, Aug. 29, 92. B.S, Cornell, 13; M.S, Wisconsin, 15; Ph.D, Illinois, 24. Asst. biol, Wisconsin, 13–18; assoc. prof, Agr. and Mech. Col. Texas, 19–22; asst, *Illinois*, 22–24, instr, 24– Instr, U. S. Sch. Mil. Cinematog, 18; sergt, M.R.C, 18–19. A.A; Soc. Zool; Soc. Mammal; Ornith. Union; Soc. Ichthyol. and Herp; Soc. Parasitol; Ecol. Soc; Wilson Ornith. Club; Cooper Ornith. Club; Ill. Acad; Wis. Acad. Vertebrate zoology; ecology; ornithology of Wisconsin, Michigan, Illinois, Minnesota and Texas; ichthyology; parasitology.
- Cain, Prof. W(illiam) M**, Chapel Hill, N. C. *Mathematics, Engineering*. Hillsboro, N. C, May 14, 47. A.M, N. C. Mil. and Polytech. Inst, 65; LL.D, South Carolina, 16; Sc.D, North Carolina, 20. Civil engineer, 65–74; prof. math. and eng, Carolina Mil. Inst, 74–80; civil engineer, 80–82; prof. math. and eng, S. C. Mil. Acad, 82–89; math, North Carolina, 89–20. A.A; Math. Soc; Civil Eng. (director, 12–14). Arches; bridges; earth pressure; long columns; least work; dams; transition curves; symbolic algebra; calculus.
- Caine, John T(homas), III**, U. S. Department of Agriculture, Washington, D. C. *Animal husbandry*. Logan, Utah, June 4, 82. B.S, Utah Col, 03; M.S.A, Iowa Col, 05. Asst. prof. animal husbandry, Utah Col, 06–07, prof, 07–20; commercial livestock work, 20–25; *chief packers and stockyards administration*, U. S. Dept. Agr, 25– Asst. director and animal husbandman, exten. div, Utah Col, 13–16, director, 16–20; bur. animal indust, U. S. Dept. Agr, 18–19. A.A. Livestock conditions in the West.
- Caines, Prof. Richard J(ohn) R(idgway)**, 32 Oliver St, Boston, Mass. *Hygiene*. England, 76. M.D, Tufts. Instr, dept. med, Tufts, 15–16, prof. hygiene, 24– Lieut. col, M.R.C. Am. Med. Ass. Body mechanics; conservation of life.
- Cairns, Prof. W(illiam) D(eWeese)**, 228 N. Professor St, Oberlin, Ohio. *Mathematics*. Troy, Ohio, Nov. 2, 71. A.B, Ohio Wesleyan, 92; A.B, Harvard, 97, A.M, 98; Ph.D, Göttingen, 07. Instr, high sch, Ohio, 94–96; Mich, 98–99; instr. math. and surv, *Oberlin*, 99–04, assoc. prof. math, 04–20, prof. and head dept, 20– A.A; Math. Soc; Math. Ass. (sec'y-treas, 16–). Integral equations; binomial coefficients and application to probability.
- Cajori, Prof. Florian**, 2844 Webster St, Berkeley, Calif. **Mathematics*. Near Thusis, Switzerland, Feb. 28, 59. B.S, Wisconsin, 83, M.S, 86, Sc.D, 13; Hopkins, 84–85; Ph.D, Tulane, 94; LL.D, Colorado, 12. Asst. prof. math, Tulane, 85–87, prof. applied math, 87–88; U. S. Bur. Educ, 88–89; prof. physics, Colo. Col, 89–98, math, 99–18, dean sch. eng, 03–18; prof. hist. math, *California*, 18– A.A; Math. Soc; Math. Ass. (pres, 17); British Math. Ass; Math. Verein. Infinite series; theory of equations; eighteenth century mathematics; history of fluxions and mathematical notations; slide rule.
- Cajori, Dr. Florian A(nton)**, 51 N. 39th St, Philadelphia, Pa. *Physiological chemistry*. Colorado Springs, Colo, July 29, 92. A.B, Colo. Col, 14; Ph.D, Yale, 20. Sci. asst, U. S. Dept. Agr, 14–16; instr. chem, Stanford, 20–22; *research chemist*, *Presb. Hosp, Phila*, 22– Lieut. and capt, Sanit.C, 17–19. Chem. Soc; Soc. Biol. Chem. Nutrition; clinical chemistry.
- Calcott, W(illiam) S(tansfield)**, 8 Riverside Apartments, Penns Grove, N. J. *Chemistry*. Norfolk, Va, Dec. 13, 92. Ch.E, Virginia, 13. Gen. Elec. Co, Pittsfield, 13–15; *E. I. du Pont de Nemours and Co*, 15– Chem. Soc; Chem. Eng; Soc. Test. Mat. Organic analysis and corrosion; the manufacture of dyes and intermediates.
- Calderwood, Prof. H(oward) N(ewton), Jr**, 6 S. Randall Ave, Madison, Wis. *Chemistry*. Ottawa, Kans, May 27, 88. B.S, Kansas, 14; Ph.D, Wisconsin, 23. Asst. chemist and assoc. chemist, forest products lab, U. S. Dept. Agr, 16–24; asst. prof. chem, *Wisconsin*, 24– A.A; Chem. Soc; Soc. Chem. Indust. Hardwood distillation.
- Caldis, Dr. Panos D(emetrius)**, Box 252, Davis, Calif. *Plant pathology*. Smyrna, Asia Minor, 96. A.B, International, 17; B.S, Mich. State

Col, 22, M.S., 25; Ph.D., California, 26. Instr. International, 17-19; research asst. plant path., California, 24-25, *junior plant pathologist, Exp. Sta.*, 25- A.A.; Phytopath. Soc. Variations in fungi; diseases of the fig.

Caldwell, Dr. B(enjamin) Palmer, Brooklyn Polytechnic Institute, Brooklyn, N. Y. *Chemistry*. New Orleans, La., April 2, 75. A.B., Tulane, 93, B.E., 95, Ch.E., 96; fellow, Hopkins, 00-01, Ph.D., 01. Instr. chem., Tulane, 95-97, asst. prof., 97-07, assoc. prof., 07-13, *prof.*, 13-16; Oglethorpe, 16-19; anal. chem., *Brooklyn Polytech.*, 19-26, *physical chem.*, 26- A.A.; Chem. Soc. Equilibrium of double salts in solution; hydrolysis of carbonates of the alkalis.

Caldwell, Prof. F(rancis) C(ary), 206 16th Ave, Columbus, Ohio. *Electrical engineering*. Ithaca, N. Y., Dec. 25, 68. A.B., Cornell, 90, M.E.(E.E.), 91; Zurich Polytech, 92-93. Expert, Thomson-Houston Elec. Co, 91-92; asst. prof. *elec. eng.*, Ohio State, 93-97, assoc. prof., 97-01, *prof.*, 01- Acting dean col. eng., Ohio State, 08-09; lecturer, Inst. Tech., Prague, 25. Contrib. ed., E.M.F. Elec. Year Book, 22- Trustee, Antioch. Fel. Elec. Eng.; Eng. Educ.; Illum. Eng. Soc. (director, 21-24); Nat. Elec. Light Ass. Illumination; electric transmission.

Caldwell, Prof. Geo(rge) T(homas), Baylor University, Dallas, Texas. *Pathology*. Cable, Ohio, Dec. 18, 82. A.B., Ohio State, 10, A.M., 13; Ph.D., Chicago, 18, M.D., Rush Med. Col., 19. Assoc. path., Chicago, 14-16, instr., 16-19; *prof.*, col. med., Baylor, 19- Fat embolism; chemical composition of tuberculous tissues; purin enzymes.

Caldwell, Prof. G(eorge) T(hornhill), University of Arizona, Tucson, Ariz. *Zoology*. Concord, Va., Oct. 26, 92. B.S., William and Mary, 16; M.S., Chicago, 23. Instr. *biol.*, William and Mary, 17-18; asst. prof., *Arizona*, 20-24, assoc. prof., 24-25, *prof.*, 26- A.A.; Soc. Mammal. Metabolism; the effects of desiccation on animals; seasonal cycles in the interstitial cells of reptilian testes.

Caldwell, Mrs. Helen Hubbert, 125 Parkwood Drive, Dayton, Ohio. *Psychology*. Lincoln, Ill., June 11, 87. A.B., Missouri Valley, 07; fellow, Hopkins, 13-14, Med. Ass. Prom. Univ. Educ. of Women fellow, 14-15, Ph.D., 15. Adjunct prof. psychol. and educ., Randolph-Macon Woman's Col., 16-17; instr. educ., Wisconsin, 17-19; teacher and educ. adviser, high sch., W. Va., 19-21. Psychol. Ass. Education; mental tests; learning; animal behavior.

Caldwell, Dr. Joseph S(tuart), U. S. Department of Agriculture, Washington, D. C. *Biochemistry*. Knoxville, Tenn., Oct. 31, 78. A.B., Maryville, 02; A.M., Chicago, 04, Ph.D., 14. Prof. *biol.*, Peabody Col. for Teachers, 04-11; prof. bot., Ala. Polytech., and plant physiologist, Exp. Sta., 12-16; *plant physiologist*, Wash. Exp. Sta., 16-18; *in charge fruit and vegetable utilization, bur. plant indust.*, U. S. Dept. Agr., 18- A.A.; Bot. Soc.; Phytopath. Soc.; Soc. Hort. Sci. Plant physiology; biochemistry; fruit and vegetable utilization.

Caldwell, Dr. Mary L(etitia), Columbia University, New York, N. Y. *Chemistry*. A.B., West.

Col. for Women, 13; A.M., Columbia, 19, fellow, 20-21, Ph.D., 21. Instr. chem., West. Col. for Women, 14-17, asst. prof., 17-18; research asst. chem., Columbia, 21-22, *instr.*, 22- A.A.; Chem. Soc.; Soc. Biol. Chem. Chemical nature of enzymes; pancreatic and malt amylases.

Caldwell, Prof. Otis W(illiam), Teachers College, Columbia University, New York, N. Y. **Botany*. Lebanon, Ind., Dec. 18, 69. B.S., Franklin, 94, LL.D., 17; Ph.D., Chicago, 98. Asst. bot., Chicago, 97-99; head dept. *biol.*, East. Ill. Nor. Sch., 99-06; assoc. prof. and prof. bot. and head science teaching, Chicago, 07-16; *director*, Lincoln Exp. Sch., and *prof. educ.*, Teachers Col., Columbia, 17- A.A. (chairman, committee on place of the sciences in educ.); Soc. Nat.; Bot. Soc. Plant morphology; education.

Caldwell, R(alph) E(lmer), Blatchford Calf Meal Co, Waukegan, Ill. *Agriculture*. Garretts, Kans., Aug. 20, 85. B.S., Kansas Col., 08. Asst. animal husbandry, Ohio Exp. Sta., 09-10; asst. prof. milk production, Purdue, 11-15, prof. in charge dept. dairy husbandry, 15-17; *director research and educ. dept.*, Blatchford Calf Meal Co; *account exec.*, the Cramer-Krasselt Co. Soc. Animal Production; Dairy Sci. Ass. Milk substitute feeding of young animals.

Calhane, Prof. D(aniel) F(rancis), 32 Berkman St, Worcester, Mass. *Chemistry*. Bradford, Mass., Aug. 19, 69. A.B., Harvard, 94, A.M., 96, Ph.D., 04. Instr. asst. prof. and *prof. indust. chem. and electrochem.*, Worcester, 03- Electrochem. Soc. Electrochemistry; organic chemistry.

Calhoun, Prof. F(red) H(arvey) H(all), Clemson College, S. C. *Geology*. Elbridge, N. Y., June 27, 75. B.S., Chicago, 98, Ph.D., 02. Asst. physiog. and field geol., Chicago, 99-02; asst. prof. geol. and physics, Ill. Col., 02-04; *prof. geol. and miner.*, Clemson, 04-, *director dept. agr.*, 17- Summers, asst. geologist, U. S. Geol. Surv., 02-17, geologist, Colorado, 03, 05, 09, Chicago, 07, Michigan, 11, Iowa, 14, 16; Seaboard Air Line Ry, 16- A.A.; fel. Geol. Soc.; S. C. Acad. (pres, 24-). The drift in Montana; relations of drift sheets.

Calhoun, Dr. Henrietta (Anne), 317½ N. Court St, Rockford, Ill. *Pathology*. Clarinda, Iowa, Dec. 19, 80. B.S., Illinois, 01, A.M., 03; M.D., Michigan, 17. Instr. neuropath., Michigan, 11-14; asst. prof. path. and bacter., Iowa, 18-21; *director lab.*, Rockford Hosp., 21- Lecturer, Rockford Col., 23-24. Exped., Pike's Peak, 03. Ass. Path. and Bact.; fel. Am. Med. Ass. A counting fluid for blood platelets; injection of non-specific protein in diphtheria virulence tests in guinea pigs.

Calhoun, Prof. J(ohn) W(illiam), 2805 Rio Grande St, Austin, Texas. *Mathematics*. Manchester, Tenn., Oct. 24, 71. A.B., Texas, 05; A.M., Harvard, 08. Tutor pure math., Texas, 05-09, instr., 09-13, adjunct prof., 13-17, assoc. prof., 17-20, *applied math.*, 20-23, *prof.*, 23- Math. Soc.; Texas Acad. Fourier's series; pedagogy of mathematics.

Calingaert, Dr. George, Massachusetts Institute of Technology, Cambridge, Mass. *Chemistry*.

- Brussels, Belgium, Sept. 9, 96. Sc.D, Brussels, 21. Fellow, C. R. B. Educ. Foundation, 21-22; research asst, *Mass. Inst. Tech.*, 22-23, *research assoc.*, 23- Chem. Soc; Soc. Belge de Chim. Applied and organic chemistry; petroleum; distillation.
- Calkins, Frank C(athcart)**, U. S. Geological Survey, Washington, D. C. *Geology*. Lakewood, Ohio, June 7, 78. B.S. California, 99. Asst. miner, California, 00-01; asst. geologist, *U. S. Geol. Surv.*, 01-11, assoc. geologist, 11-17, *geologist*, 17- Geol. Soc; Wash. Acad; Wash. Geol. Soc. Geology of northern Washington, northern Idaho, western Montana, Yosemite region, California, and of Wasatch Mountains, Utah.
- Calkins, Prof. Gary N(athan)**, Columbia University, New York, N. Y. **Zoology, General biology*. Valparaiso, Ind, Jan. 18, 69. B.S, Mass. Inst. Tech, 90; Ph.D, Columbia, 98. Lecturer biol, Mass. Inst. Tech, 90-93; tutor zool, *Columbia*, 94-98, instr, 99-03, asst. prof, 03-04, *prof.*, 04-07, *protozool.*, 07- Biologist, N. Y. State Cancer Lab, Buffalo, 02-08; clerk, Marine Biol. Lab, 15- Director, Am. Univ. Union, Paris, 26-27. Nat. Acad; A.A; Soc. Nat; Soc. Exp. Biol. (pres, 19-21); Soc. Cancer Research (pres, 16); Statist. Ass. (asst. sec'y, 90-96); Philos. Soc. General cytology; systematic zoology; life history of Protozoa.
- Calkins, Prof. L(eroy) A(delbert)**, Box 238, University, Va. *Obstetrics, Gynecology*. Mason City, Iowa, March 10, 94. B.S, Cornell (Iowa), 13; M.B, Minnesota, 18, M.D, 19, M.S, 20, Ph.D, 21. Teaching fellow *obstet. and gynec.*, Minnesota, 18-21, asst. prof, 21-24; *prof.*, *Virginia*, 24- Fel. Am. Med. Ass; Ass. Anat. Anatomy; human fetus; growth; morphology; morphometry; indirect intra-uterine cephalometry.
- Calkins, Prof. Mary Whiton**, Newton, Mass. **Psychology, Philosophy*. Hartford, Conn, March 30, 63. A.B, Smith, 85, A.M, 87; Harvard, 90-91, 93-95; Litt.D, Columbia, 09; LL.D, Smith, 10. Instr. Greek, *Wellesley*, 88-90, psychol, 91-93, assoc. prof, 93-97, *prof. philos. and psychol.*, 97- Psychol. Ass. (pres, 05); Philos. Ass. (pres, 18). Dreams; association; supplementary images in recognition; personalistic conceptions in psychology and in philosophy.
- Call, Prof. L(eland) E(verett)**, 223 N. 14th St, Manhattan, Kans. *Agronomy*. Darrowville, Ohio, Feb. 9, 81. B.S, Ohio State, 06, fellow, 06-07, M.S, 12. Asst. agron, *Kansas Col.*, 07-08, asst. prof. soils, 08-11, assoc. prof, 11-13, *prof. agron.*, 13-25, *dean agr. and director, Exp. Sta.*, 25- Supervisor crop instr, A.E.F. Univ. Beaune, 19. A.A; Soc. Agron. Soils; fertility and tillage.
- Callen, Prof. A(lfred) C(opeland)**, 209 Transportation Building, Urbana, Ill. *Mining engineering*. Pen Argyl, Pa, July 17, 88. E.M, Lehigh, 09, M.S, 11. *Prof. mining eng.*, West Virginia, 17-24; *Illinois*, 24- Ed, 'Coal Mine Management,' 22- Min. and Metal. Eng; Coal Min. Inst; Ill. Min. Inst; W. Va. Coal Min. Inst. (pres, 23). Coal mining.
- Callender, Major Geo(rge) R(ussell)**, U.S.A., Adjutant General's Office, War Department, Washington, D. C. *Pathology*. Everett, Mass, May 13, 84. Mt. Hermon Sch; M.D, Tufts, 08. Instr. path, med. sch, Tufts, 09-12; *major*, *M.C.*, 12-; *instr. path, Army Med. Sch.*, 19-22, 24- Curator, Army Med. Museum, Washington, D. C; pres, Army Med. Dept. Research Board, 22-23. Ass. Path. and Bact; Soc. Trop. Med; Ass. Mil. Surg; Int. Ass. Med. Mus. General pathology.
- Calver, Homer N(orthup)**, 370 Seventh Ave, New York, N. Y. *Public health*. New York, Nov. 22, 92. B.S. Asst. health officer, Winston-Salem, N. C, 16-17; asst. director health service, nat. headquarters, Am. Red Cross, 19-22; special investigator, Pub. Health Committee, N. Y. Acad. Med, 22-23; *managing ed.*, 'Jour. Pub. Health,' 24- Lieut. and capt, Sanit. C, 17-19. A.A. (councilor, 24-); fel. Pub. Health Ass. (exec. sec'y, 23-); Soc. Bact; assoc. fel. Am. Med. Ass. Child hygiene; public health administration.
- Calvert, Dr. Philip P(owell)**, University of Pennsylvania, Philadelphia, Pa. **Zoology*. Philadelphia, Jan. 29, 71. Certificate in biol, Pennsylvania, 92, Ph.D, 95; Berlin, 95-96; Jena, 96. Asst. instr. *zool.*, *Pennsylvania*, 92-97, instr, 97-07, asst. prof, 07-12, *prof.*, 12- Assoc. ed, 'Entom. News,' 93-10, ed, 11- Zool. research, Costa Rica, 09-10. A.A; Soc. Nat; Soc. Zool; Entom. Soc. (pres, 99-15); Soc. Trop. Med; Ecol. Soc; Philos. Soc; Phila. Acad. (councilor, 97-). Odonate fauna of Mexico, Central America and neo-tropical region; natural history of Costa Rica; ecology and larval forms of Odonata of tropical America; seasonal distribution of organisms.
- Calvert, Mrs. Philip P. (Amelia Catherine Smith)**, University of Pennsylvania, Philadelphia, Pa. *Zoology*. Philadelphia, Feb. 23, 76. B.S, Pennsylvania, 99; fellow, Bryn Mawr, 00-01. Structure and parasitism of Aphyllon uniflorum; reactions of Allolobophora foetida; natural history of Costa Rica.
- Calvert, Dr. Robert**, 3358 Avondale Ave, Chicago, Ill. *Chemistry*. Milford, Mo, March 15, 89. A.M, Oklahoma, 10; M.S, Chicago, 11; Ph.D, Columbia, 14. Instr. chem, Oklahoma, 09-10, 11-12; Columbia, 13-15; chemist and director research lab, E. I. du Pont de Nemours and Co, 15-20; Celite Products Co, 22-24; *prof. indust. chem.*, Maryland, 25-26; *chief chemist, Van Schaak Bros. Chem. Works.*, 26- Chem. Soc. (sec'y, Del. sect, 18, councilor, N. Y. sect, 20); Del. Chem. Soc. (chairman, 17); N. J. Chem. Soc. (v. pres, 19); N. Y. Chemists Club. Pyroxylin compositions; diatomaceous earth.
- Calvert, Prof. Sidney**, University of Missouri, Columbia, Mo. *Chemistry*. Rochdale, Eng, Sept. 18, 68. Ont. Agr. Col, 84-87; B.S, McGill, 90; A.M, Harvard, 92; Freiburg, 01-02. Asst. chem, Harvard, 92-94; asst. prof, *Missouri*, 94-06, *prof. org. chem.*, 06-, *director chem. lab.*, 10- A.A; Chem. Soc; fel. Inst. Chem. Behavior of derivatives of benzol containing halogens; bromin derivatives of metaphenylenediamin; dietary studies; chemiluminescence of organometallic compounds.

- Calvery, Dr. Herbert O(rión)**, 1702 E. North Ave, Baltimore, Md. *Physiological chemistry*. Eddy, Texas, Dec. 9, 97. B.S., Greenville, 19; A.B., Illinois, 21, M.S., 23, fellow, 23-24, Ph.D., 24. Teacher, high sch, Ill, 19-20; asst. chem, Illinois, 21-23; asst. prof, Louisville, 24-25; *instr. physiol. chem, Hopkins, 25-* Chem. Soc; Chem. Gesell. Organic compounds of mercury, arsenic and bismuth; nucleotides in plants.
- Camac, Dr. C(harles) N(icol) B(ancker)**, 128 E. 60th St, New York, N. Y. *Medicine*. Philadelphia, Pa, Aug. 6, 68. A.B., Pennsylvania, 92, M.D., 95; London, 93; Oxford, 94; Hopkins, 95-97. Instr. physiol, Pennsylvania, 95; physical diagnosis, Hopkins, 96-97, clin. path, 98; director lab. clin. path, med. col, Cornell, 99-05, instr. med, 05-09, prof. *clin. med*, 09-10; *asst. prof, Columbia, 10-* Mütter lecturer, Philadelphia, 03. Med. director, Gouverneur Hosp, 16-21, consulting physician, 21-; St. Andrews Hosp, 15; res. first asst. physician, Hopkins Hosp, 95-98; physician, out-patient dept, Bellevue Hosp, 98-00; chief clinic, Cornell Med. Col. Dispensary, 00-09; visiting physician, N. Y. City Hosp, 99-16; mil. physician, Am. War Hosp, England, 15; physician, Ocean Ambulance, Flanders, Belgium. Lieut. and instr. gas defense, Inf. Sch, 17-19; major, lieut. col. and chief, M.C., 18-19; director, Med. Officers' Training Sch, Atlanta, Ga, 18-19. Am. Med. Ass; Am. Physicians; N. Y. Acad. Med; Interurban Clin. Club. Clinical medicine; gall bladder complication in typhoid fever; diseases of the heart and blood vessels.
- Cameron, Prof. A(lexander) T**, University of Manitoba Medical College, Winnipeg, Man, Can. *Biochemistry*. London, Eng, 82. M.A., Edinburgh, 04, B.Sc., 06, D.Sc., 25; London, 06-08; 1851 Exhib. scholar, 06-09; Karlsruhe, 08-09; Carnegie fellow, 09; Heidelberg, 11. Asst. chem, Surgeons Hall, Edinburgh, 04-06; lecturer physiol, *Manitoba*, 09-13, asst. prof. physiol. and physiol. chem, 13-20, assoc. prof. biochem, 20-23, *prof. faculty med*, 23-; *assoc. biochem, Winnipeg Gen. Hosp, 20-* Acting prof, Manitoba, 20-21. Chemist, water purification, B.E.F., 15-19, capt, R.A.M.C. Soc. Biol. Chem; Chem. Soc; Physiol. Soc; fel. Royal Soc. Can; fel. Can. Inst. Chem; Winnipeg Sci. Club (co-sec'y, 10-15, sec'y, 20-); fel. Royal Soc. Med; fel. Inst. Chem. Gt. Britain and Ireland; London Biochem. Soc. Radio-chemistry; biochemistry of iodine and thyroid; physico-chemical factors conditioning life of frog; blood calcium; clinical applications of biochemistry; marine biochemistry.
- Cameron, Prof. Alfred E(rnest)**, University of Saskatchewan, Saskatoon, Sask, Can. *Zoology*. Aberdeen, Scotland, 90. B.Sc., M.A., Aberdeen, 11, Carnegie fellow, 12, D.Sc., 15; M.Sc., Manchester. Lecturer, Manchester and Cardiff, 13-15; Dominion entomologist, Sask, 16; *prof. zool, Saskatchewan, 17-* Soc. Zool; Ass. Econ. Entom; Ecol. Soc; fel. London Entom. Soc; fel. Royal Soc. Edinburgh. General and economic entomology; Tabanidae.
- Cameron, Dr. Angus L**, 128 Main St, South Minot, N. Dak. *Surgery*. Hamilton, Ind, Feb. 10, 91. A.B., Indiana, 13; M.S., Chicago, 14, M.D., Rush Med. Col, 16; Ph.D., Minnesota, 21. Asst. prof. surg, Minnesota, 21-25; *practising surgeon, 25-* Col. Surg; Ass. Anat. Biliary tracts; anatomy of the abdominal viscera of the human fetus.
- Cameron, Prof. E(dward) H(erbert)**, University of Illinois, Urbana, Ill. *Psychology*. Yarmouth, N. S., Can, Jan. 24, 75. B.A., Acadia, 00; A.B., Yale, 03, A.M., 04, Ph.D., 06. Prin, high sch, N. S., 00-02; instr. psychol, Yale, 06-10, asst. prof, 10-20; *prof. educ. psychol, Illinois, 20-* Supt, schools, Washington, Conn. A.A.; Psychol. Ass. Illusions; tonal reactions; reading.
- Cameron, Dr. Frank K(enneth)**, University of North Carolina, Chapel Hill, N. C. **Chemistry*. Baltimore, Md, Feb. 2, 69. AB, Hopkins, 91, PhD, 94; Sage fellow, Cornell, 94-95. Instr. org. chem, Cornell, 94-95; assoc. prof, Catholic Univ, 95-97; research asst. physical chem, Cornell, 97-98; expert, U. S. Dept. Agr, 98-99, soil chemist, 99-15; *consulting chemist and chem. engineer, 15-* A.A.; Chem. Soc; Chem. Eng. Chemical dynamics; application of the principles of physical chemistry to organic chemistry; solution phenomena in relation to soils and plants; dynamics of the soil; utilization of by-products; chemistry of mining and metallurgy.
- Cameron, Prof. John**, Dalhousie University, Halifax, N. S., Can. *Anatomy*. Laurencekirk, Scotland, Sept. 16, 73. M.B., Edinburgh, 98, M.D., 04; D.Sc., St. Andrews, 04; Leipzig. Demonstrator anat, St. Andrews, 99-05; senior demonstrator, Manchester, 05-08; lecturer, London, 08-15; *prof, Dalhousie, 15-* Examiner, St. Andrews, London, and Royal Col. Surg, 10-15; Carnegie research fellow, 03-06. Ass. Anat; Anat. Soc. (sec'y, 13-15); fel. Edinburgh Royal Soc; fel. Royal Soc. Can. Embryology; physical anthropology; craniometry; regional anatomy; osteology.
- Camp, Dr. A(rthur) F(orrest)**, Agricultural Experiment Station, Gainesville, Fla. *Plant physiology*. Los Angeles, Calif, April 13, 96. A.B., California, 20; Ph.D., Washington (St. Louis), 23. Asst. plant pathologist, *Fla. State Plant Board, and Exp. Sta, 23-25; plant physiologist in charge cotton investigations, 25-* A.A.; Bot. Soc. Physiology and pathology of cotton; parasitism in cotton diseases; nutrition of the cotton plant; horticulture.
- Camp, Prof. Burton H(oward)**, 110 Mt. Vernon St, Middletown, Conn. *Mathematics*. Hartford, Conn, Sept. 20, 80. A.B., Wesleyan, 01; Harvard, 03, A.M., 07; fellow, Yale, 10-11, Ph.D., 11. Teacher, Maine, 01-02; asst. astron, Harvard, 02-03; instr. math, Mass. Inst. Tech, 03-04; Wesleyan, 04; mech, Harvard, 06-07; *math, Wesleyan, 07-09, assoc. prof, 09-14, prof, 14-* Acting director, Van Vleck Observatory, 18-20; Galton Lab, London, 23-24. Math. Soc; Math. Ass; Statist. Ass. Mathematical analysis; statistics.
- Camp, Dr. Carl D(udley)**, 304 S. State St, Ann Arbor, Mich. *Neurology*. S. Watauga, Tenn, Oct. 2, 80. M.D., Pennsylvania, 02. Instr. neuropath, Pennsylvania, 05-07; *prof. neurol, Michigan, 07-* Asst. visiting physician, Phila.

Polyclinic and Univ. of Pa. Hosp; Phila. Gen. Hosp, 05-07. Neur. Ass; Am. Med. Ass; Psychopath. Ass; Ass. Path. and Bact. Clinical neurology; neuropathology; psychology; sensory condition in the brain and spinal cord; treatment of nervous diseases.

Camp, Dr. Charles L(ewis), University of California, Berkeley, Calif. *Zoology*. Jamestown, N. Dak, March 12, 93. A.B, California, 15; A.M, Columbia, 16, Ph.D, 23. Asst. zool, Columbia, 16-17, 19-20; research asst, Am. Museum Nat. Hist, 16-17, 19-22; research assoc, California, 22-24, asst. prof. and curator amphibians and reptiles, museum paleont, 24- Field asst, museum vert. zool, California. A.A.; Soc. Ichthyol. and Herp; Paleont. Soc; Cooper Ornith. Club; Calif. Acad; Calif. Hist. Soc. Systematic herpetology; paleontology; comparative anatomy.

Camp, Dr. C(hester) C(laremont), 209 W. Iowa St, Urbana, Ill. *Mathematics*. Arispe, Iowa, May 20, 90. A.B, Grinnell, 14; A.M, Cornell, 15, Ph.D, 17. Instr. math, Illinois, 19-20; asst. prof, Iowa Col, 20-21; instr, Illinois, 21-23, assoc, 23- Math. Soc; Math. Ass. The Sturm-Liouville expansion; partial differential equations; minimizing the arithmetic and accelerating the convergence in the process of iteration; expansions involving more than one parameter.

Camp, Dr. W(alter) J(ohn) R(ichard), 508 S. Honore St, Chicago, Ill. *Pharmacology, Therapeutics*. Chicago, March 6, 97. B.S, Illinois, 19, M.S, 20, M.D, 23. Asst. pharmacol, col. med, Illinois, 18-22, obstet, 22-23, research asst. med, 23, assoc. pharmacol. and therapeut, 23- Soc. Pharmacol; fel. Am. Med. Soc. Adrenaline and parasympathetic drugs; heart and gastrointestinal physiology and pharmacology

Campbell, Prof. Alan D(itchfield), 331 W. Lafayette Ave, Fayetteville, Ark. *Mathematics*. New Brunswick, N. J, Aug. 2, 91. A.B, Rutgers, 12; A.M, Princeton, 15; Ph.D, Cornell, 23. Instr. math, Washington (St. Louis), 15-17; Northwestern, 17-19; Cornell, 19-23; asst. prof, Arkansas, 23-25, assoc. prof, 25- Finite projective geometry; logic; the relation of mathematics and philosophy.

Campbell, Archibald, 3229 Stettinius Ave, Cincinnati, Ohio. *Chemistry*. Manhattan, Ill, Oct. 31, 72. Ph.B, Michigan, 96, Ph.M, 98. Instr. org. chem, Michigan, 98-99; chief chemist, *Globe Soap Co*, 99-06, gen. supt, 06-16, second v. pres, 16-23, first v. pres, 23- Chem. Soc. (chairman, committee on soap); Chem. Eng; Oil Chem. Soc; Soc. Cotton Products Analysts (pres, 17). Azo and hydrazo derivatives of triphenylmethane; soap and soap products.

Campbell, Prof. Carl G(raham), Roland Park Drive, Huntington, W. Va. *Chemistry*. Gaboon, French Congo, W. Africa, Jan. 14, 85. A.B, Minnesota, 07, A.M, M. I. P, 12; Peabody. Instr, high sch, 07-08; asst. to prof. indust. edue, Minnesota, 10-13; instr, high schools, Va, 12-15, 16-19; prof. chem. and head dept, Marshall Col, 19- Demonstration agent, U. S. Dept. Agr, 12-15; sci. asst, U. S. Pub. Health Ser-

vice, 18. A.A; W. Va. Acad. Agricultural, industrial and scientific pedagogics; malaria control.

Campbell, Dr. C(harles) Macfie, Psychopathic Hospital, Boston, Mass. *Psychiatry*. Edinburgh, Scotland, Sept. 8, 76. M.A, Edinburgh, 97, B.Sc, 00, M.D, 11; Paris, 02-03; Heidelberg, 03. Instr. psychopath, med. col, Cornell, 09-13; assoc. psychiat, Hopkins, 13-14, assoc. prof, 14-20; prof, Harvard Med. Sch, 20-; director, Psychopathic Hosp. A.A; Psychiat. Ass; Psychopath. Ass. (pres, 19); Neur. Ass; Psychol. Ass; Boston Soc. Psychol. and Neur. (pres, 24); Edinburgh Royal Med. Soc; Edinburgh Royal Col. Physicians; Soc. neur. de Paris. Psychopathology; clinical psychiatry.

Campbell, Dr. C(larence) J(ames), 309 S. McBride St, Syracuse, N. Y. *Physiology*. Worcester, Mass, Dec. 5, 96. B.S, Dartmouth, 17; M.D, Harvard, 22. Teaching fellow physiol, Harvard Med. Sch, 22-24; asst. prof, col. med, Syracuse, 24-27, assoc. prof, 27- Afferent nerves.

Campbell, Prof. D(onald) F(rancis), Armour Institute of Technology, Chicago, Ill. *Mathematics*. N. S, Can, April 26, 67. B.A, Dalhousie, 90; A.B, Harvard, 94, A.M, 95, Ph.D, 98. Instr. math, Harvard, 97-00; asst. prof, Armour, 00-01, prof, 01- Math. Soc; fel. Inst. Actuaries. Homogeneous forms in connection with linear differential equations.

Campbell, Dr. D(ouglas) H(oughton), Stanford University, Calif. **Botany*. Detroit, Mich, Dec. 16, 59. Ph.M, Michigan, 82, Ph.D, 86; Bonn, Tübingen and Berlin, 86-88. Instr. biol, high sch, Mich, 82-86; prof. bot, Indiana, 88-91; Stanford, 91- Assoc. ed, 'Am. Naturalist.' Nat. Acad; A.A. (v. pres, 02); Soc. Nat; Bot. Soc. (pres, 13); Philos. Soc; Am. Acad; Int. Ass. Bot; British Ass; for. mem. London Linnean Soc; Edinburgh Royal Soc; Bot. Gesell. Comparative morphology; the evolution of plants; embryology of the simpler angiosperms; phyto-geography.

Campbell, Dr. Edward Donald, 503 Bosart St, Indianapolis, Ind. *Organic chemistry*. Kokomo, Ind, March 4, 95. A.B, Butler, 22; Ph.D, Chicago, 24. Asst. prof. chem, North Dakota, 24-25; research chemist, *Eli Lilly and Co*, 25- Benzol condensation products of the creatinines.

Campbell, Prof. E(lmer) G(rant), Transylvania College, Lexington, Ky. *Botany*. Fairburn, Ga, Feb. 11, 76. A.B, Hiram, 05; M.S, Purdue, 14; Ph.D, Chicago, 23. In charge gen. science, high sch, Ind, 09-12; instr. biol, Purdue, 12-15; asst. prof. bot, Agr. and Mech. Col. Texas, 15-18; in charge agr. bot, Purdue, 18-27; head dept. biol, and dean men, Transylvania Col, 27- Bot. Soc; Soc. Agron; Ind. Acad. Plant physiology, ecology and taxonomy.

Campbell, F(rank) L(eslie), U. S. Department of Agriculture, Washington, D. C. *Entomology*. Philadelphia, Pa, Sept. 5, 98. Haverford, 16-17; B.S, Pennsylvania, 21; M.S, Rutgers, 24; Sc.D, Harvard, 26. Chemist, insecticide investigations, Japanese Beetle Lab, Riverton, N.

- J, 21-22; sewage investigations, N. J. Exp. Sta, 22-24; asst. prof. biol, N. Y. Univ, 26-27; *assoc. entomologist, bur. entom, U. S. Dept. Agr, 27-* Ass. Econ. Entom. Physiology; toxicology of insects.
- Campbell, Dr. George A(shley)**, 195 Broadway, New York, N. Y. **Telephone engineering*. Hastings, Minn, Nov. 27, 70. B.S. Mass. Inst. Tech, 91; A.B. Harvard, 92, Ph.D, 01; Göttingen, Vienna and Paris, 93-96. *Research engineer, Am. Tel. and Tel. Co, 97-* A.A.; fel. Elec. Eng; Physical Soc; Math. Soc; Math. Ass; Am. Acad; Harvard Eng. Soc. Electrical transmission.
- Campbell, Prof. H(enry) D(onald)**, Lexington, Va. *Geology*. Lexington, July 29, 62. A.M, Washington and Lee, 82, Ph.D, 85; Berlin, 86-87; Heidelberg, 87-88; hon. Sc.D, Pittsburgh, 12. Instr. chem. and geol, *Washington and Lee, 82-84*, asst. prof, 84-86, *prof. geol. and biol, 88-*, *dean acad. faculty, 06-08*, *univ, 08-* A.A; Geol. Soc. Geology of western Virginia; Mesozoic diabases of the Atlantic border.
- Campbell, Prof. J(ohn) W(illiam)**, University of Alberta, Edmonton, Alta, Can. *Mathematics, Astronomy*. Scotch Block, Ont, July 18, 89. M.A, Queen's (Can), 13; Ph.D, Chicago, 15. Lecturer *math*, Wesley, 15-17; *assoc, Iowa, 19-20*; *prof, Alberta, 20-* Math. Soc; Math. Ass; Astron. Soc; Royal Astron. Soc. Can. Mathematical astronomy; ballistics.
- Campbell, Leon**, Harvard College Observatory, Cambridge, Mass. *Astronomy*. Cambridge, Jan. 20, 81. Pub. schools. *Astronomer, Harvard Col. Observatory, 99-* Asst. in charge Arequipa Sta, Harvard Col. Observatory, 11-15. Astron. Soc; Ass. Variable Star Observers (pres, 19-21); Soc. Geog. de Lima; Int. Astron. Union. Variable stars; novae.
- Campbell, Prof. L(eslie) L(yle)**, Simmons College, Boston, Mass. *Physics*. Powhatan Co, Va, Sept. 17, 63. A.M, Washington and Lee, 87, fellow, 89-91, Ph.D, 95; A.M, Harvard, 04. Asst. math, Washington and Lee, 89-91; *prof. physics*, Westminster (Mo), 96-03; asst, Harvard, 04-05; *prof. and head dept, Simmons (Mass), 06-* Research, Cavendish lab, Cambridge, 14; cooperative expert, Nat. Research Council. A.A; Physical Soc; fel. Am. Acad; Soc. de Physique. The Thomson effect in soft iron; thermal and electrical properties of soft iron; thermoelectric heterogeneity of alloys; the Hall, Ettingshausen, Leduc and Nernst effects in iron; galvanomagnetic and thermomagnetic effects; investigations in duodenal contents; disintegration of aluminum cathode.
- Campbell, M(arius) R(obinson)**, U. S. Geological Survey, Washington, D. C. **Geology, Physiography*. Garden Grove, Iowa, Sept. 30, 58. Ohio State, 85-87. Aid, U. S. *Geol. Surv, 89-90*, asst. geologist, 91-96, *geologist, 97-* A.A; Geol. Soc; Min. Eng; Ass. Geog; Wash. Geol. Soc. (v. pres, 07-). Structure and stratigraphy of Appalachian coal field; physiographic history of eastern United States; coal testing; classification and valuation of western coal lands.
- Campbell, Roy E(lliott)**, 200 S. Third St, Alhambra, Calif. *Entomology*. Orange, Calif, March 31, 90. B.S, California, 13, M.S, 25. Asst. entom, California, 13-14; sci. asst, *bur. entom, U. S. Dept. Agr, 14-21*, asst. entomologist, 21-24, *assoc. entomologist, 24-* A.A; Entom. Soc; Ass. Econ. Entom. (sec'y, Pacific Slope branch, 24-); Ecol. Soc; Pacific Coast Entom. Soc. Truck crop insects; nicotine dust; pea aphid; soil fumigation for wireworms; aphidophagus syrphidae.
- Campbell, Dr. Thomas P(atterson)**, 818 Patterson Building, Denver, Colo. *Physical chemistry, Metallurgy*. Denver, July 27, 96. B.S, Dartmouth, 18; B.S, Mass. Inst. Tech, 21; Sc.D, Colo. Sch. Mines, 24. Instr. electrochem, Mass. Inst. Tech, 21-22; *consulting metallurgist, Consolidated Mining and Smelting Co. of Can, 25-* Trustee, Denver Art Museum, 26. Min. and Metal. Eng; Electrochem. Soc. Physical metallurgy; case hardening of steel; electrolysis of ammoniacal zinc carbonate solutions; metallurgy of zinc.
- Campbell, Prof. W(illiam) m**, Columbia University, New York, N. Y. *Metallurgy*. Newcastle-on-Tyne, Eng, June 24, 76. B.S, Durham, 98, M.S, 03, D.Sc, 05; Royal School of Mines, London, 99-01; fellow, Columbia, 02, Ph.D, 03, Barnard fellow, 03-05, A.M, 05. Lecturer geol. and demonstrator metal, Durham, 98-99; lecturer, *Columbia, 03*, instr. *metal, 04-07*, adjunct prof, 07-10, *assoc. prof, 10-14*, *prof, 14-24*, *Howe prof, 24-* Metallographer, tech. branch, U. S. Geol. Surv, 08-12; U. S. Bur. Mines, 12-18. Assoc. ed, 'Indust. and Eng. Chem,' 08-11; 'School of Mines Quarterly,' Committee on alloy steels and Neumann bands, Nat. Research Council; fellowship committee, Am-Scandinavian Foundation; Carnegie scholar, British Iron and Steel Inst, 02. Saville Shaw medal, Soc. Chem. Indust, 03. Advisory metallurgist, U.S.N, 17-; lieut. commander, R.F, 18, commander, 19- Min. Eng. (publication committee, v. chairman, iron and steel committee); Soc. Test. Mat. (chairman, committee on non-ferrous metals and alloys, exec. committee, 24-26); Soc. Steel Treat; fel. N. Y. Acad. (sec'y, sect. astron, physics and chem, 07-09, v. pres, 10); cor. mem. Can. Min. Inst; London Geol. Soc; British Iron and Steel Inst; British Inst. Metals. Metallography.
- Campbell, Director W(illiam) W(allace)**, Lick Observatory, Mt. Hamilton, Calif, and University of California, Berkeley, Calif. **Astronomy, Astrophysics*. Hancock Co, Ohio, April 11, 62. B.S, Michigan, 86, hon. M.S, 99, Sc.D, 05; Pittsburgh, 00; LL.D, Wisconsin, 02; West. Australian, 22; Cambridge, 25. Prof. math, Colorado, 86-88; instr. astron, Michigan, 88-91; astronomer, *Lick Observatory, 91-01*, *director, 01-*; *pres, California, 23-* Silliman lecturer, Yale, 09-10, William Ellery Hale lecturer, 14; Halley lecturer, Oxford, 25. Assoc. ed, 'Astrophys. Jour.' In charge, Lick Observatory eclipse exped, India, 98, Georgia, 00, Spain, 05, Flint Island, 08, Russia, 14, Washington, 18, Australia, 22; mem, Lower Calif, 23. Commander Order Leopold II. Lalande and Janssen gold medals, Paris Acad; Draper, Bruce

- and Royal Astron. Soc. medals. Chairman, Am. delegation Int. Research Council, Brussels, 19; pres, Int. Astron. Union, 22-25. Officier, Légion d'honneur. Nat. Acad; A.A. (pres, 15); Astron. Soc. (v. pres, 06-22, pres, 22-25); Seismol. Soc; Philos. Soc; for. mem. Royal Soc; Edinburgh Royal Soc; cor. mem. Bur. des Longitudes de France; Inst. de France; Stockholm Acad; Upsala Acad; Royal Inst; Accad. dei Lincei. Comets and orbits; spectra of new stars, comets, nebulae, bright-line stars, etc; radial motions of stars; motion of solar system; spectroscopic binary stars; solar eclipse problems.
- Camsell, Charles**, Department of Mines, Ottawa, Ont, Can. *Geology*. Fort Liard, N. W. T, 76. B.A., Manitoba, 94; Queen's (Can), 01; Harvard, 03; Mass. Inst. Tech, 08-09. *Geologist*, Can. North. Ry, 02-03; *Can. Geol. Surv*, 04-, in charge B. C. branch, 18-, deputy minister, dept. mines. Chairman, Dominion Fuel Board; Nat. Research Council, Can; Council Northwest Territories; Murchison grant, 22. V. pres, 12th Int. Geol. Cong, 13. Geol. Soc; fel. Harvard Travelers Club; fel. Royal Soc. Can; Can. Inst. Eng; Can. Inst. Min. and Metal; fel. Royal Geog. Soc. Exploration; mineral resources; exploration of northern Canada.
- Canavan, Dr. Myrtelle M(ay)**, 240 Longwood Ave, Boston 17, Mass. *Pathology*. St. Johns, Mich, June 24, 79. Mich. State Col; Michigan; M.D, Woman's Med. Col. of Pa, 05. Asst. bacteriologist, Danvers State Hosp, 07-10; pathologist, Boston State Hosp, 10-14; asst. pathologist, Mass. Dept. Mental Diseases, 14-24; *curator*, Warren Anat. Museum, Harvard Med. Sch, 24-; asst. prof. neuropath, sch. med, Boston, 24- A.A; Ass. Path. and Bact; Col. Physicians; Psychiat. Ass; Ass. Research Nervous and Mental Diseases; Ass. Study Feeble-minded; Eugenics Research Ass; New Eng. Soc. Neur. and Psychiat; Mass. Psychiat. Soc; Mass. Soc. Mental Hygiene; Int. Ass. Med. Mus; Ass. Int. Med. Service. Dysentery; paratyphoid fever; bacteriology; normal looking brains; optic nerves; kidney lesions; mental health of dementia praecox offspring; administrative pathology; pathology of the feeble-minded; mental health of normal people; inheritance of brain pattern of an eminent scientist.
- Candy, Prof. A(lbert) L(uther)**, University of Nebraska, Lincoln, Nebr. *Mathematics*. Jonesboro, Ind, March 12, 57. A.B, Kansas, 92, A.M, 93; Ph.D, Nebraska, 98. Prof. math. and civil eng, Campbell, 86-91; instr. math, Nebraska, 93-98, adjunct prof, 98-03, asst. prof, 03-04, assoc. prof, 04-07, prof. pure math, 07-18, head dept. math, 18-19, chairman, 19- Acting dean col. arts and sciences, Nebraska, 22-23, chairman faculty, 24-25. A.A; Math. Soc; Math. Ass. A theorem on transversals; the solution of an equation of the nth degree; elimination of skidding in motor cars; cyclic operations on determinants.
- Cann, Dr. Jessie Y(erance)**, Smith College, Northampton, Mass. *Physical chemistry*. Newark, N. J, May 17, 83. A.B, Goucher, 04; A.M,
- Columbia, 10, Ph.D, 11. Instr. high sch, N. J, 04-09; head dept. chem, Rockford, 11-14; instr, Illinois, 14-17, assoc, 17-18; asst. prof, Smith, 18-19, assoc. prof, 19- Chem. Soc; Ill. Acad. Surface tension and the falling drop; composition and boiling point of aqueous solutions of sodium silicate.
- Cannon, Dr. A(nnie) J(ump)**, Harvard College Observatory, Cambridge, Mass. *Astronomy*. Dover, Del, Dec. 11, 63. B.S, Wellesley, 84, A.M, 07, LL.D, 25; Sc.D, Delaware, 18; Groningen, 21; Oxford, 25. Asst, Harvard Col. Observatory, 96-11, *curator*, 11- Nova medal, Ass. Variable Star Observers, 22. A.A; Astron. Soc. (treas, 12-19); Philos. Soc; Nantucket Maria Mitchell Ass. (chairman, fellowship committee); hon. mem. Royal Astron. Soc. Classification of stars by means of their photographic spectra; the spectrum of Nova Persei, No. 2; photography of southern stars; variable and new stars.
- Cannon, C(lauson) Y(oung)**, Brigham Young University, Provo, Utah. *Dairy husbandry*. B.S, Utah Col, 13; M.S, Iowa Col, 24. Instr. animal husbandry, Utah Col, 13-14; instr. agr. and manager sch. farm, Boise high sch, 14-20; in charge animal husbandry, Brigham Young, 20- Utah Acad. Feed requirements of dairy cows.
- Cannon, Dr. Paul R(oberts)**, University of Chicago, Chicago, Ill. *Pathology*. Lexington, Ill, Aug. 25, 92. A.B, James Millikin; Ph.D, Chicago, M.D, Rush Med. Col. Instr. bacter, Chicago, 19-20; prof. path. and bacter, Mississippi, 20-23; asst. prof. path, Chicago, 25- Soc. Bact. Intestinal bacteriology.
- Cannon, Prof. W(alter) B(radford)**, Harvard Medical School, Boston, Mass. *Physiology*. Prairie du Chien, Wis, Oct. 19, 71. A.B, Harvard, 96, A.M, 97, M.D, 00; hon. Sc.D, Yale, 23. Instr. zool, Harvard, 99-00, *physiol*, Harvard Med. Sch, 00-02, asst. prof, 02-06, George Higginson prof, 06- Croonian lecturer, Royal Soc, London, 18. Nat. Acad; A.A; Physiol. Soc. (treas, 05-12, pres, 14-16); Soc. Exp. Biol; Am. Med. Ass; Am. Physicians; Psychol. Ass; Am. Röntgen Ray Soc; Gastro-Enterol. Ass. (pres, 10-12); Philos. Soc; Am. Acad; Boston Soc. Med. Sci. (pres, 08); cor. mem. Soc. biol. de Paris; hon. mem. Soc. de Biol, Buenos Aires; Soc. de Biol. Barcelona; Reale Accad, Bologna. Medical education; freedom of medical research; movements of stomach and intestines; mechanical factors in digestion; physiology of nerve plexuses; peripheral inhibition; glands of internal secretion; effects of emotions on bodily processes; traumatic shock; maintenance of steady states in the organism.
- Cannon, Dr. W(illiam) A(ustin)**, Carmel, Calif. *Botany*. Washington, Mich, Sept. 23, 70. A.B, Stanford, 99, A.M, 00; fellow, Columbia, 00-02, Ph.D, 02. Asst. bot, Stanford, 99-00; asst, laboratories, N. Y. Bot. Garden, 02-03; res. investigator, desert lab, Carnegie Institution, 03-05, mem. staff, 05-25. Carnegie fellow, 03- A.A; Soc. Nat; Bot. Soc; Ecol. Soc. Biology of desert plants; root systems of desert plants; aeration of roots.

- Canter, Dr. Hall, Ashland, Va.** *Chemistry*. Baltimore, Md, April 5, 73. A.B., Randolph-Macon, 92, A.M., 97; Ph.D., Hopkins, 00. Lecture asst. *chem.*, Hopkins, 99; assoc., Tulane, 00; *prof.*, Randolph-Macon, 00-, *dean*. A.A.; Chem. Soc. Benzene sulphonic acid derivatives; orthophenylsulphonebenzoic acid and derivatives.
- Caparó y Pérez, Prof. J(osé) A(ngel)**, University of Notre Dame, Notre Dame, Ind. *Mathematics, Electrical engineering*. Cuzco, Peru, S. A. Nov. 2, 88. C.E., Notre Dame, 08, M.C.E., 09, E.E., 09, M.S., 11, M.E., Ph.D., 13; Sc.D., St. Anthony, Peru, 10; A.M., Chicago, 19. Instr. physics and math, Notre Dame, 08-09; *prof.* chem. and anthrop., St. Anthony, Peru, 09-10; *prof.* physics, math. and elec. eng., Notre Dame, 12-14, *head dept. elec. eng.*, 14- Instr., Carnegie Inst. Tech., 17. Math. Soc.; Math. Ass.; Elec. Eng.; Ind. Acad. Non-Euclidean geometries and hyperspace.
- Capp, J(ohn) A(llen)**, 1309 Union St, Schenectady, N. Y. *Mechanical engineering*. Pennsylvania. *Chief testing lab.*, Gen. Elec. Co., 92- Mech. Eng.; Min. Eng.; Soc. Test. Mat. (pres, 19); British Inst. Metals; British Iron and Steel Inst. Materials of engineering.
- Capps, Prof. Joseph A(lmarin)**, 1215 E. 56th St, Chicago, Ill. *Medicine*. Jacksonville, Ill., Feb. 28, 72. A.B., Ill. Col., 91; M.D., Harvard, 95. fellow, 95-96, A.M., 97. Asst. *prof. med.*, Rush Med. Col., 04-18, *prof.*, 19-26; *clin. med.*, Chicago, 26- Chief med. service, Cook Co. Hosp. Lieut. col., M.C., 18-19. Am. Physicians; Soc. Clin. Invest. (v. pres, 09, pres, 16); Chicago Inst. Med. Morphology of the blood; physiology of the pleura; respiratory infections; venous blood pressure; epidemic streptococcus infection; pain sense in the peritoneum.
- Capps, Dr. S(tephen) R(eid)**, U. S. Geological Survey, Washington, D. C. *Geology*. Jacksonville, Ill., Oct. 15, 81. A.B., Chicago, 03, fellow, 05-07, Ph.D., 07. Instr. physiog., Chicago, 03-04; U. S. Geol. Surv., 06- Geol. Soc.; Wash. Acad.; Wash. Geol. Soc. Glacial, areal and economic geology; underground waters; petroleum exploration in the Near East; geology and mineral resources of Alaska.
- Card, Prof. C(arl) G(uy)**, 203 Kedzie St, East Lansing, Mich. *Poultry husbandry*. Hillsdale Co, Mich, Feb. 8, 92. A.B., Mich. Nor. Sch., Kalamazoo, 13; B.S., Mich. State Col., 23. Supt. schools, Mich., 14-20; director vocational sch., East Lansing, 20-23; *prof. poultry husbandry*, Mich. State Col., 23-
- Card, Prof. Fred W(Wallace)**, Sylvania, Pa. *Agriculture*. Sylvania, Feb. 17, 63. B.S.A., Cornell, 92, M.S., 93. Asst. horticulturist, Exp. Sta., Cornell, 93; assoc. *prof.* hort., Nebraska, 93-98; *prof.*, R. I. Col., 98-07, hort. and agr., 01-07. Horticulture; plant breeding; bush fruits; farm management.
- Card, John H(enry)**, 40 Summer St, Holbrook, Mass. *Chemistry*. Deering, Maine, Nov. 22, 87. B.S., Dartmouth, 11. Teacher science and math, high sch., N. Y. and Mass., 11-15; science, Mass., 15-22; *chem.*, Boston English High Sch., 22- C.W.S., U.S.A., 18. A.A.; Chem. Soc. War gases for cold weather offense.
- Card, Prof. L(eslie) E(llsworth)**, University of Illinois, Urbana, Ill. *Poultry husbandry*. Sylvania, Pa., Aug. 10, 93. B.S., Cornell, 14, Ph.D., 22. Asst. poultry husbandman, Storrs Exp. Sta., 14-19; instr. *poultry husbandry*, Cornell, 19-22; *prof.*, Illinois, 22- Ed., 'Poultry Science,' 22- Int. Ass. Poultry Husbandry. Economics of poultry production; poultry nutrition.
- Cardiff, Dr. Ira D**, Tieton Drive and Grandview Ave, S, Yakima, Wash. *Botany*. Stark Co, Ill., June 20, 73. B.S., Knox, 97; fellow, Chicago, 03-04; Ph.D., Columbia, 06. Teacher and prin., pub. schools, Ill., 97-01; asst. bot., Columbia, 04-06; asst. *prof.*, Utah, 06-07, *prof.*, 07-08; Washburn, 08-12; plant path., Wash. Col., 12-20, head dept. bot. and director, Exp. Sta., 13-20; *pres.*, Wash. Dehydrated Food Co., 20- A.A.; Kans. Acad.; Utah Acad. (pres, 08). Morphology of Pteridophytes; cytology.
- Carey, Prof. E(ben) J(ames)**, Marquette University School of Medicine, Milwaukee, Wis. *Anatomy*. Chicago, Ill., July 31, 89. B.S., Creighton, 16, M.S., 18, Sc.D., 20; M.D., Chicago, 24. Instr. anat., Creighton, 14-18, asst. *prof.*, 18; *prof.*, Marquette, 20-, *dean students*, acting *dean*. Lecturer, Chicago, 18; intern, Presb. Hosp., Chicago, 24-25. A.A.; Ass. Anat. Biology; bone and joint development; teratology; myogenesis; bone and joint pathology.
- Carleton, Dr. Paul W(hittier)**, Jackson Laboratory, Wilmington, Del. *Chemistry*. Haverhill, Mass., April 10, 83. A.B., Harvard, 06, A.M., 07, Ph.D., 11. Instr. chem., Case, 07-09; Wisconsin, 11-14, asst. *prof.*, 14-19; *research chemist*, E. I. du Pont de Nemours and Co., 19- C.W.S., U.S.A., 17-19. Chem. Soc. Organic chemistry; quinone addition reactions; Grignard reaction.
- Carleton, Ralph K(imball)**, Shurtleff College, Alton, Ill. *Inorganic chemistry*. West Somerville, Mass., Feb. 24, 96. B.S., Boston, 19; A.M., Harvard, 22. *Prof. chem.*, Shurtleff Col., 23- Reaction of hydrogen iodate in sulphuric acid solution.
- Carlson, Prof. A(nton) J(ulius)**, University of Chicago, Chicago, Ill. **Physiology*. Svarteberg, Sweden, Jan. 29, 75. B.S., Augustana, 98, A.M., 99, LL.D., 23; Ph.D., Stanford, 02; hon. M.D., Lund, 18. Asst. *physiol.*, Stanford, 01-02; research asst., Carnegie Institution, 03-04; assoc. *physiol.*, Chicago, 04-05, asst. *prof.*, 05-09, assoc. *prof.*, 09-14, *prof.*, 14- Instr., Woods Hole, 05-07. Lieut. col., Sanit.C., 17-18. Int. Zool. Cong., Graz, 10; Int. Cong. Physiol., Vienna, 10, Edinburgh, 23. Nat. Acad.; A.A.; Soc. Nat.; Physiol. Soc. (sec'y, 10, pres, 23-26); Soc. Exp. Biol.; Harvey Soc.; Chicago Path. Soc.; Soc. biol. de Paris; hon. mem. Swedish Med. Soc. Rate of conduction of the impulse in nerves; the nature of the heart-beat; lymph formation and salivary secretion; comparative physiology of the circulation; comparative physiology of the thyroid and parathyroid; physiology of the alimentary tract and of the visceral sensory nervous system.
- Carlson, Prof. F(red) A(lbert)**, Ohio State University, Columbus, Ohio. *Geography*. Pittsfield, Mass., Oct. 24, 92. B.S., Mass. Col., 18; Ph.D.,

- Cornell, 22. Instr. geol, Cornell, 19-21; *asst. prof.*, California, 21-22; *geog.*, Ohio State, 22- A.A.; Soc. Agron. Agricultural resources of the world.
- Carlson, Dr. S(ally) Elizabeth**, 3020 14th Ave. S, Minneapolis, Minn. *Mathematics*. Minneapolis, Oct. 2, 96. A.B, Minnesota, 17, A.M, 18, Ph.D, 24. Instr. *math.*, Knox, 19-20; teaching *asst.*, Minnesota, 20-24, *instr.*, 24- Math, Soc; Math. Ass. Convergence of methods of closest approximation.
- Carmalt, Prof. W(illiam) H(enry)**, 261 St. Ronan St, New Haven, Conn. *Surgery*. Friendsville, Pa, Aug. 3, 36. M.D, Columbia, 61; hon. A.M, Yale, 81. Lecturer ophthal. and otol, Yale, 77-79, prof, 79-81, *principles and practise of surg.*, 81-07, *emer. prof.*, 07- Attending surgeon, New Haven Hosp, 77-08, consulting surgeon, 08-; consulting surgeon, Middlesex Hosp, Middletown, Conn. A.A; Surg. Ass. (pres, 07); Am. Med. Ass; Ophthal. Soc; Cong. Am. Physicians and Surgeons (sec'y, 88-13); Tuber. Ass; Soc. Int. Chirurgie. Abortion in cows; motility of young cancer cells; formation of new blood vessels in inflamed cornea; heredity in crime.
- Carman, Prof. Albert P(ruden)**, University of Illinois, Urbana, Ill. **Physics*. Woodbury, N. J, July 15, 61. A.B, Princeton, 83, fellow, 83-84, A.M, 85, Sc.D, 86; Berlin, 88-90. Instr. physics and math, Princeton, 84-88; *prof.* physics and elec. eng, Purdue, 90-93; theoret. physics, Stanford, 93-96; *physics*, Illinois, 96- A.A; Physical Soc. Collapsing pressure of tubes; volumometers; rectifiers; thermal conductivities at high temperatures; dielectric constants of gases.
- Carman, Prof. J(oe) Ernest**, Ohio State University, Columbus, Ohio. *Geology*. St. Charles, Iowa, Aug. 13, 82. B.S, Simpson (Iowa), 01; M.D, Iowa State Nor. Sch, 03; Chicago, 04-05, fellow, 05-07, Ph.D, 16. Teacher, high sch, Iowa, 02-04; instr. and *asst. prof.* geol, Cincinnati, 08-16; *asst. prof.*, Ohio State, 16-17, *prof. hist. geol. and curator museum*, 17- *Asst.*, Ill. Geol. Surv, 06; junior geologist, U. S. Geol. Surv, 07; *asst.*, Iowa Geol. Surv, 09-16; Ohio Geol. Surv, 17- A.A; Geol. Soc; Paleont. Soc; Ohio Acad. Pleistocene of northwestern Iowa; stratigraphy of Ohio.
- Carman, M(ax) G(riffin)**, University of Illinois, Urbana, Ill. *Mathematics*. Charleston, Ill, Sept. 2, 03. A.B, Illinois, 22, A.M, 23, fellow, 23-25, Ph.D, 25. Instr. *math.*, Illinois, 25- A.A; Math. Soc. Analysis.
- Carmichael, Dr. Leonard**, Princeton University, Princeton, N. J. *Psychology*. Philadelphia, Pa, Nov. 9, 98. B.S, Tufts, 21; Ph.D, Harvard, 24; Berlin, 24. *Asst. biol.*, Tufts, 19-21, *instr. psychol.*, 23-24; Princeton, 24-26, *asst. prof.*, 26- Sheldon traveling fellow, Harvard. A.A; Psychol. Ass. General physiological and educational psychology; motor learning; the development of behavior; perception.
- Carmichael, Prof. R(obert) D(aniel)**, University of Illinois, Urbana, Ill. **Mathematics*. Goodwater, Ala, March 1, 79. A.B, Lineville, 98; fellow, Princeton, 09-11, Ph.D, 11. Prof. *math.*, Ala. Presb. Col, 06-09; *asst. prof.*, Indiana, 11-12, *assoc. prof.*, 12-15; *asst. prof.*, Illinois, 15-18, *assoc. prof.*, 18-20, *prof.*, 20- Ed-in-chief, 'Am. Math. Monthly,' 18-19. A.A; Math. Soc. (councilor, 16-18, chairman, Chicago sect, 20-21, v. pres, 22); Math. Ass. (councilor, 16-18, 20, v. pres, 21-22, pres, 23); Philos. Ass. Theory of difference and differential equations; theory of numbers; theory of relativity; theory of groups; philosophy of mathematics.
- Carney, Dr. Frank**, National Refining Co, Cleveland, Ohio. *Geology, Geography*. Watkins, N. Y, March 15, 68. A.B, Cornell, 02, Ph.D, 09. Instr, Starkey Sem, N. Y, 88-91; *prof. math.* and languages, Keuka, 95-00; v. prin, high sch, N. Y, 01-04; *prof. geol.*, Denison, 04-17; chief geologist, Nat. Ref. Co, 17-22, *in charge land dept.*, 23- Summers, lecturer, Virginia, 09-11. A.A; Geol. Soc; Ass. Geog; Ass. Petrol. Geol; Ohio Acad. (pres, 08). Glacial geology; stream diversion; metamorphism of glacial drift; raised beaches; glacial lakes of northern Ohio; geographic influences in Ohio.
- Carney, Prof. R(obert) J(ohn)**, 519 Lawrence St, Ann Arbor, Mich. *Chemistry*. Sturgis, Mich, July 19, 84. A.B, Michigan, 07, Ph.D, 16. Instr. *anal. chem.*, Michigan, 07-16, *asst. prof.*, 16-, *director chem. store*, 23- Chem. Soc. (sec'y, Univ. of Mich. sect, 17-20). Analytical chemistry; thorium; rare earths; chemical microcopy.
- Carothers, Dr. E(stella) Eleanor**, University of Pennsylvania, Philadelphia, Pa. **Zoology*. Newton, Kans, Dec. 4, 82. A.B, Kansas, 11, fellow, 11-12, A.M, 12; Pepper fellow, Pennsylvania, 13-14, Ph.D, 16. *Asst. zool.*, Pennsylvania, 14-26, *lecturer*, 26- Univ. of Pa. sci. exped, south. and west. states, 15, 19. Ellen Richards research prize, 21. A.A; Soc. Nat; Soc. Zool; Phila. Acad. Orthopteran cytology and genetics; heteromorphic homologous chromosomes.
- Carothers, Dr. Wallace H(ume)**, Harvard University, Cambridge, Mass. *Chemistry*. Burlington, Iowa, April 27, 96. B.S, Tarkio, 20; M.S, Illinois, 21, Ph.D, 24. Instr. *chem.*, South Dakota, 21-22; Illinois, 24-26; *Harvard*, 26- A.A; Chem. Soc; Chem. Gesell. Theoretical organic chemistry; valence theory; catalytic hydrogenation.
- Carpenter, Prof. A(llen) F(uller)**, University of Washington, Seattle, Wash. *Mathematics*. Marengo, Iowa, June 12, 80. A.B, Hastings. 01; A.M, Nebraska, 09; Ph.D, Chicago, 15. Instr. *math.*, Hastings, 01-04, *prof.*, 04-08; instr, Nebraska, 08-09; *Washington (Seattle)*, 09-13, *asst. prof.*, 13-18, *assoc. prof.*, 18-26, *prof.*, 26- A.A; Math. Soc; Circolo Mat. di Palermo. Projective differential geometry of ruled surfaces.
- Carpenter, Prof. C(arlos) C(lay)**, Syracuse University, Syracuse, N. Y. *Horticulture*. Kalona, Iowa, Oct. 17, 85. B.S, Colo. Agr. Col, 14; M.S, Syracuse, 23. Teacher, Wash. and Mo, 14-18; *prof. hort.*, Syracuse, 18- Pomol. Soc; Soc. Hort. Sci. Key to commercial apples; apple tufts.
- Carpenter, Prof. Charles M(ilton)**, Cornell University, Ithaca, N. Y. *Pathology, Bacteriology*.

- Ivanhoe, N. Y., Aug. 8, 95. D.V.M., Cornell, 17, M.S., 19, Ph.D., 21. Instr. research, diseases of breeding animals, Cornell, 17-18, instr. comp. path. and bacter., 18-21, acting prof. bacter., 21-22; assoc. prof. research, comp. bacter., Exp. Sta., California, 22-23; *asst. prof. lab. diagnosis, Cornell, 23-* Soc. Bact.; Soc. Exp. Biol.; Vet. Med. Ass.; N. Y. Vet. Med. Soc.; South. Tier Vet. Med. Soc. Comparative and veterinary bacteriology.
- Carpenter, Prof. C(lifford) D(aniel)**, 39 Claremont Ave., New York, N. Y. *Chemistry*. Union, Mich., Aug. 16, 81. A.B., Mich. State Nor. Col., 06; Chicago, 08-12, Ph.D., 15. Teacher and prin., high schools, Mich. and Ohio, 03-09; teacher, Univ. of Chicago High Sch., 10-12; instr. chem., Teachers Col., Columbia, 12-14, asst. prof., 14-19, *Columbia*, 19-23, *assoc. prof.*, 23- A.A.; Chem. Soc. Inorganic and physical chemistry; addition products of sulphuric acid with organic compounds; vapor pressure; nitric acid.
- Carpenter, Dr. Edwin F(rancis)**, University of Arizona, Tucson, Ariz. *Astronomy*. Boston, Mass., Nov. 1, 98. A.B., Harvard, 22, A.M., 23; fellow, California, 23-25, Ph.D., 25. Asst. astron., Harvard, 21-23; *instr. Arizona, 25-* A.A.; Astron. Soc.; Soc. astron. de France. Photographic photometry; the flash spectrum; spectroscopic binary.
- Carpenter, Dr. Ford A(shman)**, Central Building, 108 W. 6th St., Los Angeles, Calif. *Meteorology, Aeronautics*. Chicago, Ill., March 25, 68. LL.D., Whittier, 13; Sc.D., Occidental, 21. Asst. observer, Sig.C, U.S.A., 88-91; observer, U. S. Weather Bur., 92-06, local forester, Calif., 06-12, meteorologist, 12-19; *manager dept. meteor. and aeronaut, Los Angeles Chamber of Commerce, 19-*; lieutenant and technician, U.S.N.R., 20-22; *major, staff specialist, U.S.A., 22-* Carson Observatory, and director in charge, Nev. State Weather Service, 92-96; lecturer, San Diego State Nor. Sch., 01-14; California, 14-17, California at Los Angeles, 19-; aviation schools, 15, Cornell, Columbia, Franklin and Marshall, Northwestern, West Point, Annapolis. Aeronaut. research committee, Calif. Inst. Tech., 21- Meteor. exped., Baja Calif. and Mex., 03; climat. commissioner, Seattle Expos., 09. Medal, Alaska-Yukon-Pacific Expos., 09. V. pres., Int. Aero Cong., Omaha, 21. A.A.; Meteor. Soc.; Climat. Ass.; assoc. Civil Eng.; Seismol. Soc.; Nat. Aero. Ass.; S. Calif. Acad. (director); San Diego Nat. Hist. Soc. (sec'y, 01-12); fel. Royal Meteor. Soc.; Royal Geog. Soc. Aeronautics; aerology; air charting; free air recording instruments for aviators; applied meteorology and climatology; climatology of southern California.
- Carpenter, F(rank) B(erton)**, Virginia-Carolina Chemical Co., Richmond, Va. *Chemistry*. Leyden, Mass., May 7, 64. B.S., Mass. Col., 87. Asst. chemist, Mass. Exp. Sta., 87-89; N. C. Exp. Sta., 89-05; *chief chemist, Virginia-Carolina Chem. Co., 05-* A.A.; Chem. Soc.; Soc. Chem. Indust. Agricultural chemistry; tobacco.
- Carpenter, Prof. H(ubert) V(inton)**, State College of Washington, Pullman, Wash. *Physics, Engineering*. Mt. Carroll, Ill., 75. B.S., Illinois, 97, M.S., 99. Asst. physics, Illinois, 97-99, instr., 99-01; asst. prof. mech. and elec. eng., Wash. Col., 01-05, *prof., 05-*, dean mech. arts and eng., 17- Educ. director, sect. B, S.A.T.C., 18. A.A.; fel. Elec. Eng.; Mech. Eng. Electrical instruments and measurements; the analytical balance; transmission lines; flow of steam; thermal insulation; hydraulic governors; wear of automobile tires; theory of highway 'wash-boards.'
- Carpenter, J. C.**, 600 W. Allen Ave., Fort Worth, Texas. *Engineering*. Watertown, S. Dak., 84. B.C.E., Iowa Col., 09. Drainage engineer, U. S. Dept. Agr., and district engineer, Philippine Service, 11-17, *highway engineer, bur. pub. roads, 17-* Civil Eng. Highway engineering; highway construction, subgrades and location.
- Carpenter, Prof. L(ouis) G(eorge)**, 1455 Gilpin St., Denver, Colo. *Irrigation engineering*. Orion, Mich., March 28, 61. B.S., Mich. State Col., 79; M.S., Michigan, 84; Hopkins, 85-88. Instr. math, Mich. State Col., 81-85, asst. prof., 85-88; prof. eng. and physics, Colo. Agr. Col., 88-11, meteorologist and irrig. engineer, Exp. Sta., 88-11, director, 99-11; *consulting engineer, 11-* Special agent, artesian well investigation, U. S. Dept. Agr., 90, irrig. expert, 02. State engineer, Colo., 03-05; consulting engineer and expert for Colo. in Kans. interstate water litigation, 03-07; mem. Irrig. Commission, B. C., 07-08; chairman board to settle controversies between U. S. and Wyo. on N. Platte River. Co-editor, 'Standard Diet.' Chevalier du Mérite agricole, 95; gold medal, Paris Expos., 00. A.A.; Irrig. Eng. (pres, 93); Mech. Eng.; Ass. Agr. Col. (v. pres); Eng. Educ.; Soc. Test. Mat.; Forestry Ass.; Colo. Eng. Soc.; Colo. Sci. Soc. (pres, 25-); Colo. Hist. Soc. (pres, 18-20); Mich. Eng. Soc. Measurement of water; gain and loss of water from streams; duty water; water supply; artesian wells; evaporation; underground waters.
- Carpenter, Dr. M(arion) Scott**, 9 Sherman Ave., New York, N. Y. *Organic chemistry*. Denver, Colo., June 23, 01. B.S. (Ch.E.), Colorado, 22, M.S., 23, Ph.D., 25. Instr. chem., Colorado, 22-25; *Fritzsche fellow, Columbia, 25-* Cyclohexenones; aliphatic ketones; rose alcohols; chemical constitution and odor.
- Carpenter, Prof. Niles**, University of Buffalo, Buffalo, N. Y. *Sociology*. Evanston, Ill., March 25, 91. A.B., Northwestern, 14, A.M., 15; Robert Treat Paine fellow, Harvard, 16-18, Sheldon traveling fellow, 20, Ph.D., 20. Instr. English, Northwestern, 15-16; econ., Simmons (Mass.), 19-20; instr. and tutor social ethics and econ., Harvard, 20-24; *prof. and head dept. sociol, Buffalo, 24-* Sociol. Soc.; Econ. Ass.; Ass. Social Studies; Indust. Relations Ass. Immigration and race; labor and industrial relations; socialism and social reform; population and demography; municipal sociology.
- Carpenter, Dr. T(horne) M(artin)**, 159 Corey St., West Roxbury, Mass. *Physiology*. Malden-on-Hudson, N. Y., Sept. 18, 78. B.S., Boston, 02; Mass. Col., 02; Ph.D., Harvard, 15. Asst. chemist, Exp. Sta., Pa. State, 02-05; *research chemist, Carnegie Institution, 05-07, nutrition lab, Bos-*

- ton, 07- Asst. chemist, Mass. Exp. Sta, 02; expert animal nutrition, bur. animal indust, U. S. Dept. Agr, 02-05, sci. asst. nutrition, 05-07. A.A.; Physiol. Soc; Soc. Biol. Chem; Chem. Soc; Am. Acad. Respiratory exchange and calorimetry of man; rectal feeding; alcohol ingestion; gas analysis.
- Carpenter, Prof. W(eston) W(illiam)**, George Peabody College for Teachers, Nashville, Tenn. *Chemistry*. Lawrence, Kans, March 2, 89. A.B, Kansas, 12, A.M, 17; Ph.D, Columbia, 26. Teacher, high schools, Ariz, 12-20; dean, Phoenix Junior Col, 20-23; *prof. the teaching of physical science, Peabody Col, 25*- Summers, teacher, North. Ariz. Nor. Sch, Flagstaff, 19-23. Administration of high school chemistry.
- Carr, Dr. Emma P(erry)**, Mt. Holyoke College, South Hadley, Mass. *Chemistry*. Holmesville, Ohio, July 23, 80. B.S, Chicago, 05, fellow, 08-10, Ph.D, 10. Instr. *chem, Mt. Holyoke*, 05-08, assoc. prof, 10-13, *prof, 13*- Chem. Soc. Physical chemistry; ultra-violet absorption spectra.
- Carr, Prof. H(arvey)**, University of Chicago, Chicago, Ill. **Psychology*. Morris, Ill, April 30, 73. B.S, Colorado, 01, M.S, 02; Ph.D, Chicago, 05. Instr. *psychol*, Pratt Inst, 06-08; asst. prof, *Chicago*, 08-16, assoc. prof, 16-23, *prof, 23*-, *chairman dept, 26*- Psychol. Ass. (councilor, 16, pres, 26-). Comparative psychology; visual space perception; systematic learning.
- Carr, Dr. James G(ray)**, 7408 Yates Ave, Chicago, Ill. *Medicine*. Holmesville, Ohio, July 22, 76. B.S, Ohio State, 97; M.D, Northwestern, 02. *Assoc. prof. med, med. sch, Northwestern*. Am. Med. Ass; Chicago Internal Med. Soc; Chicago Path. Soc. The clinical use of quinine.
- Carr, Maurice L(eroy)**, Avon, Ill. *Physics*. Avon, April 17, 77. B.S, Illinois, 05, E.E, 11. Asst. Eng. Exp. Sta, Illinois, 05-06; supt, testing dept, Peoria Gas and Elec. Co, 06-07; engineer, *Underwriters' Laboratories*, 07-20, *director safe-cabinet lab, 20*- A.A; Physical Soc; Soc. Test. Mat; Nat. Fire Protection Ass; Ry. Fire Protection Ass. Strength of boiler flues; effects of heat on materials; heat insulating materials.
- Carr, Dr. Ralph Howard**, 27 N. Salisbury St, West Lafayette, Ind. *Agricultural chemistry*. Wooster, Ohio, Aug. 28, 78. A.B, Wooster, 00; A.M, Wisconsin, 10, Ph.D, 13. Chemist, West. Elec. Co, 02-04; instr, Buena Vista, 05-08; Emporia, 09-11; *Purdue*, 13- Chemist, bur. plant indust, U. S. Dept. Agr. A.A; Chem. Soc; Soc. Agron; fel. Ind. Acad. Soil acidity; popping of corn; cereal proteins in egg production; effects of fats in nutrition.
- Carrel, Dr. Alexis**, Rockefeller Institute, New York, N. Y. **Surgery*. Ste. Foy les Lyon, France, June 28, 73. L.B, Lyon, 90, Sc.B, 91, M.D, 00; hon. Sc.D, Columbia, Brown, Princeton; M.D, Belfast. *Mem. Rockefeller Inst.* Nobel prize med, 12; D.S. medal, 22. Commandeur, Légion d'honneur. Fel. Surg. Ass; Physiol. Soc; Soc. Exp. Path; Soc. Exp. Biol; Philos. Soc. Experimental surgery; biology.
- Carreón, Dr. Manuel L(ingad)**, Bureau of Education, Manila, P. I. *Education, Psychology*. San Fernando, Pampanga, P. I, June 17, 99. Honorio Ventura scholar, Philippines, 15-17, A.B, 17; P. I. Govt. scholar, 19-23; A.B, Nebraska, 20; Columbia; Chicago; A.M, Minnesota, 21, Ph.D, 23. Asst. prin. and instr. English and math, Dept. Schools, *Manila*, 17-19; director psychol. clinic, and instr. educ. and psychol, P. I. Nor. Sch, 23-24; *head measurement and research, Bur. Educ, 24*- Lecturer, Philippines, 24- Research assoc, Monroe Educ. Surv. Commission, 25. P. I. Sci. Soc. Philippine mental measurements; child accounting; statistical and graphic methods in education; adaptations of the Lewis-Rowland silent readers; tendencies in Philippine education; educational methodology.
- Carrick, Dr. D(oak) B(ain)**, Cornell University, Ithaca, N. Y. *Pomology*. Lexington, N. C, Dec. 11, 88. A.B, Wake Forest, 10; Ph.D, Cornell, 17. Prin, high sch, N. C, 12-13; asst. pomol, Cornell, 15-17; investigator and specialist, bur. markets, U. S. Dept. Agr, 17-20; *prof. pomol, Cornell, 20*- A.A; Soc. Hort. Sci; Bot. Soc; Soc. Plant Physiol. Freezing injury in plant tissue; physiology of fruits in storage.
- Carrick, Prof. L(eo) L(ehr)**, North Dakota Agricultural College, Fargo, N. Dak. *Chemistry*. Platteville, Wis, Feb. 5, 89. B.S, Valparaiso, 08, A.B, 09, M.S, 11; A.M, Indiana, 15, Ph.D, 22. Head dept. science, high sch, Ind, 11-14; research chemist and elec. storage battery engineer, Prest-O-Lite Co, Inc, 15-16; research chemist, Ault and Wiborg Co, 19; *prof. and head dept. gen. and qualitative chem, N. Dak. Col, 22*- General and qualitative chemistry; hydrogenation of nitro-organic compounds, the solubility of mono-nitrophenols in common solvents, and the cooling curves of their mixtures; paints, varnishes and lacquers.
- Carrier, Lyman**, Coquille, Oregon. *Agronomy*. Duffield, Mich, Oct. 11, 77. B.S, Mich. State Col, 02, M.Agr, 13. Sci. asst, bur. plant indust, U. S. Dept. Agr, 05-07; prof. agron, Va. Polytech, and agronomist, Exp. Sta, 08-14; agronomist, bur. plant indust, U. S. Dept. Agr, 14-24; *seedsman, Coquille, 24*- A.A; Soc. Agron. (treas, 11, second v. pres, 13, sec'y-treas, 18-20). Farm crops; grazing.
- Carrier, W(illis) H(aviland)**, 750 Frelinghuysen Ave, Newark, N. J. *Engineering*. Angola, N. Y, Nov. 26, 76. E.E, Cornell, 01. Research engineer, Buffalo Forge Co, 02-05, chief engineer, 06-15; *pres, Carrier Eng. Corp, 15*- Chairman, Committee Heat Transmission, Nat. Research Council. A.A; Mech. Eng; Heat and Vent. Eng. (councilor); Refrig. Eng. (pres, 27); fel. Royal Soc. Arts. Psychrometry; heat transmission; refrigeration.
- Carriker, M(elbourne) A(rmstrong)**, Jr, Apartado 51, Santa Marta, Colombia, S. A. *Ornithology, Entomology*. Sullivan, Ill, Feb. 14, 79. Nebraska. Collector, Carnegie Museum, 01-22, asst, dept. ornith. and mammal, 08-09; collector mammals, Am. Museum Nat. Hist, 01-11. Brewster medal, 25. Cor. fel. Ornith. Union. Ornithology of Central and South America; Mallaphaga of North and Central America.

- Carroll, Dr. Burt H(aring)**, U. S. Bureau of Standards, Washington, D. C. *Chemistry*. Tenafly, N. J. March 20, 96. Ch.B. Cornell, 17; du Pont fellow, Wisconsin, Univ. fellow, Ph.D. 22. Arthur D. Little, Inc. 17; *assoc. chemist*, *Bur. Standards*, 22- C.W.S. U.S.A. 17-19. Chem. Soc. Liquid mixtures; photographic emulsions.
- Carroll, Dr. Franklin B(ache)**, 17 Elmwood Ave, Narberth, Pa. *Botany*. Philadelphia, Pa, Feb. 23, 87. B.S. Pennsylvania, 13, Ph.D. 17. Teacher bot, Northeast High Sch, Phila. 13-17; *head dept. science*, *Frankford High Sch*, 26-Sanit.C. U.S.A. 17-19; instr. bot. A.E.F. Univ. Beaune, 19. A.A. Plant morphology.
- Carroll, Dr. Mitchel**, Franklin and Marshall College, Lancaster, Pa. *Entomology*, *Cytology*. Philadelphia, Pa, July 7, 85. B.S. Pennsylvania, 15, Harrison fellow, 16-18, Ph.D. 19. Teacher, pub. schools, Pa, 09-14; asst. zool. Pennsylvania, 15-16; asst. entomologist, N. J. Exp. Sta. 18-20; *prof. biol*, *Franklin and Marshall*, 20- A.A.; Ass. Econ. Entom. Soc. Zool; Soc. Mammal; Genetic Ass. Larva of *Mecistogaster modestus*; spermatogenesis of *Cannula pellucida*; numerical variations in the chromosome complex within the individual.
- Carroll, Prof. W(illiam) E(rnest)**, University of Illinois, Urbana, Ill. *Animal husbandry*. Orderville, Utah, Nov. 8, 82. B.S. Utah Col, 09; M.S. Illinois, 11, fellow, 13-14, Ph.D. 14. Assoc. prof. animal husbandry, Utah Col, 11-13, *prof*, 14-24; *swine husbandry*, *Illinois*, 24-A.A.; Soc. Animal Production; Utah Acad. Animal nutrition; swine husbandry.
- Carruth, Prof. W(illiam) M(asey)**, Clinton, N. Y. *Mathematics*. Cleveland, Ohio, April 22, 79. A.B. Cornell, 01, 04-07. Asst. prof. *math*, *Hamilton*, 07-12, assoc. prof, 12-17, *prof*, 17-Math. Soc; Math. Ass. Points of inflection of plane quartic curves.
- Carsner, Eubanks**, Citrus Experiment Station, Riverside, Calif. *Plant pathology*. San Antonio, Texas, July 19, 91. A.B. Texas, 12; M.S. Wisconsin, 14, Ph.D. 17. Teacher, high sch, Texas, 12; asst. plant path, Wisconsin, 14; Va. Exp. Sta. 15; *assoc. pathologist*, *office sugar plant investigations*, *bur. plant indust*, U. S. Dept. Agr. 17- A.A.; Bot. Soc; Phytopath. Soc.
- Carson, Prof. A(shmead) C(ourtenay)**, University of South Carolina, Columbia, S. C. *Physics*. Sumter, S. C. B.S. A.M. South Carolina. Instr. *physics*, *South Carolina*, 02-04, assoc. prof, 04-10, *prof*, 10- Electrical engineering; cotton harvesting; uses of South Carolina clays for brick and tile.
- Carson, John R(enshaw)**, American Telephone and Telegraph Co, 195 Broadway, New York, N. Y. **Electrical engineering*. Pittsburgh, Pa, June 28, 87. B.S. Princeton, 07, E.E. 09, M.S. 12. Engineer, research dept, Westinghouse Elec. and Mfg. Co, 10-12; instr. physics and elec. eng, Princeton, 12-14; *engineer*, *transmission dept*, *Am. Tel. and Tel. Co*, 14- Liebmann Mem. prize, Radio Eng. 24. Radio Eng; Math. Soc. Electric circuit theory; electric wave propagation; electron theory.
- Carter, Prof. Deane G**, University of Arkansas, Fayetteville, Ark. *Agricultural engineering*. Harrison Co, Mo, Feb. 17, 94. B.S. M.S. Iowa Col. Sales correspondent, James Mfg. Co, Wis, 15-16; instr. agr. eng, Iowa Col, 16-19; head dept. agr. eng, N. C. State, 19-20; farm manager, Iowa, 20-22; *prof. agr. eng. and head dept*, *Arkansas*, 22- Summer, instr, Missouri, 19. Agr. Eng. (chairman, farm structures div, and southwest. sect, 25). Tractors; farm structures; wood preservation.
- Carter, Edgar B(rock)**, 4555 Central Ave, Indianapolis, Ind. *Bacteriology*. Elkinsville, Ind, April 22, 86. A.B. Indiana, 11. *Director biol. lab*, *Swan-Myers Co*, 15- A.A; Pub. Health Ass; Pharmaceut. Ass; Chem. Soc. (sec'y-treas, Ind. sect, 18-21, chairman, 21, sec'y, div. chem. of med. products, 19-21, chairman, 21-23); Soc. Bact. (sec'y, Ind. branch, 19-22, pres, 22-24); Ind. Acad; Indianapolis Sciencetech Club.
- Carter, Prof. Edna**, Vassar College, Poughkeepsie, N. Y. *Physics*. High Cliff, Wis, Jan. 29, 72. A.B. Vassar, 94; Chicago, 98-99; Ph.D. Würzburg, 06, 11-12. Asst. prin, high sch, Wis, 95-96; asst. *physics*, Vassar, 96-98; State Nor. Sch, Oshkosh, Wis, 99-04; instr, *Vassar*, 06-11, assoc. prof, 12-20, *prof*, 20- A.A; Physical Soc. Relation of the energy of the Röntgen rays to the energy of the cathode rays producing them; discharge potentials across very short distances; metallic spectra produced in high vacua; electric furnace spectra.
- Carter, Dr. Fred(eric) E(dward)**, Baker Platinum Works, Newark, N. J. *Metallurgy*. Dublin, Ireland, Oct. 30, 86. B.Sc. Leeds, 09; D.Ing, Karlsruhe Tech. Hochschule, 11. Eng. chemist, Mines Branch, Ottawa, Can, 13-16; *chief physical research dept*, *Baker Platinum Works*, 16- A.A; Min. and Metal. Eng; Electrochem. Soc; London Inst. Metals. Precious metal alloys.
- Carter, Prof. Gardner L(oyd)**, University, Va. *Chemistry*. Alexandria, Va, March 1, 90. A.M. Virginia, 13, Ph.D. 16. Asst. prof. *chem*, *Vanderbilt*, 16-18; *assoc. prof*, *Virginia*, 18-26, *prof*, 26- Asst. gas chemist, U. S. Dept. Interior, 17-18. Chem. Soc.
- Carter, Dr. Herbert S(wift)**, Columbia University, New York, N. Y. *Medicine*. Orange, N. J, Sept. 19, 69. A.B. Princeton, 92, A.M. 95; M.D. Columbia, 95. *Asst. clin. prof. med. col. physicians and surg*, *Columbia*. Consulting physician, Presbyterian, Lincoln, Booth Memorial, N. Y. Skin and Cancer, and North Westchester Hospitals. A.A; Gastro-Enterol. Ass. Blood pressure; blood chemistry; parental feeding; cytodagnosis of pleural fluids.
- Carter, Prof. T(homas) C(hauncey)**, Northwestern State Teachers College, Alva, Okla. *Biology*. Bethany, Mo, Sept. 15, 79. A.M. 21. *Head dept. biol*, *Northwest. State Teachers Col*, 14-Okla. Biol. Surv, Alaska, 08. A.A; fel. Okla. Acad. (v. pres, 20-22). Birds of Oklahoma; Protozoa of Colorado.
- Carter, Walter**, U. S. Department of Agriculture, Washington, D. C. *Entomology*. Leeds, Eng, Nov. 23, 97. B.S. Montana, 23; M.S. Minne-

- sota, 24. Asst. entomologist, entom. branch, Can. Dept. Agr, 23; asst. animal biol, Minnesota, 23-24, research asst, 24-25; asst. entomologist, *bur. entom.*, U. S. Dept. Agr, 25-26, *assoc. entomologist*, 26- A.A.; Entom. Soc; Soc. Econ. Entom; Ecol. Soc. Ecology of sugar beet leafhoppers; Sphecoidea.
- Carter, Dr. W(illiam) S(pencer)**, Rockefeller Foundation, 61 Broadway, New York, N. Y. *Physiology*. Warren Co, N. J, April 11, 69. M.D, Pennsylvania, 90. Res. physician, Phila. Hosp, 90; Presb. Hosp, 91; asst. physiol, Pennsylvania, 91-92, asst. demonstrator path, 92-95, asst. prof. comp. physiol. and demonstrator physiol, 95-97; prof. physiol, Texas, 97-22, dean med. faculty, 03-22; *assoc. director div. med. educ.*, Rockefeller Foundation, 22- Quiz master, Med. Inst, Phila, 91-96. Physiol. Soc; Phila. Path. Soc; Phila. Col. Physicians. Leucocytosis and blood-serum; cause of uremia; the action of drugs and poisons; poisonous mushrooms; the parathyroids and thyroid gland; prophylaxis and control of tuberculosis; the milk supply; secretory action of renal epithelium; absorption; autodigestion; ether anesthesia and the alkali reserve of the blood.
- Carter, W(illiam) T(homas)**, U. S. Department of Agriculture, Washington, D. C. *Soils*. Labette Co, Kans, July 9, 77. B.S, Agr. and Mech. Col. Texas, 98; fellow, Pa. State, 00-02. *Bur. soils*, U. S. Dept. Agr, 02-, *assoc. soil scientist*. Soil Surv. Ass; Soc. Agron; Soc. Eng; Soc. Mil. Eng. Classification and mapping of soils.
- Cartledge, Dr. G(roves) H(oward)**, Johns Hopkins University, Baltimore, Md. *Chemistry*. Gainesville, Ga, Feb. 10, 91. A.B, A.M, Davidson, 11; Ph.D, Chicago, 16. Acting prof. chem, Davidson, 12-13; prof. chem. and physics, Presbyterian (S. C), 13-17; *assoc. prof. chem*, Davidson, 17-18; chief chemist, Richmond Levering and Co, 19-20; *assoc. prof. chem*, Hopkins, 20- C.W.S, U.S.A. Chem. Soc. Inorganic physical chemistry; radioactivity; petroleum.
- Cartledge, J(oseph) Lincoln**, 4232 Fifth Ave, Pittsburgh, Pa. *Botany*. Philadelphia, Pa, 95. A.B, Pennsylvania, 18, A.M, 21; Pittsburgh, 21- *Instr. bot.* Pennsylvania, 20-21; *Pittsburgh*, 21- A.A; Bot. Soc; Pa. Acad. Sex in fungi; plant genetics.
- Cartwright, W(illiam) B(ell)**, Box 95, West Lafayette, Ind. *Entomology*. Goodlettsville, Tenn, Sept. 19, 94. B.S, Vanderbilt, 17. Field asst, bur. entom, U. S. Dept. Agr, 15; asst, lab. exp. entom, Tennessee, 16; instr. biol, Vanderbilt, 16-17; *assoc. entomologist*, *bur. entom.*, U. S. Dept. Agr, 17- A.A; Entom. Soc; Ass. Econ. Entom; Ind. Acad. Cereal and forage insects.
- Carty, J(ohn) J(oseph)**, 195 Broadway, New York, N. Y. **Electrical engineering*. Cambridge, Mass, April 14, 61. Hon. Eng.D, Stevens, 15; N. Y. Univ, 22; Sc.D, Chicago, Bowdoin, 16, Tufts, 19, Yale, 22, Princeton, 23; LL.D, McGill, 17, Pennsylvania, 24. Bell Telephone Co, Boston, 79; in charge cable and switchboard dept, West. Elec. Co, 87-89; chief engineer, N. Y. Telephone Co, 89-07; *Am. Tel. and Tel. Co*, 07-19, v. pres, 19- Nat. Research Council; trustee, Carnegie Institution, and Carnegie Corp. of N. Y; v. chairman trustees, Nat. Research Endowment. Longstreth medal, Franklin Inst, 03; Franklin medal, 16; Edison medal, Inst. Elec. Eng, 18. Major, Sig. O.R.C, col, U.S.A, 17; on staff chief Sig. officer, U.S.A, 18-19; col, O.R.C, 19, brig. gen, 21; War Dept. Business Council; hon. adviser, Army Indust. Col. D.S. medal; Officier, Légion d'honneur; Order of the Rising Sun, and Order of the Sacred Treasure of Meiji, Japan. Nat. Acad; A.A; fel. Elec. Eng. (past manager, v. pres, 04-06, 08-11, pres, 15); Physical Soc; hon. mem. Franklin Inst; Philos. Soc; Am. Acad; N. Y. Acad. Telephone; wireless telephone; transcontinental and transoceanic telephone.
- Carver, Dr. B(enjamin) F(ranklin)**, Standard Oil Co, Bayway, N. J. *Chemistry*. Hanover, Pa, Sept. 10, 78. B.S, Pennsylvania Col, 00, M.S, 03; Ph.D, Hopkins, 03. Chemist, *Standard Oil Co*, New York, 03-18, asst. chief chemist, N. J, 18-24, *chief chemist*, *gen. laboratories*, 24- Semi-permeable membranes prepared by the electrolytic method.
- Carver, Dr. E(mmett) K(irkendall)**, 215 Flower City Park, Rochester, N. Y. *Chemistry*. Leando, Iowa, July 9, 93. A.B, Harvard, 14, Ph.D, 17. Nat. Research Council fellow, 19-21; instr. physical chem, Illinois, 21-24; *chemist*, *research lab*, Eastman Kodak Co, 24- Capt, U.S.A, 18-19. A.A; Chem. Soc; Physical Soc. Physical chemistry; surface tension; adsorption; cellulose.
- Carver, Prof. G(ail) L(uke)**, 613 Orange St, Macon, Ga. *Zoology*. Climax, Mich, Feb. 4, 78. A.B, Michigan, 07, A.M, 08; Columbia, 12-13. Acting prof. physics and astron, *Mercer*, 07-08, *prof. biol*, 08-18, 24- *Assoc. prof.*, Wesleyan Female Col, 21-25; summers, Puget Sound Biol. Lab; Woods Hole. A.A; Ass. Anat; Genetic Ass. Hybridization effects in Drosophila.
- Carver, Dr. Walter B(uckingham)**, 109 College Ave, Ithaca, N. Y. *Mathematics*. Town Hill, Pa, Jan. 11, 79. Gettysburg, 95-96; Ph.B, Dickinson, 99; fellow, Hopkins, 03-04, Ph.D, 04. Asst, Hopkins, 00-01; prof. math. and physics, Ursinus, 04-06; instr. *math*, Cornell, 06-10, asst. prof, 10-25, *prof*, 25- Math. Soc; Math. Ass. Projective geometry.
- Carveth, Dr. Hector Russell**, Niagara Falls, N. Y. *Chemistry*. Port Hope, Ont, Can, Jan. 23, 73. B.A, Victoria and Toronto, 96; fellow, Cornell, 96-98, Ph.D, 98, hon. fellow, 98-99. Instr. gen. chem, Cornell, 99-00, physical chem, 00-05; chemist, Int. Acheson Graphite Co, 05-06; works manager, *Niagara Electrochem. Co*, 06-17, *gen. manager*, 17-; v. pres, Roessler and Hasslacher Chem. Co, Stibium Products Co, and pres, Pacific R and H Chem. Co, 17- Chem. Soc; Electrochem. Soc; Soc. Chem. Indust. Vapor composition and phase separations; electrochemical processes, especially alkali metals.

- Cary, Dr. Austin**, U. S. Forest Service, Washington, D. C. *Forestry*. East Machias, Maine, July 31, 65. A.B., Bowdoin, 87, A.M., 90, Sc.D., 22. Surveyor and investigator, Maine and U. S. Forestry Dept, 90-98; forester, Berlin Mills Co, 98-04; asst. prof. forestry, Harvard, 05-09; state supt. forests, N. Y., 09-10; *logging engineer*, U. S. Forest Service, 10-. A.A.; fel. Soc. Foresters. Forest resources of New England and the southern United States.
- Cary, C(harles) A(aron)**, Beltsville, Md. *Chemistry*. Grand Rapids, Wis, 80. B.S., Chicago, 11, 15-17, summers, 12-17. Prin. high sch, Wis, 06-07; prof. chem, Chicago Col. Med. and Surg, 10-16; *org. chemist*, *bur. dairying*, U. S. Dept. Agr, 17-. Assoc. prof, Chicago Col. Dent. Surg, 10-12. Chem. Soc; Soc. Biol. Chem; Soc. Animal Production. Physiology of milk secretion; relation between the diet, composition of the blood and secretion of milk in dairy cows.
- Cary, Prof. L(ewis) R(obinson)**, Princeton University, Princeton, N. J. *Zoology*. Topsham, Maine, Sept. 1, 80. B.S., Maine, 01, M.S., 02; Ph.D., Princeton, 09. Asst. biol., Maine, 01-03; zoologist, Gulf Biol. Sta., La, 05-08; instr. *biol.*, Princeton, 10-15, *asst. prof.*, 16-. Research assoc, Carnegie Inst. exped, Samoa and Fiji, 17-. A.A.; Soc. Nat; Soc. Zool. Embryology of trematodes and coelenterates; coral reef formation.
- Cary, Dr. William Ernest**, 104 S. Michigan Ave, Chicago, Ill. *Bacteriology*. Gansevoort, N. Y., Nov. 17, 88. B.S., Earlham, 12; Ph.D., Chicago, 16, M.D., Rush Med. Col, 20. Instr. bacter. and hygiene, Chicago, 16-19; *asst. prof. epidemiol.*, Chicago; *practising physician*. Soc. Bact. Immunology; epidemiology; clinical medicine.
- Casamajor, Prof. Louis**, 30 E. 40th St, New York, N. Y. *Neurology*. Brooklyn, N. Y., Aug. 12, 81. A.B., Columbia, 03, A.M., M.D., 06. Chief clinic, N. Y. *Neur. Inst.*, 09-15, *director laboratories*, 23-; *chief*, *Vanderbilt Clinic*, 15-; instr. *neur. Columbia*, 14-15, *asst. prof.*, 15-16, *assoc. prof.*, 16-19, *prof.*, 19-. Attending neurologist, Beekman St. Hosp, 24-; consulting neurologist, Veterans Hosp, 24-; Mineola Hosp, 24-; Knickerbocker Hosp, 25-. Capt, M.R.C., 17-18, major, 18-19. *Neur. Ass.*; *Am. Med. Ass.*; *Ass. Anat.*; *Psychiat. Ass.*; *Soc. Mammal.*; *N. Y. Neur. Soc.*; *N. Y. Soc. Clin. Psychiat.* (sec'y, 23, pres, 27-). *Psychiatry*.
- Case, Prof. Earl C(lark)**, University of Cincinnati, Cincinnati, Ohio. *Geography*. Sumner, Ill, 87. B.Ed., Ill. State Nor. Univ, 15; Ph.D., Chicago, 25. *Asst. prof. geog.*, *Cincinnati*, 20-25, *assoc. prof.*, 25-. Relation of industry to environment in the Valley of East Tennessee.
- Case, Prof. E(rmine) C(owles)**, University of Michigan, Ann Arbor, Mich. **Paleontology*, *Geology*. Kansas City, Mo, Sept. 11, 71. A.B., A.M., Kansas, 93; M.S., Cornell, 95; Ph.D., Chicago, 96. *Asst. chem.*, Kansas, 93-95; instr. *vert. paleont.*, Chicago, 96; *prof. geol.* and *physical geog.*, Wis. State Nor. Sch., Milwaukee, 97-07; *asst. prof. hist. geol. and paleont.*, *Michigan*, 07-08, *junior prof.*, 09-13, *prof.*, 13-. Research assoc, Carnegie Institution. A.A.; Soc. Nat; Geol. Soc; Paleont. Soc; Soc. Mammal; Mich. Acad. (pres, 12); Wash. Acad. Osteology and morphology of extinct reptiles; morphology of Permian vertebrates of America; paleogeography.
- Case, Dr. F(rancis) H(untington)**, Johns Hopkins University, Baltimore, Md. *Organic chemistry*. Milwaukee, Wis, April 4, 99. B.S., Michigan, 20; M.S., Yale, 21, Ph.D., 23. Nat. Research Council fellow, Harvard, 23-25; instr. chem, Swarthmore, 25-26; *research fellow*, *Am. Petrol. Inst.*, *Hopkins*, 26-. New local anesthetics; derivatives of P-hydroxy methyl benzoic acid and cyclopentane.
- Cash, Dr. J(ames) R(obert)**, 12 Hsi Piao Pei Hutung, Peking, China. *Pathology*. Chattanooga, Tenn, May 2, 93. A.M., Virginia, 15; M.D., Hopkins, 19. *Asst. instr.* and *assoc. path.*, Hopkins, 19-24; *assoc. prof.*, *Peking Union Med. Col.*, 24-27, *prof.*, 27-. *Ass. Exp. Path.*; *Ass. Path. and Bact.*; *Ass. Anat.*; *Soc. Exp. Biol.* Development of lymphatic system; experimental hypertension.
- Cash, Lillian C.**, U. S. Department of Agriculture, Washington, D. C. *Biology*. Ellenville, N. Y., 86. A.B., George Washington, 09. Cataloguer, U. S. Nat. Museum, 10-14; *sci. asst. lab. plant path.*, *bur. plant indust.*, U. S. Dept. Agr, 14-23, *junior pathologist*, 23-. *Path. Soc.*; *Wild Flower Preservation Soc.*; *Audubon Soc.*; *Wash. Biol. Soc.*; *Wash. Bot. Soc.* Bacterial diseases of plants.
- Caskey, Dr. M(arion) W(illiam)**, University of Louisville, Louisville, Ky. *Physiology*. Salado, Texas, June 24, 00. A.B., Baylor, 21, A.M., 22; fellow, Ohio State, 24-25, Ph.D., 25. Teaching fellow, Baylor, 21-22, *instr.*, 22-23; *physiol. and pharmacol. med. dept.*, *Louisville*, 25-. A.A. Adrenalin chloride and brain temperature; the effect of adrenalin on the temperature of skeletal muscle before and after removal of the liver from the circulation.
- Cason, Prof. Hulsey**, University of Rochester, Rochester, N. Y. *Psychology*. Lexington, Ga, Feb. 21, 93. A.B., Mercer, 13; A.M., Columbia, 20, fellow, 21-22, Ph.D., 22. *Asst. prof. psychol.*, Kansas, 22-23; Syracuse, 23-24, *assoc. prof.*, 24-26; *asst. prof.*, *Rochester*, 26-27, *prof.*, 27-. Summers, lecturer, North Carolina, 23, Columbia, 27. A.A.; *Psychol. Ass.*; *Sociol. Soc.* Conditioned pupillary and eyelid reactions; general aspects and physical basis of conditioned response; laws of exercise and effect; relation between association tendencies and learning ability; backward association; remote forward association.
- Caspari, Dr. Charles E(dward)**, St. Louis College of Pharmacy, St. Louis, Mo. *Chemistry*. Baltimore, Md, April 9, 75. A.B., Hopkins, 96, fellow, 99-00, Ph.D., 00. *Asst. to Dr. Ira Remsen*, Hopkins, 99-00; *org. chem.*, Columbia, 00-01; *research chemist*, Mallinckrodt Chem. Works, 01-03; *prof. chem.*, *St. Louis Col. Pharmacy*, 03-, *dean*, 26-. Summer, field asst, U. S. Geol. Surv, 98. Mem. committee on revision, U. S. Pharmacopoeia, 10-. A.A.; *Chem. Soc.*; *Pharmaceut. Ass.*; *St. Louis Chem. Soc.* The fat contained in the seeds of the spice bush

- (*Lindera benzoin*); the determination of codein in opium.
- Casselberry, Prof. R(ussell) D(avid)**, 306 S. Atherton St, State College, Pa. *Zoology*. Howard, Pa, Jan. 1, 92. B.S., Pa. State, 15, M.S., 22. Teacher, high sch, Pa, 15-18; instr. *zool*, Pa. State, 18-22, asst. prof, 22-
- Casselman, Dr. A(rthur) J(ay)**, N. W. corner Second and Penn Sts, Camden, N. J. *Biochemistry*. Camden, March 14, 88. M.D., Pennsylvania, 11, D.P.H., 15. *Consultant in charge bur. venereal disease control*, N. J. State Dept. Health, 19- Bacteriologist in charge laboratories, Camden; pathologist, West Jersey Hosp; surgeon, U. S. Pub. Health Service. A.A.; Am. Med. Ass; Pub. Health Ass; N. J. Sanit. Ass; Phila. Path. Soc. Wassermann reaction; standardization of the complement fixation reaction for the diagnosis of syphilis.
- Casselman, E(lbridge) J(ohnson)**, Mellon Institute, Pittsburgh, Pa. *Industrial chemistry*. Washington, D. C, Nov. 29, 93. B.S., Mass. Inst. Tech, 15. Asst. chemist, U. S. Pub. Health Service, 18-20; research chemist, Westinghouse Elec. and Mfg. Co, 20-23; *indust. fellow*, Mellon Inst, 23- Chem. Soc. (ed, Pittsburgh sect, 'Crucible,' 21); Chem. Eng; Ceramic Soc. (chairman, Pittsburgh sect, 25). Prevention of stream pollution by dye wastes; synthetic resins; refractories for melting glass.
- Casteel, Dr. D(ana) B(rackenridge)**, University of Texas, Austin, Texas. *Zoology*. Grafton, W. Va, May 15, 77. A.B., Allegheny, 99; A.M., Ohio Wesleyan, 00; fellow, Pennsylvania, 02-04, Ph.D., 03. Acting prof. biol, Missouri Valley, 04-05; instr. *zool*, Michigan, 05-09; *Texas*, 09-11, adjunct prof, 11-14, assoc. prof, 14-19, prof, 19- Soc. Zool. Molluscan embryology; reptilian and insect behavior; cytology.
- Castetter, Prof. E(dward) F(ranklin)**, Iowa State College, Ames, Iowa. *Botany*. Pitman, Pa, March 11, 91. A.B., Lebanon Valley, 19; fellow, Pa. State, 19-20, M.S., 21; Chicago; Ph.D., Iowa Col, 24. *Asst. prof. biol*, South. Methodist, 20-21; *bot*, Iowa Col, 21- Fel. Iowa Acad. Cytology of *Melilotus alba*; taxonomy and species crosses in the genus *Cucurbita*; cytology of the Cucurbitaceae.
- Castle, Dr. Hempstead**, Yale University, New Haven, Conn. *Bryology*. Springfield, Mass, Dec. 1, 94. B.S., Cornell, 21, A.M., 23. Instr., Bay Path. Inst, 13-14; high sch, N. Y., 15-17; asst. bot. Cornell, 21-23; *instr*, high sch, Conn, 23-24; *bot*, Yale, 24- Cornell Bot. Transcontinental exped, 23. Taxonomy.
- Castle, Dr. W(illiam) E(rnest)**, Payson Road, Belmont, Mass. *Zoology*. Alexandria, Ohio, Oct. 25, 67. A.B., Denison, 89, LL.D., 21; A.B., Harvard, 93, A.M., 94, Ph.D., 95; Sc.D., Wisconsin, 21. Prof. Latin, Ottawa (Kans), 89-92; instr. *zool*, Wisconsin, 95-96; Knox, 96-97; *Harvard*, 97-02, asst. prof, 03-08, prof, 08- Nat. Acad; A.A.; Soc. Nat. (sec'y, 06, pres, 19); Soc. Zool. (v. pres, 04, pres, east branch, 06); Philos. Soc; Am. Acad; Boston Soc. Nat. Hist. Embryology of tunicates; metamerism of leeches; heredity; sex determination.
- Caswell, Prof. A(lbert) E(dward)**, University of Oregon, Eugene, Oregon. *Physics*. Winnipeg, Man, Can, May 24, 84. A.B., Stanford, 08, Ph.D., 11. Asst. *physics*, Stanford, 08-11; instr., Purdue, 11-13; *Oregon*, 13-15, asst. prof, 15-17, prof, 17- Nat. Research Council fellow physics, 19-20. A.A.; Physical Soc. Peltier and Thomson E.M.F. of metals and bismuth-tin alloys; electron theory; thermoelectric, thermomagnetic and galvanomagnetic properties of metals.
- Caswell, Dr. R(obert) G(amble)**, Newtonville, Mass. *Chemistry*. Narragansett Pier, R. I., April 7, 92. Ph.B., Brown, 11, M.S., 12, Ph.D., 14. Instr. chem, Brown, 11-14; asst. prof. org. chem, Colby, 14-18; research chemist, E. I. du Pont de Nemours and Co, 18-22; *chem. engineer*, W. B. Pratt, Inc, 22-25; *Hood Rubber Co*, 25- A.A.; Chem. Soc. Organic chemistry; hydroaromatic compounds; bromhexamethylene; anthraquinone vat dyes; process patents; rubber.
- Cathcart, Cha(rlie) S(Anderson)**, New Brunswick, N. J. *Chemistry*. New Brunswick, Jan. 2, 65. B.S., Rutgers, 86, M.S., 89. Asst. chemist, Listers Agr. Chem. Works, 86-92, chief chemist, 93-07; *state chemist*, N. J. *Exp. Sta*, 07- Chem. Soc; Agr. Chem. Agricultural chemistry.
- Catlett, Charles**, Staunton, Va. *Geology*. Staunton, Aug. 18, 65. Virginia, 86. Asst. chemist, U. S. Geol. Surv, 87-88; *consulting chem. and mining engineer*, 92- Jury awards, La. Purchase Expos, 04. W.I.B. Min. Eng. Coal and iron mining; Portland cement.
- Cattell, Dr. Henry W(are)**, 1806 Spruce St, Philadelphia, Pa. *Pathology*. Harrisburg, Pa, Oct. 7, 62. A.B., Lafayette, 83, A.M., 86; M.D., Pennsylvania, 87. Demonstrator morbid anat, Pennsylvania, 92-97; senior coroner's physician, Phila, 96-99; director, Ayer Clin. Lab, Pa. Hosp, 99-01; pathologist, Phila. Hosp, 03. Ed, 'Int. Clinics,' 99-02, 10-16; 'Med. Notes and Queries'; 'Lippincott's Med. Dict.' Major, M.C, 17-19. Phila. Path. Soc; Phila. Col. Physicians. Post-mortem technique; color photography and educational moving pictures.
- Cattell, Dr. J(ames) McKeen**, Grand Central Terminal, New York, N. Y. or Garrison, N. Y. *Psychology*. Easton, Pa, May 25, 60. A.B., Lafayette, 80, A.M., 83, LL.D., 07; Göttingen, Leipzig, Paris, Geneva, 80-82; fellow, Hopkins, 82-83; Leipzig, 83-86, Ph.D., 86; Sc.D., Arizona, 24. Asst. psychol, Leipzig, 85-86; lecturer, Pennsylvania and Bryn Mawr, 87; Cambridge, 88; prof, Pennsylvania, 88-91; Columbia, 91-17, exec. head dept. anthrop, 96-02, philos, 02-05; pres, *Psychol. Corp*, 21-26, *chairman directors*, 26-; ed, 'Science,' 94-; 'Popular Science Monthly,' 00-15; 'Sci. Monthly,' 15-; 'School and Society,' 15-; 'Am. Naturalist,' 07-; 'Am. Men of Science,' 06, 10, 21, 27. Co-editor, 'Psychol. Rev,' 93-04; established the 'Jour,' the 'Archives' and the 'Library of Philos, Psychol. and Sci. Methods,' 04. Trustee, Science Service, 20-, v. pres, 25-27, treas, 27-; pres, Science Press Printing Co, 23- Nat. Acad; A.A. (v. pres, 98, 13, pres, 24, chairman, exec. committee, 25-); Soc. Nat. (pres, 02); Psychol.

- Ass. (pres, 95); Philos. Ass; Philos. Soc; Physiol. Soc; Educ. Research Ass; Eugenics Research Ass. (pres, 14); N. Y. Acad. (pres, 02-04); Wash. Acad. (v. pres, 21); Sigma Xi (pres, 13-15). The measurement of behavior; individual and group differences; the useful applications of psychology; the measurement of psychophysical time, intensity and extensity; vision; hearing; movement; perception; learning; fatigue; memory; association; psychological tests and measurements.
- Cattell, Dr. McKeen**, Garrison, N. Y. *Physiology*. Garrison, Nov. 17, 91. Cambridge, 12-13; Berlin, 14; B.S., Columbia, 14; A.M., Harvard, 17, Ph.D., 20, M.D., 24. Teaching fellow physiol., Harvard Med. Sch., 14-17; med. research worker, Red Cross, 19-20; teaching fellow pharmacol., Harvard Med. Sch., 20-24; instr. *physiol.*, med. col., Cornell, 24-27, asst. prof., 27-; assoc. ed., 'Science', 24- Summers, Roscoff, Woods Hole. Lieut. Sanit. C, Cent. Med. Dept. Lab., Dijon, 18. A.A.; Physiol. Soc; Pharmacol. Soc; Soc. Exp. Biol; Harvey Soc. Traumatic shock; innervation of the thyroid; action of ether on the circulation; pharmacology of quinidine; nerve-muscle physiology.
- Caudell, A(ndrew) N(elson)**, U. S. National Museum, Washington, D. C. *Entomology*. Indianapolis, Ind., Aug. 18, 72. B.S., Okla. Agr. and Mech. Col., 97; Mass. Col., 97-98. Asst. entom. Okla. Agr. and Mech. Col., 95; asst. bur. entom., U. S. Dept. Agr., and custodian Orthoptera, U. S. Nat. Museum, 98- Weather observer, Stillwater, Okla., 96-97. A.A.; Ass. Econ. Entom; Wash. Acad; Wash. Entom. Soc. Natural history and classification of Orthoptera.
- Caulfeild, Dr. A(lfred) H(ans) W(aring)**, 160 Bloor St, W., Toronto, Ont., Can. *Medicine*. Vienna, Ont., 79. M.B., Toronto, 04. Res. and asst. pathologist, Toronto Gen. Hosp., 04-08; pathologist, Nat. Sanatorium Ass., 08-11; asst. med. research, Toronto, 12-15, research mem., Connaught Laboratories, 18- Colleague, tuber. clinic, Toronto Gen. Hosp., 12- Med. officer, C.A.M.C., C.E.F., 15-18; consultant, Civil Re-establishment, 19- Fel. Am. Cong. Med; Ass. Path. and Bact; Soc. Exp. Biol; Ass. Thoracic Surg; Ass. Study Allergy; Toronto Acad. Med. Internal medicine; pathology; immunology; chronic diseases of the chest.
- Causey, Dr. David**, Princeton University, Princeton, N. J. *Biology*. Alton, Ill., Jan. 20, 99. A.B., James Millikin, 21; A.M., Illinois, 22; Ph.D., California, 25. Instr. *biol.*, Vanderbilt, 22-23; Princeton, 25- Parasitologist, N. J. State Hosp. A.A.; Soc. Parasitol. Protozoology; parasitology; cytology.
- Cavanagh, A(ngus) L(eonard)**, 1803 Barry Ave, Sawtelle, Calif. *Physics*. Elmira, Ont., Can., Sept. 14, 76. A.B., Stanford, 02. Teacher, high schools, Calif., 02-08; head dept. science, high sch., Los Angeles, 09-24; prin., Warren G. Harding High Sch., 24- Summer, instr., California, 08, 14, 19. Assoc. mem. Physical Soc. Magnetic susceptibility of water.
- Cavelti, Prof. J(ohn) E(imer)**, Wesleyan University, Middletown, Conn. *Chemistry*. Stratford, Conn., June 8, 96. B.S., Wesleyan, 18, M.S., 20. Chemist, Union Metallic Cartridge Co., Conn., 17-19; asst. chem., Wesleyan, 19-20, instr., 20-24, asst. prof., 24- Research chemist, Goodyear Rubber Co., 22- A.A.; Chem. Soc. Antimony; analytical applications of antimony compounds.
- Cecil, Dr. Russell L(a Fayette)**, 33 E. 61st St, New York, N. Y. *Medicine*. Nicholasville, Ky., Oct. 13, 81. A.B., Princeton, 02; M.D., Med. Col. of Va., 06. Instr. path., Columbia, 09-11, med., 12-16; med. col., Cornell, 16-19, asst. prof. *clin. med.*, 19- Res. pathologist, Presb. Hosp., New York, 09-11, asst. attending physician, 12-16; adjunct asst. and asst. attending physician, Bellevue Hosp., 16-; special expert, U. S. Pub. Health Service, 19- Major, M.C., 18-19. A.A.; Am. Med. Ass; Am. Physicians; Ass. Path. and Bact; Soc. Exp. Biol; Soc. Clin. Invest; Climat. Ass; Soc. Bact; Soc. Immunol; N. Y. Acad. Med. (library committee, committee on pub. health). Bacteriology; immunity; experimental influenza and pneumonia; arthritis.
- Cederberg, Prof. W(illiam) E(manuel)**, Augustana College, Rock Island, Ill. *Mathematics*. Upsala, Sweden, Jan. 26, 76. B.S., Augustana Col., 00; Ph.B., Yale, 02; Brown, 02-03; Göttingen, 05-07; Lund, 19; Wisconsin, 14-15, Ph.D., 22. Instr. *math.*, Brown, 02-03; Wisconsin, 20-21; prof., Augustana Col., 03-05, 08-13, 14-19, 21- Math. Soc; Math. Ass. Mathematical analysis; theoretical mechanics.
- Chace, Dr. Arnold B(uffum)**, Albion, R. I. *Mathematics*. Valley Falls, R. I., Nov. 10, 45. A.B., Brown, 66, A.M., 69, Sc.D., 92; Harvard; Paris. Instr. physics, Brown, 68-69, trustee, 76-, treas., 82-01, chancellor, 07- A.A.; Math. Soc.
- Chace, E(dward) M(acKay)**, Bureau of Chemistry, U. S. Department of Agriculture, Los Angeles, Calif. *Chemistry*. Havana, N. Y., Nov. 15, 74. George Washington, 95-97; LL.B., National Univ., 06, LL.M., 07. Chief chemist, Cuban Customs Service, Havana, 01-02; chief lab. food tech., U. S. Dept. Agr., asst. chief food div., food inspection div., chemist in charge citrus by-products lab. and fruit and vegetable chem. lab., 03- Chem. Soc; Agr. Chem. (assoc. referee). Food analysis and adulteration; chemical standardization and by-products of fruits and vegetables; essential oils.
- Chaddock, Dr. C(harles) G(ilbert)**, 3705 Delmar Boulevard, St. Louis, Mo. *Neurology*. Jonesville, Mich., Nov. 14, 61. M.D., Michigan, 85; Munich, 88-89; Paris, 96-00. Asst. supt., North. Mich. Asylum, 85-92; prof. *diseases nervous system*, St. Louis, 92-20, emer. prof., 20- Visiting neurologist, St. Louis City Hosp., 09-; consulting alienist, St. Louis City Sanitarium, 09- Am. Med. Ass; Psychiat. Ass; hon. fel. Chicago Acad. Med; St. Louis Neur. Soc. (pres, 15-). Psychiatry; clinical neurology; reflex phenomena; external malleolar sign; wrist sign; bilateral association in cerebral hemiplegia.
- Chadwick, Prof. George H(alcott)**, 175 Bridge St, Catskill, N. Y. *Geology*. Catskill, May 27, 76. Ph.B., Rochester, 04, M.S., 07. Ward's Nat. Sci. Estab., 96-00, 04-06, 14-18; zoologist, N. Y. State Museum, Albany, 06-07;

- prof. geol. and biol. St. Lawrence, 07-14; acting asst. prof. geol. Rochester, 14-20, prof. 20-23; field geologist, Empire Gas and Fuel Co., Bartlesville, Okla., 23-25, in charge, San Antonio, 24-25; acting prof. geol. Williams, 25-26; *private research*, 26- Instr. Nat. Sci. Camp, Canandaigua, N. Y., 00-01; field worker, N. Y. Geol. Surv.; summer, Milwaukee Pub. Museum, 02. A.A.; Geol. Soc.; Paleont. Soc.; Entom. Soc.; Wis. Nat. Hist. Soc.; Rochester Acad. (sec'y, 04-06, 15-17, pres, 18). Conchology; mite-galls; New York State stratigraphy; Silurian and Devonian of New York; Paleozoic corals; Silurian cephalopods and faunas; glacial lakes.
- Chaffee, Prof. E(mory) Leon**, 52 Garden St., Cambridge, Mass. **Physics*. Somerville, Mass., April 15, 85. B.S., Mass. Inst. Tech., 07; A.M., Harvard, 08, Ph.D., 11. Instr. *physics*, *Harvard*, 12-17, asst. prof., 17-23, assoc. prof., 23-26, *prof.*, 26- Longstreth medal, Franklin Inst., 12. Fel. Physical Soc.; Optical Soc.; fel. Radio Eng. (v. pres, 23); fel. Am. Acad.; Franklin Inst. Radio telegraphy; electrical oscillations; vacuum tubes; electrical response of the retina.
- Chalkley, Dr. Lyman, Jr.**, State College, Pa. *Chemistry*. Staunton, Va., June 1, 98. B.S., Chicago, 20, Ph.D., 22. Research assoc., Sprague Mem. Inst., 21-22; research chemist, Standard Oil Co. of Ind., 23-24; *asst. prof. indust. research*, Pa. State, 25- A.A.; Chem. Soc. Organo-metallic compounds; petroleum refining; catalytic oxidations.
- Chamberlain, Prof. Charles J(oseph)**, University of Chicago, Chicago, Ill. **Botany*. Sullivan, Ohio, Feb. 23, 63. A.B., Oberlin, 88, A.M., 94, Sc.D., 23; Ph.D., Chicago, 97; Bonn, 01-02. Teacher and prin., pub. schools, Ohio and Minn., 88-93; asst. and assoc. bot., *Chicago*, 97-01, instr., 01-07, asst. prof., 07-11, assoc. prof., 11-15, *prof. morphol. and cytol.*, 15- Am. ed. cytol., 'Bot. Centralblatt,' 02- Bot. expeditions, Mex., 04, 06, 08, 10, New Zealand and Australia, 11, S. Africa, 12, Cuba, 14-23. A.A. (sec'y, G, 03, v. pres, 23); Bot. Soc.; Int. Ass. Bot.; Bot. Gesell.; hon. mem. Sci. Soc. Kiev. Plant histology; morphology; morphology of gymnosperms and angiosperms; Cycadaceae.
- Chamberlain, Pres. C(lark) W(ells)**, Denison University, Granville, Ohio. **Physics*. Litchfield, Ohio, Oct. 29, 70. A.B., Denison, 94; fellow, Chicago, 99-00; Columbia, 08-09, Adams research fellow, 09-11, Ph.D., 10; LL.D., McMinnaville, 22. Instr. physics and math, Western Reserve Acad., 94-97; prof. physics and astron., Colby, 00-01; physics, Denison, 01-08; Vassar, 08-13; *pres. and prof. physics*, Denison, 13- Silver medal, Jamestown Expos., 07. A.A.; Physical Soc.; Inst. Social Sci.; Ass. Am. Colleges (pres, 23); Ohio Col. Ass. (pres, 22). A compound interferometer; the radius of molecular attraction; achromatism of interference; the diffractometer; a spectroscope of high resolving power; the relative motion of the earth and ether; the Lorentz-Fitzgerald effect.
- Chamberlain, G(eorge) E(dwain)**, 446 Oak Crest Ave., Decatur, Ill. *Chemical engineering*. Wyand-
- lusing, Pa., Nov. 6, 70. B.S., Lehigh, 93. Chemist, Am. Glucose Co., 94-97; *gen. supt.*, Nat. Starch Co., 00-02; St. Louis Syrup and Ref. Co., 02-06; Corn Products Co., 06-09; *Staley Mfg. Co.*, 12- A.A.; Chem. Soc.; Soc. Chem. Indust.; Ass. Textile Chem. and Colorists; Mech. Eng.; Franklin Inst. The manufacturing of starch and glucose; specific gravity recorder and automatic control of specific gravity of solutions; lactic acid; heavy crushers; grain dryers; improved grinding mills.
- Chamberlain, James F.**, 1546 Rose Villa, Pasadena, Calif. *Geography*. Centreville, Utah, July 2, 69. B.S., Chicago, 04, Ed.B., 05. Teacher, pub. schools, Chicago, 90-94; geog. and conservation, California, 95-20; pres., State Nor. Sch., Silver City, N. Mex., 21-22. Am. Geog. Soc.; Ass. Geog. Economic geography; conservation; climatic conditions.
- Chamberlain, Dr. Joseph S(cudder)**, Massachusetts Agricultural College, Amherst, Mass. *Chemistry*. Hudson, Ohio, March 7, 70. B.S., Iowa Col., 90, M.S., 92; fellow, Hopkins, 98-99, Ph.D., 99; Berlin, 09. Asst. chem., Iowa Col., 90-92, instr., 94-97; Oberlin, 99-01; research asst. to Dr. Ira Remsen, Hopkins, 01; physiol. chemist, U. S. Dept. Agr., 01-09; assoc. prof. chem., *Mass. Col.*, 09-13, *prof. org. and agr. chem.*, 13- A.A.; Chem. Soc.; Chem. Gesell. Organic and agricultural chemistry; parasulphamin benzoic acid; proteins of wheat and flour.
- Chamberlain, Prof. Katherine (MacFarlane)**, College of the City of Detroit, Detroit, Mich. *Physics*. Saginaw, Mich., June 28, 92. A.B., Michigan, 14, A.M., 19, Sc.D., 24. Instr. *math.*, *Col. City of Detroit*, 24-25, *asst. prof.*, 25- Ellen Richards research grant, 25. X-ray spectroscopy; fine structure of X-ray absorption edges; evidence of chemical combination from X-ray data.
- Chamberlain, Paul M(ellen)**, Marquette Building, Chicago, Ill. *Mechanical engineering*. Three Oaks, Mich., Feb. 28, 65. B.S., Mich. State Col., 88; M.E., Cornell, 90. Engineer, Frick Co., 90-92; Hercules Iron Works, 92-93; asst. prof. mech. eng., Mich. State Col., 93-96; prof., Lewis Inst., 96-06; chief engineer, Underfeed Stoker Co., 07-09; consulting engineer, 09-17; major, ordnance dept., 17-21. Commanding officer, Chicago Ordnance Dist., and chairman, Salvage Board. Mech. Eng.; West. Soc. Eng. Flow of heat through metal; down draft for forging furnaces; power required for cutting metals as index for hardness; horology.
- Chamberlain, Prof. W(illiam) Edward**, Stanford University Hospital, San Francisco, Calif. *Medicine*. Ann Arbor, Mich., Aug. 5, 92. B.S., California, 13, M.D., 16. Instr. *med.*, med. sch., California, 19-20; *assoc. prof.*, *Stanford*, 20- Visiting radiologist, Children's, Hahnemann and St. Mary's Hospitals, San Francisco, 19-20. Radiologist in charge, Mare Island Naval Hosp., 17, U. S. Navy Base Hosp. No. 2, Strathpeffer, Scotland, 18. Fel. Am. Med. Ass.; Röntgen Ray Soc.; fel. Col. Radiology; N. Am. Radiol. Soc.; Pacific Coast Röntgen Ray Soc. Radiol-

- ogy; pelvimetry by means of Röntgen rays; X-ray therapy.
- Chamberlin, Prof. D(ale) S**, Lehigh University, Bethlehem, Pa. *Chemical engineering*. Flat Rock, Mich, Jan. 17, 89. B.Ch.E, Michigan, 12; M.S, Lehigh, 20; D.I.C, Imp. Col. Sci, London, 24. First asst. chemist, Corn Products Ref. Co, N. J, 13-14; chemist, Lehigh Coke Co, Pa, 14-15, supt. by-products, 15-16; asst. prof. *indust. chem*, *Lehigh*, 16-20, *assoc. prof*, 20- Junior fellow, Mich. Gas Ass, 12; lecturer, Imp. Col. Sci, London. Chem. Eng; Chem. Soc. (sec'y-treas, Lehigh Valley sect); Lehigh Valley Eng. Club. Heat transfer; active carbons; gas analysis; propagation of flame.
- Chamberlin, F(rank) S(hirley)**, Quincy, Fla. *Entomology*. Framingham, Mass, April 16, 94. B.S, Mass. Col, 17. *Bur. entom*, U. S. Dept. Agr, 17- Ass. Econ. Entom; Fla. Entom. Soc. Tobacco insects.
- Chamberlin, Joseph C(onrad)**, San Jose State Teachers College, San Jose, Calif. *Entomology*. Salt Lake City, Utah, Dec. 23, 98. A.B, Stanford, 23, fellow, 23-24, A.M, 24. Asst. entom, Citrus Exp. Sta, California, 24-26; *instr. nat. science*, *San Jose State Teachers Col*, 26- Publication committee, 'Pan-Pacific Entomologist,' 24- Arachnologist, Calif. Acad. exped, Gulf of Calif, 21. A.A; Pacific Coast Entom. Soc. Arthropods; arachnology; Chelonethida; Coccidoidea.
- Chamberlin, Prof. R(alph) V(ary)**, University of Utah, Salt Lake City, Utah. *Zoology*. Salt Lake City, Jan. 3, 79. B.S, Utah, 98; Goldwin Smith fellow, Cornell, 02-04, Ph.D, 05. Teacher, high sch, 98-02; asst. prof. biol, Utah, 04-05, prof, 05-06, prof. zool. and dean med. sch, 06-08; Brigham Young, 08-11; Harrison fellow and lecturer zool, Pennsylvania, 11-13; curator Myriapoda, Arachnida and Vermes, museum comp. zool, Harvard, 13-25; *prof. zool*, *Utah*, 25- Ed, sect. Myriapoda and Gephyrea, Biol. Abstracts, 26- A.A; Soc. Nat; Soc. Zool; Entom. Soc. (v. pres, 19); Boston Soc. Nat. Hist; Cambridge Entom. Soc; Wash. Biol. Soc. Morphology, embryology and taxonomy of chilopods, diplopods and arachnids; Annelida; Gephyrea; regeneration; evolution and geographical distribution.
- Chamberlin, Dr. R(ollin) T(homas)**, University of Chicago, Chicago, Ill. **Geology*. Beloit, Wis, Oct. 20, 81. Geneva and Zurich, 99-00; B.S, Chicago, 03, Ph.D, 07. Asst. geologist, U. S. Geol. Surv, 07-09; mem. Chicago oriental educ. exped, China, 09-10; survey, iron ores of Brazil, 11-12; *instr. geol*, *Chicago*, 12-14, asst. prof, 14-18, assoc. prof, 18-23, *prof*, 23- Managing ed, 'Jour. of Geol,' 22- Nat. Research Council, 21-24. A.A. (sec'y, E, 17-20); Geol. Soc; Seismol. Soc; British Ass. Structural and dynamic geology; glaciology; gases in rocks; mountain building.
- Chamberlin, Dr. T(homas) C(hrowder)**, Hyde Park Hotel, Chicago, Ill. **Geology*. Mattoon, Ill, Sept. 25, 43. A.B, Beloit, 66, A.M, 69, LL.D, 87; Michigan, 68-69, hon. Ph.D, 82, LL.D, 87; hon. Ph.D, Wisconsin, 82, LL.D, 04, Sc.D, 20; LL.D, George Washington, 87; Toronto, 13; Sc.D, Illinois, 05. Prin, high sch, Wis, 66-68; prof. nat. science, Wis. State Nor. Sch, Whitewater, 69-73; geol, Beloit, 73-82; asst. state geologist, Wis, 73-76, chief geologist, 76-82; geologist in charge glacial div, U. S. Geol. Surv, 82-04; lecturer geol, Beloit, 82-87; prof, George Washington, 85-87; pres, Wisconsin, 87-92; head dept. *geol*, *Chicago*, 92-19, *emer. prof*, 19- Research assoc, Carnegie Institution. Ed, 'Jour. of Geol.' Representative for Wis, Paris Expos, 78; geologist, Peary exped, 94. Univ. of Chicago Orient. Educ. Investigation Commission, 09. Medal, Paris Expos, 78, 93; Helen Culver medal, Chicago Geog. Soc, 10; Hayden Mem. medal, Phila. Acad, 20; medal, Penrose Econ. Soc, 24. Nat. Acad; A.A. (v. pres, 86, pres, 08); Geol. Soc. (pres, 95); Am. Acad; Philos. Soc; Ill. Acad. (pres, 08); hon. mem. Wis. Acad. (pres, 85-87); Wash. Acad; Wash. Geol. Soc; cor. mem. N. Y. Acad; Chicago Geol. Soc. (pres, 10); Chicago Acad. (pres, 97-15); cor. mem. British Ass; cor. mem. London and Edinburgh Geol. Societies; cor. mem. Soc. Geol. de Belg; cor. mem. Stockholm Geol. Soc. Geology of Wisconsin; lead and zinc deposits; glacial and dynamic geology; the planetesimal hypothesis; early history of the earth; the history of the atmosphere.
- Chamberlin, Thomas R(oscoe)**, U. S. Entomological Laboratory, Forest Grove, Oregon. *Entomology*. Salt Lake City, Utah, March 30, 89. Utah, 09-11, A.B, 20. *Asst. entomologist*, *cereal and forage insect investigations*, *bur. entom*, U. S. Dept. Agr, 13- A.A; Ass. Econ. Entom; Wash. Entom. Soc; Utah Acad. The alfalfa weevil; life history of the clover seed chalcid on alfalfa; parasites of the alfalfa weevil.
- Chambers, Dr. A(rthur) D(ouglas)**, 509 Lore Ave, Wilmington, Del. *Chemistry*. Oxford Co, Ont, Can, May 4, 70. B.A, Toronto, 92; Ph.D, Hopkins, 96. Chemist, Solar Ref. Co, Ohio, 96-97; asst. supt, powder plant, *E. I. du Pont de Nemours and Co*, Mo, 97-06, supt, 06-07, Louviers plant, Colo, 07-15, development dept, Del, 15-17, *manager mfg. div*, *dye stuffs dept*, 17- A.A; Chem. Soc; Chem. Eng; Franklin Inst.
- Chambers, E(rnest) L(eslie)**, Department of Agriculture, Madison, Wis. *Entomology*. Seville, Ohio, Sept. 9, 96. B.S, Ohio State, 21; M.S, Wisconsin, 25. Asst, bur. entom, U. S. Dept. Agr, 19-21; *asst. state entomologist*, *Wis. State Dept. Agr*, 21- Entom. Soc; Ass. Econ. Entom; Wash. Entom. Soc. Greenhouse insects and pests; potato dusting and spraying; control of grasshopper and San Jose scale.
- Chambers, Prof. Geo(rge) Gailey**, 79 Drexel Ave, Lansdowne, Pa. *Mathematics*. Fulton Co, Pa, Oct. 12, 73. A.B, Dickinson, 02, Sc.D, 25; Ph.D, Pennsylvania, 08. Teacher and prin, schools, Pa, 90-97, 02-06; *instr*, *asst. prof*, and *prof. math*, *Pennsylvania*, 06- A.A; Math. Soc. Statistical analysis.
- Chambers, Prof. Robert**, Cornell University Medical College, New York, N. Y. **Biology, Anatomy*. Erzerum, Turkey, Oct. 23, 81. A.B, Robert Col, Constantinople, 00; M.A, Queen's

- (Can), 02; Ph.D, Munich, 08; Columbia, 11-12. Instr. high sch, Turkey, 03-06, acting director, 08-09; lecturer biol, Toronto, 09-11; asst. prof. hist. and comp. anat. col. med. Cincinnati, 12-15; instr. *micros. anat. med. col. Cornell*, 15-19, asst. prof, 19-22, *prof*, 22- Instr. Woods Hole, 17-19. John Scott prize, Phila, 25; Trail award, Linnean Soc, England, 25. A.A; Soc. Nat; Soc. Zool; Ass. Anat; Soc. Exp. Biol; N. Y. Acad. Med. Cytology; egg and cell size; spermatogenesis and oogenesis; physical nature of protoplasm; effect of electrolytes and dyes on exterior and interior of living cells by means of microdissection and microinjection.
- Chambers, Prof. R(obert) F(oster)**, 254 Irving Ave, Providence, R. I. *Chemistry*. Providence, Oct. 8, 87. Ph.B, Brown, 09, M.S, 10, Ph.D, 12. Research chemist, Gen. Elec. Co, Mass, 12; instr. *chem*, Brown, 14-16, asst. prof, 16-22, *assoc. prof*, 22- A.A; Chem. Soc; Providence Eng. Soc. Organic chemistry.
- Chambers, Prof. V(ictor) J(ohn)**, University of Rochester, Rochester, N. Y. *Chemistry*. Rochester, Nov. 18, 69. B.S, Rochester, 95; Ph.D, Hopkins, 01. Instr. *chem*, Columbia, 01-08; *prof*, Rochester, 08- Chem. Soc. Organic chemistry.
- Chambers, Prof. Will Grant**, Pennsylvania State College, State College, Pa. *Psychology, Education*. Westmoreland Co, Pa, April 26, 67. A.B, Lafayette, 94, A.M, 96, Litt.D, 17; Clark, 97-98; Chicago, 00-01. *Prof. math*, Pa. State Nor. Sch, Indiana, 94-97; psychol. and educ, Minn. State Nor. Sch, Moorhead, 01-04; psychol. and child study, Colo. State Teachers Col, Greeley, 04-09; educ, Pittsburgh, 09-21, *dean sch. educ*, 10-21; *Pa. State*, 22- Director summer session, Pa. State, 21- *Assoc. ed*, 'Jour. Pedagog.' A.A; Psychol. Ass; Soc. Col. Teachers Educ. (pres, 17); Pa. State Educ. Ass. (pres, 20). Genetic psychology; evolution of ideals; how words get meaning; memory types; children's political ideas; ideas of discipline; psychology of proper names; childhood reactions to imaginary freedom; individual differences; reaction of special training on general efficiency; correlation of essential characteristics in the training of teachers.
- Chambers, Dr. William H(arold)**, 64 Glenham Road, Hamden, Conn. *Physiology*. Evanston, Ill, March 2, 94. B.S, Illinois, 15, M.S, 17; research fellow, Mo. Bot. Garden, 19-20; Ph.D, Washington (St. Louis), 20. Asst. dairy bacter, Ill. Exp. Sta, 15-17; research asst, Barnard Free Skin and Cancer Hosp, and asst. exp. surg, sch. med, Washington (St. Louis), 20-24; Nat. Research Council fellow, med. col, Cornell, 24-26; *instr. physiol. sch. med. Yale*, 26- Second lieut, Sanit. C, 18-19. *Physiol. Soc*; Soc. Exp. Biol; Soc. Bact; Ass. Cancer Research. Growth of bacteria; blood chemistry in cancer; plant tissue culture; carbohydrate metabolism.
- Chambers, W(illie) Lee**, Eagle Rock, Calif. *Ornithology*. Sedalia, Mo, May 7, 78. Ornith. Union; Cooper Ornith. Club (business manager, 09-); Soc. Mammal.
- Chambliss, Charles Edward**, U. S. Department of Agriculture, Washington, D. C. *Agronomy*. Petersburg, Va, Aug. 20, 71. B.S, Tennessee, 92, M.S, 94. Instr. zool, Tennessee, 94-99, entomologist, Exp. Sta, 96-99; state entomologist, Tenn, 99-01; *assoc. prof. zool. and entom.*, Clemson, and zoologist and entomologist, S. C. Exp. Sta, 01-07; state entomologist, S. C, 07-08; *agronomist in charge rice investigations, bur. plant indust, U. S. Dept. Agr*, 08- A.A; Soc. Agron; Wash. Bot. Soc. (sec'y, 13-20, pres, 20); Wash. Biol. Soc; Wash. Acad. Insects affecting orchards, gardens and the rice crop; breeding of rices; taxonomy of Oryzeae.
- Chambliss, Prof. Hardee**, Catholic University of America, Washington, D. C. *Chemistry*. Selma, Ala, Dec. 4, 72. Grad, Va. Mil. Inst, 94; fellow, Vanderbilt, 98-99, M.S, 99; Ph.D, Hopkins, 00. Asst. chem, Columbia, 00-01; research chemist, Moore Elec. Co, N. J, 01-03; Gen. Chem. Co, New York, 03-09; *prof. chem*, Okla. Agr. and Mech. Col, 09-15; asst. state commissioner health, Okla, 15-16; chem. director, Commercial Acid Co, 16-17; lieut. col. and commanding officer, U. S. Nitrate Plant No. 1, 19-21; *prof. chem. and director*, Martin Maloney chem. lab, Catholic Univ, 21-, *dean faculty of sciences*, 25- Major, ordnance dept, 17-19. A.A; Chem. Soc; Chem. Eng; Soc. Chem. Indust; Mech. Eng; fel. London Chem. Soc. Permanganates; fixation of nitrogen.
- Chamot, Prof. E(mile) M(onnin)**, 927 E. State St, Ithaca, N. Y. **Microchemistry, Sanitary chemistry*. Buffalo, N. Y, March 4, 68. B.S, Cornell, 91, Ph.D, 97; Nancy, Braunschweig, Paris and Delft. Asst. quant. anal, *Cornell*, 90-91, instr, 91-97, lecturer chem, 98, instr. toxicol, 99, sanit. and toxicol. chem, 00, asst. prof, 01-10, *prof. chem. micros. and sanit. chem*, 10- Exchange prof, France, 24-25. Chem. Soc; Soc. Bact; Pub. Health Ass. Microchemical analysis.
- Champlin, Prof. Manley (Jerome)**, University of Saskatchewan, Saskatoon, Sask, Can. *Agriculture*. Albion Township, Iowa, Oct. 28, 85. B.S, S. Dak. Col, 09, M.S, 14; M.S.A, Saskatchewan, 21. Sci. asst. cereal investigations, U. S. Dept. Agr, 09-11; *assoc. agronomist*, and asst. supt, exp. farms, S. Dak. Col, 11-20; exten. agronomist, 20; *prof. field husbandry, Saskatchewan*, 20- Lecture bur, U. S. Food Ad, 17-18. Judges committee, Int. Corn Show, 13; Int. Soil Products Expos, 14, 15, 18; Int. Live-stock and Grain Show, 25. Commission Investigating Methods of Grain Inspection, Minneapolis. A.A; Soc. Agron; Can. Soc. Tech. Agr; S. Dak. Exp. Ass. (sec'y, 13-20); Saskatchewan Field Husbandry Ass. (sec'y, 21-). Field husbandry; cereal breeding.
- Chance, Dr. H(enry) M(artyn)**, Drexel Building, Philadelphia, Pa. *Geology, Mining engineering*. Philadelphia, Jan. 18, 56. C.E, Pennsylvania, 74; M.D, Jefferson Med. Col, 81. Asst. geologist, Pa. Geol. Surv, 74-84; *mining and consulting engineer*, 84- Senior mem. firm, H. M. Chance and Co. A.A; Min. Eng; Min. and Metal. Soc. (pres, 13); Econ. Geol; Philos. Soc; Phila. Eng. Club. Applied geology.
- Chandlee, Prof. G(rover) C**, Pennsylvania State College, State College, Pa. *Chemistry*. Delta,

- Pa, Sept. 5, 84. Ph.B, Franklin and Marshall, 07; M.S, Pa. State, 13; A.M, Columbia, 22, Ph.D, 25. Instr. chem, Pa. State, 07-10, instr, asst. prof. and assoc. prof, 12-18, 19-20, *prof. and chairman dept.*, 22- Indus. work, 10-11. Lieut, U.S.A., 18-19. Chem. Soc. Inorganic and analytical chemistry; a new titration method for the determination of phosphorus; molybdates and phosphomolybdates of tetramethylammonium and tetraethylammonium.
- Chandler, Dr. Asa C**(rawford), School of Tropical Medicine, Calcutta, India. *Zoology*. Newark, N. J, Feb. 19, 91. A.B, Cornell, 11; M.S, California, 12, Ph.D, 14. Instr. zool, Oregon Col, 14-17, asst. prof, 17-19; instr. biol, Rice Inst, 19-23; *in charge hookworm research lab*, Calcutta Sch. Trop. Med, 24- Second lieut, Sanit.C, Cent. Med. Dept. Lab, Dijon. A.A; Soc. Parasitol; Pacific Coast Biol. Ass. Parasitology; medical zoology.
- Chandler, Dr. E**(dward) **M**(arion) **A**(ugustus), 1412 Lincoln St, North Chicago, Ill. *Chemistry*. Ocala, Fla, April 10, 87. A.B, Howard, 13; A.M, Clark, 14; Ph.D, Illinois, 17. Chemist, Dicks, David and Heller Co, 17-21; plant chemist, Abbott Laboratories, 21-24; *consulting chemist*, Lake County, Ill, 24- A.A; Chem. Soc. Organic chemistry; dyes; intermediates; triphenylmethane dyes; drugs; pharmaceuticals.
- Chandler, Prof. Elbert Edwin**, 1835 Woodrow Ave, Los Angeles, Calif. *Chemistry*. Pleasant Hill, Mo, Oct. 20, 69. A.B, William Jewell, 91; LL.B, Michigan, 93; Ph.D, Chicago, 06. Instr. chem, Mich. Mil. Acad, 01-03; asst, Chicago, 03-06; instr, Pomona, 06-08; *prof*, Occidental, 09- U. S. Dept. Agr, 24- Chem. Soc. (pres, south. Calif. sect, 17, counselor, 18). Ionization of dibasic acids; effect of cement dust on vegetation; length, strength and brightness of raw cotton fiber.
- Chandler, Prof. E**(lwyn) **F**(rancis), University, N. Dak. *Civil engineering*. Yellow Springs, Ohio, Aug. 29, 72. A.B, Ripon, 94, A.M, 97; Wisconsin, 97-99, fellow, 98-99. Teacher, prep. and high schools, 93-97; instr. math, North Dakota, 99-02, *prof*, 02-15, *civil eng*, 14-, acting dean col. eng, 25-26, *dean*, 26- City engineer, Ripon, Wis, 95; hydraulic engineer, U. S. Geol. Surv, 03-; state engineer, N. Dak, 04-05. A.A; Civil Eng; Eng. Educ; N. Dak. Acad; Wis. Acad; N. Dak. Soc. Eng. (sec'y, 12-22). Hydrographic methods and hydrology; surface water-supply; the rainfall-runoff; stream-flow.
- Chandler, Dr. Joseph**, 204 E. Essex Ave, Lansdowne, Pa. *Chemistry*. Livermore Falls, Maine, Jan. 16, 89. A.B, Colby, 09; Ph.D, Hopkins, 12. Asst. prof. chem, Louisville, 12-14; instr. org. chem, Tufts, 14-17, asst. prof, 17-19; research chemist, U. S. Color and Chem. Co, 19-20; Semet Solvay Co, 20-21; instr. chem, sch. med, Boston, 21-22, asst. prof, 22-25, *assoc. prof*, 25-26; *Hahnemann Med. Col*, 26- Capt, C.W.S.Res. Chem. Soc. Organic and physiological chemistry; dyestuffs and intermediates; vital function testing; blood and urine analysis.
- Chandler, Dr. W**(allace) **L**(arkin), East Lansing, Mich. *Bacteriology*. Antonito, Colo, April 21, 85. B.S, California, 14, M.S, 15; Ph.D, Cornell, 18. Instr, Fielding Acad, Paris, Idaho, 07-08; inspector plague suppression, U. S. Pub. Health Service, Calif, 10-13; instr. parasitol, Cornell, 15-18; research asst. entom, Mich. Exp. Sta, 18-19, *research assoc. and asst. prof. bacter*, Mich. State Col, 19- Exten. lecturer, California, 14-15; mammal surv. of San Joaquin Valley, Univ. of Calif. and U. S. Pub. Health Service, 11. Soc. Mammal. Parasitology; physiology; medical entomology.
- Chandler, Prof. W**(illiam) **H**(enry), University of California, Berkeley, Calif. *Pomology*. Butler, Mo, July 31, 78. B.S.A, Missouri, 05, fellow, 05-06, M.S, 06, Ph.D, 14. Asst. hort, Missouri, 06-10, instr, 10-11, asst. prof, 11-13; prof. pomol, Cornell, 13-23, v. director research, 20-23; *prof. pomol*, California, 23- A.A; Soc. Hort. Sci. (pres, 21); Bot. Soc. Killing of plant tissue by low temperature; plant saps; the pruning of fruit trees; polarity and scion rooting; effect of fruiting on trees.
- Chaney, Prof. Geo**(rge) **A**(rthur), 3221 W. Grand Ave, Des Moines, Iowa. *Mathematics*. Bedford, Iowa, May 31, 78. B.S, Highland Park, 04, M.S, 06, Sc.D, 16; A.M, Wisconsin, 11. Asst. prof. math. and physics, Highland Park, 04-06, prof. higher math. and physics, 06-08; instr. math, Wisconsin, 08-11; Iowa, 11-13; asst. prof, Iowa Col, 13-14, assoc. prof, 14-18, director grad. sch, 17-18; *investment banking*, 18- A.A; Math. Soc; Math. Ass; Eng. Educ; Iowa Acad.
- Chaney, Prof. Lucian W**(est), U. S. Department of Labor, Washington, D. C. *Industrial hygiene*. Heuvelton, N. Y, June 26, 57. A.B, Carleton Col, 78, B.S, 79, M.S, 82, Sc.D, 16. Instr. and supt, schools, 78-82; instr. biol, Carleton Col, 82-83, prof, 83-08; *statistical expert*, U. S. Dept. Labor, 08- A.A; Statist. Ass; Inst. Social Sci. Embryology of fishes; glacial geology; statistics in accident investigations; relation of physical condition to accident hazard.
- Chaney, Dr. Newcomb K**(inney), 1239 Marlowe Ave, Lakewood, Cleveland, Ohio. *Chemistry*. Northfield, Minn, April 27, 83. B.S, Carleton, 04, M.S, 05; Rhodes scholar, Oxford, 07-10, B.A, 10; Harrison fellow, Pennsylvania, 10-11, Ph.D, 12. Instr. biol, Carleton, 06-07; research chemist, Nat. Carbon Co, 11-17, asst. director research and development laboratories, 19-21; tech. director carbon and battery div, Union Carbide and Carbon Research Laboratories, Inc, New York, 21-25; *research laboratories*, Nat. Carbon Co, 25- Consulting chemist, U. S. Bur. Mines, 17-18; C.W.S, 18-19. Chem. Eng. (director, 27-); Chem. Soc. (councilor, N. Y. sect, 25-); Electrochem. Soc; Physical Soc. Physical and photometric measurement; electrochemistry; dry batteries and carbons; army gas mask carbon; activated carbon and its industrial applications; solvent recovery.
- Chaney, Dr. Ralph W**(orks), University of California, Berkeley, Calif. *Paleobotany*. Chicago, Ill, Aug. 24, 90. B.S, Chicago, 12, Ph.D, 19. Head dept. nat. science, Francis W. Parker Sch, Chicago, 14-17; instr. geol, Iowa, 17-19,

- asst. prof, 19-22; *research assoc*, *Carnegie Institution*, 22- Consulting chemist, C.W.S., 26. Cooperating expert, Int. Critical Tables; hon. curator museum paleont, California; paleobotanist, third Asiatic exped, 25. A.A.; Paleont. Soc.; Geol. Soc.; Ecol. Soc. Tertiary paleobotany and geology of western America; properties of carbons for industrial use.
- Chant, Prof. C(larence) A(ugustus)**, University of Toronto, Toronto, Ont, Can. *Physics, Astronomy*. Near Toronto, May 31, 65. B.A., Toronto, 90, M.A., 00; Ph.D., Harvard, 01. Fellow and tutor physics, *Toronto*, 91-92, lecturer, 92-07, assoc. prof. *astrophysics*, 07-18, *prof*, 18- Exped, Australian eclipse, 22. A.A.; Physical Soc.; Astron. Soc.; Royal Soc. Can.; Royal Astron. Soc. Can. (pres, 04-07, ed, 'Jour,' 07-); Royal Astron. Soc. London; Soc. astron. de France; hon. mem. Soc. Astron. de Mex. The 'skin' effect in electrical oscillators; reception by wires of electric waves; physical basis of color; reflecting power of glasses and mirrors; meteoric displays.
- Chapin, Dr. Charles V(alue)**, 84 Keene St, Providence, R. I. *Medicine*. Providence, Jan. 17, 56. A.B., Brown, 76; M.D., N. Y. Univ, 79; Sc.D., Brown, 09. Prof. physiol, Brown, 86-94; *supt. health*, *Providence*, *R. I.*, 84- Lecturer, Harvard Med. Sch, 09, Cutter lecturer, 14. A.A.; Am. Acad.; Royal Soc. Med. Preventive medicine; municipal and state sanitation; sources and modes of infection; variation in types of contagious disease.
- Chapin, Dr. Edward A(lbert)**, U. S. National Museum, Washington, D. C. *Entomology*. Springfield, Mass, Jan. 4, 94. Ph.B., Yale, 16; M.Sc., Mass. Col, 17; Ph.D., George Washington, 23. Biol. surv, *U. S. Dept. Agr.*, 17-20; asst. zoologist, bur. animal indust, 20-26; *assoc. entomologist*, *bur. entom.*, 26- Wash. Biol. Soc.; Wash. Entom. Soc.; Wash. Helminthol. Soc. (rec. sec'y, 22-23, pres, 24). Taxonomy of Coleoptera; parasitic helminths.
- Chapin, Prof. H(arold) C(anning)**, Lowell Textile School, Lowell, Mass. *Chemistry*. Gill, Mass, Sept. 20, 83. A.B., Harvard, 04, Ph.D., 10. Asst. *chem*, Harvard, 04-07; instr, Rensselaer, 09-13; research chemist and foreman, Nat. Carbon Co, 13-18; assoc. prof, *Lafayette*, 18-20; *asst. prof*, *Lowell Textile School*, 20- Chem. Soc.; Ass. Textile Chem. and Colorists.
- Chapin, Dr. Henry Dwight**, 114 E. 54th St, New York, N. Y. *Pediatrics*. Steubenville, Ohio, Feb. 4, 57. B.S., Princeton, 77, hon. A.M., 86; M.D., Columbia, 81. Prof. diseases of children, Vermont, 88-89; Women's Med. Col. N. Y., 90-95; N. Y. Post-Grad. Med. Sch, 86-20. 16th Int. Med. Cong. (hon. pres, pediat. sect); founder and med. director, Speedwell Soc. Dependent Children. Pediat. Soc. (pres, 10); N. Y. Acad. Med. (chairman, pediat. sect, 13). Nutrition in children; biology of milk and infant feeding; diseases of children; heredity and child culture.
- Chapin, James P(aul)**, American Museum of Natural History, New York, N. Y. *Zoology*. New York, July 9, 89. A.B., Columbia, 16, Cut-
- ting fellow, 16-17, A.M., 17, Ph.D., 23. Asst, Am. Museum Nat. Hist. exped, Belgian Congo, 09-15, *dept. ornith*, *Am. Museum Nat. Hist*, 15-19, asst. curator, 20-23, *assoc. curator*, 23- Ruwenzori-Kivu exped, 26, 27. Fel. Ornith. Union; Soc. Mammal; Explorers Club; N. Y. Linnean Soc. Vertebrate zoology; Old World ornithology.
- Chapin, Robert M(acfarlane)**, U. S. Department of Agriculture, Washington, D. C. *Chemistry*. N. Weymouth, Mass, Oct. 5, 77. A.B., Amherst, 97, 98-99. Asst. chem, Amherst, 99-01, instr, 03-07; asst. chemist, *U. S. Dept. Agr.*, 07-10, *biochemist*, 10- Preparation, analysis and mechanics of action of soaps, disinfectants and insecticides.
- Chapin, Theodore (Sheffield)**, Henry L. Doherty and Co, 60 Wall St, New York, N. Y. *Geology*. Peking, China, April 25, 76. B.S., Occidental; A.M., Stanford. Geologist, U. S. Geol. Surv., Alaska, 11-20; geologist and chief geologist, *Henry L. Doherty and Co, Mex.*, 20- Ass. Petrol. Geol; Min. Eng; Wash. Acad. Petroleum.
- Chapin, Prof. W(illiam) H(enry)**, Oberlin, Ohio. *Chemistry*. Brownhelm, Ohio, Oct. 5, 72. A.B., Oberlin, 04; Ph.D., Pennsylvania, 09. Research fellow, Pennsylvania, 09-10; instr. *chem*, *Oberlin*, 06-07, assoc. prof, 10-22, *prof*, 22- Chem. Soc. Molecular weights; tantalum; solubility and hydration of ions; salt effect; thermal methods of analysis; water softening.
- Chapline, W(illiam) R(idgely)**, U. S. Forest Service, Washington, D. C. *Forestry*. Lincoln, Nebr, Jan. 10, 91. B.S., Nebraska, 13. Grazing asst, *U. S. Forest Service*, 13-14, examiner grazing, 15-20, *inspector in charge grazing research*, 20- A.A.; Soc. Foresters; Ecol. Soc.; Wash. Bot. Soc. Forest range plants; grasses; range management; livestock production.
- Chapman, Albert K(inkade)**, Eastman Kodak Co, Rochester, N. Y. *Physics*. Marysville, Ohio, May 31, 90. A.B., Ohio State, 12, fellow, 11-13, A.M., 13; Princeton, 13-14, fellow, 14-15, Ph.D. *Asst. to v. pres. and gen. manager*, *Eastman Kodak Co*. Optical Soc. Spectra of compounds; Corbino effect in metals and alloys.
- Chapman, Frank M(ichler)**, American Museum of Natural History, New York, N. Y. **Ornithology, Mammalogy*. Englewood, N. J., June 12, 64. Academy; Sc.D., Brown, 13. Asst. curator dept. ornith. and mammal, *Am. Museum Nat. Hist*, 88-01, assoc. curator, 01-08, *curator ornith*, 08- Assoc. ed, 'The Auk,' 94-11; ed. and founder, 'Bird-Lore,' 98- Nat. Acad.; Soc. Nat; fel. Ornith. Union (pres, 11); Philos. Soc.; fel. N. Y. Acad. (v. pres, 08, 09); N. Y. Linnean Soc. (pres, 97); hon. mem. N. Y. Zool. Soc.; Wash. Biol. Soc.; hon. mem. British Ornith. Union. Geographic distribution, systematic relationships and life histories of birds; popularization of natural history studies.
- Chapman, George H(enry)**, Caguas, P. R. *Plant physiology*. New Britain, Conn, March 29, 86. B.S., Mass. Col, 07; B.S., Boston, 09; M.S., 09; Prague, 13; Ph.D., 16. Asst. botanist, Mass. Col, 07-12, research physiologist, 13-21; di-

- rector, Conn. Tobacco Exp. Sta, 21-23; *research director and asst. gen. manager, Porto Rican Leaf Tobacco Co, 23-* Surface tension and enzyme activity; protein coagulation; chemical changes of tobacco during curing; Phytophthora disease of tobacco; physiological plant diseases.
- Chapman, Prof. Herman H(aupt)**, Yale University, New Haven, Conn. *Forestry*. Cambridge, Mass, Oct. 8, 74. B.S, Minnesota, 96, B.Agr, 99; M.F, Yale, 04. Supt, Exp. Sta, Grand Rapids, Minn, 97-04; forest asst, U. S. Forest Service, 04-05; instr, *sch. forestry, Yale, 06-07*, asst. prof, 07-11, *Harriman prof, 11-* Asst. district forester, U. S. Forest Service, Ariz. and N. Mex, 17-19. Fel. Soc. Foresters (exec. council, 18, v. pres, 22). Forest economics and finance; silviculture of southern longleaf pine.
- Chapman, Prof. James E(verett)**, 1010 12th Ave, N, Fargo, N. Dak. *Soils*. Waterville, Minn, April 26, 87. A.B, Carleton, 10; M.S, Minnesota, 15. Instr. and prin. schools, Minn, 10-13; exten. instr. soils, Maine, 15-16; asst, Minnesota, 19-22; instr, *N. Dak. Col, 22-23*, asst. *prof. agron. and soils, 23-* A.A; Soc. Agron; Soil Surv. Ass; Int. Soc. Soil Sci. Physics and chemistry of heavy clay soil.
- Chapman, Dr. J(ames) W(ittemeyer)**, Silliman Institute, Dumaguete, P. I. *Entomology*. Peebles, Ohio, Oct. 23, 80. A.B, Park, 07, A.M, 08; Harvard, 08-11, Sc.D, 13. Instr. chem, Park, 07-08; biol, Tufts, 10-11; entomologist, Boston, 11-14; asst, bur. entom, U. S. Dept. Agr, 14-16; *head dept. biol, Silliman Inst, 16-A.A*; Ass. Econ. Entom; Cambridge Entom. Club. Forest and shade tree pests; endoparasites of insects; tropical insect life; ants.
- Chapman, Kenneth M(ilton)**, Museum of New Mexico, Santa Fé, N. Mex. *Archeology*. Ligonier, Ind, July 13, 75. Chicago Art Inst; Art Students League, New York. Instr. art, N. Mex. Nor. Univ, Las Vegas, 99-03; *assoc. in art, Sch. Am. Research, 09-* A.A; Archeol. Inst; N. Mex. Ass. Science. Indian art.
- Chapman, Prof. Lawrence B(oylston)**, Massachusetts Institute of Technology, Cambridge, Mass. *Naval architecture, Marine engineering*. Norwich, Conn, Oct. 12, 86. B.S, Mass. Inst. Tech, 10. Asst. mech. eng, Mass. Inst. Tech, 10-11; eng. practice, 11-13; asst. prof. mech. eng, Maine, 13-15; Elec. Boat Co, 15-19; head course in marine eng. and transportation, Lehigh, 19-25; *assoc. prof. ship operation and marine eng, Mass. Inst. Tech, 25-* Soc. Naval Archit. and Marine Eng. Economic studies in ship operation and marine engineering.
- Chapman, Prof. Royal N(orton)**, 1381 Cleveland Ave, N, St. Paul, Minn. *Entomology*. Morris-town, Minn, Sept. 17, 89. A.B, Minnesota, 14, A.M, 15; fellow, Cornell, 15-16, Ph.D, 17. Teaching fellow animal biol, Minnesota, 16-17, instr, 17-18, asst. prof. and asst. entomologist, Exp. Sta, 18-23, assoc. prof. *animal biol. and entom, 23-25*, *prof, 25-*, *chief div. entom. and econ. zool, 25-* Guggenheim Mem. Foundation fellow, 26- A.A; Entom. Soc; Ass. Econ. Entom; Soc. Zool; Ecol. Soc; Soc. Nat. Animal ecology; insects; wood-boring beetles; wings of insects; insects in stored food products; insect nutrition; ecology of sand dune insects; pelvis of burrowing mammals.
- Chappelear, Prof. G(eorge) W(arren)**, State Teachers College, Harrisonburg, Va. *Biology*. Delaplane, Va, Aug. 23, 89. B.S, Va. Polytech, 12, M.S, 13. Instr. agron, Va. Polytech, 12-13; science and math, Miller Manual Labor Sch, Va, 13-18; *prof. biol, Va. State Teachers Col, 18-* Supt, buildings and grounds, Va. State Teachers Col, 18- A.A; Bot. Soc; Va. Acad. Botany; bacteriology; the teaching of biology and nature study.
- Charch, Dr. W(illiam) Hale**, du Pont Rayon Co, Buffalo, N. Y. *Chemistry*. Dayton, Ohio, March 20, 98. A.B, Miami, 20; M.S, Ohio State, 21, Ph.D, 23. Research chemist, Gen. Motors Corp, 23-24; *asst. chem. director, du Pont Rayon Co, 25-* Detonation in internal combustion engines.
- Charles, Dr. Grace M(iriam)**, Austin High School, Chicago, Ill. *Botany*. Chicago, Aug. 29, 76. A.B, Oberlin, 00; A.M, Chicago, 05, Ph.D, 10. Asst. biol, Wyoming, 05-07; instr. bot, Kansas, 11-15, asst. prof, 15-22; *teacher, Austin High Sch, Chicago, 22-* A.A; Bot. Soc; Ecol. Soc. Anatomy of ferns.
- Charles, Prof. R(ollin) L(andis)**, 510 Race St, Lancaster, Pa. *Physics*. Bethlehem, Pa, Nov. 26, 85. A.B, Lehigh, 07, A.M, 10. Instr. physics, Lehigh, 07-12, asst. prof, 12-19, assoc. prof, 19-22; *prof. physics and applied elec, Franklin and Marshall, 22-* Summer, instr, Columbia, 12. A.A; Physical Soc; Eng. Educ; Math. Ass. Heat; mathematical physics.
- Charlton, Dr. Harry Hayward**, University of Missouri, Columbia, Mo. *Anatomy*. Allston, Mass, May 18, 87. A.B, Lebanon Valley, 14; A.M, Yale, 16, Ph.D, 20. Instr. *anat, sch. med, Fordham, 18-20*; asst. prof, *Missouri, 20-23*, *assoc. prof, 23-* Ass. Anat. Cytology; neuroanatomy.
- Charlton, O(rlando) C(larke)**, 1736 Bennett Ave, Dallas, Texas. *Botany*. Pleasant, Ind, April 2, 54. B.S, Hanover, 72, A.M, 85; Sheffield Sci. Sch, Yale, 75-76; Chicago, 05-06, 95-97, 01-05. Teacher, pub. schools, Ind, 76-85; prof. nat. science, Ottawa (Kans), 85-91; Texas Nor. Col, 91-93; biol. and geol, Baylor, 93-02; Kalamazoo, 02-05; pres, Texas Woman's Col, 07-09; instr. biol, high sch, Texas, 09-14; city forester, Dallas, 17-19, asst. city forester, 19-20, *park forester, 20-* South. Forestry Cong. (v. pres, 17-). A.A; Bot. Soc; Texas Acad. (v. pres, 02); Texas State Forestry Ass. (v. pres, 16-19); Kans. Acad; Mich. Acad. Pteridophytes; municipal forestry.
- Charron, Dr. A(iphonse) T(elesphore)**, Department of Agriculture, Ottawa, Ont, Can. *Agricultural chemistry*. Gatineau Point, Que, March 8, 70. B.A, B.Ph, L.Ph, Ottawa, 92, M.A, 01, D.Sc, 15; D.S.A, Laval, 18. Asst. pub. analyst, Dist. Kingston, 92-96; demonstrator chem, McGill, 96-98; chief asst. chemist, Dom. Exp. Farms, 98-15; provincial agr. chemist, Que, 15-25; director, Provincial Dairy Sch, Que, 19-25; *asst. deputy minister agr, Can, 25-* Can. rep,

- Conf. Int. Inst. Agr, Rome, 22; Can. Inst. Chem. delegate, Int. Cong. Union Pure and Applied Chem, Lyons and Marseilles, 22. A.A.; Agr. Chem.; Chem. Soc.; fel. Can. Inst. Chem. (pres, 24); Ass. Can. Tech. Agr. Soil and dairy chemistry.
- Charters, Mrs. W. W. (Dr. Jessie Allen)**, Stephens College, Chicago, Ill. *Psychology*. Canton, Texas, Sept. 23, 80. A.B., Washington (Seattle), 99, A.M., 01; Ph.D., Chicago, 04. Teacher *psychol.* Calif. State Nor. Sch., Los Angeles, 04-07; research fellow, Carnegie Inst. Tech., 20-21; *consultant*, Stephens Col., 18-*Psychol. Ass.* Psychology of women; parent education.
- Chase, Mrs. Agnes**, U. S. Department of Agriculture, Washington, D. C. **Botany*. Iroquois Co., Ill., April 20, 69. Asst. bot., Field Museum Nat. Hist., 01-03; agrost. artist, U. S. Dept. Agr., 03-07, *asst. syst. agrost.*, 07-18, *agrost.*, 18-A.A.; Bot. Soc.; Wash. Biol. Soc.; Chicago Acad. Gramineae.
- Chase, Dr. F(rederick) L(incoln)**, Boulder, Colo. **Astronomy*. Boulder, June 28, 65. A.B., Colorado, 86; Ph.D., Yale, 91. Asst. astronomer, Yale Observatory, 90-10, director, 10-13. Lalande prize, Paris Acad., 08. A.A.; Astron. Soc. Stellar parallax and proper motion; parallaxes of thirty-five selected stars.
- Chase, Prof. George H(enry)**, 12 Shady Hill Square, Cambridge, Mass. *Archeology*. Lynn, Mass., June 13, 74. A.B., Harvard, 96, A.M., 97, Ph.D., 00; Am. Sch. Classical Studies, Athens. Master Greek and Latin, St. Mark's Sch., 00-01; instr., *Harvard*, 01-03, tutor Greek, 03-04, instr. classical archeol., 04-06, *asst. prof.*, 06-16, *John E. Hudson prof. archeol.*, 16-*Lecturer*, Lowell Inst., 19. Am. exped. Sardis, 14. Trustee, Museum Fine Arts, Boston, 18-*Archeol. Inst.* (v. pres, 21-); Philol. Ass.; Am. Acad. Classical archeology; Greek and Roman sculpture and pottery; Greek terra-cotta figurines.
- Chase, Pres. H(arry) W(oodburn)**, University of North Carolina, Chapel Hill, N. C. *Psychology*. Groveland, Mass., April 11, 83. A.B., Dartmouth, 04, A.M., 08; Ph.D., Clark, 10. Prof. philos. of educ., *North Carolina*, 10-15, *psychol.*, 15-19, *pres*, 19-*In charge clinic for subnormal children*, Clark, 10. A.A.; Psychol. Ass.; S. Soc. Philos. and Psychol. (councilor, 13). Theoretical and educational psychology.
- Chase, Prof. L(eon) W(ilson)**, University of Nebraska, Lincoln, Nebr. *Agricultural engineering*. Jacksonville, Vt., Aug. 27, 77. B.S., Nebraska, 04. Asst. mech., *Nebraska*, 01-03, instr. forge and foundry, 04-05, adjunct prof. *farm mech.*, 05-06, *asst. prof.*, 06-07, *assoc. prof.*, 07-08, *prof.*, 08-*Pres.* Chase Plow Co., 20-; with Fairbanks and Morse, 05. Chairman dept. agr. and mech. eng., Nebraska, 19-20. Major, ordnance dept., 18. Eng. Educ.; assoc. Mech. Eng. Farm machinery and structures; tile drainage.
- Chase, March F**, 140 Nassau St., New York, N. Y. *Chemistry*. Alton, Ill., Dec. 12, 76. B.S., Trinity (Conn.), 97. Chemist, Mineral Point Zinc Co., 98-01; expert, N. J. Zinc Co., 01-05; supt., acid dept., Mineral Point Zinc Co., 05-06, gen. supt., 06-12, gen. manager, 12-15; v. pres., Commercial Acid Co., 15-17; *partner*, L. I. Summers Co., 18-*Asst. director*, U. S. Explosive Plants, 17; director div. explosives, W.I.B., 18. A.A.; Chem. Soc.; Min. and Metal. Eng.; Min. and Metal. Soc. Zinc metallurgy; manufacture of sulphuric acid.
- Chase, Dr. Martin R(ist)**, 30 N. Michigan Ave., Chicago, Ill. *Anatomy*. Toulon, Ill., April 9, 86. B.S., Northwestern, 07, fellow, 07-08, M.S., 08, M.D., 12. Asst. anat., *Northwestern*, 10-12, instr., 12-19, *med.*, 19-21, *assoc.*, 21-25, *asst. prof.*, 25-*Ass. Anat.* Histology of sensory ganglia; structure of vagus nerve.
- Chase, Dr. Samuel W(ood)**, Western Reserve University, Cleveland, Ohio. *Histology*, *Embryology*. Lowell, Mass., May 27, 92. A.B., Bowdoin, 14; A.M., Harvard, 16, Ph.D., 21. Austin teaching fellow, Harvard, 19-20; instr. *biol. sch. dent.*, *Western Reserve*, 20-22, *asst. prof. histol. and embryol.*, 22-25, *assoc. prof.*, 25-, demonstrator, *sch. med.*, 20-22, instr., 22-24, senior instr., 24-26, *asst. prof.*, 26-*Ass. Anat.*; Soc. Zool.; fel. Ohio Acad. (v. pres, sect. med. sciences, 25). Mesonephros; Amphibia; histology and embryology of teeth of mammals.
- Chatburn, Prof. George R(ichard)**, 2850 P St., Lincoln, Nebr. *Mechanics*, *Civil engineering*. Near Magnolia, Iowa, Dec. 24, 63. B.C.E., Iowa Col., 84, C.E., 10; A.M., Nebraska, 97. Prin. and supt. schools, Nebr., 85-94; instr. and *asst. prof. civil eng.*, *Nebraska*, 94-05, *assoc. prof. applied mech. and machine design*, 05-06, *prof.*, 06-09, *head prof.*, 09-, *dean men*, 26-*Consulting engineer*. A.A.; Eng. Educ. (pres, 16); Soc. Test. Mat.; Nebr. Eng. Soc.; Nebr. Acad. Portland cement; strength of materials; analytic mechanics; roads and pavements.
- Cheatum, Prof. Elmer (Philip)**, Southern Methodist University, Dallas, Texas. *Ecology*. Langdon, Kans., July 19, 01. A.B., Southwestern (Kans.), 24; M.S., Kansas Col., 25. Instr. *biol.*, Southwestern, 24; *asst.*, Kansas Col., 24-25; *asst. prof.*, *South. Methodist*, 25-*Ecol. Soc.*; fel. Kans. Acad. Ecology of gasteropods.
- Cheever, Prof. David**, 193 Marlboro St., Boston, Mass. *Surgery*. Boston, June 25, 76. A.B., Harvard, 97, M.D., 01. Asst. prof. *surg.*, *Harvard Med. Sch.*, 13-21, *assoc. prof.*, 21-*Surgeon*, Peter Bent Brigham Hosp., 13. A.A.; Surg. Ass.; Soc. Clin. Surg.; Ass. Anat.; Interurban Surg. Soc. Anatomy applied to surgery.
- Cheney, Prof. L(ellen) S(terling)**, Barron, Wis. *Botany*. Essex, Ohio, Dec. 4, 58. B.S., Wisconsin, 91, fellow, 91-92, M.S., 96. Instr. pharmacog. and pharmaceut. bot., Wisconsin, 92-96, *asst. prof. pharmaceut. bot.*, 96-03. A.A.; Forestry Ass.; Bot. Cent. States; Wis. Acad. (treas., 95-99); Wis. Forestry Ass. (sec'y, 95, treas., 96-00). Bryophyta of Wisconsin and the Upper Peninsula of Michigan.
- Cheney, Prof. Ralph H(olt)**, New York University, New York, N. Y. *Biology*. Maynard, Mass., June 3, 96. B.S., Boston, 18, A.M., 19; M.S., Harvard, 22, Sc.D., 23. Chief *asst. biol.*, Boston, 15-18, teaching fellow, 18-19, instr., 20-21; *asst. zool.*, Radcliffe, 21; bot., Harvard, 22;

- instr. invert. zool, Western Reserve, 23; *biol.*, N. Y. Univ, 24, *asst. prof.*, 24— Physiologist, U.S.A. 18. A.A.; Bot. Soc; Fern Soc; Genetic Ass; Nature Study Soc; Tree Ass; Torrey Bot. Club; Sullivant Moss Soc; New Eng. Bot. Club; Boston Soc. Nat. Hist. Botany; physiology; economic species of the genus *Coffea*.
- Cheney, Prof. Walter L(ynn)**, 3509 McKinley St, N. W, Washington, D. C. *Physics*. Monroe Center, Ohio, Aug. 27, 89. A.B, Oberlin, 13; A.M, Nebraska, 15; fellow, Rice Inst, 15-17; Ph.D, Hopkins, 22. Teacher, pub. schools, 07-09; *asst. physics*, Nebraska, 13-15; lab. *asst.*, Bur. Standards, 17-18, *asst. physicist*, 18-21; *instr. physics*, George Washington, 20-21, *asst. prof.*, 21-24, *assoc. prof.*, 24— Consulting physicist, Bur. Standards, 23-24, *asst. physicist*, summer, 22. A.A.; *fel. Physical Soc*; Wash. Acad; Wash. Philos. Soc. Discharge of electricity through gases; thermionics; magnetic testing apparatus; correlation of magnetic with other physical properties; magnetic properties of iron-carbon alloys; effect of wear on the magnetic properties of wire rope.
- Chernoff, Dr. Lewis H(ill)**, 863 Cook St, Denver, Colo. *Chemistry*. Russia, Jan. 1, 90. Ph.B, Yale, 11, Ph.D, 14. *Asst. chem.*, Yale, 10-14; *prof. chem. and physics*, Charleston, 14-15; *org. chemist, bur. chem.*, U. S. Dept. Agr, 15— Chem. Soc. Organic chemistry; pyrimidins; saponins; proteins; carbohydrates; butter and cream.
- Cherry, Louis Bond**, 606 Walsix Building, Kansas City, Mo. *Engineering, Biochemistry*. Parsons, Kans, June 10, 73. High sch. *Consulting elec. engineer and electrochemist, C. and C. Developing Co*, 15—; *pres, Cherry Process Co*, 21—, *director laboratories*, 22— A.A.; Elec. Eng; Electrochem. Soc. Electrochemistry; pathology; metallurgy; ceramics; synthetic hydrocarbons; molecular vibration; vitality and disease energy; alkalization.
- Chertcoff, Dr. Moses**, 629 W. 170th St, New York, N. Y. *Chemistry*. Odessa, Russia, Dec. 12, 82. B.S, Col. City of N. Y, 18; A.M, Columbia, 21, Ph.D, 24. *Instr. chem.*, Col. City of N. Y, 17— Consulting chemist. Inorganic chemistry.
- Chesney, Dr. Alan M(ason)**, The Johns Hopkins Hospital, Baltimore, Md. *Medicine*. Baltimore, Jan. 17, 88. A.B, Hopkins, 08, M.D, 12. *Asst. med.*, Hopkins, 12-14; *asst. res. physician*, Rockefeller Inst. Hosp, 14-17; *assoc. med. sch. med.*, Washington (St. Louis), 17-21; *assoc. prof. med. dept.*, Hopkins, 21— M.C, U.S.A, 17-19. Soc. Clin. Invest; Am. Physicians; Soc. Exp. Path. Bacteriology; chemotherapy; syphilis.
- Chesney, C(ummings) C**, Dawes Ave, Pittsfield, Mass. *Electrical engineering*. Selinsgrove, Pa, Oct. 28, 63. B.S, Pa. State, 85. Chemist, Pa. State, 85-86; *prof. chem. and math*, Doylestown Sem, 86-88; *chief elec. engineer*, Stanley Elec. Mfg. Co, 91-01, v. *pres. and chief engineer*, 01-06; *manager and chief engineer*, Pittsfield works, Gen. Elec. Co, 06— Consulting elec. engineer, North. Elec. Mfg. Co, 00— Edison medal, Inst. Elec. Eng, 22. Elec. Eng. (pres, 26); London Soc. Arts. Electrical machinery; the transmission of energy by electricity.
- Chesnut, V(ictor) K(ing)**, U. S. Department of Agriculture, Washington, D. C. **Phytochemistry*. Nevada City, Calif, June 28, 67. B.S, California, 90; Chicago, 93. *Instr. chem.*, California, 93; *botanist in charge poisonous plant investigations*, U. S. Dept. Agr, 94-04; *chemist*, Mont. Exp. Sta, and *prof. chem. and geol.*, Mont. Col, 04-07; *asst. chemist, div. drugs and phytochem. lab, bur. chem.*, U. S. Dept. Agr, 07-25, *assoc. chemist*, 25— Collaborator, U. S. Dept. Agr, 04-07. A.A.; Chem. Soc; Wash. Acad; Wash. Chem. Soc. (pres, 01—); Wash. Bot. Soc. Poisonous plants; plants used by Indians; active constituents of plants; enzymes; fruit odors; organic constituents of the cotton plant; analysis of patent medicines.
- Chessin, Dr. Alexander**, 13-21 Park Row, New York, N. Y. **Mathematics*. St. Petersburg, Russia, Dec. 11, 65. A.M, Imperial Inst. Hist. and Philol, Petrograd, 84; Ph.D, St. Petersburg, 89; C.E, Polytech, Zurich, 92. *Lecturer celestial mech.*, Hopkins, 94-95, *assoc. prof. math. and astron.*, 95-99; *prof. math.*, Washington (St. Louis), 01-10; *patent attorney*, 10— *Lecturer*, Harvard, 94; Lowell Inst, Boston, 95; Columbia, Cooper Union, N. Y, and the Chautauqua Assembly, 00; Columbia, 09. Gold medal, Russian Ministry of Pub. Instruction, 88; special envoy, Italy, 89. Mechanics; astronomy; theory of functions; infinite series; differential equations; Bessel's functions; relative motion; Foucault pendulum; development of perturbative function; effect of the earth's rotation on gyroscopes; strains and stresses in a rapidly moving disc; gyroscopic devices.
- Chester, Rear Admiral C(olby) M(itchell)**, U.S.N, 1828 I St, N. W, Washington, D. C. *Astronomy, Naval science*. New London, Conn, Feb. 29, 44. Grad, U. S. Naval Acad, 63. *Instr. seamanship and naval archit.*, U. S. Naval Acad, 74-77; in charge parties, hydrog. dept, U. S. Coast and Geod. Surv, 77-80, in charge dept, 80-85; commandant cadets, U. S. Naval Acad, 90-94; *supt.*, U. S. Naval Observatory, 02— *Lecturer*, U. S. Naval War Col, 01-02; *prof.*, Yale, 17-18. In charge U. S. China and Corea Surveys, 71-73; U. S. eclipse exped, Europe, 05; U. S. inspector, European astron. observatories, 08-11. A.A. Naval architecture; hydrography; international law.
- Chester, Frederick D(ixon)**, St. Marys, Pa. *Bacteriology*. Santo Domingo, Haiti, Oct. 8, 61. Washington (St. Louis), 76-78; B.S, Cornell, 82, M.S, 85. *Prof. geol. and bot.*, Del. Col, 82-92; *bacteriologist and mycologist*, Del. Exp. Sta, 89-07; *director*, Del. State Bacter. Lab, 99-07; *consulting chemist and bacteriologist*, 07— Soc. Bact. (v. pres, 05). Mycology.
- Chester, J(ohn) N(eedles)**, Union Bank Building, Pittsburgh, Pa. *Sanitary engineering*. Columbus, Ohio, Sept. 24, 64. B.S, Illinois, 91, M.S, C.E, 09, M.S, M.E, 11. Apprentice, 91-99; *chief engineer*, Am. Water Works and Guarantee

- Co, 99-06; engineer, Epping-Carpenter Steam Pump Co, 06-11; *consulting engineer*, 11-Water Works Ass; Pub. Health Ass; Civil Eng. (director, 22-24); Mech. Eng; Inst. Consulting Eng; West. Pa. Eng. Soc. (past director); West. Pa. Hist. Soc. Power engineering; filter plants; pumping machinery.
- Chester, Prof. W(ayland) M(organ)**, Hamilton, N. Y. *Biology*. Noank, Conn, March 10, 70. A.B, Colgate, 94, A.M, 96; hon. Sc.D, Hillsdale, 26. Asst. geol. and nat. hist, *Colgate*, 94-97, instr. *biol*, 97-00, assoc. prof, 00-04, *prof*, 04- A.A; Soc. Zool; Wash. Biol. Soc. Comparative anatomy of animals.
- Chester, Prof. Webster**, 47 Winter St, Waterville, Maine. *Zoology*. Noank, Conn, Oct. 31, 76. A.B, Colgate, 00; A.M, Harvard, 08. Instr. science and math, Colby Acad, N. H, 00-02; *prof. biol*, *Colby*, 03- Instr, Woods Hole, 08; lecturer, Bangor Theol. Sem, 14- A.A.
- Cheyney, Prof. E(dward) G(heen)**, 2163 Carter Ave, St. Paul, Minn. *Forestry*. Washington, D. C, Nov. 24, 78. A.B, Cornell, 00; Yale Forest Sch. Student asst, bur. forestry, U. S. Dept. Agr, 03-04; instr. *forestry*, *Minnesota*, 05-08, asst. prof, 08-11, *prof*, 11- Soc. Foresters. Silviculture.
- Chickering, Prof. A(rthur) M(erton)**, Albion, Mich. *Zoology*. North Danville, Vt, March 23, 87. Ph.B, Yale, 13; M.S, Wisconsin, 16; Ph.D, Michigan, 27. Asst. biol, Beloit, 13-16, instr, 16-18; *prof. zool*, *Albion*, 18- Instr, Michigan, 25-26, summers, 19-22. A.A; Micros. Soc. (second v. pres, 25, treas, 26-); fel. Am. Geog. Soc; Eugenics Soc; Mich. Acad. (v. pres, sect. zool, 19-21). Chromosomes and chondriosomes in Betostomatidae and Nepidae.
- Chidester, Dr. F(loyd) E(arle)**, University of West Virginia, Morgantown, W. Va. *Zoology*. Chicago, Ill, Oct. 13, 84. Ph.B, Syracuse, 07; fellow, Chicago, 08-09; A.M, Clark, 08, fellow, 10-11, Ph.D, 11. Instr. biol, De Pauw, 09-10; Rutgers, 11-13, asst. prof, 13-15, assoc. prof. zool, 15-16, prof. zool. and chairman biol. and sanit. science, 16-18; assoc. prof. zool, *West Virginia*, 19-23, *prof. zool*, in charge pub. health curriculum, 23- Summers, Bur. Fisheries, Woods Hole, 10, 11, 19-, Carnegie Institution, 12. Lieut, Pub. Health Service, 18-19; capt, Sanit. Reserve, U.S.A, 19-24, major, 24- A.A; Soc. Zool; Soc. Exp. Biol; Ass. Anat; Fisheries Soc; Pub. Health Ass; W. Va. Acad; N. B. Sci. Soc. (v. pres, 14, pres, 16); British Soc. Exp. Biol. Embryology; experimental zoology; anatomy.
- Chilcott, Prof. E(illery) Channing**, U. S. Department of Agriculture, Washington, D. C. *Agriculture*, *Geology*, *Agronomy*. East Hamburg, N. Y, April 8, 59. M.S, S. Dak. Col, 98. Prof. agr, S. Dak. Col, 93-97, geol. and agron, 95-05; *agriculturist in charge dry land agr. investigations*, bur. plant indust, U. S. Dept. Agr, 05- U. S. deputy surveyor and compassman, 82-90; *agriculturist*, S. Dak. Exp. Sta, 93-05, v. director, 97-05; collaborator, U. S. Dept. Agr. A.A. Soil physics; crop rotation and adaptation; plant breeding and selection; animal nutrition; soil moisture; cultivation methods; dry land agriculture.
- Child, Dr. C(harles) M(anning)**, University of Chicago, Chicago, Ill. **Zoology*. Ypsilanti, Mich, Feb. 2, 69. Ph.B, Wesleyan, 90, M.S, 92; Ph.D, Leipzig, 94. Asst. biol, Wesleyan, 90-92; *zool*, *Chicago*, 95-96, assoc, 96-98, instr, 98-05, asst. prof, 05-09, assoc. prof, 09-16, *prof*, 16- Instr, Woods Hole, 95-97; holder, Agassiz table, Naples Zool. Sta, 94, Smithsonian table, 02-03. A.A; Soc. Nat; Soc. Zool; Ass. Anat. Sense organs of insects; cell lineage of annelids; form regulation; occurrence and significance of amitosis; physiology of polarity and symmetry; physiological correlation and integration.
- Child, Prof. C(lement) D(exter)**, Hamilton, N. Y. **Physics*. Madison, Ohio, May 15, 68. A.B, Rochester, 90; Ph.D, Cornell, 97; Berlin and Cambridge, 97-98. Instr, high schools, 90-92; *physics*, Cornell, 92-97; *prof*, *Colgate*, 98- Physical Soc. Electrical discharge produced by hot bodies; radiation from mercury vapor; the electric arc.
- Childs, Leroy**, Hood River, Oregon. *Entomology*, *Plant pathology*. Alhambra, Calif, Aug. 8, 88. A.B, Stanford, 13. Asst. sec'y, Calif. State Commission Hort, 13-14; entomologist, *Hood River Exp. Sta*, 14-16, *plant pathologist and supt*, 16- Asst, bur. plant indust, U. S. Dept. Agr, 13. A.A; Entom. Soc; Ass. Econ. Entom; Phytopath. Soc. Apple diseases; insect and disease control; spraying.
- Childs, Prof. R(oss) R(enfroee)**, State College of Agriculture, Athens, Ga. *Agronomy*. Way-side, Ga, Jan. 22, 88. B.S.A, Georgia, 12, M.S.A, 13. Instr. agron, Ga. Col. Agr, 13-14; sci. asst, office cereal investigations, bur. plant indust, U. S. Dept. Agr, 14-18; *prof. agron. in charge cotton indust*, Ga. Col. Agr, 19- A.A; Soc. Agron; Genetic Ass; Ga. Crop Improvement Ass. (sec'y, 19-). The lint on cotton; fruiting habits of cotton.
- Chillingworth, Prof. F(elix) P(ercy)**, Tufts College Medical School, Boston, Mass. *Physiology*. New Haven, Conn, Sept. 17, 82. M.D, Yale, 07. Asst. prof. physiol, Kansas, 12-13; *physiol. and pharmacol*, *Tulane*, 13-20; *med. sch*, *Tufts*, 20-; *consultant applied psychol*. Physiol. Soc; Am. Med. Ass; Ass. Anat; New Orleans Acad; Int. Ass. for Dental Research. Pharmacology; shock; respiratory and blood gases; oral research.
- Chipman, Dr. Ruth Hayes**, 2220 Dwight Way, Berkeley, Calif. *Cytology*. Brimfield, Ill, Oct. 1, 95. B.S, Ill. Wesleyan, 17; A.M, Michigan, 21, Ph.D, 23. Instr. bot, Ill. Wesleyan, 17-20, asst. prof, 22-24. A.A; Bot. Soc. Meiotic divisions in Nicotiana; Haploids.
- Chittenden, Prof. A(Ifred) K(night)**, Michigan State College, East Lansing, Mich. *Forestry*. New Haven, Conn, Oct. 28, 79. M.F, Yale, 02. *Prof. forestry*, *Mich. State Col*, 14- Soc. Foresters; Mich. Forestry Ass. (pres, 24-). Silviculture; rate of growth of timber.
- Chittenden, Dr. E(dward) W(ilson)**, University of Iowa, Iowa City, Iowa. **Mathematics*.

- Waterville, Minn, Aug. 3, 85. A.B, Missouri, 09, A.M, 10; Ph.D, Chicago, 12. Instr. *math*, Illinois, 12-18; asst. prof, *Iowa*, 19-20, assoc. prof, 20-25, *prof*, 25- Summers, Chicago, 20, Texas, 26. Math. Soc; Circolo Mat. di Palermo. General analysis; theory of functions of a real variable.
- Chittenden, Dr. F(rank) H(urlbut)**, U. S. Department of Agriculture, Washington, D. C. *Entomology*. Cleveland, Ohio, Nov. 3, 58. Mt. Union, 75-76; licentiate, Cornell, 81; hon. Sc.D, Pittsburgh, 04. Asst. entomologist, *bur. entom.*, U. S. Dept. Agr, 91-02, *entomologist*, 02- Asst. ed, 'Entomologica Americana,' 89-90. A.A; Entom. Soc; Ass. Econ. Entom; Wash. Entom. Soc; Wash. Biol. Soc; Brooklyn Entom. Soc. Insects injurious to vegetable and truck crops; Coleoptera.
- Chittenden, Prof. J(onathan) Brace**, Harvard Club, New York, N. Y. *Mathematics*. Milford, Conn, May 13, 64. B.S, Brooklyn Polytech, 84; M.E, C.E, Worcester, 88; A.B, Harvard, 89, A.M, 90; Ph.D, Königsberg, 92; mem. N. Y. Bar, 02. Instr. *math*, Princeton, 92-94; tutor, Columbia, and instr, Barnard, 94-99; *prof*, *Brooklyn Polytech*, 00- A.A; Math. Soc; Brooklyn Inst. (sec'y, math. sect). The functions of Lamé; binary forms.
- Chittenden, Prof. Russell H(enry)**, 83 Trumbull St, New Haven, Conn. **Physiological chemistry*, *Physiology*. New Haven, Feb. 18, 56. Ph.B, Yale, 75, Ph.D, 80; Heidelberg, 78-79; Sc.D, Pennsylvania, 04; LL.D, Toronto, 03, Birmingham, 11, Washington (St. Louis), 15, Yale, 22. Prof. *physiol. chem*, Yale, 82-22, director Sheffield Sci. Sch, 98-22, *emer. prof*, 22- Lecturer, Columbia, 98-03. Nat. Acad; A.A; Soc. Nat. (pres, 93); Physiol. Soc. (pres, 94-04); Soc. Biol. Chem. (pres, 07); Philos. Soc; Am. Acad; cor. mem. Soc. de Biol. Paris; assoc. mem. Soc. Royale des Sciences Med. et Nat. de Bruxelles. Physiology of nutrition.
- Chivers, Prof. Arthur Houston**, Balch St, Hanover, N. H. *Botany*. Amesbury, Mass, July 5, 80. A.B, Dartmouth, 02; A.M, Harvard, 04, Thayer fellow, 09-10, Ph.D, 14. Instr. *bot*, Radcliffe, 05-06; *Dartmouth*, 06-10, asst. prof, 10-20, *prof*, 20- Austin teaching fellow, Harvard, 05-06; instr, Cold Spring Harbor, 04-06. Bot. Soc; Phytopath. Soc; Forestry Ass. Ascomycetes.
- Chouke, K(ear) S(ingh)**, University of Colorado Medical School, Denver, Colo. *Anatomy*, *Anthropology*. India, July 23, 85. L.M.P, Agr. Med. Sch, India, 06; M.D, Washington (St. Louis), 22. Instr. *anat*, Washington (St. Louis), 22-24; *sch. med*, Colorado, 24- Ass. Anat. Buffer systems of blood serum; muscle fascia union; effects of heat on the eye; epicanthus; urea in the rabbits' urine; body habitus.
- Chrisman, Dr. Oscar**, 55 Mill St, Athens, Ohio. *Paidology*. Gosport, Ind, Nov. 16, 55. A.B, Indiana, 88, A.M, 93; fellow, Clark, 92-94; Berlin; Ph.D, Jena, 96. Teacher, schools, Ind, 76-83; prin. and supt, Ind. and Texas, 83-92; *prof. paidol*, Kansas State Nor. Sch, Emporia, 96-01; *head dept*, Ohio, 02- A.A. The hearing and secret language of children; the historical and the uncivilized child.
- Christensen, Prof. F(rederick) W(aldemar)**, State College Station, Fargo, N. Dak. *Animal nutrition*. Mariadahl, Kans, Jan. 22, 79. B.S, Kansas Col, 00; M.S, Pa. State, 08. Asst. animal nutrition, inst. animal nutrition, Pa. State, and bur. animal indust, U. S. Dept. Agr, 04-10; assoc. prof. agr. chem, N. Mex. Col, and nutrition chemist, Exp. Sta, 11-16; *prof. animal nutrition*, N. Dak. Col, 16-, *asst. chairman dept. animal husbandry*, 24- A.A; Soc. Animal Production; Chem. Soc. Protein requirements of growing cattle; nutritive values of silages.
- Christensen, Prof. J(onas) J(orgen)**, University Farm, St. Paul, Minn. *Plant pathology*. Hutchinson, Minn, Aug. 22, 92. B.S, Minnesota, 21, M.S, 22, Ph.D, 25. Instr. agr. bot. and asst. *plant path*, Minnesota, 20-23, instr. and asst. plant pathologist, 23-25, *asst. prof. and asst. plant pathologist*, 25- Agent, office cereal invest, bur. plant indust, U. S. Dept. Agr, 22-; summers, field agent, fed. hort. board, 19, potato inspector, Minn, 20. Phytopath. Soc; Crop Protection Inst; Minn. Mycol. Soc. Root-rots of cereals; corn smut; mutation in fungi.
- Christian, Dr. Henry A(sbury)**, Peter Bent Brigham Hospital, Boston, Mass. **Medicine*. Lynchburg, Va, Feb. 17, 76. A.B, A.M, Randolph-Macon, 95, LL.D, 23; M.D, Hopkins, 00; A.M, Harvard, 03. Asst. pathologist, Boston City Hosp, 00-02; instr. path, Harvard, 02-05, *theory and practise of physic*, 05-07, asst. prof, 07-08, *Hersey prof*, 08-; *physician-in-chief*, Peter Bent Brigham Hosp, 12- Dean, Harvard Med. Sch, 08-12; physician-in-chief, Carney Hosp, 07-12. Am. Med. Ass; Ass. Path. and Bact; Am. Physicians; Soc. Exp. Path; Am. Acad; Soc. Clin. Invest. Dermoid cysts and teratomata; leucocytotoxins; myeloma; nephritis; clinical problems.
- Christiansen, Walter G(ustave Otto)**, E. R. Squibb and Sons, 17 Columbia Heights, Brooklyn, N. Y. *Organic chemistry*. Cambridge, Mass, Sept. 18, 97. B.S, Harvard, 18. Organic research chemist, Eastman Kodak Co, 18-19; instr. pharmacol, Harvard Med. Sch, 19-26, trop. med, 23-25; *research chemist and director*, Brooklyn research lab, E. R. Squibb and Sons, 26- Sub-committee, organic arsenicals, Nat. Research Council. Chem. Soc. Chemotherapy; organic arsenicals and antimonials; aromatic hydroxy acids; photographic developers.
- Christie, Prof. A(lexander) G(raham)**, Johns Hopkins University, Baltimore, Md. *Mechanical engineering*. Manchester, Ont, Can, Nov. 19, 80. Grad, Toronto, 01, M.E, 13. Engineer, Westinghouse Machine Co, 01-04; instr. mech. eng, Cornell, 04-05; mech. engineer, Allis-Chalmers Co, 05-07; West. Can. C. & C. Co, 07-09; asst. prof. steam eng, Wisconsin, 09-13, assoc. prof, 13-14; *mech. eng*, Hopkins, 14-20, *prof*, 20- Mech. Eng. (manager, 22-25, v. pres, 25); Gas Ass. Steam turbines; gas measurement; steam central stations; public utilities.
- Christie, Prof. Arthur W(illiam)**, University of California, Berkeley, Calif. *Agriculture*. San

- Francisco, Calif, Jan. 2, 92. B.S., California, 15, M.S., 16. Instr. *fruit products*, California, 16-21, *asst. prof.*, 21- Horticultural products; dehydration of fruits, vegetables and nuts.
- Christie, Emerson B(rewer)**, Cosmos Club, Washington, D. C. *Ethnology*. Marash, Turkey, March 17, 78. A.B., Yale, 01; Harvard, 10. Teacher, P. I., 01-04; asst., Bur. Ethnol. Surv., P. I., 04-07, asst. chief div. ethnol., Bur. Science, 07-15; special asst., U. S. Dept. State, 18-21, *drafting officer*, 21- A.A. The Subanuns of Sindangan Bay.
- Christie, Dr. G(eorge) I(rving)**, Purdue University, Lafayette, Ind. *Agronomy*. Winchester, Ont, Can, June 22, 81. B.S.A., Toronto, 02; Iowa Col, 03, hon. Sc.D., 25. Asst. agron., Iowa Col, 03-05; soils and crops, *Purdue*, 05-06, *assoc. agr. exten.*, 06-09, *director*, 09-, *director*, *Exp. Sta.*, 20- Director, Summer Sch. for Teachers, Purdue, 12; state food director, Ind, 17; asst. to sec'y. agr., U. S. Dept. Agr, 18, asst. sec'y., 18-20. Supt., Ind. agr. exhibit, Panama Expos, 15; chairman agr. committee, Ind. Centennial Celebration, 16; supt., Ind. agr. exhibit, Sesqui-Centennial Expos, 26; U. S. War Labor Policies Board, 18; Nat. Committee for Employment Soldiers and Sailors, 19; supt., Int. Grain and Hay Show, 19-; sec'y., Ind. Deep Waterways Commission, 23; chairman, Midwest Agr. Econ. Research Council, 24. Ind. Acad; Ind. Corn Growers Ass. (sec'y., 06-); Int. Corn Borer Organization (chairman, exec. committee, 26-). Agricultural extension; education for country life; the new agriculture; corn shows and selecting, preparing and scoring exhibits; seed corn; farming conditions; soil building; livestock in the southwest.
- Christman, Prof. Adam A.**, 1028 Lincoln Ave, Ann Arbor, Mich. *Physiological chemistry*. Shannon, Ill, Dec. 11, 96. B.S., Grinnell, 17; M.S., Illinois, 20, Ph.D., 22. Instr. *physiol. chem.*, *med. sch.*, Michigan, 22-25, *asst. prof.*, 25- Lipase action; allantoin.
- Chrysler, Prof. M(intin) A(sbury)**, Rutgers University, New Brunswick, N. J. *Botany*. Berlin, Ont, Can, Aug. 25, 71. B.A., Toronto, 94; fellow, Chicago, 03-04, Ph.D., 04. Asst. bot., Harvard, 04-05, instr., 05-07; *assoc. prof.*, Maine, 07-10, *prof.*, 10-11, *biol.*, 11-23; *assoc. prof.*, Rutgers, 23- Asst., Md. Bot. Surv, 04-06; Woods Hole, 04. A.A.; Soc. Nat; Bot. Soc; Torrey Bot. Club. Plant morphology; anatomy of monocotyledons and gymnosperms.
- Chuck, Dr. F(aw) Y(ap)**, Lingnan University, Canton, China. *Chemistry*. Kauai, Hawaii, Sept. 25, 00. A.B., 22; Ch.E., 23; China Med. Board fellow, Rockefeller Inst, 24-25; Ph.D., Stanford, 25. Instr. chem., Canton Christian Col, 25-26; *asst. prof. org. chem.*, and *dean men*, Lingnan Univ, 26- A.A.; Chem. Soc. Nitridizing power of ammono nitric acid; ammono hypochlorous, hypobromous and hypoiodous acids; polyanthraquinonylamines.
- Chupp, Prof. Charles**, New York State College of Agriculture, Ithaca, N. Y. *Plant pathology*. Millersburg, Ind, June 2, 86. A.B., Wabash, 12; Ph.D., Cornell, 16. Asst., Cornell, 12-14, instr., 14-16; acting prof. bot., Wabash, 17; asst. prof. *plant path.*, N. Y. State Col. Agr., Cornell, 18-27, *prof.*, 27- Phytopath. Soc. Vegetable diseases.
- Church, Dr. Archibald**, Northwestern University Medical School, Chicago, Ill. *Neurology*. Fond du Lac, Wis, 61. Wisconsin; M.D., Col. Physicians and Surg, Chicago, 84. *Prof. mental and nervous diseases*, Northwestern, 94- Neurologist, St. Luke's, Mercy, Wesley and Michael Reese Hospitals. Am. Med. Ass; Neur. Ass. Nervous diseases.
- Church, Prof. I(rving) P(orter)**, 9 South Ave, Ithaca, N. Y. *Applied mechanics and hydraulics*. Ansonia, Conn, July 22, 51. C.E., Cornell, 73, M.C.E., 78. Asst. prof. civil eng., Cornell, 76-91, *assoc. prof.*, 91-92, *prof. applied mech. and hydraul.*, 92-16, *emer. prof.*, 16- Cornell Ass. Civil Eng. Applied mechanics and hydraulics (mathematical and experimental).
- Church, Prof. J(ames) E(dward), Jr**, 358 Washington St, Reno, Nev. *Meteorology*. Holly, Mich, Feb. 15, 69. A.B., Michigan, 92, 98-99; Ph.D., Munich, 01. *Prof. Latin*, Nevada, 92-18, *classics*, 18-, observer meteor. and climat., Exp. Sta., 06-16, *director*, Mt. Rose Weather Observatory, 06- In charge Nev. Cooperative Snow Surv, 17-; *assoc. meteor.*, Univ. of Michigan Greenland exped. A.A.; fel. Meteor. Soc. Forestry; climatology; the conservation, measurement and evaporation of snow; frost and stream-flow forecasting; instruments for the measurement of water content of snow and of snow evaporation.
- Church, Dr. Margaret B(rooks)**, U. S. Department of Agriculture, Washington, D. C. *Botany*. Providence, R. I, March 13, 89. A.B., Brown, 12, A.M., 14, Ph.D., 18. Collaborator, bur. plant indust, U. S. Dept. Agr, 13-15, *mycologist*, bur. chem., 15- Bot. Soc. Plant anatomy; mycology.
- Churchill, Dr. Anna Quincy**, 32 Percival St, Dorchester, Mass. *Histology*. Dorchester, May 31, 84. A.B., Smith, 07; A.M., Radcliffe, 10; M.D., Tufts, 17. Instr. *histol.*, Tufts, 18-24, *asst. prof.*, 24- Teacher, Sargent Sch. Physical Educ, 20-26; Charlesgate Hosp, Boston; lecturer, Forsyth Dental Infirmary; orthop. examiner, freshman class, Wellesley. Am. Med. Ass. Microscopic anatomy; embryology.
- Churchill, Charles S(amuel)**, 813 Orchard Hill, Roanoke, Va. *Engineering*. New Britain, Conn, Sept. 22, 56. Ph.B., Yale, 78. Ry. surveys, Conn, 79-80; construction engineer, Meadville and Linesville Ry, 80-81; div. engineer, Pittsburgh and Erie Ry; Pittsburgh and Connelleville coal field, Pa, 81-84; prin. asst. engineer of construction, Schuylkill Valley Div, Pa. Ry, 84-87; engineer maintenance of way, Shenandoah Valley Ry, 87-88; in charge Ohio Extension, Norfolk and Western Ry, 88, engineer maintenance of way, 88-03, chief engineer, 03-14, asst. to pres, 14-18, chief of valuation under Federal Administration, 18, v. pres, 18-26, in charge real estate and valuation, 20-26, *retired*; consulting engineer. Director, Winston-Salem Southbound Ry. Co; Williamson and Pond Creek Ry. Co; Tug River and Ky. Ry. Co. Ry. Eng. (director, 07-09, chairman, rail com-

- mittee, 09-13, pres, 13-14; Civil Eng. (director, 08-10, v. pres, 12-13, representative in Eng. Council of U. S., 18-21, mem. joint committee with Ry. Eng. on stresses in railroad track, 14-); Soc. Test. Mat; British Inst. Civil Eng. Ventilation of railroad tunnels.
- Churchill, Dr. E(dward) P(erry)**, University of South Dakota, Vermillion, S. Dak. *Zoology*. Allerton, Iowa, July 19, 82. A.B. Iowa, 07; fellow, Hopkins, 15-16, Ph.D. 16. Asst. zool. Iowa, 12-13; Hopkins, 13-15; in charge shellfish investigations, Bur. Fisheries, 16-20; asst. prof. *zool.*, *South Dakota*, 20-22, *prof.*, 22-A.A.; Soc. Zool; S. Dak. Acad. Nutrition and feeding of fresh-water mussels; goldfish; blue crab; development and distribution of oyster larvae; conjugation in *Diffugia*.
- Churchill, Leonard R(ussell)**, 880 Hudson Boulevard, Bayonne, N. J. *Chemistry*. Boston, Mass, Nov. 3, 93. B.Ch.E., Northeastern, 16. Chemist, Milton Bradley Co, Mass, 16-18; research asst. applied chem, Mass. Inst. Tech, 20-23; *research chemist*, *Tidewater Assoc. Oil Co*, 23-Sergt, C.W.S., 18-19. Chem. Soc. Fuller's earth; carbon black; petroleum.
- Churchill, Prof. O(mar) O(rlando)**, State College Station, Fargo, N. Dak. *Agronomy*. Mich, 79. B.S. Mich. State Col; Ph.D., Minnesota, 26. Instr. *agron.*, Mich. State Col, 03-04; N. Dak. Col, 04-11; *prof.*, Okla. Agr. and Mech. Col, 11-13, dean, 13-15; *N. Dak. Col*, 15- A.A.; Soc. Agron. Crops; genetics.
- Churchill, Dr. William**, 84 Witherbee Ave, Pelham Manor, N. Y. *Psychology*, *Applied optics*. New Britain, Conn, Nov. 3, 76. A.B., Yale, 97, Ph.D., 01. Tutor philos, Yale, 02-04; *lens and color specialist*, *Corning Glass Works*, 04-A.A.; Psychol. Ass; Optical Soc; Philos. Ass. Orientation of tactual perceptions; standardization of lenses; signal colors and lenses on American railroads; physical properties of glass; spectrophotometric analysis.
- Churchman, Prof. J(ohn) W(oolman)**, 150 E. 72d St, New York, N. Y. *Surgery*. Burlington, N. J, Jan. 8, 77. A.B., Princeton, 98, A.M., 01; M.D., Hopkins, 02; hon. A.M., Yale, 15. Hopkins Hosp, 02-05; asst. surg. clinic, Breslau, 05-06; Hopkins Hosp, 06-11; instr. surg, Hopkins, 09-11; asst. prof, Yale, 13-14, prof, 14-19, acting head dept, 17-19; assoc. hygiene, *col. med.*, *Cornell*, 22-25, assoc. prof. exp. therapist, 25-27, *prof. exp. therapy*, 27- Acting surgeon-in-chief, New Haven Hosp. Assoc. ed, 'Am. Rev. Tuber.' Chief base hosp, France, 16; major, M.R.C. Officier de l'Instruction Pub, 19; Officier d'Acad, 20. Col. Surg; Ass. Mil. Surg; Soc. Exp. Biol; Ass. Path. and Bact; Soc. Bact; Chem. Soc; Harvey Soc; New Eng. Surg. Soc; fel. N. Y. Acad; Interurban Surg. Soc. Clinical surgery; selective bactericidal property of gentian violet.
- Chute, H(oratio) N(elson)**, 221 N. Ingalls St, Ann Arbor, Mich. *Physics*. Grovesend, Ont, Can, Dec. 26, 47. B.S., Michigan, 72, M.S., 75. Prin. pub. schools, Ont, 66-69; asst. prof. Latin, Woodstock (Can), 69-70; astron. work, Detroit Observatory, 72-73; instr. physical science, high sch, Ann Arbor, 73-22. Assoc. ed, 'School Science,' 00-04. A.A. Methods of teaching physics.
- Claassen, Prof. P(eter) W(alter)**, Highland Road, Ithaca, N. Y. *Biology*. Hillsboro, Kans, March 17, 86. A.B., Kansas, 13, A.M., 15; Ph.D., Cornell, 18. Asst. state entomologist, Kans, 13-15; instr. biol., Cornell, 15-16; asst. prof. entom., Kansas, 16-17; *biol.*, *Cornell*, 18-26, *prof.*, 26- Prof., Tsing Hua Col, Peking, China, 24-25. A.A.; Entom. Soc; Ass. Econ. Entom. Grasshopper control; insect inhabitants of cat-tail; Plecoptera of North America; stream pollution.
- Clack, Prof. Robert W(ood)**, 209 W. Downie St, Alma, Mich. *Mathematics*. Clear Lake, Iowa, June 9, 86. A.B., Grinnell, 07, A.M., 08; Chicago. Instr, high sch, Iowa, 08-10; prof. math, Chihli Provincial Col, Paotingfu, China, 10-13; gen. sec'y, Y. M. C. A., Paotingfu, 13-24; *prof. math. and astron.*, *Alma*, 24- Math. Soc; Math. Ass.
- Claghorn, Clarence R(aymond)**, 715 Continental Building, Baltimore, Md. *Mining, Geology, Engineering*. Philadelphia, Pa, Aug. 10, 64. B.S., Pennsylvania, 84. Supt, Lackawanna Iron and Steel Co; *gen. manager*, *Northwest. Improv. Co.* Min. Eng; Min. and Metal. Soc; Franklin Inst; N. of England Inst. Min. and Mech. Eng.
- Clapp, Prof. Charles H(orace)**, State University of Montana, Missoula, Mont. *Geology*. Boston, Mass, June 5, 83. B.S., Mass. Inst. Tech, 05, Ph.D., 10. Asst. state geologist and instr. geol., North Dakota, 05-07; instr., Mass. Inst. Tech, 07-10; geologist, Can. Geol. Surv, 08-13; prof. geol., Arizona, 13-16; Mont. Sch. Mines, 16-21; pres. and director, Mont. Bur. Mines, 18-21; *pres.*, *Montana*, 21- A.A.; Geol. Soc; Min. Eng. Petrology and economic geology.
- Clapp, Prof. Cornelia M(aria)**, Mount Holyoke College, South Hadley, Mass. *Zoology*. Montague, Mass, March 17, 49. Ph.B., Syracuse, 88; Ph.D., Chicago, 96; Sc.D., Mt. Holyoke, 21. Prof. *zool.*, *Mt. Holyoke*, 73-16, *emer. prof.*, 16- Staff, Woods Hole, 96-00, trustee, 97-01, 10, emer. trustee, 23. A.A.; Soc. Zool. Lateral line system and embryology of *Batrachus* (*Opsanus*) tau; relation of the axis of the embryo to the first cleavage plane.
- Clapp, Earle H(art)**, U. S. Forest Service, Washington, D. C. *Forestry*. North Rush, N. Y., Oct. 15, 77. Cornell, 02-03; A.B., Michigan, 05. U. S. Forest Service, 05-, in charge forest management, 07-08, assoc. district forester, southwest. district, 08-11, forest inspector, silviculture, 11-15, *asst. forester in charge research*. A.A.; Soc. Foresters (v. pres, 16). Forest economics.
- Clapp, F(rederick) G(ardner)**, 50 Church St, New York, N. Y. *Geology*. Boston, Mass, July 20, 79. B.S., Mass. Inst. Tech, 01. Instr. geol., Mass. Inst. Tech, 01-02; asst. geologist, U. S. Geol. Surv, 02-08; consulting geol. engineer, 08-11; managing geologist, Ass. Geol. Eng, 11-18; *chief geologist*, *Ass. Petrol. Eng.*, 18-A.A.; Geol. Soc; Min. Eng; Ass. Petrol. Geol; Wash. Geol. Soc. Petroleum and natural gas.

Clapp, Prof. G(race) L(ucretia), Vassar College, Poughkeepsie, N. Y. *Botany*. Windsor, Conn, Feb. 25, 81. A.B, Smith, 05, A.M, 07; Ph.D, Chicago, 11. Teacher, high sch, Ind, 11-14; *bot. and bacter*, Smith, 14-19; *prof*, Downer, 21-26, director dept. occupational therapy, 22-26; *Vassar*, 26- A.A; Bot. Soc; Phytopath. Soc. Plant morphology and pathology.

Clapp, Prof. W(ill) Howard, California Institute, Pasadena, Calif. *Mechanical engineering*. Cleveland, Ohio, July 4, 74. M.E, Minnesota, 01. Instr. math, Macalester, 97-98; supt. and design engineer, Sherman Eng. Co, Salt Lake City, 05-09; asst. prof, assoc. prof. and *prof. machine design and mechanism, Calif. Inst*, 12- Mech. Eng; Soc. Steel Treat. Materials engineering.

Clark, Prof. Albert Henry, 701 S. Wood St, Chicago, Ill. *Chemistry*. Marengo, Ill, 71. Ph.G, Illinois, 04; B.S, Michigan, 15. Instr. and asst. prof. *chem, Illinois*, 06-19, assoc. prof, 19-20, *prof*, 20- A.A; Chem. Soc; Pharmaceut. Ass; London Chem. Soc; Chem. Gesell. Pharmaceutical and medical chemistry; alkaloidal assays of drugs and medicinal products.

Clark, Prof. Arthur J(ohn), East Lansing, Mich. *Chemistry*. Chicago, Ill, Nov. 23, 80. A.B, Wisconsin, 05. Instr. *chem, Mich. State Col*, 06-09, asst. prof, 09-14, assoc. prof, 14-16, *prof. and head dept*, 16- A.A; Chem. Soc.

Clark, Prof. Arthur L(ewis), Queen's University, Kingston, Ont, Can. *Physics*. Worcester, Mass, Feb. 19, 73. B.S, Worcester, 94; Clark, 96-98, Ph.D, 04. Instr. math. and physics, Bridgton Acad, 95-96; Worcester Acad, 98-00; instr. *physics*, Bates, 00-01, *prof*, 01-07; *Sch. Mining, Kingston, Can*, 07-, *dean faculty applied science*, 19- Hon. Advisory Council for Sci. and Indust. Research. A.A; Physical Soc; Meteor. Soc; Refrig. Eng; Royal Soc. Can; Int. Ass. du Froid. Dielectric properties of oils; angle of lag; viscosity of ether; critical constants of air; contact resistance of carbon; capillary electrometer; polarization capacities.

Clark, Austin H(obart), Smithsonian Institution, Washington, D. C. **Zoology*. Wellesley, Mass, Dec. 17, 80. A.B, Harvard, 03. Acting naturalist, 'Albatross,' 06; hon. collaborator, *U. S. Nat. Museum*, 08-09, asst. curator div. marine invert, 09-20, *curator div. echinoderms*, 20- A.A; Soc. Nat; Ornith. Union; Nuttall Ornith. Club; Ass. Geog; Wash. Acad; Wash. Biol. Soc. (past sec'y); Wash. Entom. Soc; Cambridge Entom. Soc. (past sec'y); fel. Royal Geog. Soc. Oceanography; echinoderms; insects; crinoids; the birds of northern Asia and the West Indies; Lepidoptera; classification of Peripatus.

Clark, Dr. Bertha M, Newtown, Pa. *Physics*. Baltimore, Md, May 3, 79. A.B, Goucher, 00; Bryn Mawr, 00-01; Alumnae Ass. fellow, Göttingen, 03-04, Southern Women Ass. fellow, 04-05; fellow, Pennsylvania, 05-07, Ph.D, 07. Instr. physics, Goucher, 01-03; director science, high sch, Phila, 07-25. Advisory Board, 'Gen. Science Quarterly,' 16- A.A; Physical Soc; Hist. Sci. Soc. General science texts.

Clark, Dr. Bruce Lawrence, University of California, Berkeley, Calif. *Paleontology*. Humboldt, Iowa, May 29, 80. B.S, Pomona, 08; M.S, California, 09, fellow, 09-11, Ph.D, 13. Asst. *paleont, California*, 10-11, *instr. and assoc. prof*, 11- A.A; Paleont. Soc; Geol. Soc; Soc. Mammal; Calif. Acad. The fauna of the San Pablo group (upper Miocene), of middle California, and of Oligocene and Eocene of California; marine invertebrates; coast range stratigraphy.

Clark, Prof. Burton, University of South Carolina, Columbia, S. C. *Geology*. Utica, N. Y, April 16, 84. B.S, Syracuse, 07, M.S, 08; Ph.D, Hopkins, 12. Teacher, high sch, Washington, D. C, 08-10; econ. geologist, Latin Am, 12-14, 19-24; instr, Syracuse, 14-18; Minnesota, 18-19; *prof. geog. and geol, South Carolina*, 25- Summers, Vt. Geol. Surv, 08, N. Y. Geol. Surv, 09-11, U. S. Geol. Surv, 11-14; lecturer, Southern California, 26, 27. A.A; Am. Geog. Soc; Acad. Polit. Sci. Paleontology; stratigraphy; economic and physiographic geology and geography; map projections; a panphonic, pan-language alphabet; percentage equal area projection for world maps.

Clark, Dr. Cha(rl)e(s) F(rederick), U. S. Department of Agriculture, Washington, D. C. *Horticulture*. Glover, Vt, Aug. 13, 73. B.S, Vermont, 97; M.S.A, Cornell, 07, Ph.D, 09. Asst. agronomist, Exp. Sta, Cornell, 06-07, asst. plant breeding, 07-10; asst. agronomist, *bur. plant indust, U. S. Dept. Agr*, 10-20, *assoc. horticulturist*, 20- A.A; Soc. Hort. Sci; Genetic Ass; Potato Ass; Wash. Bot. Soc. Potato breeding and selection.

Clark, Dr. Earl P(erry), U. S. Department of Agriculture, Washington, D. C. *Chemistry*. Portland, Oregon, Aug. 25, 92. M.S, Iowa, 23, Ph.D, 24. Fellow and asst. mem, Rockefeller Inst, 16-20; assoc. technologist, Bur. Standards, 20-22; research asst. org. chem, Iowa, 22-24; *research chemist, Alberta*, 24-26; *Interstate Cottonseed Crushers Ass*, 26- A.A; Chem. Soc; Soc. Biol. Chem. Organic and bio chemistry; chemistry of carbohydrates and of the endocrine glands.

Clark, Edgar R(aymond), Mellon Institute, Pittsburgh, Pa. *Chemistry*. Cleveland, Ohio, Jan. 10, 96. A.B, Yale, 17; M.S, Pittsburgh, 22. Asst. chemist, Bur. Standards, 17-19; chemist, Standard Textile Products Co, 19-21; *indust. fellow, Mellon Inst*, 21- Chem. Soc. Bleaching; dyeing; mercerizing; physical testing of textiles; specifications for chemicals used in textile technology; chlorination of wood and straw; analysis of flax straw; chemical retting of flax.

Clark, Prof. Elbert, University of Chicago, Chicago, Ill. *Anatomy*. Cleveland Co, Ark, Aug. 21, 82. B.S, Arkansas, 03; Chicago, 05-07, Ph.D, 18, M.D, Rush Med. Col, 16. Lab. asst. *anat*, Chicago, 07-08, asst, 08-09; asst. prof, Philippine Med. Sch, 09; *assoc. prof, Chicago*, 20- Capt, Red Cross, 17; capt. and major, M.C, 18-19. The glands of the frontal sinus of the sheep; the frontal sinus; the pancreas; degeneration and regeneration of nerves; influenza; pneumonia.

- Clark, Eleanor Linton (Mrs. E. R.)**, University of Pennsylvania, Philadelphia, Pa. *Anatomy*. Washington, Pa, Dec. 15, 88. A.B, Smith, 09; A.M, Washington and Jefferson, 10; Hopkins, 11-14. Instr. physiol, Missouri, 18; *private investigator, dept. anat*, Hopkins, 11-14; Missouri, 14-22; Georgia, 22-26; *sch. med, Pennsylvania*, 26- Ass. Anat. Development of lymphatics; growth and reactions of living cells and tissues.
- Clark, Prof. Elias Treat**, University of Washington, Seattle, Wash. *Forestry*. Woodbridge, Conn, Sept. 1, 86. Ph.B, Yale, 07, M.F, 08. Forest asst, U. S. Forest Service, 08-09, dept. forest supervisor, 09-10; supt, Construction Standard Ry. and Timber Co, 10-11; assoc. prof. forestry, Washington (Seattle), 11-12; timber-valuator, U. S. Treas. Dept, 22-24; *prof. forestry, Washington (Seattle)*, 24- Soc. Foresters. Lumbering; forest mensuration; logging engineering.
- Clark, Dr. E(liot) R(ound)**, University of Pennsylvania, Philadelphia, Pa. **Anatomy*. Shelburne, Mass, Nov. 13, 81. A.B, Yale, 03; M.D, Hopkins, 07. Asst. *anat*, Hopkins, 07-08, instr, 08-11, assoc, 11-14; *prof*, Missouri, 14-22; med. dept, Georgia, 22-26; *Pennsylvania*, 26- A.A; Ass. Anat; Am. Med. Ass; Physiol. Soc. Development and reactions of lymphatic vessels, blood vessels, connective tissue cells, wandering cells and bone; formation of first adventitial (Rouget) cells of blood capillaries; regeneration of blood and lymphatic capillaries; contractility of blood capillaries; lymphatic capillaries in edema; reactions of blood-vascular and lymphatic endothelium to extra-vascular substances, as carbon, carmin, paraffin oil, extruded erythrocytes, lipoids, starch and croton oil.
- Clark, Dr. Ernest D(unbar)**, 826 Skinner Building, Seattle, Wash. *Biochemistry*. Boston, Mass, May 4, 86. A.B, Harvard, 08; A.M, Columbia, 09, fellow, 09-10, Ph.D, 10. Asst. chem, Harvard, 07-08; instr. biochem, Columbia, 10-12; med. col, Cornell, 12-13; food chemist and asst. to chief bur. chem, U. S. Dept. Agr, 13-19, investigator fish and fish products, 14-19; *director northwest branch, Nat. Cannery Ass*, 19- Research scholar, N. Y. Bot. Garden, 12. A.A; Chem. Soc. (assoc. ed, 'Chem. Abstracts,' chairman, Puget Sound sect, 25); Soc. Biol. Chem; Pacific Fisheries Soc. Proteins of fish; plant oxidases; poisonous fungi; fish and oysters in cold storage; food value of fish; canned foods; iodine in the salmon; decomposition products.
- Clark, Dr. Frances N(aomi)**, California State Fisheries Laboratory, Terminal Island, Calif. *Zoology*. Platte Co, Nebr, 94. A.B, Stanford, 18; A.M, Michigan, 24, Ph.D, 25. Research asst, Calif. State Fisheries Lab, 21-22. A.A. Ichthyology.
- Clark, Frank R(inker)**, Mid-Kansas Oil and Gas Company, Tulsa, Okla. *Geology*. Grantsville, Utah, March 14, 81. B.S, Utah, 10. Geologist, S. Pearson and Son, Ltd, Mex, 10-11; U. S. Geol. Surv, 11-19; *chief geologist*, petrol. exploration, W. Va, 19-23; *Mid-Kansas Oil and Gas Co*, 23- A.A; Geol. Soc; Ass.
- Petrol. Geol; Min. and Metal. Eng; Wash. Geol. Soc; Tulsa Geol. Soc. Stratigraphy and geology of fuels.
- Clark, Prof. Fred R**, University of South Dakota, Vermillion, S. Dak. *Botany*. Saranac, Mich, Nov. 10, 96. A.B, Michigan, 20, M.S, 21. Asst. horticulturist, N. Y. Exp. Sta, 21-22; instr. *bot*, R. I. Col, 22-23; *asst. prof, South Dakota*, 23- Asst, Michigan. A.A; Am. Park Soc. Economic botany.
- Clark, Dr. Friend E(benezer)**, West Virginia University, Morgantown, W. Va. *Chemistry*. New Martinsville, W. Va, Aug. 21, 76. B.S, West Virginia, 98; Ph.D, Hopkins, 02; Berlin, 08. Instr. chem, West Virginia, 02-03; indust. chem, Pa. State, 03-05; *prof. chem*, Central (Ky), 05-14; *West Virginia*, 14- Summer, prof, West Virginia, 03. A.A; Chem. Soc; fel. London Chem. Soc. Organic chemistry.
- Clark, Prof. George L(indenberg)**, Massachusetts Institute of Technology, Cambridge, Mass. *Chemistry*. Anderson, Ind, Sept. 6, 92. A.B, De Pauw, 14; M.S, Chicago, 14, Ph.D, 18. Instr. chem, De Pauw, 14-16; prof. physical chem, Vanderbilt, 19-21; Nat. Research Council fellow, Harvard, 21-24; *prof. applied chem. research, Mass. Inst. Tech*, 24- Asst. ed, 'Chem. Abstracts.' Int. Cong. Radiol. A.A; Chem. Soc. (sec'y, div. gen. and physical chem, 25); Physical Soc; Soc. Test. Mat. (metal. committee). Physical and inorganic chemistry; X-rays.
- Clark, Dr. Guy W(endell)**, 1148 Sutter St, Berkeley, Calif. *Biochemistry, Pharmacology*. Keene, N. H, May 25, 87. A.B, Colo. Col, 12, A.M, 14; Ph.D, California, 18. Instr. chem, Colo. Col, 12-16; *pharmacol, California*, 19- Control chemist, West. Meat Co, 18-19; chemist in charge, media dept, Cutter Biol. Laboratories, 19. Soc. Biol. Chem; Soc. Exp. Biol. Soil fertility; ratio of blood proteins; oocytin; the determination of blood calcium; calcium and mineral metabolism.
- Clark, Dr. Harry**, Rockefeller Institute, New York, N. Y. *Biophysics*. Roxbury, N. Y, June 2, 85. B.S, N. Y. Univ, 07, M.S, 08; A.M, Harvard, 11, fellow, France, 14, Ph.D, 14. Asst. physics and math, N. Y. Univ, 05-07; instr. physics, Stevens, 08-09; Harvard, 11-17; Radcliffe, 14-17; prof, Victoria Col, New Zealand, 17-19; assoc. prof, Oberlin, 19-20; *assoc. mem, Rockefeller Inst*, 20- A.A; Physical Soc; Optical Soc; Wellington Philos. Soc. Longitudinal vibrations in wires; vibrations of bowed strings; deep sea temperatures; radioactivity; X-rays.
- Clark, Harry Willard**, North Andover, Mass. *Sanitary chemistry and engineering*. Melrose, Mass, Sept. 15, 63. Cornell, 86; Mass. Inst. Tech, 87. Asst. chemist, *Lawrence Exp. Sta*, 87-93, chemist, 93-95, *chemist in charge*, 95-; *chief chemist, State Board Health, Mass*, 97- Chemist, Metropolitan Sewerage Commission, 98; Charles River Dam Commission, 01; Mass. Highway Commission, 08-21. Lecturer, Harvard, 25. Consulting sanitary engineer. Soc. Bact; Chem. Soc; Pub. Health Ass; New Eng.

- Water Works Ass; Boston Soc. Civil Eng. Purification of water and sewage and allied subjects.
- Clark, Dr. H(erbert) A(nthony)**, 136 Elmdorf Ave, Rochester, N. Y. *Physics*. Darlington, Wis, June 20, 75. B.S. Kansas, 98; fellow, Nebraska, 04-05, A.M. 05; Ph.D, Columbia, 13. Instr. physics, Syracuse, 05-07, asst. prof, 07-10, assoc. prof, 10-13, prof, 13-19; *physicist*, *Taylor Instrument Companies*, 19- Asst, Columbia, 08-09, Barnard lecturer, 09-10. A.A.; assoc. Physical Soc; Optical Soc; Am. Geog. Soc. Heat radiation; spectrophotometry; temperature measurement; properties of glass.
- Clark, H(oward) Walton**, California Academy of Sciences, San Francisco, Calif. *Zoology*. Allen Co, Ind, Sept. 9, 70. A.B, Indiana, 96, A.M. 01. Preparator, Field Museum Nat. Hist, 01-04; asst, U. S. Bur. Fisheries, 04-09; U. S. Biol. Sta, 10-23; *collector and aquarist*, *Steinhart Aquarium, Calif. Acad*, 23-, *asst. curator dept. fishes*, 25- A.A.; Soc. Zool. Flora of Eagle Lake; plankton of Lakes Atitlan and Amatitlan, Guatemala; dwarf shore floras; aquatic life.
- Clark, Dr. H(ubert) L(yman)**, Museum of Comparative Zoology, Cambridge, Mass. **Zoology*. Amherst, Mass, Jan. 9, 70. A.B, Amherst, 92; Ph.D, Hopkins, 97. Instr. biol, Amherst, 97-99; prof, Olivet, 99-05; asst. invert. zool. *museum comp. zool, Harvard*, 05-11, *curator echinoderms*, 11- Acting prof, Williams, 20-21; investigator, U. S. Fish Commission, 99, 02. A.A.; Soc. Nat; mem. Ornith. Union; New Eng. Bot. Club; Boston Soc. Nat. Hist. Embryology, taxonomy, morphology and distribution of echinoderms; pterylography of birds; variation in snakes.
- Clark, J(acob) A(llen)**, U. S. Department of Agriculture, Washington, D. C. *Agronomy*. Tower City, N. Dak, June 9, 88. B.S.A, N. Dak. Col, 10; M.S, Minnesota, 23. Sci. asst, cereal investigations, *bur. plant indust, U. S. Dept. Agr*, 11-14, asst. agronomist, *west. wheat investigations*, 14-18, *agronomist in charge*, 18- Soc. Agron; Agr. Hist. Soc. The breeding of drought and rust resistant wheat varieties of high quality.
- Clark, Dr. Janet H(owell)**, 232 W. Lanvale St, Baltimore, Md. *Physiology, Physics*. Baltimore, Jan. 1, 89. A.B, Bryn Mawr, 10; A.M, Hopkins, 12, Ph.D, 13. Helen Schaeffer Huff research fellow, Bryn Mawr, 13-14, lecturer physics, 14-15, Sarah Berliner fellow, 15-16; instr. Smith, 16-17; asst. path, *Hopkins*, 17-18, instr. *physiol, Sch. Hygiene and Pub. Health*, 18-20, assoc, 20-23, *assoc. prof*, 23- Physiol. Soc; Physical Soc; Optical Soc; Illum. Eng. Soc. Spectroscopy; biological effect of light and X-rays.
- Clark, Prof. John D(ustin)**, Albuquerque, N. Mex. *Chemistry*. Nashua, N. H, June 23, 82. B.S, New Hampshire, 06, M.S, 07; Ph.D, Stanford, 14. Asst. prof. *chem, New Mexico*, 07-08, assoc. prof, 08-13, *prof*, 13-, dean grad. sch, 19-25, *dean of men*, 25- Summers, California, 10, 12. Contributing ed, 'Jour. Chem. Educ.' Assoc. mem. Naval Consulting Board, 17-19. A.A.; Chem. Soc; Min. and Metal. Soc; Min. Cong;
- N. Mex. Ass. Science (past pres). Enrichment of copper sulphid ores.
- Clark, Dr. John R**, 110 Morningside Drive, New York, N. Y. *Mathematics*. A.B, Indiana, 12; Ph.D, Columbia, 25. Teacher math, Lincoln sch, Teachers Col, Columbia, assoc. math, Teachers Col; *assoc. prof. math, sch. educ, N. Y. Univ.* Ed, 'Math. Teacher.' Mental measurement; psychology of learning; psychological and curriculum studies in mathematics.
- Clark, Prof. Judson F(reeman)**, 2483 Mar Vista Ave, Altadena, Calif. or Vancouver, B. C, Can. *Forestry*. Bay View, P. E. Island, July 27, 70. B.S.A, Ont. Agr. Col, 96; A.M, Cornell, 99, fellow, 00-01, Ph.D, 01. Asst. bot, Cornell, 99-00, prof. forestry, 01-03; provincial forester, Ont, 05-06; *consulting forest engineer*, 06- Gold medal, Ont. Agr. Col, 05. A.A.; Forestry Ass; Soc. Foresters; Can. Soc. Foresters; Can. Forestry Ass. The effect of toxic agents; forest taxation, management and mensuration; forest problems in the Pacific Northwest.
- Clark, Dr. K(arl) A(dolf)**, University of Alberta, Edmonton, Alta, Can. *Highway engineering*. Georgetown, Ont, Oct. 20, 88. B.A, McMaster, 10, M.A, 12; Ph.D, Illinois, 16. Asst, Can. Geol. Surv, Ottawa, 15-17, chief road materials div, 18-20; *research engineer, road materials, Sci. and Indust. Research Council, Alberta*, 21- Commissioner, Good Roads Board, 23- Soc. Test. Mat. (committee D-4, 18-). Non-bituminous road materials in Canada; the oil content and application to road construction of the bituminous sands of Northern Alberta.
- Clark, Dr. Lois**, University of Idaho, Moscow, Idaho. *Botany*. Charlotte, Mich. A.B, Washington (Seattle), 07, A.M, 10; Ph.D, Minnesota, 19. Head dept. science, Stephens Junior Col, 19-20; *asst. prof. bot, Idaho*, 23- Embryology of Podophyllum; taxonomy of the Hepaticae of Washington and Northern Idaho.
- Clark, Myron H(enry)**, Andover, Mass. *Chemistry*. Bedford, Mass, July 25, 81. B.S, Mass. Inst. Tech, 03. Chemist, Boston Rubber Shoe Co, 03-07, asst. supt, 07-13; gen. supt, Good-year's M. R. Shoe Co, 14; gen. factory manager footwear div, U. S. Rubber Co, 14-22; *pres. and gen. manager, Tyer Rubber Co*, 22- A.A.; Chem. Soc; Soc. Chem. Indust; Mech. Eng.
- Clark, Dr. Norman A(shawell)**, Iowa State College, Ames, Iowa. *Chemistry*. London, Eng, Nov. 16, 86. B.S.A, Alberta, 18; fellow, Toronto, 18-19, M.A, 19, Ph.D, 21. Asst. *chem*, Alberta, 17-18; instr. Toronto, 20-21; *asst. prof, Iowa Col*, 21- A.A.; Chem. Soc; Soc. Plant Physiol; fel. Can. Inst. Chem. Chemistry of soils; reproduction of yeast; nutrition of green plants.
- Clark, Prof. O(rin) R(ay)**, 600 W. 11th St, Cedar Falls, Iowa. *Ecology*. Minden, Nebr, Sept. 26, 92. A.B, Nebraska, 16, A.M, 21. Instr. *bot*, Nebraska, 19-22; *prof, Iowa State Teachers Col*, 22- A.A.; Ecol. Soc; Bot. Soc; Iowa Acad. Plant ecology.
- Clark, Orton L(oring)**, Massachusetts Agricultural College, Amherst, Mass. *Botany*. Boston, Mass, April 18, 87. Mass. Col, 08; B.S, Co-

- lumbia, 10; Rostock, 10-11; Munich, 11; Strassburg, 11-13. Teacher nature study, Ethical Culture Sch, New York, 08-10; asst. bot, Strassburg, 12-13; *asst. botanist, Mass. Exp. Sta., 13-*, *asst. prof. bot, Mass. Col., 15-* A.A. Plant physiology.
- Clark, Prof. Paul F(ranklin)**, University of Wisconsin, Madison, Wis. *Bacteriology.* Portland, Maine, May 9, 82. Ph.B, Brown, 04, A.M, 05, Ph.D, 09; Hopkins, 13-14. Asst. zool, Brown, 04-05, bacter, 05-06; asst. bacteriologist, R. I. State Board Health, 06-07; fellow bacter, Rockefeller Inst, 09-10, asst, 10-12, assoc. *path., 12-14*; assoc. prof, *Wisconsin, 14-18, prof., 18-* A.A; Soc. Bact; Soc. Exp. Biol; Soc. Exp. Path; Pub. Health Ass. Relation of diphtheria and pseudodiphtheria bacillus; poliomyelitis; bacillary dysentery; morphology of bacteria; non-specific immunity.
- Clark, Prof. Robert H(arvey)**, University of British Columbia, Vancouver, B. C. Can. *Chemistry.* Blyth, Ont, June 4, 80. B.A, Toronto, 05, M.A, 06, 1851 Exhib. scholar, 06-09; Ph.D, Leipzig, 09. Asst. prof. chem, Clark, 09-11; prof, Whitman, 11-16; *org. chem, British Columbia, 16-*, *head dept. chem, 27-* Chem. Soc; London Soc. Chem. Indust. (past pres, B. C. branch). Organic and physical chemistry.
- Clark, Thomas H(enry)**, McGill University, Montreal, Que, Can. *Paleontology.* London, Eng, Dec. 3, 93. A.B, Harvard, 17, A.M, 21, Ph.D, 23. Asst. geol, Harvard, 15-20, instr, 20-24; asst. prof. *paleont, McGill, 24-27, assoc. prof., 27-* A.A; Paleont. Soc; Geol. Soc. Carboniferous of the Rocky Mountains; Ordovician of North America.
- Clark, Dr. W(illiam) Mansfield**, Hygienic Laboratory, Washington, D. C. **Chemistry.* Tivoli, N. Y, Aug. 17, 84. A.B, Williams, 07, A.M, 08; fellow, Hopkins, 09-10, Ph.D, 10. Asst. chemist, Williams, 07-08; chemist, bur. dairy indust, U. S. Dept. Agr, 10-20; *prof. chem, hygienic lab, U. S. Pub. Health Service, 20-* Summers, Woods Hole, 08-10. A.A; Chem. Soc; Soc. Bact; Wash. Acad. Gas production of bacteria; influence of hydrogen ion concentrations on bacterial metabolism; Swiss cheese; osmotic pressure; hydrogen electrode; reversible oxidation-reduction of organic compounds; determination of hydrogen ions.
- Clarke, Dr. B(everly) L(eonidas)**, 15 Gramercy Park, New York, N. Y. *Chemistry.* Nashville, Tenn, Sept. 30, 00. B.S, George Washington, 21; Am-Scandinavian Foundation fellow, Sweden, 21-22; A.M, Columbia, 23, Ph.D, 24. Asst. chem, George Washington, 18-21; teaching fellow, Col. City of N. Y., 22-24; research fellow, Carnegie Institution, 24-25; Nat. Research Council fellow, 25-27; *research chemist, Bell Telephone Laboratories, 27-* A.A; Chem. Soc. Physical, inorganic and colloid chemistry; biochemistry; radio electricity.
- Clarke, Cha(rlie)s L(orenzo)**, 109 Glenwood Boulevard, Schenectady, N. Y. *Electrical engineering.* Portland, Maine, April 16, 53. B.S, Bowdoin, 75, M.S, 79, C.E, 80. Asst. Edison lab, N. J, 80; chief engineer, Edison Elec. Light Co, N. Y, 81-84; engineer, Telemeter Co, 84-87; Gibson Elec. Co, 87-89; consulting engineer, 89-01; Board of Patent Control, Gen. Elec. Co, and Westinghouse Elec. and Mfg. Co, 01-11; *Gen. Elec. Co, 11-*, *research lab, Schenectady.* Installed first Edison elec. lighting central sta. system, 82. Elec. Eng; Mech. Eng; hon. fel. Electro-Therapeut. Ass; N. Y. Elec. Soc.
- Clarke, Prof. Elbert H(oward)**, Hiram, Ohio. *Mathematics.* Edinburg, Ind, March 15, 87. A.B, Butler, 09; Ph.D, Chicago, 22. Instr. *math, Purdue, 10-16*; *prof, Hiram, 17-* A.A; Math. Soc; Math. Ass; Ind. Acad. Calculus of variations.
- Clarke, Prof. F(rank) W(igglesworth)**, U. S. Geological Survey, Washington, D. C. **Chemistry.* Boston, Mass, March 19, 47. B.S, Harvard, 67; hon. Sc.D, George Washington, 99; Victoria Univ, England, 03; LL.D, Aberdeen, 06, Cincinnati, 14. Instr. chem, Cornell, 69; prof, Howard, 73-74; Cincinnati, 74-83; chief chemist, U. S. Geol. Surv, 83-25. Jury awards, Paris Expos, 00; govt. board at seven expositions; chairman, Int. Committee on Atomic Weights. Chevalier, Légion d'honneur, 00. Wilde medal and Wilde lecturer, Manchester (England) Lit. and Philos. Soc, 03. Nat. Acad; A.A. (sec'y, subsect. chem, 75, v. pres, 78); Chem. Soc. (pres, 01); Philos. Soc; Wash. Acad. (v. pres, 08, pres, 11); Wash. Philos. Soc. (pres, 96); hon. mem. London Chem. Soc; cor. mem. British Ass; hon. mem. London Miner. Soc; for. mem. London Geol. Soc; cor. mem. Edinburgh Geol. Soc; hon. mem. Manchester Lit. and Philos. Soc; hon. mem. Russian Miner. Soc; Moscow Imp. Soc. Nat; cor. mem. Reale Inst. Lombardo. Inorganic chemistry; mineralogy; recalculation of atomic weights; data of geochemistry; constitution of silicates; thermochemical constants.
- Clarke, Dr. H(ans) T(hacher)**, Eastman Kodak Co, Rochester, N. Y. **Chemistry.* Harrow, Eng, Dec. 27, 87. 1851 Exhib. scholar, London, 11-13, D.Sc, 14. Lecturer, Univ. Col, London, 10-11; *org. chemist, Eastman Kodak Co, 14-* Chem. Soc; Inst. Chem. Gt. Britain and Ireland; London Chem. Soc; Chem. Gesell. Residual affinity and chemical constitution; preparation of rare organic chemicals.
- Clarke, Prof. Helen M(aude)**, Davis and Elkins College, Elkins, W. Va. *Psychology.* Lawrence, Kans, Aug. 26, 79. A.B, Kansas, 03, fellow, 06-08, A.M, 07; fellow, Cornell, 08-10, Ph.D, 10. Teacher, pub. and high schools, Okla, 03-06; asst. psychol, Kansas, 06-08, instr. and asst. prof. cor. study, 10-21; *prof. educ, Davis and Elkins, 21-*
- Clarke, James O(liver)**, 641 Washington St, New York, N. Y. *Chemistry.* Augusta, Ga, Feb. 1, 91. B.S, Ga. Tech, 13. Asst. state chemist, Atlanta, Ga, 13-17; *chief, Savannah Sta, bur. chem, U. S. Dept. Agr, 17-26*; *New York Sta, 26-* Chem. Soc; Agr. Chem. Agricultural chemistry.
- Clarke, Prof. S(amuel) F(essenden)**, Williamstown, Mass. **Biology.* Geneva, Ill, June 4, 51. Ph.B, Yale, 78; fellow, Hopkins, 76-79, Ph.D, 79; A.M, Williams, 91. Asst. zool, Yale, 73-76; Hopkins, 79-81; *prof. nat. hist, Wil-*

- Hams**, 81-16, *emer. prof.*, 16- Asst. U. S. Fish Commission, 74-76. Trustee, Woods Hole. A.A.; Soc. Nat; Soc. Zool; Am. Acad. Hybrids of the American coast; embryology of the American alligator.
- Clarke, Dr. W(alter) F(ieldhouse)**, 1865 Newton St. N. W., Washington, D. C. *Chemistry*. Danville, Va., July 17, 86. A.B. Hampden-Sidney, 03; Ph.D., Hopkins, 14. Instr. chem, Georgia, 14-16; *bur. chem, U. S. Dept. Agr*, 16- Metals in foods and in drugs; food dyes; oils in tin-plate industry; standard and gas electrodes; analytical methods.
- Clarke, Prof. Warren T(hompson)**, 2317 Le Conte Ave, Berkeley, Calif. *Entomology, Horticulture*. San Francisco, Calif., March 15, 63. B.S., California, 03. Asst. entom., California, 04-06; prof., Ala. Polytech, 06-07; asst. prof. hort., California, 07-12, prof., 12-28, *supt. univ. exten. agr.*, 07-13, prof., 13-28, *emer. prof.*, 28- A.A.; Entom. Soc; Pacific Coast Entom. Soc. Almond pollination.
- Clausen, Curtis P(aul)**, U. S. Department of Agriculture, Washington, D. C. *Entomology*. Randall, Iowa, March 28, 93. Okla. Agr. and Mech. Col; B.S., California, 14, M.S., 20. Asst. entom., Citrus Exp. Sta., California, 14-15; commission hort. invest., Japan, China and P. I., 16-18; *entomologist, bur. entom, U. S. Dept. Agr*, Japan, 20-24, *India*, 25- Asst. supt., State Insectary, Calif. A.A.; Entom. Soc; Ass. Econ. Entom. Insect parasitology; citrus insects.
- Clausen, Roy E(lwood)**, University of California, Berkeley, Calif. *Genetics*. Randall, Iowa, Aug. 21, 91. B.S., Okla. Agr. and Mech. Col, 10; Ph.D., California, 14. Instr. *genetics, California*, 14-16, asst. prof., 16-24, *assoc. prof.*, 24- U.S.A., 17-19. A.A.; Genetic Ass; Soc. Nat; Bot. Soc. Genetics of Nicotiana.
- Clausen, Dr. Samuel Wolcott**, Strong Memorial Hospital, Rochester, N. Y. *Biochemistry*. Canaseraga, N. Y., Oct. 17, 88. A.B., Williams, 10; M.D., Hopkins, 15. Intern, Hopkins Hosp, 15-16, asst. res., 16-17; instr. *pediat*, Washington (St. Louis), 17-20, *assoc.*, 20-24; *prof.*, Rochester, 24- Chemical problems in diseases of children.
- Clawson, A(rthur) B(rooks)**, 1884 Monroe St., N. W., Washington, D. C. *Physiology*. Green Lake, Wis., June 18, 78. A.B., Michigan; Wisconsin. Asst. zool., Michigan, 04-05; Wisconsin, 05-07; instr. biol., Lake Forest, 07-09; *assoc. physiologist, U. S. Dept. Agr*, 09- A.A.; Wis. Acad; Ill. Acad. Poisonous plants.
- Clawson, Prof. B(enjamin) J(unior)**, University of Minnesota, Minneapolis, Minn. *Pathology*. Dixonville, Pa., Jan. 9, 81. B.S., Kansas, 09, A.M., 11; M.D., Rush Med. Col, 17, Ph.D., Chicago, 19. Asst. prof., Okla. Col, 11-12; instr., asst. prof. and later assoc. prof. bacter., Kansas, 12-17; instr., Chicago, 17-19; *prof. path.* and bacter., North Dakota, 19-21; asst. prof., *Minnesota*, 21-25, *assoc. prof.*, 25-27, *prof.*, 27- Soc. Bact. Pathology.
- Clawson, Prof. J(ohn) W(entworth)**, Ursinus College, Collegeville, Pa. *Mathematics*. St. John, N. B., Can., Nov. 26, 81. B.A., New Brunswick, 01, M.A., 05; Cambridge, 04; hon. Sc.D., Ursinus, 20. *Prof. math, Ursinus*, 07- A.A.; Math. Soc; Math. Ass. Geometry of the quadrilateral and triangle.
- Clayberg, Dr. Harold D(udley)**, College of Medicine, University of Illinois, Chicago, Ill. *Biology*. Chicago, Jan. 92. A.B., Illinois, 13, fellow, 16-17, M.D., 27; M.S., Chicago, 14, Ph.D., 17. Instr., high sch., La., 14-15; asst. bot., Illinois, 15-17; asst. prof., Washburn, 17-18; prof. biol., Davidson, 18-19; instr., Beloit, 19-20; animal biol., Minnesota, 20-21; prof. biol., St. Thomas, 21-22; William Jewell, 22-23; asst. prof., Arizona, 23-24; asst. anat., col. med., Illinois, 24-25, asst. physiologist, 25-26. Physiographic ecology; reactions of fishes to chloroform and ether; Compositae.
- Claycomb, Prof. George B.**, Southwestern Louisiana Institute, Lafayette, La. *Biology*. La Harpe, Ill., Dec. 25, 86. Ph.B., Adrian, 09; M.S., Chicago, 14. Teacher, high schools, Ill. and Mont., 10-18; asst. zool., Illinois, 18-19; prof. biol., Dakota Wesleyan, 19-22; *head dept.*, *Southwest. La. Inst.*, 22- A.A. Ecology; physiology.
- Clayton, Prof. Charles Yancey**, Rolla, Mo. *Metalurgy*. Hannibal, Mo., Jan. 29, 91. B.S., Mo. Sch. Mines, 13; Met.E., 16. *Prof. metal. and ore dressing, Mo. Sch. Mines*, 13- Metallographist, U. S. Bur. Mines, Pittsburgh, 18; summers, metallurgist, Bedford Hills, 21, consulting metallurgist, 22-; metallurgist, Bur. Standards, 22. Min. and Metal. Eng; Soc. Steel Treat; British Iron and Steel Inst. Metallography.
- Clayton, Dr. E(dward) E(astman)**, New York Agricultural Experiment Station, Geneva, N. Y. *Plant pathology*. Upper Sandusky, Ohio, March 10, 94. B.S., Ohio State, 16; M.S., Chicago, 17; Ph.D., Wisconsin, 20. *Exten. plant pathologist*, Ohio State, 20-22; *research assoc.*, N. Y. *Exp. Sta.*, 22- Bot. Soc; Phytopath. Soc; Ohio Acad. Diseases of vegetable crops.
- Clayton, H(enry) H(elm)**, 1410 Washington, Canton, Mass. *Meteorology*. Murfreesboro, Tenn., March 12, 61. Private and pub. schools. Student asst., astron. observatory, Michigan, 84-85; asst., Harvard Col. Observatory and Blue Hill Meteor. Observatory, 86-91; local forecast official, U. S. Weather Bur., 91-93; meteorologist, Blue Hill Meteor. Observatory, 94-09; chief forecast div., Argentine Weather Service, 13-22; research, Smithsonian Institution, 23-26. In charge Teisserene de Bart and Rotch exped., 05. Am. Acad; Boston Sci. Soc. (pres, 99-03). Clouds; relation of solar changes to world weather; explorations of the air with balloons-sounds.
- Cleaves, Howard H(enderson)**, 242 W. 109th St., New York, N. Y. *Ornithology*. Aurora, Ill., Sept. 22, 87. Harvard, 24-25. Curator museum, Staten Island Inst. Arts and Sciences, 11-17; asst. to chief publication, N. Y. State Conservation Commission, 18-21; managing director museum, San Diego Soc. Nat. Hist., Calif., 21-22; state sec'y, Wild Life League of W. Va., 22-24. Assoc. Ornith. Union; Soc. Mammal; Cooper Ornith. Club; Bird Banding Ass. (sec'y,

- 12-20). N. Y. Linnean Soc; Staten Island Inst. Arts and Sciences. Migrations, life histories and habits of native birds through medium of bird-banding; conservation.
- Cleland, Prof. Herdman F(itzgerald)**, Williamstown, Mass. *Geology*. Milan, Ill, July 13, 69. A.B., Oberlin, 94; Ph.D., Yale, 00; Cornell, 01. Instr. nat. science, Gates, 95-98; geol. and bot, *Williams*, 01-04, asst. prof. *geol. and miner*, 05-07, *prof*, 07- Summers, instr, Cornell, 00-02, Tennessee, 04. A.A.; Geol. Soc; Paleont. Soc. (sec'y, 09); Min. Eng. Seismol. Soc; Am. Acad. Physical and historical geology; fossil faunas of the Hamilton formation; Calciferous of the Mohawk Valley; Wisconsin Devonian; natural bridges of North America; prehistoric man; practical applications of geology and physiography.
- Cleland, Dr. Ralph E(rskine)**, Goucher College, Baltimore, Md. *Botany*. Le Claire, Iowa, Oct. 20, 92. A.B., Pennsylvania, 15, M.S., 16, Ph.D., 19. Instr. biol, *Goucher*, 19-20, asst. prof. bot, 20-23, *assoc. prof. biol*, 23- Instr, Woods Hole, 24. Ed, sect. plant cytology, 'Biol. Abstracts.' A.A.; Bot. Soc; Soc. Nat. Red algae; cytology and genetics of Oenotheras.
- Clemen, Dr. Rudolf A(lexander)**, Armour and Company, Chicago, Ill. *Animal industry*. Halifax, N. S., Can, June 11, 93. B.A., Dalhousie, 13, M.A., 14; A.M., Harvard, 15, Ph.D., 26. Instr. hist. and econ, Purdue, 17-18; Northwestern, 19-21, sec'y to pres, 18-19; *assoc. ed*, 'Nat. Provisioner,' 21-23; economist, Ill. Merchants Trust Co, 23-25; *asst. director*, *Armour's livestock bur*, *Armour and Co*, 26- Farm Econ. Ass; Agr. Hist. Soc; Econ. Ass; Statist. Ass; Polit. Sci. Ass; Hist. Ass. American livestock and meat industry; by-products of the packing industry; livestock marketing; agricultural economics.
- Clemens, Mrs. Lucy (Wright) Smith**, Pacific Biological Station, Nanaimo, B. C., Can. *Zoology*. Sheffield, Mass, Jan. 3, 87. A.B., Mt. Holyoke, 09; A.M., Cornell, 11, Ph.D., 14. Sci. asst, sta. for exp. evolution, Carnegie Institution, 09-10; asst. biol, Cornell, 11-12; instr. zool, Mt. Holyoke, 12-18. Soc. Zool. Vertebrate morphology.
- Clemens, Prof. Wilbert A(mie)**, Pacific Biological Station, Nanaimo, B. C., Can. *Biology*. Millbank, Ont, 87. B.A., Toronto, 12, M.A., 13; Ph.D., Cornell, 15. Demonstrator biol, Toronto, 12-13; asst. instr, Cornell, 13-15; instr, Maine, 15-16; lecturer, Toronto, 16-19, asst. prof, 19-24; *director*, *Pacific Biol. Sta*, 24- First Walker prize, Boston Soc. Nat. Hist, 16. A.A.; Ecol. Soc; Fisheries Soc; Ont. Entom. Soc; fel. Royal Soc. Can. Limnobiology; marine biology.
- Clement, Dean Fred Moore**, University of British Columbia, Vancouver, B. C., Can. *Horticulture*. Niagara, Ont, Nov. 21, 84. B.S.A., Ont. Agr. Col, 11; A.M., Wisconsin, 22. Co. representative, Dutton, Ont, 11-12; lecturer hort, Macdonald, 12-14; director, Vineland Exp. Sta, 14-16; *prof. hort*, *British Columbia*, 16-, *dean faculty agr*, 19- Agr. Hist. Soc; Can. Soc. Tech. Agr.
- Clement, Major J(ohn) K(ay)**, U.S.A., care of the Adjutant General, Washington, D. C. *Physics*. Sunbury, Pa, Nov. 5, 80. B.S., Trinity (Conn), 00; Ph.D., Göttingen, 04. Asst, geophys. lab, Carnegie Institution, 04-07; asst. physicist, technol. branch, U. S. Geol. Surv, 07-08, physicist, 08-10; U. S. Bur. Mines, 10-17; *major, ordnance dept*, 20- Physical Soc; Chem. Soc; Wash. Acad; Wash. Philos. Soc. Experimental physics; formation of ozone; gas thermometer; physical properties of rock-forming minerals; the gas producer; thermal conductivity of refractory materials at high temperatures; gas and dust explosions.
- Clements, Prof. Frederic E(dward)**, Carnegie Institution, Santa Barbara, Calif. **Botany*. Lincoln, Nebr, Sept. 16, 74. B.S., Nebraska, 94, A.M., 96, Ph.D., 98. Asst. bot, Nebraska, 94-97, instr, 97-99, adjunct prof, 99-03, asst. prof, 03-05, *assoc. prof. plant physiol*, 05-06, *prof*, 06-07; bot, Minnesota, 07-17; *assoc. ecol. research*, *Carnegie Institution*, 17- Ecology; experimental evolution; paleo-ecology; climatology.
- Clements, Mrs. Frederic E. (Dr. Edith)**, Carnegie Institution, Santa Barbara, Calif. *Botany*. Albany, N. Y. A.B., Nebraska, 98, Ph.D., 06. Asst. bot, Nebraska, 04-07; instr, Minnesota, 09-13. A.A.; Ecol. Soc. Ecology; experimental evolution.
- Clements, Prof. G(uy) R(oger)**, 7 Thompson St, Annapolis, Md. *Mathematics*. Ravenna, Ohio, March 5, 85. A.B., Hiram, 05; A.M., Chicago, 07; Ph.D., Harvard, 13. Instr. math, Williams, 07-09; Harvard, 08-10; substitute prof. pure math, North Carolina, 10-11; instr. *math*, Wisconsin, 11-17; *U. S. Naval Acad*, 17-19, asst. prof, 19-20, *assoc. prof*, 20- Math. Soc; Math. Ass. Functions of several variables; implicit function theory; singular transformations; resultants.
- Clench, William J(ames)**, Kent Scientific Museum, Grand Rapids, Mich. *Zoology*. Brooklyn, N. Y., Oct. 24, 97. B.S., Mich. State Col, 21; Hinsdale fellow, Michigan, 22-25; M.S., Harvard, 23. *Custodian nat. hist. collections*, *Kent Sci. Museum*, 25- Field expeditions, Ky, Tenn. and Ala. Boston Soc. Nat. Hist; Boston Malacol. Club; Cambridge Entom. Club. Systematic conchology; ecology.
- Clendenin, W(illiam) W(Wallace)**, 120 Vista Place, Mt. Vernon, N. Y. *Geography, Geology*. Audrain Co, Mo, April 5, 62. B.S., Missouri, 86, M.S., 89; Morgan fellow, Harvard, A.M., 92; J.D., N. Y. Univ, 09. Asst. geol, Missouri, 87-93; prof, Louisiana, and geologist, La. Agr. Surv, 93-98; supt, Blees Mil. Acad, 99-00; *teacher physiog*, *Wadleigh High Sch*, *New York*, 00- Summers, teacher, Cornell, 08-10. Board of Educ, Mt. Vernon, 20-25. Am. Geog. Soc. Physiography; volcanoes and glaciers of Europe; ancient high-level beaches; Louisiana geology; origin of the 'pimpled prairies.'
- Cleveland, Prof. Alfred A(lexander)**, State College of Washington, Pullman, Wash. *Psychology*. Astoria, Oregon, Feb. 29, 76. A.B., Oregon, 98, A.M., 03; Ph.D., Clark, 06. Asst. prof. psychol, *Wash. Col*, 07-08, *prof*, 08, head dept.

- educ, 08-17, *dean sch. educ*, 17- A.A.; Psychol. Ass. Educational psychology.
- Cleveland, Prof. C(larence) R(ugg)**, 423 Dodge St, West Lafayette, Ind. *Entomology*. Seward, Ill, Aug. 27, 89. A.B, Wisconsin, 12. Asst. prof. and asst. entomologist, New Hampshire, 15-21; *asst. entom. Exp. Sta, Purdue*, 21-, *asst. prof. and asst. entomologist*, 25- A.A.; Ass. Econ. Entom; Crop Protection Inst; Ind. Acad. The cabbage maggot; the feather mite; repellent sprays; insects and the transmission of plant diseases.
- Cleveland, H(enry) Burdett**, Room 1201, 225 Broadway, New York, N. Y. *Sanitary engineering*. Scheneyus, N. Y, Nov. 7, 77. B.E. Union (N. Y). Prin. asst. to city engineer, Amsterdam, N. Y, 95-02; prin. asst. engineer, Olin H. Landreth, Schenectady, 02-05; N. Y. State Dept. Health, 05-19; consulting engineer, Barth Eng. and Sanit. Co, N. Y, 19-22; *consulting sanit. engineer*, 22- Lecturer, Cornell, Syracuse, Albany Med. Col, N. Y. Homeop. Med. Col. Civil Eng; fel. Pub. Health Ass; Water Works Ass; Soc. Munic. Improv; N. Y. State Sanitary Officers Ass; N. J. Sewage Works Ass; Albany Soc. Civil Eng. Water supply; water purification; sewage and garbage disposal.
- Cleveland, Dr. L(emuel) R(oscoe)**, Harvard Medical School, Boston, Mass. **Parasitology*. Union, Miss, Nov. 14, 92. B.S, Mississippi, 17; research fellow, Hopkins, 21-23, Sc.D, 23. Instr. biol, Mississippi, 17-18; Emory, 18-20; zool, Kansas Col, 20-21; Nat. Research Council fellow, 23-25; *asst. prof. protozool, Harvard Med. Sch*, 25- Prize, Am. Ass. Adv. Sci, 24. A.A.; Soc. Parasitol; Soc. Zool; Micros. Soc. Medical zoology; symbiosis; relation of Protozoa to their hosts; cellulose digestion in insects; means of defaunating animals; toxicity of oxygen for Protozoa, bacteria, molds and yeasts.
- Clevenger, Dr. C(linton) B**, 815 University Ave, Laramie, Wyo. *Chemistry*. Shelby Co, Ohio, Nov. 11, 88. B.S.A, Ohio State, 12, M.S, 13; Ph.D, Wisconsin, 20. Instr. chem, Wisconsin, 19-20; prof. agr. chem, Manitoba, 20-25; *asst. research chemist, Wyoming*, 25- A.A.; Chem. Soc; Soc. Agron. Chemistry of soils.
- Clevenger, J(oseph) F(ranklin)**, 3927 Fifth St, Washington, D. C. *Botany*. Sidney, Ohio, Nov. 30, 74. B.S, Ohio State, 03, A.M, 05. Instr, high sch, Nebr, 03-04; prof. science, Cedarville, 05-06; biol, Wheaton, 06-09; instr. bot, Pa. State, 10-12; demonstrator, McGill, 12-15; *pharmacog, bur. chem, U. S. Dept. Agr*, 15- A.A.; Ohio Acad. Physiological botany; pharmacognosy; Phyllachora; effect of gases on heliotropism; effect of smoke on plants; fake saffron; crude drugs; substitution of Convallaria flowers for Chamomile; adulterants; Veratrum; Calza seed; Macatonia cephalates a substitute for Alkana tinctoria.
- Clifford, C(harles) W(illiam)**, 1901 Cherry St, Denver, Colo. *Chemistry*. Stoughton, Mass, Dec. 22, 93. A.B, Denver, 14; M.S, Wisconsin, 16. Asst. chemist, Great West. Sugar Co, 16-17, 19-20; Bur. Standards, 18-19; Goodyear Tire and Rubber Co, 20-24; Exchange Orange Products Co, 24-26; *head dept. science, high sch*, 26- Lieut, C.W.S, 17-18; O.R.C. Chem. Soc. Organic analysis.
- Clifford, Prof. Harry E(llsworth)**, Newton Center, Mass. *Electrical engineering*. Lowell, Mass, April 21, 66. B.S, Mass. Inst. Tech, 86; Harvard, 86-87, 88-89, 91-92. Instr. theoret. physics, Mass. Inst. Tech, 86-95, asst. prof, 95-02, assoc. prof. theoret. elec, 02-04, prof, 04-09; *Gordon McKay prof. elec. eng, Harvard*, 09- Consulting engineer. A.A.; Elec. Eng. (past chairman, Boston branch); Nat. Elec. Light Ass; Illum. Eng. Soc; Eng. Educ; Am. Acad; Circolo Mat. di Palermo. High voltage cables; electric furnaces.
- Clifford, Dr. O(liver) C(harles)**, Armour Institute, Chicago, Ill. *Physics*. Wadsworth, Ohio, Feb. 4, 70. Cornell, 92-93, 95; A.B, Oberlin, 93; Pennsylvania, 00-02; fellow, Chicago, 04-06, Ph.D, 07. Prof. physics and chem, Tientsin, China, 95-04; instr. physics, *Armour*, 06-08, asst. prof, 08-10, *elec. eng*, 10-14, *assoc. prof*, 14- Nan Yang Col, Shanghai, 01-02. Mech. Eng. Susceptibility of copper and tin alloys; hysteresis of Huesler alloys; magnetic properties; geologic erosion.
- Cline, Dr. Joseph L(eander)**, U. S. Weather Bureau Office, Dallas, Texas. *Meteorology*. Madisonville, Tenn, Sept. 20, 70. B.S, A.M, Ph.D. Teacher, pub. schools; asst. observer, *U. S. Weather Bur*, 92-00, observer, local forecaster and director sect, P. R, 00-18, *meteorologist in charge office, Dallas*, 18- Lecturer, high and normal schools, Texas. Representative, U. S. Weather Bur. meeting for flood control and conservation in Texas. Sig.C, U.S.A. A.A.; Meteor. Soc; Texas Forestry Ass. Climatology; weather forecasting; agriculture.
- Clinton, G(eorge) P(erkins)**, Agricultural Experiment Station, New Haven, Conn. **Botany*. Polo, Ill, May 7, 67. B.S, Illinois, 90, M.S, 94; M.S, Harvard, 01, Sc.D, 02. Asst. bot, Illinois, and asst. botanist, Exp. Sta, 90-02; *botanist, Conn. Exp. Sta*, 02-; *research assoc. plant path, Yale*, 26- Botanist, Conn. Board Agr, 02- A.A. (v. pres, 15); Soc. Nat; Bot. Soc; Phytopath. Soc. (pres, 12); Am. Acad; New Eng. Bot. Club; Conn. Bot. Forestry, Veg. and Pomol. Societies. Fungi, especially Ustilagineae; economic fungi of Connecticut.
- Clo, Dr. J. H(arry)**, 470 Vanderbilt Ave, Brooklyn, N. Y. *Physics*. Cincinnati, Ohio, May 2, 81. B.S, Kentucky, 04, M.S, 05; fellow, Chicago, 08-09, Ph.D, 11. Asst. and instr. physics, Kentucky, 02-05; Wash. Col, 05-07; Virginia, 07-08; asst, Chicago, 09-11; asst. prof. and head dept, Tulane, 11-13, assoc. prof, 13-17, prof, 17-19; prof. and head dept, Pittsburgh, 20-24; *research physicist and engineer, A. Schrader's Son, Inc*, 24- A.A.; Physical Soc; Soc. Automotive Eng. Electricity; electrons; automobile accessory inventions.
- Cloke, Prof. Paul**, University of Maine, Orono, Maine. *Physics, Electrical engineering*. Trenton, N. J, Sept. 4, 82. E.E, Lehigh, 05, M.S, 13. Cadet engineer and foreman, Pub. Service Co, N. J, 05-07; eng. apprentice, Westinghouse Elec. and Mfg. Co, 07-08; instr. physics, Pa.

- State, 09; research engineer, Westinghouse Lamp Co, 09-10; asst. prof. elec. eng. and physics, R. I. Col, 10-14; prof. physics, Clarkson Col. Tech, 14-18; elec. eng, Arizona, 18-26; *dean col. tech, Maine, 26-* Elec. Eng; Radio Eng; Ass. Eng. (pres, Tucson chapter, 23); Eng. Educ. Resistance of copper at high temperatures; atmospherics in radio transmission; measurement of radio frequency amplification.
- Clopton, Dr. M(alvern) B(ryan)**, Humboldt Building, St. Louis, Mo. *Surgery*. St. Louis, Oct. 8, 75. M.D, Virginia, 97. Intern and asst. res. surg, Hopkins Hosp, 98-99; *assoc. prof. surg, sch. med, Washington (St. Louis), 09-* Visiting surgeon, St. Luke's Hosp, 03-; asst. surgeon, Barnes and St. Louis Children's Hospitals, 14-Surg. Ass. (pres, St. Louis sect, 26); Soc. Clin. Surg; Interurban Surg. Soc; St. Louis Surg. Soc. (sec'y, 21-26); St. Louis Med. Soc.
- Close, Prof. C(harles) P(hilip)**, U. S. Department of Agriculture, Washington, D. C. *Horticulture*. New Buffalo, Mich, Jan. 21, 68. B.S, Mich. State Col, 95, M.S, 97. Asst. hort, N. Y. Exp. Sta, Geneva, 95-99; prof. hort, bot. and entom, Utah Col, 99-01; hort, Del. Exp. Sta, 01-07; state horticulturist, Maryland, 07-11; *exten. horticulturist, U. S. Dept. Agr, 11-* A.A; Soc. Hort. Sci. (sec'y-treas); North. Nut Growers' Ass; Pomol. Soc. Propagating nut trees; apple breeding; commercial fertilizers in apple orchards; identification of fruits; improving wild fruits.
- Cloud, Prof. J(ohn) H(ofer)**, 206 Duck St, Stillwater, Okla. *Physics*. Clinton, Ill, 71. B.S, Northern Ind. Nor. Sch, 93; A.B, Valparaiso, 96; Chicago, 97; A.M, Hopkins, 18; Ph.D, Indiana, 22. Prof. physics, Valparaiso, 97-11, physics and math, 11-20; *head dept. physics, Okla. Agr. and Mech. Col, 20-* Asst, Hopkins, 02-03; prof, Indiana, 18-19. A.A; Okla. Acad. (pres, 25); Ind. Acad. Measurement of wave lengths in the infra-red; reflection of light from solutions; measurement of intensity of sound.
- Clough, H(omer) W(oodworth)**, U. S. Weather Bureau, Washington, D. C. *Meteorology*. Arcade, N. Y, May 18, 69. Rochester, 89-93. *U. S. Weather Bur, 93-* A.A; Meteor. Soc; Wash. Philos. Soc. Periodic variations in solar and terrestrial atmospheres; solar radiation; long range weather forecasting; statistical analysis of meteorological data.
- Clough, Dr. Mildred Clark**, Johns Hopkins Hospital, Baltimore, Md. *Bacteriology*. Newtonville, Mass, Sept. 14, 88. A.B, Wellesley, 10; M.D, Hopkins, 14. Intern, Hopkins Hosp, 14-15, asst. res, 15-16, asst. med, Hopkins, 16-17, *instr, 17-* Serology; pneumococcus; blood agglutinins; hemolysins; rouleaux formation.
- Clough, Dr. Paul W(iswall)**, 24 E. Eager St, Baltimore, Md. *Internal medicine*. Portage, Wis, Sept. 27, 82. B.S, Wisconsin, 03; M.D, Hopkins, 07. Intern, asst. res. and res. physician, Hopkins Hosp, 07-16, asst. visiting physician, 16-, asst, instr, assoc. and assoc. prof. med, Hopkins, 08-19, *assoc. clin. med, 19-* Soc. Clin. Invest. Serology; immunity; pneumococcus; epinephrin reaction.
- Clough, Dr. Ray W(illiam)**, 826 Skinner Building, Seattle, Wash. *Biochemistry*. Randolph, Vt, Sept. 28, 85. A.B, Tufts, 08, A.M, 09; Ph.D, Washington (Seattle), 22. Asst. chem, Tufts, 04-08, instr, 08-09; food chemist, bur. chem, U. S. Dept. Agr, 10-19; *chemist, N. W. Branch, Nat. Cannery Ass, 19-* Lecturer, Washington (Seattle), 21-22. A.A; Pacific Fisheries Soc. Food value, iodine content, decomposition products and bacteriological cultures of fish; sprays, sulfur-bleached sugar and canned fruits; the examination of foods.
- Clowes, Dr. George H(enry) A(lexander)**, Eli Lilly and Co, Indianapolis, Ind. *Chemistry*. Ipswich, Eng, Aug. 27, 77. Royal Col. Science, London, 93-96; Ph.D, Göttingen, 99; Paris, 99-00. Asst. chem, N. Y. State Cancer Lab, Buffalo, 01-18; research div, C.W.S, Am. Univ. Exp. Sta, 18-19; biochemist, *Eli Lilly and Co, 19-20, research director, 20-* Delegate, Int. Cancer Cong, Berlin, 08; Brussels, 13. A.A; Chem. Soc; Physiol. Soc; Soc. Biol. Chem; Soc. Exp. Biol. (pres, Buffalo sect, 07, 09); Ass. Path. and Bact; Ass. Immunol; Soc. Cancer Research; London Chem. Soc; Chem. Gesell. Sugar and fermentation chemistry; metabolism; cancer; emulsions; colloids and adsorption; protoplasmic equilibrium; pharmacology of war gases; adsorbed alkaloids; volatile sperm-stimulating substance derived from marine eggs; influence of hydrogen ion concentration on fertilization and growth of certain marine eggs; influence of carbon dioxide on velocity of division of marine eggs; cytology and protoplasmic structure; pneumococcus antitoxin.
- Clum, Dr. Harold H(aydn)**, Syracuse University, Syracuse, N. Y. *Plant physiology*. Cleveland, Ohio, Feb. 16, 94. A.B, Oberlin, 17; Ph.D, Cornell, 24. Asst. bot, Cornell, 19-23; instr, Michigan, 23-24; prof, Porto Rico, 24-26; *asst. prof, Syracuse, 26-* A.A; Bot. Soc; Phytopath. Soc. The effect of transpiration and environmental factors on leaf temperatures.
- Clute, Willard N(elson)**, 207 Whitley Ave, Joliet, Ill. *Botany*. Painted Post, N. Y, Feb. 27, 69. Chicago. Asst. herbarium, Columbia, 96-97; curator, N. Y. Bot. Garden, 97-99; *pres, W. N. Clute and Co, 97-*; *instr. biol, high schools, Ill, 03-11; Flower Tech. High Sch, Joliet, 11-* Commissioner, Joliet Park District. Founder and ed, 'Ornith. and Bot,' 90; publisher and part owner, 'Plant World,' 97-99; 'Bryologist,' 98-99; ed. and publisher, 'Fern Bul,' 93-12; 'Am. Botanist,' 01- A.A; Fern Soc. (founder and first pres, 93); Ecol. Soc; Genetic Ass; Joliet Bot. Club (director); Binghamton Acad. (sec'y, 93-96, 01). Ecological and economic botany; agronomy; ferns.
- Clutz, Dr. F(rank) H(ollinger)**, Gettysburg, Pa. *Mathematics, Engineering*. Newville, Pa, June 29, 73. A.B, Midland, 92; Ph.D, Hopkins, 97. Prof. math, Carthage, 98-99; practising civil engineer, 99-18; *prof. civil eng, Gettysburg, 18-* A.A; Math. Soc.
- Coad, B(ert) R(aymond)**, Tallulah, La. *Entomology*. Murphysboro, Ill, July 4, 90. Illinois. Asst. to state entomologist, Ill, 08-11; *in charge cotton insect investigations, bur. entom, U. S.*

- Dept. Agr.*, 11- A.A.; Ass. Econ. Entom.; Entom. Soc.; Ill. Acad.; Wash. Entom. Soc. Boll weevil and cotton culture.
- Coar, Prof. Henry L(ivingston)**, Box 169, Marietta, Ohio. *Mathematics*. London, Eng, June 16, 62. Grad. Gymnasium, Cologne; Hopkins, 84-86; A.B., Harvard, 93, A.M., 94; Ph.D., Illinois, 03. Instr. math., Harvard, 92-95; Michigan, 95-97; Illinois, 98-06; *prof. math. and astron.*, Marietta, 06- Math. Ass. Functions of three real variables.
- Coates, Prof. Charles E(dward)**, Baton Rouge, La. *Chemistry*. Baltimore, Md, Aug. 13, 66. A.B., Hopkins, 87, Ph.D., 91; Freiberg, 88; Heidelberg, 89. *Prof. chem.*, St. John's (Md), 91-93; *Louisiana*, 93-, *dean*, *Audubon Sugar Sch.*, 08- A.A.; Chem. Soc.; Chem. Eng.; Soc. Chem. Indust.; Chem. Gesell. Anil and anilids of orthosulphobenzoic acid; sugar cane and cotton; hydrocarbons in Louisiana petroleum; cane juice; activated carbons.
- Cobb, Prof. Collier**, Chapel Hill, N. C. *Geology, Geography*. Near Goldsboro, N. C, March 21, 62. Wake Forest, 78-80; North Carolina, 80-81; A.B., Harvard, 89, A.M., 94; hon. Sc.D, Wake Forest, 17. Supt. schools, N. C, 85-86; lecturer, state nor. schools, N. C, 84-88; asst. *geol.*, Harvard, 88-90; instr. Mass. Inst. Tech, 90-92; asst. prof., *North Carolina*, 92-93, *prof.*, 93- Kenan research prof., North Carolina, 20-21; asst., U. S. Geol. Surv, 86-91; summers, Harvard, 91, North Carolina, 94-01, 03-04, Knoxville, 02, 09, Biltmore Forest Sch, 05-12, 14-20. A.A.; Geol. Soc.; Ass. Geog.; Min. and Metal. Eng.; Min. and Metal. Soc.; Boston Soc. Nat. Hist.; Elisha Mitchell Sci. Soc. (pres, 02-03, 26-27, assoc. ed, 02-26); N. C. Acad. (pres, 07). River and valley development; mineral analysis of dune and beach sands; geology in relation to forestry and crops; mineral analysis of rocks and soils; shore line processes and harbor development; human geography.
- Cobb, Pres. F(rancis) E(zra)**, Bottineau, N. Dak. *Forestry*. Coleta, Ill, Aug. 21, 81. B.S., Minnesota, 16; M.F., Cornell, 25. Field agent and asst. dryland arboricult., bur. plant indust., U. S. Dept. Agr, Mandan, N. Dak, 16-22; exten. forester, Cornell, 23-24, asst. forestry, 24-25; *pres.*, *N. Dak. Sch. Forestry and state forester*, 25- A.A.; Soc. Foresters; Ecol. Soc.; Soc. Hort. Silviculture; trees in the semi-arid districts of the Great Plains.
- Cobb, Prof. Harriet R(edfield)**, Smith College, Northampton, Mass. *Mathematics*. Peekskill, N. Y, Sept. 10, 67. A.B., Smith, 89, A.M., 91; Columbia, 13, 14. Dept. math., Smith, 95-15, *prof.*, 15- Worker for Episcopal Board, standardization of math. for women, China, 21. New Eng. Ass. Math. Teachers.
- Cobb, Prof. John N(athan)**, University of Washington, Seattle, Wash. *Fisheries*. Oxford Furnace, N. J, Feb. 20, 68. Pub. schools. Agent, Bur. Fisheries, 95-04; agent, salmon fisheries, Alaska, 04-12; ed, 'Pacific Fisherman,' 14-17; *prof. fisheries and director col. fisheries*, *Washington (Seattle)*, 19- Advisory sci. board, Int. Fisheries Commission, 24- A.A.; Fisheries Soc.; Ecol. Soc.; Pacific Fisheries Soc. (pres, 20, 23); Calif. Acad. Fisheries of Hawaii, Alaska, Canada, Mexico and the United States; fishery products and methods.
- Cobb, Dr. N(athan) A(ugustus)**, U. S. Department of Agriculture, Washington, D. C. **Natural science*. Spencer, Mass, June 30, 59. B.S., Worcester, 81; Ph.D., Jena, 88. Teacher, pub. schools, Mass; prof. nat. science, Williston Sem, Mass, 81-87; acting prof. biol., Sydney Univ, N. S. W, 90; pathologist, Dept. Agr, Sydney, 91-98; special commissioner to the U. S. A. and Europe for the govt. of N. S. W, 98-01; pathologist, Dept. Agr, Sydney, 01-05; director div. path. and physiol, Sugar Planters' Exp. Sta, 05-07; *agr. technologist*, *bur. plant indust*, *U. S. Dept. Agr*, 07- Hon. mem. Med. Cong. of Australasia. A.A.; Micros. Soc. (past pres); Wash. Bot. Soc.; Wash. Helminthol. Soc. (past pres); Hawaiian Entom. Soc.; Australasian A. A. S.; New South Wales Linnean Soc. Biology; physiology; pathology; chemistry; photography; the prevention and cure of crop blights; parasites of domestic animals; nematology.
- Cobb, Dr. Percy W(ells)**, Lighting Research Laboratory, Nela Park, Cleveland, Ohio. *Psychology*. Cleveland, May 20, 73. B.S., Case, 94; M.D., Western Reserve, 02. House officer, Lakeside Hosp, Cleveland, 02-03; demonstrator physiol., Western Reserve, 03-16, instr., 16-21; *psychologist*, Nela Research Lab, 21-23; *Lighting Research Lab*, 23- Physiologist, Nela Research Lab, 09-18. Capt, M.C, 18-20. A.A.; Psychol. Ass.; Physiol. Soc.; Illum. Eng. Soc. Physiology of the senses; vision in relation to light.
- Cobb, Prof. Stanley**, Harvard Medical School, Boston 17, Mass. *Neuropathology*. Brookline, Mass, 87. A.B., Harvard, 10, M.D., 14; Hopkins, 15. Surg. intern, Peter Bent Brigham Hosp, 14-15; asst. physiol. med. dept., Hopkins, 16; assoc. res., Hopkins Hosp, 17; asst. and assoc. psychiat. and physiol., Hopkins, 17-19; instr. physiol. and neur., *Harvard Med. Sch.*, 19-20, asst. prof. *neuropath.*, 20-23, *assoc. prof.*, 23- Neur. Ass.; Am. Med. Ass.; Am. Physicians; Soc. Mammal; Soc. Clin. Invest.; Ornith. Union; Boylston Med. Soc.; Am. Acad.; Boston Soc. Psychiat. and Neur.; Boston Soc. Nat. Hist. Carbon monoxide asphyxia; mesencephalitis syphilitica; micrometry and the area striata; electromyography; intra-vital staining; the tonus of skeletal muscle; epilepsy.
- Cobb, Prof. W(illia)m Battle**, North Carolina State College, Raleigh, N. C. *Soils, Geology*. Cambridge, Mass, Nov. 23, 91. A.B., North Carolina, 12, A.M., 13; Louisiana, 20-22; North Carolina, 24, 25, 26. Asst. bot., North Carolina, 11-13; scientist, U. S. Soil Surv, 13-18, 19-20; *assoc. prof. agron.* in charge soils, Louisiana, 20-24; soils, *N. C. State*, 24-25, *geol. and soils*, 25- Summers, lecturer, North Carolina, 23-25; geologist and soil specialist, Am. Rural Planning Ass, Wis, 20; Am. Organizing Committee, First Int. Cong. Soil Sci, 26- A.S., U.S.A., 18-19, lieut, O.R.C. A.A.; Ass. Soil Surv. Workers; N. C. Acad.; Int. Soc. Soil Sci. (sub-committee for Americans on nomenclature and classification of soils, 24-). Origin, classification and distribution of soils; soil petrography; soil sur-

- vey of various counties; soils of North Carolina; possibilities of the airplane in soil survey work.
- Coble, Dr. A(rthur) B(yron)**, University of Illinois, Urbana, Ill. **Mathematics*. Williams-town, Pa, Nov. 3, 78. A.B, Gettysburg, 97, A.M, 00; fellow, Hopkins, 01-02, Ph.D, 02. Student asst. math, Hopkins, 00-01; instr, Missouri, 02-03; Carnegie research asst, 03-04; instr. *math*, Hopkins, 04-06, assoc, 06-09, assoc. prof, 09-18; *prof*, Illinois, 18- Nat. Acad; Math. Soc. (councilor, 11-14, assoc. ed, 'Trans,' 15-19, ed, committee, 19-25, v. pres, 17, chairman, Chicago sect, 22, ed, 'Jour. Math,' 18-26, assoc. ed. board, 27-); Math. Ass. Theory of invariants, groups and correspondences; the quintic and sextic equations; symmetric binary forms and involutions; restricted systems of equations; point sets and cremona groups; theta and theta modular functions; special point sets; porisms.
- Cobleigh, Prof. W(illiam) M(erriam)**, Montana State College, Bozeman, Mont. *Chemistry*, *Chemical engineering*. Haverstraw, N. Y, Sept. 7, 72. E.M, Montana, 94; A.M, Columbia, 99. Chemist, Anaconda Copper Mining Co, 92-93; asst. chemist, Mont. Exp. Sta, 94-99, instr. *chem. and physics*, Mont. Col, 94-97, asst. prof, 97-00, *prof*, 00- Chemist, Mont. State Board Health, 10-23; state chemist, 19- A.A; Chem. Soc; Water Works Ass; Mont. Soc. Eng. Alkali soils; estimation of starch; the cyanid process; the Hubl number of oils; Montana alkali waters; sanitation of Montana water supplies; sewage disposal and stream pollution; petroleum products.
- Coblentz, Prof. V(irgil)**, Red Bank, N. J. **Chemistry*. Springfield, Ohio, March 12, 62. Wittenberg, 78; Phila. Col. Pharmacy, 82, hon. Pharm.M, 96; Göttingen, 87; Strassburg, 88; Ph.D, Berlin, 91; Würzburg, 95; Munich, 97, 99. Prof. mat. med. and toxicol, Cincinnati Col. Pharmacy, 84-86; chemist, dept. pharmacy, Columbia, 91-11; chief chemist, E. R. Squibb and Sons, 12-17. Subchairman, commission of revision, U. S. Pharmacopeia, 00, 10. Ebert prize, 97. Chem. Soc; Soc. Chem. Indust. (chairman, N. Y. sect, 02-04, v. pres, 05); Pharmaceut. Ass; fel. London Chem. Soc; Chem. Verein. Medical and pharmaceutical chemistry; synthetic medicinals.
- Coblentz, Dr. William Weber**, U. S. Bureau of Standards, Washington, D. C. **Physics*. North Lima, Ohio, Nov. 20, 73. B.S, Case, 00; A.M, Cornell, 01, Ph.D, 03. Carnegie research asst. and hon. fellow, Cornell, 03-05; *physicist*, Bur. Standards, 05- Potts medal, Franklin Inst, 10; Janssen medal, Paris Acad. Sci, 20; Scott medal and premium, Phila, 24. A.A; Physical Soc; Optical Soc; Astron. Soc; Soc. Psychological Research; Wash. Philos. Soc; Wash. Acad; Soc. de Physique; cor. mem. London Illum. Eng. Soc. Optical properties of iodine; infra-red emission, absorption and reflection spectra; instruments and methods used in radiometry; radiation constants; visibility of radiation; physical study of the firefly; ice formation on plants; photoelectric properties of materials; stellar radiometry; planetary temperatures; bioluminescences.
- Coburn, Prof. Charles A(rthur)**, 25 Brookfield Road, Waltham, Mass. *Psychology*. Minford, Ohio, April 1, 86. B.S, Valparaiso, 07; A.B, Ohio Wesleyan, 11; A.M, Harvard, 12, Ph.D, 20. Vocational asst, pub. schools, Boston, 14-18; *prof. psychol, sch. religious educ. and social service*, Boston Univ, 19- Consulting psychologist, Morgan Mem. Cooperative Industries and Stores, Inc, 16-18, 19- A.A; Psychol. Ass. Mental heredity; vocational guidance; mental hygiene.
- Coca, Prof. Arthur F(ernandez)**, 8 W. 16th St, New York, N. Y. *Immunology*, *Pathology*. Philadelphia, Pa, March 20, 75. A.B, Haverford, 96; A.M, Pennsylvania, 99, M.D, 00; Heidelberg, 05-09. Asst. demonstrator, Pennsylvania, 00-03, demonstrator, 03-05; asst, Cancer Inst, Heidelberg, 07-09; bacteriologist, Bur. Science, P. I, 09-10; instr. path. and bacter, *med. col*, Cornell, 10-19, asst. prof. *immunol*, 19-24, *prof*, 24- A.A; Ass. Immunol. (founder and ed-in-chief, 'Jour,' 16-, sec'y-treas, 17-); Soc. Exp. Biol; Soc. Bact; Ass. Cancer Research; Harvey Soc. Experimental pathology; hypersensitiveness.
- Cochel, W(ilber) A(ndrew)**, 807 E. 47th St, Kansas City, Mo. *Animal husbandry*. Tipton, Mo, Aug. 7, 77. A.B, Missouri, 97, B.S, 05. Asst. animal husbandry, Purdue, 05-09; prof, Pa. State, 09-12; Kansas Col, 12-18; field rep, Am. Shorthorn Breeders' Ass, 18-26; ed, 'Weekly Kansas City Star,' 26- Advisory commission on beef production, Food Administration. A.A; Soc. Animal Production (pres). Beef production; use of food; breeding cattle; tuberculosis and contagious abortion in cattle.
- Cochran, Prof. C(arlos) B(ingham)**, 514 S. High St, West Chester, Pa. *Chemistry*. Albion, Mich, July 1, 54. A.B, Michigan, 77, 78-79, A.M, 82, Sc.D, 07. Teacher chem. and physical science, 79-03, chem, 03-09; *chemist*, Pa. Board Agr, 85-00; Phila. Milk Exchange, 89-05; to dairy and food commissioner, Pa. State Dept. Agr, 95-18; *Charles E. Hires Co*, 18- A.A; Chem. Soc; Franklin Inst. Food products.
- Cockerell, Prof. T(heodore) D(ru) A(lison)**, 908 Tenth St, Boulder, Colo. **Biology*. Norwood, Eng, Aug. 22, 66. English private schools; Middlesex Hosp. Med. Sch, London; British Museum Nat. Hist; hon. Sc.D, Colo. Col, 13. Curator pub. museum, Kingston, Jamaica, 91-93; entomologist, N. Mex. Exp. Sta, 93-01; prof. entom. and zool, N. Mex. Col, 93-96, 98-00; teacher biol, N. Mex. Nor. Univ, 00-03; consulting entomologist, Ariz. Exp. Sta, 01-09; curator, Colo. Col. Museum, 03-04; lecturer entom, Colorado, 04-06, *prof. zool*, 06- Lecturer, Colo. State Prep. Sch. Expeditions, Madeira Islands, Siberia, Japan. A.A; Entom. Soc; Ass. Econ. Entom; Soc. Mammal; Wash. Biol. Soc; Wash. Entom. Soc; cor. mem. Phila. Acad; Ont. Entom. Soc; London Zool. Soc; London Entom. Soc. Entomology (Coccidae, Hymenoptera); geographical distribution of life; variation of animals and plants; Mollusca; natural history of the Rocky Mountains; botany, especially the genus *Helianthus*; prob-

- lems of evolution; fossil insects and plants; fishes, especially their scales.
- Cockerham, K(irby) L(ee)**, 2232 W. Beach, Biloxi, Miss. *Entomology*. Monroe Co, Miss, March 12, 93. B.S, Miss. Agr. and Mech. Col, 14; M.S., Ohio State, 17. *Bur. entom., U. S. Dept. Agr.*, 17- Entom. Soc. Rhynchophora.
- Cockfield, Dr. William E(gbert)**, Geological Survey of Canada, Ottawa, Ont, Can. *Geology*. Montreal, Que, 90. B.A., McGill, 13, B.Sc., 14, Dawson fellow, 14-15, M.Sc., 15; fellow, Princeton, 15-18, Ph.D., 18. *Geologist, Can. Geol. Surv.*, 18- Soc. Econ. Geol; Can. Min. Inst. Ore deposits.
- Coddington, Prof. E(dwin) F(oster)**, Ohio State University, Columbus, Ohio. *Mechanics*. Conover, Ohio. C.E., Ohio State, 96, Emerson McMillan fellow, 96-97, M.S., 97; fellow, Lick Observatory, 97-00; Ph.D., Berlin, 02. Asst. prof. math, *Ohio State*, 02-06, mechanics, 06-12, prof., 12-25, *geod. eng.*, 25- A.A. Astronomy.
- Codman, Dr. Ernest Amory**, 227 Beacon St, Boston, Mass. *Surgery*. Boston, Dec. 30, 69. A.B., Harvard, 91, M.D., 95. Chairman committee on standardization of hospitals, Clin. Cong. of Surgeons, 12-16; *chairman committee on registry of bone sarcoma, Am. Col. Surgeons*, 21-Surg. Ass; Col. Surg; Clin. Surg; Am. Med. Ass. Fractures of small bones of wrist; subacranial bursitis; duodenal ulcer; bone sarcoma; hospital standardization and efficiency.
- Cody, Prof. M(adison) D(errell)**, University of Florida, Gainesville, Fla. *Botany*. Georgetown, Texas, July 12, 91. A.B., Southwestern (Texas), 14, A.M., 15; Chicago. Prof. nat. sciences, Clarendon, 16-17; acting prof. biol., W. Texas State Nor. Col, 18; asst. prof. *bot. and bact.*, Florida, 19-23, *prof. and head dept.*, 23- Summer, asst. prof., Southwestern (Texas), 16. Ecology; physiology; influence of differential qualitative light on germination and early seedling growth; ecology and physiology of certain water plants.
- Coe, Dr. Dana G(riswold)**, 535 Fifth Ave, New York, N. Y. *Agriculture*. Milford Center, Ohio, Feb. 10, 93. A.B., Ohio State, 17; Am. Cyanamid Co. indust. fellow, Rutgers, M.S., 22; Nat. Fertilizer Ass. indust. fellow, Iowa Col, Ph.D., 24. Instr. chem, high sch., Ohio; assoc. chemist, fixed nitrogen research lab, U. S. Dept. Agr; *agriculturist for the southwest, Am. Cyanamid Co.* C.W.S., U.S.A., 18-19. A.A.; Soc. Agron; Chem. Soc. Soil fertility; the effect of ammo-phos upon seed germination and plant growth; effects of fertilizers upon crops and soil conditions; fertilizer attachments and machinery.
- Coe, Prof. George A(lbert)**, 1703 Chicago Ave, Evanston, Ill. *Education*. Mendon, N. Y., March 26, 62. A.B., Rochester, 84, A.M., 88, LL.D., 09; S.T.B., Boston, 87, Ph.D., 91. Prof. philos., Southern California, 88-90; acting prof., Northwestern, 91-93, prof., 93-09; relig. educ. and psychol., Union Theol. Sem, 09-22; educ., Teachers Col, Columbia, 22-27; *retired*, 27. Lecturer, Harvard; prof. pro tem, Yale. Psychol. Ass; Relig. Educ. Ass. (pres, 09); Philos. Ass. Psychology of religion; educational theory.
- Coe, Prof. Wesley R(oswell)**, 175 Bishop St, New Haven, Conn. **Comparative anatomy, Genetics*. Middlefield, Conn, Nov. 11, 69. Conn. Col, 88; Ph.B., Yale, 92, Ph.D., 95; Würzburg, 95-96; Naples, 96. Asst. biol., Yale, 92-95, instr. comp. anat, 96-01, asst. prof., 02-09, *prof. biol.*, 09-, *curator zool. collections, Peabody Museum*, 10- Assoc. ed., 'Am. Jour. Science.' Harriman exped, Alaska, 99. A.A.; Soc. Nat; Ass. Anat; Soc. Zool. (sec'y, mem. exec. committee); Ass. Econ. Entom; Ecol. Soc; Conn. Acad. Cytology; echinoderms; nemerteans; morphology and adaptations of bathypelagic nemerteans; embryology.
- Coffey, Dean W(alter) C(astella)**, 1315 Raymond Ave, St. Paul, Minn. *Animal husbandry*. Hartsville, Ind, Feb. 1, 77. B.S., Illinois, 06, M.S., 09. Instr. animal husbandry, Illinois, 06-07, assoc., 07-11, asst. prof., 11-12, prof., 13-21; *dean dept. agr., Minnesota*, 21- Special agent, Fed. Tariff Board, 11; Mem. Coolidge Agr. Conf, 25. A.A.; Soc. Animal Production.
- Coffin, Prof. Fletcher B(arker)**, Lake Forest, Ill. *Chemistry*. Acton, Mass, Jan. 9, 73. A.B., Harvard, 95, A.M., 96, LL.B., 98, Ph.D., 11. Instr. *chem.*, Haverford, 08-09; asst. prof., *Lake Forest*, 09-10, *prof.*, 10- A.A.; Chem. Soc. Inorganic chemistry; atomic weights of cobalt and arsenic.
- Coffin, Dr. J(oseph) G(eorge)**, General Baking Co, 342 Madison Ave, New York, N. Y. **Mathematical physics*. Pittsburgh, Pa, June 14, 77. Collège Cantonal, Switzerland, 90-92; Collège Chaptal, Paris, 92-94; B.S., Mass. Inst. Tech, 98; Ph.D., Clark, 03, hon. fellow, 03-06. Asst. physics, Mass. Inst. Tech, 98-00; Clark, 01-03, instr., Clark Col, 02-05, asst. prof., 05-06; instr., Col. City of N. Y., 06-09, asst. prof., 09-17, assoc. prof., 17-18; director aeronaut. research and Curtiss wind tunnels, Curtiss Aero. and Motor Corp, 18-20; physicist, U. S. Rubber Co, 20-23; *development engineer, Gen. Baking Co*, 24- A.A.; Physical Soc; Math. Soc; Math. Ass; Meteor. Soc; Aero Club (sci. committee); Radio Eng. Vector analysis; high temperature standards; reflection of light in the neighborhood of the critical angle; edge corrections in the calculation of absolute condensers; metallic deposits from cathode in vacua; the Bjerknes hydrodynamic analogy; self and mutual inductance; periodic and oscillatory currents in conductors; theory of dropped loads on elastic beams; airplane barographs; tandem propellers; wind tunnels; airplane ranges; ceiling air densities; aerodynamic balance and theory of head resistance; sprayed rubber drying process; clay drying process; rubber testing machines; adiabatic and isothermal hysteresis; golf ball theory.
- Coffman, F(ranklin) A(rthur)**, U. S. Department of Agriculture, Washington, D. C. *Agronomy*. Jewell, Kans, Dec. 30, 92. B.S.A., Kansas Col, 14, M.S., 22. Exp. sta. supt., P. I., 14-16; asst. bot., Kansas Col, 16-17; field asst., *bur. plant indust., U. S. Dept. Agr.*, 17-18, sci. asst., 18-21, asst. agronomist, 21-24, *assoc. agronomist*, 24- A.A.; Soc. Agron; Genetic Ass. Alfalfa; germination of seeds; natural

crossing; supernumerary spikelets in wheat; cereals; the growth of oats, wheat, corn and barley on dry land.

Coggeshall, A(rthur) S(terry), Carnegie Museum, Pittsburgh, Pa. *Paleontology*. Bridgeport, Conn, July 17, 73. Pub. schools. Am. Museum Nat. Hist, 96-99; *preparator-in-chief, dept. vert. paleont.*, Carnegie Museum, 99-, *curator pub. educ.*, 23- Lecturer nat. hist. and travel. Officier de l'Instruction Pub, 08; Caballero de la reale Orden de Isabel la Catolica, 14; Caballero de la Orden civil d'Alfonso XII, 14; Order of the Crown, Italy, 09; Order of St. Anne, Russia, 10; Francis Joseph Order of Merit with Golden Crown, Austria, 09. Ass. Mus. Vertebrate paleontology; natural history.

Coggeshall, Dr. G(eorge) W(hiteley), 2315 Tracy Place, Washington, D. C. *Physical chemistry*. Des Moines, Iowa, Dec. 21, 67. B.S, Grinnell, 90; Harvard, 91-92; Ph.D, Leipzig, 95. Asst. chem, Grinnell, 88-90; instr. physical chem, Harvard, 95-97; mfg. chemist, Boston, 98-10; chief chem. eng. div. *Inst. Indust. Research*, 11-24, *director laboratories*, 24- Summer, instr, Harvard, 92. In charge surfaces of concrete vessels, Emerg. Fleet Corp, 18. A.A.; Chem. Soc; Chem. Eng; Electrochem. Soc; Min. Eng; Automotive Soc; Soc. Chem. Indust; Ass. Pulp and Paper Indust; Soc. de Chim. indust. Calomel electrodes; titanium mordants; potash from feldspathic rocks; industrial chemical processes; gasoline from heavier oils; pulp and paper.

Coghill, Prof. G(eorge) E(lett), Wistar Institute, Philadelphia, Pa. **Anatomy*. Beaucoup, Ill, March 17, 72. A.B, Brown, 96, fellow, 01-02, Ph.D, 02; M.S, New Mexico, 99. Asst. prof. biol, New Mexico, 99-00; prof, Pacific (Oregon), 02-06; biol, col. arts, and embryol. and histol, col. med, Willamette, 06-07; zool, Denison, 07-13; assoc. prof. anat, Kansas, 13-16, prof, 16-25, head dept, 18-25; *prof. comp. anat.*, *Wistar Inst.*, 25- See'y, *an. med.*, Kansas, 18-24; Kansas State Research Committee, 19. A.A.; Soc. Nat; Ass. Anat; Soc. Zool; Micros. Soc. The cranial nerves of Amblystoma; nervous system of Amphibia; rhombencephalon and spinal cord of mammals before birth; intracellular digestion in amphibian embryos; correlation of structure and function in the development of the nervous system.

Coghill, Dr. Robert D(eWolf), Yale University, New Haven, Conn. *Chemistry*. Providence, R. I, Oct. 5, 01. A.B, Kansas, 21, M.S, 22; du Pont fellow, Yale, 23-24, Ph.D, 24. Asst. instr. chem, Kansas, 21-22; asst. lab. instr, Yale, 22-23, Nat. Tuberculosis Ass. research fellow, 24-26, *instr. chem.*, 26- Chem. Soc. Phenolic hydantoins; chemistry of tubercle bacillus.

Coghill, Will(iam) H(awes), Rolla, Mo. *Metalurgy*. Roseville, Ill, March 14, 76. E.M, Colo. Sch. Mines, 03. Mining engineer, 03-07; asst. prof. metal, Northwestern, 07-15; prof. mining and metal. and head dept. chem. eng, Oregon Col, 14-17; *metallurgist*, U. S. Bur. Mines, 14- Chem. Soc; Min. and Metal. Eng. Cyaniding and flotation; gravity concentration.

Cogshall, Prof. W(ilbur) A(delman), Bloomington, Ind. *Astronomy*. Mendon, Mich, Feb. 8, 74.

B.S, Albion, 95; A.M, Indiana, 02; Yerkes Observatory, 03-04. Asst, Lowell Observatory, Ariz, 96-97, 98-00; instr. mech. and astron, Indiana, 00-04, asst. prof. astron, 04-08, assoc. prof, 08-23, *prof.*, 23- Astron. Soc; Ind. Acad. (pres, 16). Double stars; photography of comets.

Cohen, Dr. Abraham, 233 E. University Parkway, Baltimore, Md. *Mathematics*. Baltimore, Sept. 11, 70. Baltimore City Col, 83-88; A.B, Hopkins, 91, Ph.D, 94; Paris, 94-95. Instr. math, Hopkins, 95-98, assoc, 98-15, assoc. prof, 15-26, *collegiate prof.*, 26- Summers, Colorado, 16-25. Co-editor, 'Am. Jour. Math.', 99-; 'Am. Math. Monthly', 16-18. A.A; Math. Soc; Math. Ass. Differential equations; Lie theory of one-parameter groups; differential and integral calculus.

Cohen, A(braham) Burton, 1 Madison Ave, New York, N. Y. *Engineering*. Chicago, Ill, March 9, 82. B.S, Purdue, 05, C.E, 10. Eng. dept, Del, Lackawanna and West. Ry, 05-10, asst. engineer in charge concrete bridge design, 10-20; *engineer in charge design of grade crossing eliminations*, N. J. and of Martins Creek and Tunkhannock Creek viaducts, 20- Consulting engineer, Chemung River Bridge, Harrison Ave. Bridge, Scranton, Pa; Hudson Co. Boulevard Bridge, N. J. Civil Eng; Soc. Test. Mat; Concrete Inst. (advisory board, 25-, chairman, committee on bridges). Concrete bridge design and construction.

Cohen, Barnett, Hygienic Laboratory, Washington, D. C. *Biochemistry*. Russia, Feb. 16, 91. B.S, Col. City of N. Y, 11; M.S, Yale, 18, C.P.H, Ph.D, 21. Chemist and bacteriologist, Meriden, Conn, 12; Savannah, Ga, 15-16; agr. chemist, Norfolk, Va, 13-14; asst. biochem. and pub. health, Yale, 17-20; *biochemist, hygienic lab.*, U. S. Pub. Health Service, 20- Research chemist, U.S.A, 18-19. A.A; Chem. Soc; Soc. Exp. Biol; Soc. Bact; Pub. Health Ass. Physical chemistry in relation to biology; nutrition; disinfection; acid-base indicators; oxidation-reduction.

Cohen, Prof. Lillian, 2521 Humboldt Ave, Minneapolis, Minn. *Inorganic chemistry*. Minneapolis. B.S, Minnesota, 00, M.S, 01, Ph.D, 13; Zurich Polytech, 05-06. Instr, Minnesota, 02-18, *asst. prof. chem.*, 18- Chem. Soc. Rarer metals.

Cohen, Prof. Louis, 3100 Connecticut Ave, Washington, D. C. **Physics*. Kiev, Russia, Dec. 16, 76. B.S, Armour, 01; Chicago, 01-02; Columbia, 03-05, Ph.D, 19; fellow, Hopkins, 07-08. Asst, Bur. Standards, 03-09; asst. prof. physics, George Washington, 07-09; chief research dept, Nat. Elec. Sig. Co, 09-12; *prof. physics*, George Washington, 17- Consulting engineer, 13-; lecturer, Bur. Standards, 17-18; U. S. delegate, provisional tech. committee, Int. Conf. Elec. Communication, Paris, 21; mem. advisory tech. board, Conf. on Limitation of Armament, Washington, 21-22. Radio telegraphy; high frequency currents.

Cohen, Dr. Seymour J(erome), 65 E. Chicago Ave, Chicago, Ill. *Pharmacology, Medicine*. South Bend, Ind, Jan. 7, 96. B.S, M.S, Chi-

- cago, 17, M.D., Rush Med. Col, 19. Asst. physiol., Chicago, 17; *pharmacol.*, *Illinois*, 17-19, instr., 21-23, *assoc.*, 23-, *instr. med.*, 23- Res. physician, Michael Reese Hosp, 19-21. Am. Med. Ass; Soc. Pharmacol. Gastric secretion; protean fever; respiration; diastases in the body; intraocular pressure colonic anesthesia; standardization of local anesthetics; insulin in diabetes.
- Cohen, Dr. S(olomon) Solis**, 1525 Walnut St, Philadelphia, Pa. *Medicine, Therapeutics*. Philadelphia, Sept. 1, 57. A.B., Cent. High Sch, Phila, 72, A.M., 77; M.D., Jefferson Med. Col, 83. Demonstrator path. and micros, Phila. Polyclinic, 83-85; chief med. clinic, and lecturer special therapist, *Jefferson Med. Col*, 85-89, clin. lecturer med, 89-92, senior asst. prof., 92-94, *prof. clin. med.*, 94- Prof, Phila. Polyclinic and Col. for Graduates, 87-92; lecturer, Dartmouth, 90-92. Physician, Jewish Hosp, 87-; Phila. Hosp, 89-26; Jefferson Med. Col. Hosp, 92-; Rush Hosp. for Consumptives, 93-20. Trustee, U. S. Pharmacopœia, 20- Ed. staff, 'Med. News,' 87-95; 'Universal Annal Med. Sciences,' 90-94; 'Am. Jour. Med. Sciences,' 90-96; 'Am. Med.,' 91-95; ed, 'Physiol. Therap.,' 91-95; 'Phila. Polyclinic,' 95-99. A.A.; Am. Med. Ass. (chairman, sect. therapist, 93); Am. Physicians (recorder, 91-95); hon. mem. Md. Med. and Chirurg. Faculty; fel. Phila. Col. Physicians (ed, 91-93). Autonomic and endocrine disturbances; tuberculosis; pneumonia.
- Cohn, Dr. A(lfred) E(instein)**, 315 Central Park West, New York, N. Y. *Internal medicine*. New York, April 16, 79. A.B., Columbia, 00, M.D., 04; Freiburg, 07-09; Vienna, 08; London, 09. Intern, Mt. Sinai Hosp, 04-07, *assoc. pathologist*, 09-11; alumni fellow path. col. physicians and surg, Columbia, 09-11; *Rockefeller Inst.*, 11-14, *assoc. mem.*, 14-20, *mem.*, 20- Visiting prof, Peking Union Med. Col, 25. Lieut. col, M.C., 18-19, major, M.R.C. Councilor Veteran's Bur, Washington, D. C. A.A.; Am. Med. Ass; Am. Physicians; Ass. Path. and Bact; Soc. Clin. Invest; Soc. Pharmacol; Soc. Exp. Biol; Ass. Anat; Physiol. Soc; Harvey Soc; N. Y. Acad. Med; N. Y. Path. Soc; N. Y. Tuber. Ass. (board governors, chairman committee on heart research). Physiology and pharmacology of the heart and circulation.
- Cohn, Prof. E(dwinn) J(oseph)**, 19 Ash St, Cambridge, Mass. *Physiological chemistry*. New York, N. Y., Dec. 17, 92. Amherst, 10-13; B.S., Chicago, 14, Ph.D., 17; Harvard, 15-16. Asst. chem, Harvard, 17-18, Nat. Research Council fellow chem, 19-22, *asst. prof. physiol. chem.*, *Harvard Med. Sch.*, 22- Lieut. Sanit.C., 18-19. A.A.; Chem. Soc; Soc. Biol. Chem; Physiol. Soc. Biological systems; physiology of spermatozoa; chemistry of sea water; physical chemistry of proteins; cellular physiology.
- Coho, H(erbert) B(enjamin)**, 25 Archer Ave, Mt. Vernon, N. Y. *Engineering*. Ashland, Pa., Aug. 21, 69. High sch. *Research dept.*, United Lead Co, 09-18; *N. Y. Lumber Trade*, 18-; *business director*, U. S. Cartridge Co. Elec. Eng; Electrochem. Soc; Min. and Metal. Eng. Copper-lead alloys; coal and its by-products.
- Cohoe, Dr. B(enson) A(mbrose)**, 805 Highland Building, Pittsburgh, Pa. *Internal medicine*. Canboro, Ont, Can, Dec. 10, 74. B.A., Toronto, 98, M.B., 01. Asst. biol, Toronto, 99-01; instr. anat, Cornell, 01-03; *assoc.*, Chicago, 03-06; asst. res. physician, Hopkins Hosp, 06-08, res. physician, 08, asst. med, Hopkins, 06-08; *visiting physician*, *St. Francis Hosp*, *Pittsburgh*, 09-; prof. anat, *Pittsburgh*, 09-11, *assoc. prof. therapist*, 11-20, *prof.*, 20- A.A.; Ass. Anat. Protein metabolism; structure of the submaxillary gland; the placental transmission of B. typhosus; influenzal meningitis; Addison's disease.
- Cohoe, Wallace P(atten)**, 141 Broadway, New York, N. Y. *Chemistry*. Norwich, Ont, Can, Feb. 22, 75. B.A., McMaster, 96, M.A., 98; A.M., Harvard, 99. Demonstrator chem, dental dept, Toronto, 97-98; lecturer, McMaster, 01-02, prof, 02-06; pres, chem. laboratories, Toronto, 07-12; *consulting chemist and engineer*, 12- Chem. Soc; Soc. Chem. Indust. (v. chairman, Can. sect, 08); Chem. Eng; Electrochem. Soc. Plant design; intermediates; cellulose; textiles; paper.
- Coit, Dr. J(ohn) Eliot**, 535 Prescott St, Pasadena, Calif. *Pomology*. San Antonio, Texas, March 9, 80. B.Agr, N. C. State, 03; M.S.A., Cornell, 05, fellow, 05-06, Ph.D., 07. Horticulturist, Ariz. Exp. Sta, 07-09; asst. prof. pomol, California, 09-12, prof. citriculture, 12-20; *consulting horticulturist*, 20- Ed, 'Cornell Countryman,' 05-06. A.A.; Soc. Hort. Sci; Pacific Coast Ass. Econ. Entom. (v. pres, Ariz. sect); Calif. Avocado Ass. (pres, 22-24). Paeonia; citrus culture; olive and olive oil; the date palm; physiological diseases of citrus trees; semi-tropical fruits; breeding new fruits.
- Coker, Dr. E(obert) E(rvin)**, University of North Carolina, Chapel Hill, N. C. **Zoology*. Society Hill, S. C. June 4, 76. South Carolina, 92-93; B.S., North Carolina, 96, M.S., 97; Hopkins, 01-02, 04-06, fellow, 05-06, Bruce fellow, Ph.D., 06. Asst. biol, North Carolina, 95-97; prin. pub. schools, N. C., 98-01; biologist, N. C. Geol. Surv. and custodian, U. S. Fisheries Lab, Beaufort, N. C., 02-04; investigation of fisheries and guano industries for Peruvian Govt, 06-08; sci. asst, Bur. Fisheries, 09, director, U. S. Biol. Sta, Fairport, Iowa, 10-15, head div. sci. inquiry, 15-22; *prof. zool.*, *North Carolina*, 22- Summers, instr, North Carolina, 97, 99, director, U. S. Fisheries Biol. Lab, Woods Hole, 22-24; director, Allegheny, 27. Delegate from Peru, Int. Fisheries Cong, 08; Int. Commission Marine Fisheries Invest, 20-22; chairman committee on aquiculture, Nat. Research Council, 26- A.A.; Soc. Zool; Ecol. Soc. (v. pres, 18); Fisheries Soc; Elisha Mitchell Sci. Soc; N. C. Acad; Wash. Biol. Soc; cor. mem. Davenport Acad. Fisheries; cirripedes; turtles; freshwater mussels; guano birds; Entomotraca.
- Coker, Dr. W(illiam) C(hambers)**, Chapel Hill, N. C. **Botany*. Hartsville, S. C., Oct. 24, 72. B.S., South Carolina, 94, LL.D., 25; Ph.D., Hopkins, 01; Bonn, 01-02. Assoc. prof. bot, *North Carolina*, 02-08, *Kenan prof. and director arboretum*, 08- Asst, Cold Spring Harbor, 00. Chief bot. staff, Baltimore Geog. Soc. ex-

- ped, Bahamas, 03. A.A.; Soc. Nat; Bot. Soc; N. C. Acad. (pres, 09); Elisha Mitchell Sci. Soc. (ed, 'Jour'). Fertilization and embryology of gymnosperms and monocotyledons; tropical botany; flora of the Carolinas; lower fungi; agarics of North Carolina; trees of North Carolina; clavarias of the United States and Canada; Saprolegniaceae; Gasteromycetes of the eastern United States.
- Colaw, J(ohn) M(arvin)**, Box 160, Monterey, Va. *Mathematics*. Monterey, March 16, 60. Roanoke, 78-79; A.B., Dickinson, 82, A.M., 92; Virginia, 83-84. Instr. math, high sch, Monterey, 92-10. Assoc. ed, 'Am. Math. Monthly,' 84-02. Algebraic analysis.
- Colby, Dr. Arthur S(amuel)**, Urbana, Ill. *Horticulture*. July 4, 87. B.S., New Hampshire, 11; M.S., Illinois, 15, Ph.D., 19. Instr. agr, Pinkerton Acad, N. H., 11-13; asst. *pomol*, Illinois, 13-15, instr, 15-18, assoc, 18-21, *assoc. prof*, 21- A.A.; Phytopath. Soc; Soc. Hort. Sci; Pomol. Soc; Ill. Acad. Pomology; pathology; nomenclature; breeding of small fruits.
- Colby, Prof. Charles C(arlyle)**, University of Chicago, Chicago, Ill. *Geography*. Romeo, Mich, April 13, 85. B.Pd, Mich. State Nor. Col, 08, hon. M.Ed, 22; B.S., Chicago, 09, fellow, 13-14, Ph.D., 17. Asst. geog, Mich. State Nor. Col, 06-08; Chicago, 09; head dept. geog, Minn. State Nor. Sch, Winona, 10-13; *assoc. prof. geog*, Peabody Col, 14-16; instr, *Chicago*, 16-17, asst. prof, 18-22, *assoc. prof*, 22-25, *prof*, 25- Special expert, div. planning and statist, U. S. Shipping Board, 18-19. Div. geol. and geog, Nat. Research Council, 24- A.A.; Ass. Geog. (sec'y, 24-); Ill. Acad. Economic geography of North America; urban geography; ocean trade and transportation.
- Colby, Prof. W(alter) F(rancis)**, 322 N. State St, Ann Arbor, Mich. *Physics*. Rockford, Mich, 80. A.B., Michigan, 01, Ph.D., 09; Vienna, 02-04; Munich, 12-13. Instr. *physics*, Michigan, 09-14, asst. prof, 15-19, *prof*, 19- Staff, Mt. Wilson Observatory, 14-15. A.A.; Physical Soc. Magnetic critical points; optical dispersion; bands in the infra-red.
- Colcord, Mabel**, U. S. Department of Agriculture, Washington, D. C. *Entomology*. Boston, Mass, Dec. 24, 72. A.B., Radcliffe, 95; B.L.S., N. Y. State Library Sch, 22. Cataloguer, Iowa, 02-03, acting librarian, 03-04; *librarian, bur. entom*, U. S. Dept. Agr, 04- A.A.; Ass. Econ. Entom; Library Ass; Agr. Hist. Soc; Wash. Biol. Soc. Bibliography of American economic entomology.
- Cole, Prof. Alfred D(odge)**, Ohio State University, Columbus, Ohio. **Physics*. Rutland, Vt, Dec. 18, 61. A.B., Brown, 84, A.M., 87; Hopkins, 84-85; Harvard, 87; Berlin, 94-95, 13; Cornell, 97; Chicago, 98, 99, 00, 04. Instr. physics and chem, Denison, 85-87, acting prof, 87-88, prof, 88-01; *physics*, Ohio State, 01-07; Vassar, 07-08; *prof. and head dept, Ohio State*, 08- Summers, prof, Chicago, 04, U.S.N. lab. and Bur. Standards, 17-19. Trustee, Denison, 01-07, 11- A.A. (sec'y, B, 06-11, v. pres, 13-14); Physical Soc. (sec'y, 13-17, ed. board, 18-20); Radio Eng; Ohio Acad. Electric oscillations; electric waves; capillary electrometer; impact excitation; infra-red radiation; electron relays.
- Cole, Prof. Arch Evan**, 2525 Hartzell St, Evans-ton, Ill. *Zoology*. Monroeville, Ohio, 95. A.B., Ohio Wesleyan, 16; Ph.D., Wisconsin, 20. Asst. *zool*, Wisconsin, 16-20; instr, *Northwestern*, 20-21, *asst. prof*, 21- Summer, instr, Wisconsin, 20. A.A.; Ohio Acad. Physiology; oxygen supply of certain animals living in water containing no dissolved oxygen; physiology of fresh water clams; carbon dioxide production in low oxygen tensions.
- Cole, Prof. Arthur W(illiams)**, 735 N. Main St, West Lafayette, Ind. *Mechanical engineering*. Worcester, Mass, Feb. 17, 75. B.S., Worcester Polytech, 02, M.E., 07. Instr, Maine, 03-06; *prof. mech. eng, Purdue*, 06- Red Cross, U.S.A., 17-19. Mech. Eng; Nat. Ass. Sta. Eng. Lubrication; fuel; Indiana steam coal.
- Cole, Prof. Elbert C(harles)**, Williams College, Williamstown, Mass. *Zoology*. Northampton, Mass, April 2, 91. A.B., Middlebury, 15; A.M., Trinity (Conn), 18; Ph.D., Harvard, 24. Asst. *biol*, Middlebury, 14-15; instr, high sch, Conn, 15-22; Trinity (Conn), 18-19; Austin teaching fellow, Harvard, 22-24; *asst. prof, Williams*, 24- A.A.; assoc. Soc. Zool. Neurology.
- Cole, Dr. Fay-Cooper**, University of Chicago, Chicago, Ill. *Anthropology*. Plainwell, Mich, Aug. 8, 81. B.S., Northwestern, 03; Chicago, 03-05; Columbia, 05-06, Ph.D., 14; Berlin, 06. Ethnologist, Field Museum Nat. Hist, 06-12, asst. curator Malayan ethnol. and physical anthrop, 12-23; asst. prof. *anthrop, Chicago*, 23-25, *assoc. prof*, 25- Lecturer, Northwestern, 21-23; special investigator, Bur. Science, P. I, 06-12. Assoc. ed, 'Am. Jour. Sociol.' Archeol. exped, Am. Southwest, 99-04; leader, Field Museum expeditions, P. I, 06-08, 09-11, British Malaya and Dutch East Indies, 22-23. A.A.; Anthropol. Ass. (councilor, 15, 19-, v. pres, 26-); Soc. Sci. Research Council. Malayan ethnology and physical anthropology; traditions of the Tinguian; wild tribes of Davao district, Mindanao; Chinese pottery in the Philippines; distribution of non-Christian tribes of northern Luzon.
- Cole, Dr. Frank R(aymond)**, 31 Mountain View Ave, Santa Cruz, Calif. *Entomology*. Redlands, Calif, June 29, 92. A.B., Pomona, 13; A.M., Stanford, 21, Ph.D., 22. *Bur. entom, U. S. Dept. Agr*, 14-19, 24- A.A.; Entom. Soc; Ass. Econ. Entom; Cooper Ornith. Club; Nat. Ass. Audubon Societies; Pacific Coast Entom. Soc; Wash. Entom. Soc; Calif. Acad. Economic entomology; insects injurious to citrous and subtropical plants; classification and biology of Diptera.
- Cole, Dr. Glenn Gates**, Wheaton, Ill. *Geology*. West Franklin, Pa, May 10, 67. B.S., Lebanon, 90; Ph.B., Atlantic, 03; M.S., Wooster, 12; hon. Sc.D, hon. Pd.D., 04. Instr. geol. and sociol, Lynchburg, 05-10, 13-14; Bethany (W. Va), 14-19; Lynchburg, 19-26. Summer, instr, Va. State Teachers Col, East Radford, 24-26. A.A.; Va. Acad; Ohio Eng. Soc. Glacial geology; sociology.

- Cole, Harry N(ewton)**, 702 Forest Ave, Ann Arbor, Mich. *Chemistry*. Cuba, N. Y., March 27, 70. A.B., Michigan, 01, B.S.(Ch.E), 06, M.S., 15. Prin. and teacher, schools, Iowa and P. I., 95-04; asst. physics, *Michigan*, 05-07, *instr. anal. chem.*, 07- A.A.; Chem. Soc.
- Cole, Prof. Howard Irving**, Culion Leper Colony, Culion, P. I. *Chemistry*. New Rochelle, N. Y., April 12, 92. B.Chem., Cornell, 14, Ph.D., 17. Prof. chem., Oregon, 19-21; org. research chemist, Bur. Science, P. I., 21-23; prof. chem., Robert Col., Constantinople, 24-26; *chief chemist*, *Culion Leper Colony*, 26- Capt., C.W.S., 17-19. A.A.; Chem. Soc. Chemical microscopy.
- Cole, John S(elden)**, 626 Princeton Place, N. W., Washington, D. C. *Agronomy*. Cincinnati, N. Y., Nov. 19, 78. B.S., S. Dak. Col., 03. Special agent, *U. S. Dept. Agr.*, 01-05, collaborator and asst. agriculturist in charge agron., S. Dak. Col., 05-08, *agronomist*, 08- Dry farming.
- Cole, Dr. Kenneth (Stewart)**, 45 King St, Oberlin, Ohio. *Physics*. Ithaca, N. Y., July 10, 00. A.B., Oberlin, 22; Ph.D., Cornell, 26. Instr., Cornell, 22-26; *Nat. Research Council fellow*, 26- Physical Soc. Biophysics; electroscopes theory; heat production of Arbacia eggs; photographic action of low speed electrons.
- Cole, Prof. L(awrence) W(oster)**, Boulder, Colo. *Comparative psychology*. Toledo, Ohio, May 15, 70. B.Pd., Southwestern (Kans.), 93; A.B., Oklahoma, 99; A.M., Harvard, 04, Ph.D., 10. Supt. schools, Okla., 97-00; instr. psychol. and philos., Oklahoma, 00-03, prof., 03-08; instr. exp. psychol., Wellesley, 08-09; *prof. psychol.*, *Colo.*, 10- Capt., Sanit.C., 18-19. A.A.; Psychol. Ass. The intelligence and visual discrimination of raccoons; habit formation in the chick; reactions of frogs to chlorids; mental age and school entrance; lapses influenced by similarity; interference of related mental processes.
- Cole, Prof. Leon J(acob)**, University of Wisconsin, Madison, Wis. *Zoology*. Allegany, N. Y., June 1, 77. Mich. State Col.; A.B., Michigan, 01; Ph.D., Harvard, 06. Asst. zool., Michigan, 98-02; Austin teaching fellow, Harvard, 03-06; chief div. animal breeding and path., R. I. Exp. Sta., 06-07; instr. zool., Sheffield Sci. Sch., Yale, 07-10; assoc. prof. exp. breeding, *Wisconsin*, 10-14, *prof.*, 14-18, *genetics*, 18- Collaborator, U. S. Dept. Agr., 22-23, 24-, chief div. animal husbandry, bur. animal indust., 23-24; summers, investigator, U. S. Bur. Fisheries, 01-06, 09. V. chairman, div. biol. and agr., Nat. Research Council, 25-26, chairman, 26-27. Harriman exped., Alaska, 99; zool. exped., Yucatan, 04. A.A.; Soc. Nat. (v. pres, 17, sec'y, 27-); Soc. Zool. (sec'y, genetic sect, 22); assoc. Ornith. Union; Soc. Exp. Biol.; Soc. Mammal.; Genetic Ass. (councilor, 23-); Eugenics Soc.; Soc. Animal Production; Poultry Sci. Ass.; Wilson Ornith. Club; Bird Banding Ass. (pres, 09-11); Inland Bird Banding Ass. (v. pres, 22-); Wis. Acad. (pres, 24-27). Genetics; animal breeding; physiology of reproduction; animal behavior; inheritance in pigeons; functions of eyes; Pycnogonida; Vertebrata of Yucatan.
- Cole, Dr. Rufus**, Rockefeller Hospital, New York, N. Y. *Medicine*. Ashland Co, Ohio, April 30, 72. B.S., Michigan, 96; M.D., Hopkins, 99. Instr. med., Hopkins, 00-04, assoc., 04-08; *director*, *Rockefeller Inst. Hosp.*, 08- Nat. Acad.; A.A.; Soc. Pharmacol.; Soc. Exp. Path.; Am. Physicians; Ass. Path. and Bact.; Soc. Exp. Biol.; Soc. Clin. Research. Infectious diseases; immunity.
- Cole, Prof. William H(arder)**, Clark University, Worcester, Mass. *Biology*. Cayuga, N. Y., June 23, 92. A.B., Hamilton, 14, Root traveling fellow, 14-15; A.M., Harvard, 16, Ph.D., 21. Instr. zool., Pa. State, 16-20; *prof. biol.*, Lake Forest, 21-24; *Clark*, 24- A.A.; Soc. Zool.; Soc. Exp. Biol. Animal behavior.
- Coleman, Prof. A(rthur) P(hilemon)**, University of Toronto, Toronto, Ont., Can. *Geology*. Quebec, April 4, 52. B.A., Victoria, 76; Ph.D., Breslau, 81; LL.D., Queen's (Can.), Western (Can.); hon. D.Sc., Toronto. *Prof. geol.* and nat. hist., Victoria, 82-91; *geol.* sch. of practical science, Toronto, 91-01, *Toronto*, 01-, *dean faculty arts*, 19- Geologist, Bur. Mines, Ont., 93-09. Murchison medal, 10. A.A.; fel. Geol. Soc. (pres, 16); fel. Royal Soc. Can. (pres, 21); Can. Inst. (pres, 02); fel. Royal Soc. Archean and glacial geology; physiography; economic geology; Sudbury nickel deposits; Iroquois beach; explorations in the Rocky Mountains.
- Coleman, Geo(rge) A(lbert)**, 2649 Russell St, Berkeley, Calif. *Entomology*. London, Nebr., Sept. 24, 66. A.B., Stanford, 03, A.M., 05; B.E., Nebr. State Nor. Sch., 06. Forester and entomologist, Pacific Improv. Co., 03-06; forest supervisor, U. S. Forest Service, 06-08; biologist, Calif. State Fish Commission, 08-09, horticulturist and entomologist, 09-11; curator agr. museum, California, 11-13, instr. entom. apiculture; *biologist in charge biol. surv. lakes and streams*, *Calif. Fish and Game Commission*. A.A.; Ass. Econ. Entom.; Pub. Health Ass.; Eugenics Soc.; Calif. Acad. Agriculture.
- Coleman, Prof. G(eorge) H(opkins)**, University of Iowa, Iowa City, Iowa. *Chemistry*. Evansville, Wis., Oct. 5, 91. B.S., Greenville, 15; M.S., Illinois, 19, Ph.D., 21. Research asst., Illinois, 18-21; instr. *org. chem.*, *Iowa*, 21-22, assoc., 22-24, *asst. prof.*, 24- A.A.; Chem. Soc.; Iowa Acad. Organic chemistry; nitrogen trichloride with unsaturated compounds.
- Coleman, H(arry) S(hipp)**, Mellon Institute, Pittsburgh, Pa. *Physical technology*. Colony, Kans., July 30, 86. B.S., Kansas, 09. Draftsman, A. T. and S. F. Ry., 09-11; engineer, Jacobs-Shubert Firebox Co., 11-17; Lukens Steel Co., 17-18; *asst. director*, *Mellon Inst.*, 18- Business manager, Pittsburgh, 22-26. Mech. Eng. Locomotive boiler design; semi-commercial manufacturing processes; unit-plant mechanical equipment.
- Coleman, Prof. J(ames) B(ruce)**, University of South Carolina, Columbia, S. C. *Mathematics*. Aiken, S. C., Feb. 2, 86. B.S., South Carolina, 06, A.M., 10; Columbia, 14. Instr., Ga. Tech., 07-08; physics, South Carolina, 09-11, adjunct prof., 11-12; asst., Columbia, 12-13; asst. prof., *South Carolina*, 12-15, *prof. math.*, 15- Lec-

- turer, Columbia, 19. Physical Soc; Math. Soc; Math. Ass. Electron theory; plane curves.
- Coleman, Major J(ames) T(homas)**, 17 Atlantic St, Charleston, S. C. *Physics*. Marion, S. C, Jan. 10, 66. B.S. S. C. Mil. Acad, 86; Chicago, 97, 99. Asst. prof. chem. and physics, S. C. Mil. Acad, 88-96, prof. physics, 96-06; *manager, Prudential Ins. Co*, 08- Jury on sci. instruments and superior jury, S. C. Interstate and W. I. Expos, 02. Gold medal, S. C. Interstate and W. I. Expos, 02. Int. Elec. Cong, St. Louis, 04. Physical Soc; Metrol. Soc; Elliott Soc. (v. pres).
- Coleman, L(aurence) V(ail)**, Smithsonian Institution, Washington, D. C. *Entomology*. Brooklyn, N. Y, Sept. 19, 93. B.S. Col. City of N. Y, 15; A.M. Yale, 19; Bussey Inst, 19. Research asst, N. Y. State Committee on Ventilation, 15; asst, dept. pub. health, Am. Mus. Nat. Hist, 16-17; asst. to curator zool, Peabody Mus, 17-18; chief exhibits, Am. Mus. Nat. Hist, 20-22; director, Safety Inst. Am, 22-23; *director, Am. Ass. Mus*, 23- Insect morphology and physiology; sense organs of insects; museum administration.
- Coleman, Prof. Leslie Charles**, University of Toronto, Toronto, Ont, Can. *Plant pathology*. Solina, Ont. B.A. Toronto, 04; Ph.D. Göttingen, 07. Asst. biol, Toronto, 05; mycologist and entomologist; Mysore State, India, 08-13, director agr, 13-26; *prof. plant path, Toronto*, 26- Governor General's gold medalist, Toronto, 04. Phytopath. Soc; Soc. Agron; Bot. Soc; London Entom. Soc; Verein für angewandte Bot. Plant pathology; entomology; agronomy.
- Coleman, Dr. Thomas D(avies)**, 936 Hickman Road, Augusta, Ga. *Medicine*. Augusta, Jan. 13, 65. A.B. Kentucky, 85, hon. A.M, 03; Hopkins, 87-88; M.D. N. Y. Univ, 90; Georgia, 93. Asst. physiol, Hopkins, 88-89; N. Y. Univ, 89-90; *prof. physiol, Georgia*, 93-95, physiol. and path, and director path. lab, 95-01, med, 01-03, *principles and practise of med*, 03- Consulting physician, University, Wilhenford and U. S. Psychopathic Hospitals. Am. Med. Ass; Col. Physicians; Climat. Ass. (pres, 08); Tuber. Ass. Internal medicine; cardio-renal diseases.
- Coleman, Dr. Warren**, 59 E. 54th St, New York, N. Y. *Medicine*. Augusta, Ga, Jan. 19, 69. A.B. Transylvania, 88, hon. A.M, 99; Hopkins, 88-89; M.D. N. Y. Univ, 91. Instr. histol. and path, Univ. and Bellevue Hosp. Med. Col, 91-98, mat. med. and therapeut, 96-98; prof. clin. med. and applied pharmacol, med. col, Cornell, 09-18; *asst. prof. med, Univ. and Bellevue Hosp. Med. Col*, 18- Physician, City Hosp, 96-99; asst. curator, Bellevue Hosp, 92-98, asst. visiting physician, 97-07, visiting physician, 08-; consulting physician, Monmouth Mem. Hosp. A.A; Am. Med. Ass; Am. Physicians; Soc. Exp. Biol; Ass. Study Int. Secretions; Soc. Bact; Harvey Soc; N. Y. Acad. Med; N. Y. Path. Soc. Bacteriology of blood and protein metabolism in typhoid fever; diet in typhoid fever.
- Coley, Dr. William B(radley)**, 114 E. 54th St, New York, N. Y. *Surgery*. Westport, Conn, Jan. 12, 62. A.B. Yale, 84, hon. A.M, 10; M.D, Harvard, 88, hon. A.M, 11. Instr. surg, Post-Grad. Med. Sch. and Hosp, 90-97; clin. lecturer, Columbia, 98-08, assoc, 08-09; *prof. clin. surg. and clin. cancer research, med. col, Cornell*, 09- Chairman, Collis P. Huntington Fund for Cancer Research; attending surgeon, Mem. Hosp; surgeon-in-chief, Hosp. for Ruptured and Crippled; consulting surgeon, Fifth Ave. Hosp; chief consulting surgeon, Mary McClellan Hosp, Cambridge, N. Y; Sharon Hosp, Sharon, Conn; chief surgeon, N. Y. Cent. Ry. A.A; fel. Surg. Ass; Col. Surg; Am. Med. Ass; S. Surg. Ass; fel. Am. Acad; N. Y. Acad. Med; Int. Soc. Cancer Research. The radical cure of hernia; malignant tumors.
- Collett, Dr. Mary E(lizabeth)**, Western Reserve University, Cleveland, Ohio. *Physiology*. Atchison, Kans, July 30, 88. A.B. Wellesley, 10; A.M. Pennsylvania, 11, fellow, 17-19, Ph.D, 19. Asst. biol, Brown, 11-12; asst. instr, Carnegie Inst. Tech, 12-13, instr, 13-17; fellow physiol, Clark, 19-20; instr, dept. med, Buffalo, 20-22; Am-Scandinavian Foundation fellow, Sweden, 22-23; instr. *physiol*, sch. med, Tulane, 23-24; asst. prof, sch. of nursing, *Western Reserve*, 24-26, *assoc. prof*, 26- A.A; *Physiol. Soc*; *Soc. Zool*; *Soc. Exp. Biol*. Membrane permeability; toxicity of acids and salts; minute volume of the heart; basal metabolism; intracellular enzymes.
- Colley, Mary Wotherspoon (Mrs. Reginald H)**, 1712 Madison St, Madison, Wis. *Botany*. New York, N. Y, Jan. 7, 90. A.B. Columbia, 13, A.M, 15. Asst. bot, Barnard, Columbia, 13-16, lecturer, 16-18; technician, Philippine Health Service, 18-19; lecturer bot, Barnard, Columbia, 19-20, instr, 20-23. A.A; Bot. Soc; Soc. Bact; Pub. Health Ass. Physiological botany and bacteriology; effect of stimulants on bacterial growth.
- Colley, Reginald H(unter)**, 1712 Madison St, Madison, Wis. *Forest pathology*. Canso, N. S. Can, May 27, 87. A.B. Dartmouth, 09; A.M. Harvard, 12; Ph.D. George Washington, 18. Instr. biol, Dartmouth, 09-10; sci. asst. to Mass. State Forester, 10-12; Austin teaching fellow bot, Harvard, 10-12; instr, Dartmouth, 12-16; *pathologist, office investigations forest path, bur. plant indust, U. S. Dept. Agr*, 16-, *in charge Madison branch*, 21- Summer, instr, Woods Hole, 13-15. A.A; Soc. Foresters; Bot. Soc; Phytopath. Soc. Fungous diseases of trees; white pine blister rust; staining technique; fungous biometry; decay economics; pathology of forest products.
- Collie, Prof. George L(ucius)**, 48 Sherwood Drive, S, Beloit, Wis. *Geology, Archeology*. Delavan, Wis, Aug. 11, 57. B.S. Beloit, 81; Ph.D. Harvard, 93. Prin. high sch, Wis, 86-90; prof. geol. and *Collie prof. archeol, Beloit*, 93-, dean, 00-18. A.A; Geol. Soc; Ass. Mus; Wis. Acad; Wis. Archeol. Soc. (v. pres). Physiography; drift of southern Wisconsin; physiography of Rift Valley; British East Africa.
- Collier, A(rthur) J(ames)**, U. S. Geological Survey, Washington, D. C. *Geology*. Wheaton, Ill, Jan. 5, 66. A.B. Oregon, 88, A.M, 92; B.S. Harvard, 94. *Geologist, U. S. Geol. Surv*, 96-

- Prof, Ohio, 10-14. A.A; Geol. Soc; Soc. Econ. Geol; Min. Eng. Geology of the United States and Alaska.
- Collier, Prof. Frank W (ilbur)**, Florence Court, W. Washington, D. C. *Psychology, Philosophy*. Ellicott's Mills, Md. A.B, Hopkins, 96. S.T.B, Boston, 99, Ph.D, 10. Clergyman, New Eng. Conf, 96-14; *director research and prof. psychol. and philos., American Univ, 14-, dean, 25-* Lecturer, Maryland, 21-24. A.A. Relation of science to religion, evolution and psychology.
- Collier, S(imon)**, 330 Hull Court, Waukegan, Ill. *Chemistry*. Salem, Mass, June 1, 94. B.S, Worcester, 16. Rubber chemist, Boston Belting Co, 16-18, 19-20, assoc. chemist in charge rubber, 20-23; *chemist in charge lab, Waukegan factory, Johns-Manville, Inc, 23-* Assoc. physicist, Bur. Standards, 18-19. Chem. Soc. (chairman, standard methods of analysis committee, rubber sect, 21-23); Soc. Test. Mat. Rubber analysis.
- Collier, Dr. W(illia)m Dean**, 1402 S. Grand Boulevard, St. Louis, Mo. *Pathology*. Trenton, Mo, Jan. 15, 97. A.B, Missouri, 19, fellow, 20-22, A.M, 21, Ph.D, 22; M.D, Hopkins, 24. Instr. *path, St. Louis, 24-25*, asst. prof, 25-27, *assoc. prof. and director dept, 27-* Assoc. pathologist, St. Mary's Group Hospitals and St. John's Hosp, 24- Soc. Exp. Biol. Functional growth in brain and heart muscle cells; bone marrow counts in disease; the differentiation of reticulo-endothelial diseases and tumors from lymphatics.
- Collings, Dr. Gilbeart H(opper)**, Clemson College, S. C. *Agronomy*. Crewe, Va, Jan. 13, 95. B.S, Va. Polytech, 15; fellow, Illinois, 16-18, M.S, 17; Ph.D, Rutgers, 25. Asst. agronomist, S. C. Exp. Sta, 18-22; asst. prof. *agron, Clemson Col, 18-25, assoc. prof, 25-* Int. Soc. Soil Sci. Field crops; soils; fertilizers; plant nutrition; cotton.
- Collins, Arnold M(iller)**, 2228 W. 17th St, Wilmington, Del. *Chemistry*. Edgewater, N. J, June 28, 99. A.B, Columbia, 20, A.M, 22, Ph.D, 24. Asst, Columbia, 18-23; Rockefeller Inst, 23-25; *chemist, E. I. du Pont de Nemours and Co, 25-* Chem. Soc. Organic electro-syntheses; saturated polycyclic compounds.
- Collins, C(harles) Walter**, U. S. Department of Agriculture, Washington, D. C. *Entomology*. Harrington, Del, July 6, 82. B.S.A, Delaware, 05, M.S, 13. Asst. agent, expert and *entomologist, bur. entom, U. S. Dept. Agr, 07-* A.A; Entom. Soc; Ass. Econ. Entom. (sec'y, 24-, business manager, 'Jour,' 25-). Dispersion of the gipsy moth by the wind; parasites of gipsy, brown tail and satin moths.
- Collins, Dr. George W(illiam)**, American Medical Association, 535 N. Dearborn St, Chicago, Ill. *Chemistry*. Clinton, Ill, Dec. 20, 88. Ph.C, St. Louis Col. Pharmacy, 12, Ph.G, 14; B.S, Michigan, 19, M.S, 20, M.S, 22, Sc.D, 24. Anal. chemist, Mallinckrodt Chem. Works, 12-17; asst. bact. med. sch, Michigan, 19-24; *chemist, Am. Med. Ass, 26-* Chem. Soc; Pharmaceut. Ass; Soc. Bact. Botulism; transmissible bacterial autolysis; pharmaceutical and medical chemistry.
- Collins, G(uy) N**, Lanham, Md. **Botany*. Mer-tensia, N. Y, Aug. 9, 72. Asst. botanist, *bur. plant indust, U. S. Dept. Agr, 01-10*, botanist, 10-24, *senior botanist in charge biophys. investigations, 24-* Nat. Research Council, 18-23. A.A; Soc. Nat. (v. pres, 18); Bot. Soc; Wash. Bot. Soc. Tropical cultures; genetics of maize.
- Collins, Prof. H(enry) H(omer)**, University of Pittsburgh, Pittsburgh, Pa. *Biology*. Kewanna, Ind, Dec. 10, 85. A.B, Rochester Nor. Univ, 06; B.S, California, 15, LeConte fellow, 15-16, A.M, 16, Ph.D, 19. Instr. hist, Rochester Nor. Univ, 05-06; supt, schools, Oregon, 08-13; teaching fellow zool, California, 14-15, research asst, Scripps Inst, 16-19; head dept. biol, high sch. and junior col, Fresno, Calif, 19-20; asst. prof. *biol, Pittsburgh, 20-24*, assoc. prof, 24-26, *prof, 26-* Summer, Oregon, 20. A.A; Soc. Zool; Soc. Mammal. Experimental morphology; mammalian anatomy; regeneration; moult, regeneration of pelage, color inheritance and ecology in *Peromyscus*.
- Collins, J(acob) R(oland)**, Cornell University, Ithaca, N. Y. *Physics*. Byesville, Ohio, March 28, 91. B.S, Ohio, 12; M.S, Purdue, 14; Ph.D, Cornell, 21. Asst. *physics, Purdue, 12-14*, instr, 14-18; *Cornell, 18-21, asst. prof, 21-* A.A; Physical Soc.
- Collins, Prof. J(ames) Franklin**, 13 Brown St, Providence, R. I. *Botany*. North Anson, Maine, Dec. 29, 63. Pub. schools; hon. Ph.B, Brown, 96. *Curator herbarium, Brown, 94-11, 24-*, instr. *bot, 99-05*, asst. prof, 05-11, *demonstrator, 13-*; forest pathologist, *U. S. Dept. Agr, 11-23, pathologist, 23-* Collaborator and agent, U. S. Dept. Agr, 07-11; sci. exploration, Gaspé Peninsula, 04-07, 23. A.A; Bot. Soc; Phytopath. Soc; Forestry Ass; Sullivant Moss Soc; Josselyn Bot. Soc; New Eng. Bot. Club; R. I. Field Nat. Club (pres, 11-13). Forest and plant pathology; bryology; trees.
- Collins, J(ohn) R(obinette)**, Royal Astronomical Society, Toronto, Ont, Can. *Astronomy*. Toronto, 65. Gen. sec'y, Royal Astron. Soc. Can, 04-16, second v. pres, 14-19, first v. pres, 19-20, pres, 20-21. Can. Govt. eclipse exped, 05. Astron. Soc; Royal Astron. Soc. Can; Soc. astron. de France; Soc. Astron. de Mex. Theories of gravitation; physical optics.
- Collins, Dr. Joseph**, 37 W. 54th St, New York, N. Y. *Neurology*. Brookfield, Conn, Sept. 22, 66. Michigan, 84-85; M.D, N. Y. Univ, 88. *Physician, City Hosp, New York, 94-*; N. Y. *Neur. Inst, 09-* Alvarenga prize, Phila. Col. Physicians, 97. *Neur. Ass. (pres, 02)*; Am. Physicians; Am. Med. Ass. Sympathetic nervous system; the location and function of the cells in the spinal cord; the faculty of speech.
- Collins, Prof. Jos(eph) V(ictor)**, Stevens Point, Wis. *Mathematics*. Wooster, Ohio, Dec. 26, 58. Ph.B, Wooster, 79, Ph.D, 86; Hopkins, 80-81, 82-83. Tutor *math, Wooster, 79-80*; *prof, Hastings, 84-88*; Miami, 88-93; *Wis. State Teachers Col, Stevens Point, 94-* The teaching of secondary mathematics.
- Collins, Prof. J(ulius) L(loyd)**, University of California, Berkeley, Calif. *Genetics*. Kewanna,

- Ind, Feb. 16, 89. B.S. California, 17, Ph.D, 23. Prin. high sch, Oregon, 12-14; asst. *genetics*, California, 18, instr, 18-25, *asst. prof.*, 25- Genetic Ass. Agricultural genetics; interspecific hybrids in *Crepis*; plant breeding; *Drosophila*.
- Collins, Dr. Katharine R(ichards)**, Spartanburg General Hospital, Spartanburg, S. C. *Bacteriology*. New Albany, Ind, March 23, 63. M.D, Michigan, 93. Practising physician, Atlanta, Ga, 94-02; fellow, Rockefeller Inst, 02-03; bacteriologist and asst. director research lab, Dept. Health, New York, 03-08; asst. director, Ga. State Board Health, 08-18; research dept. path, Western Reserve, 18-19; instr. path. and bacter, Buffalo; director div. laboratories, Buffalo City Hosp; *Gen. Hosp. Spartanburg, S. C. A.A.*; Soc. Bact; Ass. Path. and Bact; Soc. Exp. Biol; Soc. Immunol; Am. Med. Ass; Tuber. Ass. Immunology; dysentery; glands; pneumococci; agglutinins; periapical abscesses; eczema marginatum.
- Collins, Dr. R(ussell) J(ohnson)**, Jordan Memorial Sanatorium, River Glade, N. B. Can. *Medicine*. Conneaut, Ohio, Oct. 3, 91. A.B, Western Reserve, 11, M.D, 15, A.M, 16; Chicago, 16. Instr. pharmacol, 15-16; asst. med. supt, N. S. Sanatorium; *med. supt*, Balfour Sanatorium; *Jordan Mem. Sanatorium*, 23- Soc. Pharmacol; Tuber. Ass; Can. Med. Soc; Can. Soc. Prev. Tuber. Pharmacology; biochemistry; tuberculosis; veratrin; mercury in animal tissues; hexamethylene; absorption of iodine; intestinal tuberculosis; tuberculosis in Indians.
- Collins, Selwyn D(eWitt)**, 1223 Floral St, Washington, D. C. *Biometry, Vital statistics*. Mo, April 6, 91. A.B, Missouri, 14; A.M, Wisconsin, 15. Expert, U. S. Bur. Labor Statistics, 16-19; *statistician*, U. S. Pub. Health Service, 20- Economic status and health; morbidity among school children; incidence of sickness among white school children; relation of physical defects to sickness; eyesight of school children; indices of nutrition; dried milk powder in infant feeding; child hygiene laws.
- Collins, W(illiam) D(ennis)**, U. S. Geological Survey, Washington, D. C. *Chemistry*. Malden, Mass, Sept. 4, 75. A.B, Harvard, 95, A.M, 97. Prof. chem. and physics, Earlham, 97-06; *chemist*, U. S. Geol. Surv, 06-08; bur. chem, U. S. Dept. Agr, 08-20; *U. S. Geol. Surv*, 20- Chem. Soc. Water; metals in foods; analytical methods; reagents.
- Collins, Dr. W(illiam) H(enry)**, 15 Rosedale Ave, Ottawa, Ont, Can. *Geology*. Chatsworth, Ont, Oct. 26, 78. B.A, Toronto, 04; Ph.D, Wisconsin, 11. Geologist, *Can. Geol. Surv*, 06-20, *director*, 20- Royal Soc. Can; Can. Min. Inst. Petrology; Precambrian geology.
- Collins, W(illiam) H(enry)**, Haverford College, Haverford, Pa. *Astronomy*. Peekskill, N. Y, Oct. 22, 59. B.S, Haverford, 81, A.M, 92. Director astron. observatory, Haverford, 92-04, prefect of college, 97-19, *retired*, 19. Astron. Soc. Double star measurements.
- Collip, Prof. J(ames) B(ertram)**, University of Alberta, Edmonton, Alta, Can. *Biochemistry*. Belleville, Ont, Nov. 20, 92. B.A, Toronto, 12, research fellow, 12-15, M.A, 13, Ph.D, 16; D.Sc, Alberta, 24, M.D, 26. Lecturer biochem, Alberta, 15-17, asst. prof, 17-19, assoc. prof, 19-21, Rockefeller fellow, 21-22; asst. prof. *path. chem*, Toronto, 22; *prof. Alberta*, 22- Shared Nobel prize with Prof. J. J. R. Macleod. Soc. Biol. Chem; Physiol. Soc; Ass. Study Int. Secretions (pres, 25); fel. Royal Soc. Can; British Biochem. Soc; British Physiol. Soc. Blood chemistry; internal secretions; insulin.
- Collison, Prof. Reginald C(lifton)**, New York Agricultural Experiment Station, Geneva, N. Y. *Agronomy*. B.S, Ohio State, 08, M.S, 09; Columbia, 17-18. Instr. agr. chem, Ohio State, 09; asst. nutrition investigations, Ohio Exp. Sta, 09-12; asst. *soils*, N. Y. *Exp. Sta*, 12-15, assoc, 15-18, *chief research*, 18- Hon. prof, Cornell. Soil technology; animal nutrition; agricultural resource survey.
- Colón y Frias, E(dmundo) D(imas)**, Barceloneta, P. R. *Soils*. Ponce, P. R, 90. Grad, Porto Rico, 09; A.B, Louisiana, 12, M.S, 13. Instr, Louisiana, 13-17; horticulturist, Insular Exp. Sta, P. R, 17-18, director, 19-22; prof. chem, Porto Rico, 18-19; *agronomist and director agr. lab*, Giorgetti Co, 22- Soil chemistry, physics and bacteriology.
- Colony, R(oy) J(ed)**, Columbia University, New York, N. Y. *Geology*. St. Louis, Mo, March 5, 70. Grad, Cooper Union, 00, B.Ch, 05; A.M, Columbia, 22. Commercial positions, 90-00; instr. chem, Cooper Union, 00-05, asst. prof. metal. and miner, 06-16; instr. *geol*, Columbia, 16-22, *asst. prof*, 22- Consulting engineer, Board Water Supply, New York, 14-16. A.A; fel. Geol. Soc; fel. Miner. Soc; fel. Am. Geog. Soc; Min. Eng. (v. chairman, committee on min. geol, 26); fel. N. Y. Acad. (chairman, sect. geol. and miner, 27). High silica rock for glass and abrasives; magnetic ore deposits; petrography of cement; final consolidation phenomena in crystallization of igneous rocks; structural economics.
- Colpitts, E(dwain) H(enry)**, American Telephone and Telegraph Co, New York, N. Y. *Electrical engineering*. Pointe de Bute, N. B. Can, Jan. 19, 72. B.A, Mt. Allison, 93, LL.D, 26; Harvard, 96, A.M, 97. Prin. pub. sch, Newfoundland, 93-95; asst. physics, Harvard, 97-99; telephone engineer, Am. Tel. and Tel. Co, 99-07; West. Elec. Co, 07-24; *asst. v. pres*, Am. Tel. and Tel. Co, 24- Elec. Eng; Physical Soc; Radio Eng; Chem. Soc. Telephone engineering; radio telephony.
- Colpitts, Dr. Julia T(rueman)**, Iowa State College, Ames, Iowa. *Mathematics*. Pointe de Bute, N. B. Can. B.A, Mt. Allison, 99; A.M, Cornell, 00, Ph.D, 24. Instr. *math*, Iowa Col, 00-06, asst. prof, 06-13, *assoc. prof*, 13- Math. Soc; Math. Ass. Entire functions defined by certain power series.
- Colton, Prof. Harold S(ellers)**, University of Pennsylvania, Philadelphia, Pa. *Zoology*. Philadelphia, Aug. 29, 81. B.S, Pennsylvania, 04, A.M, 06, fellow, 07-08, Ph.D, 08; Carnegie Inst. table, Naples Zool. Sta, 08-09. Asst. *zool*, Pennsylvania, 09-12, instr, 12-18, asst.

- prof, 18-26, *prof*, 26- Capt, intelligence div, 18-19. A.A.; Soc. Nat; Soc. Zool; Anthropol. Ass; Ecol. Soc; Am. Geog. Soc; Phila. Acad. Geography; ecology of fresh-water and marine Mollusca; excretion in Ascidians; geography and archeology of central Arizona; educational statistics related to zoology; effect of bipedal habit on structure and behavior of the white rat.
- Colver, Prof. C(harles) W(illiam)**, 1635 Fairchild Ave, Manhattan, Kans. *Chemistry*. Missouri Valley, Iowa, Feb. 28, 85. B.S, Idaho, 09, M.S, 11; Ph.D, Illinois, 19. Assoc. chemist, Idaho Exp. Sta, 14-17; instr. chem, Illinois, 18-19; asst. prof. org. chem, *Kansas Col*, 19-20, assoc. prof, 20-25, *prof*, 25- A.A. Soil, fruit and wheat analysis; synthesis of organic compounds.
- Colvin, Fred H(erbert)**, 475 Tenth Ave, New York, N. Y. *Mechanical engineering*. Sterling, Mass. Spring Garden Inst. Ed, 'Machinery,' 94-97; assoc. ed. and bus. manager, 'Ry. and Locomotive Eng,' 97-02; assoc. ed, managing ed. and ed, 'Am. Machinist,' 07- Mech. Eng. (committees); Franklin Inst. Press fits; oxy-acetylene welding; motor car construction methods; machine shop management methods; machine tool construction.
- Colwell, Prof. Robert Cameron**, 332 Demain Ave, Morgantown, W. Va. *Physics*. Fredericton, N. B, Can, Oct. 14, 83. B.A, New Brunswick, 04; A.B, Harvard, 07; Ph.D, Princeton, 18; Cambridge, 23-24. *Prof. physics*, Geneva Col, 07-22; *West Virginia*, 24- A.A.; Physical Soc; assoc. Radio Eng; Math. Soc; Math. Ass; Franklin Inst. Propagation of radio waves; electromagnetic waves.
- Coman, Dr. (Francis) Dana**, Johns Hopkins School of Medicine, Baltimore, Md. *Surgery*. New York, N. Y, Oct. 31, 95. A.M, Harvard, 20; M.D, Hopkins, 24. Asst. anat, *sch. med*, Hopkins, 24-25, instr, 25-27, *asst. surg*, 27- Lecturer, Hopkins Hosp. Training Sch; asst. res. surgeon, Hopkins Hosp. Ass. Anat; Am. Med. Ass. Neuro-anatomy; muscle tonus; experimental surgery of the sympathetic nervous system.
- Comey, Dr. Arthur M(essinger)**, 380 Mt. Auburn St, Cambridge, Mass. *Chemistry*. Boston, Mass, Nov. 10, 61. A.B, Harvard, 82; Ph.D, Heidelberg, 85. Instr. chem. and director summer sch. of chem, Harvard, 85-89; prof, Tufts, 89-93; anal. and consulting chemist, 93-06; director east. lab, E. I. du Pont de Nemours Powder Co, 06-21. Chairman explosives subcommittee, Nat. Research Council, 17-19. A.A; Chem. Soc; Soc. Chem. Indust; Am. Acad; Chem. Gesell. Analytical and technical chemistry.
- Compton, Dr. Arthur H(olly)**, University of Chicago, Chicago, Ill. *Physics*. Wooster, Ohio, Sept. 10, 92. B.S, Wooster, 13; fellow, Princeton, 13, A.M, 14, Ph.D, 16. Asst. physics, Wooster, 10-11, chem, 11-12; instr. physics, Princeton, 14-15; Minnesota, 16-17; research physicist, Westinghouse Lamp Co, 17-19; Nat. Research Council fellow, 19-20; prof. *physics* and head dept, Washington (St. Louis), 20-23; *prof*, Chicago, 23- Assoc. ed, 'Physical Rev,' 22-25. Committee on X-rays, Nat. Research Council, 21-25, chairman, 23-25; council on physical therapy, Am. Med. Ass, 25- A.A; Physical Soc; Optical Soc; Philos. Soc. The earth's rotation; specific heat of solids; X-rays.
- Compton, Prof. Karl T(aylor)**, Fitz Randolph Road, Princeton, N. J. *Physics*. Wooster, Ohio, Sept. 14, 87. Ph.B, Wooster, 08, M.S, 09, Sc.D, 23; fellow, Princeton, 11-13, Ph.D, 12. Instr. physics, Wooster, 07-09, chem, 09-10; teaching fellow, Princeton, 10-11; instr. *physics*, Reed, 13-15; asst. prof, Princeton, 15-19, *prof*, 19- Nat. Acad; A.A. (v. pres, chairman, sect. B, 25); Physical Soc. (v. pres, 25-27, pres, 27-); Optical Soc; Philos. Soc; Physik Gesell. Wehnelt interrupter; photoelectric effect; contact difference of potential and Peltier effect; structure of crystals by X-ray photography; soft X-rays; thermal effects produced by stretching of wires; ionization, fluorescence and dissociation of gases; low voltage arcs; spectral radiation.
- Comstock, Dr. Charles W(orthington)**, Dwight P. Robinson and Co, Inc, 125 E. 46th St, New York, N. Y. *Engineering, Mathematical physics*. Maroa, Ill, Feb. 10, 70. E.M, C.E, Colo. Sch. Mines, 90; M.C.E, Cornell, 94, Ph.D, 98. Instr. civil eng, Cornell, 90-92, 93-97; asst. to Geo. S. Morison, civil engineer, 92-93; prof. mining eng, Colo. Sch. Mines, 97-02; practising civil and mining engineer, 02-19; state engineer, Colo, 09-13; *engineer*, Dwight P. Robinson and Co, Inc, 19- A.A. (sec'y, D, 01); Civil Eng; Min. Eng; Mech. Eng; assoc. Elec. Eng; Colo. Sci. Soc. (sec'y, 98-00); Int. Ass. Prom. Quaternions; London Inst. Min. and Metal; N. of England Inst. Min. and Mech. Eng. Elasticity of solids, especially in its engineering applications; hydraulics.
- Comstock, Prof. Clarence E(lmer)**, Bradley Polytechnic Institute, Peoria, Ill. *Mathematics*. Galesburg, Ill, May 5, 66. A.B, Knox, 88, A.M, 91; Hopkins, 92-93, 94-95; Chicago, 95-96. Instr. math. and English, Blackburn, 88-89; *math*, Knox, 89-92, 93-94; Princeton-Yale Sch, Chicago, 96-97; *Bradley Polytech. Inst*, 97-02, *prof*, 02- A.A; Math. Soc; Math. Ass; British Math. Ass; Eng. Educ; Cent. Ass. Sci. and Math. Teachers (pres, 06). The history and teaching of mathematics.
- Comstock, Dr. D(aniel) F(rost)**, 1070 Beacon St, Brookline, Mass. *Physics*. Newport, R. I, Aug. 14, 83. B.S, Mass. Inst. Tech, 04, Savage fellow, 05-07; Berlin; Zurich; Ph.D, Basel, 06; Cambridge (Eng), 06-07. Asst. physics, Mass. Inst. Tech, 04-05, instr. theoret. physics, 05-10, asst. prof, 10-15, assoc. prof, 15-17; v. pres, Kalmus, Comstock and Wescott, Inc, 14-25; *pres*, Comstock and Wescott, Inc, 25- Director corporations; tech. director group inventors development technicolor process for taking natural color motion pictures, 14-25. Exp. director submarine detection, U.S.N, 17-19. A.A; Physical Soc; Chem. Soc; Electrochem. Soc; Optical Soc; Am. Acad; Inst. Social Sci; Soc. Psychical Research (advisory sci. council, 21-23). Theoretical physics; electromagnetic

theory; theory of matter; relativity theory; electromagnetic mass and its relation to energy; magnetic properties of saturated iron; color motion picture photography; nature of matter and electricity.

Comstock, Prof. Elting H(oughtaling), University of Minnesota, Minneapolis, Minn. *Mathematics*. Milwaukee, Wis, June 26, 76. B.S. Wisconsin, 97; fellow, Cornell, 97-98; fellow, Chicago, 98-99; hon. fellow, Wisconsin, 99-00; M.S. Minnesota, 07. Instr. prin. and supt. schools, Wis. and Mich, 00-06; instr. math. sch. mines, Minnesota, 06-07, asst. prof, 07-08, prof. mech. and math, 08-10, mine plant and mech, 10-A.A; Mech. Eng; Min. and Metal. Eng; Eng. Educ. Flow of fluids; engineering thermodynamics.

Comstock, Prof. F(rank) M(ason), 2085 Cornell Road, Cleveland, Ohio. *Natural history*. LeRoy, N. Y, May 20, 55. A.B. Union, 76, fellow, 76-77, A.M, 79, hon. Ph.D, 91, L.H.D, 26. Instr. science, LeRoy Acad. Inst, 78-79, prin, 79-91; prof. nat. hist. and English, Case, 91-02, nat. hist. and descriptive geom, 02- Acting pres, Case, 12-13. Asst. Adirondack Surv, 76. Forestry Ass; Ohio Acad; Rochester Acad; Can. Forestry Ass. Glacial geology.

Comstock, Prof. Geo(rge) C(ary), Beloit, Wis. *Astronomy*. Madison, Wis, Feb. 12, 55. Ph.B. Michigan, 77, hon. Sc.D, 07; LL.B, Wisconsin, 83; LL.D, Illinois, 07. Prof. math. and astron, Ohio State, 85-87; astron, Wisconsin, 87-22, assoc. director, Washburn Observatory, 87-89, director, 89-22, dean grad. sch, 06-21. Recorder and asst, U. S. Lake Surv, 74-77; asst. engineer, Improv. Mississippi River, 78-79. Nat. Acad; A.A. (sec'y, A, 89, v. pres, 94); Astron. Soc. (sec'y, 99-08, v. pres, 08-13, pres, 25-); Am. Acad; Astron. Gesell. Astronomy of position; double stars; proper motions; refraction; aberration.

Comstock, Prof. J(ohn) H(enry), 123 Roberts Place, Ithaca, N. Y. *Entomology*. Janesville, Wis, Feb. 24, 49. B.S. Cornell, 74. Instr. and prof. entom, Cornell, 74-14, emer. prof, 14- Entomologist, U. S. Dept. Agr, 79-81; non-res. prof, Stanford. A.A; Soc. Nat; hon. fel. Entom. Soc. (pres, 07); Soc. Zool; Philos. Soc; Calif. Acad; hon. fel. Ont. Entom. Soc; London Entom. Soc; Soc. entom. de France; Soc. Belge d'Entom. Coccidae; manual of insects; classification of Lepidoptera; skeleton of the head of insects; manual of North American Arachnida; the wings of insects.

Comstock, Mrs. J. H. (Anna Botsford), Ithaca, N. Y. *Entomology, Nature study*. Otto, N. Y, Sept. 1, 54. B.S. Cornell, 85. Asst. to Prof. J. H. Comstock in his work on scale insects; asst. prof, exten. dept, Cornell, 99; lecturer, Stanford, 99-00; prof. nature study, Cornell, emer. prof. Bronze medal, Pan-Am. Expos, 01. Soc. Am. Wood Engravers. Entomological illustration and engraving; nature study.

Conant, Prof. James B(ryant), Harvard University, Cambridge, Mass. *Chemistry*. Boston, Mass, March 26, 93. A.B. Harvard, 13, Ph.D, 16. Instr. chem, Harvard, 16-17, asst. prof,

19-25, assoc. prof, 25- Major, research div, C.W.S, 17-18. Chem. Soc; Am. Acad. Organic chemistry; reduction and oxidation; hemoglobin; free radicals; quantitative study of organic reactions.

Conard, Dr. Henry S(hoemaker), Grinnell, Iowa. *Botany*. Philadelphia, Pa, Sept. 12, 74. B.S. Haverford, 94, A.M, 95; Harrison fellow, Pennsylvania, 99-01, Ph.D, 01, senior fellow, 01-03; Johnston scholar, Hopkins, 05-06. Teacher science, Westtown Boarding Sch, 95-99; instr. bot, Pennsylvania, 03-05; prof, Grinnell, 06-Summers, lecturer, Cold Spring Harbor, 09-11, 27, Iowa Col, 13, Harvard, 16. A.A; Bot. Soc; Phytopath. Soc; Ecol. Soc; Iowa Acad. (pres, 14); Iowa Conservation Ass. Plant anatomy and taxonomy; Nymphaeaceae; hay-scented fern; Secotium; Simblum.

Concepcion, Prof. Isabelo, College of Medicine, University of the Philippines, Manila, P. I. *Physiology*. Manila, July 8, 86. M.D. Philippines, 12. Asst. biol. lab, Bur. Science, P. I, 12-13; asst. physiol, col. med, Philippines, 13-14, instr, 14-17, asst. prof, 18-22, assoc. prof, 22-27, prof, 27- Lecturer, Philippines, 13-14. Am. Med. Ass; Physiol. Soc; P. I. Med. Ass. (sec'y, 19-22). Biochemistry; blood pressure, normal urine and nutrition of the Filipinos.

Condit, D(aniel) Dale, 53 Parliament St, London, Eng. *Geology*. Pataskala, Ohio, Feb. 28, 86. A.B. Ohio State, 09; A.M. Columbia, 10. Geologist, U. S. Geol. Surv, 12-19; S. Pearson and Son, 19-23; head geologist, India, Whitehall Petrol. Corp, 23- Econ. geol. work, Cent. Amer. and W. I; geol. surv, Dominican Republic, U.S.N. A.A; fel. Geol. Soc; Ass. Petrol. Geol; Wash. Acad. Oil geology; geological exploration of India.

Condit, I(ra) J(udson), University of California, Berkeley, Calif. *Horticulture*. Jersey, Ohio, Nov. 18, 83. B.S. Ohio State, 05. Florist, Ohio State, 05-06; sci. asst, bur. entom, U. S. Dept. Agr, 06-07; instr, Calif. Polytech, 07-12; citriculture, California, 13-16, asst. prof, 16-19; horticulturist and director, Forkner Fig Exp. Sta, Fresno, 19-20; dept. hort, Calif. Peach and Fig Growers Ass, 20-24; assoc. sub-trop. hort, California, 25- Sub-tropical fruits.

Condra, Dr. George E(vert), University of Nebraska, Lincoln, Nebr. *Geography, Geology*. Seymour, Iowa, Feb. 2, 69. B.S. Nebraska, 97, A.M, 98, Ph.D, 01. Head dept. science, Lincoln Nor. Sch, 92-96; high sch, Nebr, 96-02; instr. geog. and econ. geol, Nebraska, 02-03, asst. prof, 03-04, assoc. prof, 04-05, prof, 05-, head dept, 08- Asst, Nebr. Geol. Surv, 96-02; asst. state geologist, 02-; summers, prof, Cornell, 07-10. Chairman, Nebr. Conservation Commission, 08- A.A; Ass. Geog; Micros. Soc; Nebr. Acad. (pres, 09); Nebr. Sci. Teachers' Ass. (pres, 98). Coal measure Bryozoa of Nebraska; geography, agricultural geology and soil areas of Nebraska and of the Great Plains; water supply; opening of the Indian Territory; sand and gravel resources; land erosion.

- Cone, Dr. Lee H(olt)**, 351 Abbott Road, Buffalo, N. Y. *Chemistry*. Harlan, Iowa, Feb. 19, 80. B.S. Pomona, 01; Ph.D. Michigan, 05; Berlin, 07-08. Instr. chem, Pomona, 01-02; Carnegie research asst, 03-05; instr.-org. chem, Michigan, 05-10, asst. prof, 10-13, assoc. prof, 13-16; Dow Chem. Co, 16-17; *Nat. Aniline and Chem. Co*, 17, *development manager*, 20- A.A.; Chem. Soc.; Chem. Gesell. Organic chemistry; the constitution of triphenylmethyl; quinocarbonium salts; derivatives and the constitution of histidin; constitution of salts of acridin.
- Cone, Dr. Sydney M**, Pikesville, Md. *Pathology*. Jonesboro, Tenn, Nov. 16, 69. A.B. Hopkins, 90; M.D. Pennsylvania, 93; Heidelberg and Strassburg, 95-96. Asst. surg. path, Hopkins, 96-99; prof. *path*, Baltimore Med. Col, 05-16; *assoc. prof*, Maryland, 16- Am. Acad. Med; Orthop. Ass; fel. Chem. Soc. Surgical pathology; anatomy of nerves; pathology of nerves and bones.
- Conel, Prof. J(esse) L(eroy)**, Boston University School of Medicine, Boston, Mass. *Anatomy*. Mt. Auburn, Ill, Jan. 31, 83. A.B. James Millikin, 12; A.M. Illinois, 13, Ph.D, 16. Teaching fellow, Illinois, 13-16; instr. *anat*, Univ. and Bellevue Hosp. Med. Col, 16-19, asst. prof, 19-21; assoc. prof, med. sch, Tufts, 21-23; *sch. med*, Boston, 23-26, *prof*, 26- Ass. Anat. Comparative anatomy.
- Congdon, Prof. Leon A(bel)**, Syracuse University, Syracuse, N. Y. *Chemistry*. Owego, N. Y, May 8, 85. B.S. Syracuse, 08; M.S. Colgate, 16; Paris, 19. Chemist, N. J. Exp. Sta, 09-10; N. Dak. Exp. Sta, 10-14; chief food and drug div, Kans. State Board Health, 14-17; asst. prof. *chem*, Syracuse, 19-21, *assoc. prof*, 21- Lecturer, Washburn, 17; Jesse Metcalf fellow, Brown, 25-26. Capt, Sanit.C, 17-19, Sanit.C.R, 19-24, major, 24- Chem. Soc. Analytical, inorganic and bio chemistry; food; nutrition; organo-metallic compounds of tin.
- Conger, Prof. Allen C(lifton)**, 49 Forest Ave, Delaware, Ohio. *Zoology*. Zanesville, Ohio, Nov. 23, 87. B.S. Ohio Wesleyan, 08; A.M. Ohio State, 12. Prof. biol, Wilmington Col, 09-12; instr. and *assoc. prof. zool*, Mich. State Col, 12-23; *Ohio Wesleyan*, 23- A.A.; Soc. Mam-mal; Micros. Soc. Ornithology; field zoology.
- Conger, Paul S(ydney)**, U. S. National Museum, Washington, D. C. *Biology*. Waukesha, Wis, Jan. 10, 97. B.S. Wisconsin, M.S. Asst. zool, Wisconsin, 20-21; aid div. marine invertebrates, U. S. Nat. Museum, 21-22; *diatomist*, Carnegie Institution, 22- Asst, George Washington, 22-23. Diatoms; microscopic technique.
- Conklin, Prof. Edmund S(mith)**, University of Oregon, Eugene, Oregon. *Psychology*. New Britain, Conn, April 19, 84. B.H. Springfield, 08; A.M. Clark, 09, Ph.D, 11. Asst. prof. *psychol*, Oregon, 11-13, *prof. and head dept*, 13- Acting dean grad sch, Oregon, 23-24. A.A.; Psychol. Ass; West. Psychol. Ass. (pres, 24). Genetic and abnormal psychology.
- Conklin, Prof. Edwin G(rant)**, Princeton University, Princeton, N. J. *Zoology*. Waldo, Ohio, Nov. 24, 63. B.S. Ohio Wesleyan, 85, A.B, 86, A.M, 89; Ph.D, Hopkins, 91; hon. Sc.D, Pennsylvania, 08; Ohio Wesleyan, 10; LL.D, Western Reserve, 25. *Prof. biol*, Ohio Wesleyan, 91-94; *zool*, Northwestern, 94-96; Pennsylvania, 96-08; *Princeton*, 08- Lowell lecturer, 22; instr, Woods Hole, 91-97, trustee, 97-; advisory board, Wistar Inst. Assoc. ed, 'Jour. Morphol,' 00-22; 'Biol. Bul'; 'Jour. Exp. Zool.' Seventh Int. Cong. Zool. (organ-izing sec'y for embryol); Int. Zool. Cong, Graz, 10; Int. Ass. Academies, Rome, 10. Nat. Acad; A.A. (v. pres, 07); Soc. Nat. (pres, 12); Soc. Zool. (pres, 99); Ass. Anat; Soc. Exp. Biol; Philos. Soc. (sec'y, 01-08); Am. Acad; Phila. Acad. (v. pres, 01-); for. mem. Bohemian Royal Soc; Soc. Belge de Biol; Soc. Royale de Med. de Bruxelles. Embryology of Gasteropoda, Brachiopoda, Amphioxus, Tunicata and Coelenterata; cellular history of development; cytology, karyokinesis and cyto-kinesis; cell size and body size; organization of the egg; cause of inverse symmetry; organ-forming substances; mechanism of heredity; heredity and environment; mechanism of evolution; the direction of human evolution; revolt against Darwinism.
- Conklin, O(liver) E(arle)**, Parlin, N. J. *Physics*. St. Louis, Mo, March 11, 92. B.S. Mass. Inst. Tech, 14, M.S, 17. *Physicist*, Bausch and Lomb Optical Co, 17-19; *E. I. du Pont de Nemours and Co*, 19- Optical Soc. Physical optics; instrument design; microturbidimeter.
- Conn, Dr. H(arold) J(oel)**, Agricultural Experiment Station, Geneva, N. Y. *Bacteriology*. Middletown, Conn, May 29, 86. Ph.B. Wesleyan, 08; Ph.D, Cornell, 11. Asst. soil tech, Cornell Exp. Sta, 08-11; assoc. bacteriologist, N. Y. *Exp. Sta*, Geneva, 11-20, *chief research soil bacter*, 20- Lecturer and instr, Hopkins, 15. Chairman, Commission Standardization Biol. Stains, 21- Ed, sect. soil microbiol, 'Biol. Abstracts,' 26- Soc. Bact. (asst. ed, 'Abstracts,' 19-25, chairman, committee on bacter. technic, 20-); Soc. Agron. Soil bacteriology; fungi in soils; methods of pure culture study; biological stains.
- Connell, Prof. W(alter) T(homas)**, 11 Arch St, Kingston, Ont, Can. *Pathology*. Spencerville, Ont, Dec. 15, 73. M.D. Queen's (Can), 94; L.R.C.P., London, 95-96. *Prof. path. and bacter*, Queen's (Can), 96-20, *med*, 20- Bacteriologist, Dairy Sch, Kingston, Ont, 97-20; asst. bacteriologist, Provincial Board Health, Ont, 04-20. Lieut. col, C.A.M.C, 15-19. Ass. Path. and Bact; Pub. Health Ass; Can. Med. Ass. Bacteriology; tetanus bacillus; bacteria of cheese; bacterial water analysis; pasteurization of milk, whey and other factory by-products.
- Connell, W(illiam) H(enry)**, 1520 Spruce St, Philadelphia, Pa. *Highway engineering*. New York, N. Y, 78. Fordham. Asst, eng. corps, New York, 00-10; deputy commissioner, pub. works, Bronx, 10-12; chief bur. highways and street cleaning, Philadelphia, 12-17; eng. exec, Day and Zimmerman, 17-19; exec. staff, Phila. Rapid Transit, 19-23; *eng. exec. and deputy sec'y*, Pa. Dept. Highways, 23- Lecturer, Co-

- lumbia, Franklin Inst. Civil Eng; Road Ass. (director); N. Y. Munic. Eng; Phila. Munic. Eng. (pres, 14); Phila. Eng. Club. Methods of construction, materials, cost and maintenance of highways.
- Conner, Arthur Benjamin**, College Station, Texas. *Agriculture*. Rosebud, Texas, Oct. 20, 82. B.S., Agr. and Mech. Col. Texas, 04, M.S., 23. Sci. asst., U. S. Dept. Agr., 04-11; v. *director and agronomist in charge grain sorghum research, Texas Exp. Sta.*, 11- Inheritance in grain sorghum.
- Conner, Samuel Dicken**, Purdue University, Lafayette, Ind. *Chemistry*. Connersville, Ind., June 17, 72. B.S., Purdue, 94, M.S., 07. Asst. prof. chem., *Purdue*, 04-11, assoc. chemist soils and crops, *Exp. Sta.*, 11-24, *research chemist*, 24-A.A.; Chem. Soc.; Soc. Agron. (research council, advisory committee on soils); Soil Surv. Ass.; Ind. Acad.; Int. Soc. Soil Sci. Soil fertility and acidity.
- Connolly, Dr. C(ornelius) J(oseph)**, Catholic University, Washington, D. C. *Biology*. St. Martin, N. S. Can., March 6, 83. A.B., St. Francis Xavier, 03; Ph.D., Munich, 11. Prof. biol., St. Francis Xavier, 11-22; research, Harvard, 22-23; *instr. comp. psychol., Catholic Univ.*, 24-Biol. Board, Can., 23- A.A.; N. S. Inst. (second v. pres, 18, first v. pres, 19). Florideae; decapod larvae; adaptive coloration.
- Connolly, Prof. Joseph P(eter)**, 924 Fulton St., Rapid City, S. Dak. *Geology, Mineralogy*. Cleveland, Ohio, Nov. 15, 90. A.B., Oberlin, 12; A.M., Missouri, 15; Harvard, 16. Instr. geol., Missouri, 19; *prof. miner. and petrog.*, S. Dak. Sch. Mines, 19-, v. pres, 26- Second lieut., U.S.A., 18-19. A.A.; Miner. Soc.; Min. Eng; S. Dak. Acad. Economic geology and mineralogy of the Black Hills of South Dakota.
- Connor, Dr. Charles L(loyd)**, Harvard Medical School, Boston, Mass. *Medicine, Pathology*. Robertsdale, Pa., Oct. 28, 91. Pittsburgh, 14-17; M.D., Baylor, 20. Nat. Research Council fellow path., *Harvard Med. Sch.*, 23-25, *instr.*, 25- Resident pathologist, Peter Bent Brigham Hosp., 25; acting director pathological lab, Montreal Gen. Hosp., 26-27. Ass. Path. and Bact.; Ass. Immunol. Rocky Mountain spotted fever; bone tumors; endothelial myeloma; chemical pathology of the deficiency diseases.
- Connors, C(harles) H(enry)**, New Jersey Agricultural Experiment Station, New Brunswick, N. J. *Horticulture*. New Brunswick, July 2, 84. B.S., Rutgers, 13. Asst. hort. investigation, N. J. *Exp. Sta.*, 13-21, assoc. plant breeding, 21-26, *head dept. floricult. and hort.*, 26-; *instr. floricult., Rutgers*, 25-26, *asst. prof.*, 26-A.A.; Soc. Hort. Sci.; Genetic Ass. Breeding carnations and peaches; culture of roses, gardenias and hydrangeas.
- Conover, Prof. Frederic L(eRoy)**, Vanderbilt University, Nashville, Tenn. *Chemistry*. Madison, Wis., July 28, 92. A.B., Wisconsin, 15, fellow, 19-23, Ph.D., 23. Instr. chem., Pa. State, 16-17; asst. and instr., Wisconsin, 19-23; *asst. prof., Vanderbilt*, 23- Lieut. and capt., C.Eng., and major, C.W.S., 17-19. Chem. Soc.; Tenn. Acad. Inorganic and analytical chemistry; synthesis and equilibrium of hydrated oxides and of other iron and aluminum compounds; reactions of fluorides.
- Conrad, Abram H.**, Glen Ellyn, Ill. *Botany*. Crawfordsville, Ind., 50. Wabash, 74; A.M., Wooster, 97; Chicago, 98-99. Teacher *biol.*, West. Nor. Col., 84-89; prof., Parsons, 89-96; *head teacher*, R. T. Crane High Sch., Chicago, 99-14, *Crane Junior Col.*, 14-27, *emer.*, 27-Iowa Acad.; Chicago Acad. Plant morphology and physiology.
- Conrad, Dr. C(arl) M(arcus)**, Maryland Experiment Station, College Park, Md. *Plant physiology*. Burlington, Kans., Nov. 24, 97. B.S., Kansas Col., 21; M.S., Maryland, 23, Ph.D., 25. Research asst. plant physiol., *Maryland*, 21-25; *asst. plant physiol. and biochem.*, and *asst. plant physiologist, Exp. Sta.*, 25- A.A.; Soc. Plant Physiol.; Bot. Soc.; Chem. Soc. The chemistry of potato storage and of ripening in sweet corn; pentoses and pentosans; pectic constituents of plants.
- Conrad, Prof. J(ohn) P.**, 2322 Carlton St., Berkeley, Calif. *Agronomy*. Rialto, Calif., Oct. 29, 93. B.S., California, 17. Sub-foreman and foreman, Concord Fruit Ranch, 17; sub-foreman in charge irrig. and drainage, Sloane Brothers, Calif., 19-20; teacher, high sch., 20-21; asst. prof. and *research asst. agron., California*, 21- Plant nutrition; water relations.
- Conrey, Guy W(oolard)**, Ohio Agricultural Experiment Station, Wooster, Ohio. *Agronomy*. Northboro, Iowa, Dec. 10, 87. A.B., Michigan, 08, A.M., 09; Ph.D., Ohio State, 21. Asst. physical chem., Michigan, 08-09; div. soils, Wis. Geol. and Nat. Hist. Surv., 09-17, chemist, 10-17; instr. soils, Wisconsin, 14-17; asst., Ohio State, 17-21, asst. prof., 21-26; asst., *Ohio Exp. Sta.*, 17-25, *assoc. agron., in charge soil surv.*, 25-A.A.; Soc. Agron.; Soil Surv. Ass. (pres, 25); fel. Ohio Acad. Soil physics and surveying.
- Constant, Prof. F(rank) H(enry)**, Princeton University, Princeton, N. J. *Civil engineering*. Cincinnati, Ohio, July 25, 69. C.E., Cincinnati, 91, Ph.D., 15; Ph.D., Lafayette, 15. Asst. engineer, King Bridge Co., 91-93; engineer, Osborn Eng. Co., 93-95; asst. prof. structural eng., Minnesota, 95-97, *prof.*, 97-14; *civil eng. and head dept., Princeton*, 14- Consulting engineer. Civil Eng; Eng. Educ. (councilor, 09-12, v. pres, 15); United Eng. Soc. (library board, 21-). Structural engineering.
- Converse, Prof. Henry A(ugustus)**, State Teachers College, Harrisonburg, Va. *Mathematics*. Louisville, Ky., June 3, 75. A.B., Hampden-Sidney, 93; Ph.D., Hopkins, 03. Instr. math., Shenandoah Valley Acad., Va., 93-99; asst., Hopkins, 02-03, instr., 03-04; Baltimore Polytech., 04-06, head dept., 08-18; prof. math. and physics, and dean faculty, Davis-Elkins, 06-08; head master, St. Paul's Sch., Baltimore, 18-19; *registrar and prof. math., Va. State Teachers Col.*, 19- Math. Soc. Modern geometry; the teaching of elementary mathematics.
- Conwell, Prof. G(eorge) M(acfeely)**, New York State College for Teachers, Albany, N. Y.

- Mathematics*. Vineland, N. J., June 7, 83. A.B., Princeton, 05, A.M., 06, Ph.D., 08. Instr. *math*, Yale, 08-15; asst. prof., N. Y. State Col. Teachers, 15-25, prof., 25- A.A.; Math. Soc.; Math. Ass. Groups.
- Conwell, Prof. H(ermon) H(enry)**, Beloit, Wis. *Mathematics*. Topeka, Kans., April 18, 86. B.S., Kansas Col., 07; M.S., Kansas, 15. Assoc. prof. *math*, New Mexico, 08-13; instr., Kansas, 13-15; assoc. prof., Idaho, 15-20; prof., Beloit, 20- A.A.; Math. Soc.; Math. Ass. Abelian functions.
- Cook, Prof. A(lfred) N(ewton)**, Occidental College, Los Angeles, Calif. *Chemistry*. Cornell, Ill., Feb. 22, 66. B.S., Knox, 90; Chicago, 95; Ph.D., Wisconsin, 08. Prof. nat. science, Amity, 92-94; chem. and physics, Upper Iowa, 94-98; asst. chem., Wisconsin, 98-00; prof., Morning-side, 00-04; South Dakota, 04-20; Occidental, 24- State food and drug commissioner, S. Dak., 09-13. A.A.; Chem. Soc. (pres, S. Dak. sect., 15-18); Iowa Acad.; S. Dak. Acad. (pres); Chem. Gesell. Derivatives of phenyl ethers; sulphonic acid derivatives of tolyl ethers.
- Cook, Dr. Cha(rlie)s G(ilpin)**, 227A Monroe St., Brooklyn, N. Y. *Chemistry*. Glenville, Md., Nov. 25, 66. B.S., Haverford, 92, A.M., 93; Ph.D., Hopkins, 98. Instr., Bridgewater Col., 93-94; prin., Aurora Acad., 94-95; instr. *chem*, Boys' High Sch., Brooklyn, 99- Chemist, Mathi, Inghram and Co., Baltimore, Md; lab. asst., Haverford. Practical chemistry; double halids of tin with aliphatic amins.
- Cook, Prof. Cha(rlie)s W(ilford)**, 1506 Granger Ave., Ann Arbor, Mich. *Geology, Mineralogy*. Fenton, Mich., Sept. 17, 82. A.B., Michigan, 04, M.S., 06, Ph.D., 13. Asst. miner., Michigan, 05-06; prof. chem., Pacific (Oregon), 06-08; asst. miner., Michigan, 08-09, instr. *econ. geol*, 09-14, asst. prof., 14-20, assoc. prof., 20-25, prof., 25- Asst. geologist, Mich. Geol. Surv., 10-13; summers, expert asst. to appraiser of mines, Mich., 11, special investigations in western and southern U. S., also in N. S. and P. Q., 17-18. Geol. Soc.; Soc. Econ. Geol.; Min. Soc.; Min. Eng.; Mich. Acad. American minerals; rare metals.
- Cook, Prof. D(onald) H(unter)**, Columbia University, New York, N. Y. *Chemistry*. White Sulphur Springs, Mont., Aug. 15, 91. B.S., Mont. Col., 17; A.M., Columbia, 22, Ph.D., 23. Asst. prof. *chem*, N. Mex. Col., 17-20; Mont. Col., 24-25; assoc. prof., Columbia sch. *trop. med*, Porto Rico, 25- Chem. Soc. Food chemistry; temperature coefficients of enzymic activity; the heat destruction of pancreatic and malt amylases; vitamin content of food.
- Cook, Harold J(ames)**, Agate, Nebr. *Vertebrate paleontology, Geology*. Cheyenne, Wyo., July 31, 87. Nebraska, 07-08; Columbia, 09. *State Geol. Surv*, Nebr., 06- Field staff, Am. Museum Nat. Hist., 09; hon. curator, Colo. Museum Nat. Hist.; Cook Museum Nat. Hist.; lecturer, State Nor. Col., Chadron, Nebr. A.A.; Paleont. Soc.; Ass. Petrol. Geol.; Min. and Metal. Eng.; Soc. Mammal; Forestry Ass.; hon. life mem. Am. Mus. Nat. Hist.; assoc. Archeol. Inst.; Nebr. Acad. New fossil vertebrates; Tertiary geology.
- Cook, Prof. Mel(ville) T(hurston)**, Insular Experiment Station, Rio Piedras, P. R. **Plant pathology*. Coffeen, Ill., Sept. 20, 69. A.B., Stanford, 94; A.M., De Pauw, 01; fellow, Ohio State, 01-02, Ph.D., 04. Prin., high sch., Ill., 94-95; instr. *biol*, De Pauw, 95-97, prof., 97-04; plant pathologist, Cuban Exp. Sta., Santiago, 04-07; Del. Exp. Sta., 07-11; prof. plant path., Rutgers, and plant pathologist, N. J. Exp. Sta. and State Dept. Agr., 11-23; *Insular Exp. Sta*, Rio Piedras, 23- Lecturer, Central-Col. Physicians and Surg., Indianapolis, 02-03; Med. Col. of Ind., 03-04. A.A. (v. pres, 21, sec'y, G, 18-20, chairman, 21); Soc. Nat.; Bot. Soc.; Phytopath. Soc. (v. pres, 16, pres, 17); Ass. Econ. Entom.; Entom. Soc.; Ecol. Soc.; Ind. Acad. Plant morphology and embryology; vegetable galls; tannin; mosaic and other plant diseases.
- Cook, O(rator) F(uller)**, Lanham, Md. **Biology*. Clyde, N. Y., May 28, 67. Ph.B., Syracuse, 90. Instr., Syracuse, 90-91; special agent, Liberia, N. Y. State Colonization Soc., 91-98; U. S. Dept. Agr., 98-01, botanist for trop. agr., 01-09, bionomist in charge acclimatization and adaptation investigations, 09- Asst. curator and custodian, U. S. Nat. Museum. A.A.; Bot. Soc.; Ass. Geog.; Wash. Acad.; Wash. Biol. Soc.; Wash. Entom. Soc.; Wash. Anthrop. Soc.; Wash. Bot. Soc. Tropical agriculture; African colonization; taxonomy; evolution; Myriapoda; palms; origins and histories of tropical economic plants; heredity, acclimatization and adaptation, especially of cotton, corn and rubber-producing plants.
- Cook, Prof. Rolla V(ergil)**, Bethany College, Bethany, W. Va. *Physics*. Tipton Co., Ind., Feb. 22, 91. A.B., Indiana, 21, A.M., 22. Teacher, schools, Ind., 11-17; asst. *physics*, Indiana, 21-23; prof., Bethany, 23- A.A.; Physical Soc. Sound.
- Cook, Prof. Roy S(elden)**, State Teachers College, Fredericksburg, Va. *Physical chemistry*. Batesville, Va., Sept. 1, 90. B.S., 14, M.S., 15, Ph.D., 25. Instr. *chem*, Va. State Teachers Col., 16-18, prof., 25- The free energy of nickel oxide.
- Cook, Dr. S(amuel) R(ichard)**, 167 Stadium Drive, Stockton, Calif. *Experimental physics*. Minden, Ont., Can., Feb. 14, 65. B.S., Michigan, 95, M.S., 97; fellow, Nebraska, 97-99, A.M., 98; fellow, Cornell, 04-05, Ph.D., 05; Berlin, 06-07. Prin., high sch., Nebr., 99-01; instr. physics and chem., Washburn, 01-02; physics, Case, 02-04; prof. physics and astron., Allegheny, 05-06; physics and math., Pacific (Calif.), 07-22, physics and astron., 22- A.A.; Physical Soc.; Nebr. Teachers Physics and Chem. (pres, 99). Escape of gases from planetary atmospheres; flutings in sound waves; planetary atmospheres; the electric rectifier; velocity of sound.
- Cook, Dr. Walter A(ndrew)**, University of Akron, Akron, Ohio. *Chemistry*. Hamilton, Ohio, June 15, 96. A.B., Cincinnati, 21, A.M., 22, Ph.D., 24. Instr. *chem*, Cincinnati, 22-26; Akron, 26- Chem. Soc. Hydroxamic acids and related derivatives.

- Cook, Dr. William C(armichael)**, Montana Experiment Station, Bozeman, Mont. *Entomology*. Syracuse, N. Y., Oct. 2, 95. Syracuse, 13-16; B.S., Cornell, 17; M.S., Minnesota, 20, Ph.D., 22. Asst. to state entomologist, Minn., 19-21; asst. entom., *Mont. Exp. Sta.*, 21-23, *asst. entomologist*, 23- Summer, field asst., Pa. State, 17. A.A.; Entom. Soc.; Ass. Econ. Entom.; Ecol. Soc. (ed. board, 'Ecology,' 25-). Insect ecology; insecticide chemistry; ecological and climatic relations of cutworms; attractiveness of various chemicals as insect bait.
- Cooke, Dr. C(harles) Montague, Jr.**, 2859 Manoa Road, Honolulu, Hawaii. *Zoology*. Honolulu, Dec. 22, 74. A.B., Yale, 97, Ph.D., 01. *Malacologist*, *Bishop Museum*, 02- London Malacol. Soc. Hawaiian Pulmonata.
- Cooke, Dr. C(harles) Wythe**, U. S. Geological Survey, Washington, D. C. *Geology*. Baltimore, Md., July 20, 87. A.B., Hopkins, 08, fellow, 11-12, Ph.D., 12. *Geologist*, U. S. *Geol. Surv.*, 10- Geologist, Dominican Republic *Geol. Surv.*, 19; Trop. Oil Co., 20. A.A.; Geol. Soc.; Paleont. Soc.; Wash. Acad.; Wash. *Geol. Soc.* (sec'y, 23). Stratigraphy, physiography and paleontology of the Coastal Plain, West Indies and Mexico; Mississippian of Maryland.
- Cooke, Prof. H(ereward) L(ester)**, Princeton University, Princeton, N. J. *Physics*. Montreal, Que., Can., March 26, 79. B.A., McGill, 00, M.A., 03; 1851 Exhib. scholar, Cambridge, 03-06. Demonstrator *physics*, McGill, 02-03; asst. prof., Princeton, 06-19, *prof.*, 19- Physical Soc.; Soc. de Physique. Experimental physics; density of ice; radioactivity; thermionics; surveying with aeroplane photographs.
- Cooke, Prof. Jean (Valjean)**, Washington University Medical School, St. Louis, Mo. *Pediatrics*. Brownsville, Pa., June 19, 83. A.B., West Virginia, 03; Yale, 04; M.D., Hopkins, 08. Instr. path., Univ. and Bellevue Hosp. Med. Col., 08-10; res. pathologist, Pa. Hosp., Phila., 10-11; instr. path., sch. med., Tulane, 11-12; asst. prof. path. and director lab. animal exp., med. sch., California, 12-17; *assoc. pediat. sch. med.*, Washington (St. Louis), 18-20, *assoc. prof.*, 20- Asst. physician, St. Louis Child Hosp., 18-; asst. pediatrician, Barnes Hosp., 23- *Pediat. Soc.*; Soc. Exp. Biol. (sec'y, Pacific Coast branch, 13-17); Cent. States *Pediat. Soc.* Bacteriology; metabolism after parathyroidectomy; intestinal obstruction; proteose intoxication; tuberculosis; hereditary syphilis; scarlet fever.
- Cooke, Dr. Robert A(nderson)**, 375 Park Ave., New York, N. Y. *Medicine*. Holmdel, N. J. A.B., Rutgers, 00, A.M., 04, hon. Sc.D., 25; M.D., Columbia, 04. *Assoc. attending physician*, City Hosp., 20-; N. Y. Post-Grad. Hosp., 20-; *asst. prof. applied immunol. med. col.*, Cornell, 20- Am. Physicians; Soc. Clin. Invest.; Harvey Soc. Human hypersensitiveness; allergy; anaphylaxis.
- Cooke, Prof. Thomas F(owke)**, 618 Delaware Ave., Buffalo, N. Y. *Physics*. New York, N. Y., Feb. 15, 83. M.E., Columbia, 04. Physicist, N. Y. State Inst. Study Malignant Diseases, 17-20; *asst. prof. physics*, Buffalo. Major, Inf., U.S.A. A.A.; Physical Soc.
- Cooksey, Prof. Charlton Dows**, 104 Huntington St., New Haven, Conn. *Physics*. New York, N. Y., Aug. 31, 83. Ph.B., Yale, 05, Ph.D., 09. Instr. *physics*, Yale, 08-23, *asst. prof.*, 23- A.A.; Physical Soc.; Conn. Acad. X-rays.
- Coolbaugh, Pres. M(elville) F(uller)**, Golden, Colo. *Chemistry*. Monroe Co., Pa., Feb. 8, 77. B.S., Colo. Col., 02; A.M., Columbia, 05. Instr. chem., Colo. Col., 02-04; asst., Columbia, 05; prof., S. Dak. Sch. Mines, 05-14; asst. prof., Case, 15-17; prof., Colo. Sch. Mines, 17-19; manager research dept., Metals Exploration Co., 18-25; *pres.*, Colo. Sch. Mines, 25- Offense div., C.W.S., 18. Chem. Soc.; Electrochem. Soc.; Min. and Metal. Eng. The determination of antimony and lead; complex ore treatment.
- Cooley, Dr. J(acquelin) S(mith)**, U. S. Department of Agriculture, Washington, D. C. *Botany*. Middletown, Va., July 24, 83. A.B., Randolph-Macon, 06; M.S., Va. Polytech., 11; Lackland fellow, Washington (St. Louis), 12-14, Ph.D., 14. Asst. plant path., Va. Exp. Sta., 11-12; sci. asst., asst. pathologist and *assoc. pathologist*, bur. plant indust., U. S. Dept. Agr. A.A.; Bot. Soc.; Wash. Bot. Soc. Plant pathology; plant physiology; cedar rust and the assimilation of CO₂ by apple leaves; apple foliage diseases; transpiration of sprayed plants; physiology of *Sclerotinia cinerea*; diseases of apples in storage; apple scald.
- Cooley, Dr. J(ean) P(aul)**, 820 Arch St., Ann Arbor, Mich. *Physics*. Waupaca, Wis., Sept. 7, 93. A.B., Michigan, 17, M.S., 20, Ph.D., 23. Instr. *physics*, Michigan, 20- A.A.; Physical Soc. Infra-red band spectra.
- Cooley, Prof. R(obert) A(llen)**, Montana Agricultural College, Bozeman, Mont. *Entomology*. Deerfield, Mass., June 27, 73. B.S., Mass. Col. and Boston, 95. Asst. entomologist, Mass. Exp. Sta., 95-99; *prof. zool. and entom.*, Mont. Col., and *entomologist*, Mont. Exp. Sta., 99-; *state entomologist*, Mont., 03- A.A.; Ass. Econ. Entom. Coccidae; Orthoptera; Ixodidae.
- Coolidge, Dr. Albert Sprague**, Pittsfield, Mass. *Physical chemistry*. Chicago, Ill., Jan. 23, 94. A.B., Harvard, 15, Ph.D., 24. Instr. *chem.*, Harvard, 20, 22- Junior chemist, C.W.S., 17-18. A.A.; Chem. Soc.; Physical Soc. Gaseous adsorption.
- Coolidge, Prof. Algernon**, 198 Beacon St., Boston, Mass. *Laryngology*. Boston, Jan. 24, 60. A.B., Harvard, 81, M.D., 86. Laryngologist, Mass. Gen. Hosp., 93-20; instr. *laryngol.*, Harvard Med. Sch., 93-96, asst. prof., 06-11, *prof.*, 11- Laryngol. Ass. (pres., 09); Laryngol., Rhinol. and Otol. Soc.; Climat. Ass. Diseases of nose and throat.
- Coolidge, Prof. J(ulian) L(owell)**, 27 Fayerweather St., Cambridge, Mass. **Mathematics*. Brookline, Mass., Sept. 28, 73. A.B., Harvard, 95; B.S., Oxford, 97; Ph.D., Bonn, 04. Teacher *math.*, Groton Sch., Mass., 97-99; instr., Harvard, 99-08, asst. prof., 08-18, *prof.*, 18- Chevalier, Légion d'honneur; Officier de l'Instruction

- Pub. Major, U.S.A., 17-19. Math. Soc. (v. pres, 18); Math. Ass. (pres, 25); Am. Acad. Modern geometry.
- Coolidge, Prof. W(alter) H(atheral)**, Gambier, Ohio. *Chemistry*. Cincinnati, Ohio, 89. Ph.B., Kenyon, 12; Ph.D., Hopkins, 15. *Prof. chem.*, Georgetown Col. (Ky.), 15-16; Centre, 16-24; *Kenyon*, 24- Chem. Soc.; Ky. Acad. (pres, 21-22). Osmotic pressure of glucose solutions; metal coloring and etching.
- Coolidge, Dr. W(illiam) D(avid)**, Research Laboratory, General Electric Company, Schenectady, N. Y. **Physical chemistry*. Hudson, Mass., Oct. 23, 73. B.S., Mass. Inst. Tech, 96; Ph.D., Leipzig, 99. Asst. physics, Mass. Inst. Tech, 97; Leipzig, 99; instr. physical chem, Mass. Inst. Tech, 01-03, asst. prof. physico-chem. research, 04-05; research physico-chemist, *Gen. Elec. Co.*, 05-08, *asst. director research lab*, 08- Rumford premium, Am. Acad, 14; Howard N. Potts medal, Franklin Inst, 26. Nat. Acad; A.A.; Physical Soc; Electrochem. Soc; Chem. Soc; Elec. Eng; Am. Acad; Röntgen Ray Soc; Radiol. Soc; Wash. Acad; London Röntgen Ray Soc; Soc. de Radiol. de Med. de France; Förening Med. Radiol. Measurement of the dielectric constant of liquids; conductivity of aqueous solutions at high temperatures (up to 306° C); ductile tungsten; X-ray tube with pure electron discharge; production of high-voltage cathode rays outside the generating tube.
- Coombs, Dr. Helen (Copeland)**, 338 E. 26th St, New York, N. Y. *Physiology*. St. Joseph, Mo, July 25, 91. A.B., Columbia, 11, B.S., 14, A.M., 15, Ph.D., 18. Asst. *physiol.*, Columbia, 17-18, *instr.*, 19-22; *Univ. and Bellevue Hosp. Med. Col.*, 23- Sarah Berliner research fellow, 22-23. A.A.; Physiol. Soc; Soc. Exp. Biol; Harvey Soc; N. Y. Acad. Nervous mechanism of respiration; intra-abdominal pressure; cerebral anemia; cardio-vascular nervous mechanism; decerebrate rigidity.
- Coons, Prof. G(eorge) H(erbert)**, Michigan State College, East Lansing, Mich. *Botany*. Bloomington, Ill, Nov. 2, 85. A.B., Illinois, 08; A.M., Nebraska, 11; Ph.D., Michigan, 15. Adjunct prof. agr. bot, Nebraska, 09-10; research assoc. plant path, *Mich. State Col.*, 10-24, *prof. bot.*, 25-; *pathologist, sugar plant investigations, bur. plant indust, U. S. Dept. Agr.*, 25- Phytopath. Soc; Mich. Acad. (v. pres, 16). Ecology; rust; host index of Michigan fungi; potato, sugar beet and apple diseases.
- Coony, Rev. J(ohn) P(atrick)**, S.J., St. Louis University, St. Louis, Mo. *Chemistry, Mathematics*. Edina, Mo, July 22, 62. St. Mary's Col, Kans, 84; St. Louis, 87-93, 99-01, 03-04; Woodstock (Md), 97-99; Ph.D., Hopkins, 03. Asst. math, St. Louis, 93-97; *prof. chem.*, Marquette, 07; *sch. med, St. Louis*, 07- Chemist, St. Louis Univ. tropical med. expd, 15. Chem. Soc. Comparison of electrolytically formed semipermeable membranes regarding activity, permanence and reliability for osmotic pressure measurements.
- Cooper, Dr. A(rthur) R(euben)**, 508 S. Honore St, Chicago, Ill. *Zoology, Anatomy*. Brinston, Ont, Can, Oct. 30, 88. B.A., Toronto, 10, M.A., 11, fellow, 12-14; fellow, Illinois, 15-17, Ph.D., 17, M.D., 25. Asst. biol, Toronto, 09-11, demonstrator zool, 11-12, lecture demonstrator, 14-15; *instr. anat, col. med, Illinois*, 17-19, assoc, 19-20, *asst. prof.*, 20- Summers, Can. Lake Biol. Sta, 09-12, Marine Biol. Sta, St. Andrews, N. B., 13-14, Woods Hole, 16, research asst, Michigan, 17. Fel. Am. Med. Ass; Ill. Med. Soc; Chicago Med. Soc. Parasitology; trematodes and cestodes from fishes.
- Cooper, Dr. Clara (Frances) Chassell**, Wallace Court, Richmond, Ky. *Educational psychology*. Sundance, Wyo, March 24, 93. A.B., Cornell (Iowa), 12; M.D., Iowa State Teachers Col, 13; A.M., Northwestern, 14; fellow, American Univ, 16-17; Ph.D., Columbia, 20. Teacher, pub. sch, Iowa, 13; head dept. philos. and educ, William Woods Col, 14-15; asst. prof. English, Simpson (Iowa), 15-16; psychologist, Horace Mann Sch, and instr. exp. educ, Teachers Col, Columbia, 17-22, asst. research, Inst. Educ. Research, 22. Teacher, Drew Theol. Sem, 20-23; summers, instr, Simpson (Iowa), 15-17. A.A.; Psychol. Ass; Ky. Acad. Morality and intellect; citizenship scales; psychological and educational tests; religious education.
- Cooper, Dr. F(rank) L(awrence)**, Yale University, New Haven, Conn. *Physics*. Owosso, Mich, April 26, 75. B.S., Michigan, 00, A.M., 04; Ph.D., Hopkins, 07. Teacher, high schools, Mich. and Ill, 00-03; asst. *physics*, Michigan, 03-04; Hopkins, 06-07; *instr.*, Yale, 07- A.A.; assoc. Physical Soc; Eng. Educ; Soc. de Physique. Light.
- Cooper, Dr. H(ermon) C(harles)**, 545 Park Boulevard, Glen Ellyn, Ill. *Electrochemistry*. Glen Ellyn, Nov. 22, 75. Ph.B., Beloit, 96, A.M., 99; Ph.D., Heidelberg, 99. Instr. chem, high sch, Nebr, 00-01; Syracuse, 01-03; research assoc, Mass. Inst. Tech, 03-04; asst. prof, Syracuse, 04-06, assoc. prof, 06-12, prof, 12-18; asst. prof, Col. City of N. Y., 18-20; plant manager, Acids Mfg. Corp, 20-23; sci. director, Bauer and Black, 23-25; v. pres, *Glen Ellyn State Bank*, 25- Summer, lecturer, Chicago, 10. Electrochem. Soc. (chairman, N. Y. sect, 22, Chicago sect, 25-26); Chem. Soc. (sec'y, Syracuse sect, 06-09, pres, 09-10). History of chemistry; organic chemistry; racemic compounds; electric conductivity of aqueous solutions at high temperatures; lead silicates; fluorids; chromic and benzoic acids; absorbent cotton.
- Cooper, J(ohn) R(alph)**, Fayetteville, Ark. *Horticulture*. Washington, Iowa, April 18, 84. B.S., Kansas Col, 12; M.S., Nebraska. Asst. hort, Kansas Col, 12; asst. prof, Nebraska, 12-14, assoc, 14-17; *horticulturist, Arkansas*, 17- A.A.; Bot. Soc; Soc. Hort. Sci; Pomol. Soc. Horticulture; plant breeding, physiology and nutrition; disease resistance.
- Cooper, Dean Thomas P(oe)**, University of Kentucky, Lexington, Ky. *Agriculture*. Pekin, Ill, March 2, 81. B.S., Minnesota, 08. Statist. agent, Minn. Exp. Sta, and special agent, bur. statist, U. S. Dept. Agr, 02-07; asst. farm management and instr. agr. econ, Minnesota, 08-11;

- director, N. Dak. Exp. Sta, 14-17; *dean and director agr. col., Kentucky*, 18- Chief bur. agr. econ, U. S. Dept. Agr, 25-26; v. chairman, Ky. State Board Agr. and Livestock Sanit. Board; Ky. State Park Commission. A.A.; Soc. Agron; Farm Econ. Ass. (past pres). Farm management; agricultural economics.
- Cooper, Dr. William S(kinner)**, University of Minnesota, Minneapolis, Minn. *Plant ecology*. Detroit, Mich, Aug. 25, 84. B.S, Alma, 06; Hopkins, 07-08; fellow, Chicago, 10-11, Ph.D, 11. Lecturer ecol, Stanford; *assoc. prof. bot, Minnesota*. Summer, asst. sta. for exp. evolution, Carnegie Inst, 07. A.A.; Ecol. Soc; fel. Bot. Soc; fel. Am. Geog. Soc; Ass. Geog. Ecology of Great Lakes region; ecology of mosses; alpine vegetation of Colorado; chaparral; distribution of redwood; strand vegetation of Pacific Coast; vegetation of southeastern Alaska, especially in relation to glaciation.
- Coover, Dr. J(ohn) E(dgar)**, Stanford University, Calif. *Psychology*. Remington, Ind, March 16, 72. A.B, Stanford, 04, A.M, 05, Ph.D, 12. Prin. schools, Colo. and Calif, 98-10; asst. psychol, *Stanford*, 10-12, *fellow psychical research*, 12-, asst. prof. *psychol*, 14-21, *assoc. prof*, 21- Capt, Sanit.C, 18. A.A.; Psychol. Ass. Education; psychical research; formal discipline; performance in typing; assimilation of sound in speech; sensory thresholds and the unconscious; the learning process; statistical procedures.
- Coover, Prof. W(infred) F(orrest)**, Ames, Iowa. *Chemistry*. Dayton, Ohio, May 29, 75. A.B, Otterbein, 00; A.M, Ohio State, 03; Columbia, 05, 18. Asst. prof. *chem, Iowa Col*, 04-07, *assoc. prof*, 07-13, *prof. and head dept*, 13- Assoc. Naval Consulting Board. A.A.; Chem. Soc. Analytical chemistry.
- Cope, Prof. O(tis) M(erriam)**, 120 N. 43d St, Omaha, Nebr. *Physiology*. Edmore, Mich, May 19, 80. A.B, Michigan, 02, M.D, 04. Instr. physiol, med. sch, Michigan, 10-18, asst. prof, 18-24; *assoc. prof. physiol. and pharmacol, col. med, Nebraska*, 24- Am. Acad; fel. Am. Med. Ass; Mich. Acad. Physiology of the heart.
- Cope, Prof. R(alph) P(earce)**, State College of Washington, Pullman, Wash. *Chemistry*. Hanoverton, Ohio, 85. B.S, Ill. Wesleyan, 10; B.S, M.S, Wash. Col, 19. *Assoc. prof. agr. and anal. chem, Wash. Col*, 12- A.A.; Chem. Soc; Northwest Sci. Ass. Agricultural quantitative analysis.
- Cope, Prof. Thomas D(arlington)**, University of Pennsylvania, Philadelphia, Pa. *Physics*. West Chester, Pa, Dec. 28, 80. A.B, Pennsylvania, 03, Ph.D, 15; Berlin, 12-13. Instr. *physics, Pennsylvania*, 06-13, asst. prof, 13-22, *prof*, 22- Capt, Bur. Aircraft Production, 18. A.A.; Physical Soc; Franklin Inst; Soc. de Physique. Mechanics; acoustics; industrial problems.
- Copeland, Dr. E(dwin) B(ingham)**, Chico, Calif. **Botany*. Monroe, Wis, Sept. 30, 73. Wisconsin, 91-94; A.B, Stanford, 95; Leipzig, 95-96; Ph.D, Halle, 96; Wisconsin, 96-97, 98; Chicago, 00-01. Asst. prof. bot, Indiana, 97-98; Calif. State Nor. Sch, Chico, 99; West Virginia, 99-00, prof, 00-01; instr, Stanford, 01-03; botanist, Philippine Govt, 03-08; supt, sch. agr, P. I, 08-09; dean and prof. plant physiol, col. agr, Philippines, 09-17. Prof, Cold Spring Harbor, 01. A.A.; Soc. Nat; Bot. Soc; Bot. Cent. States; Wis. Acad; Philippine Nat. Hist. Soc. Agricultural plant physiology; taxonomy of ferns.
- Copeland, Dr. Lennie Phoebe**, Wellesley College, Wellesley, Mass. *Mathematics*. Bangor, Maine, March 30, 81. B.S, Maine, 04; A.M, Wellesley, 11; Ph.D, Pennsylvania, 13. Teacher, high sch, 05-10; instr. *math, Wellesley*, 13-19, *asst. prof*, 19- Math. Soc; Math. Ass. Algebra of invariants.
- Copeland, Prof. Manton**, Brunswick, Maine. *Zoology*. Taunton, Mass, July 24, 81. B.S, Harvard, 04, M.S, 05, Ph.D, 08. Asst. zool, Harvard and Radcliffe, 04-08; instr. *biol, Bowdoin*, 08-09, asst. prof, 09-10, *prof*, 10- A.A.; Soc. Zool; assoc. Ornith. Union; Soc. Ichthyol. and Herp; Soc. Mammal; Am. Acad; Wash. Biol. Soc; Nuttall Ornith. Club; Boston Soc. Nat. Hist. Animal reactions and behavior; mammalogy.
- Copeland, Prof. W(illiam) F(ranklin)**, Ohio University, Athens, Ohio. *Botany*. Tappan, Ohio, Aug. 16, 72. Ph.B, Ohio, 02, Ph.M, 03, Ph.D, 07. Asst. biol. and geol, *Ohio (Athens)*, 02-05, bot, 07, *prof. elementary science and agr*, 07- A.A.; Soc. Nat; Nature Study Soc; Ohio Acad. Periodicity in Spirogyra.
- Copenhaver, Prof. James E(arl)**, University of South Carolina, Columbia, S. C. *Chemistry*. Seven Mile Ford, Va, Dec. 19, 96. A.B, Emory and Henry, 20; M.S, Vanderbilt, 23; Ph.D, Hopkins, 26. Asst. chemist, Beaver Chem. Corp, Va, 20-22; *assoc. prof. chem, South Carolina*, 26- Summers, asst. chemist, Beaver Chem. Corp, 23, 25, E. I. du Pont de Nemours and Co, 24. A.A.; Chem. Soc. M-diethyl benzene and its derivatives; dyes and dye intermediates.
- Copenhaver, Dr. W(ilfred) M(onroe)**, University of Rochester, Rochester, N. Y. *Anatomy, Embryology*. Carroll Co, Md, Dec. 26, 93. A.B, Western Maryland, 21; Ph.D, Yale, 25. Asst. biol, Yale, 21-24, *anat, sch. med*, 24-25; *instr, Rochester*, 25- A.A. Experimental embryology; the development of the heart of the Amblystoma.
- Coplin, Dr. W(illiam) M. L(ate)**, Jefferson Medical College, Philadelphia, Pa. *Pathology*. Clarksburg, W. Va, Nov. 1, 64. M.D, Jefferson Med. Col, 86. Intern, Jefferson Med. Col. Hosp, 86-87, asst. demonstrator morbid anat, Jefferson Med. Col, 87-89, demonstrator, 89-94; *prof. path. and bacter, Vanderbilt*, 95-96; *Jefferson Med. Col*, 96-22, *emer. prof*, 22- Adjunct prof, Phila. Polyclinic, 89-92; A.A. surgeon, U. S. Marine Hosp. Service, 90-93; lecturer, Jefferson Med. Col, 92-95; pathologist, Phila. Hosp, 92-95, 96-22, consulting pathologist, 22-, pres, staff, 20-22; bacteriologist, Pa. State Board Health, and surgeon, St. Mary's Hosp, 93-95; director dept. pub. health and charities, Phila, 05-07; med. director, Jefferson Hosp, 07-12;

- Phila. (Blockley) Hosp; Friends' Asylum for Insane, Frankford; director base hospital No. 38, and laboratories, third army, U.S.A., 19, col. M.R.C. A.A.; Am. Physicians; Ass. Path. and Bact; Pub. Health Ass; Philos. Soc; Phila. Col. Physicians. Bacteriology.
- Corbett, Dr. C(lifton) S(herwin)**, Nederlandsche Koloniale Petroleum Maatschappij, Batavia, Java, D. E. I. *Geology*. Edwardsville, Ill, Aug. 11, 91. Ohio Wesleyan, 08-10; A.B. Northwestern, 12; A.M. Wisconsin, 14, Ph.D. 21. Geologist, Wis. Geol. Surv, 14-15; Producers Oil Co, 15-16; E. J. Longyear Co, 16-19; instr. geol. Wisconsin, 19, 21-22; asst. prof. Kansas, 22-24, assoc. prof. 24-25; *chief geologist, Nederlandsche Koloniale Petrol. Maatschappij*, 25-Summers, aid. U. S. Geol. Surv, 12-14, geologist, Wis. Geol. Surv, 15, 22; research, beneficiation of bauxite, Aluminum Co. of Amer, 20. A.A.; Geol. Soc; Ass. Petrol. Geol; Miner. Soc; Min. and Metal. Eng. Petrography; structural geology.
- Corbett, L(aurence) J(ay)**, 1010 Shattuck Ave, Berkeley, Calif. *Electrical engineering*. Saratoga, Calif, May 19, 77. B.S. California, 02. Gen. Elec. Co, 02-03; indust. firms, Calif. and Wash, 03-06; consulting engineer, 06-11; assoc. prof. elec. eng. Idaho, 11-12, prof, 12-18; Fed. Board Vocational Educ, 19; acting assoc. prof. mech. eng. California, 19-20; *Pacific Gas and Elec. Co*, 20- Capt. C.Eng, 18-19, lieut. col. Eng. O.R.C. A.A.; Elec. Eng; Mil. Eng; Nat. Elec. Light Ass; Pacific Coast Elec. Ass. Electrical transmission.
- Corbett, Dr. L(ee) C(leveland)**, Takoma Park, Washington, D. C. *Horticulture*. Watkins, N. Y, Oct. 21, 67. B.S. Cornell, 90, M.S. 96; hon. D.Agr. Maryland, 21. Asst. horticulturist, Cornell, 91-93; prof. hort. and forestry, S. Dak. Col, 93-95; horticulturist, West Virginia, 95-01; *U. S. Dept. Agr*, 01-13, asst. chief bur. plant indust, 13-14, *senior horticulturist in charge office hort. investigations*, 15- Mem. Washington Park Commission; director, McLachlin Banking Corp. Silver medal, Paris Expos, 01; bronze medal, La. Purchase Expos, 04. A.A.; Hort. Soc; Pomol. Soc; Soc. Hort. Sci; Potato Ass; Am. Acad; N. Y. Agr. Soc; Wash. Bot. Soc; rep. Int. Inst. Physiological apparatus; intensive farming; garden farming.
- Corbin, Prof. C(harles) E(dgar)**, 117 W. Euclid Ave, Stockton, Calif. *Mathematics*. Blackstone, Ill, June 6, 80. A.B. Doane, 04; A.M. Northwestern, 07. Prin. Weeping Water Acad, 07-10; *prof. math*, Huron, 10-14; *Pacific (Calif)*, 14- Math. Ass; Math. Soc; Ass. Eng; Eng. Educ.
- Corbitt, Dr. Hugh Blake**, 122 Hudson St, New York, N. Y. *Chemistry*. Fairfield, Iowa, March 16, 89. B.S. Washington (Seattle), 13; A.M. Columbia, 21, Ph.D. 25. Chemist, Claisen Chem. Co, 11-12; sanit. bacteriologist, U. S. Pub. Health Service, 13-20; *research chemist, H. A. Metz Laboratories, Inc*, 20- Sergt, M.C. 18-19. A.A.; Chem. Soc; Inst. Chem; Soc. Bact. Bacteriology; pharmacology of insulin, suprarenin and phenols; chemotherapy of trypanosides and spirocheticides; synthetic organic chemistry; arsenic derivatives of 2-phenyl benzothiazoles.
- Corcoran, Prof. Charles A(loysius)**, College of the City of New York, New York, N. Y. *Physics*. New York, July 13, 86. B.S. Col. City of N. Y, 04, fellow, 04-07; A.M. Columbia, 06. Tutor *physics*, Col. City of N. Y, 07-14, instr, 14-18, asst. prof, 18-22, *assoc. prof*, 22- U.S.A., 18. A.A.; Physical Soc.
- Cordley, Dean A(rthur) B(urton)**, Agricultural College, Corvallis, Oregon. *Entomology*. Pinckney, Mich, Feb. 11, 64. B.S. Mich. State Col, 88, M.S. 00, Sc.D, 17. Asst. entom. Vermont, 90-91; asst. entomologist, U. S. Dept. Agr, 91-93; prof. zool. and entom. Oregon Col, 95-07, *dean agr*, 07-, director, Exp. Sta, 14-20. A.A. Economic entomology; plant pathology.
- Corey, Fred B(rainard)**, 615 Newell St, Barberton, Ohio. *Electrical engineering*. Homer, N. Y, Sept. 28, 69. M.E. Cornell, 92. Engineer, ry. dept, Gen. Elec. Co, 93-11; Union Switch and Signal Co, 11-14; consulting engineer, Pittsburgh, 14-16; *efficiency engineer, Pittsburgh Valve and Fittings Co*, 16- Lecturer, Columbia, 15. A.A.; fel. Elec. Eng; Mech. Eng; Soc. Steel Treat. Electrical apparatus; railway brakes and signals.
- Corey, S(amuel) A(rthur)**, 1079 23d St, Des Moines, Iowa. *Mathematics*. Fairfield, Iowa, Sept. 12, 61. A.A.; Math. Soc. Methods of approximation; linear associative algebra.
- Cori, Dr. Carl F**, 113 High St, Buffalo, N. Y. *Biochemistry*. Prague, Czecho-Slovakia, Dec. 5, 96. M.D. Carl Ferdinand Univ, Prague, 20. Instr, second med. clinic, Prague, 19-20; asst, first med. clinic, Vienna, 20-21; asst. prof. pharmacol, Graz, 21; *biochemist, State Inst. for Study of Malignant Diseases*, N. Y, 22- A.A.; Soc. Biol. Chem; Soc. Exp. Biol; Ass. Cancer Research. Influence of nerve stimulation in isolated heart; metabolic changes after X-ray radiation; insulin; carbohydrate metabolism of malignant tumors; influence of ovariectomy on tumor incidence; sugar in the animal body.
- Coriat, Dr. Isador H(enry)**, 416 Marlborough St, Boston, Mass. *Neurology, Psychiatry*. Philadelphia, Pa, Dec. 10, 75. M.D. Tufts, 00; Harvard, 09-10. Asst. physician, Worcester State Hosp, 00-05; first asst. visiting physician, Boston City Hosp, 05-19; *consulting neurologist, Beth Israel Hosp*, 19- Instr, Tufts, 14-16; neurologist, Mt. Sinai Hosp, 05-14; consulting neurologist, Chelsea Mem. Hosp, 10; Forsyth Dental Infirmary, 16; neurologist, Med. Advisory Board. Collaborating ed, 'Jour. Abnormal Psychol', 06- Contract surgeon, U.S.A. Int. Med. Cong, London, 13. Psychiat. Ass; Psychol. Ass; Am. Med. Ass; Psychopath. Ass; Psychoanal. Ass. (pres, 24); Ass. Research Nervous and Mental Diseases; New Eng. Soc. Psychiat; Mass. Psychiat. Soc; N. Y. Psychoanal. Soc; Int. Psychoanal. Ass. Psychopathology; psychoanalysis; nervous and mental diseases; hypnosis; colored hearing; stammering; family idiocy; memory; literary criticism; repressed emotions; nerve regeneration.

- Cork, Dr. J(ames) M.**, University of Michigan, Ann Arbor, Mich. *Physics*. Yale, Mich, July 9, 94. B.S, Michigan, 16, M.S, 17, Ph.D, 22. Asst. physicist, Bur. Standards, 17-19; *asst. prof. physics*, Pa. State, 19-20; *Michigan*, 22-Exchange prof, Victoria and Manchester (Eng), 26-27. Physical Soc; Wash. Philos. Soc. Heat; X-rays.
- Corkins, C(lifford) L(eon)**, University of Wyoming, Laramie, Wyo. *Entomology*. B.S, Mont. Col; M.S, Colo. Agr. Col. Asst. entom, Mont. Board Entom, 19-20; asst. state entomologist, Colo, 20-23; *head dept. entom, Wyoming*, and *state and exp. sta. entomologist*, 23-Ass. Eeon. Entom. Systematic and economic orthopteroLOGY; apiculture.
- Corlett, Prof. William Thomas**, 11015 E. Boulevard, Cleveland, Ohio. *Dermatology*. Orange, Ohio, April 15, 54. Oberlin, 70-73; M.D, Wooster, 77; London Hosp, 79-81, L.R.C.P, London, 81; Hôpital St. Louis, Paris, 81; hon. M.D, Western Reserve, 82. Demonstrator anat, Wooster, 78, registrar and prof. dermat. and genitourinary diseases, 82-85; acting prof, *Western Reserve*, 85-93, prof. *dermat. and syphilol*, 93-14, senior prof, 14-23, *emer. prof*, 23- Am. Med. Ass. (chairman, dermat. sect, 99); Dermat. Ass. (pres, 04); Cleveland Acad. Med; fel. Royal Soc. Med. Diseases of the skin; dermatoses due to vegetable parasites; leprosy.
- Corley, Dr. Ralph C(onner)**, Tulane University, New Orleans, La. *Biochemistry*. Tower Hill, Ill, June 5, 01. A.B, Illinois, 21, A.M, 22, Ph.D, 24. Asst, Illinois, 22-24; instr, *Tulane*, 24-25, *asst. prof. biochem*, 25- A.A; Chem. Soc. Intermediary and pentose metabolism.
- Cornelison, Dr. R(obert) W(ilson)**, 275 W. Summit St, Somerville, N. J. *Chemistry*. Washington, Ill, 69. B.S, Illinois, 90; Morgan fellow, Harvard, 92-93, Sc.D, 93. Research chemist industrial companies and consulting chemist, 93-08; chemist, bur. chem, U. S. Dept. Agr, 08-09; supt, The Cott-a-lap Co, 09-15; gen. manager, Calco Chem. Co, 15-16; *pres. and gen. manager, Peerless Color Co*, 16- Summers, lecturer, Harvard, 92, 93; Brooklyn Inst, 05. A.A; Chem. Soc; Soc. Chem. Indust. Organic chemistry; production of fast dyes.
- Cornelius, Prof. David W(illiam)**, University of Chattanooga, Chattanooga, Tenn. *Physics*. Linton, Ind, April 28, 85. A.B, De Pauw, 06; California, 08-10; fellow, Illinois, 10-12, Ph.D, 12. Asst. physics, De Pauw, 05-06; Purdue, 06-08; California, 08-10; prof. physics and eng, Ottawa, 12-13; asst. prof. physics and astron, Kansas, 13-15; instr. *physics*, Missouri, 15-17; *prof*, Alma, 17-20; *Chattanooga*, 20-Summers, research, Wisconsin, lecturer, Michigan. A.A; Physical Soc; Tenn. Acad. Velocity of electrons in the photo-electric effect; high resistance.
- Cornell, Dr. Walter S(tewart)**, 1919 Cherry St, Philadelphia, Pa. *Public health*. Philadelphia, Jan. 3, 77. B.S, Pennsylvania, 97, M.D, 01, D.P.H, 22. *Director med. inspection, pub. schools, Phila*, 12- Lecturer, Pennsylvania, 10-, sch. med, 02-26. Pub. Health Ass; Am. Med. Ass; Phila. Col. Physicians. Child health; medical inspection of school children.
- Corner, Prof. George W(ashington)**, 1 Castle Park, Rochester, N. Y. *Anatomy*. Baltimore, Md, Dec. 12, 89. A.B, Hopkins, 09, M.D, 13. Asst. anat, med. dept, Hopkins, 13-14, res. house officer, Hopkins Hosp, 14-15; asst. prof. *anat*, med. sch, California, 15-19; assoc. prof, med. dept, Hopkins, 19-23; *prof, sch. med, Rochester*, 23- Ass. Anat; Soc. Exp. Biol. Physiological anatomy; histology; the history of medicine.
- Cornman, Dr. Oliver P(erry)**, 422 Church Lane, Philadelphia, Pa. *Pedagogy, Psychology*. Philadelphia, Aug. 26, 66. A.B, Cent. High Sch, Phila, 84, A.M, 89; Pennsylvania, 94-99, Ph.D, 99. Supervising prin, Northwest. Sch, *Phila*, 92-06, dist. supt, *schools*, 06-09, *assoc. supt*, 09-Lecturer, Pennsylvania, 98-04. A.A. Spelling in elementary schools.
- Cornog, Prof. Jacob**, University of Iowa, Iowa City, Iowa. *Chemistry*. Mt. Holly Springs, Pa, Feb. 19, 83. A.B, Oregon, 15; Ph.D, Ohio State, 22. Chemist, Procter and Gamble Co, Kans, 09, 12; instr. *chem*, Oregon Col, 16-18; asst, Ohio State, 18-21; *asst. prof*, *Iowa*, 21-Chem. Soc; Iowa Acad. Oxidation of sulfur compounds.
- Cornwell, Dr. Ralph T(homas) K(line)**, Cornell University, Ithaca, N. Y. *Organic chemistry*. Northumberland, Pa, Feb. 10, 98. Ch.B, Cornell, 18, Ph.D, 25. *Instr. org. chem, Cornell*, 21- A.A; Chem. Soc.
- Corper, Dr. H(arry) J(ohn)**, 3924 E. Seventh Ave, Denver, Colo. *Pathology*. Chicago, Ill, March 5, 84. B.S, Chicago, 06, Ph.D, 11, M.D, Rush Med. Col, 11. Asst. path, Chicago, 07-09, 11-14; physiol, Illinois, 09-10; lab. director, Chicago Munic. Tuber. Sanitarium, 14-18; *director research, Nat. Jewish Hosp, Denver*, 19-; *asst. prof. med, sch. med, Colorado*, 26-Lecturer, Chicago, 04-07. Ed. staff, 'Am. Review of Tuber,' 22- Sprague Mem. Inst, 11-14, hon. mem, 14- Chief lab. service, U.S.A. Gen. Hosp, 16, 18-19. A.A; Am. Med. Ass. (chairman, sect. physiol. and path, 25); Ass. Path. and Bact; Soc. Clin. Path; Soc. Biol. Chem; Tuber. Ass. (chairman, path. sect, 19); Chem. Soc; Ass. Mil. Surg; Colorado Soc. Clin. Path. (pres, 26). Autolysis and necrosis; therapy and diagnosis of tuberculosis.
- Corrington, Prof. J(ulian) D(ana)**, Syracuse University, Syracuse, N. Y. *Morphology*. Hot Springs, Ark, Dec. 22, 91. A.B, Cornell, 13, Ph.D, 25. Asst. zool, Cornell, 14-16, curator museum, 16-17, 19-21; assoc. prof. biol, South Carolina, 21-24, prof. *zool*, 24-26; *asst. prof, Syracuse*, 26- Assoc. Ornith. Union. Morphology and blood system of sharks; systematic morphology; herpetology of South Carolina; ornithology of Mississippi.
- Corse, W(illiam) M(alcolm)**, 1901 Wyoming Ave, Washington, D. C. *Metallurgy*. Malden, Mass, May 25, 78. B.S, Mass. Inst. Tech, 99. Chemist, supt. and gen. manager, chem. and metal companies, 00-25; *v. pres. and gen. manager, The Research Service, Inc, and consulting*

- metallurgist, Newell, Corse and McDaniel, and other companies, 25-* Sec'y, advisory committee non-ferrous alloys, Bur. Standards, 16-; chairman corrosion committee, Nat. Research Council, 22-24; sec'y, trustees, Int. Critical Tables. Brass foundry practice, Navy Yard, N. H., 18. Min. and Metal. Eng. (director, 20, sec'y, metals div, 11-); Foundrymen's Ass; Soc. Test. Mat; Soc. Steel Treat; Chem. Eng; Chem. Soc; Electrochem. Soc; Ass. Mil. Eng; Wash. Acad; Wash. Soc. Eng; Directors Indust. Research (sec'y); N. Y. Chemists Club; British Inst. Metals (hon. cor. mem, U. S. council). Non-ferrous alloys.
- Corson, Prof. B(en) B(ennett)**, Box 754, Middlebury, Vt. *Organic chemistry*. Bridgton, Maine, Aug. 12, 96. A.B., Harvard, 19, A.M., 22, Ph.D., 24. Asst. chem, Harvard, 20-23; instr, Middlebury, 24-25, asst. prof, 25- Chem. Soc. Mechanism of aldol condensation.
- Corson, Dr. E(ugene) R(ollin)**, 10 James St, W, Savannah, Ga. *Medicine, Natural science*. Washington, D. C, July 20, 55. B.S., Cornell, 75; M.D., Hahnemann Med. Col, 77, and Southern Med. Col, 95. *On visiting staff, Savannah Hosp*, 97- Lecturer, training sch. for nurses. Am. Med. Ass; Röntgen Ray Soc. X-rays; anatomy; surgery; surgical pathology; peritoneum, the lymphatics and carcinoma; tuberculosis in man and cattle; the colored race.
- Corson, Dr. H(arry) P(each)**, Grasselli Chem. Co, 1400 Guardian Building, Cleveland, Ohio. *Chemistry*. Concord, N. H, Sept. 30, 87. B.S., New Hampshire, 10; Ph.D., Illinois, 15. Asst. chem, Illinois, 10-14, instr, 15; sanit. chemist, U. S. Pub. Health Service, 15-17; research chemist, Celluloid Co, 17-18; chief chemist, Avery Chem. Co, 18-20; *research chemist*, The Barrett Co, 20-22; *Grasselli Chem. Co*, 22- Chem. Soc.
- Corsonwhite, Dr. E(len) P(awling)**, 1923 Spruce St, Philadelphia, Pa. *Pathology*. Norristown, Pa, 74. A.B., Wellesley, 97; M.D., Woman's Med. Col. of Pa, 02. *Bacteriologist and pathologist, Orthop. Hosp. and Infirmary for Nervous Diseases*, 14- Pathologist to municipal courts, Phila; asst. pathologist, Phila. Zool. Soc. Ass. Path. and Bact; Ass. Study Int. Secretions. Neurology; psychiatry.
- Cort, Dr. W(illiam) W(alter)**, Johns Hopkins University School of Hygiene and Public Health, Baltimore, Md. **Helminthology*. Leon, Iowa, April 28, 87. A.B., Colo. Col, 09; A.M., Illinois, 11, Ph.D., 14. Instr. biol. Colo. Col, 12-13; prof, Macalester, 14-16; asst. prof. zool. California, 16-19; assoc. prof. *helminth, sch. hygiene and pub. health, Hopkins*, 19-25, prof, 25- Consulting helminthologist, Calif. State Board Health, 18-19. A.A.; Soc. Zool; Micros. Soc. Larval stages of digenetic trematodes; excretory system of trematodes; frog parasites; hookworm in mines of California; epidemiology of hookworm disease in the tropics; human blood flukes; oriental parasitic diseases in California.
- Cory, Prof. C(larence) L(inus)**, University of California, Berkeley, Calif. *Engineering*. Lafayette, Ind, Sept. 4, 72. B.M.E., Purdue, 89; M.M.E., Cornell, 91. Asst. elec. eng, Purdue, 89-90; prof, Highland Park, 91-92; asst. prof, California, 92-98, assoc. prof, 98-01, *prof. elec. eng. and dean col. mech*, 01- Consulting elec. and mech. engineer, San Francisco. Elec. Eng; British Inst. Elec. Eng. Long distance transmission of power with high voltage currents.
- Cory, Prof. E(rnest) N(eal)**, College Park, Md. *Entomology*. Alden, N. Y, Aug. 13, 86. B.S., Maryland, 09, M.S., 13; Ph.D., American Univ, 26. Asst. entom, Maryland, 09-11, instr, 11-12, asst. prof, 12-13, assoc. prof. *entom. and zool*, 13-14, *prof*, 14-, asst. entomologist, *Exp. Sta*, 09-14, *entomologist*, 14- Ass. Econ. Entom; Wash. Entom. Soc; Md. Acad. Economic entomology.
- Cory, H(arry) T(homas)**, Van Nuys Building, Los Angeles, Calif. *Civil engineering*. Lafayette, Ind, May 27, 70. B.M.E., Purdue, 87, B.C.E., 89; M.C.E., Cornell, 93, M.M.E., 96. Prof. civil eng, Missouri, 93-98, civil and sanit. eng, 98-00; prof. civil eng. and dean eng. dept, Cincinnati, 00-03; engineer, railroads and irrigation development projects, 03-09; *consulting engineer*, 09- Prof, Southern California, 25. Int. Nile Projects Commission, 20; chief eng, Palos Verdes Project, Los Angeles, 21-24; engineer, Marismas of the Guadalquivir River Project, Spain, 25-27. Director gen. for. relief, Am. Red Cross, 17-18; engineer, U. S. Reclamation Service, 18-20. Civil Eng; Mech. Eng. Land surveying; the Imperial Valley and the Salton Sea.
- Coryell, Dr. H(orace) N(oble)**, Columbia University, New York, N. Y. *Paleontology*. Brewstersville, Ind, Feb. 13, 88. A.B., Indiana, 14, A.M., 16; Ph.D., Chicago, 19. Curator paleont, Columbia, 19-20, *instr. geol. and paleont*, 20- Paleontologist and geologist, P. O. Co. Paleont. Soc; Min. and Metal. Eng; N. Y. Acad; Ind. Acad. Micropaleontology; Bryozoa of Tennessee, New York and the Stonewall Quadrangle; the outcrop at Spades, Ind.
- Coss, Prof. J(ames) A(ustin)**, Morningside College, Sioux City, Iowa. *Chemistry*. Arrow-smith, Ill, 72. A.B., Ill. Wesleyan, 03; M.S., Illinois, 10. *Prof. chem*, Upper Iowa, 06-08; *Morningside Col*, 11- Chem. Soc; Iowa Acad; Sioux City Acad. Organic chemistry.
- Costa, Dr. Joseph Louis**, Princeton University, Princeton, N. J. *Physical chemistry*. London, Eng, Dec. 1, 97. B.S., Rutgers, 21; Am. Field Service fellow, France, 22-24; Int. research fellow, Paris, 24-25, Sc.D., 25. Research chemist, Michelin Tire Co, 21-22; *Nat. Research Council fellow, Princeton*, 25- Chem. Soc; Soc. chim. de France; Soc. de Physique; Soc. de Chim. physique. Mass-spectrography of positive rays.
- Cotner, Prof. F(rank) B(oyd)**, 408 W. Koch St, Bozeman, Mont. *Botany*. Washingtonville, Pa, Jan. 29, 91. A.B., Michigan, 16, A.M., 17. Prof. bot, Porto Rico, 19-20; asst. prof, Albion, 21-22; *bot. and bacter*, Montana, 22-25, *assoc. prof*, 25- U.S.A., 17-19. A.A.; Bot. Soc; Phytopath. Soc. Physiology and cytology of lower fungi.

- Cottam, Prof. Walter P(ace)**, 459 N. Sixth E, Provo, Utah. *Botany*. St. George, Utah, March 3, 94. A.B, 16, M.S, 19. Asst. prof. *bot*, *Brigham Young*, 20-25, *prof*, 25- Floristics and ecology of Utah Lake.
- Cottingham, Kenneth (Charles)**, 384 17th Ave, Columbus, Ohio. *Geology*. Columbus, April 29, 92. A.B, Ohio State, 13; A.M, 14. Instr. geol, Ohio State, 14-17; petrol. engineer, Hager-Robitaille, 19-20; geologist, Union Oil Corp, 20-21; geol. engineer, 22; *chief geologist*, *Ohio Fuel Gas Co*, 23- Ohio Geol. Surv. A.S, U.S.A, 17-19. A.A; Min. Eng; Ohio Acad.
- Cotton, E(dwin) C(harles)**, R. 3, Elyria, Ohio. *Entomology*. Amherst, Ohio, Dec. 19, 76. B.S, Ohio State, 05. Asst. inspector div. nurseries and orchards, Ohio State Dept. Agr, 01-05; asst. entomologist, La. Crop Pest Commission, 06; Tenn. Exp. Sta, 06-14; fruit grower, 14-17; chief bur. hort, Ohio Dept. Agr, 17-22; *fruit grower*, 22- A.A; Ass. Econ. Entom; Ohio Acad. Life history of the North American fever tick and of the peach tree borer.
- Cotton, Dr. Frederic J(ay)**, 520 Commonwealth Ave, Boston, Mass. *Surgery*. Prescott, Wis, Sept. 24, 69. A.B, Harvard, 90, A.M, M.D, 94. Asst. prof. clin. surg, Tufts, 06-10; *assoc. surg*, *Harvard Med. Sch.* Surgeon in chief, Boston City Hosp; Beth Israel Hosp; consulting surgeon, East. Maine Gen. Hosp; consultant surg, U. S. Pub. Health Service. Col. Surg; Surg. Ass. Bone and joint surgery.
- Cotton, Dr. Henry Andrews**, New Jersey State Hospital, Trenton, N. J. *Neurology, Psychiatry*. Norfolk, Va, May 18, 76. M.D, Maryland, 99; hon. A.M, St. John's (Md); Royal Psychiat. Clinic, Munich, 05-06. Asst. physician, State Hosp, Worcester, Mass, 00-03; Danvers, Mass, 03-07; *med. director*, *N. J. State Hosp*, 07-; *lecturer psychopath*, *Princeton*. A.A; Psychiat. Ass; Neur. Ass; Psychopath. Ass; Am. Med. Ass; Interstate Psychiat. Soc. (pres, 15-); N. Y. Neur. Soc; N. Y. Psychiat. Soc; cor. mem. British Psychol. Ass. Psychiatry; paresis and tabes dorsalis; fatty degeneration of cerebral cortex; cardio-genetic psychoses; dementia praecox and alcoholic insanity; cytology of cerebro-spinal fluid; heredity in mental diseases; focal infections in the psychoses; chronic sepsis and functional mental disorders; the defective delinquent and insane.
- Cotton, Dr. Richard T(homas)**, 19 Montgomery Ave, Takoma Park, Md. *Entomology*. Lydney, Eng, Jan. 27, 93. B.S, Cornell, 14, M.S, 18; Ph.D, George Washington, 24. Asst. entomologist, Insular Exp. Sta, P. R, 15-17, chief entomologist, 17-18; *entomologist*, *bur. entom*, *U. S. Dept. Agr*, 19- Second lieut, Inf, 18-19. Entom. Soc; Ass. Econ. Entom; Wash. Entom. Soc. Economic insects of Porto Rico; Curculionid larvae; weevils of the Calendrinae; biology and control of insects attacking stored products.
- Cotton, W(illiam) J(acobs)**, National Aniline and Chemical Co, Buffalo, N. Y. *Chemistry*. Bailundu, W. Cent. Africa, April 21, 90. A.B, Ripon, 10; M.S, Wisconsin, 11. Asst. chem,
- Wisconsin, 11-13; chemist, Lakeside Press, 13-14; instr. chem, Butler, 14-16; chem. examiner, U. S. Civil Service Commission, 16-18; chemist, color lab, bur. chem, U. S. Dept. Agr, 19; *research chemist*, *Nat. Aniline and Chem. Co*, 19- Chem. Soc; fel. Inst. Chem. Dyestuff intermediates.
- Cottrell, Casper L(ehman)**, Cornell University, Ithaca, N. Y. *Physics*. Annville, Pa, May 13, 95. A.B, George Washington, 20; Cornell. Lab. asst, Bur. Standards, 15-18; *instr. physics*, *Cornell*, 20- Summers, asst. physicist, Munsell Research Lab, 22, 24. Radio asst, Sig.C, 19-20. A.A; Optical Soc. Physiological optics.
- Cottrell, Prof. F(rederick) G(ardner)**, Fixed Nitrogen Research Laboratory, Washington, D. C. **Chemistry*. Oakland, Calif, Jan. 10, 77. B.S, California, 96, Le Conte fellow, 96-97; Berlin, 00; Ph.D, Leipzig, 02. Teacher, high sch, Calif, 97-00; instr. physical chem, California, 02-06, asst. prof, 06-11; chief physical chemist, U. S. Bur. Mines, 11-14, chief chemist, 14-16, chief metallurgist, 16-19, asst. director, 19-20, *director*, 20-21; *fixed nitrogen research lab*, *U. S. Dept. Agr*, 22- Chairman, div. chem. and chem. tech, Nat. Research Council, 20-22; chairman committee on int. auxiliary language, Int. Research Council. A.A; Chem. Soc; Electrochem. Soc; Min. Eng. Physical chemistry.
- Couch, Dr. James F(itton)**, U. S. Department of Agriculture, Washington, D. C. *Chemistry*. Somerville, Mass, Oct. 22, 88. A.B, Harvard, 13; A.M, American Univ, 23, Ph.D, 26. Indust. chem, 13-17; *bur. animal indust*, *U. S. Dept. Agr*, 17- Instr. George Washington, 20-21. A.A; Chem. Soc; Inst. Chem. (pres, Washington chapter, 25). Organic chemistry; pharmacology; pharmaceutical practice; chemistry of stock poisoning plants; Lupinus.
- Couch, Prof. J(ohn) N(athaniel)**, Chapel Hill, N. C. *Botany*. Prince Edward Co, Va, Oct. 12, 96. Nancy, France, 19; A.B, North Carolina, 19, A.M, 22, Ph.D, 24; Wisconsin, 23. Teacher, high schools, N. C, 19-21; instr. *bot*, *North Carolina*, 22-25, *asst. prof*, 25- Nat. Research Council fellow bot, sta. for exp. evolution, Carnegie Inst, 25- A.A; Bot. Soc; Elisha Mitchell Sci. Soc; N. C. Acad. Taxonomy of Basidiomycetes; experimental taxonomy and sexual reproduction in the lower fungi.
- Coulter, Dr. John G(aylord)**, Morgan et Cie, 14 Place Vendôme, Paris, France. *Biology*. Hanover, Ind, July 20, 76. Wabash, 89-90; Indiana, 91-92; A.B, Lake Forest, 95; fellow, Chicago, 97-99, Ph.D, 99. Instr. bot. and geol, Syracuse, 99-00; prof. biol, Emory, 01; botanist, Educ. Dept, P. I, 02-05; ed, 'The Philippine Teacher' and 'The Daily Manila Times,' 04-06; prof. biol, Ill. State Nor. Sch, 07-11; ed. and publisher, 'School Science Series,' 12-16; *educ. work*, *France*, 23- Chief officer garden service, U.S.A, 17-19, commandant agr. detachment, 19; agr. reconstruction, France, 20-23. A.A. Secondary education.

- Coulter, Prof. John M(erle)**, Boyce Thompson Institute, Yonkers, N. Y. **Botany*. Ningpo, China, Nov. 20, 51. A.B., Hanover, 70, A.M., 73; Ph.D., Indiana, 82, LL.D., 20. Botanist, Hayden Surv., 72-74; prof. nat. science, Hanover, 74-79; biol., Wabash, 79-91; pres. and prof. bot., Indiana, 91-93; pres., Lake Forest, 93-96; prof. bot., Chicago, 96-25; *Boyce Thompson Inst.*, 25- Ed., 'Bot. Gazette,' 75- Nat. Acad.; A.A. (sec'y, F, 90, v. pres, 91, gen. sec'y, 01, pres, 19); Soc. Nat.; Bot. Soc. (pres, 97-15); Philos. Soc.; Ass. Prof. (pres, 18); Am. Acad.; Bot. Cent. States; Wash. Acad.; Ind. Acad. (pres, 86); Ill. Acad. (pres, 10); Chicago Acad. (pres, 16-); for. mem. Linnean Soc.; cor. fel. Edinburgh Bot. Soc. Taxonomic work with seed plants; special morphology of gymnosperms and angiosperms.
- Coulter, Dr. M(arion) D(onald)**, Mellon Institute, Pittsburgh, Pa. *Chemistry*. Newark, Ohio, Nov. 26, 98. B.S., Denison, 20; M.S., Ph.D., Ohio State, 23. Asst. prof. chem., Louisiana, 23-24; *indust. fellow*, Mellon Inst., 25- Chem. Soc. Artificial lumber; building materials.
- Coulter, Dr. Merle Crowe**, University of Chicago, Chicago, Ill. *Botany*. Lake Forest, Ill., June 13, 94. B.S., Chicago, 14, Ph.D., 19. Asst. biol., Williams, 14-15; *bot.*, Chicago, 17, assoc., 17-18, instr., 18-21, *asst. prof.*, 21- Plant genetics; inheritance in corn.
- Coulter, Prof. Stanley**, Purdue University, Lafayette, Ind. **Biology*, *Botany*. Ningpo, China, June 2, 53. A.M., Hanover, 77, Ph.D., 89, LL.D., 08. *Prof. biol. and director biol. lab.*, Purdue, 87-26, *dean sch. science*, 05-26, *dean men*, 15-26, *emer.*, 26- Ind. State Board Forestry; State Conservation Commission, Ind. A.A.; Soc. Nat.; Bot. Soc.; Nature Study Soc.; Bot. Cent. States; Ind. Acad. Flora of Indiana; forest trees of Indiana; nature study.
- Coulter, Dr. Victor A(idine)**, University, Miss. *Chemistry*. Newton, N. C., July 15, 92. B.S., North Carolina, 13, M.S., 14, Ph.D., 16. Instr. chem., North Carolina, 16-17; asst. prof. chem., Mississippi, 20-25, assoc. prof., 25-26, *prof. physical chem.*, 26- Summer, research chemist, Armstrong Cork Co., 17. Lieut. and capt., C.W.S., 17-19, capt., C.W.S., O.R.C., 25- Chem. Soc. Organic chemistry; insulating materials.
- Councilman, Dr. W(illiam) T(homas)**, care of Old Colony Trust Co, Court St., Boston, Mass. **Pathology*. Baltimore Co, Md., Jan. 1, 54. St. John's (Md.), 68-71; M.D., Maryland, 78, LL.D., 07; Vienna, Leipzig and Hopkins, 80-86; hon. A.M., Harvard, 98; Hopkins, 02; LL.D., McGill. Assoc. and assoc. prof. *path.*, Hopkins, 86-91; prof., *Harvard*, 91-22, *emer. prof.*, 22- Nat. Acad.; A.A.; Ass. Path. and Bact.; emer. mem. Am. Physicians; Soc. Exp. Biol.; Am. Acad.; Philos. Soc. Anatomy; pathology; diphtheria; dysentery; cerebrospinal meningitis; smallpox; the changes of old age; pathological anatomy.
- Coupal, Dr. James F(rancis)**, Army Medical Museum, Washington, D. C. *Pathology*. Quincy, Mass., Jan. 26, 84. B.S., Tufts, 06, M.D., 09. Instr. histol., med. sch., Tufts, 07-16, *path.*, bacter. and med. jurisprudence, 11-15; prof. histol., Sargents Nor. Sch., 10-16; *instr. path.*, *Army Med. Sch.*, 19-, *asst. curator and curator med. museum*, 19-; *physician to President*, 23- Visiting surgeon, house and outpatient dept., Tufts Emergency Hosp., 12-14. Major, M.C. Ass. Path. and Bact.; Am. Med. Ass.; Soc. Bact.; Int. Ass. Med. Museums (pres., Am. and Can. sections, 24-).
- Court, Prof. N(athan) A(itshiller)**, University of Oklahoma, Norman, Okla. *Mathematics*. Warsaw, Poland, Jan. 22, 81. M.S., Ghent, 09, Sc.D., 11; Columbia, 11-13. Instr. *math.*, exten. dept., Columbia, 12-13; Washington (Seattle), 13-15; Colorado, 15-16; *Oklahoma*, 16-17, *asst. prof.*, 17-23, *assoc. prof.*, 23- Math. Soc.; Math. Ass.; Okla. Acad. Modern geometry; higher plane curves.
- Courtis, S(tuart) A(ppleton)**, 9110 Dwight Ave., Detroit, Mich. *Education*. Wyandotte, Mich., May 15, 74. Mass. Inst. Tech., 97, 99; Chicago, 08; B.S., Columbia, 19, A.M., 21; Ph.D., Michigan, 25. Head dept. science and math., Liggett Sch., 98-14; supervisor educ. research, pub. schools, Detroit, 14-19; director instruction, teacher training and research, and dean, Detroit Teachers Col., 20-25; assoc. prof. educ. measurements, *Michigan*, 19-24, *prof. educ.*, 24- Hanus committee sch. inquiry, New York, 12; consulting director, dept. measurement, efficiency and standardization, Oklahoma, 13-16; measurement sch. products, Gary Sch. Surv., Gen. Educ. Board, 16; New York Cooperative and Constructive Surv., 24; educ. consultant, 25- Nat. Research Council, 25- A.A. (sec'y, L, 12-17, pres, 17). Standard tests; standards for school products.
- Couture, Dr. John (Russum)**, Fairfield, Conn. *Organic chemistry*. Topeka, Kans., Nov. 29, 96. B.S., Washburn, 19; M.S., Iowa, 21, Ph.D., 23. *Research chemist*, E. I. du Pont de Nemours and Co., 23- Chem. Soc. Migration of acyl radicals.
- Covell, Dr. W(alter) P(age)**, Rockefeller Institute, New York, N. Y. *Anatomy*. Corvallis, Oregon, Dec. 22, 99. B.S., Oregon Col., 22, M.S., 23; Ph.D., Minnesota, 26. Teaching fellow, 22-26; *asst.*, *Rockefeller Inst.*, 26- The human hypophysis; cytology.
- Coventry, Dr. Frances A.**, 5736 Ellis Ave., Chicago, Ill. *Protozoology*. New Brighton, Pa., Aug. 31, 97. A.B., Goucher, 20; Sc.D., Hopkins, 24. Asst. biol., Goucher, 21-22; instr. protozool., sch. hygiene and pub. health, Hopkins, 24-25; *research instr.*, dept. hygiene and bacter., Chicago, 25- A.A.; Soc. Parasitol. Immunology of the Protozoa.
- Coverdale, W(illiam) H(ugh)**, 66 Broadway, New York, N. Y. *Engineering*. Kingston, Ont., Can., 71. A.B., Geneva Col., 91, Sc.D., 14; LL.D., Queen's (Can.), 22. Pa. Co. Lines, 92-00; civil engineer, New York, 00-03; *consulting engineer*, 04- Civil Eng.; Inst. Consulting Eng.
- Coville, Frederick V(ernon)**, 1836 California St., Washington, D. C. **Botany*. Preston, N. Y., March 23, 67. A.B., Cornell, 87; Sc.D., George Washington, 21. Instr. bot., Cornell, 87-88;

- asst. botanist, *U. S. Dept. Agr.*, 88-93, *botanist*, 93- Curator, *U. S. Nat. Museum*, 93-; asst., *Ark. Geol. Surv.*, 87; botanist, *Death Valley exped.*, 90-91; adviser, *Carnegie Inst.*, 02-05. A.A. (v. pres, 03); *Bot. Soc.* (pres, 03-04); *Ass. Geog.*; *Ecol. Soc.*; *Wash. Acad.* (pres, 12); *Wash. Biol. Soc.* (pres, 99-00). Economic, systematic and geographic botany; plants of the aborigines; control of grazing on the public lands; effect of soil acidity on plant growth and distribution; domestication and improvement of the blueberry; influence of cold in stimulating growth of plants; artificial acidulation of soils; breeding of acid-soil plants.
- Cowan, Mrs. Edwina A (bbott)**, Wichita, Kans. *Psychology*, Chicago, Ill, Jan. 6, 87. A.B., Illinois, 08, A.M., 09; Ph.D., Chicago, 13. Asst. psychol. Vassar, 09-12; instr., Tulane, 13. A.A.; *Psychol. Ass.*; *S. Soc. Philos. and Psychol.* The learning process; clinical psychology.
- Cowan, P(hilip) Russell**, Central Experimental Farm, Ottawa, Ont., Can. *Plant pathology*. Gloucester, Eng, April 26, 92. B.S.A., McGill. Asst. investigator cereal diseases, Can, 15-17; *cerealists*, *Dominion Exp. Farms*, 17- Can. Soc. Tech. Agr. Cereal diseases; cereal breeding.
- Cowan, W(illiam) A (rthur)**, 105 York St, Brooklyn, N. Y. *Chemistry*, *Metallurgy*. Pittsfield, Mass, Oct. 9, 74. A.B., Amherst, 97. Asst. and instr. chem., Brooklyn Polytech, 97-99; works chemist, *Nat. Lead Co.*, 99-08, research laboratories, 08-14, *asst. chief chemist*, 14- Advisory committee on non-ferrous metals, Bur. Standards and U. S. Bur. Mines; advisory committee on alloys, Nat. Research Council. A.A.; *Chem. Soc.*; *Electrochem. Soc.* (v. chairman, N. Y. sect, 19-22); *Min. and Metal. Eng.* (v. chairman, metals div); *Soc. Test. Mat.* (v. chairman, committee B-2, 17); *Automotive Eng.*; *Franklin Inst.*; *British Inst. Metals*. Metallography of white metal alloys; methods of analysis; lead products.
- Cowdery, Dr. Karl M(ontague)**, Stanford University, Calif. *Psychology*. Oberlin, Ohio, Aug. 11, 95. A.B., Oberlin, 15; A.M., Stanford, 22. Research worker, Whittier State Sch, 15-17, asst. supt, 19-22, director educ, 22-23; teaching asst. psychol, *Stanford*, 23-24, statistician, registrar's office, 24-25, *asst. registrar and director personnel research*, 25- *Psychol. examiner*, U.S.A., 18. Intelligence as an index of success in trade learning; evaluation of expressed interests of members of professions.
- Cowdry, Dr. E(dmund) V(incent)**, Rockefeller Institute, New York, N. Y. **Anatomy*, *Zoology*. MacLeod, Alta, Can, July 18, 88. B.A., Toronto, 09; fellow, Chicago, 10-11, Ph.D., 12. Asst. anat., Chicago, 09-12, assoc, 12-13; Hopkins, 13-16; prof., Peking Union Med. Col, 17-21; *assoc. mem.*, *Rockefeller Inst.*, 21- Harvey lecturer, New York, 23; Gross lecturer, Phila., 24. Assoc. ed., 'Endocrin,' 19-21; 'Am. Jour. Physical Anthropol,' 18-21; ed., 'Gen. Cytol,' 23. Expeditions, Alaska, 10, Russia, 13, Japan, 19, 20, Hongkong and S. China, 21, S. Africa, 24-25. *Ass. Anat.*; *Harvey Soc.*; *China Med. Ass.* (chairman, res. committee, 20); *Anat. and Anthropol. Ass.*, China (pres, 20). Mitochondria and Golgi apparatus; cytology and development of blood and of nervous system; thyroid secretion; relation of Rickettsia to disease; pathology of jagziekte; botulism; herpes; vaccinia; spontaneous encephalitis; medical education in the Orient.
- Cowgill, Prof. George R(aymond)**, 333 Cedar St, New Haven, Conn. *Physiological chemistry*. St. Paul, Minn, Feb. 8, 93. A.B., Stanford, 16; Ph.D., Yale, 21. Teaching asst. physiol. and histol., Stanford, 16-17; asst. *physiol. chem. sch. med.*, Yale, 20-21, instr., 21-25, *asst. prof.*, 25- Summers, Stanford, 24, Southern California, 25. A.A.; *Soc. Biol. Chem.*; *Physiol. Soc.*; *Soc. Exp. Biol.*; *Chem. Soc.* The physiology of vitamins; nutrition; metabolism.
- Cowgill, H(orace) B(ranson)**, Fort Smith, Ark. *Agronomy*. Sterling, Kans, Oct. 14, 80. A.B., Washburn, 05; M.S.A., Cornell, 10. Plant breeder, Cuban-Am. Sugar Co, 10-11; *plant breeder and agronomist*, P. R. Sugar Planters Exp. Sta. and P. R. Insular Exp. Sta, 11-18; *office sugar plant investigations*, *bur. plant indust.*, *U. S. Dept. Agr.*, 18- A.A.; *Soc. Agron.*; *Genetic Ass.*; *Phytopath. Soc.* Sugar cane; sorghum.
- Cowie, Dr. D(avid) Murray**, University of Michigan, Ann Arbor, Mich. *Medicine*, *Pediatrics*. Moncton, N. B., Can, Nov. 19, 72. Battle Creek, 89-92; M.D., Michigan, 96; Heidelberg, 08. First asst. internal med, *Michigan*, 96-06, instr. pediat, 06-07, clin. prof., 07-09, pediat. and internal med, 09-19, *prof.*, 19-20, *pediat. and infectious diseases*, 20- Assoc. ed., 'Am. Jour. Diseases of Children,' 12-24. *Am. Med. Ass.*; *Pediat. Soc.* (chairman, council, 19, pres, 24); *Ass. Path. and Bact.*; *Soc. Clin. Invest.* (v. pres, 20). Clinical investigations in bacteriology, immunity and infectious diseases; digestion and metabolism.
- Cowles, Prof. Henry C(handler)**, University of Chicago, Chicago, Ill. **Botany*. Kensington, Conn, Feb. 27, 69. A.B., Oberlin, 93, Sc.D., 23; fellow, Chicago, 95-97, Ph.D., 98. Instr. nat. science, Gates, 94-95; asst. bot., Chicago, 97-01, assoc, 01-02, instr., 02-07, asst. prof., 07-11, assoc. prof. bot. and *prof. plant ecol.*, 11-, *chairman dept. bot.*, 25- Field asst., U. S. Geol. Surv, 95. Assoc. ed., 'Bot. Gazette,' 98-; 'Jour. of Geog,' 02, ed, 26- A.A. (sec'y, G, 08, v. pres, 13); *Soc. Nat.*; *Bot. Soc.* (v. pres, 21, pres, 22); *Ecol. Soc.* (pres, 18); *Ass. Geog.* (pres, 10); *Bot. Cent. States* (sec'y, 07); *Chicago Acad.* (v. pres, 12, 13, pres, 23-); *Int. Ass. Bot.* Physiographic and comparative ecology; ecological relations of dune vegetation; trees as indicators of past topographic conditions; floristics of the Chicago region.
- Cowles, Dr. R(heinart) P(arker)**, Johns Hopkins University, Baltimore, Md. *Zoology*. Washington, Iowa, April 8, 72. A.B., Stanford, 99; Bruce fellow, Hopkins, 02-04, Ph.D., 04. Asst. biol., Hopkins, 04-07, instr., 07-10, assoc, 10-11; assoc. prof. *zool.*, Philippines, 11-15, prof., 15-19; *assoc. prof.*, Hopkins, 19- Summer, biologist in charge, Gulf Biol. Sta., La, 04; exp. bacteriologist, Griffith and Turner Co;

investigator in charge biol. and hydrog. surv., Chesapeake Bay, 20- A.A.; Soc. Nat; Soc. Zool. Habits; ecology; anatomy.

Cowley, Dr. E(lizabeth) B(uchanan), Vassar College, Poughkeepsie, N. Y. *Mathematics, Astronomy.* Allegheny, Pa, May 22, 74. A.B, Vassar, 01, A.M, 02; Ph.D, Columbia, 08. Teacher, pub. schools, 93-97; instr. *math, Vassar*, 02-13, asst. prof, 13-16, *assoc. prof*, 16- Assoc. ed, 'Rev. Semest. Pub. Math.' A.A; Math. Soc; Math. Ass. (mem. exec. council). Algebraic curves; definite orbit of comet.

Cox, Dr. Alvin J(oseph), 1118 Emerson St, Palo Alto, Calif. *Chemistry.* Lawrence, Kans, June 14, 75. A.B, Stanford, 01, A.M, 02; Leipzig, 02; Breslau, 02-04, Ph.D, 04. Lab. asst, Stanford, 99-01, instr. anal. chem, 01-02, chem, 04-06; chief chemist, sect. weights, measures and mineral analysis, Bur. Science, P. I, 06-10, div. chemistry, 10-12, asst. director, 12, director, 12-19; *consulting chem. engineer*, 19- Chem. Soc. Acid, neutral and basic chromates of the difficultly soluble metals; the soils, coals, clays and raw cement materials of the Philippines; oxidation and deterioration of coal; copra and other cocoanut products; effect of litsea chinensis on the hardening of lime mortar; industrial alcohol; industrial resources of the Philippine Islands.

Cox, Ben(jamin) B(urton), University of Iowa, Iowa City, Iowa. *Geology.* Greenville, Ohio, Feb. 25, 98. B.S, Chicago, 21, M.S, 22. Instr. geol, Iowa, 22-25; *petroleum geologist, Palmer Corp*, 25- Summers, asst, Ky. Geol. Surv, 21, geologist, Ill. Geol. Surv, 23. Geology and mineral resources of Quincy and Liberty Quadrangles, Illinois; stratigraphy; paleontology; sedimentology.

Cox, Dr. Gerald J(udy), Chemistry Building, Urbana, Ill. *Physiological chemistry.* Sumner, Ill, April 27, 95. B.S, Illinois, 19, M.S, 23, fellow, 23-24, Carr fellow, 24-25, Ph.D, 25. Chemist, Special Chem. Co, Ill, 19-22; *instr. chem, Illinois*, 25- Chem. Soc. Metabolism of amino acids.

Cox, Dr. Henry J(oseph), U. S. Weather Bureau, Chicago, Ill. *Meteorology, Climatology.* Newton, Mass, April 5, 63. A.B, Harvard, 84; hon. A.M, Norwich, 87, Sc.D, 14. *U. S. Weather Bur*, 84-, *senior meteorologist, in charge north-cent. forecast. dist. and corn and wheat region service*, 24-, dist. forecaster, 94-98, prof. meteor, 98-24. District ed, 'Monthly Weather Rev.', 09-12. A.A; Meteor. Soc. (councilor, 21-); Ass. Geog; Chicago Acad. (chairman, board science governors, 19-); Chicago Geog. Soc. (director, 04-, pres, 05-07, 22-24). Agricultural meteorology; temperature and frost conditions in cranberry and orchard regions; thermal belts, the Great Lakes and the movement of storms.

Cox, Dr. Henry L(eon), Mellon Institute, Pittsburgh, Pa. *Chemistry.* Cullowhee, N. C, Aug. 22, 94. B.S, North Carolina, 14; fellow, Chicago, 19-21, Ph.D, 21. Instr. chem, N. C. State, 14-15; asst. chemist, N. C. Dept. Agr, 15-16; chemist, Hercules Powder Co, 16-19;

Beechnut Packing Co, 21-22; Cudahy Packing Co, 22-23; Standard Oil Co. of Ind, 23-24; *fellow chem, Mellon Inst*, 24- Chem. Soc. Derivatives of linolic acid; reciprocal solubilities of liquids; surgical supplies.

Cox, Dr. Mildred V(irginia), Calco Chemical Co, Bound Brook, N. J. *Chemistry.* April 23, 00. A.B, Vassar, 21; fellow, Yale, 23-24, for. fellow, Lyons, 24-25, Ph.D, 25. *Asst. chemist*, Kolynos Co, 21-22; *Calco Chem. Co*, 25- Chem. Soc. Holocaine derivatives; action of $AlCl_3$ on nonane and cyclopentane.

Cox, Paul E(rnest), 119 Lynn Ave, Ames, Iowa. *Ceramics.* Crawfordsville, Ind, Feb. 8, 79. B.S, Alfred. Stoneware, pottery and brick factories, 05-10; technician, Newcomb pottery, H. Sophie Newcomb Mem. Col, La, 10-18; ceramic engineer, La Compagnie Générale des Meules, Paris, 18-20; *head dept. ceramic eng, Iowa Col*, 20- Ceramic Soc. (trustee, 25-28). Practical potting; bentonites.

Cox, Dr. Richard T(hrelkeld), 2268 Sedgwick Ave, New York, N. Y. *Physics.* Portland, Oregon, Aug. 5, 98. A.B, Hopkins, 20, Ph.D, 24. Asst, asst. physicist and assoc. physicist, Bur. Standards, 20-22; *instr. physics*, Hopkins, 23-24; *N. Y. Univ*, 24- Physical Soc. High vacuum.

Cox, W(illiam) T(homas), St. Paul, Minn. *Forestry.* Glenwood, Minn, Jan. 25, 78. B.S.F, Minnesota, 06. U. S. Forest Service; state forester, Minn; *consulting forester and forest engineer.* Lecturer, Minnesota. A.A; Forestry Ass; Soc. Foresters; Minn. Forestry Ass; Wash. Biol. Soc; Can. Forestry Ass. Relation of animal life to the forest; reforestation.

Coxe, Dr. Warren W(infred), 759 Myrtle Ave, Albany, N. Y. *Education.* Belvidere, Ill, July 19, 86. B.S, Dakota Wesleyan, 11; Chicago, 15-16; fellow, Ohio State, 21-23, Ph.D, 23. Instr. and prin. schools, 11-15; asst. director, Vocational Bur, Cincinnati, 15-21; *chief bur. educ. measurements, N. Y. State Dept. Educ, Albany*, 23- Summer, instr, Ohio State, 22-24; N. Y. State Col. for Teachers, Albany, 24-26. Psychol. examiner, U.S.A, 18. A.A; Educ. Research Ass; Soc. Study Educ; Statist. Ass; N. Y. State Ass. Consulting Psychol. The influence of Latin on English spelling; educational measurements; psychological tests.

Coy, Dr. Genevieve L, The Dalton Schools, 10 W. 72d St, New York, N. Y. *Educational psychology.* Sandwich, Ill, June 20, 89. B.S, Columbia, 13, A.M, 15, Ph.D, 23. Lecturer educ. psychol, Teachers Col, Columbia, 16-17; research asst, Gen. Educ. Board, Ill, 17-18; instr. psychol, Ohio State, 18-22; prin, girls' sch, Persia, 23-24; *director tests and measurements*, Shaker Heights pub. schools, Cleveland, 24-26; *Dalton Schools*, 26- Summer, instr, Hopkins, 24. Ohio Acad. Education of gifted children; methods of selecting children for special classes; curriculum.

Coye, John S(tarr), General Chemical Co, Laurel Hill, L. I, N. Y. *Chemistry.* Carson, Iowa, Aug, 80. B.S, Iowa Col, 02; Mass. Inst. Tech, 08. Anal. and consulting chemist, 08-13;

- chief chemist, Iowa Eng. Exp. Sta, 13-18; *research chemist, Gen. Chem. Co*, 18- Chem. Soc. Inorganic and physical chemistry; hydrogen-ion concentration.
- Coyle, David C(ushman)**, 244 Madison Ave, New York, N. Y. *Engineering*. North Adams, Mass, May 24, 87. A.B, Princeton, 08; C.E, Rensselaer, 10. Structural designer, G. Aus Co, N. Y., 10-11; draftsman, Phoenix Bridge Co, 11-21; structural engineer, Lehigh Valley Coal Co, 12-17; D. L. and W. Coal Co, 17-18; *consulting structural engineer, G. Aus Co*, 19- Civil Eng. Structural engineering; analytical theory of domes; wind bracing of framed structures.
- Coyle, Rev. Geo(rge) L(awrence), S.J.**, Georgetown University, Washington, D. C. *Organic chemistry*. Philadelphia, Pa, Dec. 11, 69. A.B, La Salle, 86; Ph.D, Woodstock, 04; Göttingen, 06-07; Ph.D, Georgetown, 08- *Prof. chem*, Gonzaga Col, 94-98; Woodstock, 98-05; Holy Cross, 07-23; *org. chem. and director dept. chem*, Georgetown, 23- Chem. Soc. rep, Nat. Research Council, 25- A.A; Chem. Soc. (councilor, 19-23); Franklin Inst. Acid analysis; salts and fermentation; heart-stimulating drugs.
- Crabb, Ed(ward) D(rane)**, University of Pennsylvania, Philadelphia, Pa. *Zoology*. Smithfield, Ky, Oct. 26, 90. A.B, 21, A.M, 23, Ph.D, 27. Instr. zool. and curator museum, Oklahoma, 21-23; lecturer, Pub. Museum of Milwaukee, 23-24; dept. zool, Michigan, 24-26; *instr, Pennsylvania*, 26- Zoologist, Sykes-Alaskan exped, Univ. Oklahoma, 21. A.A; Soc. Mammal; Okla. Acad. Birds and mammals; reproduction in pond snails.
- Crabtree, J(ohn) I(ckeringill)**, Eastman Kodak Co, Rochester, N. Y. *Chemistry*. Eng, March 27, 91. B.Sc, M.Sc, Manchester. *Research chemist, Eastman Kodak Co*, 12- Chem. Soc; Inst. Chem. Gt. Britain and Ireland. Photographic chemistry; motion picture photography.
- Craft, Dr. Edward B(eech)**, Bell Telephone Laboratories, Inc, 463 West St, New York, N. Y. *Electrical engineering*. Cortland, Ohio, Sept. 12, 81. Pub. schools; hon. D.E, Worcester, 26. Warren Elec. and Specialty Co, Ohio, 98-02; eng. dept, West. Elec. Co, 02-07, development engineer in charge telephone apparatus design, 07-17, asst. chief engineer in charge development and design, 17-22; chief engineer, West. Elec. Co. and Int. West. Elec. Co, 22-25; *executive v. pres, Bell Telephone Laboratories, Inc*, N. Y., 25- V. chairman, eng. and indust. research div, Nat. Research Council; trustee, Int. Critical Tables. Major, Sig. O.R.C, 17-18. Fel. Elec. Eng; fel. Radio Eng; Automotive Eng; Inst. Weights and Measures (councilor). Machine switching telephone system.
- Cragin, Prof. F(rancis) W(hittemore)**, 912 E. San Miguel St, Colorado Springs, Colo. *Geology, Zoology, Botany*. Greenfield, N. H, Sept. 4, 58. Brooklyn Polytech, 75-79; B.S, Harvard, 82; Ph.D, Hopkins, 99. Prof. nat. hist, Washburn, 82-91; geol, Colo. Col, 91-03. Originator and in charge, Kans. Biol. Surv, 83-91; geologist, Texas Geol. Surv, 92-93; summer, lecturer, Colorado Springs, 94. Co-editor, 'Am. Geologist,' 90-96. A.A; Kans. Acad. Systematic zoology and botany; fauna and flora of Kansas; paleontology and stratigraphic geology; marine invertebrate paleontology of Texas Cretaceous and Jurassic; early western archeology.
- Cragoe, C(arl) S(usan)**, 3829 Warren St, Washington, D. C. *Physics*. Oakfield, Wis, Oct. 25, 93. A.B, Ripon, 13, 13-14; Princeton, 16-17; Hopkins, 20-21. Instr. physics, Ripon, 13-14; asst. physicist, Bur. Standards, 14-16, assoc. physicist, 17-20, *physicist*, 21- Chem. Soc; Wash. Philos. Soc. Heat; refrigeration; thermodynamic properties of refrigerating agents; thermal properties of petroleum and its products.
- Cragoe, Prof. E(dward) J(ethro)**, Baldwin City, Kans. *Geology, Chemistry*. Oakfield, Wis, Aug. 1, 89. A.B, Ripon Col, 10; A.M, Wisconsin, 15. Instr. high schools, Mich. and Ill, 10-15; *prof. geol*, Tulsa, 16-18; *chem, Baker*, 18- Ass. Petrol. Geol; Chem. Soc; Kans. Acad; Okla. Acad. Rainfall; corn and wheat crops.
- Craig, Dr. Cha(rie)s F(ranklin)**, U.S.A, care Surgeon General's Office, Washington, D. C. *Bacteriology*. Danbury, Conn, July 4, 72. M.D, Yale, 94, hon. A.M, 14. Col, M.C, and pathologist and bacteriologist, army hospitals, 98-06; asst. curator, Army Med. Museum and asst. prof. bacter. and clin. diagnosis, Med. Sch, 09-13; commanding officer, dept. lab, cent. dept, U.S.A, Ft. Leavenworth, Kans, 13-16; dept. lab, No. 2, El Paso, Texas, 16-17; army lab, Yale, 17-18; curator, Army Med. Museum, 18-20; prof. bacter, parasitol. and prev. med. and director laboratories, Army Med. Sch, 20-22; med. inspector, Hawaiian Dept, U.S.A, 22-25; *director dept. prev. med. and clin. path, Army Med. Sch*, 26- Assoc. prof, George Washington, 10-11. U.S.A. board for study of trop. diseases, Manila, 06-07. D.S. medal. Soc. Bact; Soc. Parasitol; Am. Med. Ass; Soc. Trop. Med. (pres, 13); fel. Col. Surg; Ass. Mil. Surg; London Soc. Trop. Med. and Hygiene (local sec'y). Protozoology; serology; serology of syphilis; etiology of tropical diseases.
- Craig, Dr. Wallace**, Harvard Medical School, Boston, Mass. *Psychology, Zoology*. Toronto, Ont, Can, July 20, 76. B.S, Illinois, 98, M.S, 01; Ph.D, Chicago, 08. Asst. Ill. Biol. Sta, 98-99; asst. zool, Chicago, 02-04; prof. philos, Maine, 08-22; lecturer psychol, *Harvard*, 22-23, *librarian biophysics, Med. Sch*, 23- A.A; Psychol. Ass; Philos. Ass. Behavior; emotions; instincts; songs of birds; pigeons.
- Craighead, Dr. F(rank) C(oooper)**, U. S. Department of Agriculture, Washington, D. C. *Entomology*. Craigheads, Pa. B.S, Pa. State, 12; M.S, George Washington, 15, Ph.D, 19. Bur. entom, U. S. Dept. Agr, 11-20; Dominion entom. branch, Can. Dept. Agr, 21-23; *in charge forest insect investigations, bur. entom*, U. S. Dept. Agr, 23- A.A; Soc. Foresters; Wash. Entom. Soc; Wash. Acad.
- Craigie, Prof. E(dward) Horne**, University of Toronto, Toronto 5, Ont, Can. *Anatomy*. Edinburgh, Scotland, June 24, 94. B.A, Toronto, 16, Ph.D, 20. Demonstrator biol, To-

ronto, 16-19, lecturer comp. anat, 19-25, *asst. prof. comp. anat. and neurol*, 25- A.A.; Ass. Anat.; Eugenics Soc; Royal Inst. Can. Comparative anatomy; vascularity of central nervous system; brain anatomy.

Cram, Prof. Marshall P(erley), Brunswick, Maine. *Chemistry*. Brunswick, Jan. 1, 82. A.B. Bowdoin, 04, A.M. 05; Ph.D. Hopkins, 08. Instr. *chem*, Bowdoin, 08-09, *asst. prof.*, 09-11, *prof.*, 11- Maine State Board Health, 10-17. A.A.; Chem. Soc; London Chem. Soc. Petroleum; utilization of waste liquors from sulphite paper mills.

Cramblet, Dr. W(ilbur) H(averfield), Bethany College, Bethany, W. Va. *Mathematics*. Tippecanoe, Ohio, July 10, 92. A.B, A.M, Bethany (W. Va), 10; A.M, Yale, 11, Ph.D. 13. Instr. *math*, Rochester, 13-15; Phillips, 15-17; *prof*, Bethany (W. Va), 17-, *treas.*, 19- Summers, *prof*, Bethany (W. Va), 10-14. Math. Soc. Discontinuous functions; intermediate functions and their integral sets.

Crampton, Dr. C(harles) Ward (Grinnell), 771 Madison Ave, New York, N. Y. *Physiology*, *Education*. New York, May 26, 77. Col. City of N. Y, 96; M.D, Columbia, 00. Asst, Woods Hole, 98; path. dept, Columbia, 00-03; chairman dept. physical training, High Sch. of Commerce, New York, 00-05; *asst. director* physical training, pub. schools, 05-08, *director*, 08-09; dean sch. physical educ. and *director* educ. activities and research on blood pressure, Battle Creek Sanitarium, 19-20; *specialist, pre-clin. med.*, 20- Organizer and *director* health service clinic, Post-Grad. Med. Sch. and Hosp; chairman committee on physical standards for child labor, children's bur, U. S. Dept. Labor; nat. chairman committee on physical educ, Nat. Cong. of Parents and Teachers; hon. mem. nat. council, Boy Scouts Am. A.A.; Physical Educ. Ass. (v. pres); fel. Am. Med. Ass; Soc. Exp. Biol; Nat. Pub. Sch. Physical Training Soc. (pres); Sch. Hygiene Ass; N. Y. Acad. Med; N. Y. Physical Educ. Soc. (pres, 05). Splanchnic vasomotor control; pubescence; physiological, psychological and anatomical age with special reference to weight; height, strength and scholarship; school hygiene; physical training, athletics and folk dancing; the gravity resisting functions of the circulation; preclinical medicine.

Crampton, Prof. G(uy) C(hester), Massachusetts Agricultural College, Amherst, Mass. *Entomology*. Mobile, Ala, Sept. 21, 81. A.B, Princeton, 04; A.M, Cornell, 05; Freiburg and Munich; Ph.D, Berlin, 08; M.S, Harvard, 20. Asst. biol, Princeton, 08-10; *prof. zool*, Clemson, 10-11; *assoc. prof. entom*, Mass. Col, 11-15, *prof*, 15- A.A; Soc. Nat; Soc. Zool; Ass. Econ. Entom; Entom. Soc; Wash. Entom. Soc; London Entom. Soc. Insect morphology; insect behavior; phylogeny of arthropods; evolution of various structures in insects.

Crampton, Prof. Henry E(dward), Barnard College, Columbia University, New York, N. Y. *Zoology*, *Experimental biology*. New York, Jan. 5, 75. Col. City of N. Y, 88-92; A.B, Columbia, 93, fellow, 96-97, Ph.D, 99. Asst.

biol, Columbia, 93-95; instr. *zool*, Mass. Inst. Tech, 95-96; lecturer, Columbia, 97-99, tutor, 99-00, instr, Barnard, 00-01, adjunct prof, 01-03, *prof*, 04- Curator, Am. Museum Nat. Hist, 09-21; research assoc, Carnegie Institution, 04- Summers, instr, Woods Hole, 95-03, in charge biol. lab, Cold Spring Harbor, 04-06; *assoc*, Bishop Museum, 20- Expeditions to Polynesia, 06-09, 19; West Indies, 12-14; interior of S. A, 11; Micronesia, Philippine Islands, China, Siam, Java and Australia, 20-21; Polynesia, 23-24. Nat. Research Council, 21-23; Inst. Research Trop. America, 21-23; Int. Zool. Cong, Graz, 10; sec'y-treas, Eugenics Commission, 22-25. A.A; Soc. Nat; Soc. Zool; Soc. Exp. Biol; fel. Ethnol. Soc; Ecol. Soc; fel. Am. Geog. Soc; Explorers Club (v. pres, 25-); fel. N. Y. Acad. (rec. sec'y, 06, v. pres, 06, cor. sec'y, 08-25, pres, 26-); fel. Royal Geol. Soc. Developmental mechanics; fertilization of the egg; embryology of gasteropods; variation, selection and inheritance in Lepidoptera (Saturniidae); experimental evolution; variation, evolution and geographical distribution of Polynesian Mollusca.

Crandall, Lee S(aunders), Zoological Park, New York, N. Y. *Ornithology*. Sherburne, N. Y, Jan. 26, 87. Cornell, 07-08; Columbia, 08-09. Asst, dept. birds, N. Y. Zool. Park, 08-11, *asst. curator*, 11-19, *curator*, 19- Collecting exped, British Guiana, 09; Costa Rica, 14. Assoc. mem. Ornith. Union; Soc. Ichthyol. and Herp; N. Y. Zool. Soc. Ornithology of Costa Rica; birds in captivity; protection and propagation of birds.

Crandall, Prof. W(esley) C(larence), La Jolla, Calif. *Biology*. Sigourney, Iowa, Aug. 5, 78. A.B, Stanford, 99. Teacher, high schools, Utah and Calif, 99-05; physiol. and nature study, State Nor. Sch, San Diego, 05-13; *prof. biol*, Scripps Inst, California, 13- Business agent, Scripps Inst, California, 23. Director aquarium, San Diego Zool. Soc, 26-, director board research lab, 27. Kelp.

Crane, E(van) J, Ohio State University, Columbus, Ohio. *Chemistry*. Columbus, Feb. 14, 89. A.B, Ohio State. Assoc. ed, 'Chem. Abstracts,' 11-14, ed, 14- Committee on inorg. nomenclature, Int. Union Pure and Applied Chem. A.A; Chem. Soc. (exec. committee, 24-). Indexing of chemical compounds and subjects.

Crane, Prof. H(arley) L(ucius), 508 Jefferson St, Morgantown, W. Va. *Horticulture*. Terra Alta, W. Va, March 31, 91. B.S.A, West Virginia, 14, M.S.A, 18. Instr. *hort*, West Virginia, 14-17, *asst. prof*, 19-20, *assoc. prof*, 20-, *asst. horticulturist*, Exp. Sta, 17-20, *horticulturist*, 20- A.A; Soc. Hort. Sci; W. Va. Sci. Soc; W. Va. Hort. Soc. (sec'y, 19-). Spray nozzles; culture of apples and peaches; physiological effects of pruning.

Crane, Prof. Harry W(olven), University of North Carolina, Chapel Hill, N. C. *Psychology*, *Sociology*. Big Rapids, Mich, Dec. 21, 85. A.B, Michigan, 09, A.M, 10, Ph.D, 13. Asst. sociol, Michigan, 09-13, psychol, 10, instr, 13; chief investigator, Mich. legislative commission on mental defectiveness and insanity, 13-15; instr. and *asst. prof. psychol*, Ohio State, 15-21;

- assoc. prof. and prof, North Carolina, and director bur. mental health and hygiene, N. C. State Board Charities and Pub. Welfare, 21—Field worker, Ark. State Committee on Feeble-mindedness and Eugenics Record Office, 15. Summer, staff psychologist, mental surv, Nassau Co, N. Y., 16. Chairman, N. C. branch, Psychol. Corp, 25— Psychol. Ass. Association and reaction times; feeble-mindedness; psychoses; mental hygiene.
- Crane, Prof. J(ames) W(ellington)**, University of Western Ontario, London, Ont, Can. *Pharmacology*. St. Thomas, Ont, 77. M.B., Toronto, 98. *Prof. pharmacol. med. sch, Western Ontario, 14—, acting dean, 25—* Fel. Col. Physicians. Sensitivity of intestinal tract; vitamins; peristalsis.
- Crane, Jasper E(lliott)**, E. I. du Pont de Nemours and Co, Wilmington, Del. *Chemistry*. Newark, N. J, May 17, 81. A.B., Princeton, 01, M.S., 04; Mass. Inst. Tech, 04. Chemist, supt, manager and director, Arlington Co, 04—17; manager cellulose div, E. I. du Pont de Nemours and Co, 17—20, European manager, 20—26, *pres, du Pont Nat. Ammonia Co, 26—* Sec'y, plastics sect, Int. Cong. Applied Chem, 12. Chem. Soc. (councilor, 18, v. chairman, Del. sect, 19); Soc. Chem. Indust; Chem. Eng. Nitration of cellulose; pyroxylin plastics and solutions; ammonia.
- Crane, Dr. W(alter) R(ichard)**, U. S. Bureau of Mines, Birmingham, Ala. *Mining engineering*. Grafton, Mass, Feb. 5, 70. A.B., Kansas, 95, A.M., 96; Ph.D., Columbia, 01. Asst. prof. mining, Kansas, 98—05; asst. prof. sch. mines, Columbia, 05—08; prof. and dean sch. mines and metal, Pa. State, 08—18; mining engineer, U. S. Bur. Mines, 18—20, chief engineer, War Minerals Relief Commission, 20—21, *supt, South. Mining Exp. Sta, 21—* Min. Eng. Mining methods; mine subsidence; petrodynamics.
- Crane, W(ill) E(dwin)**, 208 13th St, N. E, Washington, D. C. *Engineering, Geology*. Fond du Lac, Wis, May 14, 57. C.E., Iowa, 82, A.M., 85. Asst. and assoc. prof. civil eng, Iowa, 82—86; civil engineer, 86—13; *collector geol, paleont. and conchol. specimens, 81—* Chief inspector materials, Pa. and N. Y. tunnels; Panama Canal; Hell Gate Bridge. Civil Eng; Paleont. Soc. Paleontology; conchology.
- Crathorne, Prof. Arthur R(obert)**, 802 Pennsylvania Ave, Urbana, Ill. *Mathematics*. Scarborough, Eng, Oct. 26, 75. B.S., Illinois, 98; Chicago, 02; Ph.D., Göttingen, 07. Tutor *math*, Maine, 98—00; instr, Wisconsin, 00—04; assoc, *Illinois, 07—15, asst. prof, 15—23, assoc. prof, 23—* Math. statistics committee, Nat. Research Council; Nat. Committee on Math. Requirements. A.A.; Math. Soc; Math. Ass; Statist. Ass; Ill. Acad; Royal Statist. Soc; Math. Verein. Mathematical statistics; theory of probability.
- Cratty, R(obert) I(rvin)**, Ames, Iowa. *Botany*. Butler Co, Pa, Feb. 5, 53. Pub. schools. Teacher, schools, 73—94; curator bot, Iowa Col, 18. Fel. Iowa Acad. (pres, 25). The Iowa sedges; aquatic phenogams of Iowa; Iowa flora.
- Cravath, James R(aley)**, 407 Call Building, San Francisco, Calif. *Electrical engineering*. Grinnell, Iowa, July 11, 72. B.S., Grinnell, 92. West. ed, 'Elec. World,' 00—10; *consulting engineer, 10—* Lecturer, Purdue, Iowa Col, Armour. Elec. Eng; Illum. Eng. Soc. Illumination.
- Crawford, D(avid) F(rancis)**, 5243 Ellsworth Ave, Pittsburgh, Pa. *Mechanical engineering*. Pittsburgh, Dec. 4, 64. Pa. Mil. Acad, 82; D.Eng., Kentucky. Apprentice, Pa. Lines, 85—89, test dept, 89—92, asst. master mechanic, Fort Wayne shop, 92—95, asst. to supt. motive power, 95—99, supt, 99—03, gen. supt, 03—16, gen. manager, lines west of Pittsburgh, 17—18; *v. pres. and gen. manager, Locomotive Stoker Co, 20—* A.A.; Mech. Eng; Elec. Eng; Ry. Master Mech. Ass. (v. pres, pres); Master Car Builders (pres); Soc. Test. Mat; Illum. Eng. Soc; Ry. Eng; West. Pa. Eng. Soc; Soc. des Ing. civile de France. Locomotive and car construction; railway operation; electrification of steam railroads; the electric locomotive.
- Crawford, Pres. D(avid) L(ivingston)**, University of Hawaii, Honolulu, Hawaii. *Entomology*. Hermosillo, Mex, 89. A.B., Pomona, 11; A.M., Stanford, 12. Asst. entom, Cornell, 12—13; hort. expert, Mex. Gulf Coast Citrus Ass, 13—15; asst. prof. bot, Pomona, 14—17; prof. entom, *Hawaii, 17—27, pres, 27—* In charge biol. expeditions to Mexico, 09, 10. Entom. Soc; Ass. Econ. Entom. Taxonomic and economic entomology; phytopathology; pomology; jumping plant lice.
- Crawford, H(enry) G(ordon MacGregor)**, Department of Agriculture, Ottawa, Ont, Can. *Entomology*. Mahone Bay, N. S., March 10, 91. B.S.A., Toronto; M.S., Illinois, fellow, 17—18. Asst. to Provincial entomologist, 15; lecturer entom. and zool, Ont. Agr. Col, 18—20; entomologist, *entom. branch, Can. Dept. Agr, 20—25, chief div. field crop and garden insects, 25—* Summers, field entomologist in charge Dominion Entom. Lab, 16, 17. A.A.; Entom. Soc; Ass. Econ. Entom; Ecol. Soc; Phytopath. Soc; Ont. Entom. Soc; Ottawa Field Nat. Soc. Economic entomology; ecology; insect morphology; field crop pests.
- Crawford, J(ames) C(hamberlain)**, Department of Agriculture, Raleigh, N. C. *Entomology*. Westpoint, Nebr, Aug. 24, 80. Nebraska; M.S., George Washington, 14. Special field agent, bur. entom, U. S. Dept. Agr, 04—08; asst. curator div. insects, U. S. Nat. Museum, 08—19; *asst. entomologist, N. C. Dept. Agr, 23—* Entom. Soc; Wash. Entom. Soc. Hymenoptera, especially parasitic forms; bees and wasps.
- Crawford, Prof. J(ohn) Forsyth**, Beloit College, Beloit, Wis. *Psychology*. Damascus, Syria, Nov. 16, 71. Union, 91—93; A.B., Princeton, 95, A.M., 97; Berlin, 96; McCormick Theol. Sem, 97—00, D.B., 10. Demonstrator exp. psychol, Princeton, 97; pastor, Beaver Dam, Wis, 00—04; *prof. psychol. and pedag, Grand Island, 04—07; Tabor Col, 07—12; philos. and psychol,*

- Beloit*, 12- A.A.; Soc. Nat; Psychol. Ass. The temperature sense; theories of knowledge.
- Crawford, Prof. Morris B(arker)**, Middletown, Conn. **Physics*. Ossining, N. Y., Sept. 26, 52. A.B., Wesleyan, 74, A.M., 77. Tutor math, *Wesleyan*, 74-77, instr. *physics*, 80-81, assoc. prof, 81-84, prof, 84-21, *emer. prof*, 21- A.A.; Physical Soc.
- Crawford, Prof. R(alph) D(ixon)**, 1050 Tenth St, Boulder, Colo. *Geology*. Peotone, Ill., March 7, 73. A.B., Colorado, 05, A.M., 07; Ph.D., Yale, 13. Asst. geol., *Colorado*, 04-07, instr., 07-08, asst. prof., 08-14, *prof. miner. and petrol.*, 14- Field asst., U. S. Geol. Surv., 06; asst., Colo. State Geol. Surv., 07-09, geologist, 09-17, 19-25. A.A.; fel. Geol. Soc; Miner. Soc; Min. Eng. Areal and economic geology; petrology; mineralogy.
- Crawford, Robert M(onroe)**, Blaw-Knox Co, Pittsburgh, Pa. *Chemical engineering*. Altoona, Pa., Aug. 29, 90. B.S., Carnegie Inst. Tech, 13, Ch.E., 18. *Consulting chemical engineer*, 18- Lecturer, Carnegie Inst. Tech; mem. Bituminous Coal Conference, Pittsburgh, 26. Inst. Chem. Eng; Chem. Soc. Recovery of steel plant wastes; recovery of phenols from coke plant wastes and from steel plant fuel tars.
- Crawford, Prof. R(ussell) T(racy)**, 2740 Hille-gass Ave, Berkeley, Calif. *Astronomy*. Davisville, Calif., March 26, 76. B.S., California, 97, fellow, Lick Observatory, 98-01, Ph.D., 01. Asst. astron., California, 97-98; computer, Watson Trustees, 01-02; examiner, U. S. Civil Service Commission, 02-03; instr. *astron.*, *California*, 03-06, asst. prof., 06-10, assoc. prof., 10-19, *prof.*, 19- Major, A.S., 18-19. A.A.; Astron. Soc; Pacific Astron. Soc. (sec'y, 07-09, pres, 14); hon. mem. Soc. Astron. de Mex; Astron. Gesell. Orbits of new satellites; comet orbits; perturbations of minor planets; celestial mechanics.
- Crawford, Prof. S(tanton) O(hapman)**, Lynchburg College, Lynchburg, Va. *Zoology*. Steubenville, Ohio, Oct. 30, 97. A.B., Bethany (W. Va.), 18; Baldwin fellow, Cincinnati, 20-21, A.M., 21; Ph.D., Pittsburgh, 26. Prof. biol., Lynchburg, 21-24; instr. zool., Pittsburgh, 24-26; *prof. biol. and dean*, *Lynchburg*, 26- Summer, Trop. Research Sta, Kartabo, British Guiana, 24. A.A.; assoc. Soc. Zool; Pa. Acad. Adaptations to nocturnal life; histology of the retina of amphibians and reptiles; field keys for British Guiana amphibians and reptiles.
- Crawley, Prof. Edwin S(chofield)**, University of Pennsylvania, Philadelphia, Pa. *Mathematics*. Philadelphia, July 31, 62. B.S., Pennsylvania, 82, Ph.D., 92. Instr. civil eng, *Pennsylvania*, 82-84, *math*, 84-89, asst. prof., 89-99, *Thomas A. Scott prof*, 99- A.A. (sec'y, A, 02); Math. Soc; Math. Ass; Ass. Teachers Math. Middle States and Md. (pres). Geometry of curves.
- Creager, W(illiam) P(itcher)**, Trust Company Building, Watertown, N. Y. *Engineering*. Baltimore, Md., Sept. 21, 78. C.E., Rensselaer, 01. Provincial supervisor, P. I. Govt, 01-03; asst. engineer, N. Y. State Barge Canal, Albany, 04-06; engineer, hydraulic structures, J. G. White Eng. Corp., N. Y., 06-22; *v. pres. and chief engineer*, *Power Corp. of N. Y.*, 22- Assoc. ed, 'Am. Civil Engineers' Handbook'; 'Structural Engineers' Handbook Library.' A.A.; Civil Eng; Soc. Test. Mat; Nat. Elec. Light Ass; Empire State Gas and Elec. Ass. Hydraulic engineering; masonry dams.
- Creaser, Dr. Charles W(illiam)**, College of the City of Detroit, Detroit, Mich. *Zoology*. Britton, S. Dak., Oct. 31, 97. A.B., Michigan, 20, M.S., 21, Ph.D., 24. Instr. *zool.*, Kansas, 23-24; *asst. prof.*, *Col. City of Detroit*, 24- Summers, instr., biol. sta., Michigan, 25, 26; Mich. State Dept. Conservation, 21-25. A.A.; Soc. Zool; Soc. Ichthyol. and Herp. The life history, ecology and growth of fishes; taxonomy of lampreys.
- Creel, Prof. Cecil W(illis)**, University of Nevada, Reno, Nev. *Entomology*. Angola, Ind., Oct. 22, 89. Kansas Col., 07-09; B.S., Nevada, 11. Agent and sci. asst., bur. entom., U. S. Dept. Agr., 11-19; *director and prof. agr. exten.*, *Nevada*, 21- A.A.; Entom. Soc; Ass. Econ. Entom. The clover flower midge in the Pacific Northwest.
- Crehore, Dr. Albert C(ushing)**, 15924 Euclid Ave, Cleveland, Ohio. **Engineering*. Cleveland, June 8, 68. A.B., Yale, 90; Hopkins, 91; Ph.D., Cornell, 93. Instr. *physics*, Cornell, 93-94; asst. prof., Dartmouth, 94-98; *research physicist*, *Nela Research Lab*, 98- A.A.; Physical Soc; Elec. Eng. Application of the sine wave to telegraphs as applied to submarine cables and land lines; the invention of a printing telegraph; alternating currents; the polarizing photo-chronograph; multiple telegraphs; the atom; matter and energy.
- Creighton, Prof. Elmer E. F(armer)**, 1560 Randolph Road, Schenectady, N. Y. *Electrical engineering*. B.S., Stanford, 95, E.E., 97; Paris, 98-00. Asst. engineer, Pacific Postal Tel. Co, 95; instr. elec. eng, Stanford, 95-98, 00-01; engineer, exp. dept, Stanley Elec. Mfg. Co, 01-04; *in charge lightning arrester development*, *Gen. Elec. Co*, 04-; active asst. prof. *elec. eng*, *Union*, 04-06, *consulting prof*, 06- A.A.; Elec. Eng. (chairman, meetings and papers committee, 21-23); Electrochem. Soc; Eng. Educ; Nat. Elec. Light Ass; Physical Soc; Ceramic Soc; Soc. française des Elec. Oscillographs; wireless telegraphy; annealing of sheet iron for magnetic uses; lightning arresters for electrical circuits; aluminum cells; fixation of nitrogen; electrical surges in electrical circuits.
- Creighton, Prof. H(enry) Jermain (Maude)**, Swarthmore, Pa. *Chemistry*. Dartmouth, N. S. Can., March 2, 86. B.A., Dalhousie, 06, M.A., 07; 1851 Exhib. scholar, Birmingham, 08-10, M.S., 09; Sc.D., Polytech. Sch., Zurich, 11; Heidelberg, 09-10. Demonstrator chem, Dalhousie, 07-08, lecturer physical chem, 11-12; instr. *chem.*, *Swarthmore*, 12-13, asst. prof., 13-23, *assoc. prof*, 23- Longstreth medal, 18. A.A.; Chem. Soc; Electrochem. Soc; Franklin Inst. (chairman, committee science and arts, 18); N. S. Inst. (councilor and ed, 'Trans,' 11); Can. Inst. Chem; Maritime Chemists Ass. (v. pres,

20); London Chem. Soc. Physical and electrochemistry.

Creighton, Prof. William Henry Paul, U.S.N. (retired), 1445 Henry Clay Ave, New Orleans, La. *Mechanical engineering*. Cincinnati, Ohio, June 29, 59. Cincinnati, 76-77; U. S. Naval Acad, 78-82. Asst. engineer, U.S.N., 84-92, retired, 92; prof. mech. eng, Purdue, 87-91; chief engineer, U. S. Coast Surv. Steamer 'Blake,' 91-92; prof. mech. and sugar eng, Tulane, 95- Inspector vessels and govt. material, Spanish-Am. War; German-Am. War. Naval Eng; Eng. Educ; Franklin Inst. Steam engine and other heat motors; evaporation of sugar juices.

Crenshaw, Prof. James Llewellyn, Bryn Mawr College, Bryn Mawr, Pa. *Physical chemistry*. Dermott, Ark, July 10, 87. A.B, Centre, 07, A.M, 08; Ph.D, Princeton, 11. Asst. chemist, geophys. lab, Carnegie Institution, 10-15; assoc. physical chem, Bryn Mawr, 15-18, assoc. prof, 18-25, prof, 25- Capt, C.W.S, 18. Chem. Soc; Franklin Inst; Chem. Gesell. Electrochemistry; mineral chemistry.

Cresse, Prof. George Hoffman, University of Arizona, Tucson, Ariz. *Mathematics*. Swainston, N. J, Dec. 21, 71. A.B, Princeton, 06, A.M, 07; A.M, Harvard, 11; Ph.D, Chicago, 18. Instr. math, Amherst, 10-11; asst. prof. in charge dept, Middlebury, 11-15; assoc. prof, Arizona, 15-16; instr, Michigan, 17-19; U. S. Naval Acad, 19-21; assoc. prof, Arizona, 21-24, prof, 24- Math. Soc; Math. Ass; Math. Gesell. Acceleration of a particle; class number of binary quadratic forms; arithmetical deduction of Kronecker's class number relations.

Cressey, Dr. George B(abcock), Shanghai College, Shanghai, China. *Geology*. Tiffin, Ohio, Dec. 15, 96. B.S, Denison, 19; Yale, 21-22; M.S, Chicago, 21, fellow, 22-23, Ph.D, 23. Asst, Chicago, 22-23; prof. geol, Shanghai, 23- Geologie reconnaissance, Northwest China, Tibet and Mongolia, 24, 26. A.A; fel. Geol. Soc. China. Indiana sand dunes and shore lines of Lake Michigan; postglacial climatic changes in Eastern Asia; natural geographic regions of China.

Cresson, Ezra Townsend, Jr, Swarthmore, Pa. *Entomology*. Philadelphia, Pa, Dec. 18, 76. Common schools. Assoc. ed, 'Entom. News,' 10-; asst. curator, Phila. Acad. Entom. Soc; Phila. Acad. Acalyprate Diptera.

Cretcher, Dr. Leonard Harrison, Mellon Institute, Pittsburgh, Pa. *Chemistry*. Degraff, Ohio, July 25, 88. A.B, Michigan, 12; Ph.D, Yale, 16. Teaching asst, Michigan, 11-13; instr. chem, Tennessee, 13-14; fellow org. chem, Rockefeller Inst, 16-17, asst, 17-18; asst. chief chemist, Nat. Aniline and Chem. Co, Brooklyn, 19-20, research chemist, 20-22; senior fellow pure research, Mellon Inst, 22-26, director dept, 26- Capt, C.W.S, 18-19. A.A; Chem. Soc. Pyrimidine aldehydes; oxidation of tertiary hydro-carbons; glycol ethers and esters; organic boron compounds; barbituric acids; chloro ethers; alginic acid; sugar acids; equilibria in binary liquid systems.

Crew, Prof. Henry, Northwestern University, Evanston, Ill. **Physics*. Richmond, Ohio, June 4, 59. A.B, Princeton, 82, fellow, 82-84; fellow, Hopkins, 84-87, Ph.D, 87; hon. Sc.D, Michigan, 14, Princeton, 22. Asst. physics, Hopkins, 87-88; instr, Haverford, 88-91; astronomer, Lick Observatory, 91-92; prof. physics, Northwestern, 92- Assoc. ed, 'Astrophys. Jour.' Delegate, Am. Physical Soc, Cong. of Physicists, Paris, 00. Nat. Acad; A.A; Physical Soc. (v. pres, 06, pres, 09); Optical Soc; Astron. Soc; Am. Acad; Ill. Acad. (v. pres, 08, pres, 13); Chicago Acad. (v. pres, 16); Padua Acad. Spectroscopy; arc and spark spectra of metals.

Crew, Dr. William Henry, Naval Research Laboratory, Bellevue, Anacostia, D. C. *Physics*. Evanston, Ill, Aug. 24, 99. Grad, U. S. Naval Acad, 22; A.M, Hopkins, 24, Ph.D, 26. Asst. physicist, Naval Research Lab, 25- A.A; Physical Soc. The photo-electric effect.

Cribbs, Prof. James Elias, 986 Washington Ave, Springfield, Mo. *Botany*. Mercer, Pa, March 25, 91. A.B, Grove City, 14; M.S, Chicago, 16, fellow, 17-18, Ph.D, 18. Instr. in charge dept. biol, Grove City, 14-18; prof. bot, Emporia, 19-20; Drury, 20- A.A; Bot. Soc; Ecol. Soc. Plant associations; transpiration; Marchantia polymorpha; stelar anatomy of the seedling of Todea barbara.

Cribbs, William Johnston, College of Industrial Arts, Denton, Texas. *Botany*. Mercer, Pa, Feb. 15, 97. B.S, Grove City Col, 20; M.S, Chicago, 23. Instr. bot, Arkansas, 23; asst. prof, Col. Indust. Arts, 24- A.A. Plant ecology.

Crickmay, Dr. Clinton Hayter, 235 17th St, E, North Vancouver, B. C, Can. *Paleontology*. Vancouver, April 6, 99. B.A, British Columbia, 22; Ph.D, Stanford, 25. Morphology of the ammonoids; Jurassic and Cretaceous paleontology and stratigraphy.

Criddle, Norman, Treebank, Man, Can. *Ornithology*, *Entomology*, *Mammalogy*. Addlestone, Surrey, Eng, May 14, 75. *Entomologist for Man*, Dominion Dept. Agr. A.A; Ornith. Union; Entom. Soc; Ass. Econ. Entom; Soc. Mammal; Ont. Entom. Soc; Ottawa Field Nat. Club. Insects injurious to growing grain.

Crider, Prof. Franklin Jacob, Boyce Thompson Southwestern Arboretum, Superior, Ariz. *Horticulture*. St. Matthews, S. C, Dec. 1, 83. B.S, 08; M.S, 10. Instr. hort, Clemson Col, 08-09, assoc. prof, 13-18; asst. prof, N. C. State, 11-13; prof. and horticulturist, Ariz. Exp. Sta, 18-24; director, Boyce Thompson Southwest. Arboretum, 24- A.A. Plant physiology; economic crops.

Crider, Prof. Joseph Otterbein, University, Miss. *Physiology*. Harrisonburg, Va, Aug. 29, 81. M.D, Virginia, 12. Instr. physiol. and pharmacol, Virginia, 12-13; prof. physiol, Mississippi, 13-, dean sch. med. Am. Med. Ass. Physiology of the nervous system.

Crile, Dr. George W, 2620 Derbyshire Road, Cleveland, Ohio. **Surgery*. Chile, Ohio, Nov. 11, 64. A.B, Ohio Northern, 84, A.M, 88; M.D,

- Wooster, 87, LL.D., 16, Vienna, 93, London, 95, Paris, 97; hon. Ch.M., Dublin, 25. Lecturer and demonstrator histol. med. dept., Wooster, 89-90, prof. physiol., 90-93, principles and practice of surg., 93-00; clin. surg., Western Reserve, 00-11, surg., 11-24; one of founders and director, *Cleveland Clinic*, 21-, *Cleveland Clinic Hosp.*, 24- Nat. Research Council. Lieut., M.R.C., Porto Rico, 98; major and director, Lakeside Base Hosp., U.S.A., B.E.F., 17, lieut. col. and col., 18, brig. gen., 21, senior consultant surg. research, 18-19. Cartwright prize, Columbia, 97-03; Senn prize, Am. Med. Ass., 98, gold medal, 14; Alvarenga prize, Col. Physicians, Phila., 01; Nat. Inst. Soc. Sci. medal, 17; D.S. medal, 19; Trimble lecture medal, 21; Am. medal for service to humanity, 24; Lannelongue prize, Soc. Int. de Chirurg. de Paris, 25. Hon. mem. mil. div., Third Class of Companion of Bath, 19. Chevalier, Légion d'honneur, 24. A.A.; fel. Surg. Ass. (pres, 22); fel. Col. Surg. (pres, 16); Soc. Clin. Surg.; fel. Am. Med. Ass.; fel. Ass. Anat.; fel. Physiol. Soc.; Soc. Exp. Biol.; Ass. Path. and Bact.; fel. Ass. Obstet. and Gynec.; Inst. Social Sci.; hon. fel. Royal Soc. Med., London; hon. fel. Royal Col. Surg., Ireland; Royal Acad. Med., Ireland; cor. mem. Soc. Medico-Chirurg., Edinburgh; hon. mem. Acad. Royale de Med. de Belg.; Bruxelles Soc. Int. de Chirurg.; hon. mem. Peruvian Med. Soc. Surgical shock; surgery of the respiratory system; blood pressure in surgery; hemorrhage and transfusion; anemia and resuscitation; anoci-association; origin and nature of the emotions; thyroid gland; physical interpretation of shock, exhaustion and restoration; the kinetic drive; bipolar theory of living processes; military surgery.
- Crist, Prof. John W (illiam)**, 503 Park Lane, East Lansing, Mich. *Horticulture*. Scotts Station, Mo., April 18, 87. A.B., Nebraska, 18, A.M., 19, Ph.D., 23. Asst. instr. bot., Nebraska, 19-23; research asst., Carnegie Institution, 19-23; asst. prof. hort., Mich. State Col., 23-26, assoc. prof., 26- A.A.; Bot. Soc.; Soc. Hort. Sci. Plant ecology and physiology; relation of hardpan to root penetration in Great Plains; direct measurement of water loss from vegetation; absorption of nutrients from sub-soil; roots of crop plants; nutrients and the colloidal properties of vegetable crops; influence of reaction of culture medium on growth of lettuce.
- Crittenden, E(ugene) C(asson)**, Bureau of Standards, Washington, D. C. **Photometry*. Oswayo, Pa., Dec. 19, 80. A.B., Cornell, 05. Instr. physics, Cornell, 05-09; asst. physicist, assoc. physicist and physicist, *Bur. Standards*, 09-, chief elec. div., 21- Int. Commission on Illumination, 24. A.A.; Physical Soc.; Optical Soc.; Elec. Eng.; Illum. Eng. Soc. (director, 19, pres, 25); Acad. Polit. Sci.; Wash. Soc. Eng.; Wash. Philos. Soc. (pres, 22); Wash. Acad. (v. pres, 22); British Illum. Eng. Soc. (v. pres, 25). Illumination; photometric standards and methods.
- Crocker, Ernest C(harlton)**, 92 Creeley Road, Belmont, Mass. *Chemistry*. Boston, Mass., June 11, 88. B.S., Mass. Inst. Tech., 14. Plant chemist, Columbia Plate Glass Co., Pa., 14, 15; George J. Kelly Co., Mass., 15-19; *research chemist* applied chem., Mass. Inst. Tech., 19-22; Dewey and Almy Chem. Co., Mass., 22; *Arthur D. Little, Inc.*, 22- C.W.S., U.S.A., 18. Chem. Soc. Depolarization of Leclanché cells; brasses and bronzes; lignin and aldehyde tests; constitution of benzene; flameproofing with selenium; pyroxylin lacquers.
- Crocker, Herbert S(amuel)**, Tramway Building, Denver, Colo. *Engineering*. Haverhill, N. H., June 20, 67. B.S.(C.E.), Michigan, 89, hon. M.E., 19. Draftsman, Chicago, Milwaukee and St. Paul Ry. Co., 89-91; asst. engineer, North. Pacific Ry. Co., 91-95; bridge engineer, Toronto, Hamilton and Buffalo Ry. Co., 95-96; asst. engineer, Lassig Bridge and Iron Co., Ill., 96; Board Pub. Works, Denver, 97-01; asst. manager erection, west. div., Am. Bridge Co., 01-06; bridge engineer, Denver City Tramway Co., 06-07; consulting engineer, Colo., 07-17; acting sec'y, Soc. Civil Eng., 20-21; *consulting engineer, Colo.*, 21- Major, C.Eng., 17-18, lieut. col., Q.M.C., 18-19. Civil Eng. (director, 15-17, v. pres, 19, acting sec'y, 20, past pres, Colo. sect.); West. Soc. Eng.; Colo. Soc. Eng. Bridge engineering.
- Crocker, Dr. W(illiam)**, Boyce Thompson Institute, Yonkers, N. Y. **Botany*. Medina, Ohio, Jan. 27, 76. A.B., Illinois, 02, fellow, 02-03, A.M., 03; fellow, Chicago, 04-06, Ph.D., 06. Instr. biol., North. Ill. State Teachers Col., 03-04; assoc. plant physiol., Chicago, 07-09, instr., 09-11, asst. prof. and assoc. prof., 11-21; *director, Boyce Thompson Inst.*, 21- Nat. Research Council; trustee, Trop. Plant Research Foundation. A.A.; Soc. Nat.; Bot. Soc. (pres, 24); Soc. Agron.; Chem. Soc. Physiology of germination; effect of toxic and stimulative materials on plants; tropisms.
- Crockett, Prof. Cha(rls) W(inthrop)**, Rensselaer Polytechnic Institute, Troy, N. Y. *Mathematics, Astronomy*. Macon, Ga., Oct. 6, 62. A.B., Mercer, 79, hon. A.M., 86, LL.D., 13; C.E., Rensselaer, 84. Asst. prof. math. and astron., *Rensselaer*, 84-93, *prof.*, 93- A.A.; Astron. Soc.; Math. Soc.; Math. Ass.; Eng. Educ. Slide rule; earthwork; engineering instruments; automobile engineering.
- Crockett, Prof. W(illiam) G(oggin)**, Medical College of Virginia, Richmond, Va. *Chemistry*. Tazewell, Va., Jan. 9, 88. Ph.C., Columbia, 13; M.S., N. Y. Univ., 17. Chemist, Dept. Health, New York, 14-16; asst. chem., N. Y. Univ., 16-17; chemist, E. R. Squibb and Sons and E. I. du Pont de Nemours and Co., 17-18; *prof. pharmacy*, Baylor, 19-20; *Med. Col. of Va.*, 20- C.W.S., U.S.A., 18-19. A.A.; Chem. Soc. (sec'y, Va. sect, 22); Pharmaceut. Ass. Emulsification; determination of nitrogen in nitronaphthalenes; purified siliceous earth.
- Croft, Terrell (Williams)**, Calle 61, Num. 476 Merida, Yucatan, Mex. *Electrical and mechanical engineering*. Denver, Colo., Nov. 14, 80. Grad. Pratt Inst., 03. *Directing engineer and owner, Terrell Croft Eng. Co.* Elec. Eng.; Mech. Eng.; Illum. Eng. Soc.; Heat. and Vent. Eng.; Soc. Test. Mat. Electricity; mechanics.

- Croll, Prof. H(ilda) M(arion)**, University of Illinois, Urbana, Ill. *Physiological chemistry*. Lebanon, Pa, Aug. 31, 95. A.B., Illinois, 16, A.M., 17; Ph.D., Yale, 25. Woman's Med. Col., Chicago, 17-20; Post-Grad. Med. Sch. and Hosp., 20-22; Yale, 23-25; *asst. prof. home econ.*, Illinois, 25- Soc. Exp. Biol.; Home Econ. Ass.; Dietetic Ass. Nutrition; vitamin B in cereal grains; carbohydrate metabolism and diabetic diets; anemia; intestinal putrefaction.
- Cromwell, Prof. H(obart) W(illiam)**, University of Wisconsin, Madison, Wis. *Bacteriology, Immunology*. Clay Co, Ind, Dec. 31, 95. A.B., Ind. State Nor. Sch., 17; fellow, Hopkins, 21-22, Sc.D., 22. *Instr. med. bacter.*, Wisconsin, 22-25, *asst. prof.*, 25- Soc. Bact. Hemolysins; precipitins.
- Cromwell, Richard O(liver)**, Lamson Bros. and Co, 166 W. Jackson Boulevard, Chicago, Ill. *Plant pathology*. Weeping Water, Nebr., 90. B.S., Nebraska, Ph.D., 18; M.S., N. C. Col., 16. Research worker, Forest Exp. Sta., Ephraim, Utah, 13; *asst. plant pathologist*, N. C. Exp. Sta., 13-17; office of cotton, truck and forage crop investigations, bur. plant indust., U. S. Dept. Agr., 18-19, office cereal investigations, 19-20; *director bur. crop reporting and statistics*, Lamson Bros. and Co, 20- Bot. and forestry exped. to Ozark and Rocky Mts. A.A.; Bot. Soc.; Phytopath. Soc.; Nebr. Acad. Plant breeding and diseases.
- Croneis, C(arey) G(ardiner)**, 1 Craigie St., Cambridge, Mass. *Geology, Paleontology*. Bucyrus, Ohio, March 14, 01. B.S., Denison, 22; M.S., Kansas, 23. *Asst. instr.*, Kansas, 22-23; *instr.*, Arkansas, 23-25; *asst. geol.*, Harvard, 25-27, *instr.*, 27- Lecturer, Wellesley, 27-; summer, Arkansas, 26; *asst. geologist*, Kans. Geol. Surv., 23; *geologist*, Ark. Geol. Surv., 27. Paleont. Soc. Oil and gas resources of Kansas; structure and classification of Cephalopods; carboniferous faunas of Arkansas and Oklahoma; geology of southwest Virginia; carbon ratios.
- Crook, Prof. A(lja) R(obinson)**, State Museum of Natural History, Springfield, Ill. *Mineralogy, Geology*. Circleville, Ohio, June 17, 64. A.B., Ohio Wesleyan, 87; Ph.D., Munich, 92. Supt., pub. schools, Ohio, 87-89; *prof. nat. hist.*, Wheaton, 92-93; *miner. and econ. geol.*, Northwestern, 93-06; *curator*, Ill. State Museum Nat. Hist., 06-17; *chief state museum div.*, Ill., 17- A.A.; Geol. Soc.; Ass. Mus.; Ill. Acad. (sec'y, 07-10, 15, pres, 14, librarian, 15-); Geol. Gesell. Cretaceous fossil fish; mineralogical and economic geology; origin of Monk's Mound; mineral collection; museum administration.
- Crook, Louis H(enry)**, 1325 Jefferson St., N. W., Washington, D. C. *Physics*. Havre de Grace, Md, 87. B.S., Catholic Univ., 09. Machinist, U. S. Navy Yard, 06-09; *instr. theoret. and applied mech.*, Catholic Univ., 09-20, *assoc. prof.*, 21- *Asst.*, aeronaut. lab, U.S.N., 16-24. Physical Soc.; Mech. Eng.; Soc. Test. Mat.; Wash. Philos. Soc. Aeronautics; aerodynamics; wind tunnels.
- Crook, Welton Joseph**, P. O. Box 985, Stanford University, Calif. *Metallurgy*. Melbourne, Australia, Feb. 1, 86. A.B., Stanford, 11, E.M., 19. Chemist and assayer, Dept. Mines, Victoria Govt, 08; *asst. instr. metal.*, Stanford, 10; *chief chemist*, Pacific Coast Steel Co, 11-13; *prof. metal.*, S. Dak. Sch. Mines, 13-17; *metal. engineer*, Pacific Coast Steel Co, 17-20; *prof. metal.*, Stanford, 20- Research chemist, Panama-Pacific Expos, 15; *consulting metal. engineer*, Pacific Coast Steel Co, 23-; D and B Pump and Supply Co, 26-; Elliott Core Drilling. Min. and Metal. Soc.; Min. Eng.; Soc. Steel Treat. (v. chairman, Golden Gate chap, 26-). Metallurgical analytical methods; metallography; electrolysis; silver cupellation; metallic magnesium; hot dip galvanizing process; basic steel; grain size, physical properties and heat treatment of low carbon steel; manufacture of oil well equipment; Pacific Coast steel industry.
- Crooker, Dr. Sylvan J(ay)**, Whitlock Co, Hartford, Conn. *Physics*. Fairmont, Minn, July 3, 93. B.S., Carleton, 14; M.S., Illinois, 15, fellow, 15-17, Ph.D., 17. *Asst. physicist*, Bur. Standards, 17-18; *radio engineer*, Sig.C. Research Lab., 19-21, *physicist*, 21-22; U. S. Bur. Mines, 22- Cable investigator, Alaska, 19. Lieut., Sig.C., 18-19. A.A.; Physical Soc.; Wash. Philos. Soc. Telephone, radio and cable communication; high potential phenomena; corona; sound and ballistics; helium production; cryogenic research; heat transmission; pressure vessels.
- Crooks, Harold F(ordyce)**, 4 Rue Herran, Paris, France. *Geology*. Mankato, Minn, June 6, 89. B.S., 13, A.B., 15, M.S., 16; fellow, Illinois, 16-18. *Asst. prof. geol. and miner.*, Colo. Sch. Mines, 19-20; *geologist*, Standard Oil Co. of N. J., 20- Lecturer, A.E.F. Univ, France, 19. Chevalier, Légion d'honneur; Officier de l'Instruction Pub; commandeur, Order Nichan Iftikar. Ass. Petrol. Geol.; fel. Am. Geog. Soc.; Petrol. Inst.; Soc. géol. de France. Economic geology; petroleum.
- Crosby, Prof. Cyrus R(ichard)**, Cornell University, Ithaca, N. Y. *Entomology*. Penn Yan, N. Y., Jan. 9, 79. A.B., Cornell, 05. *Asst. entomologist*, Missouri, 04-06; *exp. entomologist*, Cornell Exp. Sta., 06-09, *asst. prof. entom. investigations*, 09-13, *exten. prof.*, 13- Entom. Soc. (sec'y-treas, 10); Soc. entom. de France. Economic and systematic entomology; Erigonea; Araneae; Ophiliones.
- Crosby, Irving B(allard)**, 9 Park Lane, Jamaica Plain, Mass. *Geology*. Boston, Mass, Jan. 4, 91. B.S., Mass. Inst. Tech., 17; A.M., Harvard, 20. *Consulting geologist*, 20- Geologist, Eng. Econ. Foundation. A.A.; Am. Geog. Soc.; Seismol. Soc.; Boston Soc. Civil Eng. (sub-soil committee); Boston Soc. Nat. Hist. Physiography; engineering geology.
- Crosby, Dr. W(alter) W(ilson)**, Maryland Club, Baltimore, Md. *Highway engineering*. Brooklyn, N. Y., Sept. 2, 72. B.C.E., Maine, 93, C.E., 96, D.E., 26; Sc.D., Maryland, 12. *Asst. engineer*, Portland and Rumford Falls Ry, 93-97; *res. engineer*, Mass. Highway Commission, 97-01; roads

- engineer, Baltimore Co, Md, 01-04; gen. supt. to park commission, Baltimore, 04-05; chief engineer, Md. Roads Commission, 05-12; Md. Geol. and Econ. Surv., 05-18; Nat. Park Service, 21-24; Pa. Highway Dept., 24-26; *consulting engineer*. Non-res. lecturer, Columbia, 11-15; instr. in charge extramural course, N. Y. Univ., 14-15. U.S.A., 15-20. A.A.; Civil Eng; Eng. Educ; Road Builders; Royal Soc. Arts; Int. Ass. Road Congresses.
- Crosland, Prof. Harold Randolph**, University of Oregon, Eugene, Oregon. *Psychology*. Blackville, S. C, Feb. 19, 93. A.B., South Carolina, 13; fellow, Clark, 13-16, A.M., 14, Ph.D., 16. Instr. *psychol.*, Minnesota, 16-17; asst. prof., Arkansas, 17-18; Pittsburgh, 18-20; *Oregon*, 20-25, *assoc. prof.*, 25- A.A.; Psychol. Ass; West. Psychol. Ass; S. Soc. Philos. and Psychol. Experimental psychology; forgetting; proof-readers' illusions; color-blindness; transfer of training; legibility of printed characters; anosmia; association tests of guilty knowledge; Müller-Lyer illusion.
- Cross, Dr. (Charles) Whitman**, 101 E. Kirke St, Chevy Chase, Md. **Geology*. Amherst, Mass, Sept. 1, 54. B.S., Amherst, 75, 76, Sc.D., 25; Göttingen, 77; Ph.D., Leipzig, 80. Asst. geologist, U. S. Geol. Surv., 80-88, geologist, 88-25, chief sect. petrol., 03-07. Nat. Research Council, 18-22, treas., 18-19, v. chairman div. geol. and geog., 18, chairman, 19. Nat. Acad. (treas., 11-19); Geol. Soc. (pres, 18); Philos. Soc.; Wash. Acad.; Wash. Geol. Soc. (pres, 99); hon. mem. Colo. Sci. Soc.; cor. mem. Phila. Acad.; for. assoc. London Geol. Soc. Petrology; mineralogy; systematic petrography; geology of various districts of Colorado.
- Cross, Prof. Hardy**, University of Illinois, Urbana, Ill. *Civil engineering*. Va, Feb. 10, 85. A.B., Hampden-Sidney, 02, B.S., 03; B.S., Mass. Inst. Tech., 08; M.C.E., Harvard, 11. Asst. prof. civil eng, Brown, 11-18; gen. practice, 08-10, 18-22; *prof. structural eng, Illinois*, 22- Lecturer, R. I. Sch. Design, 15. Civil Eng; Eng. Educ; Concrete Inst. Structural and hydraulic engineering.
- Cross, Dr. Roy**, 700 Baltimore Ave, Kansas City, Mo. *Chemical engineering*. Ellis, Kans, Jan. 13, 84. A.B., Kansas, 05, M.D., 08. Teaching fellow, Kansas, 05-06, teacher chem, sch. med., 08-10; *manager and technical director, Kansas City Testing Lab*, 08- V. pres. and consulting chemist, Gasoline Products Co, 22-26. A.A.; Chem. Eng; Chem. Soc; Soc. Test. Mat; Soc. Munic. Improv; Ass. Refrig. Eng; Kansas City Eng. Club. Petroleum hydrocarbons; thermal and catalytic decomposition and synthesis; detonation upon explosion of mixtures; general properties and refining; germicides; cements; water; sewage; fuels.
- Crossen, Dr. H(arry) S(turgeon)**, 909 University Club Building, St. Louis, Mo. *Gynecology*. Iowa, Feb. 2, 69. M.D., Washington (St. Louis), 92. Junior intern, senior intern and asst. supt., St. Louis City Hosp, 92-95; supt. and surgeon in charge, St. Louis Female Hosp, 95-99; *practising physician*, 99-; instr. and *prof. clin. gynec. sch. med, Washington (St. Louis)*, 01- Capt. and major, M.C., 17-19. Gynecologist in chief, Barnes Hosp. and univ. dispensary, Washington (St. Louis); gynecologist, St. Luke's Hosp, Jewish, St. John's and St. Louis Maternity Hospitals. Chairman gynec. staff, munic. hospitals, St. Louis. Gynec. Soc; Obstet. Gynec. and Abdom. Surg; Am. Med. Ass; St. Louis Gynec. Soc. Diseases of women; operative gynecology; pelvic and abdominal surgery.
- Crossley, Prof. M(oses) L(everock)**, Calco Chemical Co, Bound Brook, N. J. *Chemistry*. Saba Island, D. W. I., July 3, 84. Ph.B., Brown, 09, M.S., 10, Ph.D., 11. Instr. chem, Brown, 09-11; assoc. prof., William Jewell, 11-13; lecturer org. chem, Wesleyan, 13-14, assoc. prof. chem. and acting head dept., 14-18; *chief chemist, Calco Chem. Co*, 18- Consulting chemist, Middlesex Hosp, 15-17. A.A.; Chem. Soc. (pres, Conn. Valley sect, 15-17); Inst. Chem. (pres, 24-); Soc. Chem. Indust. Amidoanthraquinones and anthraquinone sulphonic acids; dye industry; nitro-cyclic compounds; phosphorus as index of nerve metabolism; chemical physiology of human hair; valency; color and constitution.
- Crossman, S(amuel) S(utton)**, 964 Main St, Melrose Highlands, Mass. *Entomology*. Needham, Mass, May 30, 87. B.S., Boston, 09, Mass. Col., 09, 11-12. Bur. entom., U. S. Dept. Agr., 09-11; Insular Board Agr, P. R., 12-14; *entomologist, bur. entom., U. S. Dept. Agr*, 14- A.A.; Entom. Soc; Ass. Econ. Entom; Cambridge Entom. Club; Soc. entom. de France. Biological control of insects; gipsy and brown-tailed moth.
- Crothers, Dean H(arold) M(arion)**, South Dakota State College, Brookings, S. Dak. *Electrical engineering*. S. Dak, Dec. 9, 87. B.S., S. Dak. Col., 10; E.E., Wisconsin, 13, Ph.D., 20. Instr. *elec. eng*, Wisconsin, 13-20, asst. prof., 20-23; *prof, S. Dak. Col*, 23-, *dean dept. eng*, 25- Elec. Eng; Eng. Educ; assoc. Radio Eng. Potential distribution over strings of suspension insulators; testing of instrument transformers.
- Crouch, Calvin H(enry)**, E. L. Phillips and Co, 50 Church St, New York, N. Y. *Mechanical engineering*. Oswego, N. Y., April 25, 70. M.E., Cornell, 92. Machinist, engine and locomotive shops, Oswego, N. Y., 92-94; erecting engineer, Deane Steam Pump Co, Holyoke, Mass, 94-97; instr. machine shop, Williamson Trade Sch, 97-00; traveling engineer, Europe, Baldwin Locomotive Works, Pa, 00-01; prof. mech. eng. and dean col. mech. and elec. eng, North Dakota, 01-19; prof. mech. eng. and dean col. tech, New Hampshire, 19-25; *mech. engineer, E. L. Phillips and Co*, 26- Past chairman, Naval Consulting Board, N. Dak. Mech. Eng; Eng. Educ. (past councilor). North Dakota lignite.
- Crouse, Prof. C(harles) S(tevens)**, 137 Waller Ave, Lexington, Ky. *Metallurgy*. Red Wing, Minn, May 28, 88. E.M., Minnesota, 11; Carnegie Inst. Tech., 18. Asst. state mining engineer, Minn, 11-14; engineer, Cananea Consoli-

dated Copper Co, Mex, 14; Minneapolis, 14-15; mining engineer, Ray Consolidated Copper Co, Ariz, 15-18; *prof. metal, Kentucky*, 19-, *head dept*, 27- Am. Min. Cong. (gen. tax committee). Metallurgist, ordnance dept, U.S.A., 18-19. Ky. Min. Inst; Ky. Acad. Heat treatment of steel; oil shales of Kentucky; industrial development of the mineral resources of Kentucky.

Crow, Prof. H(ollie) Ernest, 620 Hiram St, Wichita, Kans. *Zoology*. Bourbon, Mo, March 20, 84. A.B, Friends, 09; B.S, Haverford, 10; A.M, Kansas, 12. *Prof. biol*, Penn (Iowa), 10-11; Ursinus, 12-18; *Friends*, 18- Asst. prof, Medico-Chirurg. Col. Phila, 12-16; instr, Pennsylvania, 16-18. A.A; Genetic Ass; Eugenics Research Ass. Genetics; cytology; morphology of Trematoda.

Crowder, Dr. T(homas) R(eid), 79 E. Adams St, Chicago, Ill. *Medicine*. Sullivan, Ind, Feb. 6, 72. Ph.B, De Pauw, 94; M.D, Rush Med. Col, 97, fellow, 00; Vienna, 02-03. Intern, Cook Co. Hosp, 97-99; instr. med, Rush Med. Col, 01-05; *med. director*, Pullman Co, 05- A.A; Am. Med. Ass; Pub. Health Ass. (chairman, sect. indust. hygiene, 25); Tuber. Ass; Ass. Indust. Physicians and Surg. (past v. pres, board directors, 15-); Chicago Inst. Med; Chicago Soc. Med. Hist; Chicago Path. Soc. Railway sanitation; ventilation; air supplies.

Crowdle, Dr. James H(enry), Canisius College, Buffalo, N. Y. *Biochemistry*. Newton, Mass, Dec. 6, 97. A.B, Boston, 18; M.S, Canisius Col, 19; Sc.D, Fordham, 22. Instr. *chem*, Canisius Col, 19-20; Fordham, 20-22; asst. prof, *Canisius Col*, 23-25, *prof*, 26- Ordnance dept, U.S.A., 18-19. A.A; Chem. Soc.

Crowe, Dr. Samuel J(ames), Johns Hopkins Hospital, Baltimore, Md. *Surgery*. Washington Co, Va, April 16, 83. A.B, Georgia, 04; M.D, Hopkins, 08; Freiburg; Berlin; Vienna. Asst. surgeon in charge, Hunterian Lab, 08-09; asst. res. surgeon, *Hopkins Hosp*, 09-11, *laryngologist and otologist in chief*, 12-, *clin. prof. laryngol, rhinol. and otol, med. dept*, *Hopkins*. A.A; Col. Surg; Otol. Soc; Ass. Path. and Bact. Physiology of the ductless glands; pituitary gland; adrenal; the focal infections; pathology of the ear; experimental thoracic surgery.

Crowell, Dr. Bowman C(orning), Jefferson Medical College, Philadelphia, Pa. *Pathology*. Yarmouth, N. S, Can, Jan. 10, 79. B.A, McGill, 00, M.D, C.M, 04. Res. pathologist, City Hosp, New York, 04-07; instr. path, Univ. and Bellevue Hosp. Med. Col, 07-11; pathologist, Bellevue Hosp, 08-11; Bur. Science, P. I., 11-15; prof. path. and bacter, Philippines, 12-18, director grad. sch. trop. med. and pub. health, 17-18; chief in path, Oswaldo Cruz Inst, 18-22; *prof. path*, med. col, State of S. C, 22-23; *Jefferson Med. Col*, 23- Director laboratories, Jefferson Hosp, 23-; visiting pathologist, Phila. Gen. Hosp, 23- Am. Med. Ass; Ass. Path. and Bact; Soc. Trop. Med; Col. Physicians; Phila. Path. Soc; hon. mem. Brazilian Acad. Med. Tropical diseases; beriberi; cholera; plagues; trypanosomiasis.

Crowell, Dr. W(illiam) R(ansom), University of California at Los Angeles, Los Angeles, Calif. *Chemistry*. Bernardston, Mass, June 2, 79. B.S, Mass Inst. Tech, 04; A.M, Columbia, 15, Ph.D, 17. Asst. physics, Mass. Inst. Tech, 05; standard and testing dept, Edison Co, Boston, 06-08; instr. physics, Pa.-State, 08; prin, high sch, Ariz, 08-11; instr, high sch, Calif, 12-14, 16-19; *asst. prof. chem, California at Los Angeles*, 19- Chem. Soc. Industrial, analytical and electro chemistry.

Crowley, Dr. Charles F(elix), Creighton University, Omaha, Nebr. *Chemistry*. Detroit, Mich, May 17, 69. A.B, A.M, Detroit, 87; Ph.C, Michigan, 89; M.D, Creighton, 03, LL.D, 25. *Prof. chem*, Detroit, 90-93; *Creighton*, 94- Gas commissioner, Omaha, 09-12, city chemist, 03- A.A; Chem. Soc; Chem. Eng. Cattle foods and dips; gas.

Crozier, Gen. William, U.S.A. (retired), Riggs National Bank, Washington, D. C. *Engineering*. Carrollton, Ohio, Feb. 19, 55. Grad, U. S. Mil. Acad, 76; Eng.D, Michigan, 23. Fourth artil, U.S.A., 76-81, ordnance dept, 81, brig. gen. and chief, 01-18, major gen, 18; *retired*. Instr, U. S. Mil. Acad, 79-84. Special duty, Europe, 88-89; inspector fortifications, 98; Int. Peace Conf, The Hague, 99; Philippine campaign, 00; relief exped, Peking, 00; France and Italy, 18. A.A; Soc. Nat; Am. Geog. Soc; Wash. Acad. Construction of guns; gun carriages; strains due to rifling of guns; industrial management.

Crozier, Prof. W(illiam) J(ohn), Harvard University, Cambridge, Mass. **Physiology, Zoology*. New York, N. Y, Aug. 28, 92. B.S, Col. City of N. Y, 12; A.M, Harvard, 14, Austin fellow, 14-15, Ph.D, 15. Res. naturalist, Bermuda Biol. Sta, 15-18; asst. prof. physiol, col. med, Illinois, 18-19; zool, Chicago, 19-20; prof. and head dept, Rutgers, 20-25; *assoc. prof. gen. physiol, Harvard*, 25- Sheldon traveling fellow, Harvard, 15-18; research assoc, Carnegie Inst, 24-25. Ed, 'Jour. Gen. Physiol,' 24- Soc. Nat; Soc. Zool; Soc. Exp. Biol. Marine zoology; adaptation; animal behavior; irritability; temperature characteristics; central nervous processes.

Cruess, Prof. W(illiam) V(ere), University of California, Berkeley, Calif. *Agriculture*. San Miguel, Calif, Aug. 9, 86. B.S, California, 11. Asst. food anal, *California*, 10-11, zymol, 11-14, asst. prof, 14-18, *assoc. prof. fruit products*, 18- A.A; Chem. Soc. Fermentation of fruit juices; fermentation and composition of grapes; oxidase system of fruits; removal of sulfur dioxide from fruit products; chemistry of olive curing.

Crum, Dr. W(illiam) L(eonard), Stanford University, Calif. *Mathematics, Economics*. Hoosick Falls, N. Y, April 8, 94. A.B, Williams, 14; A.M, Yale, 16, Ph.D, 17. Instr. math, Yale, 17-23; asst. prof. *statistics*, Harvard, 23-27; *prof, Stanford*, 27- Math. Soc; Math. Ass; Statist. Ass; Econ. Ass. Economic statistics; statistical theory.

- Crummer, Dr. Le Roy**, 801 City National Bank Building, Omaha, Nebr. *Medicine*. Elizabeth, Ill, April 15, 72. B.S, Michigan, 93; M.D, Northwestern, 96. Prof. med. col. med. and grad. sch., Nebraska, 19-25, emer. prof., 25- Am. Med. Ass. Clinical medicine; diseases of the heart; history of medicine.
- Crump, Dr. Clifford C(harles)**, Ohio Wesleyan University, Delaware, Ohio. *Astronomy*. Kewanee, Ind, Oct. 11, 91. B.S, Earlham, 12; A.M, Michigan, 13, Ph.D, 16. Asst. astronomer, Observatorio Nacional, La Plata, Argentina, 13-14; instr. math. and astron, Carleton, 16; prof. astron. and director, Perkins Observatory, Ohio Wesleyan. A.A.; Astron. Soc; Royal Astron. Soc; Astron. Gesell. Astrophysics.
- Csonka, Dr. F(rank) A(nthony)**, U. S. Department of Agriculture, Washington, D. C. *Chemistry*. Hatszeg, Hungary, Jan. 27, 89. C.E, Budapest, 10; Ph.D, Cornell, 24. Research chemist, Berlin, 10-12; med. sch, Cornell, 13-14; in charge research lab, Pittsburgh, 14-23; biochemist, bur. chem, U. S. Dept. Agr, 24- Chem. Soc; Soc. Biol. Chem; Soc. Exp. Biol. Intermediary metabolism of amino acids; hippuric and glycuronic acid; blood fats; nephelometric values of fats and cholesterol (N.V); glutelins.
- Cubberley, Prof. Ellwood P**, Stanford University, Calif. *Education*. Andrews, Ind, June 6, 68. A.B, Indiana, 91; A.M, Columbia, 02, Ph.D, 05; LL.D, Iowa, 23. Instr. sciences, Vincennes, 91-93, pres, 93-96; supt, schools, Calif, 96-98; prof. educ. and head dept, Stanford, 98-, dean sch. educ, 17- Lecturer, California, Columbia, Chicago, Harvard. Ed, 'Riverside Text Books in Educ.' A.A; Nat. Soc. Study Educ. Educational history, administration and finance.
- Culin, (Robert) Stewart**, Brooklyn Institute Museum, Brooklyn, N. Y. **Anthropology*. Philadelphia, Pa, July 13, 58. Nazareth Hall, Pa. Director dept. archeol, Pennsylvania, 92-99, curator sect. Am. and gen. ethiol, Free Museum Science and Arts, 99-03; ethiol, Brooklyn Inst, 03- Sec'y, U. S. commission, Columbian Hist. Expos, Madrid, 92-93. Anthropol. Soc. (mem. council, 19); Philos. Soc; Folk-Lore Soc. (pres, 97); Numis. Soc. (rec. sec'y, 83-01); fel. Ethiol. Soc; Brooklyn Inst; hon. mem. Soc. Cient. Ant. Alz; cor. mem. Madrid Royal Acad. Hist; cor. mem. Soc. Ital. d'Antrop. Etnol. e Psicol. comp; Swedish Soc. Anthropol. and Geog. Comparative study of games; games of North American Indians.
- Cullen, Dr. Glenn E(rnest)**, Vanderbilt University, Nashville, Tenn. *Biochemistry*. Isle St. George, Ohio, April 1, 90. A.B, Michigan, 12, B.Ch.E, 13; Ph.D, Columbia, 17. Assoc. Rockefeller Inst, 13-21; assoc. prof. research med. sch. med, Pennsylvania, 22-24; prof. biochem, sch. med, Vanderbilt, 24- Rockefeller Foundation fellow, Copenhagen, 24-25. Capt, Sanit.C. A.A; Soc. Biol. Chem; Chem. Soc; Soc. Exp. Biol; Harvey Soc. Bacteriological and pathological chemistry; enzymes; antiseptics; blood gas and electrolyte equilibrium; anesthesia; diabetes; hydrogen-ion concentration.
- Cullen, Joseph F(rancis)**, The Mexican Corporation, S. A, Fresnillo, Zacatecas, Mex. *Chemistry*. Worcester, Mass, June 24, 85. B.S, Worcester, 07. Asst. chemist, Cambria Steel Co, 07-08; chemist, Lackawanna Steel Co, 08-09; metal. research, U. S. Bur. Mines, 10-14; director laboratories, dept. metal. research, Utah, 15-16; research chemist and metallurgist, U. S. Smelting Co, 16-25; metallurgist, Mexican Corp, S. A, 25- Min. and Metal. Eng; Chem. Soc. Iron ore smelting; coke manufacture; non-ferrous metallurgy.
- Cullen, Dr. Thomas Stephen**, 20 E. Eager St, Baltimore, Md. *Abdominal surgery*. Bridgewater, Ont, Can, Nov. 20, 68. M.B, Toronto, 90. House surgeon, Toronto Gen. Hosp, 90-91; demonstrator anat, Toronto, 91; asst. res. gynecologist, Hopkins Hosp, 92-96, res. gynecologist, 96-97, assoc. gynec, 97-, assoc. prof. and prof. clin. gynec, Hopkins, 00- A.A; fel. Gynec. Soc; Ass. Anat; Ass. Path. and Bact; fel. British Gynec. Soc; London Obstet. Soc; hon. mem. Edinburgh Obstet. Soc; cor. mem. Leipzig Gesell. für Geburtshilfe; Munich Gynec. Gesell; hon. mem. Soc. Ital. di Ostet. e Ginec. Cancer, adenomyoma and myomata of the uterus; gynecological pathology; the umbilicus.
- Culler, Dr. A(rthur) J(erome)**, Hiram, Ohio. *Psychology*. Hartville, Ohio, March 14, 83. Ph.D, Columbia, 12. Pastor, Geiger Mem. Church, Phila, 12-14; prof. psychol, McPherson Col, 14-21; dean, Hiram, 21- Director, Red Cross, Palestine and Turkey, 19-20; Y. M. C. A. lecturer, 21. A.A; Psychol. Ass. Psychology of religion; functional viewpoint in primitive religion; interference and adaptability.
- Culler, Dr. Elmer (Augustine Kurtz)**, University of Illinois, Urbana, Ill. *Psychology*. Louisville, Ohio. A.B, Juniata, 10; B.D, Union Theol. Sem, 13, traveling fellow, 13-15; Columbia; Berlin; Leipzig; Ph.D, Chicago, 22. Instr. psychol, Ohio State, 16-20; Wisconsin, 20-23; assoc, Illinois, 23- A.A; Psychol. Ass; Ill. Acad. Thermal senses; psychometric theory; learning.
- Culler, Prof. J(oseph) A(lbertus)**, Oxford, Ohio. *Physics*. Wooster, Ohio, March 5, 58. A.B, Wooster, 84, Ph.D, 00. Prin, high sch, Ohio, 84-03, supt, schools, 00-01; prof. physics, Miami, 03- Ohio Acad. (pres, 07); Oxford Sci. Club. Mechanics and heat; electricity; electromagnetic waves; sound.
- Culver, Prof. G(arry) E(ugene)**, 310 Center Ave, Stevens Point, Wis. *Geology*. Hebron, Wis, May 20, 49. Harvard, 86; Wisconsin, 88-91; hon. A.M, Denison, 88. Prof. nat. science, Dakota, 83-86, physical science, 86-88, geol. and miner, 88-91; instr. geol, Beloit, 91-94; physical science, Wis. State Nor. Sch, Stevens Point, 94-07, geol. and chem, 07-23; retired. Lecturer, exten. dept, Wisconsin, 92-93. A.A; Geol. Soc; Chem. Soc; Wis. Acad. Artesian wells; glacial topography; graphite deposits.
- Culver, Dr. Harold E(ugene)**, State College of Washington, Pullman, Wash. *Geology*. Vermillion, S. Dak, Sept. 22, 83. Ph.B, Wisconsin, 10, Ph.M, 11; fellow, 11-12; Ph.D, Chicago, 23.

Geologist, iron companies, 10-12; instr. geol., Washington (Seattle), 12-13, asst. prof., 14-19; lecturer, Illinois, 19-20; geologist, Ill. Geol. Surv., 19-20, in charge coal, 20-25; *head dept. geol., Wash. Col. and state geologist, Wash.*, 25- Geologist, Wash. Geol. Surv., 12-19; assoc., Chicago, 18-19. A.A.; Geol. Soc.; Ass. Petrol. Geol.; Min. and Metal. Eng. Coal geology of Washington and Illinois; general stratigraphy; correlation.

Cummings, Dr. Edgar R(oscoe), Indiana University, Bloomington, Ind. *Geology, Paleontology*. Madison, Ohio, Feb. 20, 74. A.B., Union, 97; Cornell, 97-98; fellow, Yale, 01-03, Ph.D., 03. Instr. paleont., *Indiana*, 98-03, asst. prof. *geol.*, 03-06, assoc. prof., 06-09, *prof.*, 09-, acting dean grad. sch., 14-23. A.A. (mem. gen. committee, 16); Geol. Soc.; Paleont. Soc.; Am. Geog. Soc.; Ind. Acad. (pres, 25). Stratigraphic geology; Brachiopoda; Paleozoic Bryozoa; Ordovician and Mississippian faunas and stratigraphy; development and morphology of the Monticuliporoids; Silurian coral reefs.

Cummer, Dr. Clyde L(ottridge), 2417 Prospect Ave., Cleveland, Ohio. *Medicine*. Cadillac, Mich., Feb. 23, 82. Ph.B., Western Reserve, 04, M.D., 07; Columbia, 24-25. Demonstrator, instr. and *assoc. prof. clin. path., Western Reserve*, 09- Am. Med. Ass.; fel. Col. Physicians; Soc. Clin. Path.; Cleveland Acad. Med. (pres, 23); Cleveland Dermat. Soc.; Cleveland Med. Library Ass. (treas., 16-21, trustee, 21-27). Syphilology; clinical pathology.

Cummings, Prof. Byron, University of Arizona, Tucson, Ariz. *Archeology*. Westville, N. Y., Sept. 20, 61. A.B., Rutgers, 89, A.M., 92; Chicago, 96; Berlin, 10-11. Teacher, schools, N. Y. and N. J., 87-93; instr. Latin and Eng., Utah, 93-94, asst. prof. Latin and Greek, 94-95, prof., 95-15, dean sch. arts and sciences, 05-15; *director museum, Arizona*, 15-, dean arts, letters and sciences, 17-21, dean mem., 18-21; *acting pres., Arizona*, 19-20, 27- Director archeol. expeditions to south. Utah and north. Ariz.; Nat. Geog. Soc. exped. Mexico, 24-25. A.A.; Anthropol. Ass. (mem. council, 19); Ass. Mus.; Inst. Social Sci. Prehistoric man in Utah and Arizona; archaic man in Mexico; cliff dwellers; natural bridges in Utah.

Cummings, Prof. Louise D(uffield), Vassar College, Poughkeepsie, N. Y. *Mathematics*. Hamilton, Ont., Can., 72. B.A., Toronto, 95, M.A., 02; fellow, Pennsylvania, 96-97; Chicago, 97-98; Bryn Mawr, 99-00, Ph.D., 14. Instr. *math.*, St. Margaret's Col., Toronto, 01-02; *Vassar*, 02-15, asst. prof., 15-19, assoc. prof., 19-27, *prof.*, 27- Math. Soc.; Math. Ass. Triad systems on fifteen elements; cyclic systems of points in a binary correspondence.

Cummings, Prof. Marshall Baxter, Vermont Agricultural Experiment Station, Burlington, Vt. *Horticulture*. North Thetford, Vt., Dec. 2, 75. B.S., Vermont, 01; M.S., Maine, 04; Ph.D., Cornell, 09. Instr. bot. Maine, 03-06; Cornell, 07-09; *prof. hort., Vermont*, 09- A.A.; Soc. Hort. Sci.; Pomol. Soc.; New Eng. Bot. Club. Plant breeding; fruit growing; diseases of the peach;

forcing plants with CO₂; size of seed as a factor in plant production; productivity of apple trees; sterility of pears; pure line breeding.

Cummins, Dr. G(eorge) Wyckoff, Belvidere, N. J. *Physiological chemistry*. Vienna, N. J., March 2, 65. Ph.B., Yale, 84, Ph.D., 87; M.D., Columbia, 90. Asst. lab. physiol. chem., Yale, 84-87, instr. math., Sheffield Sci. Sch., 87-88; *practising physician*, 90- County physician, Warren Co., N. J., 17- A.A.; Am. Med. Ass. Physiological chemistry of digestion; annealing of copper; hormone therapy; treatment of cancer; history of Warren Co., N. J.

Cummins, Prof. Harold, Tulane University, New Orleans, La. *Anatomy*. Markleville, Ind., May 28, 93. A.B., Michigan, 16; Ph.D., Tulane, 25. Asst. zool., Michigan, 12-15, bot., 15-16; instr. *anat.*, Vanderbilt, 16-18, asst. prof., 18-19; instr., *Tulane*, 19-20, *asst. prof.*, 20- Ass. Anat.; Soc. Exp. Biol. Vestibular ear; surface anatomy of skin, especially palmar and plantar ridge configurations; teratology.

Cummins, Dr. W(illiam) T(aylor), Southern Pacific General Hospital, San Francisco, Calif. *Pathology*. Media, Pa., May 17, 79. M.D., Pennsylvania, 02. Asst. demonstrator path., Pennsylvania, 03-10; physician, Henry Phipps Inst., Phila., 06-10; bacteriologist, Dept. Health, New York, 11; *pathologist, and director, Harriman Research Lab, South. Pacific Gen. Hosp.* Acting pathologist, Meth. Epis. Hosp., Phila., 09-10; St. Joseph's Hosp., San Francisco, exec. committee, Board Directors. A.A.; Ass. Path. and Bact.; Am. Med. Ass.; Pacific Ass. Ry. Surg.; Phila. Col. Physicians. Tuberculosis in children; diazo reaction; arteriosclerosis; Döhle inclusion bodies; guinea pig blood tests; coccidioidal granuloma and blastomycosis; intraspinal treatment of syphilis.

Cunningham, Dr. Bert, Duke University, Durham, N. C. *Embryology*. McLean Co., Ill., June 3, 83. B.S., Ill. Wesleyan, 08, M.S., 09; A.M., Trinity (N. C.), 16; Ph.D., Wisconsin, 20. Dept. science, Mo. Wesleyan, 09-11; teacher, high sch., N. C., 11-17; *prof. biol.*, Trinity (N. C.), 17-25, *Duke*, 25-, *head dept.*, 20- Summers, investigator, Bur. Fisheries; instr., Wisconsin. A.A.; Soc. Zool.; N. C. Acad. (sec'y-treas., 17, 21-26, pres, 27). Diatoms; Spirogyra; Algae; Protozoa; plankton; embryology of the turtle; embryology of the chick.

Cunningham, Dr. R(ichard) H(oope), 105 E. 15th St., New York, N. Y. **Physiology, Neurology*. Richmond, Va., July 1, 65. Virginia, 83-85, M.D., Virginia, 86; M.D., Columbia, 88; Heidelberg, 90-91; Univ. Col. London, 91-93. Lecturer nervous and mental diseases, dept. med., Virginia, 93-94; demonstrator physiol., Columbia, 95-98, clin. asst. neur., Vanderbilt Clinic, 95-02, instr. electrophysiol., *Columbia*, 02-06, *instr. neur. and chief clinic, dept. neur., Vanderbilt Clinic*, 06- Physiol. Soc.; Neur. Ass.; Soc. Exp. Biol.; Elec. Eng.; fel. N. Y. Acad. Physiology; neurology; electricity; stimulation of sciatic nerve with strong electric currents.

Cunningham, Dr. R(obert) S(ydney), Vanderbilt University, Nashville, Tenn. *Anatomy*. Ander-

- son, S. C, Nov. 14, 91. B.S, A.M, Davidson, 11; M.D, Hopkins, 15. Asst. and instr. *anat.*, Hopkins, 15-17, assoc, 19-22, assoc. prof, 22-25; *prof.*, *anat. dept.*, *Vanderbilt*, 25- Lieut, M.C, 17-19. Ass. *Anat.*; *Physiol.* Ass. Lymphatics of the lung; anatomy and physiology of the peritoneum; permeability of the placenta; embryology and physiology of blood cells; pathology of tuberculosis.
- Cuno, Prof. Charles William**, Washington University, St. Louis, Mo. *Industrial chemistry*. St. Louis, Dec. 16, 79. A.B, Denver, 12, A.M, 13, Ph.D, 15. Instr. English, Denver, 13-15, director journalism and instr. sci. management, 15-17; *prof. chem.*, Yankton Col, 18-20; *asst. prof. chem.*, *Washington (St. Louis)*, 20- Chem. Soc; Min. and Metal. Eng. Nitric acid; carbon dioxide; recovery of antimony; metallurgy of arsenic.
- Cupples, Dr. H(omer) L(eslie)**, 316 Houston St, Massillon, Ohio. *Chemistry*. Massillon, July 25, 99. B.Ch.E, Ohio State, 21, M.S, 23, Grasselli fellow, 23-24, Ph.D, 24. Chief chemist, *Phila. Rubber Works Co.*, *Akron*, 25- Chem. Soc. Physical chemistry; rubber reclaiming.
- Curme, Dr. George O(liver), Jr.**, 9 Crane Ave, White Plains, N. Y. *Chemistry*. Mt. Vernon, Iowa, Dec. 24, 88. B.S, Northwestern, 09; Ph.D, Chicago, 13; Berlin, 13-14. Fellow, Mellon Inst, 14-20; chief chemist, *Carbide and Carbon Chem. Corp.*, 20- A.A.; Chem. Soc; Chem. Eng; Chem. Indust. Organic chemical reactions; hydrocarbon gases.
- Curme, Dr. Henry R(ussell)**, Savell, Sayre and Co, Inc, Pittsburgh, Pa. *Chemistry*. Mt. Vernon, Iowa, Oct. 4, 94. B.S, Northwestern, 15; Ph.D, Pittsburgh, 19. Fellow, Mellon Inst, 17-22; *pres.*, *Savell, Sayre and Co, Inc.*, 22- Chem. Soc. Organic and physico-organic chemistry. [*Died*, 1927.]
- Curran, Dr. C(arleton) E(dgar)**, Sunset Point Road, R. R. 7, Madison, Wis. *Chemistry*. New Lexington, Ohio, Sept. 23, 90. A.B, Wabash, 12; A.M, Ohio State, 15, du Pont fellow, 19-20, Ph.D, 21. Instr. chem, Huron, 12-13; grad. asst. org. chem, Ohio State, 13-16; compiler, Decennial Index to 'Chem. Abstracts,' 16-17; information dept, Mead Research Co, 20-21; *chemist, sect. pulp and paper*, *U. S. Forest Products Lab.*, 21- Lecturer, Wisconsin. Asst. ed, sect. cellulose, 'Chem. Abstracts.' Chem. Soc. Bleaching of chemical wood pulp.
- Curran, Dr. H(arold) R(aymond)**, Iowa State College, Ames, Iowa. *Bacteriology*. Rochester, N. Y, March 2, 95. B.S, Cornell, 21, Ph.D, 26. Instr. dairying, Cornell, 21-25; *research asst.*, *Iowa Col.*, 26- Soc. Bact. General and dairy bacteriology.
- Currens, Prof. Fred(erick) H(awley)**, 130 N. Normal St, Macomb, Ill. *Chemistry*. Carthage, Ill, Dec. 25, 82. A.B, Coe, 04, A.M, 07; Chicago, 09, 10; Nebraska, 11-13, Ph.D, 21. Teacher science, Corning Acad, Iowa, 04-05, prin, 05-08; *prof. chem. and biol.*, Lenox, 08-09; chem. and physics, Bellevue (Nebr), 09-10; Omaha, 10-12; instr. chem, Nebraska, 12-13; *head dept. chem. and physics and prof. chem.*, *West. Ill. State Teachers Col.*, 13-, dean faculty, 24- Chem. Soc; Ill. Acad. Analytical chemistry; separation of ytterbium earth from gadolinite ore.
- Currie, Dr. James N(imrod)**, 549 E. 16th St, Brooklyn, N. Y. *Chemistry*. Jasonville, Ind, 83. A.B, 08, A.M, 09, Ph.D, 12. Instr. chem, Indiana and Wisconsin, 09-12; chemist, U. S. Dept. Agr, 12-17; *indust. research*, 17- A.A.; Chem. Soc; Soc. Bact. Organic and bio chemistry; biochemical aspects of cheese ripening; fermentation produced by fungi; citric acid fermentation.
- Currie, Rolla P(ateson)**, 632 Keefer Place, N. W, Washington, D. C. *Entomology*. Preemption, Ill, March 25, 75. A.B, North Dakota, 93. Aid div. insects, U. S. Nat. Museum, 97-04; *assoc. entomologist in charge ed. work, bur. entom.*, *U. S. Dept. Agr.*, 04- Collected specimens for U. S. Nat. Museum, Wyo. and N. Dak, 96, Liberia, 97, B. C, 04. A.A.; assoc. mem. Ornith. Union; Wash. Entom. Soc. (rec. sec'y, 01-06, chairman, pub. committee, 01-08); Wash. Biol. Field Club. Myrmeleonidae and Odonata in systematic entomology.
- Currier, Prof. A(rnold) J(ohn)**, 231 S. Gill St, State College, Pa. *Chemistry*. Georgetown, N. Y, Dec. 8, 92. A.B, Colgate, 15; M.S, Pa. State, 21; Ph.D, Cornell, 23. Teacher, high schools, N. Y, 15-17; asst. chemist, Gen. Chem. Co, 17-18; instr. *chem.*, *Pa. State*, 18-21, *asst. prof.*, 21- Chem. Soc. Catalysis; metallic nitrogen compounds; reaction of sodium trinitride with carbon disulphide.
- Currier, C(linton) H(arvey)**, Brown University, Providence, R. I. *Mathematics*. Manchester, N. H, Jan. 1, 76. Ph.B, Brown, 98, A.M, 99; Göttingen, 10-11. Instr. math, Brown, 99-16, astron, 14-16, *asst. prof.*, 16- Instr. R. I. Sch. Design, 03-09. A.A; Math. Soc; Astron. Soc.
- Currier, Prof. L(ouis) W(ade)**, Missouri School of Mines, Rolla, Mo. *Mineralogy, Geology*. Middletown Springs, Vt, May 4, 90. B.S, Mass. Inst. Tech, 14; A.M, Northwestern, 20. Instr, Idaho, 14-15; asst, Mass. Inst. Tech, 15-16; instr, Northwestern, 16-18, 19-20; Mass. Inst. Tech, 20-21; *asst. prof. miner.*, Syracuse, 21-25; *Mo. Sch. Mines*, 25- Geologist, Ill. Geol. Surv. and Ky. Geol. Surv, 17- Tech. statistician, C. N. D, W. I. B, 18. Petrography; economic geology; fluorspar deposits and igneous rocks of southern Illinois and western Kentucky; mineral veins of Kentucky; petrography of metamorphosed sedimentary rocks of Vermont.
- Curti, Prof. Margaret Wooster (Mrs. M. E.)**, 105 Prospect St, Northampton, Mass. *Psychology*. Silver Creek, Nebr. A.B, Nebraska, 13, A.M, 15; Ph.D, Chicago, 20. *Asst. prof. psychol.*, Beloit, 20-22; *Smith*, 22- Psychol. Ass. Space perception; animal and child psychology.
- Curtis, Prof. Carlton C(larence)**, Columbia University, New York, N. Y. **Botany*. Syracuse, N. Y, Aug. 24, 64. A.B, Syracuse, 89, Ph.D, 95; A.M, Columbia, 94; Cambridge (Eng), 96; Leipzig, 97. Prin, Fayetteville Union Sch,

84-86; instr. nat. science, Brooklyn Polytech, 90-92; tutor *bot*, Columbia, 98-08, adjunct prof. and *assoc. prof.*, 08- A.A.; Soc. Nat; Bot. Soc; Torrey Bot. Club (treas, 07). Turgor; transmission and tension of fluids in plants; transpiration; action of pure and colored light upon transpiration.

Curtis, Dr. Francis D(ay), 920 Dewey Ave, Ann Arbor, Mich. *Education*. Portland, Oregon, Aug. 6, 88. B.S, Oregon, 11, A.M, 23; fellow, Ph.D, Columbia, 24. Asst. physics, Oregon, 10-11; head dept. and instr, high schools, Oregon, 11-23; *asst. prof. secondary educ. and teaching of science, Michigan, and head dept. science, univ. high sch.*, 24- Mich. Acad. Secondary education; teaching of science.

Curtis, Dr. George M(orris), Billings Memorial Hospital, Chicago, Ill. *Anatomy, Surgery*. Big Rapids, Mich, April 2, 90. A.B, A.M, Michigan, 10, Ph.D, 14; M.D, Rush Med. Col, 20; Bern, 24-27. Asst. zool, Michigan, 08-12, histol, 11-13; asst. prof. anat, med. dept, Vanderbilt, 13-14, acting prof, 14-15, prof. and head dept, 15-20; res. staff, Presb. Hosp, Chicago, 20-22; Nat. Research Council fellow med, 22-25; *assoc. prof. surg, Chicago*, 25- Summer, asst, Chicago, 19, Rush Med. Col, 22-24; asst, clinic, Bern, 25-27. A.A.; Ass. Anat; Chicago Path. Soc. Morphology of semiferous tubules; spermatogenic wave; hypophysis; diabetes insipidus; diuresis; metabolism during work.

Curtis, Dr. Harold B(artlett), Lake Forest College, Lake Forest, Ill. *Mathematics, Astronomy*. Brooklyn, N. Y., May 22, 84. A.B, Cornell, 07, Ph.D, 10. Instr. *math*, Columbia, 10-17; North-western, 19-25; *assoc. prof*, Marquette, 25-26; *prof*, Lake Forest, 26- Second lieut, U.S.A, 17-19. Math. Soc; Math. Ass. Popular astronomy.

Curtis, Prof. Harry A(lfred), Yale University, New Haven, Conn. **Chemistry*. Sedalia, Colo, Feb. 16, 84. B.S, Colorado, 08, A.M, 10; fellow, Wisconsin, 13-14, Ph.D, 14. Instr. chem, Colorado, 08-12, asst. prof, 12-13, 14-15, prof. physical chem, 15-17; chem, Northwestern, 19-20; chief chemist, Int. Coal Products Corp, 20-21; gen. manager, Clinchfield Carbocoal Corp, 21-23; *prof. chem. eng, Yale*, 23- Chief nitrogen surv, U. S. Dept. Commerce, 23-24. Muscle Shoals Commission, 25. Chem. eng, ordnance dept, 17-19. A.A.; Chem. Soc; Chem. Eng; Eng. Educ; Gas. Inst. Photochemistry; chemical engineering; non-aqueous solutions; fuels; nitrogen fixation.

Curtis, Dr. Harvey L(incoln), Bureau of Standards, Washington, D. C. **Physics*. Mason, Mich, Dec. 14, 75. Ph.B, Michigan, 00, A.M, 03, Ph.D, 10. Asst. physics, Michigan, 02-03; instr, Mich. State Col, 03-07, asst. prof, 07; asst. physicist, *Bur. Standards*, 07-13, *assoc. physicist*, 13-18, physicist, 18-24, *senior physicist*, 24- Lecturer, George Washington, 10-14; grad. courses, *Bur. Standards*, 20- A.A.; Physical Soc; Elec. Eng; Soc. Test. Mat; Wash. Acad; Wash. Philos. Soc. Mica condensers; measurement of inductances and insulating properties of solid dielectrics; design of alternating current resistances; quadrant electrometer; skin-effect; ballistics; photo-

graphing projectiles in flight; oscillographs; computation of inductance; stresses in turrets of battleships during gunfire; electrical properties of rubber; insulating materials for submarine cables; measurement of short time intervals.

Curtis, Dr. H(eber) D(oust), Allegheny Observatory, Pittsburgh, Pa. **Astronomy*. Muskegon, Mich, June 27, 72. A.B, Michigan, 92, A.M, 93; fellow, McCormick Observatory, 00-02; Ph.D, Virginia, 02. Instr. math, high sch, Detroit, 93; prof. Greek and Latin, Napa, 94-96; math. and astron, Pacific (Calif), 97-00; asst, Lick Observatory, California, 02-04, asst. astronomer, 04-06, acting astronomer in charge, D. O. Mills' exped. to south. hemisphere, 06-09, astronomer, 09-20; *director, Allegheny Observatory*, 20- Voluntary aid, Lick Observatory Eclipse Sta, Thomaston, Ga, 00; eclipse expeditions, U. S. Naval Observatory, Sumatra, 01, Labrador, 05, Russia, 14, Washington, 18, Mexico, 23, New Haven, 25, Sumatra, 26. Pan-Am. Sci. Cong, Santiago, 08. Nat. Acad; A.A. (v. pres, sect. astron, 24); Astron. Soc. (v. pres, 26-); Optical Soc; Philos. Soc; Pacific Astron. Soc. (v. pres, 16); Soc. Sci. du Chile. Spectrography; spectroscopic binaries; astronomical photography; spiral nebulae.

Curtis, Dr. Maynie R(ose), Columbia University, New York, N. Y. *Biology*. Ingham Co, Mich, July 27, 80. A.B, Michigan, 05, A.M, 08, Ph.D, 13. Asst. biologist, Maine Exp. Sta, 08-17; *assoc. cancer research, Crocker Research Fund, Columbia*, 17- A.A.; Soc. Exp. Biol; Soc. Nat; Soc. Zool; Ecol. Soc. Physiology of reproduction; cancer.

Curtis, Prof. Otis F(reeman), Cornell University, Ithaca, N. Y. *Plant physiology*. Sendai, Japan, Feb. 12, 88. A.B, Oberlin, 11; Ph.D, Cornell, 16. Tutor biol, Oberlin Acad, 11-12; asst. nat. hist, Cornell, 12, instr. *plant physiol*, 13-17, asst. prof, 17-22, *prof*, 22- Summers, collector, Woods Hole, 13, 14; reader, Leeds, 26-27. A.A.; Bot. Soc. Stimulation of root growth in cuttings; translocation of foods and salts in plants; water relations; growth correlations.

Curtis, Dr. R(obert) W(illiam), College of the City of New York, New York, N. Y. *Chemistry*. Bridgeport, Conn, July 4, 69. B.S, Trinity (Conn), 96; Ph.D, Yale, 04. Asst. instr. chem, Yale, 03-04; asst. prof, Kansas, 04-07; instr, *Col. City of N. Y.*, 07-16, asst. prof, 16-25, *assoc. prof*, 25- Action of reducing agents upon vanadium pentoxid; determination of metals by rotating cathode; devices to aid in the teaching of chemistry.

Curtis, Dr. W(interton) C(onway), University of Missouri, Columbia, Mo. **Zoology*. Richmond, Maine, Nov. 4, 75. A.B, Williams, 97, A.M, 98; fellow, Hopkins, 00-01, Ph.D, 01. Instr. *zool*, Missouri, 01-04, asst. prof, 04-08, *prof*, 08- Instr, Woods Hole, 99-03, in charge invert. zool, 08-11, trustee, 23; scientific asst. various seasons, U. S. Fisheries Bur, 04-11. Div. biol. and agr, Nat. Research Council, 24-26. Assoc. ed, 'Jour. Morphol. and Physiol,' 27- A.A. (v. pres, F, 26); Soc. Nat; Soc. Zool; Soc. Parasitol; Ecol. Soc. Planaria; Cestoda;

embryology of Unionidae; parasitic Protozoa; the history of science; effects of radiations upon regeneration.

Curtiss, Dean Charles F(ranklin), Ames, Iowa. *Agriculture*. Nora, Ill, Dec. 12, 63. B.S.A, Iowa Col, 87, M.S.A, 93; hon. Sc.D, Mich. State Col, 07. Statistician, U. S. Dept. Agr, 88-93; prof. animal husbandry, *Iowa Col*, and asst. director, *Exp. Sta.*, 91-96, *dean agr. and director*, 97- Pres, Iowa Live Stock Breeders' Ass; judge of live stock, Trans-Miss, Pan-Am, La. Purchase, Lewis and Clark and Panama-Pacific Expositions; pres, Int. Live Stock Expos; director, Iowa State Board Agr, 06-09. A.A; Soc. Animal Nutrition (pres, 09); Ass. Agr. Col. (mem. exec. committee, 02-09).

Curtiss, Prof. D(avid) R(aymond), 2023 Sherman Ave, Evanston, Ill. **Mathematics*. Derby, Conn, Jan. 12, 78. A.B, California, 99, A.M, 01- Ph.D, Harvard, 03, traveling fellow, Ecole Nor. Supérieure, Paris, 03-04. Instr. *math*, Sheffield Sci. Sch, Yale, 04-05; asst. prof, *Northwestern*, 05-07, assoc. prof, 07-09, *prof*, 09- Lecturer, Harvard, 20-21. A.A. (chairman, A); Math. Soc. (ed. board, 'Trans,' mem. council and v. pres); Math. Ass; Soc. math. de France; Circolo Mat. di Palermo. Differential equations; theory of functions; theory of equations.

Curtiss, Dr. L(eon) F(rancis), U. S. Bureau of Standards, Washington, D. C. *Physics*. Adrian, Mich, Jan. 5, 95. A.B, Cornell, 17, Ph.D, 22. Instr. physics, Cornell, 18-21, Heckscher research asst, 21-22; Nat. Research Council fellow physics, Cavendish Lab, 22-24; *Bur. Standards*, 24-26, *physicist*, 26- Physical Soc. Electrical conductivity of thin metal films in a magnetic field; continuous β -ray spectra; intensities of β -ray line spectra; radioactivity.

Curtiss, Prof. Ralph H(amilton), Detroit Observatory, Ann Arbor, Mich. **Astronomy, Astrophysics*. Derby, Conn, Feb. 8, 80. B.S, California, 01, Ph.D, 04. Student asst. astron, California, 00-01, fellow, Lick Observatory, 01-05, Carnegie asst, 05; asst. astronomer, Allegheny Observatory, 05-07; asst. prof. astrophysics, *Michigan*, 07-11, assoc. prof. astron, 11-18, *prof*, 18-, *asst. director*, *Detroit Observatory*, 11- Lick Observatory eclipse exped, Sumatra, 01. A.A; Astron. Soc; Seismol. Soc. Spectroscopy of heavenly bodies; spectrographic construction; spectrography of variable stars, and of stars with peculiar spectra in class B.

Curtiss, Dr. Richard S(ydney), 1739 N. Bronson Ave, Hollywood, Calif. *Chemistry*. Stratford, Conn, Nov. 8, 64. Ph.B, Yale, 88; Munich, 90-91; Ph.D, Würzburg, 92; Paris, 92-93. Chemist, Conn. Exp. Sta, New Haven, 88-90; docent and instr. org. chem, Chicago, 93-97; prof. chem, Hobart, 97-01; Union, 01-04; org. chem, Illinois, 04-12; Throop, 12-16; director research lab, Mex. Petrol. Co, Los Angeles, 16-18; acting prof. org. chem, Stanford, 18-19; *proprietor*, *Bronson Court*, *Hollywood*. Research chemist, Conn. Exp. Sta, 93. A.A. (sec'y, C, 05); Chem. Soc. (chairman, div. org. chem, 09); Am. Health League (v. chairman);

Ill. Acad; Chem. Gesell. Organic chemistry; acetylacetone and acetoacetic ester; derivatives of certain amino malonic esters; intermediate addition products in organic chemical reactions; condensation in the mesoxalic ester series; petroleum.

Curtman, Dr. Louis J, College of the City of New York, New York, N. Y. *Chemistry*. London, Eng, Oct. 31, 78. B.S, Col. City of N. Y, 99; M.S, N. Y. Univ, 02; Ph.D, Columbia, 07. Instr. *chem*, East Side Evening High Sch, New York, 03-13; *Col. City of N. Y*, 07-15, asst. prof, 15-22, *assoc. prof*, 22- Harriman Research Lab, 13-21. Chem. Soc. Analytical chemistry; new methods of analysis.

Cushing, Prof. Harvey (Williams), 305 Walnut St, Brookline, Mass. **Surgery*. Cleveland, Ohio, April 8, 69. A.B, Yale, 91, hon. A.M, 13, hon. Sc.D, 19; A.M, M.D, Harvard, 95; hon. Sc.D, Washington (St. Louis), 15; hon. M.D, Queen's (Bristol), 18; LL.D, Western Reserve, 19, Cambridge, 20. Res. surgeon, Hopkins Hosp, 97-01, asst. *surg*, Hopkins, 97-99, assoc, 99-03, assoc. prof, 03-12; *Moseley prof*, *Harvard*, 12- Surgeon-in-chief, Peter Bent Brigham Hosp, 12-; Mickle fellow, Toronto, 22. Cameron prize, Edinburgh, 24; D.S. medal; Companion of the Bath. Director, U. S. Base Hosp. No. 5, 17-19. Chevalier, Légion d'honneur. Address on surg, Int. Med. Cong, 13. Nat. Acad; A.A; Surg. Ass; Col. Surg. (pres, 22); Soc. Clin. Surg. (pres, 22); Ass. Path. and Bact; Physiol. Soc; Soc. Exp. Path; Neur. Ass. (pres, 23); Am. Acad. (v. pres, 19); hon. fel. Royal Col. Surg; cor. Acad. de Med. de Paris. Neurological and experimental surgery; experimental medicine and neurology.

Cushman, Dr. Allerton S(eward), 2201 New York Ave, N. W, Washington, D. C. **Chemistry*. Rome, Italy, June 2, 67. B.S, Worcester, 88; Freiburg and Heidelberg, 89-90; A.M, Harvard, 97, John Harvard fellow, 97-98, Ph.D, 98. Instr. chem, Washington (St. Louis), 92-96; asst, Harvard, 98; asst. prof, Bryn Mawr, 99-00; asst. director and chemist in charge, div. of tests, office of pub. roads, U. S. Dept. Agr, 01-10; *founder and director*, *Inst. Indust. Research*, 10- Lieut. col, ordnance dept, 17-18. Longstreth medal, Franklin Inst, 11. A.A; Chem. Soc; Electrochem. Soc; Soc. Test. Mat; British Iron and Steel Inst. Revision of atomic weight of nickel; road materials; cementing power of rocks; plasticity of clays; relation of 'water of combination' to physical properties of rock dust, clays, etc; colloid theory of plasticity; corrosion and preservation of iron and steel; chemistry and civilization.

Cushman, Dr. J(oseph) A(ugustine), 76 Brook Road, Sharon, Mass. *Biology, Paleontology*. Bridgewater, Mass, Jan. 31, 81. B.S, Harvard, 03, Ph.D, 09. Museum director, Boston Soc. Nat. Hist, 03-23; *geologist*, *U. S. Geol. Surv*, 13-22, 26-; *director*, *Cushman Lab*, 23- Lecturer, Harvard, 26- Paleont. Soc; Geol. Soc; Am. Geog. Soc; Am. Acad; New Eng. Bot. Club; Boston Soc. Nat. Hist; Wash. Acad. Fossil and recent Foraminifera; desmids; Ostracoda.

- Cushman, R(obert) A(sa)**, U. S. National Museum, Washington, D. C. *Entomology*. Taunton, Mass, Nov. 6, 80. New Hampshire, 99, 01; Cornell, 02-05. *Bur. entom.*, U. S. Dept. Agr, 06-, *assoc. entomologist*. Wash. Entom. Soc. (sec'y, v. pres, pres, 25); Wash. Biol. Soc. Ichneumonidae.
- Custis, Dr. Horace H(atch)**, 1839 Irving St, N. W, Washington, D. C. *Chemistry*. Washington, March 16, 84. A.B, Hopkins, 06; A.M, George Washington, 08, Ph.D, 16. Chemist, Wash. Gas Light Co, 06-08; asst. chem, George Washington, 07-08; asst. to chemist, health dept, D. C, and collaborating chemist, bur. chem, U. S. Dept. Agr, 08-09; junior chemist, U. S. Geol. Surv, 09, chemist, 09; U. S. Dept. Agr, 09-Chem. Soc. Actinochemistry.
- Cutler, Prof. A(ivin) S**, 39 Barton Ave, S. E, Minneapolis, Minn. *Civil engineering*. Pittsford, Mich, March 19, 79. Hillsdale, 96-00; C.E, Minnesota, 05. Eng. dept, railways, 00-18; instr. *railway eng*, Minnesota, 07-10, asst. prof, assoc. prof. and prof, 22- Civil Eng; Ry. Eng. Railway engineering.
- Cutler, Dr. Elbridge G(erry)**, 214 Beacon St, Boston, Mass. *Surgery*. Farmington, Maine, Sept. 7, 46. A.B, Harvard, 68, M.D, 72. Asst. path. anat, Harvard, 78-82, clin. instr, auscultation, 84-88, instr. theory and practice of med, 88-09; *consulting physician*, Mass. Gen. Hosp, 08-Visiting physician, Mass. Gen. Hosp. Emer. mem. Am. Physicians; Am. Med. Ass. The urine; contagious and infectious diseases; gastric ulcer in children.
- Cutler, Dr. Elliott C(arr)**, Western Reserve University, Cleveland, Ohio. *Surgery*. Bangor, Maine, July 30, 88. A.B, Harvard, 09, M.D, 13, fellow, 13-14. House officer, Peter Bent Brigham Hosp, Boston, 13-15; res. surgeon, Am. Ambulance Hosp, Paris, 15; asst. surg, Harvard Med. Sch, 15-16; res. surgeon, Mass. Gen. Hosp, 15-16; vol. asst, Rockefeller Inst, 16-17; res. surgeon, Peter Bent Brigham Hosp, 19-20; instr. surg, Harvard Med. Sch, 19-24; *prof, sch. med*, Western Reserve, and *surgeon-in-chief*, Lakeside Hosp, Cleveland, 24- D.S. medal. Major, M.C, 17-19. A.A; Surg. Ass. Experimental liver pathology; torula disease; strychnin poisoning; heart and lung surgery.
- Cutler, Dr. Ira E(ugene)**, 2122 S. Clayton St, Denver, Colo. *Zoology*. Putnam, Conn, 63. B.S, Albion, 93; A.M, Denver, 07, LL.D, 19. Manager flouring mill, 93-94; teacher science, high sch, Mich, 94-97; supt, schools, Crystal Falls, 97-98; *head dept. zool*, Denver, 98- A.A; Bot. Soc; Genetic Ass; Ornith. Union; Cooper Ornith. Club; Soc. Mammal; Denver Teknik Club. Genetics.
- Cutright, Dr. C(lifford) R**, Ohio Agricultural Experiment Station, Wooster, Ohio. *Entomology*. Buckhannon, W. Va, June 20, 93. A.B, Ohio State, 21, M.S, 22, Ph.D, 25. *Asst. entomologist*, Ohio Exp. Sta, 22- Summers, field asst, bur. entom, U. S. Dept. Agr, 14-17. Lieut, U.S.A, 17-19. Entom. Soc; Ass. Econ. Entom; Ohio Acad. Subterranean aphids; aphid predators.
- Cutsforth, T(homas) D**, University of Oregon, Eugene, Oregon. *Psychology*. Pacific, Wis, May 20, 93. A.B, Oregon, 18, A.M, 23. Asst, Oregon, 21-23, teaching fellow, 23-25, *instr*, 25- Sensation, perception, imagination and higher thought processes in synaesthesia; emotional synaesthesia and eidetic imagery.
- Cutter, Dr. Irving S(amuel)**, 629 Garrett Place, Evanston, Ill. *Biochemistry*. Keene, N. H, Dec. 5, 75. B.S, Nebraska, 98, M.D, 10, Sc.D, 25. Instr. physical chem, Nebraska, 10-13, adjunct prof. biochem, 13-14, prof, 14-25, director laboratories and dean med. col, 15-25; *dean med. sch*, Northwestern, 25- A.A; Am. Med. Ass; Chem. Soc. Creatin and creatinin in metabolism of children.
- Cutter, Dr. William D(ick)**, 301 E. 20th St, New York, N. Y. *Physiology*. Brooklyn, N. Y, Sept. 14, 78. A.B, Yale, 99; M.D, Hopkins, 05. Asst. physiol. chem, Columbia, 99-01; prof. physiol. and pharmacol, Georgia, 11-19; sec'y, board med. examiners, N. Y. State Dept. Educ, 19-23; *dean*, N. Y. Post-Grad. Med. Sch, 23- A.A; Am. Med. Ass; N. Y. Acad. Med. Tendon mucoid; salivary and renal secretion.

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Daane, Prof. A(drian), 901 College Ave, Stillwater, Okla. *Agronomy*. Fairwater, Wis, April 7, 82. Ph.B, Wisconsin, 13, M.S, 14. Asst. prof. agron. and asst. agronomist, Okla. Agr. and Mech. Col, 14-19, assoc. prof. and assoc. agronomist, 19-23, *prof, head dept. and agronomist*, 23- Soc. Agron. Cereals; forage crops.

Dabney, Dr. Charles W(illiam), 4 Warren Ave, Siwanoy Park, Bronxville, N. Y. **Chemistry*. Hampden-Sidney, Va, June 19, 55. A.B, Hampden-Sidney, 73; Virginia, 77; Ph.D, Göttingen, 80; LL.D, Yale, 01, Hopkins, 02. Prof. chem, Emory and Henry, 77-78; state chemist and director, N. C. Exp. Sta, 80-87; pres, Tennessee, 87-04, prof. agr. and director, Exp. Sta, 87-90; pres, Cincinnati, 04-20. Asst. sec'y agr, 93-97; special agent, sci. investigation, U. S. Dept. Agr, 97; pres, Summer Sch. of South, 02-04; mem, S. Educ. Board, 02-10. Chief dept. govt. and state exhibit, New Orleans Expos, 84; chairman board govt. exhibit, Atlanta Expos, 95; Tenn. Centennial Expos, 97; jury awards, Paris Expos, 00. Chevalier, Légion d'honneur; Officier de l'Instruction Pub. A.A; Am. Geog. Soc; Wash. Acad. Geology; isomerism among benzol compounds; isopieraminic acid; phosphates; agricultural resources of North Carolina; potash, asphalt rock, lignites and kaolin in Texas and the Southwest; history of agricultural and technical education in the United States; cooperation in education; the culture of cotton.

Dachnowski, Dr. A(lfred) P(aul), U. S. Department of Agriculture, Washington, D. C. *Botany*. Königshütte, Germany, Jan. 23, 75. Berlin, 00-01; Vienna, 02; Ph.D, Michigan, 06. Asst. plant physiol, Michigan, 03-06; asst. prof. bot, Ohio State, 08-14; *plant physiologist*, bur. soils, U. S. Dept. Agr, 15, *bur. plant indust*, 15- Collaborator, bur. plant indust, U. S. Dept.

- Agr. 09-; botanist, Ohio Geol. Surv., 09-12. Wash. Acad. Stratigraphy of peat deposits; types of peat material; correlation; peatland agriculture.
- Dadisman, Prof. A(ndrew) J(ackson)**, 305 Beverly Ave, Morgantown, W. Va. *Agricultural economics*. Grafton, W. Va., Feb. 5, 81. Grad, Fairmont State Nor. Sch, 08; B.S.A., West Virginia, 14; M.S.A., Cornell, 14, Ph.D., 24. Teacher, pub. schools, W. Va., 01-06, 08-11; asst. agriculturist, office farm management, U. S. Dept. Agr., 14-16; assoc. prof. rural econ. and farm management, *West Virginia*, 16-24, *prof. farm econ*, 24- Farm help specialist, W. Va., Ky. and Tenn., 17-18. Farm Econ. Ass; Econ. Ass; W. Va. Acad. Farm economics and management.
- Dadourian, Prof. H(aroutune) M(ugurdich)**, Trinity College, Hartford, Conn. **Physics*. Everek, Asia Minor, Dec. 5, 78. Ph.B., Yale, 03, Loomis fellow, 03-05, A.M., 05, Ph.D., 06. Asst. physics, Sheffield Sci. Sch, Yale, 05-06, instr., 06-17; asst. prof., *Trinity (Conn)*, 19-20, assoc. prof., 20-23, *prof. math. and astron*, 23- Aeronaut. engineer, Sig.C., 17-19. A.A.; Physical Soc; Math. Soc. Analytical mechanics; graphic statics; principles of dynamics; radio-activity of underground air and thorium; constituents of atmospheric radioactivity; production of soft X-rays by slow moving electrons; reflection of electrons from metal surfaces; ionization and radiation; temperature coefficient of the modulus of elasticity of steel; characteristics of electrically operated tuning forks; a phono-telemeter; acoustic circles; simple derivation of the Lorentz transformations.
- Daffin, Prof. John B(aker)**, 845 College St, Batesville, Ark. *Organic chemistry*. Marianna, Fla., July 25, 95. B.S., Davidson, 18; M.S., Chicago, 24. Teacher chem. and physics, Chamberlain-Hunt Acad, 19-20; *prof. chem*, *Arkansas Col*, 20- Summer, prof, Ark. State Teachers Col, 25; chemist, Air Nitrates Corp, U. S. Nitrate Plant No. 2, Muscle Shoals, 18-19. A.A.; Chem. Soc. (v. chairman, Ark. sect, 25). Crotonic acids.
- Daghlian, Prof. G(arabed) K(rikor)**, 35 Sherman St, New London, Conn. *Physics*. Aintab, Turkey, Jan. 11, 82. A.B., C. T. Col, Aintab, Turkey, 02; A.M., Columbia, 10, Ph.D., 11; Am. Univ, Beirut, Syria, 06-07. Prof. physics and chem, C. T. Col, Aintab, 11-15; instr. *physics*, Alfred, 11-12; asst. prof., *Conn. Col. for Women*, 21-22, *assoc. prof*, 22-, *head dept. physics and physical chem*, 21- Physical Soc; Astron. Soc. Astronomy.
- Dahlberg, A(rthur) C(hester)**, New York Agricultural Experiment Station, Geneva, N. Y. *Dairying*. Curtiss, Wis., Jan. 1, 96. B.S., Minnesota, 15, M.S., 16. Instr. dairying, Wisconsin, 16-17; creamery exten. specialist, N. Dak. Col, 17-19; supt. cooperative creamery, N. Dak., 19-21; *chief research*, *N. Y. Exp. Sta. Geneva*, 21- Dairy Sci. Ass; N. Y. Dairymen's Ass. (pres, 26); N. Y. Jersey Cattle Club (pres, 26). Dairy manufacturing; butter; ice-cream; market milk.
- Dahlgren, Prof. Ulric**, Princeton University, Princeton, N. J. **Histology*. Brooklyn, N. Y., Dec. 27, 70. A.B., Princeton, 94, M.S., 96. Instr. *biol*, *Princeton*, 95-99, asst. prof., 99-11, *prof*, 11- Summers, instr., Woods Hole, 96-97, asst. director, 99-; trustee, Harpswell Lab, 14-; director, Mt. Desert Biol. Lab, 21-26. Potts gold medal, Franklin Inst, 17. A.A.; Soc. Nat; Soc. Zool; Ass. Anat. Principles of animal histology; production of light by organisms; giant ganglion cell apparatus; breathing valves; dorsal nervous apparatus, and electric and luminous organs of fishes; evolution of electric organs from musele; static and auditory organs of mollusks.
- Dahm, Dr. Tho(ma)s M(atthew)**, University of Idaho, Moscow, Idaho. *Physics*. McGregor, Iowa, July 28, 87. A.B., Northwestern, 08, A.M., 09; Ph.D., Wisconsin, 26. Instr. *physics*, Wisconsin, 20-22; *asst. prof*, *Idaho*, 22- A.A.; Physical Soc; Optical Soc. Ultra-violet ray filters.
- Dains, Dr. F(rank) B(urnett)**, 1224 Louisiana St, Lawrence, Kans. **Chemistry*. Gouverneur, N. Y., Jan. 15, 69. Ph.B., Wesleyan, 90, M.S., 91; fellow, Chicago, 94-95, Ph.D., 98; Berlin and Freiburg, 01-02. Asst. *chem*, Wesleyan, 91-93; asst. prof, Kansas, 93-94; Northwestern, 95-02; prof, Washburn, 02-11; assoc. prof, *Kansas*, 11-14, *prof*, 14- Educ. Relations Committee, Nat. Research Council. A.A.; Chem. Soc; Kans. Acad. (pres, 09); Chem. Gesell. Aldehydes; urea ethers; substituted ureas; thiazoles; imidazoles; pyrazoles; halogen compounds; the interaction of formamidins with bodies containing methylene hydrogen; oxidation of alcohols with aromatic nitro compounds.
- Dake, Prof. C(harles) L(aurence)**, Missouri School of Mines, Rolla, Mo. *Geology*. Chaseburg, Wis, April 2, 83. A.B., Wisconsin, 11, fellow, 11-12, A.M., 12; fellow, Columbia, 20-21, Ph.D., 22. Asst. *geol*, Williams, 12-13; asst. prof, *Mo. Sch. Mines*, 13-18, assoc. prof, 18-21, *prof*, 21- Summers, Wis. Geol. and Nat. Hist. Surv, 10; asst. geologist, A. C. and H. B. Ry, 11, Longyear Prospecting Co, 12, Mo. Bur. Geol. and Mines, 13-15, 19-26, Wyo. Geol. Surv, 16. A.A.; Geol. Soc; Min. and Metal. Eng; Eng. Educ. Origin of iron ores; sand and gravel resources of Missouri; petroleum geology; interpretation of topographic and geologic maps.
- Dakin, Dr. H(enry) D(rysdale)**, Edgehill, Scarborough-on-Hudson, N. Y. **Chemistry*. London, Eng, March 12, 80. B.S., Manchester, 01; 1851 Exhib. scholar at London and Heidelberg; D.Sc, Leeds, 07; Sc.D., Yale, 18. Demonstrator chem, Leeds, 01-02; *research worker*, *Lister Inst. Prev. Med*, *London*, *Heidelberg* and *Herter's Lab*, *New York*. Chevalier, Légion d'honneur. A.A.; Biochem. Soc; Soc. Biol. Chem. (ed, 'Jour'); Physiol. Soc; Soc. Exp. Biol; Harvey Soc; fel. Royal Soc; Inst. Chem. Gt. Britain and Ireland; London Chem. Soc; Chem. Gesell. Organic chemistry and its biological applications; chemistry of enzyme action and of animal oxidative processes; antiseptics.
- Dalaker, Prof. H(ans) H**, 523 Walnut St, S. E, Minneapolis, Minn. *Mathematics*. Rennesö, Norway, Dec. 6, 71. A.B., Minnesota, 02; Cornell, 06-07, fellow, 07-08, Ph.D., 17. Instr,

- Decorah Inst, Iowa, 93-97; math, *Minnesota*, 02-07, asst. prof, 08-23, *prof. math. and mech*, 23-; Math. Soc; Math. Ass. Functions of the complex variable; automorphic functions.
- Dale, Prof. E(rnest) E(dward)**, University of Porto Rico, Rio Piedras, P. R. *Botany*. Waverly, Nebr, Sept. 10, 88. A.B, Nebraska, 13; M.S, Kansas Col, 20. *Prof. biol, Porto Rico*, 21- Quantitative inheritance in Capsicum.
- Dale, Dr. J(ulian) K(alfus)**, 3125 Huntington Boulevard, Fresno, Calif. *Chemistry*. Lexington, Ky, April 13, 89. A.B, Princeton, 11, A.M, 13, fellow, 13-14, Ph.D, 14. Asst, Princeton, 11-13; asst. chemist, bur. chem, U. S. Dept. Agr, 14-19; research chemist, U. S. Food Products Corp, 19-22; A. E. Staley Mfg. Co, 22-23; chief chemist, Sun-Maid Raisin Growers Ass, 23-27; *Nat. Research Council fellow carbohydrate chem*, 27- A.A; Chem. Soc. Carbohydrates; sugar; syrup; starch.
- Dale, Prof. N(elson) C(lark)**, Hamilton College, Clinton, N. Y. *Geology*. Newport, R. I, July 9, 80. B.S, Middlebury, 03; A.M, Brown, 10; fellow, Princeton, 12-14, Ph.D, 14. Asst. and instr. *geol*, Brown, 08-12; asst, Princeton, 12-14; asst. prof, *Hamilton*, 14-15, assoc. prof, 15-16, *prof*, 16-, *head dept*, 14- Geologist, R. I. Nat. Resources Surv, 09-12; mem, Vt. Geol. Surv, 14-15; N. Y. Geol. Surv, 15, 21; summers, field asst, U. S. Geol. Surv, 99-03; consulting geologist, 18, 20. Princeton exped, Newfoundland, 13-14. A.A; fel. Geol. Soc. Chemical geology; manganese deposits; mineralogical, petrographical and structural geology of New York; areal and stratigraphical geology of Newfoundland.
- Dale, T(homas) Nelson**, 78 Holmes Road, Pittsfield, Mass. *Geology, Botany*. New York, N. Y, Nov. 25, 45. Private schools and instruction. Prof. *geol, zool, and bot*, Drury, 77; *geol*, Vassar, 78; instr, Williams, 93-97, *geol. and bot*, 97-01; field asst, U. S. Geol. Surv, 85-89, asst. geologist, 90-91, geologist, 92-20; *consulting geologist*, 20- Cor. mem. Vienna Geol. Bundesanstalt; Soc. géol. de France. Structural and areal geology and landscape of the Taconic region; secondary structures in stratified rock; slate; New England granites; Vermont, Tennessee, Georgia and Alabama marbles; lime-producing belt of western Massachusetts and eastern New York.
- Dales, Dr. Benton**, B. F. Goodrich Co, Department 59C, Akron, Ohio. *Chemistry*. Lincoln, Nebr, Dec. 11, 77. B.S, Nebraska, 97, A.M, 99; fellow, Cornell, 00-01, Ph.D, 01. Asst. chem, Nebraska, 97-99; Cornell, 01-03; asst. prof, Nebraska, 03-06, assoc. prof, 06-08, *prof. and head dept*, 08-18; *research chemist*, B. F. Goodrich Co, 18- A.A; Chem. Soc. Rare earths; iron; rubber.
- Dallenbach, Dr. Karl M.**, Cornell University, Ithaca, N. Y. *Psychology*. Champaign, Ill, Oct. 20, 87. A.B, Illinois, 10; fellow, Pittsburgh, 10-11, A.M, 11; fellow, Cornell, 11-12, Ph.D, 13. Asst. *psychol*, Illinois, 09-10; instr, Oregon, 13-15; Ohio State, 15-16; *Cornell*, 16-21, *asst. prof*, 21- Assoc. ed. and business manager, 'Am. Jour. Psychol,' 21-25, ed, 26- Capt, Sanit.C, 18-19. A.A; Psychol. Ass. Experimental psychology; cutaneous sensation; attention; psychophysics.
- Daly, Prof. Reginald Aldworth**, 23 Hawthorn St, Cambridge, Mass. **Geology*. Napanee, Ont, Can, May 19, 71. B.A, Victoria (Ont), 91; A.M, Harvard, 93, Ph.D, 96; Heidelberg and Paris, 96-98; hon. D.Sc, Toronto, 23. Instr. *geol*, Harvard, 95-96, *physiog*, 98-01; geologist, Can. Int. Boundary Commission, 01-07; *prof. physical geol*, Mass. Inst. Tech, 07-12; *Sturgis-Hooper prof. geol*, Harvard, 12- Nat. Acad; A.A. (chairman, *geol. sect*, 25); Geol. Soc; Seismol. Soc; Philos. Soc; Am. Acad; for. cor. London Geol. Soc; Geol. Soc. Glasgow; fel. Royal Soc. Edinburgh; Miner. Soc. Petrograd. Field geology; petrology; physical geography; geology along the 49th parallel; geophysics.
- Damon, Samuel Chester**, Kingston, R. I. *Agronomy*. Ashby, Mass, Nov. 2, 57. B.S, Mass. Col. and Boston, 82. *Asst. field experiments*, R. I. *Exp. Sta*, 07- Soc. Agron. Soil treatment; crop culture.
- Damon, Dr. S(amuel) Reed**, Johns Hopkins University, Baltimore, Md. *Bacteriology*. Lancaster, Mass, June 27, 93. Ph.B, Brown, 16, A.M, 17, Ph.D, 21. Asst. bacteriologist, R. I. State Board Health, 20-21; lecturer *bacter*, Clark, 21; instr, *sch. hygiene and pub. health*, Hopkins, 21-24, *assoc*, 24- Soc. Bact. Vitamin synthesis by bacteria; anaerobic thermophiles; food poisoning; scarlet fever.
- Damtolt, W(alter) J(ulius)**, Canton, N. C. *Forestry*. Southport, Conn, Nov. 11, 90. Ph.B, Yale, 10, M.F, 11. Forest asst, U. S. Forest Service, 11-19; *forester*, *Champion Fibre Co*, Canton, 20- Soc. Foresters (chairman, south. Appalachian sect, 25).
- Dana, Prof. B(iss) F.**, Washington State College, Pullman, Wash. *Plant pathology*. Ridgeway, Kans, July 29, 91. B.S, Wash. Col, 16, M.S, 17. Instr. and asst. bacteriologist, *Wash. Col*, 17-18, instr, 18-23, *asst. prof. plant path*, 23-, *asst. plant pathologist*, 18- A.A; Phytopath. Soc; Crop Protection Inst; Potato Ass; Northwest Sci. Ass. Soil bacteriology; potato diseases.
- Dana, Dr. Charles L(oomis)**, 53 W. 53d St, New York, N. Y. **Nervous and mental diseases, Medicine*. Woodstock, Vt, March 25, 52. A.B, Dartmouth, 72, A.M, 75, LL.D, 05; M.D, Columbia, 77. *Prof. physiol*, Woman's Med. Col. N. Y, 80-88; nervous diseases, med. sch, Dartmouth, 84; nervous and mental diseases, N. Y. Post-Grad. Med. Sch, 86-98; *nervous diseases, med. col*, Cornell, 99- Visiting physician, Bellevue Hosp. Formerly asst. ed, 'Med. Record.' A.A; Am. Physicians; Psychol. Ass; Neur. Ass; Am. Acad. Med. (pres); Social Sci. Ass; N. Y. Acad. Med. (pres); N. Y. Psychiat. Soc. (pres, 13). Public health; neurology; psychiatry; physiology; psychology; archeology; the applications of modern doctrines of pathology to neuropathology; pathology of paralysis agitans of the combined sclerosis of douloureux; cerebral localization of cutaneous

- sensations; alcoholism; alcoholic meningitis; degenerative diseases of the brain and cord.
- Dana, Prof. E(dward) S(alisbury)**, 24 Hillhouse Ave, New Haven, Conn. **Mineralogy*. New Haven, Nov. 16, 49. A.B., Yale, 70, A.M., 74, Ph.D., 76; Heidelberg and Vienna, 72-74. Tutor physics, Yale, 74-79, asst. prof., 79-90, prof. physics and curator miner, 90-18, emer. prof., 18- Ed, 'Am. Jour. Sci.,' 75- Trustee, Peabody Museum. Nat. Acad; A.A.; Geol. Soc; Physical Soc; Philos. Soc; Am. Acad; London Geol. Soc; Edinburgh Geol. Soc; Cambridge Philos. Soc. Crystallography.
- Dana, Dr. Leo I(sadore)**, 169 Chandler St, Buffalo, N. Y. *Physics*. Boston, Mass, Nov. 1, 95. B.S., Mass. Inst. Tech, 17; Ph.D., Harvard, 22, Sheldon traveling fellow, Leiden, 22-23. Asst. physicist, Bur. Standards, 19-22; *physicist*, *Linde Air Products Co*, 23- Physical Soc; as-soc. Mech. Eng. Thermodynamics; cryogenic engineering; high temperature melting points; latent heat of liquid air; latent and specific heats of liquid helium; properties of air; thermal properties of hydrocarbon refrigerants.
- Dana, Samuel T(rask)**, 5 Mt. Pleasant St, Amherst, Mass. *Forestry*. Portland, Maine, April 21, 83. A.B., Bowdoin, 04; M.F., Yale, 07. U. S. Forest Service, 07-18, asst. chief branch of research, 19-21; forest commissioner, Maine, 21-23; *director*, *Northeast. Forest Exp. Sta.*, U. S. Forest Service, 23- Capt, Gen. Staff, 18-19. A.A.; Soc. Foresters (treas, 10-13, 16, exec. council, 19-23, pres, 25); Ecol. Soc. Silviculture; forest ecology and economics.
- Dancey, Prof. Lloyd S(lote)**, Waukesha, Wis. *Physics*. Fairbury, Ill, Feb. 5, 79. A.B., Illinois, 07, A.M., 08; Chicago. *Prof. and dean physics*, *Carroll*, 08- Physical Soc. Temperatures in the mercury arc.
- Danchakoff, Prof. Vera**, 437 W. 59th St, New York, N. Y. *Anatomy*. Petrograd, Russia, March 21, 79. Grad. Gymnasium, Petrograd, 94; M.D., Lausanne, 02; Kharkov, 03; Petrograd Acad. Med, 07. Privat docent, Moscow, 08; prof. histol. and embryol, Moscow Med. Sch, 10-11; instr. *anat*, *Columbia*, 16, asst. prof., 17- Ass. Anat; N. Y. Acad; Anat. Gesell; Ass. des Anat. Embryology; cytology; immunity; histogenesis of blood; digestive capacity of the mesenchyme in relation to immunity.
- Dandeno, Prof. J(ames) B(rown)**, Department of Education, Toronto, Ont, Can. *Botany*. Guelph, Ont, Feb. 2, 62. B.A., Queen's (Can), 95; A.M., Harvard, 99, Ph.D., 04. Teacher and prin, high schools, N. Y. and Mass, 88-98; asst, bot. museum, Harvard, 99-01; teacher bot, St. Louis Nor. Sch, 01-02; asst. prof, Mich. State Col, 02-10; prin, Bowmanville High Sch, 10-15; *inspector*, *agr. classes*, Dept. Educ, *Toronto*, 15- Summers, asst, Harvard, 99-01. Absorption of water by leaves; normal solutions; seed dispersion; mass action and physical affinity to toxicity; colors as vital stimuli; interaction of plant roots; Puccinia malvacearum; osmotic theories; Sclerotinia fructigena; Didymamia perforans; the production of cellulose and starch; toxic action of Bordeaux mixture; plant roots as modifiers of soil.
- Dandy, Dr. Walter E(dward)**, Johns Hopkins University, Baltimore, Md. *Surgery*. Sedalia, Mo, April 6, 86. A.B., Missouri, 07; M.D., Hopkins, 10, A.M., 11. Assoc. *surg*, *Hopkins*, assoc. prof, 21- Surg. Ass. Surgery of the nervous system; neurological anatomy, physiology and surgery.
- Danforth, Prof. C(harles) H(askell)**, Stanford University, Calif. *Anatomy*. Oxford, Maine, Nov. 30, 83. A.B., Tufts, 08, fellow, 08-09, A.M., 10; Ph.D., Washington (St. Louis), 12. Instr. *anat*, Washington (St. Louis), 08-14, assoc, 14-16, assoc. prof, 16-22; *Stanford*, 22-23, prof, 23- Instr, Tufts, 10-11; teaching fellow, Harvard Med. Sch, 10-11. A.A.; Ass. Anat; Eugenics Research Ass; Anthropol. Ass; Soc. Exp. Biol; Soc. Zool. Physical anthropology; human variation and heredity.
- Danforth, Ralph E(merson)**, Chesterfield, Mass. *Ecology*. Philadelphia, Pa, Oct. 1, 77. A.B., Michigan, 08, M.S., 19; foreign study. Director, Jaffrey Nature Class, Jaffrey, N. H., 14-17; instr. zool, Rutgers, 17-19, asst. prof, 19-21; prof. biol, Porto Rico, 21-25; *investigator*, 25- A.A. Human and animal ecology; racial progress; ants.
- Danforth, Prof. R(aymond) H(ewes)**, Case School of Applied Science, Cleveland, Ohio. *Mechanical engineering*. Salem, Mass, Nov. 8, 77. B.S., Mass. Inst. Tech, 98. Staff, U. S. Naval Eng. Exp. Sta, Annapolis, 08-11; asst. to head postgrad. dept, U. S. Naval Acad, 11-14; *prof. and head dept. mech. and hydraul*, *Case*, 14- Mech. Eng. (chairman, fuel oil research committee); Eng. Educ; Soc. Test. Mat; Cleveland Eng. Soc. Flow of fluids; impact and abrasion; resistance of metals; properties of twisted fibers.
- Daniel, Prof. John**, Vanderbilt University, Nashville, Tenn. *Physics*. Perry Co, Ala, July 6, 63. A.B., Alabama, 84, A.M., 86, LL.D., 14; Hopkins, 86-88; Berlin, 92. Asst. prof. *physics*, Alabama, 84-86; asst, *Vanderbilt*, 88-89, instr, 89-90, adjunct prof, 90-94, *prof*, 94- Jury awards, Tenn. Centennial Expos, 97. A.A. Voltameter polarization; X-rays, including the depilatory and burning effect; photometry.
- Daniel, Prof. J(ohn) Frank(lin)**, University of California, Berkeley, Calif. *Zoology*. O'Fallon, Mo, July 31, 73. B.S., Chicago, 06; fellow, Hopkins, 07-08, Adam T. Bruce fellow at Pasteur Inst, Lille, 08-09, Ph.D., 09. Educ. Dept, P. I., 01-05; instr. zool, Michigan, 09-10; comp. anat, *California*, 10-11, asst. prof. *zool*, 11-17, assoc. prof, 17-19, *prof*, 19- A.A.; Soc. Zool; Soc. zool. de France; Ass. des Anat. Adaptation and immunity; tolerance produced by alcohol; anatomy of elasmobranch fishes.
- Daniel, Zaccheus**, Allegheny Observatory, Pittsburgh, Pa. *Astronomy*. Hawthorn, Pa, Nov. 14, 74. B.S., Princeton, 08, Thaw fellow, 08-10, A.M., 09. Asst, Princeton Observatory, 03-08; *Allegheny Observatory*, 10-21, asst. astronomer, 21- Three Donohoe comet medals, Pacific Astron. Soc. A.A.; Astron. Soc; hon. mem. Soc. Astron. de Mex; Soc. astron. de France. Variable stars; orbits of spectroscopic binaries; stellar parallax.

- Daniell, Prof. Percy J(ohn)**, University of Sheffield, Sheffield, England. *Mathematics*. Valparaiso, Chile, Jan. 9, 89. B.A., Cambridge, 10, M.A., 14; traveling fellow, Rice Inst., 12-13. Asst. lecturer math, Liverpool, 11-12; asst. prof. *applied math*, Rice Inst., 13-20, *prof.*, 20-23; *Sheffield*, 24- Senior wrangler math, Cambridge, 09, first class physics tripos, 10. Rayleigh prize, 12. Math. Soc; Math. Ass. End correction for resistance columns; general integrals.
- Daniells, Prof. Marian E(lizabeth)**, 2220 Knapp St., Ames, Iowa. *Mathematics*. Kalamazoo, Mich., Jan. 27, 86. A.B., Kalamazoo, 08; A.B., Chicago, 08; M.S., Iowa Col., 19. Head dept. math, high schools, Mich. and Ind., 08-14; instr. *math*, Iowa Col., 14-19, *asst. prof.*, 19- Math. Soc; Math. Ass. Function theory; pedagogy of mathematics.
- Daniels, Prof. Amy L(ouise)**, University of Iowa, Iowa City, Iowa. *Biochemistry*. Boston, Mass. B.S., Columbia, 06; Ph.D., Yale, 12. Asst. prof. home econ, Missouri, 11-14; assoc. prof., Wisconsin, 14-17, *prof. nutrition*, 17-18; *child welfare research sta*, Iowa, 18- Biochem. Soc. Nutrition.
- Daniels, Dr. Farrington**, Nakoma, Madison, Wis. **Physical chemistry*. Minneapolis, Minn., March 8, 89. B.S., Minnesota, 10, M.S., 11; Ph.D., Harvard, 14. Instr. and asst. prof. chem., Worcester, 14-18; electrochemist, U. S. Fixed Nitrogen Research Lab., 19-20; asst. prof. *chem.*, Wisconsin, 20-24, *assoc. prof.*, 24- Lieut., C.W.S., 19. A.A.; Chem. Soc. Nitrogen pentoxide; photochemistry; electrochemistry of gases; exact calorimetry; reaction rates.
- Daniels, Prof. Francis (Potter)**, Georgia State College for Women, Milledgeville, Ga. *Botany*. Ionia, Mich., Aug. 1, 69. A.B., Michigan, 95; A.M., Missouri, 97, Ph.D., 05; Harvard, 97-98. Manual Training High Sch., Mo., 06; prof. romance lang., Cornell (Iowa), 06-09; Wabash, 09-16; asst. prof. modern lang., Mo. Sch. Mines, 16-20; assoc. prof. romance lang., Arizona, 20-23, head dept. Spanish and Ital., 22-23; *prof. French and Latin*, Ga. Col. for Women, 23- Fellow, Kahn Foundation For Travel for Am. Teachers, 11; summer, prof. Columbia, 16. A.A.; Eugenics Soc; Modern Lang. Ass; Ass. Phonétique Int. Ecology of the flora of Sturgis and Manistee, Mich., and of Columbia, Mo; flora of the southwest.
- Daniels, Fred C(linton) T(ilton)**, Bethlehem Steel Co., Bethlehem, Pa. *Metallurgy*. Starkesboro, Vt., Jan. 22, 82. A.B., Worcester, 04. Chemist, Mackintosh, Hemphill and Co., 04-12; asst. supt. and metallurgist, Pittsburgh Iron and Steel Foundries, 12-14; metallurgist, Wheeling Mold and Foundry Co., 14-23; *supt. roll and steel foundries*, Bethlehem Steel Co., 23- Sand research, Am. Foundrymen's Ass. Chem. Soc; Soc. Steel Treat. Lead, antimony, nickel and tin alloys; sand; iron and steel metallurgy.
- Daniels, Prof. Joseph**, University of Washington, Seattle, Wash. *Mining engineering*. New York, N. Y., Aug. 8, 84. B.S., Mass. Inst. Tech., 05; M.S., Lehigh, 08. Dominion Coal Co., 05-06, 07; instr. mining eng., Lehigh, 07-08, asst. prof., 08-10, assoc. prof. and acting head dept., 10-11; *prof. mining eng. and metal*, Washington (*Seattle*), 11- Geologist, Wash. Geol. Surv., 11-17; investigator, iron industries, Pacific Northwest, 18-19, 24-25. A.A.; Min. Eng; Eng. Educ. Metallurgy; coal mining and beneficiation; fuels; mineral resources.
- Darbaker, Prof. L(easure) K(line)**, 7025 Hamilton Ave., Pittsburgh, Pa. *Bacteriology*. Pittsburgh, Jan. 13, 79. Ph.G., Ohio Northern, 00; Pittsburgh, 06, Phar.D., 09; Berlin, 08. Assoc. bacter. and pharmacog., Pittsburgh, 07-09, asst. bot. and mat. med., 07-14, *prof. bacter. and pharmacog.*, 09- A.A.; Soc. Bact; Pharmaceut. Ass; Micros. Soc; Chem. Soc; Soc. Plant Physiol; Am. Med. Ass; Pa. Acad; Pittsburgh Acad; Pittsburgh Bot. Soc. Histological pharmacognosy; plant pathology and physiology.
- Darling, Prof. C(hester) A(rthur)**, Allegheny College, Meadville, Pa. *Botany*. Leon, N. Y., Oct. 4, 80. A.B., Albion, 04, A.M., 06; Ph.D., Columbia, 09. Prof. biol., Defiance, 04-06; asst. bot., Columbia, 06-08, instr., 08-13; *prof. biol.*, Allegheny, 13- A.A.; Bot. Soc; Soc. Bact. Cytology; bacteriology.
- Darling, Dr. E(ugene) A(braham)**, 33 Concord Ave., Cambridge, Mass. *Medicine*. Troy, N. Y., April 17, 68. A.B., Harvard, 90, A.M., M.D., 94; Edinburgh. Asst. bacter., Harvard Med. Sch., 94-98, instr. hygiene, Harvard, 99-08, asst. prof. physiol., 08-13. Bacteriologist, Board Health, Cambridge; visiting surgeon, Cambridge Hosp. Am. Med. Ass; fel. Col. Surg; Ass. Path. and Bact. Effects of training; hygiene; bacteriology; physiology.
- Darling, Dr. J(ohn) H(enry)**, 532 W. Third St., Duluth, Minn. *Civil engineering, Astronomy*. Lake Ridge, Mich., April 15, 47. C.E., Michigan, 73, D.Eng., 15. Asst. engineer, U. S. Lake Surv., 73-82; U. S. River and Harbor Improvements, 83-13; builder, *Darling Observatory*, 15-16, *director*, 17- Solar eclipse exped., Frazer, Colo., 18. A.A.; Civil Eng; Astron. Soc; Am. Geog. Soc; Pacific Astron. Soc. Magnetic declinations; river and harbor improvements; convergent point in auroras.
- Darling, Philip G(renville)**, Manning, Maxwell and Moore, Bridgeport, Conn. *Mechanical engineering*. Somerville, Mass., May 25, 78. A.B., Harvard, 01; B.S., Mass. Inst. Tech., 05. *Engineer*, Manning, Maxwell and Moore, 05-10; E. I. du Pont de Nemours and Co., 10-19; *Manning, Maxwell and Moore*, 19- Am. Mission of Munitions of War, 17. Mech. Eng. (chairman, research committee, div. safety valves, 12). Safety valves.
- Darlington, Prof. H(enry) T(ownsend)**, Michigan State College, East Lansing, Mich. *Botany*. West Chester, Pa., June 23, 75. B.S., Idaho, 03; Colo. Col., 05; M.S., Harvard, 11; Ph.D., Chicago, 23. Chief engineer, Idaho-Iowa Lateral and Reservoir Co., Idaho, 04; eng. staff, Great West. Sugar Co., Colo., 05-09; instr. and asst. prof. *bot.*, Wash. Col., 11-14; *asst. prof. and curator herbarium*, and *director bot. garden*, Mich. State Col., 14- Temporary asst., Gray Herbarium. Bot.

- exped, Newfoundland, 11. A.A.; Bot. Soc; Mich. Acad. Systematic botany; ecology; distribution; flora of Michigan.
- Darlington, Dr. Thomas**, 27 Washington Square, New York, N. Y. *Medicine*. Brooklyn, N. Y., Sept. 24, 58. C.E., N. Y. Univ; M.D., Columbia, 80; Litt.D., Juniata, 24. *Practising physician*, 80- Commissioner and pres, New York Board Health, 04-10, consulting sanit. engineer; as-soc. prof., N. Y. Univ; lecturer, Fordham, Stevens. N. Y. State Workmen's Compensation Commission, 14-15. Consulting physician, Foundling and Broad St. Hospitals. Major, M.R.C., 17. Am. Med. Ass; Am. Acad. Med; Climat. Ass. (pres, 07); Soc. Med. Juris; Min. and Metal. Eng; Iron and Steel Inst. (former sec'y, asst. to pres); Inst. Social Sci. Climatol-ogy; sanitation; general medicine.
- Darnall, Dr. William Edgar**, 5 S. Morris Ave, Atlantic City, N. J. *Surgery*. Pearisburg, Va, April 9, 69. A.M., Washington and Lee, 92; M.D., Virginia, 95. *Gynecologist*, *Atlantic City Hosp*, 98- Physician, Mercer House for In-valid Women, 99-09; consulting surgeon, N. A. Sanitarium for the Treatment of Surg. Tuber, 12-; surgeon, Max and Sarah Baumberger Home. Pres, Atlantic Co. Mosquito Extermination Commission. A.A.; Col. Surg; Am. Med. Ass. (v. pres, 14); Am. Acad. Med. (v. pres, 12); Ass. Obstet. and Gynee. (v. pres, 25); Climat. Ass; Hosp. Clin. Ass. (pres); N. Y. Acad. Med; N. J. Mosquito Exterm. Ass. (past pres).
- Darrach, Prof. William**, Columbia University, New York, N. Y. *Surgery*. Germantown, Pa, March 12, 76. A.B., Yale, 97, hon. A.M., 20; A.M., M.D., Columbia, 01. Demonstrator anat, *Columbia*, 03-06, assoc, 06-09, instr. clin. surg, 06-16, prof, 16-19, *prof. clin. surg. and dean med. faculty*, 19- Second asst, first asst. and junior visiting surg, Roosevelt Hosp, 06-13; assoc. attending surg, Presb. Hosp, 13-16; di-rector surg. div, Bellevue Hosp, 16- B.E.F; from capt. to col, M.C., U.S.A. Pres. board managers, Sloane Hosp. and Vanderbilt Clinic; trustee, Roosevelt Hosp; Hill School, Pa, and Fay School, Mass. Ass. Anat; fel. Surg. Ass; Soc. Clin. Surg; Am. Med. Ass; N. Y. Acad. Med; Soc. Int. de Chirurg. Surgery; fractures.
- Darrow, Dr. Chester W(illiam)**, University of Chicago, Chicago, Ill. *Physiological psychology*. Fort Plain, N. Y., Nov. 7, 93. A.B., Des Moines Col, 15; A.M., Oglethorpe, 20; Ph.D., Chicago, 24. Instr. psychol, Chicago, 23-26; *research psychologist*, *Inst. Juvenile Research*, 26- The effect of bodily attitudes in facilitating and in-hibiting verbal association; sensory, secretory and electrical changes in the skin following sen-sory excitation.
- Darrow, Geo(rge) M(cMillan)**, U. S. Department of Agriculture, Washington, D. C. *Horticulture*. Springfield, Vt, Feb. 2, 89. A.B., Middlebury, 10; A.M., Cornell, 11; Ph.D., Hopkins, 27. Sci. asst, asst. pomologist and *pomologist*, U. S. Dept. Agr, 11- Hopkins, 23-25. Ed. board, 'Jour. of Heredity.' A.A.; Soc. Hort. Sci; Ecol. Soc; Soc. Plant Physiol; Genetic Ass; Wash. Bot. Soc. Plant culture, breeding and taxonomy of small fruits; pear breeding.
- Darrow, Dr. Karl K(elchner)**, 463 West St, New York, N. Y. *Physics*. Chicago, Ill, Nov. 26, 91. Ph.D., Chicago, 17; Paris and Berlin, 11-12. *Physicist*, West. Elec. Co, 17-24, *Bell Tele-phone Laboratories, Inc*, 25- Ed. board, 'Phys-ical Rev,' 24- A.A.; Physical Soc; Optical Soc; Soc. de Physique; Physik. Gesell. Theoretical physics.
- Darton, N(elson) H(oratio)**, U. S. Geological Survey, Washington, D. C. *Geology*. New York, N. Y., Dec. 17, 65. Sc.D., Arizona, 22. *Geologist*, U. S. Geol. Surv, 86-10; U. S. Bur. Mines, 10-13; U. S. Geol. Surv, 13- A.A.; Geol. Soc; Soc. Econ. Geol; Ass. Geog; Min. Eng; Min. and Metal. Soc; Archeol. Soc; Wash. Geol. Soc; Wash. Acad; Geol. Gesell; Soc. géol. de France; Alliance française. Bibliography of North American geology; Appalachian geology; Newark rocks of New Jersey; artesian waters of South Dakota and Nebraska; geology of the Great Plains, Big Horn Mountains, Black Hills, Laramie Basin, Wyoming, Baja California, Cuicuilco and Arizona; explosive gases in coal mines; underground waters of western United States; underground temperatures of the United States; the northern anthracite coal field; great Permian salt deposit; explosion craters; red beds and structures of New Mexico; the Grand Canyon of the Colorado; geologic and topo-graphic maps of Arizona and New Mexico.
- Dash, J(ohn) S(ydney)**, Pointe-à-Pitre, Guade-loupe, W. I. *Agriculture*. Barbados, W. I, April 9, 87. B.A.Sc, McGill, 13. Plant pathol-ogist, B. C. Can, 13-14; asst. director agr, Bar-bados, 14-18; director, Station Agron, Guade-loupe, 18-21; tobacco specialist, Cent. Exp. Farm, Ottawa, 21-22; supervising analyst, seed branch, Dominion Dept. Agr, 22; *prof. agr. and agron*, *Imp. Col. Trop. Agr, Trinidad, W. I*, 22- Collaborator, 'Bot. Abstracts,' 19. Phy-topath. Soc. Entomology; mycology; sugar cane; cotton; bananas; tobacco.
- Dashiell, Prof. J(ohn) F(rederick)**, Chapel Hill, N. C. *Psychology*. Southport, Ind, April 30, 88. B.S., Evansville, 08, B.L., 09; A.M., Colum-bia, 10, Ph.D., 13. Asst. philos, Columbia, 10-13; prof. educ, Waynesburg, 13-14; instr. philos, Princeton, 14-15; Minnesota, 15-16, *psychol*, 16-17; asst. prof, Oberlin, 17-19; assoc. prof, *North Carolina*, 19-20, *prof*, 20- A.A.; Psychol. Ass; S. Soc. Philos. and Psychol. Maze con-struction; maze learning by rats and children; learning in motor and mental functions; 'men-tal' sets.
- Daudt, H(erbert) W(ilkens)**, E. I. du Pont de Nemours and Co, Wilmington, Del. *Chemistry*. St. Charles, Mo, June 21, 86. B.S., Harvard, 07, M.S., 08. Chemist, Mallinckrodt Chem. Works, 08-09; instr, North Dakota, 09-13; *chemist*, bur. chem, U. S. Dept. Agr, 13-18; *E. I. du Pont de Nemours and Co*, 18- Chem. Soc; Agr. Chem. (referee, nitrogen, 18); N. Dak. Acad. Rare earth oxalates; aluminum and iron as hydroxides; nitrogen; synthesis of benzoic acid from phthalic anhydride; tetra alkyl lead derivatives; phenylglycine; dyestuffs intermedi-ates.

- Daugherty, Prof. Robert L(ong)**, 373 S. Euclid Ave, Pasadena, Calif. *Mechanical engineering*. Irvington, Ind. 85. A.B. Stanford, 09; M.E. 14. Instr. mech. eng, Stanford, 09-10; asst. prof., Cornell, 10-16; *prof*, Rensselaer, 16-19; *mech. and hydraulic eng, Calif. Inst. Tech*, 19-
Mech. Eng. (chairman, Los Angeles sect, 21, manager, 25-); Eng. Educ; Joint Tech. Societies, Los Angeles (chairman, 22). Hydraulic engineering; thermodynamics; turbines; centrifugal pumps.
- Daus, Dr. Paul H(arold)**, 855 N. Vermont Ave, Los Angeles, Calif. *Mathematics*. Chicago, Ill, June 19, 94. B.S. Chicago, 16; Ph.D. California, 21. Instr. *math*, New Mexico, 16-17; Clemson Col, 17-18; *California at Los Angeles*, 21-24, *asst. prof*, 24- Math. Soc; Math. Ass. Ternary continued fractions.
- Davenport, Dr. Bennett F(ranklin)**, Watertown, Mass. *Medicine, Chemistry*. Cambridge, Mass, May 28, 45. A.B. Harvard, 67, A.M. 70, M.D. 71; M.D. Columbia, 71. Coroner, Boston, 75, milk inspector, 82-85; *prof. chem*, Mass. Col. Pharmacy, 79-86; analyst, Mass. State Board Health, 82-92; Mass. State Dairy Bur, 92-20; *medico-legal expert*. Chairman, Board Health, Park and Water Boards, Watertown, Mass. Am. Med. Ass; Chem. Soc; Mass. Medico-Legal Soc; Boston Soc. Med. Improv; London Chem. Soc; Chem. Gesell; Soc. chim. de Paris. Examination of questioned writings.
- Davenport, Dr. Cha(rl)es B(enedict)**, Carnegie Institution of Washington, Cold Spring Harbor, N. Y. **Zoology, Genetics*. Stamford, Conn, June 1, 66. B.S. Brooklyn Polytech, 87; A.B. Harvard, 89, A.M. 90, Ph.D. 92. Asst. zool, Harvard, 88-91, instr. 91-99; asst. prof, Chicago, 99-01, *assoc. prof*, 01-04; *director sta. for exp. evolution, Carnegie Institution*, 04-, *eugenics record office*, 10-, *dept. genetics*, 18- Director biol. lab, Cold Spring Harbor, 98-23. Co-editor, 'Jour. Exp. Zool', 'Genetics', 'Jour. Physical Anthropol', 'Eugenical News.' Gold medal, Inst. Social Sci, 23. Major in charge anthrop, S.G.O. 18-20. Nat. Acad; A.A. (v. pres, 03, 25); Soc. Nat. (v. pres, 06); Soc. Zool. (pres, 07); Soc. Exp. Biol; Ecol. Soc; Philos. Soc; Am. Acad; Eugenics Research Ass. (pres, 14); Eugenics Soc. (v. pres, 22-); Ass. Study Feeble-minded; Galton Soc. (pres, 20-); *assoc. N. Y. Acad. Med*; *cor. mem. London Zool. Soc*; *cor. mem. Acad. Royale de Belgique*; Int. Fed. Eugenic Organizations (v. pres, 26-); Inst. Int. d'Anthrop. Experimental evolution; morphogenesis; variation; experimental breeding; reactions of animals; heredity of eye, hair and skin color, temperament, stature, build and twins in man; heredity in animals and man.
- Davenport, Mrs. C. B. (Gertrude Crotty)**, Cold Spring Harbor, N. Y. *Zoology*. Asequa, Colo, Feb. 28, 66. B.S. Kansas, 89; Radcliffe, 92-94. Instr. zool, Kansas, 89-92; *micros. methods, biol. lab*, Cold Spring Harbor, 98-03. Soc. Zool. Embryology of the turtle; variation in *Sagartia* and in starfish; variation in organisms; heredity in man.
- Davenport, Prof. E(ugene)**, Woodland, Mich. *Agriculture*. Woodland, June 20, 56. B.S., Mich. State Col, 78, M.Agr. 95, LL.D. 07. Prof. agr, Mich. State Col, 89-91; pres, Escola Agron, Piracicaba, Brazil, 91-92; dean *col. agr.* and director, Exp. Sta, *Illinois*, 95-22, v. pres, 20-22, *emer. dean and prof*, 22- A.A. (v. pres, 16). Breeding; education; statistical evolution.
- Davey, Dr. Wheeler P(edlar)**, The Pennsylvania State College, State College, Pa. **Physics, Physical chemistry*. Cleveland, Ohio, March 19, 86. A.B. Western Reserve, 06; M.S. Pa. State, 11; Ph.D. Cornell, 14. Instr. physics, Pa. State, 10-11; Cornell, 12-14; physicist, research lab, Gen. Elec. Co, 14-26; *prof. physical chem. and indust. research, Pa. State*, 26- Lecturer, Union, 20-26; consulting physiol. chemist, Emory lab, Hahnemann Med. Col, 26- A.A; Physical Soc; Chem. Soc. (v. chairman, East. N. Y. sect, 23, chairman, 25, v. chairman, Cent. Pa. sect, 27); Eng. Educ. Effect of X-rays on living tissue; emulsions; radiography of metals; crystal structure.
- David, Dr. Vernon C**, 59 E. Madison St, Chicago, Ill. *Surgery*. Sheridan, Ill, June 9, 82. A.B. Michigan, 05; M.D. Rush Med. Col, 07. *Assoc. prof. clin. surg, Rush Med. Col, Chicago*. Attending staff surg, Cook Co, Presb. and Evans-ton Hospitals. Surg. Ass; West. Surg. Ass; Chicago Surg. Soc; Chicago Path. Soc; Chicago Inst. Med. Blood transfusion; surgery of the large bowel; routes of infection of the kidney and bladder.
- Davidson, Dr. A(nstruther)**, 419 S. Alvarado St, Los Angeles, Calif. *Botany, Entomology*. Caithness, Scotland, Feb. 19, 60. M.B. C.M. Glasgow, 81, M.D. 87. *Practising physician*, 87-; *assoc. prof. dermatol, Southern California*, 09- A.A; fel. S. Calif. Acad. (pres, 93, ed, 02); *cor. mem. Phila. Entom. Soc.* Field botany of southern California and Arizona; flora of southern California; habits and parasites of bees and wasps.
- Davidson, Prof. Arthur W(illiam)**, 1836 New Hampshire St, Lawrence, Kans. *Chemistry*. New York, N. Y, Feb. 16, 96. B.S. Col. City of N. Y, 15; A.M. Columbia, 17, Ph.D. 21. *Asst. prof. chem, Kansas*, 21- Chem. Soc. Inorganic and physical chemistry; solutions in anhydrous sulfuric acid and anhydrous acetic acid.
- Davidson, Dr. David**, Rockefeller Institute, New York, N. Y. *Chemistry*. New York, 00. Ph.B. Yale, 21, Ph.D. 24. Fellow, *Rockefeller Inst*, 24-25, *asst*, 25- Chem. Soc. Hydantoins; pyrimidines.
- Davidson, Prof. J(ames) G(rant)**, University of British Columbia, Vancouver, B. C. Can. *Physics*. Union, Ont, Aug. 15, 74. B.A. Toronto, 00; Ph.D. California, 07. Prof. science, Columbia Col. (B. C.), 00-05; *asst. physics, California*, 06-07; *prof, British Columbia*, 07-14, *assoc. prof*, 14- A.A; Physical Soc; B. C. Acad. (v. pres, 99). Ionization; precipitation of suspended particles from gases.
- Davidson, Prof. J(ay) Brownlee**, Iowa State College, Ames, Iowa. *Agricultural engineering*. Douglas, Nebr, Feb. 15, 80. B.S. Nebraska, 04, A.E. 14. Experimentalist, Deere and Co, 04; adjunct prof. farm mech, Nebraska, 05; *prof.*

- agr. eng.*, Iowa Col, 05-15; California, 15-19; *Iowa Col*, 19- Director research surv. mech. farm equipment, U. S. Dept. Agr, 26. Agr. Eng. (past pres, sec'y-treas); Eng. Educ; Automotive Eng; Iowa Eng. Soc. Farm machinery; buildings; power.
- Davidson, Dr. Jehiel**, U. S. Department of Agriculture, Washington, D. C. *Chemistry*. Russia. B.S., Cornell, 11, Ph.D, 14. Asst. instr. chem, Cornell, 12-13; *assoc. chemist, bur. chem.*, U. S. Dept. Agr, 13- Chem. Soc; Agr. Chem. Chemistry of plants; nitrogen in plants; soil toxicity.
- Davidson, Prof. John**, University of British Columbia, Vancouver, B. C., Can. *Botany*. Aberdeen, Scotland, Aug. 6, 78. Gordon's Col; Aberdeen. Asst. bot, Aberdeen, 93-11; provincial botanist, B. C, 11-16; *in charge herbarium and bot. gardens, British Columbia*, 16-, instr. bot, 17-22, *asst. prof.*, 22- Director, Vancouver Museum, 16-18. Ecol. Soc; Torrey Bot. Club; B. C. Acad. (hon. sec'y, 16-19); B. C. Entom. Soc. (advisory board); Vancouver Nat. Hist. Soc. (pres, 17-); Vancouver Inst. (hon. sec'y, 17-20, pres, 25-); fel. Royal Hort. Soc; fel. London Linnean Soc; fel. Edinburgh Bot. Soc. Economic botany, dendrology and botanical survey of British Columbia.
- Davidson, Dr. J(oseph) G(eorge)**, Carbide and Carbon Chemicals Corp, New York, N. Y. *Chemistry*. New York, Feb. 7, 92. A.B, Southern California, 11, A.M, 12; fellow, Columbia, 17-18, Ph.D, 18. Instr. chem, Los Angeles Junior Col, 14-16; physical chem, Columbia, 18; fellow, *Mellon Inst.*, 19-; *manager chem. sales, Carbide and Carbon Chem. Corp.* Chem. Soc. Petroleum; natural gas condensate; aromatic hydrocarbons.
- Davidson, Ward F(ollett)**, 380 Pearl St, Brooklyn, N. Y. *Electrical engineering*. Commonwealth, Wis, Oct. 21, 90. B.S.E, Michigan, 13, M.S, 20. Student and junior engineer, Westinghouse Elec. and Mfg. Co, 14-16; instr. elec. eng, Michigan, 16-20, *asst. prof.*, 20-22; research engineer, *Brooklyn Edison Co*, 22-25, *director research and test*, 25- Capt, C.Eng, 17-20. A.A; Elec. Eng; Illum. Eng. Soc; Physical Soc; Soc. Test. Mat; Am. Geog. Soc; assoc. British Inst. Elec. Eng. Electric insulations; high voltage electric power cables.
- Davies, Dr. A(rthur) E(rnest)**, 1512 N. Tejon St, Colorado Springs, Colo. *Philosophy, Psychology*. London, Eng, March 18, 67. Owens Col, Manchester, and Univ. Col, London, 84-88; B.D, Yale, 91, Ph.D, 98; Starling-Ohio Med. Col, 09-12; Univ. Col, London, 14-15; King's Col. (London), 16-17; Pennsylvania, 26-27. Instr. philos, Ohio State, 00-06, *asst. prof.*, 06-08, *prof.*, 08-19; philos. and psychol, Colo. Col, 19-26. A.A; Psychol. Ass. A psychogenetic theory of mind; influence of biology on development of psychology; training of psychologists; dementia praecox; speech reactions and aphasia; mechanism, meaning and teleology in behavior.
- Davies, D(avid) C(harles)**, Field Museum of Natural History, Chicago, Ill. *Natural history*. Near Aberystwyth, Wales, June 23, 66. *Director, Field Museum Nat. Hist.*, 21- Trustee, Field Museum Nat. Hist. A.A; Anthropol. Ass; Archeol. Inst; Oriental Soc.
- Davies, Prof. Earl C(laudius) H(amilton)**, West Virginia University, Morgantown, W. Va. *Physical chemistry*. Delaware, Ohio, Jan. 13, 89. A.B, Ohio Wesleyan, 10, A.M, 11; Ohio State, 15; Ph.D, Chicago, 17. Instr. and asst. prof. chem, Ohio Wesleyan, 10-15; instr. physical and electro chem, Washington (St. Louis), 17-18; prof. chem. and head dept, Butler, 18-20; *assoc. prof. physical chem, West Virginia*, 20- A.A; Chem. Soc. Colloid chemistry; orientation of molecules at surfaces; rhythmic bands by evaporation, diffusion in gels and intermittent light; gum colloids as influenced by electrolytes, time and agitation.
- Davies, Prof. P(ercy) A(lbert)**, University of Louisville, Louisville, Ky. *Botany*. Ft. Collins, Colo, Feb. 10, 96. B.S, Colo. Agr. Col, 22, M.S, 23; Ph.D, Harvard, 26. *Asst. prof. bot.*, Louisville, 26- A.A. Irreversible injury; the production of carbon dioxide.
- Davis, Albert Gould**, General Electric Co, Schenectady, N. Y. *Law, Electrical engineering*. Brooklyn, N. Y, Oct. 19, 71. B.S, Mass. Inst. Tech, 93; M.L, Nat. Univ, 97. Engineer, Davis Colby Ore Roaster Co, Middlesboro, Ky, 93; asst. examiner, U. S. Patent Office, 94-96; practising attorney, Washington, D. C, 96-97; manager patent dept, *Gen. Elec. Co*, 97-19, *v. pres*, 19- Elec. Eng; Bar Ass.
- Davis, A(lex) Brooking**, 3040 Observatory Road, Cincinnati, Ohio. *Chemistry*. Prairie City, Ill, Sept. 16, 82. Ala. Polytech, 04-05. Plant operator, the Smet Solvay Co, 00-07; chemist, Ind. Gas Ass, 07-12; research chemist, dept. exp. med, Eli Lilly and Co, 12-17; *chem. director, The Ault and Wiborg Co*, 17-; *pres, The Hilton-Davis Co.* Chem. Soc. (chairman, sections). Quinolin carboxylic acids; halogen ketones; amino alcohols; local anesthetics.
- Davis, Dr. Alice Rohde**, 19 Ash St, Cambridge, Mass. *Biochemistry*. Burlington, Iowa, 82. B.S, Chicago, 03; M.D, Hopkins, 10; Berlin, 10-13. Instr. biochem, Carnegie Inst. Tech, 13-14; asst. pharmacol, sch. med, Hopkins, 14-16; asst. prof. research med, California, 16-18; biochem, Pittsburgh, 18-19; research chemist, med. col, Cornell, 19-20. Soc. Biol. Chem. Constituents of the blood with special reference to uramino acids, sugar and purines.
- Davis, Dr. A(lva) R(aymond)**, University of California, Berkeley, Calif. *Plant physiology*. Cascade, Iowa, Feb. 15, 87. A.B, Pomona, 12; Lackland fellow, Mo. Bot. Garden, 12-15, Ph.D, Washington (St. Louis), 15. Asst. Mo. Bot. Garden, 15-16; asst. prof. plant path. and physiol, Nebraska, 16-19; instr. soil chem. and bacter, *California*, 19-21, *asst. prof. plant nutrition*, 21-25, *assoc. prof. plant physiol*, 25- Summers, instr, Woods Hole, 13, 14; Pomona, 15. Capt, C.A, 17-19. A.A; Soc. Plant Physiol. Plant enzyme action; physiology of the fungi; absorption of ions; effect of light on plant growth.
- Davis, Arthur P(owell)**, East Bay Municipal Utility District, Oakland, Calif. *Civil engineering*. Decatur, Ill, Feb. 9, 61. B.S, George Washington, 88, Sc.D, 17; D.E, Iowa Col. Topographer, U. S. Geol. Surv, 82-94, hydrog-

- rapher, 94-97, hydrologist, 97-01; asst. chief engineer, U. S. Reclamation Service, 02-07, chief engineer, 07-20, director, 20-23; *chief engineer and gen. manager, East Bay Munic. Utility Dist.*, 23- Lecturer, Yale, 22, 24; consulting engineer, Panama Canal and Porto Rico, 09; high dams, Alaska, Mexico, U. S.; tech. adviser, Commission for Adjustment of Pecuniary Claims between U. S. and Great Britain. Civil Eng. (pres, 20); Water Works Ass; hon. mem. Wash. Soc. Eng. (past pres); Wash. Acad. Irrigation engineering; irrigation and water supply in arid regions of the United States; hydrography of Nicaragua and of the American Isthmus; irrigation projects of the United States government.
- Davis, Dr. Benj(amin) F(ranklin)**, 25 Tenth Ave, E, Duluth, Minn. *Surgery*. Chicago, Ill, Oct. 13, 84. A.B. Wisconsin, 07; Ph.D, Chicago, 10, M.D, Rush Med. Col, 12, Senn fellow, 13-14. Instr. surg, Rush Med. Col, 13-20; *surgeon, Acad. Clin. Med, Duluth, Minn.*, 20- Asst. attending surg, Presb. Hosp, 13-20; assoc. attending physician, Children's Mem. Hosp, 17-20. Ed, 'Surg. Clinics of Chicago,' 17-20. Fel. Col. Surg; Am. Med. Ass; Chicago Inst. Med. Pathology; blastomycosis; Rocky Mountain spotted fever; anesthesia; paraffin cancer; pathological physiology of pleural cavity.
- Davis, Prof. B(enjamin) M(arshall)**, Miami University, Oxford, Ohio. *Zoology, Education*. North Salem, Ind, June 15, 67. B.S, Butler, 90, M.S, 92; Stanford, 95; Chicago, 96-97; California, summers, 00, 02-04, Ph.D, 06. Acting prof. chem, Butler, 91-92; prof. chem. and physiol, Garfield, 92-93; biol, Whittier, 93-95; Butler, 95-97; State Nor. Sch, Los Angeles, 97-04; res. naturalist, Marine Biol. Sta, San Diego, 04-05; *prof. biol.*, State Nor. Sch, Chicgo, 05-07; *Miami*, 07- A.A; Nature Study Soc. (pres, 10-12); Ohio Acad. Ecology and development of enteropneusts; hydrobiology; physiology; agricultural education in the public schools; science teaching.
- Davis, Prof. Bergen**, Columbia University, New York, N. Y. **Physics*. White House, N. J, March 31, 69. B.S, Rutgers, 96; fellow, Columbia, 99-00, A.M, 00, Ph.D, 01, John Tyndall fellow, 01-03; Göttingen, 01-02; Cambridge, 02-03. Teacher, New York, 96-99; asst. *physics, Columbia*, 00-01, tutor, 03-07, instr, 07-09, adjunct prof, 09-13, assoc. prof, 13-19, *prof.*, 19- Ernest Kempton Adams research fellow, Columbia, 07-09. Physics div, Nat. Research Council, 23-26. A.A; fel. Physical Soc; Optical Soc. Sound waves; motion of ions in varying magnetic field; electrical phenomena of gases in the electrodeless discharge; coronal discharge; radiation and ionization by impact; reflection of X-rays from crystals; emission and refraction of X-rays.
- Davis, Prof. Bradley Moore**, University of Michigan, Ann Arbor, Mich. **Botany*. Chicago, Ill, Nov. 19, 71. Indiana, 89-91; A.B, Stanford, 92; Harvard, 93, A.M, 94, Ph.D, 95. Asst. *bot.*, Chicago, 95-96, assoc, 96-98, instr, 98-02, asst. *prof.*, 02-06; Pennsylvania, 11-14, *prof.*, 14-19; *Michigan*, 19- Head instr, Woods Hole, 97-06, in charge bot, biol. surv, 03-09. Assoc. ed, 'Genetics'; ed, statist. div, Food Ad, 18. A.A; Soc. Nat. (see'y, 13-19, v. pres, 20, pres, 21); Bot. Soc; Ecol. Soc; Genetic Ass; Philos. Soc. (see'y, 18); Am. Acad; New Eng. Bot. Club; Mich. Acad. Morphology and cytology of fungi, algae and liverworts; cytology and genetics of Oenothera; life histories; plant evolution.
- Davis, Dr. Carl B(raden)**, 122 S. Michigan Ave, Chicago, Ill. *Surgery*. Chicago, Oct. 9, 77. A.B, Chicago, 00, M.D, Rush Med. Col, 03. *Assoc. prof. surg, Rush Med. Col, Chicago*. Surg. staff, Presb. Hosp, Chicago. Surg. Ass; Soc. Clin. Surg.
- Davis, Prof. C(arl) L(awrence)**, University of Maryland, Baltimore, Md. *Embryology*. Vermontville, Mich. Georgetown; George Washington. Intern, Garfield Hosp, 02-03; demonstrator *anat*, George Washington, 12-14, *prof.*, 14-19; *Maryland*, 19- Ass. Anat. Young human embryo; embryology of the heart.
- Davis, Charles (Henry)**, Bass River, Cape Cod, Mass. *Engineering*. Montgomery Co, Pa, May 4, 65. C.E, Columbia, 87. Expert, Lynn factory, Thomson-Houston Elec. Co, 87; engineer and asst. to pres, Sawyer-Man Elec. Co, 87-88; engineer and supt. construction, Westinghouse Elec. and Mfg. Co, 88-89; *consulting engineer, Phila, Boston and New York*, 89- Exec. officer, companies. A.A; Math. Soc; Civil Eng; Elec. Eng; Mech. Eng; Min. Eng; Naval Archit. and Marine Eng; Naval Eng; Heat. and Vent. Eng; Franklin Inst; West. Soc. Eng; N. Y. Acad; Can. Soc. Civil Eng; British Iron and Steel Inst; British Inst. Elec. Eng; Scottish Inst. Eng. and Shipbuilders; N. of England Inst. Min. and Mech. Eng; Irish Inst. Civil Eng; New South Wales Eng. Ass, and other American and foreign societies. Railroad and street railway engineering, operation and management.
- Davis, Dr. Clarke Edwin**, National Biscuit Company, 85 Ninth Ave, New York, N. Y. *Chemistry*. Burnips, Mich, May 31, 88. B.Pd, Mich. State Nor. Col, Ypsilanti, 09, A.B, 12; A.M, Columbia, 13, Goldschmidt fellow, 14-15, Ph.D, 15. Lecturer chem, Mich. State Nor. Col, Ypsilanti, 07-12; prof, Utah Col, 15-17; lecturer chem. eng, Columbia, 17-20; *chief chemist and consulting chem. engineer, Nat. Biscuit Co*, 17- Chem. Soc. (chairman, N. Y. sect, 23-25); Soc. Chem. Indust. Physical characteristics of gelatin solutions; titration curves of acids and bases; the freezing point, curves and densities of denatured alcohol-water mixtures; the surface tension of sulfuric acid-water mixtures.
- Davis, Prof. D(arrell) H(aug)**, University of Minnesota, Minneapolis, Minn. *Geography*. St. Peter, Minn, Sept. 5, 79. A.B, Michigan, 03; Chicago, 20; Ph.D, Michigan, 23. Head dept. geol. and geog, Col. City of Detroit, 17-20; asst. *prof. geog*, Michigan, 20-23; *assoc. prof.*, *Minnesota*, 23-, *head dept.*, 24- Summers, Ky. Geol. Surv, 21-23, Iowa, 23, Econ. Surv, Minneapolis Civic and Commerce Ass, 24. Ass. Geog; Econ. Ass; Mich. Acad. Regional geography;

- geography of the Jackson Purchase, the Kentucky Mountains and the Kentucky Blue Grass.
- Davis, Dr. D(avid) J(ohn)**, 721 Elmwood Ave, Wilmette, Ill. *Pathology*. Racine, Wis, Aug. 9, 75. B.S., Wisconsin, 98; M.D., Rush Med. Col, 03, fellow, 03-04, research student, McCormick Inst. for Infectious Diseases, 04-05, Ph.D., Chicago, 05. Instr. path. and med, Rush Med. Col; *prof. path. and bacter. head dept. and dean col. med, Illinois*. Pathologist, Presb. St. Joseph and St. Luke's Hospitals, Chicago. A.A.; Ass. Path. and Bact; Soc. Clin. Invest; Am. Med. Ass. The spinal cord; influenza infections; bacteriology of meningitis and whooping cough; urinary infections; pathology of sporotrichosis and other fungus infections.
- Davis, Prof. Donald W(alton)**, College of William and Mary, Williamsburg, Va. *Zoology, Genetics*. Frazer, Pa, Feb. 25, 82. A.B., Harvard, 05, Ph.D, 13. Asst. zool, California, 05-06; prof. biol, Sweet Briar, 07-09; instr, Radcliffe, 09-12; asst. prof, Clark, 12-14; *prof. biol, De Pauw, 14-16; zool, William and Mary, 16-A.A.; Bot. Soc; Va. Acad. Genetics; inheritance in Impatiens*.
- Davis, Mrs. E. Fuller (Lillian C. Burroughs)**, 1245 N. Broadway, Baltimore, Md. *Chemistry*. Baltimore, April 22, 96. A.B., Goucher, 17; Hopkins, 17-18, Sc.D, 26. Chemist, Baltimore City Water Dept, 18; *asst. chemist, Md. State Dept. Health, 18-; biochemist, Inst. Biol. Research, Hopkins, 27- Chem. Soc; Soc. Bact; Pub. Health Ass. Food products*.
- Davis, Edward Wilson**, University of Minnesota, Minneapolis, Minn. *Metallurgy*. Cambridge City, Ind, May 8, 88. B.S., Purdue, 11, E.E, 14. Westinghouse and Gen. Elec. Co, 11-12; sch. mines, Minnesota, 12-15; Mesabi syndicate, Minn, 15-18; *Mines Exp. Sta, Minnesota, 18-Min. and Metal. Eng. Ore dressing; mining and milling; chemistry*.
- Davis, Dr. E(mer) F(red)**, 417 E. Randolph St, Glendale, Calif. *Geology*. Hyde, Colo, Sept. 12, 87. B.S., California, 10, M.S, 12, Ph.D, 17. Instr. geol, California, 12-19; geologist, *Shell Co. of Calif, 19-22, chief geologist, 22- Geol. Soc; Ass. Petrol. Geol; Min. Eng; Seismol. Soc. Franciscan formation of the California coast ranges*.
- Davis, Dr. George G(ilbert)**, 208 S. La Salle St, Chicago, Ill. *Surgery*. Jan. 4, 79. A.B., Chicago, 01, M.D., Rush Med. Col, 04. Assoc. prof. surg, Philippines, 13-14; Rush Med. Col, 19; *attending surgeon, Cook Co. Hosp; chief surgeon, Ill. Steel Co; asst. clin. prof. surg, Chicago. Surgeon, Philippine Gen. Hosp. Civil surgeon and hon. lieut. col, Royal Army M.C, 15-16; major, M.C, 17-19, lieut. col, 19. Col. Surg; Am. Med. Ass. Cancer*.
- Davis, Prof. Geo(rge) Jacob, Jr**, University of Alabama, University, Ala. *Engineering*. Washington, D. C, June 28, 76. C.E., Cornell, 02. Instr. civil eng, Wisconsin, 02-03, hydraulic eng, 05-07, asst. prof, 07-12; *prof. civil eng. and dean col. eng, Alabama, 12- Summers, research asst, Wisconsin, 13, 14. Civil Eng;*
- Eng. Educ. Experimental hydraulics; sewage treatment.
- Davis, Prof. Grace E(vangelina)**, 8 Norfolk Terrace, Wellesley, Mass. *Physics*. North Chelmsford, Mass, June 6, 70. A.B., Wellesley, 98, A.M, 05. Instr. *physics, Wellesley, 99-08, assoc. prof, 08- A.A.; Physical Soc.*
- Davis, Dr. Hallowell**, Pond St, Hopkinton, Mass. *Physiology*. New York, N. Y, Aug. 31, 96. A.B., Harvard, 18, M.D, 22, Sheldon traveling fellow, Cambridge, 22-23. Asst. biochem, *Harvard, 22, instr. physiol. med. sch, 23-25, instr. and tutor pre-med. sciences, 25- Physiol. Soc. Excitation and conduction in nerve and muscle; mechanism of nerve impulse*.
- Davis, Dr. Harold S(immonds)**, Massachusetts Institute of Technology, Cambridge, Mass. *Chemistry*. Clifton, N. S, Can, April 19, 89. B.A., Dalhousie, 10, M.A, 12; 1851 Exhib. fellow, 12-14; Ph.D., Harvard, 14. Demonstrator physics, Dalhousie, 10-12; lecturer chem, Manitoba, 14-18; head research dept, Koppers Co, Mellon Inst, 18-19, fellow, 19-22; research assoc, Arthur D. Little, Inc, 22-26; *director and fellow, Petrol. Inst. Fellowship, Mass. Inst. Tech, 26- Chem. Soc. Thermochemistry; light oil recovery; sulphur; petroleum; vapor pressure*.
- Davis, Prof. H(arold) T(hayer)**, 712 E. Second St, Bloomington, Ind. *Mathematics*. Beatrice, Nebr, Oct. 5, 92. A.B., Colo. Col, 15; A.M., Harvard, 19; Ph.D., Wisconsin, 26. Instr. *math. Wisconsin, 20-23; asst. prof, Indiana, 23-Math. Soc; Math. Ass. (sec'y-treas, Ind. sect, 24-); Ind. Acad. Linear functional equations*.
- Davis, Prof. Harvey N(athaniel)**, Harvard University, Cambridge, Mass. **Physics*. Providence, R. I, June 6, 81. A.B., Brown, 01, A.M, 02; Ph.D., Harvard, 06. Instr. *math, Brown, 01-02; physics and math, Harvard, 05-10, asst. prof. physics, 10-19, prof. mech. eng, 19-Engineer, Gen. Elec. Co, 17-18; consulting engineer, U. S. Bur. Mines; Franklin Ry. Supply Co. A.S, U.S.A, 18-19. A.A.; Physical Soc; Chem. Soc; Mech. Eng; Math. Soc; Am. Acad; Wash. Acad. Thermal properties of matter; Joule Thomas effect in superheated steam and oxygen-nitrogen binary mixtures in liquid or vapor phases*.
- Davis, Dr. H(erbert) B(urnham)**, 3202 Iowa St, Pittsburgh, Pa. *Psychology*. Charlestown, Mass, Aug. 17, 67. A.B., Bates, 90; Ph.D., Clark, 08. *Prin, Southwest. State Nor. Sch, California, Pa, 09-12; Pittsburgh Training Sch. for Teachers, 12- A.A.; Psychol. Ass. Experimental psychology and pedagogy; animal intelligence; minute structure of the axis cylinder; time reaction in binocular vision; tests for intellectual level in children; measurement of fatigue by ciliary muscle; adult learning tests*.
- Davis, Prof. H(erbert) P(erry)**, College of Agriculture, Lincoln, Nebr. *Dairy husbandry*. Montague, Mich, Aug. 22, 89. B.S.A., Missouri, 11; M.S., Pa. State, 14. Asst. dairy husbandry, Illinois, 11; asst. and instr. exp. dairy husbandry, Pa. State, 11-14; dairy husbandman and ed, dairy div, U. S. Dept. Agr, 14-19; *prof. dairy husbandry, Idaho, and v. director,*

- Exp. Sta., 19-21; *Nebraska*, 21- A.A.; Dairy Sci. Ass; Ass. Animal Production; Genetic Ass. Feeding, management and genetics of dairy cattle.
- Davis, Prof. H(erbert) S(pencer)**, Bureau of Fisheries, Washington, D. C. *Zoology*. Oneida, N. Y., March 28, 75. Ph.B., Wesleyan, 99; Ph.D., Harvard, 07. Instr. zool. Wash. Col. 01-04, asst. prof., 04-06; prof., Florida, 07-22; *fish pathologist*, *Bur. Fisheries*, 22- Investigator, *Bur. Fisheries*. A.A.; Soc. Zool; Micros. Soc. Parasitology; fish culture; parasites of fishes.
- Davis, Dr. Herman S(tearns)**, 4323 Andover Terrace, Pittsburgh, Pa. *Astronomy*. Milford, Del, Aug. 6, 68. A.B., Princeton, 92, A.M., 12; fellow, Columbia, 93-95, A.M., 94, Ph.D., 95. Asst. astronomer, U. S. sci. exped. to W. Africa, 89-90; tutor astron. and geod. Columbia, 95-99; in charge, Int. Latitude Observatory, 00-05; *consulting engineer*, 05- Expert computer and asst. U. S. Coast and Geod. Surv., 00. First asst., Allegheny Observatory eclipse exped., 00. Assoc. ed., 'Astron. Jahresbericht,' 00-17. A.A.; Astron. Soc; Wash. Philos. Soc; Astron. Gesell. Variation of latitude; the constant of aberration; mean star positions and proper motions; new reduction of Piazz's observations; the history of astronomy; biographical cyclopedia of astronomers; bibliography of current astronomical literature in the United States; genealogy.
- Davis, Prof. I(rving) G(ilman)**, Connecticut Agricultural College, Storrs, Conn. *Agricultural economics*. A.B., Bates Col, 06; Mass. Col, 09-10; Wisconsin. Prin. high schools; farm management demonstrator, *Conn. Col.*, 14-15, county agent leader, 16-17, acting director exten. educ., 19-20, *prof. agr. econ.*, 20- Chairman advisory committee, Conn. Committee Food Supply, 17-18. Econ. Ass; Farm Econ. Ass. The relation of soil type and other phases of physical environment to farm economy and rural institutions.
- Davis, Prof. James E(lmer)**, 118 W. Marshall Road, Lansdowne, Pa. *Mathematical physics*. Barnevelt, Wis, April 22, 87. A.B., Wisconsin, 12, A.M., 13. Instr. math, Pa. State, 13-16, asst. prof., 16-17; instr., Wisconsin, 19-22; asst. prof., Arkansas, 22-23; Drexel Inst., 23-25; *assoc. prof. eng. exten.*, Pa. State, 25-26; *math.*, *Drexel Inst.*, 26- Capt., U.S.A., 17-19; asst. commandant, univ. detachment, Toulouse, 18-19. A.A.; Math. Soc; Math. Ass. Theoretical investigation of the flow of underground waters.
- Davis, Dr. James E(thelbert)**, 111 Josephine Ave, Detroit, Mich. *Pathology*. Woodstock, Ont, Can, Oct. 3, 70. M.D., Detroit Col. Med., 96; Vienna; A.M., Michigan, 17. *Prof. path.*, *Detroit Col. Med.*, 17- Consulting pathologist, Receiving Hosp., Detroit; Mich. State Board Health; pathologist, Providence Hosp., St. Mary's Hosp., Woman's Hosp., Detroit; St. Mary's Hosp., Saginaw. Am. Med. Ass; Ass. Path. and Bact; Ass. Obstet. Gynec. and Abdom. Surg. (sec'y, 22-); hon. mem. Detroit Acad. Surg; hon. mem. Detroit Urol. Ass. Placenta; Bartholin gland; kidneys; pancreas; abortions.
- Davis, John A(llen)**, U. S. Bureau of Mines, Washington, D. C. *Mining engineering*. Sioux City, Iowa, June 13, 84. B.S., Mass. Inst. Tech., 07. Junior and asst. geologist, U. S. Geol. Surv., 07-11; asst. mining engineer, *U. S. Bur. Mines*, 11-16, supt., Alaska mining exp. sta., 17-24, mining engineer, 24-25, *asst. chief mining engineer*, 25- Min. Eng; Min. and Metal. Eng; Min. Cong. (gov., Alaska chapter, 18-24). Modern tunneling; mine and water supply tunnels; mining and concentration of carnotite ores; geology of the Little Powder River coal field; Alaska mining development.
- Davis, Dr. J(ohn) J(efferson)**, University of Wisconsin, Madison, Wis. *Mycology*. Davis, Ill, 52. B.S., Illinois, 72; M.D., Hahnemann Med. Col., Chicago, 75. Medical practitioner, 75-11; *curator herbarium*, *Wisconsin*, 11- A.A.; Bot. Soc; Phytopath. Soc; Wis. Acad. (pres, 02-05); Wis. Archeol. Soc; Torrey Bot. Club; British Mycol. Soc. Mycology; parasitic fungus flora of Wisconsin.
- Davis, John J(une)**, Agricultural Experiment Station, Lafayette, Ind. *Entomology*. Centralia, Ill, Oct. 9, 85. B.S., Illinois, 07. Asst. entom., Illinois, 06-07; asst. to state entomologist, Ill, 07-11; in charge, Lafayette, Ind, lab, U. S. Dept. Agr., 11-19, Japanese beetle control project, 19-20; *head dept. entom.*, *Purdue*, and *Exp. Sta.*, 20- Summers, asst. state entomologist, Ill, 05, 06. Treas., Thomas Say Foundation. A.A.; Ass. Econ. Entom; Entom. Soc. (sec'y-treas); Ill. Acad; Ind. Acad. (ed). Aphididae; economic entomology; Lachnosterna.
- Davis, Dr. John Staige**, The Severn Apartments, Baltimore, Md. *Surgery*. Norfolk, Va, Jan. 15, 72. Ph.B., Yale, 95, hon. A.M., 25; M.D., Hopkins, 99. *Assoc. prof. clin. surg.*, *med. dept.*, *Hopkins*. Dispensary surgeon and asst. visiting surgeon, Hopkins Hosp. Col. Surg; Surg. Ass; S. Surg. Ass; Interurban Surg. Soc. Plastic surgery; transplantation of tissues.
- Davis, Prof. K(ary) C(admus)**, George Peabody College for Teachers, Nashville, Tenn. *Agriculture*. Decatur, Ill, Oct. 7, 67. B.S., Kansas Col., 91, M.S., 94; Kansas State Nor. Sch., 92; Ph.D., Cornell, 00. Prin. and teacher, high sch., Minn., 92-98; prof. bot. and biol., Minn. State Nor. Sch., St. Cloud, 00-01; prof. hort. and instr. bot., West Virginia, and Exp. Sta., 01-02; prof. agr., Dunn Co. Sch. Agr., Wis., 02-07; dean, State Sch. Agr., Canton, N. Y., 07-08; *prof. soils and agron.* and director agr. short courses, N. J. Col., 08-13; *agr. Peabody Col. for Teachers*, 14- Summer, instr., Virginia, 08-12. Agricultural education.
- Davis, Lewis**, 339 Main St., Worcester, Mass. *Chemistry*. Worcester, May 15, 89. B.S., Worcester, 11; M.S., Mass. Inst. Tech., 12. Chemist, N. J. State Lab. Hygiene, 12; biol. chemist, Parke, Davis and Co., 12-20; assoc. lab. director, Beebe Laboratory, Inc., 20-21; chief chemist, Brewer and Co., Inc., 21-23; *sec'y and treas.*, *Davis and Bennett, Inc.*, 23- A.A.; Chem. Soc; Soc. Bact. Ultra-violet sterilization; chemical indicators of microbial life; diphtheria toxin; peptone; pepsin; concentration of serum; pollen; aqueous wax dispersions.

- Davis, Dr. Loyal**, 54 E. Erie St, Chicago, Ill. *Surgery*. Galesburg, Ill, Jan. 17, 96. Knox Col, 12-14; M.D., Northwestern, 18, M.S., 21, Ph.D., 23. Nat. Research Council fellow, Northwestern, 22-24; *attending neur. surgeon*, West. Mem. Hosp., Chicago, 24-; *assoc. prof. surg.*, chief dept. *neur. surg.* and *director lab. exp. research*, med. sch., Northwestern, 25- Junior assoc., Peter Bent Brigham Hosp, 23-24; *attending surgeon*, Cook Co. Hosp; *attending neur. surgeon*, Children's Mem. Hosp. Am. Med. Ass; Central States Neuropsychiat. Soc; Chicago Surg. Soc; Chicago Neur. Soc. (sec'y, 25). Neurologic surgery.
- Davis, Prof. Nelson F(ithian)**, Lewisburg, Pa. *Botany*. Seeley, N. J. B.S., Bucknell, 95, M.S., 96, Sc.D., 03. *Prof. biol.*, Bucknell, 02- Instr. biol. lab, Cold Spring Harbor, 98-02; summer, in charge zool. Vermont, 14. A.A.; Soc. Nat; Bot. Soc. Economic zoology; forestry.
- Davis, Dr. Paul B(ell)**, Davison Chemical Co, Baltimore, Md. *Chemistry*. West Liberty, Ohio, Aug. 15, 89. A.B., Roanoke, 08, A.M., 09; Ph.D., Hopkins, 12. Asst. chem., Hopkins, 13-14, instr., 14-16, assoc., 16-19; *research chemist*, Davison Chem. Co, 19- Research assoc., Carnegie Inst., 16-17. Chem. Soc. Viscosity; catalysis; silicic acid gels.
- Davis, Dr. Ray J(oseph)**, P. O. Box 125, Rexburg, Idaho. *Plant pathology*. Provo, Utah, 95. A.B., 15; Ph.D., 24. Plant pathologist, Va. Truck Crop Exp. Sta., 23-24; *prof. biol.*, Ricks Col, 24- Phytopath. Soc. Wheat; spraying and dusting truck crops.
- Davis, Prof. Roland P(arker)**, 333 Demain Ave, Morgantown, W. Va. *Civil engineering*. Beverly, Mass, Aug. 2, 84. B.S., Mass. Inst. Tech, 06; M.C.E., Cornell, 08, Ph.D., 14. Draftsman, Am. Bridge Co, 06-07; instr. *civil eng.*, Cornell, 08-11; *assoc. prof.*, West Virginia, 11-12, *prof.*, 12- Bridge engineer, W. Va. State Road Commission, 14-19; consulting bridge engineer, 19- Div. engineer, Camp Eustis, 18. Civil Eng; Ry. Eng. (committee on iron and steel structures); Soc. Test. Mat. Foundations of bridges and buildings; concrete; structural and hydraulic engineering.
- Davis, Prof. Roy B(enton)**, University of the South, Sewanee, Tenn. *Organic chemistry*. Bigelow, Mo, Aug. 25, 90. B.S., Earlham, 12; A.M., Missouri, 13. Instr. *chem.*, Iowa, 13-17; *asst. prof.*, Univ. of South, 17-18, *head dept.*, 18- A.A.; Chem. Soc; Tenn. Acad. Chemical constitution.
- Davis, Dr. R(oyal) O(scar) E(ugene)**, U. S. Department of Agriculture, Washington, D. C. *Chemistry*. Newberry, S. C, July 11, 80. Ph.B., North Carolina, 01, Ph.D., 03; Leipzig, 04. Asst. anal. chem., North Carolina, 01-03, instr. physical chem., 03-05, gen. chem., 05-09, *assoc. prof.*, 09; soil physicist, *bur. soils*, U. S. Dept. Agr, 09-12, in charge soil water investigations, 12-16, *scientist*, *fertilizer investigations*, and in charge soil physics investigations, 16- A.A.; Chem. Soc. (sec'y, N. C. sect., 06-08); Soc. Agron. Soils and fertilizers; synthesis of ammonia from hydrogen and nitrogen; atomic weight of thorium; phospho-platinum ammonia compounds; corrosion of iron; electrical conductivity of soil; soluble salts in soil; synthetic ammonia; ammonia absorbents.
- Davis, Prof. Tenney L(ombard)**, Massachusetts Institute of Technology, Cambridge, Mass. *Organic chemistry*. Somerville, Mass, Jan. 7, 90. B.S., Mass. Inst. Tech, 13; M.S., Harvard, 15, Sheldon traveling fellow, 16-17, Ph.D., 17. Austin teaching fellow, Harvard, 13-16; instr. *org. chem.*, Mass. Inst. Tech, 19-20, *asst. prof.*, 20-26, *assoc. prof.*, 26- Ordnance dept, U.S.A., 17-19. Chem. Soc; Am. Acad; Hist. Sci. Soc. The urea and guanidine series; explosives; history of chemistry and alchemy; scientific methodology.
- Davis, Prof. Vernon Hayes**, Port Clinton, Ohio. *Horticulture*. Cambridge, Ohio, March 4, 77. B.S.(Agr), Ohio State, 00; M.S.A., Cornell, 01. Asst. hort. and forestry, Ohio State, 01-02, *asst. prof. hort.*, 02-14, *prof.*, 14-17; chief bur. markets and marketing, Ohio, 17-20; *manager*, Catawba Orchard Co, 20- Soc. Hort. Sci. Soil physics; orchard management and truck gardening; marketing.
- Davis, Dr. Ward B.**, 148 S. Mission Road, Los Angeles, Calif. *Biochemistry*. Fortville, Ind, Oct. 24, 93. A.B., Ind. State Nor. Sch, 13; Toulouse, 19; M.S., Chicago, 22, Ph.D., 24. Asst. plant physiol., Chicago, 23-24; fellow biochem., Boyce Thompson Inst., 24-25; *assoc. chemist*, *bur. chem.*, U. S. Dept. Agr, 25- A.A.; Bot. Soc; Soc. Plant Physiol; Ind. Acad. Plant physiology.
- Davis, Watson**, 1422 Rhode Island Ave, N. W., Washington, D. C. *Engineering*. Washington, April 29, 96. B.S., George Washington, 18, C.E., 20. Asst. engineer-physicist, Bur. Standards, 17-21; news ed., *Science Service*, 21-23, *managing ed. and sec'y*, 23- Science ed., 'Washington Herald,' 20-22. U. S. Naval Observatory eclipse exped, 25. A.A.; Soc. Test. Mat; Concrete Inst; Seismol. Soc; Hist. Sci. Soc; Wash. Eng. Soc; Wash. Geol. Soc; Wash. Philos. Soc. Concrete; cement.
- Davis, Prof. W(illiam) H(arold)**, 12 Nutting Ave, Amherst, Mass. *Botany*. Hornell, N. Y., Aug. 25, 76. Pd.B., N. Y. State Col. Teachers, 03; A.B., Cornell, 12; A.M., Wisconsin, 16, Ph.D., 22. Teacher, pub. sch, 96-00; *asst. science*, N. Y. State Col. Teachers, 01-03; teacher, Elmira Free Acad, 03-10; *asst. bot.*, Cornell, 11-12; *prof. bot.*, nature study and agr, Iowa State Teachers Col, 12-20; *asst. prof. bot.*, Mass. Col, 22- A.A.; Phytopath. Soc; Iowa Acad. Mycology; plant pathology.
- Davis, Prof. W(illiam) M(orris)**, Cambridge, Mass. **Physical geography, Geology*. Philadelphia, Pa, Feb. 12, 50. B.S., Harvard, 69, M.E., 70; hon. Sc.D., Cape Town, 05, Melbourne, 14; Ph.D., Greifswald, 06; Christiania, 11. Asst. Arg. Nat. Observatory, Cordoba, 70-73; *asst. geol.*, Harvard, 77-79, instr., 79-85, *asst. prof. physical geog.*, 85-90, *prof.*, 90-99, Sturgis-Hooper *prof. geol.*, 99-12, *emer. prof.*, 12- Asst. geologist, U. S. Geol. Surv, 90-15. Assoc. ed., 'Science' and 'Am. Jour. Science'. Physiographer, Pumpelly's Carnegie

- Inst. exped. to Turkestan, 03. Guest, British Ass. S. African meeting, 05; Australia meeting, 14; Harvard visiting professor, Berlin, 08-09; Paris, 11-12. Cullom medal, Am. Geog. Soc, 08; medal, Harvard Travelers Club, 11; Culver medal, Chicago Geog. Soc, 13; Kane medal, Phila. Geog. Soc, 13; Hayden medal, Phila. Acad, 18; Patron's medal, Royal Geog. Soc, 19; Vega medal, Swedish Geog. Soc, 20. Nat. Acad; A.A. (sec'y, E, 87, v. pres, 03); Geol. Soc. (acting pres, 06, pres, 11); Ass. Geog. (pres, 05, 09); Am. Acad. (cor. sec'y, 00-04, v. pres, 15-19); Philos. Soc; Boston Soc. Nat. Hist; Harvard Travelers Club (pres, 02-10); cor. mem. Geog. Societies of Chicago, Philadelphia, London, Paris, Munich and Petrograd; Soc. Cient. Ant. Alz; London Geol. Ass; London Geol. Soc; Meteor. Gesell; hon. mem. Geog. Societies of New York, Berlin, Leipzig, Greifswald, Frankfurt, Petrograd, Amsterdam, Stockholm, Geneva, Neuchatel, Vienna, Budapest, Rome and Madrid; cor. mem. Berlin Acad; Paris Acad; Accad. dei Lincei; for. mem. Stockholm and Christiania Academies. Physical geography of the land; coral reefs.
- Davis, W(illia)m T(hompson)**, 146 Stuyvesant Place, Staten Island, N. Y. *Entomology, Botany*. Staten Island, Oct. 12, 62. Private schools. A.A.; fel. Entom. Soc; N. Y. Entom. Soc. (treas, 04-); N. Y. Linnean Soc; fel. N. Y. Acad; Brooklyn Entom. Soc. (pres, 12-16, 20-); Staten Isl. Inst. Arts and Sci. (v. pres, 05-); Wash. Entom. Soc; Phila. Acad; Boston Soc. Nat. Hist. Entomology of cicadas of North America.
- Davis, W(ilmer) E(sla)**, Kansas Agricultural College, Manhattan, Kans. *Botany*. Hamden Junction, Ohio, 67. A.B, Ohio Nor. Univ, 94; Illinois, 03; Chicago. Asst. prof. bot, *Kansas Col*, 09-20, *assoc. prof*, 20- A.A.; Bot. Soc. Dormancy in seeds; development of dormancy in non-dormant seeds; alternating temperatures; relation of catalase to viability and to respiration in seeds.
- Davison, A(lbert) W(atson)**, Rensselaer Polytechnic Institute, Troy, N. Y. *Chemical engineering*. Alexandria, Ohio, April 24, 88. B.S, Denison, 10; A.M, Ohio State, 11; Ph.D, Cornell, 14. Asst. chem, Ohio State, 10-12; Cornell, 13-14; asst. prof. physical chem, Cincinnati, 14-17; gen. manager, Va. Haloid Co, 19-20, consulting engineer, 21; prof. physical chem, *Rensselaer*, 21-25, head departments chem. and chem. eng, 25, *William Weightman Walker prof. chem. eng. and head dept*, 25-U.S.A, 17-19, commanding officer, Buffalo plant, Edgewood Arsenal, 18-19. Chem. Soc; Chem. Eng. Physical, colloid and electro chemistry.
- Davison, Dr. Charles**, University Hospital, Chicago, Ill. *Surgery*. Barrington, Ill, Jan. 13, 58. M.D, Northwestern, 83, A.M, 17. Intern, *Cook Co. Hosp*, 83-84, *attending surgeon*, 94-26, *emer*, 26-, pres, staff, 17-19; prof. surg. anat, col. med, *Illinois*, 99-00, adjunct prof. clin. surg, 00-03, surg. and clin. surg, 03-04, prof, 04-25, head dept. surg, 17-25, *emer. prof*, 25-, *surgeon-in-chief, Univ. Hosp*, 08- Trustee, Illinois, 05-11. Am. Med. Ass; Col. Surg. (governor, 13); Chicago Surg. Soc. (pres, 12). Transplantation of bone; autoplasic bone surgery.
- Davison, Dr. Forrest R(amon)**, University of Minnesota, St. Paul, Minn. *Biochemistry*. Hawley, Minn, April 27, 96. M.S, Minnesota, 23, Ph.D, 26. *Asst. research chemist and instr, dept. biochem, Minnesota*, 23- Pectic enzymes; carbohydrate chemistry.
- Davison, Geo(rge) S(tewart)**, Frick Building Annex, Pittsburgh, Pa. *Engineering*. Pittsburgh, Sept. 21, 56. C.E, Rensselaer, 78, hon. D.E, 26; hon. Sc.D, Pittsburgh, 26. V. pres, *Gulf Oil Corp*, pres, *subsidiary companies*; *exec. v. pres, Pa. Water Co*. Pres, Allen S. Davison Co; Sharpsville Furnace Co; Basic Products Co. Trustee, Rensselaer. Civil Eng. (director, 03-05, v. pres, 23, pres, 26-); West. Pa. Eng. Soc. (pres, 98); New Eng. Water Works Ass.
- Davison, Prof. Herbert F**, Brown University, Providence, R. I. *Chemistry*. Pawtucket, R. I, Nov. 18, 80. A.M, Ph.B, Brown, 05. Head dept. science, St. Andrew's Sch, Mass, 05-08; high sch, R. I, 08-18; *asst. prof. inorg. chem*, *Brown*, 18- Lecturer, R. I. Col. Educ, 23-24. Trustee, Nichols Acad, Mass. Chem. Soc. (sec'y, R. I. sect, 18-20); New Eng. Ass. Chem. Teachers (v. pres, 24). Elementary chemistry; apparatus design.
- Davison, Dr. Wilbur C(ornell)**, Duke University, Durham, N. C. *Pediatrics*. Grand Rapids, Mich, April 28, 92. A.B, Princeton, 13; Rhodes scholar, Oxford, 13-16, B.A, 15, B.S, 16, M.A, 19; M.D, Hopkins, 17. Instr. and assoc. *pediat*, sch. med, Hopkins, 19-23; assoc. prof, 23-26, acting head dept, 26-27, asst. dean, 24-27; *dean and prof, sch. med, Duke*, 27- *Pediat. Soc*; Soc. Clin. Invest; Soc. Bact. Bacteriology of diarrhoea and dysentery; duodenal and gastric enzymes of infants.
- Davissou, Dr. C(linton Joseph)**, Bell Telephone Laboratories, 463 West St, New York, N. Y. **Physics*. Bloomington, Ill, Oct. 22, 81. B.S, Chicago, 08; fellow, Princeton, 10-11, Ph.D, 11. Instr. physics, Princeton, 05-10; Carnegie Inst. Tech, 11-17; West. Elec. Co, 17-25, *Bell Telephone Laboratories*, 25- A.A.; fel. Physical Soc; Optical Soc. Thermionics; electron physics.
- Davissou, Prof. S(chuyler) C(olfax)**, Indiana University, Bloomington, Ind. *Mathematics*. Galveston, Ind, Jan. 2, 66. A.B, Indiana, 90, A.M, 92; fellow, Clark, 95-96; Harvard, 98-99; Sc.D, Tübingen, 00. Instr. *math, Indiana*, 90-93, assoc. prof, 93-05, junior prof, 05-08, *prof*, 08- Summer, prof, N. Y. Univ, 09. A.A; Math. Soc; Math. Verein. Geodesic lines in higher space; spaces with given line element.
- Davoll, D(avid) L(ake)**, East Orange, N. J. *Chemistry*. Amesbury, Mass, Aug. 15, 69. Ph.C, Michigan, 93, B.S, 97; Chicago, summer, 98. Asst. qual. anal, Michigan, 92-94; research chemist, Parke, Davis and Co, 94-96; instr. org. chem, Michigan, 96-97; asst. prof. applied chem, sch. pharmacy, Northwestern, 97-98, prof, 98-99; chief chemist, Peninsular Sugar Ref. Co, Mich, 99-03, tech. supt, 03-06; supt. and chief chemist, Guantanamo Sugar Co, 06-12; chief chemist, Henry Heide, 12-15; tech. supt, Org.

- Salt and Acid Co, 15-17; consulting chemist, 17-22; *supervising chemist, Arbuckle Bros*, 22-Expert sugar technique to Chas. E. Hughes, New York, 03-06. Fifth, sixth and seventh Congresses Applied Chem. (organization committee). Chem. Eng. Technology of raw and refined sugar; coffee, flavoring extracts and spices.
- Davy, Dr. J(oseph) Burt**, Imperial Forestry Institute, University of Oxford, Oxford, Eng. *Botany*. Findern, Eng, March 7, 70. Ilkley Col, Leeds; Royal Bot. Gardens, Kew, 91-92, 21-25; California, 93-02; Cornell, 07; Cambridge, 13, 20, Ph.D; hon. M.A, Oxford, 26. Asst. bot, California, 93-95, asst. and asst. botanist, Exp. Sta, 95-02, instr, 02-03; govt. agrostologist, botanist and chief div. bot, Transvaal Dept. Agr, 03-10; Union of S. Africa Dept. Agr, 10-13. Asst. curator, U. S. Dept. Agr, 02-03. Med. Acad. Inst. Geog. Bot. A.A; Bot. Soc; Ecol. Soc; British Ecol. Soc. (councilor); British Ass. (v. pres); Royal Geog. Soc; London Linnean Soc; Royal Hort. Soc; Royal Soc. Arts; Soc. bot. de France; Royal Soc. S. Africa (councilor); Transvaal Biol. Soc. (v. pres); S. Africa A. A. S. (v. pres); S. Africa Biol. Soc; S. Africa Bot. Soc; Int. Ass. Bot. Systematic, economic and forest botany; ecology; Gramineae of California and South Africa; halophytic plants; the flora of the Transvaal; the raw materials of commerce; maize breeding; tropical forest botany; origin and distribution of African flora; plant distribution.
- Dawes, Prof. Chester L(aurens)**, Harvard University, Cambridge, Mass. *Electrical engineering*. Somerville, Mass, Nov. 13, 86. B.S, Mass. Inst. Tech, 09. Asst, Mass. Inst. Tech, 09-11, instr. *elec. eng*, 16-19; *Harvard*, 11-19, *asst. prof*, 19- Prof. U. S. Naval Acad, 13-15. A.A; Elec. Eng; Eng. Educ. Underground high-voltage cables; ionization phenomena.
- Dawes, Prof. H(enry) F(ranklin)**, 97 Sheldrake Boulevard, Toronto 12, Ont, Can. *Physics*. Paisley, Ont, Oct. 15, 81. B.A, Toronto, 04, M.A, 05, Ph.D, 18; Cambridge, 06-08. Asst. demonstrator *physics*, Toronto, 04-06, lecturer, 08-11; *prof, McMaster*, 11- A.A; Physical Soc; Optical Soc; fel. Royal Soc. Can. Ionization by collision; image formation by crystalline media; dispersion by the interference method.
- Dawson, Prof. A(lden) B(enjamin)**, New York University, University Heights, New York, N. Y. *Vertebrate anatomy*. Tryon, P. E. I, Oct. 12, 92. B.A, Acadia, 15; fellow, Harvard, 17-18, Ph.D, 18. Prof. biol, Mt. Allison, 18-19; asst. prof. micros. anat, Loyola, 19-23, *assoc. prof. anat*, 23-25; *biol, N. Y. Univ*, 25- A.A; Ass. Anat; Soc. Zool. Development and structure of integumental glands; crustacean and arterial anomalies; nerve cells; cloacal glands; mesonephros; gastric mucosa; dye elimination; X-ray; ossification.
- Dawson, Prof. Bernhard H(ildebrandt)**, Observatorio Astronomico, La Plata, Argentina, S. Amer. *Astronomy*. Kansas City, Mo, Sept. 21, 90. B.S, Michigan, 16. Astronomer, *Nat. Univ. Observatory, La Plata*, 12-14, 16-21, *chief astronomer*, 21-, *prof. astron, Nat. Univ*, 17- La Plata eclipse exped, 12; acting director, La Plata Observatory, 21-22, 26. A.A; Astron. Soc; Astron. Gesell. Measurement and discovery of southern double stars; orbits of binary stars; micrometric observation of comets and asteroids; variable stars; meridian circle.
- Dawson, Dr. George E(llsworth)**, 426 Rogers Ave, West Springfield, Mass. *Educational psychology*. Berkeley Springs, W. Va, Dec. 23, 61. A.B, Michigan, 87; Leipzig, 88-89; fellow, Clark, 95-97, Ph.D, 97. Prof. psychol, Hartford Sch. Religious Educ, 97-19; educ, Mt. Holyoke, 03-08; psychol, Int. Y. M. C. A. Col, 19-25; *director psychol. lab, pub. schools, Springfield*, 13- Lecturer, Chicago, N. Y. Univ. A.A; Pub. Health Ass. Psychology of physical education.
- Dawson, Dr. J(ames) A(rthur)**, Harvard University, Cambridge, Mass. *Zoology*. Kings Co, N. S. Can, Oct. 10, 88. B.A, Dalhousie, 15; A.M, Yale, 17, Ph.D, 18. Instr. *zool*, Yale, 19; Goucher, 19-20; asst. prof, Dalhousie, 20-22; *instr, Harvard*, 23- Instr, Woods Hole, 20- Soc. Zool; Ecol. Soc. Protozoology.
- Dawson, Louis E(dward)**, 3909 Windom Place, N. W, Washington, D. C. *Chemistry*. Springfield, Ill, April 22, 94. B.S, Illinois, 20. Research and control chemist, West. Cartridge Co, Ill, 16, 17-18; research chemist, C.W.S, 18-22; *asst. chemist, carbohydrate lab, bur. chem, U. S. Dept. Agr*, 22- Chem. Soc. Organic and colloidal chemistry; capsaicin; hydrogen-ion concentration; filtration.
- Dawson, Paul R(eber)**, U. S. Department of Agriculture, Washington, D. C. *Chemistry*. Ann Arbor, Mich, Sept. 6, 95. A.B, Clark, 16, 16-17; A.M, North Carolina, 21. Asst. biochemist, Pellagra Hosp, U. S. Pub. Health Service, 17, 19-20; teaching fellow chem, North Carolina, 20-21; *asst. biochemist, bur. plant indust, U. S. Dept. Agr*, 21- Chem. Soc; fel. Inst. Chem. Biochemistry; organic chemistry; soil fertility.
- Dawson, Dr. Percy M(illard)**, University of Wisconsin, Madison, Wis. **Physiology*. Montreal, Que, Can, May 19, 73. A.B, Hopkins, 94, M.D, 98, fellow, 98-99; Harvard Divinity Sch, 09-10. Asst. physiol, Hopkins, 99-00, instr, 00-01, assoc, 01-04, assoc. prof, 04-09; Unitarian clergyman, 10-12; instr. *physiol, Wisconsin*, 13-16, asst. prof, 16-25, *assoc. prof*, 25- A.A; Physiol. Soc. Regeneration of nerves; circulation of the blood; biographies of Hales and Magendie; physical exercise and education.
- Dawson, Prof. R(alph) W(ard)**, University of Minnesota, Minneapolis, Minn. *Entomology*. Lincoln, Nebr, May 1, 87. B.S, Nebraska, 12. Instr. entom, Nebraska, 12-16, asst. prof, 16-22; *grad. asst. animal biol, Minnesota*, 23- Classification of beetles.
- Dawson, Prof. W(ilfrid) T(homas)**, University of Texas School of Medicine, Galveston, Texas. *Physiology*. Windsor, N. S. Can, Oct. 3, 95. B.A, Mt. Allison, 14, M.A, 15; B.A, Oxford, 22. Asst. instr. physiol, sch. med, Pennsylvania, 22-23; acting prof, Woman's Med. Col. of Pa, 23-25; *assoc. prof, sch. med, Texas*, 25-26, *pharmacol*, 26- Applied physiology.

Dawson, Dr. William Bell, 436 Gilmour St, Ottawa, Ont, Can. *Marine engineering*. Picton, Can, May 2, 54. B.A, McGill, 74, M.A, 79, M.E, 80, D.Sc, 02; Ecole des Ponts et Chaussées, Paris, 75-78; Miller scholar, British Inst. Civil Eng, 79-80. Railways and indust. companies, 79-93; supt, tidal surveys, Marine Dept, Ottawa, Can, 93-24; *retired*. Two prizes, Paris Acad; Watt gold medal, British Inst. Civil Eng. Fel. Royal Soc. Can; Eng. Inst. Can. Canals and reservoirs of France; mean sea level; topographical surveying; effect of wind upon currents and tidal streams; variation of leading features of the tide; tides and tide levels.

Dawson, W(illiam) Leon, Santa Barbara, Calif. *Ornithology*. Leon, Iowa, Feb. 20, 73. A.B, Oberlin, 97, B.D, 99, A.M, 03. Missionary, Wash, 95-96; pastor, Ohio, 00-02; author, Wheaton Pub. Co, 02-04; *director*, *Int. Museum Comparative Ool.*, and ed, *'The Comparative Oologist'*, 16- Sec'y-treas, Occidental Pub. Co, 10-; Birds of Calif. Pub. Co, 11-23; Birds of Ohio Pub. Co, 25- Ornith. Union; Cooper Ornith. Club; Royal Australasian Ornith. Union. Birds of Ohio, Washington and California.

Day, Dr. Alexander Alfred, 303 E. Chicago Ave, Chicago, Ill. *Bacteriology*. East Boston, Mass, Feb. 15, 84. A.B, 06, M.D, 11. Instr. *bacter*, *Northwestern*, 12-16, asst. prof, 16-24, *prof*, 24- Chicago Path. Soc. Metabolism of bacteria.

Day, Dr. Arthur L(ouis), Carnegie Institution, Washington, D. C. **Physical geology*. Brookfield, Mass, Oct. 30, 69. A.B, Yale, 92, Ph.D, 94; hon. Sc.D, Groningen, 14; Columbia, 15; Princeton, 18. Instr. physics, Yale, 94-97; sci. staff, Phys-Tech. Reichsanstalt, Charlottenburg, 97-01; physical geologist, U. S. Geol. Surv, 01-07; *director geophys. lab*, *Carnegie Institution*, 07- In charge optical glass production, W. I. B, 17-18. Nat. Acad. (home sec'y, 13-19); Geol. Soc; Physical Soc; Chem. Soc; Am. Acad; Philos. Soc; Wash. Geol. Soc; Wash. Philos. Soc. (pres, 11); Wash. Acad. (pres, 24); for. assoc. Accad. dei Lincei, Accad. di Torino; Geol. Soc. London. Physical phenomena at very high and very low temperatures; thermal studies of rock-forming minerals; absolute measurement of high temperatures; chemical and physical problems of volcanoes.

Day, Dr. Jesse E(rwin), Ohio State University, Columbus, Ohio. *Chemistry*. Yorkshire, England, Feb. 16, 88. A.B, Miami, 11; fellow, Ohio State, 11-12, A.M, 13, Ph.D, 16. Asst. chem, Ohio State, 12-15; instr, Louisiana, 15-17; Ohio State, 17-18, *asst. prof*, 18-20; Wisconsin, 20-23; *Ohio State*, 23- A.A; Chem. Soc. (sec'y, Wisconsin sect, 20, Columbus sect, 17-19, 23-25, chairman, 25-). Physical and inorganic chemistry; ethyl alcohol; manganese dioxide; permanganate-manganate equilibria; catalytic oxidation of carbon; electro-metallic precipitation.

Day, Prof. W(illiam) B(aker), 701 S. Wood St, Chicago, Ill. *Pharmacy*. Peru, Ill, Feb. 15, 71. Phar.G, Chicago Col. Pharmacy, 92; hon. Phar.M, Phila. Col. Pharmacy, 17. *Prof. histol.*

bot. sch. pharmacy, Illinois, 98-13, *bot. and mat. med*, 13-, *dean*, 20- Pharmaceut. Ass. (pres, 12, gen. sec'y, 14-25). Medical botany.

Day, Dr. William S(coffield), 220 Hobart Ave, Summit, N. J. **Physics*. New York, N. Y, Jan. 2, 64. A.B, Columbia, 84; Ph.D, Hopkins, 97. Student asst. physics, Hopkins, 95-96; asst, Barnard, Columbia, 97-98, tutor, 98-03, lecturer, Columbia, 03-18. A.A; Physical Soc. New apparatus for exact comparison and testing of thermometers; experimental tests of electrical theories; residual rays in the infra-red spectrum.

Dayton, William A(dams), U. S. Forest Service, Washington, D. C. *Forestry*. New York, N. Y, Dec. 14, 85. A.B, Williams, 05, A.M, 08. *Assoc. plant ecologist*, U. S. Forest Service, 10- A.A; Soc. Foresters; Forestry Ass; Bot. Soc; Ecol. Soc; Torrey Bot. Club; fel. Geog. Soc; Wash. Bot. Soc; Wash. Biol. Soc; S. Calif. Acad. Forest protection; economic and systematic botany.

Deaderick, Dr. W(illiam) H(eiskell), Hot Springs, Ark. *Medicine*. Knoxville, Tenn, Feb. 7, 76. Southwestern Presbyterian, 91-95; Louisville, 95-97; M.D, Vanderbilt, 98. *Practising physician*, 98- City and co. boards of health, Marianna, Ark, 99-12. Ed. staff, 'Am. Jour. Trop. Diseases'; assoc. ed, 'Annals of Med'; ed, 'Am. Jour. Syphilis.' Commission for Study of Malaria. Soc. Trop. Med; fel. Col. Physicians (board governors); Tri-State Med. Ass. (v. pres, 05, pres, 07); Soc. de Path. exot. Internal medicine; diseases of the southern states; malaria.

Deam, Cha(rle)s C(lemont), Bluffton, Ind. *Forestry*. Bluffton, Aug. 30, 65. De Pauw; hon. A.M, Wabash, 20. State forester, Ind, 09-13, acting state forester, 17-19, *state forester*, 19- A.A; Soc. Foresters; Bot. Soc; fel. Ind. Acad. (pres, 23). Trees, ferns and flowering plants of Indiana.

Dean, Dr. Arthur L(yman), University of Hawaii, Honolulu, Hawaii. *Industrial chemistry*. Southwick, Mass, Oct. 1, 78. A.B, Harvard, 00; Ph.D, Yale, 02. Asst. plant physiol, Sheffield Sci. Sch, Yale, 02-03, instr, 03-07; Carnegie research asst, 04-05; chief sect. wood chem, U. S. Forest Service, 05-07; in charge lab. of A. D. Little, Boston, 07-08; instr. indust. chem, Sheffield Sci. Sch, Yale, 08-09, asst. prof, 09-14; pres, Hawaii, 14-27; *director*, *Exp. Sta. Hawaiian Pineapple Cannery*. Chairman, Fish and Game Commission. A.A; Chem. Soc. Inulin; proteolytic enzymes; creosote oils; chaulmoogra oil in the treatment of leprosy; pineapple culture and canning.

Dean, Prof. Bashford, Columbia University, New York, N. Y. **Zoology*. New York, Oct. 28, 67. A.B, Col. City of N. Y, 86; A.M, Columbia, 89, Ph.D, 90; Munich; Naples, 91; Misaki, Japan, 00-01, 05. Tutor nat. hist, Col. City of N. Y, 86-90; instr. zool, Columbia, 91-96, adjunct prof, 96-03, *prof. vert. zool*, 03-27, *zool*, 27-; *prof. fine arts*, N. Y. Univ, 26- Asst, N. Y. State Fish Commission, 86-88; U. S. Fish Commission, 89-92, biologist, 00-01, special investigator of oyster culture in England,

- France, Belgium, Spain, Portugal, Italy and Japan; director biol. lab, Cold Spring Harbor, 90; advisory board, N. Y. Aquarium, 02-; curator, Am. Museum Nat. Hist., 03-10, hon. curator, 10-, of arms and armor, Metrop. Museum Art, 03-; curator, Dyckman House Museum, 16-, pres, Dyckman Inst, 23- Major, ordnance dept, 17-18. Chevalier, Légion d'honneur, 10. Soc. Nat. (treas); Soc. Zool.; Ass. Anat.; Geol. Soc.; Paleont. Soc.; Soc. Ichthyol. and Herp. (pres, 16); fel. Ass. Mus; Metrop. Mus; N. Y. Acad.; N. Y. Zool. Soc.; cor. Phila. Soc. Art; Soc. Zool. de Mex; London Zool. Soc.; Moscow Soc. Nat.; Paris Museum Nat. Hist. Biology of the oyster; insectivorous plants; biological stations; anatomy, embryology and paleontology of fishes; origin of vertebrate limbs; orthogenesis; paleontology of sharks; embryology of Homea, Chimaera, Cestracion and Chlamydoselachus; bibliography of fishes; archeology of armor; armor in modern warfare.
- Dean, Dr. Ernest W(oodward)**, Standard Oil Co. of New Jersey, 26 Broadway, New York, N. Y. *Chemistry*. Taunton, Mass, Sept. 28, 88. A.B, Clark, 08; A.M, Yale, 12, Ph.D, 14. Instr. chem, Hobart, 08-11; asst, Yale, 12-14; *chemist*, U. S. Bur. Mines, 14-22, *Standard Oil Co. of N. J.*, 22- Chem. Soc; Soc. Test. Mat; Automotive Eng. Hydrolysis of aliphatic esters; petroleum.
- Dean, Prof. Geo(rge) A(dams)**, State College, Manhattan, Kans. *Entomology*. Topeka, Kans, April 19, 73. M.S, Kansas Col, 05. Prin, ward sch, Topeka, 97-00; asst. *entom.*, *Kansas Col*, 02-06, asst. prof, 06-12, assoc. prof, 12-13, *prof. and head dept*, 13- Special investigator mill and stored grain insects, Europe, 11. A.A.; Entom. Soc; Ass. Econ. Entom; Kans. Acad. Mill and stored grain insects; Hessian fly; the effect of temperature and moisture on insect life.
- Dean, Prof. George Reinald**, Rolla, Mo. *Mathematics*. Waterloo, Ill, Oct. 21, 65. C.E, Mo. Sch. Mines, 90, B.S, 91. Asst, Leander McCormick Observatory, 92-93; teacher *math*, high sch, Mo, 94-97; *prof*, *Mo. Sch. Mines*, 97- Electrical theory of matter.
- Dean, Prof. H(enry) H**, Ontario Agricultural College, Guelph, Ont, Can. *Dairying*. Waterloo Co, Ont, Nov. 12, 65. B.S.A, Provincial (Can), 90. *Prof. dairying*, *Ont. Agr. Col*, 91- Canadian dairying.
- Dean, Dr. J(ay) Atlee**, 614 S. 48th St, Philadelphia, Pa. *Chemistry*. Bellefonte, Pa, Sept. 28, 88. Phar.D. *Practising biol. chemist*. A.A; Chem. Soc; Pharmaceut. Ass; Soc. Bact; Pub. Health Ass. Clinical, pharmaceutical and physiological chemistry; bacteriology; serology.
- Dean, Dr. John Candee**, University Club, Indianapolis, Ind. *Astronomy*, *Physics*. Deansboro, N. Y, Sept. 15, 45. Whitestown Seminary; Sc.D, Lombard. *Pres*, *Dean Brothers Co.* A.A; Hist. Soc; Ind. Acad. Popular astronomy; history of science.
- Dean, Prof. Paul Marshall**, University of Colorado, Boulder, Colo. *Chemistry*. Newcastle, Pa, March 24, 85. A.B, Colorado, 08, A.M, 11; Ph.D, Illinois, 16; Collège de France, 24-25. Teacher science, high sch, Colo, 08-09; chemist, West. Chem. Mfg. Co, 09-10; instr. *chem*, Colorado, 11-14; asst, Illinois, 14-15; instr, *Colorado*, 15-17, asst. prof, 17-20, assoc. prof, 20-23, *prof*, 23- A.A; Chem. Soc; Soc. chim. de France. Organic and analytical chemistry.
- Dean, R(eginald) S(cott)**, 91 N. Edgewood Ave, LaGrange, Ill. *Physical chemistry*, *Metallurgy*. Rolla, Mo, Aug. 23, 97. B.S, Missouri, 15, M.S, 16, Met.E, 22; fellow, Chicago, 17. Asst. physical chem, Harvard, 16-17; physical chemist, research dept, Am. Zinc, Lead and Smelting Co, 18; metallurgist, Anaconda Copper Co, 19; instr. metal, Armour, 19-20; *research engineer*, *West. Elec. Co, Chicago*, 20- Chicago sect. award, Inst. Min. and Metal. Eng. Chem. Soc; Min. and Metal. Eng. Theoretical metallurgy.
- Deane, Ruthven**, 112 W. Adams St, Chicago, Ill. *Ornithology*. Cambridge, Mass, Aug. 20, 51. Fel. Ornith. Union (mem. council); Ill. Audubon Soc. (pres, 98-14); hon. mem. Chicago Acad; Cooper Ornith. Club; Wilson Ornith. Club; cor. mem. Nuttall Ornith. Club.
- Deane, Walter**, 29 Brewster St, Cambridge, Mass. *Botany*, *Ornithology*. Boston, Mass, April 23, 48. A.B, Harvard, 70. Instr, St. Mark's Sch, Southborough, Mass, 71-78; John P. Hopkinson's Sch. Ornith, Boston, Mass, 78-95; asst. to Wm. Brewster at his museum, Cambridge, Mass, 97-08. Mem. Ornith. Union; New Eng. Bot. Club (v. pres, 00-08, pres, 08-11); Nuttall Ornith. Club. Flora of northeastern North America.
- Dearborn, Major George Van Ness**, U. S. Veterans' Hospital, The Bronx, New York, N. Y. *Neuropsychiatry*, *Psychology*. Nashua, N. H, Aug. 15, 69. Litt.B, Dartmouth, 90; M.D, Columbia, 93, Ph.D, 99; A.M, Harvard, 96. Asst. philos, Harvard, 96-97, physiol, 99-00; asst. prof, Tufts, 00-04, prof, 04-15; psychol. and educ, Sargent Nor. Sch. Physical Educ, 06-21; *chief dept. med. psychol*, *U. S. Veterans' Hosp*, 81, 22- Instr, Sch. Eugenics, 12-15; consulting physiologist and psychologist, Forsyth Dental Infirmary, 13; asst. physician, Boston City Hosp, 19-21; surgeon, U. S. Pub. Health Service Reserve, 21-26. M.C, U.S.A, 18; chief neuropsychiat. service, Camp Devens, 19; med. O.R.C, 22-24. Psychol. Ass; Psychiat. Ass; Am. Med. Ass; Philos. Ass; Am. Acad. Med; N. Y. Ass. Consulting Psychologists. Emotion; mental correlations with vasomotion; psychology of beauty; kinesthesia; biology of music.
- Dearborn, Dr. Ned**, Sacket Harbor, N. Y. *Ornithology*, *Mammalogy*. Alton, N. H, Nov. 24, 65. B.S, Dartmouth, 91; Sc.D, New Hampshire, 01. Asst. prin, schools, N. H, 89-93; supt, lens dept, Lord Bros. Mfg. Co, 93-97; instr. math. and physics, New Hampshire, 97-01; asst. curator ornith, Field Museum Nat. Hist, 01-09; asst. biologist, biol. surv, U. S. Dept. Agr, 09-20; *fur culturist*, *Ont. Stock Farm*, 20- Sci. exped. to Guatemala, 06, Venezuela, 08. Soc. Mammal; Wash. Biol. Soc. Adaptability of furbearing animals to domestication.

Dearborn, Prof. Walter F(enno), Harvard University, Cambridge, Mass. **Psychology*. Marblehead, Mass, July 19, 78. A.B, Wesleyan, 00, A.M, 03; Ph.D, Columbia, 05; M.D, Munich, 13. Instr. educ. psychol, Wisconsin, 05-07, asst. prof, 07-09; assoc. prof. *educ*, Chicago, 09-12; *Harvard*, 12-17, *prof*, 17- Trustee, Mass. State Infirmary, 13-14, 15- A.A; Psychol. Ass. Retinal local signs; the psychology of reading; the relative standing of pupils in school and university; the practice experiment in learning; forms of infantilism; measures of intelligence and school training; special disabilities; mental and physical growth; mental hygiene.

Dearing, Cha(rie)s, U. S. Department of Agriculture, Washington, D. C. *Horticulture*. Wichita, Kans, March 25, 88. B.S.A, Missouri, 09. Asst. hort, Missouri, 08-09, instr, 09-10; sci. asst, U. S. Dept. Agr, 10-18, asst. horticulturist, 18-19, *assoc. horticulturist*, 19-; *asst. director in charge branch exp. sta*, N. C. Dept. Agr, 20- A.A; Soc. Hort. Sci; Pomol. Soc. Viticulture; pomology; plant breeding.

Dearness, John, Provincial Normal School, London, Ont, Can. *Biology*. Hamilton, Ont, May 13, 52. Teachers' and inspectors' certificate, Ont. Prof. biol, med. dept, Western, 88-14; *prin*, *Provincial Nor. Sch*, 14- Lecturer, Western. Ont. Entom. Soc. (past pres). Mycology.

Deatrick, Dr. E(ugene) P(eyton), West Virginia University, Morgantown, W. Va. *Soils*. Rimersburg, Pa, April 7, 89. Keystone State Nor. Sch, Pa; A.B, Franklin and Marshall, 11; Ph.D, Cornell, 17. Instr, high sch, Pa, 11-13; asst. instr. *soils*, Cornell, 14-17; prof, Pa. Forestry Acad, 17-20; instr, N. Y. State Col. Agr, Cornell, 20-21; *assoc. prof*, *West Virginia*, 21- C.W.S, U.S.A. A.A; Soc. Agron. Manganese fertilizers; soil analyses; the soy bean; fertility of West Virginia soils; auto irrigation of potted soils.

Deatrick, Prof. Lily Bell Sefton, University of West Virginia, Morgantown, W. Va. *Chemistry*. Beaver, Pa, March 16, 83. B.S, Denison, 11; M.S, Ohio State, 18, Ph.D, 21. Asst. prof, Denison, 11-18; asst. chemist, Bur. Standards, 18-19; *asst. prof. chem*, *West Virginia*, 21- Chem. Soc. Standardization of well-water; determination of nitrites and nitrates in battery acid; oxidation of isopropyl alcohol and acetone in alkaline potassium permanganate.

De Baufre, Prof. William L(ane), 226 W. 70th St, New York, N. Y. *Mechanical engineering*. Baltimore, Md, April 19, 83. E.E, Lehigh, 07, M.E, 09, M.S, 19. Mech. engineer, U.S.N. Exp. Sta, 12-19; chairman dept. mech. eng, Nebraska, 19-27; *tech. adviser and head tech. research dept*, *Int. Combustion Eng. Corp*, 27- Consulting engineer, U. S. Bur. Mines, 21-, board helium engineers, advisory committee, use of oxygen in metal processes. A.A; Mech. Eng. Flow of fluids; heat transfer; insulation; separation of gases; low temperature refrigeration; thermodynamic processes.

DeBord, Dr. George G(orham), First National Bank, Fort Smith, Ark. *Bacteriology*. Freeport, Kans, Dec. 16, 92. B.S, Okla. Col, 14; M.S,

Iowa Col, 16; research fellow, Harvard, 20-22, Ph.D, 22. Asst. bacter, Iowa Col, 16; bacteriologist, bur. chem, U. S. Dept. Agr, 17-18, 19-20, 22-23; dairy dept, Iowa Col, 23-25; *DeBord Laboratories*, 25- Asst. to bacteriologist, Great Bear Water Co, N. Y. Bacteriologist, U.S.A. A.A; Soc. Bact; Soc. Exp. Biol; fel. Iowa Acad. Food bacteriology; bacterial metabolism; anaerobes.

DeCamp, Prof. Joseph Edgar, State College, Pa. *Psychology*. Desha, Ark, Feb. 19, 87. B.S, Arkansas Col, 05; A.M, Michigan, 12, fellow, 13-14, Ph.D, 14. Asst. *psychol*, Michigan, 12-13; Illinois, 14-15; instr, California, 15-16; Stanford, 16-19; asst. prof, *Pa. State*, 19-21, assoc. prof, 21-23, *prof*, 23- Summers, asst, Michigan, 14, instr, California, 16. Psychol. Ass. Animal behavior; retroactive inhibition; influence of color upon apparent weight; mental tests.

Decker, Prof. Charles E(lijah), University of Oklahoma, Norman, Okla. *Geology*. Dixon, Ill, Sept. 27, 68. A.B, Northwestern, 06; A.M, Chicago, 08, Ph.D, 17. Instr. geol, Northwestern, 08-09; geol. and biol, Allegheny, 09-10, acting prof, 10-12, asst. prof, 12-16; instr. *geol*, *Oklahoma*, 16-17, asst. prof, 17-19, assoc. prof, 19-25, *prof*, 25- A.A; fel. Geol. Soc; Ass. Petrol. Geol. (sec'y-treas, 19-26). Petroleum and natural gas of the United States; minor faults and folds in the Great Lakes region; transverse structures in Arbuckle Mountains of Oklahoma.

Decker, Prof. F(loyd) F(iske), 312 Marshall St, Syracuse, N. Y. *Mathematics*. Dennison, Texas, March 23, 81. A.B, Syracuse, 01, A.M, 05, Ph.D, 10. Instr. *math*, *Syracuse*, 04-10, asst. prof, 10-14, assoc. prof, 14-17, *prof*, 17-, *director exten. sch*, 19- A.A; Math. Soc. Matrices; symmetric function tables.

Decker, Dr. H(arry) Ryerson, 923 Westinghouse Building, Pittsburgh, Pa. *Anatomy*. Jackson, Mich, Feb. 26, 83. A.B, Princeton, 03; M.D, Columbia, 07. Intern, Presb. Hosp, New York, 07-09; St. Francis Hosp, Pittsburgh, 10; *asst. prof. anat. and surg*, *Pittsburgh*, 11-; *visiting surgeon*, *Presb. Hosp*, 17-; *City Hosp*, 26- Consultant and lecturer, Carnegie Inst. Tech, 15. Capt. and major, M.C, 18-19. Col. Surg; Am. Med. Ass. Surgery.

De Cou, Prof. E(dgar) E(zekiell), University of Oregon, Eugene, Oregon. *Mathematics*. Thamesville, Ont, Can, July 13, 68. B.S, Wisconsin, 94; M.S, Chicago, 97, 99-00; Yale, 00-01. Prof. math, Bethel, 97-99, 01-02, acting pres, 02; *prof. math*, *Oregon*, 02- Math. Soc; Math. Ass. The conform representation by the function $w = az^2 - 2bz + c$, and the inverse function.

Dederer, Prof. P(auline) H(amilton), Connecticut College, New London, Conn. *Cytology*. Hoboken, N. J, Oct. 2, 78. A.B, Columbia, 01, A.M, 07, Ph.D, 15. Asst. *zool*, Barnard, Columbia, 03-05, tutor, 05-09, instr, 09-17; assoc. prof, *Conn. Col. for Women*, 17-22, *prof*, 22- A.A; Soc. Zool. Spermatogenesis and oogenesis in Lepidoptera.

Dederick, Dr. L(ouis) S(erle), Proving Ground, Aberdeen, Md. *Mathematics*. Chicago, Ill, May 8, 83. A.B, Kenyon, 05; A.M, Harvard, 07,

- Ph.D, 09. Instr. math, Princeton, 09-17; U. S. Naval Acad, 17-20, asst. prof, 20-24; prof, British Columbia, 24-26; *mathematician, Aberdeen Proving Ground, 26-* A.A; Math. Soc; Math. Ass. Singularities of transformations of two variables.
- Deel, Prof. S(amuel) A(sher)**, 703 Tenth St, Baldwin, Kans. *Physics*. Miami Co, Kans, Feb. 4, 78. Ph.B, Baker, 01, A.M, 25. Magnetic observer, U. S. Coast and Geod. Surv, 01-08, in charge magnetic observatory, Honolulu, 03-06, Baldwin, Kans, 06-08; *prof. physics, Baker, 08-* Mayor, Baldwin City, Kans, 22-A.A; Kans. Acad. Terrestrial magnetism.
- Deere, Prof. Emil O(laf)**, Bethany College, Lindsborg, Kans. *Biology, Geology*. Moline, Ill, Aug. 8, 77. A.B, Bethany, 04, A.M, 07; Colorado, 04; Kansas, 07; M.S, Chicago, 11. Instr. biol. and mech. drawing, *Bethany, 04-09, prof. biol. and geol, 09-, v. pres. and dean, 13-* Curator museum, Bethany. A.A; Ecol. Soc; Micros. Soc; Genetic Ass; Kans. Acad. Ecol.ogy; pathology; geology.
- Deetz, Cha(rlie)s H(enry)**, U. S. Coast and Geodetic Survey, Washington, D. C. *Geodesy*. Sellersville, Pa, April 10, 64. Mass. Inst. Tech, 85-88. Field worker topog. and hydrog. and *cartographer, U. S. Coast and Geod. Surv, 89-* Numis. Ass; Wash. Philos. Soc. Cartography; nautical charts and map projections.
- Defoe, Prof. L(uther) M(arion)**, 810 Virginia Ave, Columbia, Mo. *Mechanics*. California, Mo, Sept. 6, 60. Missouri, 86; A.B, Harvard, 93; Cambridge (Eng), 02-03. Asst. prof. math, *Missouri, 93-02, prof. mech. in eng, 02-* A.A; Math. Soc; Eng. Educ; Econ. Ass; Acad. Polit. Sci; Royal Soc. Arts; London Math. Soc.
- Defren, George**, 289 Park St, Newton, Mass. *Chemistry*. Cincinnati, Ohio, April 16, 74. B.S, Mass. Inst. Tech, 95, M.S, 96. *Consulting chemist, 96-* A.A; Chem. Soc. Industrial biology; refined, edible lactic acid; maltose syrup and sugar industries; beers with low alcoholic content; cocoa beans; candy; chocolate.
- Defries, Prof. Rob(ert) D(avies)**, University of Toronto, Toronto, Ont, Can. *Bacteriology, Immunology*. Toronto, July 23, 89. M.B, Toronto, 11, M.D, 13, D.P.H, 15. Bacteriologist, Board Health, Ont, 13-14; asst, *Connaught antitoxin laboratory, Toronto, 15-16, asst. director, 16-17, assoc. director, 17-, lecturer hygiene, 17-20, asst. prof, 20-22, assoc. prof. hygiene and prev. med, 22-, assoc. director dept. biometrics and epidemiol. sch. hygiene, 25-* Pub. Health Ass; Can. Med. Ass; Can. Pub. Health Ass; Toronto Acad. Med. Biometrics; epidemiology.
- De Garis, Dr. Charles F(rancis)**, Johns Hopkins University, Baltimore, Md. *Anatomy*. Hannibal, Mo, Dec. 12, 86. M.D, Washington (St. Louis), 12; A.B, Wisconsin, 15; A.M, Hopkins, 26. Intern and res. pathologist, St. Louis City Hosp, 12-13; asst. and instr. *anat, Wisconsin, 13-16; prof, Mississippi, 17-22; instr, Hopkins, 25-* A.A; Ass. Anat; assoc. Ornith. Union; Soc. Mammal; British Ass. Aortic arch and arm arteries of White and Negro stocks; experimental cytology; comparative anatomy of the facial nerve.
- Degener, Prof. Lyda May**, Wells College, Aurora, N. Y. *Physiology, Public health*. Brooklyn, N. Y, Nov. 25, 90. A.B, Cornell, 14, A.M, 16, Ph.D, 20. Asst. zool, Cornell, 14-15; research asst, Wistar Inst, Pennsylvania, 18-21, research fellow, 22-23; acting head dept. biol. and asst. prof, Wells, 23-24; fellow physiol. sch. hygiene and pub. health, Hopkins, 24-25; *head dept. health educ. and prof. physiol. and hygiene, Wells, 25-* Fellow, Woods Hole, 23. A.A; Soc. Zool; Genetic Ass; Pub. Health Ass; Soc. Bact; Eugenics Soc; Child Health Ass; Soc. Col. East. States and Md. Hygiene; comparative anatomy; experimental physiology; internal secretions; thyroid and hypophysis; effect of fatigue on thyroid.
- Deghuée, Dr. J(oseph) A(lbert)**, 511 Fifth Ave, New York, N. Y. *Chemistry*. Brooklyn, N. Y, June 26, 70. Ph.B, Columbia, 90, A.M, 92, Ph.D, 93. Asst. demonstrator physiol. chem. and toxicol, Columbia, 90-96; asst. chemist, Health Dept, New York, 96-02, chief chemist, 02-04; anal. and consulting chemist, 04-10; *pres, Lederle Laboratories, 10-18; Lederle Antitoxin Laboratories, 15-* Chemist, Hygeia Distilled Water Co; U. S. Wood Preserving Co. A.A; Chem. Soc; Soc. Chem. Indust; Soc. Med. Juris. Organic non-sugar in cane juice; determination and use of preservatives in food; food analysis.
- DeGolyer, E(verette Lee)**, 65 Broadway, New York, N. Y. *Geology*. Greensburg, Kans, Oct. 9, 86. A.B, Oklahoma, 11; hon. Sc.D, Colo. Sch. Mines. Field asst, U. S. Geol. Surv, 06-09, junior geologist, 10-15; geologist, Mex. Eagle Oil Co, 09-11, chief geologist, 12-15, consulting geologist, 12-23; *v. pres. and gen. manager, Eycade Oil Corp, 23-; Amerada Petrol. Corp, 19-26, pres. and gen. manager, 26-* Special lecturer, Oklahoma, 16- Assoc. ed, 'Econ. Geol.' Pres, Geophys. Research Corp, 25- Nat. Research Council. A.A; fel. Geol. Soc; Seismol. Soc; Soc. Econ. Geol. (exec. committee, 24); Ass. Petrol. Geol. (pres, 25); Min. and Metal. Eng. (v. pres. and director, 20-26, first v. pres, 25, chairman, petrol. div, 23-25, exec. committee, 20, 25, chairman, membership committee, 23-25, pres, 27-); fel. Am. Geog. Soc; N. Y. Acad; British Inst. Petrol. Technol. Economic geology of oil and gas; geology of Mexican oil fields and coastal plain; geology of north coast of Cuba; geothermal gradients in oil-bearing regions; origin of salt domes.
- Dehn, Prof. William M(aurice)**, University of Washington, Seattle, Wash. *Chemistry*. Chesning, Mich, June 24, 72. A.B, Hope, 93, A.M, 96; Ph.D, Illinois, 03. Instr. chem, Illinois, 00-07; *prof, Washington (Seattle), 07-* A.A; Chem. Soc. Organic chemistry.
- Deimel, Prof. R(ichard) F(rancis)**, Stevens Institute, Hoboken, N. J. *Mathematical physics*. New York, N. Y, June 27, 81. B.S, Col. City of N. Y, 02; A.M, Columbia, 03. Asst. mech, Columbia, 03-05, lecturer physics, 05; instr. math. and physics, Col. City of N. Y, 05-06; math. and mech, *Stevens, 06-09, asst. prof.*

- mech*, 09- A.A.; Math. Soc. Mechanics of deformable media; the gyroscope.
- DeKalb, Courtenay**, 15 Gramercy Park, New York, N. Y. *Mining engineering*. Loudon Co, Va, Sept. 18, 61. Syracuse. Mining engineer, S. Dak, 86, Brazil and Peru, 89-90, Nicaragua, 92, Pa, 96, Mont, 97, Mex, Calif, 02-08; prof. mining and metal, Missouri, 93-97; Queen's (Can), 97-00; ed, Mining and Sci. Press, 08-10; mining engineer, Mex, 10-15, Ariz, 15-16, Calif, 17-19; mine investigator, Spain, Portugal and Morocco, U. S. Dept. Commerce, 19-20, New Orleans and Ariz, 20-25; prof. mining eng, Alabama, 25-26; St. Joe Lead Co, Spain, 26-27. Min. Eng; Am. Geog. Soc; Lima Geog. Soc; Soc. Mines de Chile. Geology; metallurgy; explosives; mechanics of ore-crushing; cyanid process; copper leaching.
- Delabarre, Prof. E(dmund) B(urke)**, 9 Arlington Ave, Providence, R. I. **Psychology*. Dover, Maine, Sept. 25, 63. Brown, 82-83; A.B, Amherst, 86; Berlin, 87-88; A.M, Harvard, 89; Ph.D, Freiburg, 91; Paris, 91-92. Assoc. prof. *psychol*, Brown, 91-96, *prof*, 96- Director psychol. lab, Harvard, 96-97. A.A.; Soc. Nat; Psychol. Ass; Am. Acad; cor. mem. Phila. Geog. Soc. Muscular contributions to consciousness; space-perception; emotions; effects of drugs.
- Delafield, Maturin L(ivingston)**, 29 Ave. Davel, Lausanne, Switzerland. *Botany*. New York, N. Y, Sept. 29, 69. Columbia; foreign study. A.A.; Bot. Soc; Torrey Bot. Club (librarian, 89-92, treas, 98-00); Phytopath. Soc; Ecol. Soc; Hist. Sci. Soc; N. Y. Acad; Royal Micros. Soc; Soc. bot. de France; Soc. de Path. veg. et d'Entom. agr; Bordeaux Linnean Soc; Soc. Bot. Suisse; Soc. Helvétique des Sci. Nat; Soc. Vaudoise des Sci. Nat. Taxonomy of vascular plants; phytogeography; botanical bibliography.
- Delaney, Dr. P. Arthur**, University of Chicago, Chicago, Ill. *Histology*. Friar's Head, N. S, Can, Oct. 5, 93. B.S, Chicago, 21, Ph.D, 25. *Instr. anat*, Chicago, 23- Microscopical anatomy; mesothelium in turtles; iron content in the liver of turtles; intra-epidermal relation of connective tissue in the turtle; method for staining Nissl substance.
- Delatour, Dr. H(enry) Beeckman**, 73 Eighth Ave, Brooklyn, N. Y. *Surgery*. March 27, 66. Col. City of N. Y; M.D, Columbia, 87. *Attending surgeon*, Norwegian Hosp, 90-, *St. John's Hosp*, Brooklyn, 96-; clin. prof. surg, L. I. Col. Hosp, 96-06. Attending surgeon, Methodist Episcopal and Jewish Hospitals, Brooklyn, 05-12; consulting surgeon, South Side and Rockaway Beach Hospitals; Police Dept, New York. Surg. Ass; Am. Med. Ass; Brooklyn Surg. Soc. (pres); Int. Surg. Ass. Operative procedures.
- Delavan, Prof. C(arlyn) C(hase)**, Wanakena, N. Y. *Forestry*. Alma, Mich, Feb. 18, 91. A.B, Michigan, 14, M.S, 15. U. S. Forest Service, 15-22; asst. forester in charge protection, Vt, 22; *prof. forestry*, *Ranger Sch*, N. Y. State Col. Forestry, Syracuse, 23- Soc. Foresters; Vt. Soc. Eng. Climate and forest fires.
- Delbridge, Dr. T(homas) G**, 6107 Ellsworth St, Philadelphia, Pa. *Chemistry*. Batavia, N. Y, Feb. 20, 84. A.B, Union, 03; Ph.D, Cornell, 07. Instr. chem, Cornell, 04-09; chemist, *The Atlantic Ref. Co*, 09-14, asst. supt, 14-18, chief chemist, 18-22, asst. plant manager, 23-24, *process supervisor*, 24- Soc. Test. Mat; Franklin Inst; Petrol. Inst; Mech. Eng; British Inst. Petrol. Tech. Tetrachlorgallein; tetra-chlorphthalic acid; petroleum refining.
- De Lee, Prof. J(oseph) B(olivar)**, 5028 Ellis Ave, Chicago, Ill. *Obstetrics*. Cold Spring, N. Y. M.D, hon. A.M, Northwestern, 04. Demonstrator anat, Chicago Med. Sch, 92-93; demonstrator and instr. *obstet*, *med. sch*, Northwestern, 94-97, *prof*, 97- Lecturer, dental sch, Northwestern, 93, Mercy Cook Co, Nurses and Wesley Hospitals, Chicago. Am. Med. Ass; Gynec. Soc; Chicago Gynec. Soc. Principles and practice of obstetrics; obstetrics for nurses.
- Dellenbaugh, Frederick S(amuel)**, 161 W. 75th St, New York, N. Y. *Anthropology, Geography*. McConnellsville, Ohio, Sept. 13, 53. Artist and asst. topographer, Powell's explor. exped, Colo. River, 71-73; librarian, Am. Geog. Soc, 09-12. A.A; Anthropol. Ass; fel. Ethnol. Soc. American archeology and ethnology; history and explorations of western United States; towns of the Rio Grande Valley, New Mexico, etc, prior to 1700; Escalante's trail and the old Spanish trail.
- Dellenbaugh, Dr. Frederick S(amuel), Jr**, 91 Spooner Road, Chestnut Hill, Mass. *Electrical engineering*. Ellenville, N. Y, Feb. 23, 88. E.E, Columbia, 10; M.S, Mass. Inst. Tech, 21, Sc.D, 26. Asst. designer, Crocker Wheeler Co, N. J, 10-12; indust. sales dept, Westinghouse Elec. and Mfg. Co, 12-17; research asst, asst. prof, assoc. prof. elec. eng, Mass. Inst. Tech, 19-26; *engineer*, *research dept*, *United Fruit Co*, 26- Capt, U.S.A, 17-19. A.A; Elec. Eng; Radio Eng; Franklin Inst. Transmission of power; harmonic analysis and mechanical computing machines; theory of A.C. rectification.
- Dellinger, Dr. J(ohn) H(oward)**, Bureau of Standards, Washington, D. C. **Physics*. Cleveland, Ohio, July 3, 86. Western Reserve, 03-07; A.B, George Washington, 08; fellow, Princeton, 12-13, Ph.D, 13. Instr. physics, Western Reserve, 06-07; *physicist*, *Bur. Standards*, 07-, *chief radio lab*, 19- U. S. delegate, Interallied Tech. Conf. on Radio Communication, Paris, 21; Conf. on Limitation of Armament; sec'y, U. S. Govt. Interdept. Radio Advisory Committee, 22-23; sect. committee, radio, Am. Eng. Standards Committee; Nat. Radio Conf, 22-25; chairman committee on radio apparatus, Fed. Specifications Board, 24; Geophys. Union; tech. sec'y, Am. sect, Int. Union Sci. Radio Telegraphy. Fel. Physical Soc; fel. Radio Eng. (v. pres, 24, pres, 25); Wash. Acad. Mathematics; electrical properties of copper; electric units; science and development of radio communication.
- Dellinger, Prof. S(amuel) C(laudius)**, University of Arkansas, Fayetteville, Ark. *Zoology*. Lincolnton, N. C, Jan. 14, 92. A.B, Duke, 15; A.M, Columbia, 17. Prof. biol, Hendrix Col,

- 15-16, 17-18; asst. prof. zool, *Arkansas*, 21-22, acting prof, 22-25, *prof*, 25- A.A.; Soc. Mammal; Ecol. Soc. Encystment in Protozoa; origin of neuromotor system in Protozoa.
- Del Mar, William A(rthur)**, 10 E. 43d St, New York, N. Y. *Electrical engineering*. San Francisco, Calif, 80. Assoc. City and Guilds Inst, London, 00. Tech. asst, N. Y. Cent. Ry, 04-15; asst. elec. engineer, Interborough Rapid Transit Co, 15-17; *chief engineer*, *Habirshaw Cable and Wire Corp*, 17- Elec. Eng. Electric cables; insulating materials.
- DeLoach, E(obert) J. H.**, 5541 Dorchester Ave, Chicago, Ill. *Botany*. Statesboro, Ga, Dec. 21, 73. A.B, Georgia, 98, fellow, 04-05, A.M, 05. Botanist, Ga. Exp. Sta, 05-08, director, 13-16, prof. cotton indust, Georgia, 08-13; *director bur. agr. and econ. research*, *Armour and Co*. 16- A.A.; Meteor. Soc. Mendel's law applied to cotton breeding; by-products of the packing industry.
- DeLong, Prof. D(wight) M(oore)**, Ohio State University, Columbus, Ohio. *Entomology*. Corning, Ohio, April 6, 92. B.S, Ohio Wesleyan, 14; M.S, Ohio State, 16, Ph.D, 22. Asst. zool, Ohio State, 14-17, instr, 18; sci. asst, bur. plant indust, Pa. Dept. Agr, 18-21; asst. prof. entom, Ohio State, 21-23, *prof*, 23- Summers, field asst, bur. entom, U. S. Dept. Agr, 15, 17, 24, 25, 26, state nursery inspector, Wis, 16. A.A.; Entom. Soc.; Ass. Econ. Entom.; Ohio Acad; Ohio Sci. Soc. Economic entomology; insect ecology and control; Homoptera.
- DeLong, Prof. Ira M(itchell)**, 2009 13th St, Boulder, Colo. *Mathematics*. Monroe, Iowa, Jan. 7, 55. A.B, Simpson, 78, A.M, 81; LL.D, Denver, 14. Prof. math, Central (Iowa), 78-86; Latin, Iowa Wesleyan, 86-88; *math*, *Colorado*, 88-25, *emer. prof*, 25- Ed, problem dept, 'School Sci. and Math.' A.A.; Math. Soc.; Math. Ass; Colo. Math. Soc.
- DeLong, Prof. James H(enry)**, 621 Parsons St, Easton, Pa. *Chemistry*. B.S, Lafayette, 04. Asst, instr. and asst. prof. chem, *Lafayette*, 04- Chemist, Republic Iron and Steel Co; Atlantic Potash Co. Chem. Soc. (sec'y and treas, Lehigh Valley sect, 18).
- De Lury, Prof. Alfred T(enryson)**, University of Toronto, Toronto, Ont, Can. *Mathematics*. Manilla, Ont, May 13, 64. B.A, Toronto, 90, M.A, 02; Clark, 90-91, LL.D, 24. Lecturer *math*, Toronto, 92-02, assoc. prof, 02-08, *prof*, 08-, *dean faculty of arts*, 22- Lecturer, Ont. Nor. Col, 94-96. Math. Soc.; Royal Soc. Can.
- De Lury, Prof. J(ustin) S(arsfield)**, University of Saskatchewan, Saskatoon, Sask, Can. *Geology, Mineralogy*. Manilla, Ont, Jan. 15, 84. B.A, Toronto, 05; Ph.D, Minnesota, 25. Asst. miner, Toronto, 05-06; *prof. geol. and miner*, Idaho, 06-13; Manitoba, 16-27; *Saskatchewan*, 27- Summers, asst. to Dominion paleontologist, 04, to Provincial geologist, Ont, 06. Advisory committee, Can. Munitions Board, 18; Can. Geol. Surv, 23. Can. Inst. Min. and Metal. (v. pres, 25). Precambrian and economic geology; glaciation; petrology.
- De Lury, Dr. Ralph E(merson)**, Dominion Observatory, Ottawa, Ont, Can. *Astronomy*. Manilla, Ont, Nov. 23, 81. B.A, Toronto, 03, fellow, 03-06, M.A, 04, Ph.D, 07; Chicago, 05. Research asst. physical chem, Princeton, 06-07; observer, *Dominion Observatory*, 07-13, asst. astronomer, 13-19, *research astronomer*, 19-, *in charge solar physics div*, 13- A.A.; Astron. Soc.; Meteor. Soc.; Soc. Mammal; Statist. Ass; Optical Soc.; Ornith. Union; Cooper Ornith. Club; Wilson Ornith. Club; fel. Royal Astron. Soc. Can. (councilor, Ottawa Centre, 13, 19, sec'y, 13-15, pres, 21, 22); fel. Royal Astron. Soc.; fel. London Chem. Soc.; mem. fond. Soc. astron. de France; Astron. Gesell; Int. Astron. Union (solar rotation committee). Kinetics; potential; spectroscopy; rotation; spots; wave lengths; arc spectra; solar variations and related phenomena of the earth and solar system.
- Delwiche, Prof. E(dmond) J(oseph)**, R. R. 3, Green Bay, Wis. *Agriculture*. Orbais, Belgium, March 25, 74. B.S.A, Wisconsin, 06, M.S, 09. Teacher, pub. schools, Wis, 97-02; supt, agr. substations, *Wisconsin*, 06-09, asst. prof. and assoc. prof. *agron*, 10-20, *prof*, 20- A.A.; Soc. Agron; Genetic Ass. Grain and forage crop breeding; hardy wheats; early corn; high yielding peas; crop adaptation.
- Demerec, Dr. M(illislav)**, Station for Experimental Evolution, Cold Spring Harbor, N. Y. *Biology*. Kostajnica, Yugoslavia, Jan. 11, 95. Col. Agr, Yugoslavia, 14-16; Grignon, France, 19; Ph.D, Cornell, 23. Adjunct, Križevci Exp. Sta, Yugoslavia, 16-19; asst. plant breeding, Cornell, 21-23; *dept. genetics, sta. for exp. evolution, Carnegie Inst*, 23- A.A.; Bot. Soc.; Genetic Ass; Phytopath. Soc. Genetics of maize, *Drosophila* and *Delphinium*.
- Deming, Prof. Clyde Leroy**, 124 Linden St, New Haven, Conn. *Surgery*. Cornish, N. H, Aug. 18, 85. A.B, Bowdoin, 10; M.D, Yale, 15. Resident surgeon, New Haven Hosp, 17-19; instr. surg, Yale, 19-20; resident urologist, Hopkins, 20-21; asst. prof. *surg*, Yale, 21-24, *assoc. prof*, 24- Ferris anat. prize, Parker prize, Keese prize, Yale. Fel. Col. Surg; Am. Med. Ass; Urol. Soc. Urology.
- Deming, Prof. H(orace) G(rove)**, Station A. Lincoln, Nebr. *Chemistry*. San Bernardino, Calif, Feb. 25, 85. B.S, Washington (Seattle), 07; M.S, Wisconsin, 09, Ph.D, 11. Teacher, high sch, Alaska, 08-09; instr. chem, Wisconsin, 10-11; assoc. prof, Philippines, 11-15, prof. and chief dept, 15-16; assoc, Illinois, 16-18; *prof. physical chem, Nebraska*, 18-, *exchange lecturer*, London, 27- Chem. Soc. Cellulose solvents; chemical nomography; diffusion of gases through metals.
- Demmon, E(lwood) L(eonard)**, 326 Customhouse Building, New Orleans, La. *Forestry*. Kendallville, Ind, Sept. 23, 92. A.B, Michigan, 14, M.S, 16. Forester and tech. adviser, Goodyear Tire and Rubber Co, Sumatra, 16-23; *assoc. silviculturist, south. forest exp. sta, Forest Service, U. S. Dept. Agr*, 25- Exped, Firestone Tire and Rubber Co, Cent. Amer. and Panama, 24. Soc. Foresters. Rubber culture in the East

- Indies and Central America; forestry in the southern United States.
- Demorest, Prof. D(ana) J(ames)**, Ohio State University, Columbus, Ohio. *Metallurgy*. Marysville, Ohio, Aug. 21, 82. B.S., Ohio State. Chemist, U. S. Bur. Mines, 07; U. P. Ry, 08; asst. prof. *metal*, Ohio State, 08-12, *prof*, 12- Chem. Soc.; Soc. Test. Mat.; Electrochem. Soc.; Soc. Steel Treat; Min. and Metal. Eng.; Gas Ass. Metallurgical analysis; engineering chemistry.
- Dempster, Prof. A(rthur) J(effrey)**, University of Chicago, Chicago, Ill. **Physics*. Toronto, Ont., Can., Aug. 14, 86. B.A., Toronto, 09, M.A., 10, fellow, 10-11, 1851 Exhib. scholar, Germany, 12-14; Ph.D., Chicago, 16. Asst. *physics*, Chicago, 15-17, instr., 17-19, asst. prof., 19-23, *assoc. prof*, 23- Positive rays.
- Dengler, Dr. F(elton) S(amuel)**, Port Neches, Texas. *Chemistry*. Steelton, Pa., May 19, 86. B.S., Pennsylvania Col., 09; Ph.D., Hopkins, 12. *Chemist*, Texas Co., 12- A.A.; Chem. Soc.
- Denis, Dr. W(illey) G(lover)**, Tulane University, New Orleans, La. *Chemistry*. New Orleans, Feb. 26, 79. A.B., Tulane, 99, A.M., 02, 09-11; Bryn Mawr, 99-00, fellow, 02-03; Ph.D., Chicago, 07. Instr. anal. chem., Grinnell, 07; asst. chemist, bur. chem., U. S. Dept. Agr., 07-09; Mass. Gen. Hosp., 13-20; asst. prof. *physiol. chem*, Tulane, 20-23, *assoc. prof*, 23-25, *prof. and head dept. biochem*, 25- A.A.; Chem. Soc.; Soc. Biol. Chem.; Physiol. Soc.; Soc. Exp. Biol. Animal metabolism; analytical technic.
- Dennis, Dr. Frederick S(hepard)**, 1136 Fifth Ave., New York, N. Y. *Surgery*. Newark, N. J., April 17, 50. A.B., Yale, 72; M.D., N. Y. Univ., 74. Prof. principles and practise of surg., Univ. and Bellevue Hosp. Med. Col., 83-98; *clin. surg. med. col.*, Cornell, 98-10, *emer. prof*, 10- Hon. fel. Col. Surg.; Surg. Ass.; fel. Chem. Soc.
- Dennis, Prof. L(ouis) M(unroe)**, Cornell University, Ithaca, N. Y. **Chemistry*. Chicago, Ill., May 26, 63. Ph.B., Michigan, 85, B.S., 86, hon. Sc.D., 26; Colgate, 22; Aachen, Munich, Dresden and Wiesbaden, 89-91. Instr. chem., Cornell, 87-89, asst. prof. anal. chem., 91-93, *assoc. prof. inorg. and anal. chem*, 93-00, *prof*, 00-, *head dept. chem*, 03- A.A.; Chem. Soc. Inorganic chemistry; rare earths; hydronitric acid; gas analysis; rare elements; germanium and its compounds.
- Denniston, Prof. E(ollin) H(enry)**, University of Wisconsin, Madison, Wis. *Botany*. Oakfield, Wis., March 21, 74. Ph.G., Wisconsin, 97, B.S., 99, fellow, 99-00, Ph.D., 04. Asst. instr. *bot*, Wisconsin, 00-03, instr., 03-07, *asst. prof*, 07- A.A.; Bot. Soc.; Wis. Acad. (treas., 05). Cytology of flowering plants; lichens.
- Denny, Dr. Francis P(arkman)**, 111 High St., Brookline, Mass. *Medicine*, *Bacteriology*. Brookline, Jan. 2, 69. A.B., Harvard, 91, M.D., 95. Asst. bacter., Harvard Med. Sch., 99-04, *clin. med*, 04-06. Health officer and bacteriologist, Brookline Board Health. Pub. Health Ass.
- Denny, Dr. F(rank) E(arl)**, Boyce Thompson Institute, Yonkers, N. Y. *Plant physiology*. Tekama, Nebr., March 31, 83. A.B., Nebraska, 06; Ph.D., Chicago, 16. Asst. hort., Nebraska, 06-08; plant physiol., Chicago, 16; plant physiologist, U. S. Dept. Agr., 16-18, *assoc. chemist*, 19-23; *plant physiologist*, Boyce Thompson Inst., 23- Bot. Soc.; Chem. Soc. Permeability of plant membranes; maturity of fruits and vegetables; effect of stimulative chemicals, especially vapors and gases on plants; dormancy of plants.
- Densmore, Miss Frances**, Red Wing, Minn. *Ethnology*. Red Wing, May 21, 67. Oberlin Conservatory of Music, 84-86; private study, 88-90; hon. A.M., Oberlin, 24. Teacher piano and harmony, Minn., 87-04; *collaborator*, Bur. Am. Ethnol., Smithsonian Inst., 07- 19th and 20th Int. Congresses of Americanists. A.A.; Anthropol. Ass.; Wash. Acad.; Wash. Anthropol. Soc. (sec'y, 16-18); Wash. Archeol. Inst. The music of the American Indians.
- Densmore, Prof. Hiram D(elos)**, Beloit, Wis. *Botany*. Richmond, Wis., Jan. 20, 62. A.B., Beloit, 86, A.M., 90; Cornell, 87-88; California, 06; Harvard, 16. Prin. high sch., Wis., 86-87; instr. *bot*, Beloit, 88-90, *prof*, 90- Soc. Nat.; Bot. Cent. States; Wis. Acad. Spindle formation and vegetative mitosis.
- Denton, Dr. W(illiam) W(ells)**, 4211 Third Ave., Detroit, Mich. *Mathematics*. Detroit, Aug. 18, 82. A.B., Michigan, 07; A.M., Illinois, 09, Ph.D., 12. Asst. *math*, Illinois, 07-11, instr., 11-16; Worcester, 17; *Michigan*, 18-19, *asst. prof*, 20- A.A.; Math. Soc.; Math. Ass. Projective differential geometry; foundations of mathematics.
- Depew, Harlan A(rmstrong)**, Palmerton, Pa. *Chemistry*. Chelsea, Mich., Sept. 25, 91. B.S.E., Michigan, 13, M.S.E., 14. *Research chemist*, U. S. Bur. Mines, 15-18; N. J. Zinc Co., 19- C.W.S., U.S.A., 18-19. Chem. Soc. Rubber compounding.
- De Porte, Dr. J(oseph) V(ital)**, New York State Department of Health, Albany, N. Y. *Mathematics*, *Statistics*. Korop, Russia, Jan. 1, 89. A.B., Oklahoma, 12; A.M., Princeton, 14; Ph.D., Cornell, 16. Asst. *math*, Cornell, 15-16; instr., N. Y. State Col. Teachers, 16-18, *asst. prof*, 18-25; *director div. vital statist*, N. Y. State Dept. Health, 25- Statist. Ass.; Pub. Health Ass. Vital statistics.
- Derby, Dr. George S(trong)**, 23 Bay State Road, Boston, Mass. *Ophthalmology*. Boston, May 29, 75. A.B., Harvard, 96, M.D., 00; Europe, 01-02. *Prof. ophthal*, Harvard Med. Sch. Chief ophthal., Mass. Charitable Eye and Ear Infirmary; advisory committee, Mass. Commission for Blind. Am. Med. Ass. (past chairman, sect. ophthal); Ophthal. Soc.; Col. Surg.; New Eng. Ophthal. Soc.; Ophthal. Soc. United Kingdom; Ophthal. Gesell.
- Dercum, Prof. F(rancis) X(avier)**, 1719 Walnut St., Philadelphia, Pa. *Neurology*, *Psychiatry*. Philadelphia, Aug. 10, 56. M.D., Ph.D., Pennsylvania, 77. Instr. *histol. and physiol*, Pennsylvania, 78-83, nervous diseases, 83-92; *prof. nervous and mental diseases*, Jefferson Med. Col., 92-25, *emer. prof*, 25- Chevalier, Légion d'hon-

- neur. Ass. Anat.; Neur. Ass. (past pres); Philos. Soc. (v. pres); Phila. Neur. Soc. (past pres); Acad. Nat. Sci.; Phila. Path. Soc.; Phila. Col. Physicians; cor. mem. Soc. Neur. de Paris; Budapest Royal Med. Soc.; cor. mem. Vienna Soc. Physicians; Vienna Neur. and Psychiat. Soc. Nervous and mental diseases.
- De Rényi, Dr. Geo(rge) St(ephén)**, University of Pennsylvania, Philadelphia, Pa. *Anatomy*. Budapest, Hungary, April 24, 92. M.D., Budapest, 16. Instr. anat., Royal Hungarian Univ. Med. Sch., Budapest, 16-17, instr. ophthal., 18-19, asst. prof., 20-25, prosecutor anat., 25-26; *asst. prof., sch. med., Pennsylvania*, 26- Nat. Ass. Hungarian Physicians; Hungarian Med. Ass.; Royal Hungarian Ass. Nat. Sci. Cytology.
- Derick, Prof. Carrie M.**, McGill University, Montreal, Que., Can. *Botany*. Clarenceville, Que. B.A., McGill, 90, M.A., 96; Woods Hole, 95, 96, 97, 00, 03, 12; Royal Col. Science, London, 98; Bonn, 01-02. Demonstrator bot., McGill, 91-95, lecturer, 96-04, asst. prof., 04-07, acting head dept., 10-12, *prof. morphol. bot.*, 12- A.A. Genetics; education; holdfasts of the Rhodophyceae; wood-destroying fungi; nuclear differences between resting and active cells; variation and heredity in plants.
- Derick, Dr. C(larence) G(eorge)**, Derick Laboratories, Buffalo, N. Y. **Chemistry*. Sutton, Que., Can., Oct. 29, 83. B.S., Worcester Polytech., 06; Mass. Inst. Tech., 06-07; M.S., Illinois, 09, Ph.D., 10. Research asst. org. chem., Mass. Inst. Tech., 06-07; asst. instr. and prof., Illinois, 07-16; director research, Schoelkopf Aniline and Chem. Co., 16-17; Nat. Aniline and Chem. Co., 18-21; v. pres., By-Products Steel Corp. and mem. C. G. Derick and Co., 21-24; *pres., Derick Laboratories*, 25- Consulting chemist, U. S. Bur. Mines and Edgewood Arsenal, 17-19. Sec'y and chairman, div. org. chem., Nat. Research Council, 14-16, counselor, 17-24; v. pres., Gary and Chesterton Chem. Co., 25-26. A.A.; Chem. Soc. Organic and physical chemistry; molecular rearrangements of carbon compounds; the correlation of ionization with structure of substituted organic acids.
- Derickson, Donald**, Tulane University, New Orleans, La. *Structural engineering*. Meadville, Pa., July 14, 78. C.E., Dartmouth, 02; Cornell. Asst. prof. structural eng., Cornell, 05-13; *head sch. civil eng., Tulane*, 13- Consulting engineer, 15- U. S. Coast and Geod. Surv., 98-00; Alaska Boundary Surv., 07; La. Board Eng. Examiners. Civil Eng.; Eng. Educ.; La. Eng. Soc. (past pres).
- Derickson, Prof. S(amuel) H(offman)**, Lebanon College, Annville, Pa. *Biology*. Newport, Pa., April 9, 79. B.S., Lebanon, 02, M.S., 03, Sc.D., 25; Hopkins, 02-03, 10; Brooklyn Inst.; Tropical Bot. Lab., Jamaica. *Prof. biol. sciences, Lebanon*, 04-, acting pres, 12. Land zoologist, exped., Bahamas, 04. A.A.; Bot. Soc.; Phytopath. Soc.; Pa. Acad.
- Derieux, Prof. John B(ewley)**, 2802 Hillsboro St., Raleigh, N. C. *Physics*. Knoxville, Tenn., 81. B.S., Tennessee, 09, A.M., 14; Ph.D., Chicago, 19. Instr. physics, N. C. State, 16-18, asst. prof., 18-20, assoc. prof., 20-22, *prof. theoret. physics*, 22- N. C. Physics Teachers Ass. (pres, 26-); N. C. Acad. Arc spectra; determination of elementary electrical charge.
- Derleth, Prof. C(harles), Jr.**, University of California, Berkeley, Calif. *Civil engineering*. New York, N. Y., Oct. 2, 74. B.S., Col. City of N. Y., 94; C.E., Columbia, 96. Asst. civil eng., Columbia, 96-99, lecturer, 99-01; prof., Colorado, 02-03; assoc. prof. structural eng., California, 03-07, *prof. civil eng. and dean col. civil eng.*, 07- Instr., evening schools, New York, 96-99; summers, instr., Columbia, 96-00; chief engineer, Carquinez Highway Bridge; consulting engineer, Oakland Estuary Subway; consulting engineer, Alameda County. Civil Eng.; Soc. Test. Mat.; Eng. Educ.; Seismol. Soc. Structural engineering.
- Derleth, Cha(rlie)s P.**, 207 Chouteau Trust Building, St. Louis, Mo. *Mineralogy, Chemistry*. Greenville, Ill. B.S., Illinois, 13. Chemist, Armour and Co., 13-14; Mich. Alkali Co., 14-17; Celite Products Co., 19-26. Summer, exped., Colo., Utah and Wyo., 26. C.W.S., U.S.A., 18-19. Chem. Soc.; Mech. Eng. Relation of diatomaceous earth to filtration; colloidal earths.
- Derr, Dr. Homer M(unro)**, State College, Montgomery, W. Va. *Physics, Geology*. Turbotville, Pa., Feb. 5, 77. A.B., Stanford, 98; A.M., Columbia, 01; Tyndale fellow, Pennsylvania, 01-03, Ph.D., 03. Asst. physics, Columbia, 99-01; instr. geol. and mining, Wyoming, 01-02; supt., Santa Margarita Gold Mining Co., Colombia, S. A., 03-04; prof. physics and geol., Epworth, 04-05; math. and civil eng., Clarkson Tech., 05-07; civil eng., S. Dak. Col., 07-13; state engineer, S. Dak., 13-20; *prof. math.*, Ala. Polytech., 21-22; Southwestern Presbyterian, 22-25; *W. Va. State Col.*, 25- Engineer, S. Dak. Ry. Commission, 08-10. Geol. Soc.; Civil Eng.; Min. Eng. Petrographic analysis; siliceous oolites of Sweetwater County, Wyo.; plane trigonometry.
- Dershem, Dr. Elmer**, University of California, Berkeley, Calif. *Physics*. Norwood, Kans., Dec. 31, 81. B.S., Kansas, 12; M.S., Iowa, 15, Ph.D., 17. Asst. physics, Iowa, 14-17; instr. astron., Illinois, 17-19; *physics, California*, 19-22, *asst. prof.*, 22- Assoc. Physical Soc.; Astron. Soc. X-rays; photo-electric photometry.
- De Ryke, Dr. Willis**, 702 Beecher Ave., Jacksonville, Ill. *Zoology*. Adrian, Mich., March 4, 85. A.B., Indiana, 17, A.M., 22; Ph.D., Iowa, 25. Asst. biol. sta., Indiana, 19-21; instr. zool., Iowa, 21-26; *acting prof. biol., Ill. Col.*, 26- A.A.; fel. Iowa Acad. (ed., 'Proc'). Embryology; renal portal system and associated veins; development of kidney and venous system; fish culture; foods of fishes.
- Desha, Prof. L(ucius) J(unius)**, Washington and Lee University, Lexington, Va. *Chemistry*. Cynthiana, Ky., June 14, 83. A.B., Washington and Lee, 06; Ph.D., Hopkins, 09. Chemist, Tenn. Food and Drugs Inspection, 09-12; prof. gen. and biol. chem., col. med., Tennessee, 12-20, acting dean, 17, registrar-bursar, 19-20; *prof. chem., Washington and Lee*, 20- Capt., Sanit. C., 17-19. Chem. Soc.; Soc. chim. de France. Drug

- analysis; applications of chemistry to clinical diagnosis; hydrogen electrode; fluorometry.
- DeSilva, Harry R(eginald)**, Cambridge University, Cambridge, Eng. *Psychology*. Pensacola, Fla, June 8, 98. A.B. Florida, 20; Ph.D. Harvard, 27; Berlin, 25. Lecturer psychol. McGill, 22-24; Nat. Research Council fellow, Harvard, 25-26. Apparent visual movement.
- Detjen, Prof. L(ouis) R(einhold)**, University of Delaware, Newark, Del. *Horticulture*. Algoma, Wis, Feb. 27, 84. B.S. Wisconsin, 09; M.S. N. C. State, 11. Asst. nursery inspector, Wis, 09; asst. hort. and asst. horticulturist, N. C. State, 09-20; *assoc. prof. and assoc. horticulturist, Delaware, 20-* Soc. Hort. Sci; Genetic Ass; N. C. Acad. Physiological drop of fruits; sterility and fertility in cabbages; cabbage and grape breeding; fertilizers.
- Detlefsen, Dr. J(ohn) A.**, University of Pennsylvania, Philadelphia, Pa. **Zoology*. Norwich, Conn, Sept. 12, 83. A.B. Dartmouth, 08; A.M. Harvard, 10, Sc.D. 12. Austin teaching fellow, Harvard, 08-12; asst. prof. *genetics*, Illinois, 12-18, *assoc. prof.* 18-19, *prof.* 19-22; *Wistar Inst.* 22- Assoc. ed, 'Biol. Abstracts,' 25- A.A.; Soc. Nat; Soc. Zool; Genetic Ass; Phila. Acad. Nat. Sci; Ky. Acad. Genetics; coat color, size, growth and fertility in mammals and mammalian species crosses; heredity and breeding in domestic animals.
- Detmers, Dr. Freda**, Agricultural Experiment Station, Wooster, Ohio. *Plant pathology*. Dixon, Ill, 67. B.S. Ohio State, 87, M.S. 91, Ph.D. 12. Asst. botanist, Ohio Exp. Sta, 90-93; instr. bot, Ohio State, 07-14, asst. prof, 14-18; asst. botanist, *Ohio Exp. Sta.* 18-23, *systematist*, 23- A.A.; Bot. Soc; Ecol. Soc; Ohio Acad. General taxonomic work; weed control.
- DeTurk, Prof. E(mnest) E.**, 501 W. Pennsylvania Ave, Urbana, Ill. *Soils*. Martinsville, Ind, Sept. 24, 87. B.S.A. Purdue, 13; M.S. Pa. State, 16; fellow, Illinois, 17-19, Ph.D. 19. Asst. agr. chem, Pa. State, 13-14, instr, 14-16, asst. prof, 16-18; *assoc. soil fertility, Illinois*, 19-20, asst. prof, 20-23, *assoc. prof.* 23-25, *prof.* 25- A.A.; Soc. Agron; Soil Surv. Ass; Ill. Acad. Soil chemistry and fertility.
- Detwiler, Prof. John D.**, 844 Hellmuth Ave, London, Ont, Can. *Entomology*. Roseville, Ont, July 21, 78. B.A. Queen's (Can), 12, M.A. 13; Ph.D. Cornell, 21. Teacher, pub. and high schools, Sask. and Ont; res. sci. master, St. Andrew's Col, Ont, 13-18; asst. and instr. entom. and rural educ, Cornell, 18-21; asst. prof. *zool, Western Ontario*, 21-25, *assoc. prof.* 25- Investigator, biol. board, Dept. Marine and Fisheries, Can, 18. A.A.; Entom. Soc; Ass. Econ. Entom; Ont. Entom. Soc. (board directors). General and economic entomology; pearly fresh water mussels of Ontario; clover insects; the ventral prothoracic gland of some notodontid caterpillars and especially the red-humped apple caterpillar.
- Detwiler, Samuel B(ertolet)**, U. S. Department of Agriculture, Washington, D. C. *Forestry*. Mont Clare, Pa, Sept. 18, 81. B.S.F. Minnesota, 06; Yale, 01-02. Forest asst, U. S. Forest Service, 06-07; asst. prof. forestry, Minnesota, 07-08; forester, Forest Products Co, 08-11; gen. supt, Pa. Chestnut Tree Blight Commission, 11-13; forest engineer, 13-16; *senior pathologist in charge office blister rust control, U. S. Dept. Agr.* 16- *Phytopath. Soc*; *Soc. Foresters* (treas, 26-27); Wash. Bot. Soc. Control of chestnut blight and white pine blister rust.
- Detwiler, Dr. S(amuel) R(andall)**, Columbia University, New York, N. Y. **Anatomy*. Ironbridge, Pa, Feb. 17, 90. Ph.B. Yale, 14, A.M. 16, Ph.D. 18. Asst. instr. biol, Yale, 14-17, instr. anat, 17-20; *assoc. Peking Union Med. Col.* 20-23; asst. prof. *zool*, Harvard, 23-26, *assoc. prof.* 26-27; *prof. anat, Columbia*, 27- Junior physiologist, U. S. Bur. Mines, 17-18. A.A.; Ass. Anat; Soc. Zool; Soc. Exp. Biol. Experimental neurology.
- Deuber, Dr. Carl G(eorge)**, 153 Cold Spring St, New Haven, Conn. *Plant physiology*. St. Louis, Mo, Dec. 19, 98. B.S. Missouri, 21, Ph.D. 25; M.S. Washington (St. Louis), 22. U. S. Biol. Surv, 18-20; instr. biol, Clemson, 22-23; bot, Yale, 25-26. A.A.; Bot. Soc. Chloroplast pigments; mineral nutrition.
- Deuel, Dr. H(arry) J(ames), Jr.**, Cornell University Medical College, New York, N. Y. *Biochemistry, Physiology*. St. Paul, Minn, Oct. 15, 97. A.B. Carleton Col, 18; George Washington, 17-20; Ph.D. Yale, 23. Junior chemist, U. S. Dept. Agr, 18-20; instr. *physiol. med. col, Cornell*, 23-27, *asst. prof.* 27- Soc. Biol. Chem; Soc. Exp. Biol; Harvey Soc. Digestibility of food-stuffs; intermediary metabolism.
- Deussen, Alexander**, Post Dispatch Building, Houston, Texas. *Geology*. San Antonio, Texas, Jan. 19, 82. B.S. Texas, 03, fellow, 03-04, M.S. 04. Student asst. *zool*, Texas, 02-03, tutor geol, 04-05, instr, 05-08; asst. geologist, U. S. Geol. Surv, 08-15; geologist, Gulf Production Co, 15-16; consulting geologist, 16-24; *v. pres. and geologist in charge Gulf Coast operations, Maryland Oil Co*, 24- Geol. Soc; Min. and Metal. Eng; Ass. Petrol. Geol. (pres, 18). Stratigraphy and economic geology of the Texas coastal plains; gulf coast salt domes.
- De Voss, Prof. J(ames) C(larence)**, State Teachers College, San Jose, Calif. *Psychology*. Knox Co, Nebr. A.B. 11, A.M. 12; fellow, Stanford, 21-22, Ph.D. 25. Asst. psychol, Colorado, 12-13; prin. and supt, schools, Kans, 12-14; director bur. educ. measurements and standards, Kans. State Nor. Sch; *prof. psychol. and director research, State Teachers Col, Calif.* 23- Capt, Sanit.C, 18. A.A. Animal and educational psychology; color vision of cats; cats' use of paws; unevenness of the abilities of gifted children in California.
- Dew, Dr. Walter A(rthur)**, Lazote, Inc, Belle, W. Va. *Physical chemistry*. Wilmington, Del, June 4, 00. B.S. Princeton, 21, A.M. 22, Ph.D. 24. Instr. physics and chem, Princeton High Sch, 22-24; *research chemist, exp. sta.* E. I. du Pont de Nemours and Co, 24-25; *Lazote, Inc.* 25- Princeton geol. exped, White River Badlands, S. Dak, 21. Adsorption and heat of adsorption of ammonia by metallic catalysts; syn-

thesis of ammonia at high pressures; liquefaction of gases.

Dewell, Henry D(ievendorf), 55 New Montgomery St, San Francisco, Calif. *Civil engineering, Seismology*. Springfield, Ohio, Oct. 24, 81. B.S., California, 06. *Consulting engineer*, 15- Lecturer, California, 19, 22. Chief structural engineer, Panama-Pacific Expos, 15. Soc. Civil Eng. (director, 25-27); Seismol. Soc. (publication committee). Structural properties of timber; effect of earthquakes on engineering structures.

Dewey, Bradley, 21 Concord Ave, Cambridge, Mass. *Chemistry*. Burlington, Vt, Aug. 23, 87. A.B., Harvard, 08; B.S., Mass. Inst. Tech, 09. Director research lab, Am. Sheet and Tin Plate Co; *pres*, *Dewey and Almy Chem. Co.* Col. C.W.S. Chem. Soc; Electrochem. Soc; Soc. Test. Mat; Am. Iron and Steel Inst.

Dewey, Dr. Jane M(ary Clark), Massachusetts Institute of Technology, Cambridge 39, Mass. *Physical chemistry*. Chicago, Ill, July 11, 00. A.B., Columbia, 22; Ph.D., Mass. Inst. Tech, 25. Research asst. physical chem, Mass. Inst. Tech, 24-26; *Nat. Research Council fellow*, 27- Transference numbers; absolute pressure gauge; Stark effect.

Dewey, Prof. John, Columbia University, New York, N. Y. **Philosophy*. Burlington, Vt, Oct. 20, 59. A.B., Vermont, 79, LL.D., 11; Ph.D., Hopkins, 84; LL.D., Wisconsin, 04, Michigan, 13, Hopkins, 15, Ill. Col, 17, Peking, 20. Instr. and asst. prof. philos., Michigan, 84-88; prof., Minnesota, 88-89; Michigan, 89-94; head dept. philos. and educ, Chicago, 94-04, director sch. educ, 02-04; *prof. philos., Columbia*, 04- *Nat. Acad*; A.A. (v. pres, 08); Soc. Nat; Philos. Soc; Psychol. Ass. (pres, 99); Philos. Ass. (pres, 05); cor. mem. Inst. de France. Logical theory; social psychology; philosophy of education; development of moral ideas.

Dewey, Lyster H(oxie), 4512 Ninth St, N. W., Washington, D. C. **Botany*. Cambridge, Mich, March 14, 65. A.B., Mich. State Col, 88. Instr. bot, Mich. State Col, 88-90; *botanist in charge fiber investigations*, U. S. Dept. Agr, 90- A.A.; Wash. Bot. Soc; Wash. Biol. Soc; Wash. Acad. Grasses; weeds troublesome to agriculture; fiber plants; origin and classification of varieties of cotton; production of fiber from hemp, flax, sisal and manila plants.

DeWitt, Dr. Lydia M, Sprague Memorial Institute, Chicago, Ill. **Pathology*. Flint, Mich, Feb. 1, 59. M.D., Michigan, 98, B.S., 99. Demonstrator anat, Michigan, 96-97, asst. histol, 98-02, instr, 02-10; path, Washington (St. Louis), 10-12; *Sprague Mem. Inst*, 12-, asst. prof. path, Chicago, 12-18, *assoc. prof*, 18- Am. Med. Ass; Ass. Path. and Bact; Tuber. Ass; Chicago Path. Soc. Nerve endings in muscle, tendon and esophagus; morphology of kidneys; morphology and function of areas of Langerhans; pathology of muscle; myositis ossificans; membranous dysmenorrhea; sinoventricular connecting system of mammalian heart; chemotherapy of tuberculosis; bactericidal action of copper salts.

DeWolf, Frank W(albridge), 3502 Audubon Place, Houston, Texas. *Geology*. Vail, Iowa, March 22, 81. B.S., Chicago, 03, 03-04. Asst. geol, Chicago, 03-04; geol. aid to geologist, U. S. Geol. Surv, 04-08; asst. state geologist, Ill. Geol. Surv, 08-09, acting director and director, 09-17, chief, 17-22; *chief geologist, Humphreys Corp*, 22- Asst. director, U. S. Bur. Mines, 17-18; div. states relations and div. geog. and geol, Nat. Research Council, 17-23. A.A.; Geol. Soc; Ass. Petrol. Geol; Ass. State Geol. (past pres); Min. Eng; West. Soc. Eng; Ill. Soc. Eng. (past v. pres); Ill. Acad. (past pres). Administration of geological investigations; coal and oil.

Dexter, Prof. Edwin G(rant), U. S. Veterans Bureau, Washington, D. C. *Psychology, Education*. Calais, Maine, July 21, 68. B.P., Brown, 91, A.M., 92; Ph.D., Columbia, 99. Science master, high sch, Colo, 92-95; prof. psychol, Colo. State Nor. Sch, 95-00; educ, Illinois, 00-07, director sch. educ, 05-07; commissioner educ, P. R. and chancellor, Porto Rico, 07-12; rector, Inst. Nacional de Panama, 12-18; mem. civilian advisory board, U. S. War Dept, and educ. specialist, 9th Corps Area, 20-22; pres, Vocational Sch, U. S. Vet. Bur, Ohio, 22-24, chief vocational unit, 24-25, *chief policy subdiv*, 25- Major, Red Cross, 18-20. A.A.; Psychol. Ass; Soc. Sci. Educ. (pres, 05); Nat. Soc. Study Educ. (pres, 05); Social Sci. Ass; Am. Geog. Soc; Ill. Child-Study Soc; Int. Soc. für Schulhygiene. The influence of the weather on conduct; history of education in the United States.

Dexter, Dr. Emily Smith, Agnes Scott College, Decatur, Ga. *Education, Psychology*. Chicago, Ill, June 4, 89. A.B., Ripon Col, 08; A.M., Wisconsin, 15, fellow, 21-23, Ph.D., 23. Pub. sch, Wis, 08-10; Northland Col, 11-17; Mo. Wesleyan, 17-21; *Agnes Scott Col*, 23- Summers, Emory, 24, 25. A.A.; Nat. Soc. Study Educ; S. Soc. Philos. and Psychol. Correlations between individuals of varying degrees of relationship; intelligence of children of men in various occupations; different types of ability.

Dexter, Prof. John S(mith), University of Porto Rico, Rio Piedras, P. R. *Zoology*. Shiocton, Wis, Aug. 21, 85. A.B., Ripon, 08; A.M., Wisconsin, 09; fellow, Columbia, 13-14, Ph.D., 14. *Prof. biol*, Northland, 09-12; Olivet, 14-15; Saskatchewan, 15-21; Northwestern Col, 22-23; *Porto Rico*, 23- A.A.; Ornith. Union; Soc. Mammal. Genetics; ornithology; Canadian prairies; Porto Rican fauna.

Dexter, Dr. Wilbur B(rooks), 1247 Edwards Ave, Lakewood, Ohio. *Chemistry*. Newton Center, Mass, Jan. 21, 92. B.S., Colby, 14; A.M., Clark, 15, fellow, 16-17, Ph.D., 17. In charge control lab, Atlantic Ref. Co, 17; *research chemist, Nat. Carbon Co*, 19- In charge lab. and tech. asst. to commanding officer, Naval Fuel Oil Testing Plant, 17-19. Chem. Soc. Theoretical and applied physical and inorganic chemistry.

Dibble, Barry, 20 E. Palm Ave, Redlands, Calif. *Electrical engineering*. St. Paul, Minn, July 6, 81. E.E., Minnesota, 03. Asst. elec. engineer, Twin City Rapid Transit Co, Minn, 06-08; asst. and elec. engineer, and project manager, Mini-

doka project, Idaho, and chief elec. engineer, U. S. Reclamation Service, 09-24; *consulting engineer*, 25- Elec. Eng; Civil Eng. The application of electrical power to irrigation pumping; electric heating; rural use of electric power.

Dice, Prof. J(ames) R(enfrew), 1021 Ninth Ave, N. Fargo, N. Dak. *Dairy husbandry*. B.S., Mich. State Col, 08; A.M., Missouri, 19. Instr. animal indust, Maine, 09-10; *head dairy husbandry*, N. Y. State Col. Agr, Morrisville, 10-20; *N. Dak. Agr. Col*, 20- Dairy Sci. Ass. Feeding dairy cattle.

Dice, Dr. Lee R(aymond), University of Michigan, Ann Arbor, Mich. *Zoology*. Savannah, Ga, July 15, 87. A.B., Stanford, 11; M.S., California, 14, Ph.D., 15. Deputy fur warden, Alaska Fisheries Service, 11-13; instr. zool, Kansas Col, 16-17; asst. prof. biol, Montana, 17-18; *curator mammals, museum zool, Michigan*, 19- Field asst, biol. surv, U. S. Dept. Agr; asst. zool, Illinois, 19. A.A; Soc. Zool; assoc. Ornith. Union; Soc. Mammal; Paleont. Soc; Ecol. Soc; Pacific Northwest Bird and Mammal Soc; Mich. Audubon Soc; Mich. Acad. (v. pres, zool, 23, sec'y-treas, 23-). Biogeography; Lagomorpha; Michigan mammals.

Dick, Dr. George F(rederick), 1015 Greenwood Boulevard, Evanston, Ill. **Internal medicine*. Fort Wayne, Ind, July 21, 81. M.D., Rush Med. Col, 05; hon. Sc.D., Cincinnati, 25. Intern, Cook Co. Hosp, 05-06; instr. path, Chicago, 10-11; McCormick Inst. for Infectious Diseases, 11-14; pathologist, St. Luke's Hosp, 16-18; *prof. clin. med, Rush Med. Col, Chicago*, 18- Major, M.C., 18-19. A.A; Ass. Path. and Bact; Am. Med. Ass; Am. Physicians; Soc. Clin. Path. Medicine; bacteriology; scarlet fever; infectious diseases.

Dick, Dr. Gladys H(enry), 1015 Greenwood Boulevard, Evanston, Ill. *Bacteriology*. Pawnee City, Nebr, Dec. 18, 81. B.S., Nebraska, 00; M.D., Hopkins, 07; Sc.D., Cincinnati, 25. *Fellow, McCormick Inst*, 14- Scarlet fever; influenza; nephritis.

Dickens, Prof. Albert, Kansas State College, Manhattan, Kans. *Horticulture, Forestry*. Anoka, Minn, Oct. 24, 67. B.S., Kansas Col, 93, M.S., 01. Prin. pub. schools, Kans, 94-98; asst. horticulturist, *Kansas Col*, 99-01, *prof. hort*, 01-; *state forester, Kans*, 09- Soc. Hort. Sci; Pomol. Soc; Forestry Ass; Kans. Hort. Soc. (trustee). Apple growing; vegetable spraying; forest tree nursery.

Dickerson, Dr. R(oy) E(rnest), Atlantic Refining Co, 260 S. Broad St, Philadelphia, Pa. *Paleontology*. Monticello, Ill, Aug. 8, 78. B.S., California, 00, M.S., 10, Ph.D., 14. Prin. and teacher, high schools, Calif, 00-18; asst. curator *dept. paleont, Calif. Acad. Sciences*, 14-17, curator, 17-19, *hon. curator*, 19- Geol. supt, Standard Oil Co. of Calif, 18-26; geologist, Atlantic Ref. Co. Summers, asst, California, 10-12, instr, 12-13. A.A; Geol. Soc; Paleont. Soc. (sec'y, Pacific div, 12, v. pres, 13, pres, 14); Calif. Acad; Le Conte Geol. Club (sec'y, 18). Paleontology and geology of the Pacific Coast and Mexico; the fauna of the Eocene; the

Tertiary of Peru, southern California and the Philippines.

Dickey, Donald R(yder), 514 Lester Ave, Pasadena, Calif. *Zoology*. Dubuque, Iowa, March 31, 87. A.B., Yale, 10; hon. A.M., Occidental, 25. *Research assoc, Calif. Inst*, 26- Trustee, Southwest. Museum. A.A; Ornith. Union; Cooper Ornith. Club; Soc. Mammal. Ornithology; mammalogy; photography of birds and mammals.

Dickey, Prof. Robert W(illiam), Washington and Lee University, Lexington, Va. *Electrical engineering*. Bath Co, Va, May 13, 91. B.S., Washington and Lee, 10, A.B., 11, A.M., 12; Hopkins, 15, fellow, 15-16, Ph.D., 16. Instr. physics and math, Washington and Lee, 10-13; physics, Hopkins, 14-15; assoc. prof. and director physical lab, *Washington and Lee*, 16-22, assoc. prof. *elec. eng*, 22-24, *prof. and head dept*, 24- Tech. adviser on instruments and photog. equipment, A.S., 17-19, lieut, 19. Elec. Eng. Index of refraction for gases; airplane instruments.

Dickinson, Dr. H(obert) C(utler), Bureau of Standards, Washington, D. C. **Physics*. Bangor, Maine, Oct. 11, 75. A.B., Williams, 00, A.M., 01; Clark, 02-03, Ph.D., 10. Lab. asst, Williams, 00-02; Bur. Standards, 03-06, asst. physicist, 06-10, assoc. physicist, 10-16, physicist, 16-20; research manager, Soc. Automotive Engineers, 20-22; *chief div. heat and power, Bur. Standards*, 22- A.A; Physical Soc; Mech. Eng; Soc. Test. Mat; Soc. Automotive Eng; Refrig. Eng; Wash. Acad; Wash. Philos. Soc; Soc. de Physique. Thermometry; calorimetry; specific heats of liquids; heats of combustion and fusion; thermal properties of refrigerants; thermal conductivities; internal combustion engines.

Dickinson, Dr. Roscoe G(ilkey), 212 S. Grand Oaks Ave, Pasadena, Calif. *Physical chemistry*. Brewer, Maine, June 10, 94. B.S., Mass. Inst. Tech, 15; Ph.D., Calif. Inst, 20. Asst. theoret. chem, Mass. Inst. Tech, 15-16, research asst. *physical chem*, 16-17; research assoc, *Calif. Inst*, 17-26, *asst. prof*, 26- Nat. Research Council fellow, 20-23; Int. Educ. Board fellow, Europe, 23-24. Crystal structure; radiation chemistry.

Dickson, Prof. B(ertram) T(homas), Macdonald College, Quebec, Que, Can. *Plant pathology*. Leicestershire, Eng, May 20, 86. B.A., Queen's (Can), 15; Cornell, 15-16; Ph.D., McGill, 22. Asst. prof. biol, *Macdonald*, 19-20, *prof. bot*, 20-26, *plant path*, 26- Agr. officer, British Army, 17-18, commandant, Sch. Agr, France, 18-19; chevalier du l'ordre du mérite agricole. A.A; Phytopath. Soc. (pres, Can. branch, 23-24); Can. Soc. Tech. Agr; Que. Soc. Protect. Plants (sec'y, 19-22, director, 23-); British Mycol. Soc. Mosaic diseases of plants; blackrot disease of potato; colletotrichum v. vermicularia; saltation in colletotrichum; smut control in cereals; Acrostalagmus parasitic on Ustilago avenae.

Dickson, Dr. Charles W(illiam), Kelowna, B. C., Can. *Chemistry, Geology*. Hamilton, Ont, Jan. 13, 78. M.A., Queen's (Can), 96-00, sch. mining, 00-01; 1851 Exhib. scholar, London, 01-03; Ph.D., Columbia, 03; Heidelberg and

- Freiburg, 03-04. Demonstrator anal. chem, Queen's (Can), 01-02, lecturer chem, sch. mining, 03-09; *rancher*. Chemist, assay office, Ont. Bur. Mines, 00; Dominion Iron and Steel Co, 01; British Cellulose and Chem. Mfg. Co, 17-18. Lieut. C.E.F, 16-20. Min. Eng; Can. Min. Inst. Genetic relations of ore deposits; ore deposits of Sudbury, Ont; platinum contents of nickel and copper ores.
- Dickson, Prof. Ernest C(harles)**, Lane Hospital, San Francisco, Calif. *Bacteriology*. Newmarket, Ont, Can, 81. B.A, Toronto, 04, M.B, 06, M.D, 17. Asst. demonstrator physiol, Toronto, 04-05, George Brown research scholar, 06-07; intern, Toronto Gen. Hosp, 07; asst. demonstrator path, Toronto, 07; asst. resident physician, Hopkins Hosp, 07-08; instr. path. and bacter, Cooper Med. Col, 08-10; asst. prof. path, *sch. med*, Stanford, 10-13, med, 13-18, assoc. prof, 18-23, *prof*, 23-26, *pub. health and prev. med*, 26- Fellow, Rockefeller Inst, 10-13. Ass. Path. and Bact; Soc. Exp. Biol; Soc. Clin. Invest; Am. Med. Ass; assoc. Am. Physicians. Experimental chronic nephritis; botulism; bacterial food infections.
- Dickson, Prof. James G(eere)**, University of Wisconsin, Madison, Wis. *Plant pathology*. Yakima, Wash, Feb. 7, 91. B.S, Wash. Col, 15; M.S, Wisconsin, 17, Ph.D, 20. Asst. soil chem. and asst. librarian, Wash. Col, 15; asst. bot, Wisconsin, 16-17; *agent, office cereal investigations, bur. plant indust, U. S. Dept. Agr*, 18-; asst. assoc. prof. and *prof. plant path, Wisconsin*, 19- Bot. Soc; Phytopath. Soc; Soc. Agron. Plant physiology; plant chemistry; cereal diseases.
- Dickson, J(ohn) B(ernard)**, 36 Butler Place, Northampton, Mass. *Physical chemistry*. Zanesville, Ohio, Sept. 8, 89. A.B, Ohio (Athens), 12; A.M, Ohio State, 13; Austin fellow, Mass. Inst. Tech, 16-17, Ph.D, 17. Asst. chem, Ohio State, 12-15; instr. physical chem, Mass. Inst. Tech, 17-18; research chemist, B. F. Goodrich Rubber Co, 19-23; *chief chemist, A. G. Spalding and Bros*, 23- Chemist, U. S. Bur. Mines and capt, C.W.S, 18-19. Chem. Soc; Physical Soc. Free energy; colloids.
- Dickson, Prof. L(eonard) E(ugene)**, University of Chicago, Chicago, Ill. **Mathematics*. Independence, Iowa, Jan. 22, 74. B.S, Texas, 93, teaching fellow, 93-94, A.M, 94; fellow, Chicago, 94-96, Ph.D, 96; Leipzig and Paris, 96-97. Chemist, Texas Geol. Surv, 92-93; instr. *math*, California, 97-99; assoc. prof, Texas, 99-00; asst. prof, Chicago, 00-07, assoc. prof, 07-10, *prof*, 10- Visiting prof, California, 14, 18, 22. Nat. Research Council, 19- Cincinnati prize, Am. Ass. Adv. Sci. Nat. Acad; Math. Soc. (pres, 16-18, ed, 'Trans'); Philos. Soc; Am. Acad; London Math. Soc; cor. Paris Acad; hon. mem. Czecho-Slovakia Union Math. and Physics; Int. Math. Union (hon. pres). Theory of groups (finite and infinite); theory of numbers; invariants; algebras and their arithmetics; history of mathematics.
- Dickson, Dr. Virgil E(verett)**, 2133 Allston Way, Berkeley, Calif. *Education*. Unionville, Mo, March 29, 85. B.Pd, State Teachers Col, Kirksville, Mo, 04; A.B, Wash. Col, 08; A.M, Stanford, 17, Ph.D, 19. Supt, schools, Wash, 08-11; supt, Wash. State Nor. Training Sch, Cheney, 11-16; *asst. supt. schools and director bur. research and guidance, Berkeley*, 18- Lecturer, California, 25-; deputy supt. schools and director bur. research and guidance, Oakland, Calif, 17-25. Educ. Research Ass. (v. pres, 22); Calif. Research and Guidance Ass. (pres, 22-26). The measurement of intelligence; vocational guidance.
- Diehl, H(elmuth) C(harles)**, Wenatchee, Wash. *Horticulture*. Bridgeport, Conn, June 6, 94. B.S, Mich. State Col, 18; Hopkins, 19-21; Maryland, 23-24. Asst. chemist, Conn. State Board Health, 19; *hort. investigations, bur. plant indust, U. S. Dept. Agr*, 21- A.A; Soc. Hort. Sci. Physiology of deciduous and small fruits during handling and storage.
- Diehl, William W(ebster)**, U. S. Department of Agriculture, Washington, D. C. *Botany*. Logansport, Ind, Jan. 15, 91. A.B, Miami, 14; M.S, Iowa Col, 15. Teaching fellow, Iowa Col, 14-16; instr. bot, Clemson, 16-17; sci. asst. *mycol, bur. plant indust, U. S. Dept. Agr*, 17-19, asst, 19-26, *assoc*, 26- A.A; Bot. Soc; Phytopath. Soc; Wash. Bot. Soc; Wash. Biol. Soc. Mycology; fungous diseases of plants.
- Diemer, Lieut. Col. Hugo**, La Salle Extension University, 4101 Michigan Ave, Chicago, Ill. *Mechanical engineering*. Cincinnati, Ohio, Nov. 18, 70. M.E, Ohio State, 96; A.B, Pa. State, 13. Addyston Pipe and Steel Co, 88-92; Westinghouse Elec. and Mfg. Co, 96-98; indust. engineer, Bullock Mfg. Co, 98-00; asst. prof. mech. eng, Mich. State Col, 00-01; assoc. prof, Kansas, 01-04; supt, Nat. Motor Vehicle Mfg. Co, 04-06; production manager, Goodman Mfg. Co, 06-08; prof. indust. eng, Pa. State, 08-19; personnel supt, Winchester Repeating Arms Co, 19-20; *director and lecturer indust. courses and consulting engineer, La Salle Exten. Univ*. Lieut. col, ordnance dept. Consulting engineer for Int. Harvester Co, Atlas Engine Works, Cincinnati Milling Machine Co, Nat. Motor Vehicle Co. and others. Mech. Eng. (chairman, Chicago sect, 26); Eng. Educ; Indust. Eng. (pres, Chicago sect, 25); Taylor Soc. (pres, Chicago sect, 24); Chicago Ass. Commerce. Industrial engineering, education and economics; automobiles; motor boats and motoreycles; factory organization and administration.
- Diemer, Dr. Melvin E(dison)**, Forest Products Laboratory, Madison, Wis. *Chemistry*. Dakota, Ill, March 7, 87. A.B, Wisconsin, 08, A.M, 09, Ph.D, 11. *Forest products lab, U. S. Dept. Agr*, 11- Gaseous content of lake water; selenic acid; aurous chlorid; scientific photography.
- Dieterich, Dr. E(rnest) O(tto)**, 664 Noble Ave, Akron, Ohio. *Physics*. Dubuque, Iowa, Sept. 7, 89. A.B, Iowa, 12, M.S, 14, Ph.D, 16. Instr. physics, Minnesota, 15-18; asst. prof, Iowa, 18-19; *research physicist, B. F. Goodrich Co*, 19- Physical Soc; Optical Soc. Optical and mechanical properties of selenium; rubber and allied products.

- Dietrich, W(aldemar) F(enn)**, Stanford University, Calif. *Metallurgy, Ceramics*. Portland, Oregon, April 10, 92. A.B, Stanford, 13, E.M, 14. Engineer, Copper Queen Consol. Mining Co, Ariz, 14-15; engineer and assayer, Consol. Ariz. Smelting Co, 16; lecturer and asst. prof. *mining, Stanford*, 16-19, *assoc. prof.*, 19- Chief efficiency engineer, Santa Gertrudis Mining Co, Mex, 23-24; ceramic engineer, Calif. State Mining Bureau, 25-27. Asst. director oil div, Pacific Coast, U. S. Fuel Ad, 18. Min. and Metal. Eng; Ceramic Soc; Chem. Soc. Efficiency engineering; ceramic resources of California.
- Dietrich, W(illia)m**, Charles City, Iowa. *Animal husbandry*. Black River Falls, Wis, March 24, 71. B.S.A, Wisconsin, 99; M.S, Illinois, 06. Soil expert, bur. soils, U. S. Dept. Agr, 03-04; instr. and asst. prof. swine husbandry, Illinois, 04-12, asst. chief, Exp. Sta, 08-12; asst. prof. dairy and animal husbandry, Minnesota, 13-18; *county agent*, Fillmore Co, Minn, 18-22; *Floyd Co, Iowa*, 22- A.A; Soc. Animal Nutrition. Animal nutrition; swine husbandry.
- Dietz, Harry F(rederick)**, 3225 Boulevard Place, Indianapolis, Ind. *Entomology*. Indianapolis, Dec. 8, 90. A.B, Butler, 14; Ohio State, 16. Asst. state entomologist, Ind, 14-16; entom. inspector, fed. hort. board and bur. entom, U. S. Dept. Agr, 17-20; *asst. state entomologist, Ind*, 20- A.A; Ass. Econ. Entom; Ind. Acad; Ohio Acad. Coccidae of Indiana; insect pests of greenhouse and ornamental plants.
- Dietz, S. M**, 2226 Donald St, Ames, Iowa. *Plant pathology*. Garner, Iowa, April 6, 93. B.S.A, Iowa Col, 17, M.S, 18, Ph.D, 24. Field asst. cereal investigations, *bur. plant indust, U. S. Dept. Agr*, 17, asst. pathologist, 18-26, *assoc. pathologist*, 26- Second lieut, F.A, 18. Phytopath. Soc. Rusts of oats; resistant varieties; limits of the host; genetics of disease resistance.
- Diggs, Dr. S(terling) H(enry)**, 1534 S. Spruce St, Casper, Wyo. *Chemistry*. Mathews Co, Va, May 16, 79. B.S, M.S, Virginia, 12, Ph.D, 14. Instr. physics, Virginia, 10-11, psychol, 12-13, chem, 13-14; research chemist, *Standard Oil Co. of Ind*, 14-23, *director research*, 23- Summers, instr, Virginia. A.A; Chem. Soc. Diffusion of iodine; reactions of phosphorus and copper; oil in paraffine wax; racial psychology.
- Dike, Prof. Paul H(arrison)**, 252 High St, Philadelphia, Pa. *Physics*. Crystal Lake, Ill, Feb. 22, 78. B.S, Northwestern, 01, fellow, 02-03, M.S, 03; Berlin, 05-06; Cambridge, 06; Ph.D, Wisconsin, 11. Magnetic observer, U. S. Coast and Geod. Surv, 04-05; dept. terrestrial magnetism, Carnegie Institution, 05-09; asst. *physics*, Wisconsin, 09-11; Cornell, 11-14; instr, Missouri, 14-15; prof, Robert Col, Constantinople, 15-23; *assoc. prof.*, North Carolina, 23-24; Vermont, 24-25; *research engineer, Leeds and Northrup Co*, 25- On magnetic surv. yacht 'Galilee,' 07-08. Lieut, Sig.C, 17-19; acting sci. attaché, U. S. Embassy, Paris, 19. A.A; Physical Soc. Radioactive emanation in atmosphere; atmospheric electrical conductivity at sea; dip circle corrections; photo-electric potentials; radio telegraphy; sound ranging of airplanes.
- Dill, Dr. D(avid) B(ruce)**, 74 Fayerweather St, Cambridge, Mass. *Biochemistry*. Winchester, Kans, April 22, 91. B.S, Occidental, 13; A.M, Stanford, 14, Ph.D, 25. Teacher, high sch, 14-18; asst. chemist, bur. chem, U. S. Dept. Agr, 18-22, *assoc. chemist*, 22-25; *Nat. Research Council fellow chem, Harvard*, 25- Fellow, Food Research Inst, Stanford, 23-25. A.A; Chem. Soc. Chemical and ecological studies of Pacific fishes; wheat proteins; blood as a physico-chemical system.
- Dill, Prof. Homer R(ay)**, State University of Iowa, Iowa City, Iowa. *Zoology*. Gardiner, Maine, Oct. 30, 77. Curator, Maine State Museum, 00-06; taxidermist, Brooklyn Museum; *director div. museum, Iowa*. In charge exped. to Laysan Island, 11; La. Gulf Coast, 18, 19; Cascade Mountains, 20. A.A; Iowa Acad. Museum work; habits of Laysan birds.
- Dille, Prof. G(lenn) S(cott)**, 113 Crescent Drive, Cedar Rapids, Iowa. *Geology*. Shannon, Ill, July 13, 96. A.B, Coe, 21; M.S, Iowa, 24. *Asst. prof. geol. Coe*, 21- Iowa Acad. (chairman, geol. sect, 26). Geology and mineral resources of the Saddleback Hills Quadrangle, Carbon County, Wyoming.
- Diller, J(oseph) S(ilas)**, 1466 Belmont St, N. W, Washington, D. C. **Geology, Petrography*. Plainfield, Pa, Aug. 27, 50. B.S, Harvard, 79; Heidelberg, 80-83. Teacher, Mass. State Nor. Sch, Westfield, 73-77; geologist, Assos exped, 81-82; U. S. Geol. Surv, 83-23; *retired*, 24. *Assoc. ed.*, 'Am. Jour. Science.' Diploma, Paris Expos, 00. A.A; Geol. Soc. (v. pres, 07); Wash. Acad. (rec. sec'y, 08); Wash. Geol. Soc. (pres, 01); Wash. Philos. Soc. (sec'y, 88-94). General and economic geology; petrography; geology of Crater Lake National Park, Lassen Peak, Redding, Klamath Mountains and Taylorsville region in California; sandstone dikes; igneous rocks of the Pacific Coast; chromite; asbestos; talc.
- Dillingham, Prof. Frank T(hompson)**, University of Hawaii, Honolulu, Hawaii. *Chemistry*. Honolulu, Feb. 11, 78. B.S, Worcester, 01; Harvard; fellow, Yale, 15-16, A.M, 16; fellow, California, 22-23. Asst. and instr. agr. chem, Bussey Inst, 01-08; chemist, exp. sta, Hawaiian Sugar Planters Ass, 08-09; *prof. chem, Hawaii*, 09-; *chief chemist, Exp. Sta, Ass. Hawaiian Pineapple Cannery*, 25- Chem. Soc. (chairman, Hawaiian sect, 25); Hawaiian Sugar Tech. Ass. (pres, 21). Agriculture and biochemistry.
- Dillman, Arthur C(harles)**, U. S. Department of Agriculture, Washington, D. C. *Agronomy*. Marshal, Minn, Feb. 12, 81. B.S, S. Dak. Col, 07. *Office cereal investigations, U. S. Dept. Agr*, 08-, *assoc. agronomist in charge seed flax investigations*. A.A; Soc. Agron; Genetic Ass; Wash. Bot. Soc. Breeding forage crops for drought resistance; classification of flax varieties.
- Dimick, Prof. Chester E(dward)**, U. S. Coast Guard Academy, New London, Conn. *Mathematics*. Manchester, N. H, Nov. 6, 80. A.B, Harvard, 01; A.M, Pennsylvania, 07. Instr. *math*, Pennsylvania, 03-06; instr. and *prof.*, U. S. Coast Guard Acad, 06- A.A; Math. Soc.

- Dimmick, Prof. Forrest L(ee)**, 1 DeLancey Drive, Geneva, N. Y. *Psychology*. Dansville, N. Y., July 17, 93. A.B., Cornell, 15, Ph.D., 20. Instr. *psychol.*, Northwestern, 20-21; instr. and asst. prof., Michigan, 21-25; *prof. and research assoc.*, Hobart, 25- Psychol. Ass. Experimental psychology.
- Dimmock, Dr. George**, 531 Berkshire Ave, Springfield, Mass. *Entomology*. Springfield, May 17, 52. A.B., Harvard, 77; Ph.D., Leipzig, 81; Paris, 81-82. *Private research*, 82- Ed., 'Psyche,' 77-90. A.A.; Soc. Nat.; Boston Soc. Nat. Hist.; Soc. entom. de France. Mouth parts of Diptera; scales and glands of insects; early stages of Carabidae, Coccinellidae and Chrysomelidae.
- Dimock, Dr. William Wallace**, Lexington, Ky. *Veterinary science*. Tolland, Conn., Feb. 20, 80. B.S.A., Conn. Col., 01; D.V.M., Cornell, 05; Cuba, 08. Asst. chief animal husbandry, Cuban Exp. Sta., Santiago, 06-08; chief veterinarian, Nat. Board Health, Cuba, 08-09; prof. path. and bacter., Iowa Col., 09-19; *head dept. vet. science*, Ky. *Exp. Sta.*, 19- A.A.; Vet. Med. Ass. Biology; pathology; bacteriology; animal parasites; sanitary science.
- Diner, Dr. Irene C(aroline) (Koenigsberger)**, 3749 McKinley St., Washington, D. C. *Chemistry*. New York, N. Y., Sept. 21, 96. A.B., Hunter, 17; A.M., Columbia, 18; Ph.D., N. Y. Univ., 20. Assoc. chemist, C.W.S., 20-22. A.A.; Chem. Soc.; fel. Inst. Chem.; N. Y. Micros. Soc. Microscopy of rubber and rubber fillers.
- Diner, Prof. Jacob**, 233 W. 77th St., New York, N. Y. *Internal medicine*. Königsberg, Germany, Aug. 26, 70. Gymnasium, Altstadt, 84; Ph.G., Strassburg; M.D., Fordham, 13. Demonstrator bacter., *sch. med.*, Fordham, 09-10, instr., 10-11, path. and bacter., 11-13, asst. prof., 13-14, *prof. pharmacol. and lab. diagnosis*, 13- A.A.; Pharmaceut. Ass.; Soc. Bact.; Therapeut. Soc.; N. Y. Acad. Med.; N. Y. Soc. Clin. Serol. and Hematol. Immunology; hematology.
- Dines, Prof. Lloyd L(yne)**, University of Saskatchewan, Saskatoon, Sask., Can. *Mathematics*. Shelbyville, Mo., March 29, 85. A.B., Northwestern, 06, fellow, 06-07, A.M., 07; fellow, Chicago, 08-11, Ph.D., 11. Instr. *math.*, Evanston Acad., 07-08; Columbia, 11-13; assoc. prof., Arizona, 13-14; asst. prof., *Saskatchewan*, 14-19, *prof.*, 19- Math. Soc. (councilor, 22-24); Soc. math. de France; Circolo Mat. di Palermo. Elimination; implicit functions; general algebra and analysis.
- Dingwall, Dr. A.**, 9 Morton St., Brooklyn, N. Y. *Biochemistry*. Glasgow, Scotland, May 25, 92. Royal Tech. Col., Scotland, 14; Caleb Dorr fellow, Minnesota, 22-24, Ph.D., 24. Grain chemist, Dom. Grain Research Lab., Winnipeg, Can., 21; *research chemist*, *Royal Baking Powder Co.*, 25- Fel. Inst. Chem. Gt. Britain and Ireland.
- Dinsmore, R(ay) P(utnam)**, 877 Hereford Drive, Akron, Ohio. *Chemistry*. Tewksbury, Mass., April 24, 93. B.S., Mass. Inst. Tech., 14. Tech. staff, *Goodyear Tire and Rubber Co.*, Ohio, 14-16, asst. chemist, Can., 16-19, chief chemist, Calif., 19-21, *chief chemist and research director*, Ohio, 21-, v. chairman *rubber div.*, 25-26, *chairman*, 26- A.A.; Chem. Soc. (councilor, 22-25, pres, Akron sect., v. chairman, rubber div., 25-). Elec. Soc. Rubber chemistry; effect of accelerators on rubber variability; Hevea rubber.
- Dinwiddie, Dr. J(oseph) G(ray)**, 35½ Ziegler Tract, Penns Grove, N. J. *Chemistry*. Charlottesville, Va., Oct. 27, 89. B.S., Virginia, 11, M.S., 12; Ph.D., Yale, 16. Asst. prof. chem., Louisville, 16-17; *research chemist*, Fed. Dye-stuff and Chem. Co., 17-18; Chem. Eng. and Research Corp., 18; *E. I. du Pont de Nemours and Co.*, 18- Chem. Soc.; Chem. Eng. Bromination of phenol; hydrofluosilicic acid; fluorides; sulphur colors; thioindigos; brominated indigos.
- Dirks, Prof. H(enry) B(ernhard)**, 637 Grove St., East Lansing, Mich. *Mechanical engineering*. Chicago, Ill., June 21, 84. B.S., Illinois, 04; M.E., 05. Asst. Ill. Eng. Exp. Sta., 05-08; instr. *mech. eng.*, Illinois, 08-10; asst. Nat. Machine Works, Chicago, 10-15; asst. prof., Princeton, 15-19; *prof.*, *Mich. State Col.*, 19- Assoc. Mech. Eng.; Eng. Educ. Tests of high speed tool steel for cutting cast iron; fuel tests of Illinois coals; tests of coal and coke mixtures in house-heating boilers.
- Dirzulaitis, Joseph J.**, Virginia Geological Survey, University, Va. *Hydraulic engineering*. Mt. Carmel, Pa. B.S., Bucknell, 17. Field asst., *water resources branch*, U. S. Geol. Surv., 17-18, junior classifier, 18-19, asst. engineer, 19-25, assoc. engineer, 25-26, *hydraulic engineer*, 26- Wash. Soc. Eng. Water resources in the United States.
- Diserens, Dr. Charles M(urdoch)**, 3550 Evanston Ave., Cincinnati, Ohio. *Psychology*. Cincinnati, Jan. 25, 89. B.L., Ohio Mech. Inst., 12; A.B., Lebanon, 15; A.M., Cincinnati, 17; Chicago, summers, 18-22; Ph.D., Cincinnati, 22. Instr. chem., Ohio Mech. Inst., 11-13; math., Lebanon, 14-16; pharmaceut. physics, Queen City Col. Pharmacy, 16-17; asst. philos., *Cincinnati*, 17, instr. *psychol.*, 20-24, *asst. prof.*, 24- Abstractor, 'Psychol. Bul.', 20- A.A.; Psychol. Ass. Psychology of music; history of psychology concepts; aesthetics; laughter; psychology of primitive peoples; reactions to musical stimuli; psychological objectivism.
- Ditman, Dr. Norman E(dward)**, 449 Park Ave., New York, N. Y. *Pathology*. Brooklyn, N. Y., May 28, 77. Ph.B., Yale, 96; M.D., A.M., Columbia, 00, Ph.D., 08. Asst. clin. path., Columbia, 02-03, instr. path., 03-09. House physician, St. Luke's Hosp., 01-02; pathologist, Sloane's Maternity and Roosevelt Hospitals, 02-09. Am. Med. Ass.; Health League; N. Y. Acad. Med. Deficient oxidation in its relation to the etiology, pathology and treatment of nephritis; preventive medicine; opsonins and vaccines in medicine and surgery; the electromagnetic nature of colloidal, enzyme and catalytic action; home hygiene and the prevention of disease.
- Ditmars, R(aymond) L(ee)**, Zoological Park, New York, N. Y. *Natural history*. Newark, N. J., June 20, 76. Pub. and private schools. Asst. curator entom., Am. Museum Nat. Hist., 91-97;

stenographer, 97-99; reporter, 'N. Y. Times,' 99-00; *curator reptiles*, N. Y. Zool. Park, 00-Soc. Ichthyol. and Herp. (treas, 16); N. Y. Zool. Entom. and Linnean Societies. Herpetology; diseases of reptiles and mammals; educational motion pictures.

Dittmer, Arthur F(rederick), 7500 Euclid Ave, Cleveland, Ohio. *Physics*. Ludington, Mich, Aug. 11, 00. A.B, Michigan, 23; Ph.D, Princeton, 26. *Research physicist*, Nela Research Lab, Cleveland, 26- Physical Soc. Discharge of electricity through gases.

Dix, E(dgar) H(utton), Jr, Aluminum Company of America, New Kensington, Pa. *Metallurgy*. Baltimore, Md, Aug. 11, 92. M.E, Cornell, 14, M.M.E, 16. Instr, Cornell, 14-16; asst. to master mechanic, Baltimore Copper Smelting and Rolling Co, 16-18; asst. engineer tests, Aluminum Castings Co, 19-20; chief metals branch, material sect, div. eng, Air Service, 20-23; *metallurgist, research bur, Aluminum Company of Amer*, 23- Chief dept. testing, Bur. Aircraft Production, U.S.A., 18-19. Soc. Test. Mat; Soc. Steel Treat; Min. and Metal. Eng; Foundrymen's Ass; British Inst. Metals. Impact testing; manganese, aluminum bronze and gun metal casting; aluminum air-cooled cylinder castings; foundry control; metallographic and equilibrium of aluminum alloys.

Dixon, Joseph S(cattergood), University of California, Berkeley, Calif. *Zoology*. Cherokee Co, Kans, March 5, 84. Grad, Throop Acad, 08; Stanford, 07-10. Asst. curator mammals, *museum vert. zool, California*, 15-18, *econ. mammalogist*, 18- Alexander exped, Alaska, 07, 08; Harvard exped, Alaska and Siberia, 13-14. Ornith. Union; Cooper Ornith. Club; Soc. Mammal; Calif. Acad. Ornithology; economic mammalogy.

Dixon, Prof. Roland B(urrage), Peabody Museum, Cambridge, Mass. **Anthropology*. Worcester, Mass, Nov. 6, 75. A.B, Harvard, 97, A.M, 98, Ph.D, 00. Asst. *anthrop*, Harvard, 98-00, instr, 01-05, asst. prof, 06-16, *prof*, 16- *Ethnographer*, Am. Peace Commission to Paris, 18-19; Nat. Research Council, 19-; Social Science Research Council, 26- A.A. (sec'y, H, 03, v. pres, 10); *Anthrop. Ass.* (pres, 13-15); fel. *Ethnol. Soc.*; Folk-Lore Soc. (pres, 07, 08); *Antiq. Soc.*; *Philos. Soc.*; fel. Am. Acad; Polynesian Soc; *Anthrop. Inst. Gt. Britain and Ireland*; cor. mem. Soc. des Américanistes; for. assoc. Paris *Anthrop. Soc.* *Ethnology and archeology of America, Oceania and Asia*; languages and culture of the Indians of the Pacific Coast, especially California.

Doan, Dr. Charles A(ustin), Rockefeller Institute, New York, N. Y. *Bacteriology, Pathology*. Nelsonville, Ohio, June 5, 96. B.S, Hiram, 18; M.D, Hopkins, 23. Asst. anat, Hopkins, 23-24; med, Harvard, and Thorndike Mem. Lab, Boston City Hosp, 24-25; *assoc, Rockefeller Inst*, 25- A.A; Ass. Anat; Soc. Exp. Biol. Hematology.

Doane, Prof. Floyd T(elford), 725 S. Edmunds, Mitchell, S. Dak. *Biochemistry*. Near Tecumseh, Nebr, Oct. 19, 97. A.B, Nebr. State Teachers Col, 19; Illinois, 19-20; Chicago, 21, 23, 24.

Prof. chem. and head dept, Dakota Wesleyan, 20-; director clin. lab, Methodist State Hosp, 26- A.A; Chem. Soc; Nebr. Acad; S. Dak. Acad. The relation of non-protein nitrogen content of blood to chronic diseases.

Doane, Prof. R(ennie) W(ilbur), Stanford University, Calif. *Entomology*. Des Moines, Iowa, March 11, 71. A.B, Stanford, 96. Instr. zool. and entom, Wash. Col, 96-98, asst. prof, 98-01, supt. fisheries, Exp. Sta, 01-06; asst. *entom*, Stanford, 05-06, instr, 06-09, asst. prof, 09-15, *assoc. prof*, 15-26, *prof*, 26- A.A; Entom. Soc; Ass. Econ. Entom; Ecol. Soc. Economic and medical entomology; propagation of oysters and salmon; economic food fishes; the fisheries of Washington.

Doane, S(amuel) E(verett), 55 E. 86th St, New York, N. Y. *Electrical engineering*. Swampscott, Mass, Feb. 28, 70. High sch. Foreman, various rooms, incand. lamp dept, Thomson-Houston Co, 86-90, asst. manager, 90-93; asst. engineer and later supt. and asst. engineer, Edison Lamp Works, Harrison, N. J, 93-96; manager repair lamp dept, Thomson-Houston Co, 95-96; supt, Bryan Marsh Co, 97-00; *chief engineer, Nat. Lamp Works, Gen. Elec. Co*, 01-Elec. Eng. Incandescent electric lamp making.

Dobbin, Dr. C(arroll) E(dward), U. S. Geological Survey, Washington, D. C. *Geology*. West Jonesport, Maine, Oct. 2, 92. A.B, Colby, 16; Ph.D, Hopkins, 24. *Geologist, U. S. Geol. Surv*, 18- A.A; Ass. Petrol. Geol; Wash. Geol. Soc. Economic geology.

Dochez, Dr. A(lphonse) R(aymond), Columbia University, New York, N. Y. **Medicine*. San Francisco, Calif, April 21, 82. A.B, Hopkins, 03, M.D, 07; hon. Sc.D, N. Y. Univ, 25, Yale, 26. Fellow path, Rockefeller Inst, 08-10, *bacteriologist, Rockefeller Hosp*, 10-11, asst. res. physician, 10-13, res. physician, 14, asst. med, 11-14, *assoc*, 14-16, *assoc. mem*, 16-19; *assoc. prof. med, med. dept, Hopkins*, and *assoc. physician, Hopkins Hosp*, 19-21; *assoc. prof. med, col. physicians and surg, Columbia*, 21-25, *prof*, 25- Visiting physician, Presb. Hosp, 21- Am. Physicians; Soc. Bact; Soc. Exp. Path; Soc. Exp. Biol; Soc. Clin. Invest; Harvey Soc. Pathology; bacteriology and immunity; clinical medicine.

Dock, Dr. George, Professional Building, Pasadena, Calif. **Medicine*. Hopewell, Pa, April 1, 60. M.D, Pennsylvania, 84, hon. Sc.D, 04; hon. A.M, Harvard, 95. Asst. clin. path, Pennsylvania, 87-88; *prof. path, Texas Med. Col. and Hosp*, 88-91; med, med. sch, Michigan, 91-08; sch. med, Tulane, 08-10; sch. med, Washington (St. Louis), 10-22. Physician, Univ. Hosp. Dispensary, Phila; v. pres, Int. Med. Cong, Moscow, 97; London, 13. A.A; Am. Physicians (pres, 17); Am. Med. Ass. Pathology of the blood and of pernicious anemia; ductless glands; hookworm.

Dockeray, Prof. F(loyd) C(arlton), Ohio Wesleyan University, Delaware, Ohio. *Psychology*. A.B, Michigan, 07, A.M, 09, Ph.D, 15. Asst. instr. *psychol*, Michigan, 08-09; instr, Kansas, 10-13, asst. prof, 13-16, *assoc. prof*, 16-20; *prof, Ohio Wesleyan, 20-* In charge psychol.

- dept, A.S; med. research lab, U.S.A. A.A; Psychol. Ass; Kans. Acad; fel. Ohio Acad. Physiological psychology; neurology; the span of vision in reading; physical fatigue and mental efficiency; volumetric measurements of the brain of a human fetus; attention, distraction and fatigue; psychology of aviation.
- Dodd, Dr. Edward L(ewis)**, 3012 West Ave, Austin, Texas. *Mathematics*. Cleveland, Ohio, Nov. 1, 75. A.B, Western Reserve, 97, A.M, 01; A.M, Yale, 02, Ph.D, 04. Instr. math, Iowa, 04-06; Illinois, 06-07; Texas, 07; prof, Williams, 22-23. Assoc. ed, 'Am. Math. Monthly,' 18-23. Math. Soc; Math. Ass. (councilor, 20); Statist. Ass. Probability and statistics; general functions of measurements and laws of frequency; hidden periodicities.
- Dodd, Prof. L(aurence) E(llsworth)**, 724 N. Normandie Ave, Los Angeles, Calif. *Physics*. Cascade, Iowa, July 16, 86. B.S, Cornell (Iowa), 10; M.S, Iowa, 14, Ph.D, 18. Instr, high sch, Iowa, 10-12; asst. physics, Iowa, 14-18; asst. physicist, glass sect, Bur. Standards, 18-20, assoc. physicist, 20-21; asst. prof. *physics, California at Los Angeles*, 21-23, *assoc. prof*, 23- Lecturer, Iowa, 21. A.A; Physical Soc; Iowa Acad. Light; sound; simultaneous measurements of small distances; stroboscopic effect; vapor pressure curves of solid and liquid selenium; striae in optical glass; miscibility of liquids; pitch effect on vocal tones.
- Dodds, Prof. G(ideon) S(tanhope)**, West Virginia University, Morgantown, W. Va. *Zoology*. Parnassus, Pa, July 11, 80. A.B, Colorado, 04, A.M, 05; Harrison fellow, Pennsylvania, 08-10, Ph.D, 10. Instr. biol, Colorado, 05-08; asst. prof. biol, St. Louis, 10-11; zool, Missouri, 11-18; *histol, sch. med, West Virginia*, 18-20, assoc. prof, 20-25, *prof*, 25- Summers, instr, Woods Hole, 09-11, 18; Mt. Lab, Colorado, 12-17. A.A; Soc. Zool; Soc. Anat; Ecol. Soc. Embryology; ecology of Crustacea and aquatic insects.
- Dodge, Prof. Barnett F(red)**, Yale University, New Haven, Conn. *Chemical engineering*. Akron, Ohio, Nov. 29, 95. B.S, Mass. Inst. Tech, 17; Sc.D, Harvard, 25. Chem. engineer, E. I. du Pont de Nemours and Co, 17-20; Lewis Recovery Corp, 20-22; lecturer *chem. eng*, Harvard, 21-25; *asst. prof, Yale*, 25- Lecturer, Worcester Polytech, 22-25; chem. engineer, fixed nitrogen research lab, U. S. Dept. Agr, 25. Chem. Soc. Low temperature separation of gases.
- Dodge, Dr. Bernard O(gilvie)**, U. S. Department of Agriculture, Washington, D. C. **Botany*. Mauston, Wis, April 18, 72. Ph.B, Wisconsin, 09; Ph.D, Columbia, 12; N. Y. Bot. Garden, 10, 14. Prin, high sch, Wis, 95-00, 02-08; asst. bot, Columbia, 09-13, instr, 13-20; *pathologist fruit diseases, bur. plant indust, U. S. Dept. Agr*, 20- Bot. Soc; Torrey Bot. Club (sec'y-treas, 11-20); Phytopath. Soc; Wis. Acad. Morphology of Ascomycetes; cytology of fungi; infection and immunity.
- Dodge, Dr. Carroll W(illiam)**, Harvard University, Cambridge, Mass. *Botany*. Danby, Vt, Jan. 20, 95. A.B, Middlebury, 15, A.M, 16; fel-
- low, Washington (St. Louis), 15-18, Ph.D, 18. Instr. bot, Brown, 19-20, asst. prof, 20-21; instr, *Harvard*, 21-24, *asst. prof. and curator, Farlow Library*, 24- Asst. prof, California, 21; fel, Inst. Research Trop. Am, 25. Harvard bot. exped, Gaspe Peninsula, 23. Ed. board, 'Bot. Abstracts,' 20-26; 'Biol. Abstracts,' 26-; assoc. ed, 'Rhodora,' 23- Sergt, M.C, 18-19, lieut, Sanit.R.C, 25- A.A; Bot. Soc; Micros. Soc; Phytopath. Soc; Hist. Sci. Soc; New Eng. Bot. Club (sec'y, 22-); Boston Soc. Nat. Hist; Boston Med. Library Soc; British Mycol. Soc. Mycology; basidiomycetes; fungi which cause human disease; physiology of fungi; lichens; history of biology.
- Dodge, Prof. Charles Wright**, University of Rochester, Rochester, N. Y. *Biology*. Cape Vincent, N. Y, Jan. 15, 63. B.S, Michigan, 86, M.S, 89. Instr. bot. and zool, high sch, Detroit, 86-90; *biol, Rochester*, 90-92, *prof*, 92- Biologist, Rochester Health Dept, 94-26. A.A; Soc. Nat; Soc. Bact; N. Y. State Sci. Teachers Ass. (pres, 00); Rochester Acad. (cor. sec'y, 92-02, pres, 02). Limnology.
- Dodge, Dr. Francis D(espard)**, 69 Ave. A, Bayonne, N. J. *Chemistry*. Washington, D. C, Jan. 14, 68. Ph.B, Columbia, 88, fellow, 88-90, Ph.D, 90; Heidelberg, 90-91. *Technical work, Dodge and Olcott Co, Bayonne, N. J*, 91- Chem. Soc; N. Y. Chemists Club. Organic chemistry; essential oils; synthetic products.
- Dodge, F(rank) E(llsworth)**, 223 S. Catherine Ave, La Grange, Ill. *Chemistry*. Barre, Vt, Oct. 23, 66. Ph.B, Vermont, 89. Chemist, manager and supt, commercial companies, 89-09; consulting chem. engineer, 09-12; *chem. engineer*, Barrett Co, 12-21; v. pres. and mfg. manager, Protexol. Corp, 21-23; *Nat. Lead Co*, 23- Chem. Soc. (librarian, 92-99, sec'y, Phila. sect, 99-09, councilor, 20); Chem. Eng; West. Soc. Eng; N. Y. Chemists Club; Chicago Eng. Club. Recovery of pyridin bases from the direct ammonium sulphate process; neutral sulphate of ammonia; coal tar and its distillation products; recovery of benzol and toluol from illuminating gas.
- Dodge, Prof. Homer L(evi)**, University of Oklahoma, Norman, Okla. *Physics*. Ogdensburg, N. Y, Oct. 21, 87. A.B, Colgate, 10; M.S, Iowa, 12, Ph.D, 14. Asst. instr. *physics*, Iowa, 10-12, demonstrator, 12-13, instr, 13-15, asst. prof, 15-19; *prof. and head dept, Oklahoma*, 19-, *director sch. eng. physics*, 24-, *dean grad. sch*, 26- Ed. research in physics, 'Sch. Science and Math,' 16-24. Topographic aid, U. S. Geol. Surv, 06-11, junior topographer, 11-14. Committee on educ. and special training, War Dept, 19; director, Okla. Bur. Standards, 19; pres, board trustees, Oklahoma Sch. Religion, 27- A.A; Physical Soc; Eng. Educ; Okla. Acad. (pres, 25). Elasticity; electrical measurements and instruments.
- Dodge, Dr. Ralph L(aurence)**, 1621 Quarrier St, Charleston, W. Va. *Physical chemistry*. Peabody, Mass, Nov. 1, 95. A.B, Harvard, 17, Ph.D, 24. Catalytical chemist, fixed nitrogen research lab, U. S. Dept. Agr, 20-25; chemist, *Lazote, Inc*, Del, 25-26, *chief chemist, Belle*

Works, W. Va., 26- Nitrogen fixation; synthetic ammonia; catalysis.

Dodge, Prof. Raymond, 141 Linden St, New Haven, Conn. **Psychology*. Woburn, Mass, Feb. 20, 71. A.B, Williams, 93, hon. Sc.D, 18; Ph.D, Halle, 96. Asst. to Prof. B. Erdmann, Halle, 96-97; prof. philos. Ursinus, 97-98; instr. Wesleyan, 98-99, assoc. prof, 99-02, *prof. psychol.*, 02-24; *Yale*, 24- Asst. librarian, Williams, 93-94; summer, prof, California, 06; Columbia, 09, 11. Cooperating ed, 'Psychol. Bul,' 04-10; advisory ed, 'Psychol. Rev,' 10-16; 'Jour. Exp. Psychol,' 16-; 'Psychobiol,' 17-20; 'Jour. Comp. Psychol,' 21- Exp. psychologist, nutrition lab, Carnegie Inst, 12-14; non-res. lecturer, Columbia, 16, Ernest Kempton Adams research fellow, 16-17. Chairman sub-committee on vision, Nat. Research Council, 18, div. anthrop. and psychol, 22-23. Consulting psychologist, C.W.S., 18; lieutenant commander, U.S.N.R., 18. Nat. Acad; A.A; Psychol. Ass. (pres, 16); Am. Acad; Philos. Ass. Dynamic psychology; psychology of reading; registration of eye movements; visual fixation; visual space perception and perception of motion; ocular reactions of the insane; nervous fatigue; reflexes; differential tests of nervous efficiency; psychological effects of alcohol; theory of inhibition; elementary conditions of variability; compensatory eye-movement and operation of the vestibule.

Dodge, Prof. Richard E(lwood), Storrs, Conn. **Geography, Agriculture*. Wenham, Mass, March 30, 68. A.B, Harvard, 90, A.M, 94. Asst. geol. Harvard, 91-94, instr, 94-95; instr. and assoc. prof. nat. science, Teachers Col, Columbia, 95-97, prof. geog, 97-16. Asst. U. S. Geol. Surv, 90-95. Ed, 'Jour. of Sch. Geog,' 97-01; 'Jour. of Geog,' 02-10. A.A; Geol. Soc; Ass. Geog. (ed, 'Annals'); fel. N. Y. Acad; hon. mem. Australasian Royal Geog. Soc. Scientific geography for elementary and secondary schools; geographical factors in agriculture.

Dodson, Dr. John Milton, 5707 Blackstone Ave, Chicago, Ill. *Medicine*. Berlin, Wis, Feb. 17, 59. A.B, Wisconsin, 80, A.M, 88, Sc.D, 25; M.D, Rush Med. Col, 82, Jefferson Med. Col, 83; Berlin and Vienna, 96. Lecturer and demonstrator anat, *Rush Med. Col*, 89-93, *prof. physiol.* and demonstrator anat, 93-94, physiol. and histol, 94-00, *med*, 00-, junior dean, 98-99, dean, 99-23, professorial lecturer med. and dean med. courses, Chicago, 01-23; *exec. sec'y*, *bur. health and pub. instruction*, *Am. Med. Ass.*, 23- Prof, woman's med. sch, Northwestern, 93-97, Rush Med. Col, 99- A.A; Soc. Nat; Ass. Anat; Am. Med. Ass. Diseases of children.

Dodson, Prof. W(illiam) R(ufus), Baton Rouge, La. *Botany, Agronomy*. Belton, Texas, July 17, 67. Fellow, Missouri, 89-90, B.S, 90; A.B, Harvard, 94. Asst. prof. biol, Missouri, 90-94; asst, Harvard, 94; prof. bot, *Louisiana*, 94-02, asst. director, *Exp. Sta*, 02-05, *director*, 05-20, 21-, *dean col. agr*, 12-20, 21- In charge La. forestry exhib, La. Purchase Expos, 04; La. Commissioner, Jamestown Expos, 07; La. State Museum Board; La. Board Agr; La. State Conservation Commission; advisory council, Agr. Commission, Am. Bankers Ass; head agr. rela-

tions sect, Food Ad, 18. Soc. Agron; La. Nat. Soc. Bacteriology; root tubercles of legumes; rice; forage crops.

Dohan, Mrs. J(oseph) M. (Dr. Edith Hall), 3715 Chestnut St, Philadelphia, Pa. *Archeology*. New Haven, Conn, Dec. 31, 77. A.B, Smith, 99; Ph.D, Bryn Mawr, 08. Lecturer, Mt. Holyoke, 08-12; assoc. curator, Univ. Museum, Phila, 12-15; lecturer, Bryn Mawr, 23-24, 26-27. Excavations, Gournia, Crete, 04, Sphoungaras, 10, Vrokastro, 12. Prehistoric Crete.

Doherty, R(obert) E(rnest), General Electric Company, Schenectady, N. Y. *Electrical engineering*. B.S, Illinois, 09; M.S, Union, 21. Designing engineer, *Gen. Elec. Co*, 10-20, asst. to Dr. C. P. Steinmetz, 20-22, *consulting engineer*, 22- Elec. Eng. Short circuit currents; fly wheels; exciter instability; influence of altitude on temperature rise; mechanical forces due to short circuits; power transmission.

Dohme, Dr. A(lfred) R(obert) L(ouis), Roland Park, Baltimore, Md. *Pharmaceutical chemistry*. Baltimore, Feb. 15, 67. A.B, Hopkins, 86, Ph.D, 89. Asst. Fresenius's lab, Wiesbaden, Germany, 90-91; *chemist and pres*, *Sharp and Dohme*, Baltimore, 91- Instr. med. dept, Hopkins, 00-12; revision committee, U. S. Pharmacopœia. Chem. Soc; Pharmaceut. Ass. (pres, 17); Soc. Chem. Indust; Med. Pharmaceut. Ass. (pres, 98). Alkaloids; assay of drugs, especially vegetable drugs; chemistry, pharmacognosy and histology of drugs; Cascara sagrada; Podophyllum; scammony; hexyl-resorcinol.

Doisy, Edward A., St. Louis University School of Medicine, St. Louis, Mo. *Biochemistry*. Ill, Nov. 13, 93. A.B, Illinois, 14, M.S, 16; Ph.D, Harvard, 20. Asst. *biol. chem*, Harvard Med. Sch, 15-17; instr, sch. med, Washington (St. Louis), 19-20, assoc, 20-22, assoc. prof, 22-23; *prof, sch. med*, *St. Louis*, 23- Chem. Soc. Metabolism; insulin; ovarian hormones.

Dole, Prof. E(leazer) J(ohnson), 433 S. Prospect St, Burlington, Vt. *Botany*. Danville, Vt, July 4, 88. A.B, Vermont, 12, A.M, 17, M.S, 21, Ph.D, 23. Asst, *Vermont*, 19-21, instr. *bot*, 21-23, *asst. prof*, 23-; *asst. botanist*, *Vermont Exp. Sta*, 19- Vt. Bot. and Bird Clubs (sec'y-treas, 24-). Plant physiology; effects of air temperature and relative humidity on the transpiration of *Pinus strobus*; light relations of coniferous evergreen trees.

Dolid, Dr. Jacob, 132 Davenport Ave, New Haven, Conn. *Organic chemistry*. Bialystock, Russia, Sept. 30, 97. Ph.B, Yale, 19-20; M.Sc, McGill, 21, Ph.D, 23. Asst, Yale, 19-20; demonstrator, McGill, 20-23; research chemist, Roessler, Hasslacher Co, 23; Combustion Utilities Corp, 23-24; *consulting chemist*, *Bridgeport, Conn*, 25- Chem. Soc. Non-caoutchouc constituents of Hevea rubber.

Doll, Dr. Edgar A(ronld), The Training School, Vineland, N. J. *Psychology*. Cleveland, Ohio, May 2, 89. A.B, Cornell, 12; Pd.M, N. Y. Univ, 16; fellow, Princeton, 19-20, Ph.D, 20. Instr. exp. psychol, Wisconsin, 12; asst. psychologist, research lab, The Training Sch, Vine-

- land, 12-17; chief psychologist and director div. educ. and classification, N. J. Dept. Institutions and Agencies, 19-23; asst. prof. abnormal psychol, Ohio State, 23-25; *director research, The Training Sch., Vineland, 25-* Summers, asst, Cornell, 12; lecturer, N. Y. Univ, Cornell, California, Northwestern and Montana. Trustee, The Training Sch., Vineland. Lieut, Sanit.C, 17-18. A.A; Psychol. Ass. (sec'y, clin. sect, 23-26); Ass. Study Feeble-minded; Nat. Soc. Study Educ. Mental tests; anthropometry; educational, clinical and criminal psychology; feeble-mindedness.
- Dolley, Dr. Charles S(umner)**, summer, Nelson, N. H, winter, Nassau, N. P, Bahamas. *Biochemistry*. Elyria, Ohio, June 16, 56. Syracuse, 78; M.D, Pennsylvania, 82; Hopkins, 83-84; Leipzig and Naples Zool. Sta, 84-85. Prof. biol, Swarthmore, 85-88; Pennsylvania, 85-92; Cent. High Sch, Phila, 92-07; *private tech. research biol. chem*, 00- Soc. Nat; Philos. Soc; Franklin Inst; Phila. Acad. Marine biology.
- Dolley, Dr. D(avid) H(ough)**, 1402 S. Grand Boulevard, St. Louis, Mo. *Pathology*. Lexington, Va, July 18, 78. A.B, Randolph-Macon, 97, A.M, 98; M.D, Hopkins, 02. Res. pathologist, Charity Hosp, Cleveland, Ohio, 02-03; Lakeside Hosp, 03-04; research, 04-06; *prof. path*, sch. med, North Carolina, 06-10; sch. med, Missouri, 10-22; *sch. med, St. Louis, 22-* A.A; Ass. Path. and Bact; Physiol. Soc; Soc. Exp. Biol; Ass. Anat; Am. Med. Ass. Cytology of normal and abnormal conditions; pathological physiology. [*Died*, 27.]
- Dolley, Prof. W(illiam) L(ee), Jr**, University of Buffalo, Buffalo, N. Y. *Zoology*. Staunton, Va, April 13, 87. A.B, A.M, Randolph-Macon, 08; Ph.D, Hopkins, 14. Instr. *biol*, Western Reserve, 10-11; *prof*, Randolph-Macon, 14-25; asst. prof. and *prof*, Buffalo, 25- A.A; Soc. Zool. General physiology; reactions of insects to light and to intermittent light.
- Dolmage, Dr. Victor**, Geological Survey of Canada, 510 Winch Building, Vancouver, B. C, Can. *Geology*. Souris, Man. B.A, Manitoba, 12; Ph.D, Mass. Inst. Tech, 17. Austin teaching fellow, Mass. Inst. Tech, 16-17; asst. geologist, *Can. Geol. Surv*, 17-20, assoc. geologist, 20-25, geologist, 25-, *in charge B. C. branch*, 23- Geol. Soc; Soc. Econ. Geol; Can. Inst. Min. and Metal. (councilor, 25); fel. Royal Soc. Can. Economic geology; geology of British Columbia and Vancouver Island.
- Dolt, Dr. Maurice L(ouis)**, 851 Berkeley Ave, Plainfield, N. J. *Chemistry*. Dollon, France, April 16, 83. Ph.B, Brown, 06, M.S, 07, Ph.D, 08. Instr. chem, Brown, 06-08; indust. chem, Lehigh, 09-10; asst. prof. org. and anal. chem, N. Dak. Col, 10-14, *prof*, 14-19; research chemist, Am. Cotton Oil Co, 19-21; *chief chemist, pharmacut. div, Calco Chem. Co, 21-* A.A; Chem. Soc. Refining, bleaching and hydrogenation of vegetable oils; dyes; dye intermediates; pharmaceuticals.
- Dominian, Leon**, U. S. Foreign Service, Department of State, Washington, D. C. *Geography*. Constantinople, Turkey, April 13, 80. A.B, Robert Col, Constantinople, 98; Liège, 98-00.
- Explorer, Turkey, Mex. and the southwest, 01-17; geographer and ed. writer, Am. Geog. Soc, 12-17; investigator boundary problems, U. S. Dept. State, 17-18, *consul at Rome, Italy, 21-* Am. Peace Commission, 19. Ass. Geog; Polit. Sci. Ass; Wash. Acad; Oriental Soc. Frontiers of language and nationality in Europe.
- Domogalla, Dr. Bernhard (Paul)**, University Club, Madison, Wis. *Biochemistry*. Milwaukee, Wis, Aug. 20, 94. B.S, Wisconsin, 22, M.S, 23, Ph.D, 25. Chem. supervisor, Newport Chem. Co, 19-21; *lake research asst, Wisconsin and city biochemist, Wis. Geol. and Nat. Hist. Surv, 22-* A.A; Chem. Soc; Soc. Bact; Wis. Acad. Organic nitrogen and phosphorus compounds in lake water, springs and wells; proteolytic action of *Bacillus granulobacter pectinovorum*; optical rotation and acidity of flavoring extracts; lake treatments; sewage disposal; sludge as a fertilizer.
- Donaldson, Prof. H(enry) H(erbert)**, Wistar Institute of Anatomy, Philadelphia, Pa. **Neurology*. Yonkers, N. Y, May 12, 57. A.B, Yale, 79, hon. Sc.D, 06; Ph.D, Hopkins, 85. Instr. biol, Hopkins, 83-84, assoc. psychol, 87-88; asst. prof. *neur*, Clark, 89-92; *prof*, Chicago, 92-06; *Wistar Inst, 06-* Dean, Ogden Sch. of Science, Chicago, 92-98. Nat. Acad. (mem. council, 19); A.A; Soc. Nat; Neur. Ass; Ass. Anat. (pres, 16); Soc. Exp. Biol; Soc. Mammal; Physiol. Soc; Anthropol. Soc; Psychol. Ass; Philos. Soc. (councilor, 11-13); Phila. Acad. Anatomy of the nervous system, with special reference to growth and the changes due to age.
- Donaldson, Prof. John C(alvert)**, University of Pittsburgh, Pittsburgh, Pa. *Anatomy*. Rondout, N. Y, Aug. 29, 88. Ph.B, Yale, 10; M.D, Hopkins, 14. Intern psychiat, Hopkins Hosp, 14-15; instr. anat, col. med, Cincinnati, 15-19, asst. prof, 19-21; *Pittsburgh, 21-22, assoc. prof, 22-* A.A; Ass. Anat; Ass. Study Int. Secretions; Soc. Exp. Biol; Phila. Acad. Ductless glands; histology of the adrenal glands.
- Donleavy, Prof. John Joseph**, Yale University, New Haven, Conn. *Organic chemistry*. New Haven, Dec. 29, 95. Ph.B, Yale, 16, A.M, 18, Ph.D, 20. Instr. *org. chem, Yale, 18-24, asst. prof, 24-* Instr, Army Lab, Rockefeller Inst, 17. Chem. Soc. Alkylation of amines; pseudothioureas; electrolytic preparation of organic compounds.
- Donnelly, Dr. Joseph L(awrence)**, 1620 N. Fort Thomas Ave, Fort Thomas, Ky. *Physiology*. Newport, Ky, July 5, 95. A.B, Cincinnati, 17, A.M, 19, Ph.D, 21, 23-26. Instr. chem, Cincinnati, 20-21; Nat. Research Council fellow, Princeton, 21-22; *asst. pediat, Gen. Hosp, Cincinnati, 23-* Chem. Soc. Chromium compounds; toxic war gases; tetrachlordinitroethane; fixed water.
- Dooley, Dr. Lucile**, 1920 S St, N. W, Washington, D. C. *Psychology*. Stanford, Ky, Aug. 12, 84. A.B, Randolph-Macon Woman's Col, 05; A.M, Tennessee, 15; Ph.D, Clark, 16; M.D, Hopkins, 22. Asst. clin. psychiatrist, St. Elizabeth's Hosp, 16-24, med. officer, 24-25. Psychol. Ass; Psychiat. Ass; Am. Med. Ass; Woman's Med. Soc; S. Soc. Psychol. and Philos; Wash. Psy-

- choanal. Ass. (sec'y, 24); Wash. Psychoanal. Soc. Psychoanalysis; abnormal psychology; word association; genius; manic-depressive psychosis; involutional psychoses; dream psychology; diagnostic methods in endocrinology.
- Dooley, Prof. M(arion) S(ylvester)**, 309 S. McBride St, Syracuse, N. Y. *Pharmacology*. Cedar Grove, Mo, Dec. 21, 79. A.B, Missouri, 07; Michigan, 09; Harvard, 12; M.D, Syracuse, 14. Asst. physiol, Missouri, 06-07; instr. physiol. and pharmacol, col. med, Syracuse, 07-10, asst. prof, 10-11, assoc. prof, 11-17, *prof. pharmacol*, 17- Soc. Pharmacol; Soc. Exp. Biol; assoc. fel. Am. Med. Ass; Orthop. Ass. Effects of morphine and other drugs upon the respiratory center; digitalis; epinephrin upon the pupil of the eye; metabolism of the thyroid gland; respiratory effect of ether and of propylene; rectal reflexes; phenobarbital; reflex effects of anesthetics on the kidney.
- Doolittle, A(lfred) A(bel)**, 1801 K St, N. W, Washington, D. C. *Biology*. Foochow, China, Nov. 1, 70. A.B, Col. of N. J, 96; A.M, Princeton, 97. *Prof. biol*, Cent. High Sch, Washington, 00- Investigator, Bur. Fisheries, New Eng. Lakes and Mississippi River. A.A; Wash. Biol. Soc. (sec'y, 22); Wash. Biol. Field Club (sec'y-treas, 05-08, sec'y, 09). Taxonomy of Entomostraca; ecology of the freshwater Entomostraca.
- Doolittle, Dr. S(ears) P(olydore)**, University of Wisconsin, Madison, Wis. *Plant pathology*. Beaver Dam, Wis, March 21, 90. B.S, Mich. State Col, 14, M.S, 15; Ph.D, Wisconsin, 18. *Plant pathologist*, veg. and forage disease investigations, U. S. Dept. Agr, Wisconsin, 18-A.A; Phytopath. Soc. Mosaic diseases of cucumbers, peas and tomatoes.
- Doran, Prof. William L(eonard)**, Massachusetts Agricultural College, Amherst, Mass. *Plant pathology*. Dartmouth, Mass, July 28, 93. B.S, Mass. Col, 15, M.S, 17. Instr. bot. and asst. botanist, N. H. Exp. Sta, 16-17; sci. asst, bur. plant indust, U. S. Dept. Agr, 17-19; asst. prof. bot, New Hampshire, and asst. botanist, Exp. Sta, 19-23; *research prof*, Mass. Exp. Sta, 23- Phytopath. Soc. Plant pathology; plant protection.
- Dorcus, Dr. Roy M(elvin)**, Johns Hopkins University, Baltimore, Md. *Psychology*. Woodsboro, Md, Feb. 9, 01. A.B, Hopkins, 22, A.M, 24, Ph.D, 25. *Instr. psychol*, Hopkins, 25- Soc. Abnormal and Gen. Psychol. Aesthetics of color; personality traits; mental traits of athletes; vestibular investigation; tobacco effects.
- Dore, Prof. Walter H(arrington)**, 18 Bridge Road, Berkeley, Calif. *Chemistry*. San Francisco, Calif, March 24, 82. B.S, California, 07. Asst. chemist, Standard Oil Co, 05; chemist, San Francisco Chem. Co, 07-08; Leona Chem. Co, 09-11; asst. chemist, State Fertilizer Control, 12-20; instr. chem, California, 20-21, *asst. prof*, 21- A.A; Chem. Soc. Plant nutrition; chemistry of wood and pectin; carbohydrate metabolism.
- Dorety, Sister Angela Helen**, College of Saint Elizabeth, Convent Station, N. J. *Botany*. Kaolin, S. C, May 4, 70. A.B, St. Elizabeth, 03; A.M, Chicago, 07, fellow, 08-09, Ph.D, 09. *Prof. bot. and head dept*, St. Elizabeth, 09-A.A; Bot. Soc. Plant physiology; physiographic plant ecology.
- Dorland, Dr. W(illiam) A(lexander) Newman**, 23 E. Washington St, Chicago, Ill. *Medicine*. Hilton Head, S. C. A.B, Cent. High Sch, Phila, 82, A.M, 90; M.D, Pennsylvania, 86. Assoc. prof. gynec, Phila. Polyclinic, 92-10; *prof. obstet. and gynec*, Loyola, 10-14; *gynec*, Valparaiso, 14-19; *Post-Grad. Med. Col*, Chicago, 13- Lieut, M.R.C, 97-03, capt, 17, major, 18, lieut. col, 24. Fel. Am. Med. Ass; Col. Surg; fel. Am. Acad. Med. (past v. pres); fel. Phila. Col. Physicians; Chicago Gynec. Soc. (v. pres, 20, pres, 26). Surgery; hydatidiform mole; chorioepithelioma; placental transmission; age of mental virility; action of X-rays on living tissue; sum of feminine achievement.
- Dorman, Henry P(ickett)**, Mayo Clinic, Rochester, Minn. *Parasitology*. Moultrie, Ga, Sept. 22, 98. B.S, Georgia, 22; M.S, Illinois, 24, Ph.D, 27. Asst. zool, Illinois, 22-26; research fellow, Mayo Clinic, 26-27. Fellow, Cold Spring Harbor, 23; research asst, Scripps Inst, 25. A.A; Soc. Parasitol; Micros. Soc. Animal parasitology; nematology; distribution of marine Protozoa.
- Dorner, Prof. H(erman) B(ernard)**, Urbana, Ill. *Horticulture*. Lafayette, Ind, April 10, 78. B.S, Purdue, 00, M.S, 01. Asst. bot, Ind. Exp. Sta, 01-02; Wabash, 06-08; *floricult*, Illinois, 08-11, asst. prof. and asst. chief, 11-18, *prof. and chief*, 18- A.A. Window gardening.
- Dorr, John V(an) N(ostrand)**, 247 Park Ave, New York, N. Y. *Metallurgy*. Newark, N. J, Jan. 6, 72. B.S, Rutgers, 94, hon. M.E, 14. Edison's lab, 88-90; indust. research, 94-95; indust. chemist, 95-01; managing partner, Lundberg, Dorr and Wilson, 01-13; *consulting metallurgist*, 01-; *pres*, Dorr Cyanide Machinery Co, 10-15; *Dorr Co, engineers*, 16-; *Pettis and Dorr*, 20- Trustee, Rutgers. John Scott medal, Franklin Inst. Min. and Metal. Soc; Min. and Metal. Eng; Min. Eng; Electrochem. Soc; Chem. Eng; Chem. Soc; Colo. Sci. Soc; Can. Inst. Min. and Metal; London Inst. Min. and Metal; S. Africa Chem. Metal. and Min. Soc. Hydrometallurgical apparatus; apparatus for handling finely divided solids suspended in liquids.
- Dorset, Dr. M(arion)**, U. S. Department of Agriculture, Washington, D. C. *Bacteriology, Chemistry*. Columbia, Tenn, Dec. 14, 72. B.S, Tennessee, 93; Pennsylvania, 93-94; M.D, George Washington, 96. Asst. biochem. div, U. S. Dept. Agr, 94-01, *asst. chief*, 01-04, *chief*, 04- Demonstrator, George Washington, 97-98. A.A; Soc. Bact; Chem. Soc; Pub. Health Ass; Tuber. Ass. Chemistry and biology of B. tuberculo-sis; etiology and prevention of hog cholera; chemistry and bacteriology of meats.
- Dorsett, P(alemon) H(oward)**, U. S. Department of Agriculture, Washington, D. C. *Agriculture*. Carlinville, Ill, April 21, 62. A.B, Missouri, 84. Special agent, bur. plant indust, U. S. Dept.

- Agr, 01-04, in charge plant introduction garden, Chico, Calif, 04-07, plant introducer, office for seed and plant introduction, 09-23. Leader, U. S. agr. exped, Brazil, 13-14, China and Manchuria, 24-27. A.A.; Genetic Ass; Wash. Bot. Soc; Manchurian Research Soc. Hydrocyanic acid for greenhouse fumigating; spot disease of violet; culture of violets; Bahia navel orange; Brazilian fruits; bulb growing.
- Dorsey, Dr. Geo(rge) A(mos)**, 35 W. 9th St, New York, N. Y. **Anthropology*. Hebron, Ohio, Feb. 6, 68. A.B, Denison, 88, LL.D, 09; A.B, Harvard, 90, Ph.D, 94. Instr. anthropol, Harvard, 95-96; asst. curator anthropol, Field Museum Nat. Hist, 96-97, curator, 97-15; prof. comp. anat, Northwestern, 00-13; asst. prof. anthropol, Chicago, 05-09, assoc. prof, 09-15; *director, New Sch. Social Research, New York, 25-* Assoc. ed, 'Am. Anthropologist,' 99-Lieut. commander, U.S.N.R.F., 18-22. Nat. delegate, Cong. d'Archeol. et d'Ethnol. Prehist, Paris, 00. Commander, Orders of Aviz and Santiago. A.A. (v. pres, 03); Soc. Nat; Ass. Anat; Folk-Lore Soc. (pres, 02); Ass. Mus; Wash. Acad; Chicago Geog. Soc. (pres, 08); cor. mem. Anthropol. Societies of Washington, Stockholm, Paris and Berlin; hon. mem. Paris Soc. des Américanistes. The lumbar curve; comparative sizes of heads of long bones; anthropology of American aborigines; the nature and behavior of man; evolution of Darwin.
- Dorsey, Dr. Geo(rge) Edwin**, 1432 John St, Baltimore, Md. *Geology*. Baltimore, July 13, 92. A.B, Hopkins, 14, fellow, 17-18, Ph.D, 18. Geologic aid, U. S. Geol. Surv, 16-18; chief subsurface geology, Carter Oil Co, 18-20, consulting geologist, 20-26; *chief geologist, Magnolia Petroleum Co, Texas, 26-* Origin of the color of Red Beds; present status of the carbon-ratio theory; stratigraphy and structure of the Newark system.
- Dorsey, Dr. Herbert Grove**, U. S. Coast and Geodetic Survey, Washington, D. C. Gloucester, Mass. *Physics*. Kirkersville, Ohio, April 24, 76. B.S, Denison, 97, M.S, 98; Hopkins, 97; Harvard, 00-01; Ph.D, Cornell, 08. Instr. physics, Maine, 98-00; asst. prof, Florida, 01-03; instr, Mechanics Inst, Rochester, 03-04; asst, Cornell, 04-05, instr, 05-10; engineer, research branch, West. Elec. Co, 10-12; elec. engineer, Nat. Cash Register Co, 12-16; physicist, Hammond Radio Research Lab, 16-22; research engineer, Submarine Sig. Corps, 22-26; *senior elec. engineer, U. S. Coast and Geod. Surv, 26-* A.A; Physical Soc; Elec. Eng; Radio Eng. Effects of magnetism on the elasticity of rods; coefficients of expansion at low temperatures; magnetostriction; electroculture; sound controlled submarine mines; radio-sonic control of torpedoes; acoustical apparatus; phonelescope; loud-speaking telephones; oscillograph; visual measurement of short time intervals; application to ocean depth measurements by sound waves; fathometer; radio acoustic ranging.
- Dorsey, Prof. M(axwell) J(ay)**, University of Illinois, Urbana, Ill. *Horticulture*. Dresden, Ohio, May 3, 80. B.S, Mich. State Col, 06; M.S, Cornell, 10, Ph.D, 13. Instr. hort, Maine, 06-07; asst. horticulturist, N. Y. Exp. Sta, Geneva, 07-10; asst. plant breeding, Cornell, 10-11; in charge fruit breeding, Minn. Exp. Sta, 11-21; hort, West Virginia, 21-25; *chief pomol, Illinois, 25-* A.A; Soc. Hort. Sci. (pres, 24); Bot. Soc; Minn. Hort. Soc. Fruit breeding; history and taxonomy of fruits; sterility, inheritance and hardness in fruits; flower types in the grape; winter injury; adaptation; bud variation.
- Dorsey, Dr. N(oah) Ernest**, Cosmos Club, Washington, D. C. **Physics*. Annapolis Junction, Md, March 15, 73. A.B, Hopkins, 93, fellow, 96-97, Ph.D, 97. Student asst. physics, Hopkins, 93-96, asst, 97-99, assoc, 99-01; asst. physicist, bur. soils, U. S. Dept. Agr, 01, scientist, 02-03; asst. physicist, Bur. Standards, 03-07, assoc. physicist, 07-12; research assoc, Carnegie Inst, 12-13; assoc. physicist, Bur. Standards, 13-17, physicist, 17-25; *consulting physicist, 20-* Research fellow, Yerkes Observatory, 99. Assoc. ed, 'Int. Critical Tables,' 22- A.A; Physical Soc; Radium Soc; Radiol. Soc; Electrotherapeut. Ass; Optical Soc; Wash. Acad; Wash. Philos. Soc; Soc. de Physique. Capillarity; light; physics of soils; ratio of electrical units; absolute measurements in electricity; radioactivity; self-luminous materials; X-rays; viscosity; lightning; physics of medical sciences.
- Dosdall, Dr. Louise**, University Farm, St. Paul, Minn. *Plant pathology*. A.B, Minnesota, 16, A.M, 17, Ph.D, 22. Teaching fellow, Macalester, 16-17; asst. plant path, Minnesota, 17-20; *mycologist, Minn. Exp. Sta, 20-* A.A; Phytopath. Soc. Plant ecology.
- Doten, Prof. S(amuel) B(radford)**, University of Nevada, Reno, Nev. *Entomology*. Gold Hill, Nev, Dec. 14, 75. B.S, Nevada, 98, fellow, 98-99, A.M, 12. Asst. entom, Nevada, 99-02, asst. prof, 02-06, *prof, 06-*, *director, Exp. Sta, 13-* A.A; Entom. Soc; Pacific Coast Entom. Soc. Economic entomology; Anabrus; Gossyparia spuria; ecological relationships of the San Jose scale; parasites of the codling moth; relation of nutrition to reproduction and longevity in hymenopterous parasites; photography of insects.
- Doty, Prof. H(iram) S(moots)**, 911 N. Buxton St, Indianola, Iowa. *Botany*. Massilon, Iowa, Jan. 11, 89. B.S, Iowa Col, 12, M.S, 15; Chicago. Asst. and instr. bot, Iowa Col, 13-16; instr, Kansas Col, 16-17; *prof. biol, Simpson (Iowa), 19-* A.A; Bot. Soc; Iowa Acad. Ecology.
- Doubleday, Dr. Arthur William**, Woodstock, Vt. *Microchemistry*. Springfield, Vt, March 20, 78. D.M.D, Tufts, 03. A.A; Am. Med. Ass; Chem. Soc; Micros. Soc; fel. Am. Acad. Dental Sci; Nat. Dental Ass. Diagnosis by salivary analysis; chemical changes of foodstuffs during digestion; photomicrographs of chemical salts.
- Doubt, Prof. Sarah L(ucinda)**, Topeka, Kans. *Botany*. Louisville, Ky, Feb. 6, 80. B.S, Nebraska, 03; M.S, Chicago, 08, Ph.D, 15. Instr. bot, St. Clara, 13-14; *prof. biol, Winona, 16-* 17; McKendree, 17-20; *bot, Washburn, 20-* A.A; Bot. Soc. Plant physiology; genetics.

Doubt, Prof. Thomas E(aton), 5402 Drexel Ave, Chicago, Ill. *Physics*. Louisville, Ky, Feb. 15, 70. B.S. Nebr. Wesleyan, 92; fellow, Nebraska, 94-97, A.M., 96; fellow, Chicago, 03-04, Ph.D., 04. Instr. physics, Nebr. Wesleyan, 92-94; prof, Washington (Seattle), 97-02; assoc. prof, Armour, 04-23; *physicist*, *Underwriters' Laboratories*, 23- A.A.; Physical Soc. Absolute color equation; effect of the intensity upon the velocity of light; effect of the motion of the medium upon the velocity of light; Talbot's hands and the resolving power of the spectro-scope; the absorption of gases by charcoal.

Dougherty, Prof. Gregg, 46 Princeton Ave, Princeton, N. J. *Organic chemistry*. Steubenville, Ohio, Nov. 14, 92. B.S. Princeton, 17, A.M., 19, Charlotte Elizabeth Procter fellow, 19, Ph.D., 21. Junior chemist, U. S. Bur. Mines, 17; instr. chem, Princeton, 20-23, asst. prof, 23- Lieut. C.W.S., 18. Chem. Soc. Catalytic hydrogenation; velocity measurements of organic reactions; syntheses of organic compounds containing sulphur.

Dougherty, Prof. J(ohn) E(dwin), University Farm, Davis, Calif. *Poultry husbandry*. New York, N. Y., July 29, 87. B.S.A., Cornell, 11; M.S., Wisconsin, 25. Instr. *poultry husbandry*, Purdue, 11-12; asst. prof, California, 12-16, assoc. prof, 16- Poultry Sci. Ass (v. pres, 18). Brooding, feeding, culling, housing and management of poultry; biology of reproduction in poultry.

Dougherty, Prof. N(athan) W(ashington), University of Tennessee, Knoxville, Tenn. *Civil engineering*. B.S. Tennessee; C.E., M.C.E., Cornell. Instr. *civil eng*, Cornell, 10-14; asst. prof, George Washington, 14-16; assoc. prof. and prof, Tennessee, 16- Civil Eng. Highway economics and transport.

Doughty, Prof. Howard W(aters), Amherst, Mass. *Chemistry*. Baltimore, Md, Aug. 13, 71. Proficient in elec. eng, Hopkins, 93, fellow, 03-04, Ph.D., 04, fellow by courtesy, 04-05; hon. A.M., Amherst, 16; B.E., Hopkins, 27. Carnegie research asst, 04-05; instr. chem, Missouri, 05-06; Wisconsin, 06-07; Amherst, 07-08, asst. prof, 08-09, assoc. prof, 09-13, prof, 13- A.A.; Chem. Soc. Organic chemistry; diphenylsulphone orthocarboxylic and benzeneselenonic acids and their related compounds; derivatives of trimethylparaconic and of camphoronic acids; organo-selenic acids; reactions with various metals of compounds containing the trihalogen methyl group; dichloro-acetic acid and related compounds.

Douglas, Prof. F(rank) W(illiam), Colorado College, Colorado Springs, Colo. *Chemistry*. Galesburg, Mich, Oct. 19, 78. A.B., Albion, 05; A.M., Michigan, 08; Ph.D., Cornell, 19. Asst. prof. chem, Albion, 08-18; assoc. prof, Colo. Col, 19-21, prof. and head dept, 21- A.A.; Chem. Soc. Germanium.

Douglas, Dr. Gertrude E(lizabeth), New York State College for Teachers, Albany, N. Y. *Botany*. Gardner, Mass, March 12, 83. A.B., Smith, 04; A.M., Cornell, 07, fellow, 14-15, Ph.D., 17. Instr. bot, Randolph-Macon, 09-13; Lake Erie,

15-17; N. Y. State Col. Agr, Cornell, 17-19; *biol*, N. Y. State Col. Teachers, 19- A.A.; Bot. Soc. Morphology of agarics; histology of higher plants.

Douglas, Dr. Jesse, 284 Eastern Parkway, Brooklyn, N. Y. *Mathematics*. New York, N. Y., 97. B.S. Col. City of N. Y., 16; fellow, Columbia, 17-18, Ph.D., 20. Instr. math, Columbia, 20-26; Nat. Research Council fellow, Princeton, 26-27. Math. Soc. Differential geometry.

Douglas, Dr. John, 568 Park Ave, New York, N. Y. *Surgery*. New York, Aug. 5, 75. B.S. Col. City of N. Y., 94; M.D., Columbia, 98. *Clinical prof. surg*, N. Y. Univ, 12- Attending surgeon, Bellevue Hosp, 12-; assoc. surgeon, St. Luke's Hosp, 16-; surgical director, Knickerbocker Hosp, 21. Fel. Col. Surg; Surg. Ass; Am. Med. Ass; N. Y. Surg. Soc; N. Y. Acad. Med.

Douglas, Prof. John F. H., Marquette University, Milwaukee, Wis. *Electrical engineering*. Bucksport, Maine, Oct. 9, 84. B.S., Mass. Inst. Tech, 05; Ph.D., Cornell, 14. Instr. elec. eng, Cornell, 07-14; physics, Iowa Col, 14-17; asst. prof, Agr. and Mech. Col. Texas, 17-20; assoc. prof. elec. eng, Marquette, 21- Elec. Eng; Eng. Educ; Physical Soc. Magnetic and electrostatic fields in machinery.

Douglass, Dr. A(ndrew) E(llicott), University of Arizona, Tucson, Ariz. *Astronomy*. Windsor, Vt, July 5, 67. A.B., Trinity (Conn), 89, hon. Sc.D., 08. Asst, Harvard Col. Observatory, 89-94; first asst, Lowell Observatory, 94-01; probate judge, Coconino Co, Ariz, 02-06; prof. physics and astron, Arizona, 06-18, astron. and director, Steward Observatory, 18- Instr, North. Ariz. Nor. Sch, 05-06. A.A. (pres, southwest. div, 21, v. pres. and chairman, sect. D, 25); Astron. Soc; fel. Meteor. Soc. (v. pres, 24-25); fel. Am. Geog. Soc; Pacific Astron. Soc; hon. mem. S. Calif. Acad; fel. Royal Astron. Soc. Mars; Jupiter's satellites; observatory sites; climatic and solar cycles in tree ring growth; periodograph analysis.

Douglass, Earl, University of Utah, Salt Lake City, Utah. *Geology*. Medford, Minn, Oct. 23, 62. South Dakota, 88; S. Dak. Col, 89, 92; B.S., Iowa Col, 93; M.S., Montana, 00; fellow, Princeton, 00-02. Teacher pub. schools, 83-97; supt, schools, Mont, 97-98; teacher sciences, Montana, 09-00; asst. vert. paleont, Carnegie Museum; in charge lab. work, dinosaur collection, Utah. Asst. to Prof. Wm. Trelease, Mo. Bot. Garden, St. Louis, 90-91. Discoverer dinosaur quarry, Utah, 09. Vertebrate paleontology; geology and paleontology of western Montana and of the Uintah Basin in Utah and Colorado; dinosaurs.

Douglass, J(ames) R(obert), P. O. Box 353, Estancia, N. Mex. *Entomology*. Asbury, S. C., Nov. 8, 94. B.S., Clemson, 18; Cornell, 22; M.S., Kansas Col, 23. Field asst, bur. entom, U. S. Dept. Agr, 21, sci. asst, 21-22, junior entomologist, 23-24, asst. entomologist in charge, Estancia Field Sta, 24- A.A.; Entom. Soc; Ass. Econ. Entom; Ecol. Soc. The squash beetle in Arizona; Chrysomelidae of Kansas; Mexican bean beetle in the western states.

- Douty, D(aniel) E(llis)**, 316 Hudson St, New York, N. Y. *Physics, Engineering*. Omro, Wis, April 3, 72. B.S, Washington (Seattle), 92; fellow, Clark, 98-01; Cornell, 01, 03. Asst. and tutor physics, Washington, 95-98; supervisor, dept. physics, math. and chem, high sch, Seattle, 01-03; asst. physicist and assoc. physicist, Bur. Standards, 03-12; *v. pres*, U. S. Test. Co, Inc, 12- A.A; Physical Soc; Soc. Test. Mat; Mech. Eng; Wash. Philos. Soc. General and textile testing.
- Dove, Prof. Leonard P(ercy)**, University, N. Dak. *Geology*. Guthrie Co, Iowa, April 20, 83. B.S, Simpson, 09; M.S, Chicago, 22. Instr. and prin, high schools, Iowa and S. Dak, 09-16; instr. *geol*, Northwestern, 18-19; *asst. prof*, North Dakota, 19-; *manager*, Dakalite Products Co, 25- Field asst. and asst. geologist, U. S. Bur. Mines, 18; Ind. Geol. Surv, 18; asst. state geologist, N. Dak. Geol. Surv, 19- N. Dak. Acad. (exec. committee, 25-). Pyrite in the coals of Indiana; lignite of North Dakota; Dakalite dyes and stains from lignite.
- Dove, Walter E**, Box 208, Dallas, Texas. *Entomology*. Hamburg, Miss. B.S, Miss. Agr. and Mech. Col, 13. Commercial work, 19-24; *bur. entom*, U. S. Dept. Agr, 13-17, *asst. entomologist*, 24- A.S, U.S.A, 17-19. Overwintering of the house fly; bots of horses; creeping eruption.
- Dover, Dr. Mary Violette**, University of Missouri, Columbia, Mo. *Chemistry*. Peterboro, Ont, Can. B.A, McGill, 98, M.S, 00; Ph.D, Breslau, 08. Demonstrator *chem*, McGill, 00-05; instr, Mt. Holyoke, 09-14; instr. and *asst. prof*, Missouri, 15- Chemist, Hercules Powder Co, 18-19. A.A; Chem. Soc. (treas, Mo. sect, 22-). Lubricants; heats of combustion of oils and gases.
- Dow, A(llan) W(ade)**, 131 E. 23d St, New York, N. Y. *Chemical engineering*. New York, Aug. 24, 66. Ph.B, Columbia, 88. Asst. chemist, Barber Asphalt Paving Co, 88-94; inspector asphalt and cements, D. C, 94-06; *consulting chem. engineer*, 06- A.A; Chem. Soc; Chem. Eng; Soc. Chem. Indust; Soc. Test. Mat; Int. Ass. Test. Mat. Road building; manufacture and testing of petroleum, bitumens and paving materials.
- Dow, Herbert H(enry)**, Midland, Mich. **Chemistry*. Belleville, Ont, Can, Feb. 26, 66. Grad, Case, 88; hon. D.E. Prof. chem. and toxicol, Huron Hosp. Col, 88-89; *Midland Chem. Co*, *Dow Process Co. and Dow Chem. Co*, 89-, *gen. manager*, Dow Chem. Co, 97-, *pres*, 18- Mem. corp, Case. Chem. Soc; Chem. Eng; Electrochem. Soc; Franklin Inst; London Soc. Chem. Indust. Manufacture of bromids from natural brine; electrolytic cells.
- Dow, Prof. Peter S(taub)**, Dartmouth College, Hanover, N. H. *Engineering*. Knoxville, Tenn, Feb. 11, 87. Tennessee; C.E, Dartmouth. *Instr. eng. and graphics*, Dartmouth, 11-17, *asst. prof*, 17-25, *prof*, 25- Asst. supt, Hastings Pavement Co, 11. Summers, instr, Stevens, 12, 13. Concrete highway inspector, Ass. of Am. Portland Cement Manufacturers, 14. Instr, Dartmouth Training Detachment, N.A, 18. Civil Eng; N. H. Acad. Highways; sanitation; septic tank.
- Dowd, Dr. Charles N(orth)**, 580 Park Ave, New York, N. Y. *Surgery*. New Britain, Conn, 58. A.B, Williams, 79, A.M, 82, hon. Sc.D, 24; M.D, Columbia, 86. Attending surgeon, Gen. Mem. Hosp, 94-14; St. Mary's Free Hosp. for Children, 04-14; Roosevelt Hosp, 10-24; *prof. clin. surg. col. physicians and surg*, Columbia, 06- Consulting surgeon, hospitals, New York. Col. Surg; fel. Surg. Ass; Am. Med. Ass; N. Y. Surg. Soc; N. Y. Acad. Med; Int. Soc. Surg.
- Dowell, Dr. C(arr) T(homas)**, 416 West St, Stillwater, Okla. *Agricultural chemistry*. Mt. Sylvan, Texas, Dec. 3, 78. A.B, Texas Christian, 01; B.S, Texas, 02; Ph.D, California, 15. Teacher, nor. schools, Okla, 07-10; instr. chem, Texas, 10-16; assoc. prof, Tulane, 16-18; station chemist, Okla. Exp. Sta, 18-22, *director*, 22-; acting dean *sch. agr*, Okla. Agr. and Mech. Col, 23-24, *dean*, 24- A.A; Chem. Soc. The reactions of nitrogen trichloride; bolly refuse; the action of furfural and dextrose on amino-acids and protein hydrolsates; cyanogenesis in sudan grass; Francis-Connell method of determining hydrocyanic acid; phenylhydrazine method of determining pentosans; saccharine sorghum silage; farm profits.
- Dowell, Dr. Philip**, 86 Bond St, Port Richmond, N. Y. *Botany*. Attica, Ind, Dec. 3, 64. A.B, Augustana, 85, Ph.D, 00; Nebraska, 93; Ph.B, Yale, 95, A.M, 96, forest sch, 01; Columbia, 96-97; Woods Hole, 96, 99. Instr. bot, Augustana, 89-90; Hope Acad, Moorhead, Minn, 90-91; asst. biol, Yale, 95-96; prof. science, Upsala, 96-97; nat. and applied sciences, Muhlberg, 97-02; *asst. teacher biol*, high schools, New York, 02- Summers, asst, U. S. Nat. Museum, 02-04, 08, asst. curator, 10, 11, 13, 15, 17, 18. A.A; Bot. Soc; Entom. Soc; Fern Soc. (pres, 11, ed, 11, 12); Torrey Bot. Club (assoc. ed, 07-10, ed, 11, 12); N. Y. Ass. Biol. Teachers; N. Y. Entom. Soc; Wash. Biol. Soc; Staten Isl. Inst. Arts and Sci. (chairman, pub. committee, hon. curator bot); British Pterid. Soc. North American species of Calceolaria; new ferns as hybrids in the genus Dryopteris; violets of Staten Island; flora of New York; ferns; violets; nature bibliography.
- Dowling, Prof. L(innaeus) W(ayland)**, 2 Roby Road, Madison, Wis. **Mathematics*. Medina, Mich, Dec. 7, 67. Adrian, 89-90; Ph.D, Clark, 95. Instr. *math*, Wisconsin, 95-97, asst. prof, 98-14, *assoc. prof*, 14- A.A; Math. Soc; Math. Ass; Circolo Mat. di Palermo. Analytic and projective geometry; forms of plane quintic curves; higher plane curves; conformal representation of plane triangles upon the upper half-plane; the branches of a plane sextic curve; involutions in the plane; mathematics of life insurance.
- Downey, Prof. Hal**, University of Minnesota, Minneapolis, Minn. *Histology*. State College, Pa, Oct. 4, 77. A.B, Minnesota, 03, A.M, 04, Ph.D, 09. Asst, instr. and *prof*, animal biol, Minnesota, 04-17, *histol*, 17- A.A; Ass. Anat; Minn. Path. Soc. Hematology.

- Downey, Prof. John F(lorin)**, University of Minnesota, Minneapolis, Minn. *Mathematics*. Hiramsgburg, Ohio, Jan. 10, 46. B.S., Hillsdale, 70, A.M. 78; Michigan, 72-73; C.E., Pa. State, 77; Edinburgh and Göttingen, 01-02. Instr. math, Hillsdale, 70-71; prin, high sch, Mich, 71-72; prof. math, Pa. State, 73-80; Minnesota, 80-14, emer. prof, 14-, dean col. sci, lit. and arts, 03-14, dean emer, 14- Prof., Nanking, 16-18, Peking, 18-19; lecturer, colleges in Constantinople, Beirut, Cairo, Asyut and Athens, 24-26. A.A.; Math. Soc. The shortening of various algebraic operations; new revelation through the spectroscope and telescope.
- Downey, Prof. June E(tta)**, University of Wyoming, Laramie, Wyo. **Psychology*. Laramie, July 13, 75. A.B., Wyoming, 95; A.M., Chicago, 98, fellow, 06-07, Ph.D., 07. Instr. English, Wyoming, 98-05, prof. philos, 05-15, *psychol. and philos*, 15-, prin, dept. univ. exten, 08-16. Summer, lecturer, Chicago, 20. A.A.; Psychol. Ass. (councilor, 23-25). Handwriting; psychology of literature; will temperament tests; laterality of function.
- Downing, Dr. E(liot) R(owland)**, University of Chicago, Chicago, Ill. *Zoology, Education*. Boston, Mass., Nov. 21, 68. B.S., Albion, 89, M.S., 94; Ph.D., Chicago, 01. Instr. science, Beloit, 91-96; asst. zool, Chicago, 00-01; prof. biol, Northern State Nor. Sch, Mich, 01-11; asst. prof. nat. science, Chicago, 11-14, assoc. prof, 14-, asst. dean, 12-16. Ed, 'Univ. Chicago Sch. Science Series.' A.A.; Nature Study Soc. (sec'y-treas, ed, 11-17); Mich. Acad. Spermatogenesis of Hydra and Arenicola; oögenesis of Hydra; muscle movement in Pelecy-poda; heredity; pedagogy of science.
- Downs, Prof. Ardrey W(hidden)**, 11036 88th Ave, Edmonton, Alta, Can. *Physiology, Pharmacology*. Philadelphia, Pa, Aug. 17, 82. M.D., Pennsylvania, 04; D.Sc., McGill, 20. Asst, Pennsylvania, 07-09; assoc. prof, Temple, 09-14; prof, Medico-Chirurg. Col. Phila, 14-16; assoc. prof, McGill, 16-20; prof, Alberta, 20- Physiologist; Ass. Study Int. Secretions; British Ass; British Physiol. Soc. Internal secretions.
- Downs, Dr. Charles R(aymond)**, Weiss and Downs, 50 E. 41st St, New York, N. Y. *Chemistry*. New Haven, Conn, March 17, 88. Ph.B., Yale, 09, Ph.D., 12. Chemist, Barrett Co, 12-16, chief chemist, research dept, 16-22; partner, Weiss and Downs, 23- Potts medal, Franklin Inst, 22; Grasselli medal, 26. Research consultant, C.W.S. A.A.; Chem. Soc. (trustee exec. committee, v. chairman and councilor, N. Y. sect); Chem. Eng; Inst. Chem; Gas Ass; Min. and Metal. Eng; N. Y. Chemists Club (res. v. pres. and trustee); N. Y. Soc. Professional Eng; N. J. Soc. Professional Eng.
- Downs, Prof. Cornelia M(itcheil)**, 1203 Oread, Lawrence, Kans. *Bacteriology*. Kansas City, Kans, Dec, 93. A.B., Kansas, 15, A.M., 20, Ph.D., 24. Instr. bacter, Kansas, 17-21, asst. prof, 21-25, assoc. prof, 25- Soc. Bact. Metabolic and antigenic studies on Bacillus typhosus; antigenic properties of tissue fibrinogen.
- Downs, Dr. Edgar S(elah)**, 5209 Catharine St, Philadelphia, Pa. *Experimental physics*. South-ington, Conn, Sept. 25, 74. A.B., Yale, 98, Sloane fellow, 99-01, Ph.D., 01. Asst. physics, Yale, 99-01; asst. ed, 'N. Y. Elec. Rev,' 01-02; instr. science, De Lancey Sch, Phila, 02; Thurst-ton Prep. Sch, 02-03; eng. apprentice, West-inghouse Elec. and Mfg. Co, 03-05; erecting engineer, 05-06; instr. elec. eng, Cooper Union, 06-07; tutor, Columbia, 07-08; pres, E. S. Downs Co, 11- A.A. Spectrum analysis.
- Downs, Prof. Paul Andrew**, 1301 N. 38th St, Lin-coln, Nebr. *Dairy husbandry*. Waterbury, Conn, March 4, 91. B.S., Conn. Col, 18; M.S., Cornell, 20, Ph.D., 23. Instr. dairy bacter, Cornell, 18-23; prof. dairy husbandry, Nebraska, 23- Bacter-ial thickening of sweetened condensed milk; powdered milk; ice cream.
- Dox, Dr. Arthur W(ayland)**, Parke, Davis and Co, Detroit, Mich. *Chemistry*. Corning, N. Y., Sept. 19, 82. B.S., Pennsylvania, 04; A.M., Columbia, 05; Ph.D., Yale, 09. Chemist, dairy div, U. S. Dept. Agr, 05-10; chief chemist, Iowa Exp. Sta, 10-20; research chemist, Parke, Davis and Co, 20- Capt, food div, Sanit.C, 17-19; lieut. col. C.W.S., O.R.C., 23- Chairman committee on hypnotics, Nat. Research Council, 25. A.A.; Chem. Soc. (sec'y, div. biol. chem, 20, chairman, 21, sec'y, div. chem. of med. prod-ucts, 26); Soc. Biol. Chem; Iowa Acad. Or-ganic and biological chemistry; synthesis of naphthotetrazin; cheese ripening; enzymes of fungi; polysaccharids of lower fungi; silage; gelatinization of starch; barbituric acids; heterocyclic derivatives; synthetic drugs.
- Doyle, L(eo) P(hilip)**, Purdue University, West Lafayette, Ind. *Animal pathology*. Loogootee, Ind, Oct. 15, 85. B.S., Purdue, 11; M.S., Michi-gan, 24. Teacher, high sch, Minn, 11-14; asst. animal pathologist, Purdue, 15-18, assoc. animal pathologist, 18- Paratyphoid bacilli from chicks; rickets in chickens; swine dysentery; pathogenic bacteria in hog cholera blood; in-fectious abortion of swine.
- Dozier, Prof. Carrie Castle**, Utah Agricultural College, Logan, Utah. *Home economics*. White-house, Ohio, June 13, 83. B.S., Oregon Col, 18; A.B., California, 18, A.M., 19, Hooper Founda-tion research fellow, 20-23, Ph.D., 23. Prof. foods and nutrition and dean sch. home econ, Utah Col, 23- Bacteriology; biochemistry.
- Dozier, Prof. H(erbert) L(awrence)**, Delaware Agricultural Experiment Station, Newark, Del. *Entomology*. Wilmington, N. C, June 24, 95. B.S., South Carolina, 15; M.S., Florida, 17; fel-low, Ohio State, 19-20, 21-22, Ph.D., 22; Univ. de Clermont-Ferrand, France, 19. Asst. ento-mologist, State Plant Board, Miss, 20-21; ento-mologist in charge, New Orleans sta, bur. entom, U. S. Dept. Agr, 22-23; entomologist, Gulf Coast Citrus Exchange, Ala, 23-24; chief entomologist, Insular Exp. Sta, P. R., 24-25; entomologist, Del. Exp. Sta, 25- Entom. Soc; Ass. Econ. Entom; Fla. Entom. Soc. Economic and systematic entomology.
- Drabkin, Dr. David L(ion)**, University of Penn-sylvania, Philadelphia, Pa. *Physiological chem-*

- istry*. Russia, May 3, 99. A.B. Col. City of N. Y., 19; M.D. Cornell, 24. *Nat. Research Council fellow med*, Yale, 24-26; *Pennsylvania*, 26- Soc. Exp. Biol; Phila. Physiol. Soc. Anhydremia; urinary pigments; surface area.
- Dragstedt, Prof. Lester R(eynold)**, University of Chicago, Chicago, Ill. *Physiology, Experimental surgery*. Anaconda, Mont., Oct. 2, 93. B.S., Chicago, 15, M.S., 16, Ph.D., 20, M.D., 21. Assoc. physiol., Chicago, 15-16; instr. pharmacol., Iowa, 16-17, asst. prof. physiol., 17-19; Chicago, 19-23; prof. physiol. and pharmacol., Northwestern, 23-25; *assoc. prof. surgery, Chicago, 25-* Lieut., U.S.A., 18-19. A.A.; Physiol. Soc; Am. Physicians; Am. Med. Ass; Soc. Exp. Biol; Chicago Inst. Med. Pathogenesis of gastric ulcer; intestinal obstruction; physiology of the parathyroid glands; physiology of the stomach and duodenum; pathogenesis of tetany.
- Drain, Prof. B(rooks) D(aniel)**, Massachusetts Agricultural College, Amherst, Mass. *Pomology*. Roxbury, Ohio, Dec. 9, 91. B.S., Ohio State, 17; M.S., Chicago, 25. Instr. hort., Ohio State, 17-18; *asst. prof. pomol, Mass. Col, 19-* Soc. Hort. Sci.
- Drake, Dr. N(oah) F(ields)**, Fayetteville, Ark. *Geology*. Summers, Ark., Jan. 30, 64. C.E., Arkansas, 88; A.M., Stanford, 95, Ph.D., 97. Asst. geologist, Ark. Geol. Surv., 87; Texas Geol. Surv., 89-93; U. S. Geol. Surv., 97; prof. geol. and mining, Imp. Tientsin Univ., 98-00; consulting geologist, Am-China Development Co., 02-04; prof. geol. and mining, Pei Yang Univ., 05-11; *assoc. prof. econ. geol, Stanford, 11;* head dept. geol. and mining eng., Arkansas, 12-19; *consulting geologist, 20-* Asst. topographer, U. S. Geol. Surv., 94; engineer, pub. works dept., Tientsin Provisional Govt., 00-01. Geol. Soc; Min. Eng. Chinese coal-fields; wind-blown materials in North China.
- Draper, Dr. Daniel**, Hastings-on-Hudson, N. Y. *Meteorology, Mechanics*. New York, N. Y., April 2, 41. Grammar sch. and private instruction; hon. Ph.D., N. Y. Univ., 80. Asst. physiol. and chem. to Prof. J. W. Draper; director, N. Y. Meteor. Observatory, 68-11; *pres, Mech. and Meteor. Co, 11-* Apprentice, Novelty Iron Works, N. Y., 60; asst. port engineer, Star Line to New Orleans, 65; Board Health, New York. A.A.; Philos. Soc. Mechanical meteorology.
- Draper, Dr. George**, 33 E. 68th St., New York, N. Y. *Medicine*. New York, 80. A.B., Harvard, 03; M.D., Columbia, 06. Am. Physicians; Soc. Clin. Invest; Soc. Exp. Biol. Clinical medicine; heart; acute poliomyelitis; cerebrospinal syphilis; scarlet fever; constitution and psychology in internal medicine.
- Draper, Prof. Hal D(aniel)**, 1226 Alhambra Ave., Fresno, Calif. *Physical chemistry*. Eddy, N. Mex., Aug. 17, 93. A.B., California, 17, Ph.D., 22. Instr. chem., Rice Inst., 18-20; teaching fellow, California, 20-22; instr., *Fresno, 22-23, asst. prof, 23-* Junior chemist, war gas, U. S. Bur. Mines, 18. Chem. Soc.
- Drayton, F(rank) L(isle)**, 333 Fairmont Ave., Ottawa, Ont., Can. *Botany*. Barbados, B. W. I., Aug. 13, 92. B.A.Sc., McGill. Asst. plant path. and bacter. div., bot., *Can. Dept. Agr, 14-19, plant pathologist, 19-* Infantry officer, 15- Can. Plant Disease Surv. Phytopath. Soc. Phytopathology; scientific agriculture; Rhizoctonia in potatoes; diseases of Gladioli.
- Drechsler, Dr. Charles**, U. S. Department of Agriculture, Washington, D. C. *Botany*. Butternut, Wis., May 1, 92. B.S., Wisconsin, 13, M.S., 14; Ph.D., Harvard, 17. Field asst., *bur. plant indust, U. S. Dept. Agr, 17-18*, sci. asst., 19-21, asst. pathologist, 20-24, *assoc. pathologist, 24-* A.A.; Bot. Soc; Torrey Bot. Club; Phytopath. Soc; Micros. Soc; Wash. Acad; Wis. Acad; Wash. Bot. Soc; Bot. Gesell. Taxonomy of economic fungi.
- Dresbach, Prof. Melvin**, Albany Medical College, Albany, N. Y. *Physiology*. Kingston, Ohio, July 8, 74. B.S., Ohio State, 97, M.S., 00; M.D., Starling-Ohio Med. Col., 03; Würzburg, 04; Leyden, 12. Asst. physiol., Ohio State, 97-02, instr., 02-05; Starling-Ohio Med. Col., 00-04; Cornell, 05-09, asst. prof. pharmacol., 09-11, *physiol, 11-18; prof, Albany Med. Col, 18-* A.A.; Physiol. Soc; Soc. Exp. Biol; Optical Soc. Human erythrocytes; physiological action of phenolphthalein; ocular defects of students; interpolated extra systoles; inhibition; diabetes mellitus; action of nitrobenzol; retinal adaptation; digitalis and strophanthus assay; pharmacology of strophanthidin.
- Dresden, Dr. Arnold**, University of Wisconsin, Madison, Wis. **Mathematics*. Amsterdam, Holland, Nov. 23, 82. Amsterdam, 01-03; M.S., Chicago, 06, Ph.D., 09. Instr. math., Univ. High Sch., Chicago, 06-09; *Wisconsin, 09-12*, asst. prof., 12-21, *assoc. prof, 21-* A.A.; Math. Soc; Math. Ass. Calculus of variations; algebra; philosophical foundations of mathematics.
- Dresser, John A(lexander)**, Bank of Nova Scotia Building, Montreal, Que., Can. *Geology*. Richmond, Que., June 27, 66. B.A., McGill, 93, M.A., 97; Harvard, 94-95. Prin., St. Francis Col., Richmond, 03-11; lecturer geol., McGill, 07-09; geologist, Can. Geol. Surv., 09-11; manager lands dept., Algoma Cent. and Hudson's Bay Ry., 11-15; *consulting mining geologist, 15-* Assoc. ed., 'Jour. Geog.' Lecturer, Provincial Agr. Col., Compton, Que., 02-03, McGill, 12. Consulting geologist, Can. P. Ry. Min. Eng; Geol. Soc; Royal Soc. Can. (past pres, geol. sect); Can. Min. Inst. (past pres). Petrographic studies; geology of copper-bearing rocks; asbestos and chromite deposits of Quebec; geology of Lake St. John district; petroleum resources of the Peace River district.
- Dresslar, Prof. F(letcher) B(ascum)**, George Peabody College for Teachers, Nashville, Tenn. *Education, Psychology, Hygiene*. Banta, Ind., Sept. 21, 58. A.B., Indiana, 89, A.M., 92; Ph.D., Clark, 94. Prin. and supt., schools, Ind., 89-91; prof. educ., Los Angeles State Nor. Sch., 94-97; asst. prof., California, 97-02, *assoc. prof, 02-09;* prof. philos. and educ. and dean dept. educ., Alabama, 09-11; specialist *sch. hygiene, bur. educ, U. S. Dept. Int, 11-13; prof, Peabody Col. for Teachers, 13-* Acting head dept. educ., California, 01-02; Calif. State Board Educ,

- 01-02, 05-09. Calif. Council Educ; Tenn. Acad. Ichthyology; school hygiene; rural school houses and grounds; open air schools; superstition.
- Drew, Prof. E(lmer) R(eginald)**, 1321 Waverley St, Palo Alto, Calif. *Physics*. Calif, Dec. 17, 65. B.S., California, 88; Ph.D., Cornell, 03. Instr. *physics*, California, 90-02; asst. prof, *Stanford*, 05-23, *assoc. prof*, 23- Physical Soc. Luminous efficiency of vacuum-tube radiation.
- Drew, Prof. Gilman A(rthur)**, Eagle Lake, Florida. **Zoology*. Newton, Iowa, Nov. 15, 68. B.S., Iowa, 90; fellow, Hopkins, 97-98, Ph.D, 98, Adam T. Bruce fellow, 98. Asst. zool, Hopkins, 98-00; prof. biol, Maine, 00-11; res. asst. director, Woods Hole, 11-26. Instr, Woods Hole, 01-, asst. director, 09-11. A.A.; Soc. Nat; Soc. Zool. (sec'y and treas. 03-04, pres, 20); Am. Acad. Anatomy, habits and embryology of *Yoldia limatula*; habits, anatomy and embryology of the Protobranchia; locomotion in *Solenomya* and its relatives; the life history of *Nucula delphinodonta*; habits and movements of the razor shell clam, and physiology of its nervous system; habits, anatomy, embryology and circulatory and nervous systems of the giant scallop; breeding habits and spermatophores of the squid; spermatophores of the octopus.
- Dreyer, Prof. Geo(rge) P(eter)**, University of Illinois College of Medicine, Chicago, Ill. **Physiology*. Baltimore, Md, Sept. 22, 66. Baltimore City Col, 79-84; A.B, Hopkins, 87, fellow, 88-89, Ph.D, 90; Col. Physicians and Surg, Baltimore, 91-92. Assoc. prof. *physiol*, Hopkins, 90-00; *prof*, *med. dept*, *Illinois*, 00-A.A.; *Physiol. Soc.* Blood proteins; differential respiration; internal secretion of adrenals.
- Dreyfus, Dr. W(illiam)**, 57 E. 96th St, New York, N. Y. *Chemistry*. Oberendingen, Switzerland, June 17, 69. Zurich; diploma, Geneva, 93, Sc.D, 94. Chemist, Chem. Fertilizing Co, Switzerland, 94-95; Forbes-Abbott and Lenard, Ltd, London, 95-99; *chemist and director chem. dept*, *West Disinfecting Co*, 99- Chem. Soc; Electrochem. Soc; Soc. Chem. Indust; Pub. Health Ass; N. Y. Chemists Club; Chem. Gesell; Soc. chim. de France. Coal tar disinfectants; cattle and sheep dips; liquid soaps; bacteriological standardization of disinfectants.
- Driggs, Dr. F(rank) H(oward)**, 504 W. Elm St, Urbana, Ill. *Inorganic chemistry*. Clinton, Mo, Oct. 25, 95. A.B, Baker, 17; M.S, Illinois, 21, Ph.D, 24. Asst. *chem*, *Illinois*, 19-24, *instr*, 24- Chem. Soc. Atomic weight of lanthanum and holmium; purification of hafnium.
- Drinkard, Dr. A(lfred) W(ashington)**, Jr, Blacksburg, Va. *Horticulture*. Appomattox, Va, Jan. 10, 83. B.S, Va. Polytech, 06, M.S, 08; Ph.D, Cornell, 13. Record clerk horticulture, *Va. Exp. Sta*, 06-08, asst. horticulturist, 08-12, assoc, 12-16, *director*, 16- A.A; Soc. Hort. Sci. Plant breeding; plant physiology.
- Drinker, Prof. C(ecil) K(ent)**, Harvard University School of Public Health, Boston, Mass. **Physiology*. Philadelphia, Pa, March 17, 87. B.S, Haverford, 08; M.D, Pennsylvania, 13. Med. house officer, Peter Bent Brigham Hosp, Boston, 14-15; instr. *physiol*, Hopkins, 15-16; *Harvard Med. Sch*, 16-17, asst. prof, 17-19, assoc. prof. applied *physiol*, 19-23, *prof. physiol. and asst. dean, Sch. Pub. Health*, 23- Managing ed, 'Jour. Indust. Hygiene.' Asst, Mass. Gen. Hosp, 22; asst. to visiting physicians, Boston City Hosp, 22-24. *Physiol. Soc.* (treas, 24-); Am. Physicians; Soc. Clin. Invest; Am. Acad. Physiology and pathology of blood formation and destruction; pulmonary circulation; lung ventilation.
- Drinker, Mrs. C(ecil) K(ent) (Dr. Katherine R(otan))**, Harvard Medical School, Boston, Mass. *Physiology*. Waco, Texas, Jan. 12, 89. A.B, Bryn Mawr, 10; M.D, Woman's Med. Col. of Pa, 14; Harvard Med. Sch, 14-15, 16-17, 21-23; Hopkins, 15-16. Asst. res. physician, Peter Bent Brigham Hosp, Boston, 17; managing ed, 'Jour. Indust. Hygiene,' 18-20; lecturer hygiene, Bryn Mawr, 21-23; *research asst*, *dept. physiol, Sch. Pub. Health, Harvard*, 23- *Physiol. Soc.* Coagulation of blood; blood formation; lung fibrosis; hygiene of zinc.
- Drinker, Dr. Henry S(turgis)**, Merion Station, Pa. *Mining engineering*. Hong Kong, China, Nov. 8, 50. E.M, Lehigh, 71; admitted to bar, Phila, 77; LL.D, Lafayette, 05, Franklin and Marshall, 10, Pennsylvania, 11, Princeton, 18, Moravian, 22, Lehigh, 22. Lehigh Valley Coal Co, 71-72; eng. dept, Lehigh Valley Ry, 72-75, gen. solicitor, 85-05; pres, Lehigh, 05-20. V. pres, Nat. Conservation Cong; Pa. State Board Registration Engineers. Eng. Educ; hon. mem. Min. and Metal. Soc; Forestry Ass. (pres, 12-15); Pa. Forestry Ass. (pres, 18-27). Tunneling; explosive compounds and rock drills; railroad and telegraph laws of Philadelphia.
- Drinker, Philip**, Harvard University School of Public Health, Boston, Mass. *Public health*. Haverford, Pa, Dec. 12, 93. B.S, Princeton, 15; Ch.E, Lehigh, 17. Instr. applied *physiol*, Harvard Med. Sch, 19-22, *vent. and illum, Sch. Pub. Health, Harvard*, 22-26, *asst. prof*, 26- Lieut, A.S, 17-19. Pub. Health Ass; Heat. and Vent. Eng; Illum. Eng. Soc; Chem. Soc. Ventilation; illumination; the determination, microscopy, physical chemistry, physiology and pharmacology of gases, dusts, fumes and smokes; cellulose acetate and dopes; zinc toxicity; atmospheric particulate matter; determination of suspensoids; size frequency and identification of certain phagocytosed dusts; humidity control in residence; dust inhalation; dust masks.
- Drisko, Prof. William J(ohnson)**, Massachusetts Institute of Technology, Cambridge, Mass. *Experimental physics*. Addison, Maine, Sept. 8, 66. B.S, Mass. Inst. Tech, 95. Asst. *physics*, Mass. Inst. Tech, 95-96, instr, 96-99; prof, Colby, 99; instr, *Mass. Inst. Tech*, 01-05, asst. prof, 05-10, assoc. prof, 10-23, *prof*, 23- Optical Soc; Eng. Educ; Illum. Eng. Soc. (v. pres, 22-24); Am. Acad. Light and illumination.
- Drogin, Dr. I(saac)**, J. M. Huber Co, Inc, Swartz, La. *Chemistry*. Russia, Dec. 8, 91. A.B, Col. City of N. Y, 13; M.S, Pittsburgh, 17, fellow, 17-19, Ph.D, 19. Fellow, Mellon Inst, 19-22; *J. M. Huber Co, Inc*, 22- Chem. Soc; N. Y. Chemists Club. Halogens in organic compounds;

- inversion of cane sugar; distillation; gasoline; natural gas; carbon black.
- Drowne, Henry B(ernardin)**, 40 Converse St, Longmeadow, Mass. *Civil engineering*. Providence, R. I., June 28, 82. C.E., Brown, 03. Instr. civil eng, Brown, 05-06, 08-11; highway eng, Columbia, 11-16; *engineer, Lane Construction Corp*, 12- Engineer, Am. Bridge Co, South. Ry. Co. and R. I. State Board Pub. Roads, 03-12. A.A.; assoc. Civil Eng; Nat. Highways Ass; Road Ass; Mass. Highway Ass; Ass. Int. Cong. de la Route. Highway engineering.
- Drushel, Prof. J. A(ndrew)**, New York University, Washington Square, New York, N. Y. *Geology*. Mt. Hope, Ohio, Nov. 24, 72. A.B., Nat. Nor. Univ, 95, A.M., 97; A.B., Yale, 05. Instr. geol. and biol, E. Texas Nor. Col, 95-98; *prof. geol. and bot*, Nat. Nor. Univ, 00-04; nature study and geol, Harris Teachers Col, St. Louis, 05-24; *math. and nature study*, N. Y. Univ, 24- A.A.; Nature Study Soc. (pres, 20, 21); St. Louis Acad. (rec. sec'y, 13). Glacial drift beneath St. Louis loess; plants new to St. Louis and vicinity.
- Drushel, Dr. W(illiam) A(llen)**, Grand Rapids, Mich. *Chemistry*. Mt. Hope, Ohio, March 21, 74. A.B., Nat. Nor. Univ, 97, LL.B., 00; A.B., Yale, 05, Ph.D., 08. Prin, high sch, Ohio, 01-04; asst. chem, Yale, 07-08, instr, 08-12, asst. prof, 12-18; *director research lab, Haskelite Mfg. Corp*, 18- A.A.; Chem. Soc. Analytical and organic chemistry; reaction velocity of organic compounds; estimation of potassium, lanthanum and organic nitrogen; hydroacrylic esters; waterproof glues; metal covered plywood.
- Dryden, Dr. Hugh L(atimer)**, 2020 Pierce Mill Road, N. W., Washington, D. C. *Physics*. Pocomoke City, Md, July 2, 98. Baltimore City Col; A.B., Hopkins, 16, A.M., 18, Ph.D., 19. *Physicist, Bur. Standards*, 19- Fel. Physical Soc; Wash. Acad; Wash. Philos. Soc. Aerodynamics; properties of airfoils at high speeds; wind tunnel investigations; wind pressure on structures.
- Duane, Dr. Alexander**, 143 E. 35th St, New York, N. Y. *Pathology*. Malone, N. Y., Sept. 1, 58. A.B., Union, 78, hon. Sc.D., 19; M.D., Columbia, 81. Asst. surgeon, N. Y. Eye and Ear Infirmary, 85-88; Ophthalm. and Aural Inst, 90-01, surgeon, 02-12. Surgeon, Vanderbilt Clinic, 94-95; instr. med. col, Cornell, 02-04. Trustee, Union, 23- Medal, Ophthal. Soc, 24. A.A.; Am. Med. Ass. (chairman, ophthal. sect, 18); Ophthal. Soc. (pres, 24); Harvey Soc; Illum. Eng. Soc; N. Y. Acad. Med. (chairman, ophthal. sect, 03-05); N. Y. Ophthal. Soc. (pres, 17). Physiology and pathology of blood-corpuscles; accommodation and motility of eye; medical lexicography.
- Duane, Prof. William**, Harvard University, Cambridge, Mass. **Physics*. Philadelphia, Pa, Feb. 17, 72. A.B., Pennsylvania, 92; A.B., Harvard, 93, A.M., 95; Ph.D., Berlin, 97; hon. Sc.D., Pennsylvania, 22, Colorado, 23. Asst. physics, Harvard, 93-95; prof, Colorado, 98-07; investigator, Curie Radium Lab, 07-13; asst. prof. physics and research fellow, Cancer Commission, Harvard, 13-17, *prof. biophysics*, 17- Chairman div. physical sciences, Nat. Research Council, 22-23. John Scott medal and prize; Comstock prize; Leonard prize. Nat. Acad; A.A.; Physical Soc; Philos. Soc; Radiol. Soc; Röntgen Ray Soc; Soc. Cancer Research (pres, 23); Am. Acad; Soc. de Physique (councilor, 20-23). Electricity; velocity of chemical reactions; short electrical waves; differential telephone; radium emanation and induced activity; hysteresis; α -rays of radium; heat effects of radioactive substance; heat generated by phosphorescent substances; value of h by X-rays; ionization, absorption and emission spectra of X-rays; X-ray diffraction.
- Dubilier, William**, 72 Esplanade, New Rochelle, N. Y. *Wireless telegraphy*. New York, N. Y., June 25, 88. N. Y. Tech. Inst; Cooper Union; Tech. Univ, St. Petersburg, Russia, 12. Chief engineer, Continental Tel. and Tel. Co, 06-07; tech. director, Commercial Wireless Tel. and Tel. Co, 09-10; Dubilier Elec. Co, Ltd, 12-15; *pres. and tech. director, Dubilier Condenser Co, Inc*, 15-; *pres, Radio Patents Corp*, 17- Gold medal, Seattle Expos, 00. Fel. Elec. Eng; Radio Eng; Franklin Inst; London Soc. Arts; hon. mem. Soc. Académie d'Histoire Int, Paris. Wireless telegraphy and telephony; submarine detection apparatus; aeroplane wireless apparatus; high frequency currents; designing and construction of electric condensers.
- Dubin, Dr. H(arry) E(nnis)**, 122 Hudson St, New York, N. Y. *Biochemistry*. Russia, March 4, 91. B.S., Col. City of N. Y., 12; fellow, Pennsylvania, 15-16, Ph.D., 16. Chemist, Phila. Polyclinic, 13-15; instr. research med, Pennsylvania, 16-17; in charge chem. laboratories, Montefiore Home and Hosp, New York, 17-18; chief chemist, Grain Chem. Co, 18-20; *research chemist, H. A. Metz*, 20- A.A.; Chem. Soc. Chemotherapy; metabolism.
- Dublin, Dr. Louis I(srael)**, 1 Madison Ave, New York, N. Y. *Statistics*. Kovno, Lithuania, Nov. 1, 82. B.S., Col. City of N. Y., 01, fellow, 01-04; Ph.D., Columbia, 04. Instr. math, Col. City of N. Y., 01-08; lecturer actuarial science, N. Y. Univ, 09; *statistician, Metropolitan Life Ins. Co*, 11- Lecturer, Yale, 18-23. A.A. (v. pres, 15, sect. social and econ. sciences, 16); fel. Statist. Ass. (pres, 24); fel. Casualty Actuarial Soc; fel. Pub. Health Ass. (v. pres, 21, treas, 24). Race and occupational mortality; birth rate; incidence of and mortality from disease.
- DuBois, Dr. Eugene F(loyd)**, Cornell University Medical College, New York, N. Y. **Pathological physiology*. West New Brighton, N. Y., June 4, 82. A.B., Harvard, 03; M.D., Columbia, 06. Intern, Presb. Hosp, 07-08, asst. pathologist, 09; instr. applied pharmacol, med. col, Cornell, 10-13, lecturer physiol, 13-19, *assoc. prof. med*, 19- Med. director, Russell Sage Inst. Path, 12-; director second med. div, Bellevue Hosp. Physiol. Soc; Am. Physicians; Soc. Clin. Invest; Soc. Exp. Biol; Harvey Soc. Basal metabolism; metabolic diseases.
- DuBois, H(enry) M(athusalem)**, Joseph, Oregon. **Paleontology, Botany*. Logansport, Ind, Aug.

- 22, 87. A.B., Indiana, 13, A.M., 14; Illinois, 14-17. Asst. geol., Illinois, 14-17; *consulting geologist*, 17-; prin., high sch., La Grande, Oregon, 17-21; *supt. schools*, Enterprise, 21-24; *Joseph*, 24- Asst. geologist, Ind. Univ. Geol. Surv., 12-13; Ill. Geol. Surv., 16, 17. A.A.; Paleont. Soc.; Ecol. Soc.; Ind. Acad.; Ill. Acad. Ecology; brachiopods; geological history of eastern Oregon; flora and soils of Wallowa Co., Oregon.
- DuBridge, Dr. Lee A(ivin)**, California Institute, Pasadena, Calif. *Physics*. Terre Haute, Ind., Sept. 21, 01. A.B., Cornell (Iowa), 22; A.M., Wisconsin, 24, Ph.D., 26. Instr. physics, Wisconsin, 25-26; *Nat. Research Council fellow, Calif. Inst.*, 26- Physical Soc. Positive photo-electric emission; photo-electric emission and long wave limits.
- Dubuar, Prof. James F(rancis)**, Wanakena, N. Y. *Forestry*. Northville, Mich., March 17, 91. A.B., Michigan, 13, M.S.F., 15. Forest asst., U. S. Forest Service, 15-17; *prof. forestry*, N. Y. *State Ranger Sch.*, 19-20, *director*, 20- U.S.A., 17-19. A.A.; Soc. Foresters (chairman, subcommittee, Voc. Educ. in Forestry).
- Dudgeon, Prof. Winfield (Scott)**, Ewing Christian College, Allahabad, India. *Botany*. Near Hedrick, Iowa, April 10, 86. B.S., Iowa Col., 07; Yale, 09-10; fellow, Chicago, 15-17, Ph.D., 17. Asst. bot., Iowa Col., 05-08; *prof. nat. science*, Central Col. (Iowa), 08-09; asst. biol., Sheffield Sci. Sch., Yale, 09-10; *prof.*, Central Col. (Iowa), 10-12; *Ewing Christian Col.*, 12-17, *bot.*, 17- Lecturer, Allahabad Univ., 23-; examiner, Calcutta, Benares Hindu, Allahabad, Lucknow and Aligarh Muslim Universities. A.A.; Bot. Soc.; Indian Sci. Cong. (pres, bot. sect., 22); Indian Bot. Soc. (pres, 20-22). Morphology; ecology; diclinous angiosperms; ecology of Upper Gangetic Plain and the outer Himalayas.
- Dudley, John E(dward), Jr.**, U. S. Entomological Laboratory, 1532 University Ave., Madison, Wis. *Entomology*. Wellesley, Mass., Aug. 28, 86. Mass. Col., 08-11; B.S., Wisconsin, 26. Gipsy and brown tail moth lab, *bur. entom.*, U. S. Dept. Agr., 11-13, insecticide and fungicide board, 13-18, *assoc. entomologist truck crop insect investigations*, Madison, Wis., 18- A.A.; Ass. Econ. Entom. Clothes moths; potato leafhopper; striped cucumber beetle; onion maggot; pea aphid; truck crop and household insects.
- Duff, Prof. A(lexander) Wilmer**, 52 Fruit St., Worcester, Mass. **Physics*. St. John, N. B. Can., May 23, 64. B.A., New Brunswick, 84, LL.D., 20; B.A., London, 87; Berlin, 88; M.A., Edinburgh, 88, B.S., 93, D.Sc., 01. *Prof. physics*, Madras, India, 89-90; New Brunswick, 90-93; Purdue, 93-99; *Worcester*, 99- Physical Soc.; Am. Acad.; fel. Ind. Acad. Viscosity; acoustics; tidal phenomena; cathode rays.
- Duffendack, Prof. O(rar) S(tanley)**, University of Michigan, Ann Arbor, Mich. *Physics*. Napoleon, Mo., 90. B.S., Chicago, 17; A.M., Princeton, 21, fellow, 20-22, Ph.D., 22. *Prof. physics* and head dept., Tulsa, 17-20; instr., Michigan, 22-24, *asst. prof.*, 24- Summer, research physicist, Gen. Elec. Co., 24. A.A.; Physical Soc. Conduction of electricity through gases; origin of spectra.
- Dufour, Prof. F(rank) O(liver)**, Easton, Pa. *Structural engineering*. Washington, D. C., Jan. 1, 73. C.E., Lehigh, 96. Instr. civil eng., Lehigh, 97-01; asst. prof. in charge dept., Cincinnati, 01-03; acting prof. bridge eng., Wisconsin, 03-04; asst. prof. civil eng., Vermont, 04-05; structural eng., Illinois, 05-12; prin. asst. engineer, D. A. Keefe, 12-13; senior struct. engineer, cent. dist. div. valuation, Interstate Commerce Commission, 14-15; struct. engineer, Stone and Webster, 15-18, chief struct. engineer, 18-21; *director div. civil eng., Lafayette*, 21- Exec. committee, Nat. Committee Wood Utilization. Civil Eng. (director); Ry. Eng.; Eng. Educ. Bridge engineering; structural drafting; testing of materials; the effect of moving loads on highway bridges; the Dewey decimal system in civil engineering.
- Dugan, Prof. Raymond S(mith)**, Observatory House, Princeton, N. J. **Astronomy*. Montague, Mass., May 30, 78. A.B., Amherst, 99, A.M., 02; Ph.D., Heidelberg, 05. Instr. math. and astron. and acting director observatory, Syrian Protestant Col., Beirut, Syria, 99-02; asst. astrophys. observatory, Heidelberg, 02-04; instr. astron., Princeton, 05-08, asst. prof., 08-20, *prof.*, 20- Lick Observatory eclipse exped. to Spain, 05. A.A.; Astron. Soc. Photographic discovery of asteroids; photographic photometry; photometry of eclipsing variables.
- Duggar, Prof. B(enjamin) M(inge)**, University of Wisconsin, Madison, Wis. **Plant physiology and pathology*. Gallion, Ala., Sept. 1, 72. Alabama, 87-89; B.S., Miss. Agr. and Mech. Col., 91; M.S., Ala. Polytech., 92; A.B., Harvard, 94, A.M., 95; Ph.D., Cornell, 98; Germany, France and Italy, 99-00, 05-06. Asst. director, Ala. Exp. Sta., Uniontown, 92-93; asst. bot., Radcliffe, 94-95; asst. botanist, State Lab. Nat. Hist., Illinois, 95-96; instr. plant physiol., Cornell, and asst. crypt. botanist, Exp. Sta., 96-00, asst. prof., 00-01; physiologist, bur. plant indust., U. S. Dept. Agr., 01-02; *prof. bot.*, Missouri, 02-07; plant physiol., Cornell, 07-12; plant physiol. and in charge grad. lab., Washington (St. Louis), and physiologist, Mo. Bot. Garden, 12-27; *physiol. and econ. bot.*, Wisconsin, 27- Speaker, Int. Cong. Arts and Science, St. Louis, 04. Chairman div. biol. and agr., Nat. Research Council, 25-26. Nat. Acad.; A.A.; Soc. Nat.; Bot. Soc. (v. pres, 12, 14, pres, 23); Phytopath. Soc.; Chem. Soc.; Soc. Biol. Chem.; Soc. Exp. Biol.; St. Louis Acad. (v. pres, 15-19). Physiological pathology.
- Duggar, Prof. J(ohn) F(rederick)**, Auburn, Ala. *Agriculture*. Near Demopolis, Ala., Aug. 24, 68. B.S., Miss. Agr. and Mech. Col., 87, M.S., 88; George Washington, 93-94; Cornell, 06. Asst. agr., Agr. and Mech. Col. Texas, 87-89; asst. director, S. C. Exp. Sta., 90-92; ed., U. S. Dept. Agr., 93-95; *prof. agr.*, Ala. Polytech., 96-21, director, Ala. Exp. Sta., 03-21, agr. exten., 14-20, *research prof. farm management*, 21- Ed., 'South Live-stock Jour.', 89-90. Soc. Agron. (v. pres). Cotton; legu-

minous plants; corn; oats; feeding of animals; plant breeding; field crops; southern agriculture; farm management.

Duley, Prof. F(rank) L(eslie), Kansas State Agricultural College, Manhattan, Kans. *Soils*. Grant City, Mo, Dec. 21, 88. B.S.A., Missouri, 14, A.M., 15; hon. fellow, Wisconsin, 21-22, Ph.D., 23. Research asst. *soils*, Missouri, 15-17, instr., 17-19, asst. prof., 19-20, *assoc. prof.*, 20-25; *Kansas Col.*, 25- A.A.; Soc. Agron. Soil fertility; acidity and calcium content of soils; plant nutrition.

Dumble, E(dwin) T(heodore), 316 Southern Pacific Building, Houston, Texas, and R. R., Box 55, Tunstall, Va. *Geology*. Madison, Ind, March 28, 52. B.S., Washington and Lee, 68, Sc.D., 24. State geologist, Texas, 88-96; consulting geologist, S. P. Ry. Co, 97-25; consulting geologist, 25-27. A.A.; Geol. Soc; Min. Eng; Min. and Metal. Eng; Ass. Petrol. Geol; Texas Acad. (pres, 93); Calif. Acad. Stratigraphic and economic geology; coal deposits of Pacific slope; oil deposits of Texas, Louisiana, California and Mexico. [*Died*, 27.]

DuMez, Dr. A(ndrew) G(lover), University of Maryland, Baltimore, Md. *Chemistry*. Horicon, Wis, April 26, 85. B.S., Wisconsin, 07, M.S., 10, hon. fellow, 16-17, Ph.D., 17. Instr. chem, Wisconsin, 07-10; asst. prof, Okla. Agr. and Mech. Col., 11-12; director sch. pharmacy, Philippines, 12-16; pharmacologist, hygienic lab, U. S. Pub. Health Service, 17-26; *dean sch. pharmacy, Maryland*, 26- Committee of Revision, U. S. Pharmacopœia, 20-; sec'y committee investigation narcotic drug traffic, U. S. Treasury, 18. Delegate, Int. Conf. on Formula for Heroic Medicaments, Brussels, 25. A.A.; Chem. Soc; Pharmaceut. Ass. (ed, 'Year Book,' 22-); Pub. Health Ass; Wis. Acad. Plant chemistry; therapeutic agents; standardization of drugs; drug addiction.

Du Mond, Jesse W. M., 615 S. Mentor St, Pasadena, Calif. *Physics*. Paris, France, July 11, 92. B.S., Calif. Inst., 16; M.S., Union, 19. Consulting engineer, Gen. Elec. Co, 17-18; drafting dept, French Thomson-Houston Co, Paris, 19-20; asst. elec. engineer, Bur. Standards, 20-21; *teaching fellow physics, Calif. Inst.*, 21- Elec. Eng; Physical Soc; Soc. de Physique. Alternating current theory; X-rays.

Dunbar, Prof. Bertrand Ackley, 727 11th Ave, Brookings, S. Dak. *Chemistry*. Brunswick, Ohio, Sept. 9, 71. A.B., Ohio Wesleyan, 91, A.M., 92; Chicago. Supt. pub. schools, 92-10; instr. chem, S. Dak. Col., 10-11, asst. prof., 11-12, *assoc. prof.*, org. chem, 12-18, *prof. chem. and sta. chemist*, 18- Chem. Soc. (pres, S. Dak. sect, 18); S. Dak. Acad. (state chairman, Garvan prize committee, 24-25). By-products of cereals and coals; digestion constants; dairy cattle; constants of wool and of vegetable oils; fermentation of fruit juices.

Dunbar, Dr. Carl O(wen), Yale University, New Haven, Conn. *Geology*. Hallowell, Kans, Jan. 1, 91. A.B., Kansas, 13; Ph.D., Yale, 17. Dana research fellow, Yale, 17-18; instr. geol, Minnesota, 18-20; *asst. prof. hist. geol, Yale*, 20-,

asst. curator, *Peabody Museum*, 20-26, *curator*, 26- A.A.; Paleont. Soc. (treas, 24-); Geol. Soc; Conn. Acad. Paleontology; stratigraphy of Tennessee and western Newfoundland.

Dunbar, Dr. P(aul) B(rown), 311 Cumberland Ave, Chevy Chase, Md. *Chemistry*. Lebanon, Pa, May 29, 82. B.S., Gettysburg Col., 04, M.S., 06; Ph.D., Hopkins, 07. Chemist, *bur. chem.*, U. S. Dept. Agr., 07-25, *asst. chief*, 25- Chem. Soc; Agr. Chem. Food chemistry; determination of preservatives and fruit acids.

Dunbrook, Dr. Raymond F(rederick), 303 E. Cecil St, Springfield, Ohio. *Organic chemistry*. Grand Rapids, Mich, May 9, 95. B.S., Michigan, 17; M.S., Pittsburgh, 21, Ph.D., 23. Research and plant control chemist, Holland Aniline Co, Mich, 17-20; instr. *org. chem.*, Pittsburgh, 20-23; *assoc. prof.*, *Wittenberg*, 23- Chem. Soc. Electrochemistry; organic compounds; organic selenium compounds.

Duncan, Prof. David Christie, State College, Pa. *Physics*. Churchville, N. Y., July 30, 89. A.B., Michigan, 11, A.M., 13, Ph.D., 23. Instr. *physics*, Purdue, 11-16, asst. prof., 16-18; *prof.*, *Pa. State*, 18- A.A.; Physical Soc. Optical, heat and temperature measurements; excitation of spectra of nitrogen by electron impact.

Duncan, James A(rmstrong), Brooklyn Edison Co, Brooklyn, N. Y. *Electrophysics*. Sumter, S. C, Feb. 28, 98. B.S., South Carolina, 17; A.M., Harvard, 20. Asst. physics, Harvard, 18-20; instr. Cambridge-Haskell Sch., 19-20; Austin teaching fellow, Harvard, 20-21; instr. math. and physics, Mt. Auburn, Cambridge, 21-23; instr. physics, Stone Sch, Boston, 22-23; asst. prof., Kentucky, 23-24; asst. engineer, *Brooklyn Edison Co*, 24-26, *research engineer*, 26- Summer, instr. U.S.A. Vocational Sch, S. C, 18. Physical Soc; Elec. Eng. Insulation; oil-impregnated paper cables for high voltage use.

Duncan, Prof. John C(harles), Whitin Observatory, Wellesley, Mass. *Astronomy*. Knightstown, Ind, Feb. 8, 82. A.B., Indiana, 05, A.M., 06; Lawrence fellow, Lowell Observatory, 05-06; fellow, Lick Observatory, California, 07-09, Ph.D., California, 09. Asst. astron, Indiana, 04-05, instr. astron. and mech, 06-07; *astron.*, Harvard, 09-16; Radcliffe, 11-16; *prof.*, *Wellesley*, and *director*, *Whitin Observatory*, 16-; astronomer, *Mt. Wilson Observatory*, *Carnegie Inst.*, 20-21, *research asst.*, 22- Astron. Soc; Soc. astron. de France; Soc. Astron. de Mex. Micrometric and photographic observations of comets; stellar spectroscopy; photography of nebulae and star clusters; determination of orbits.

Duncan, Dr. Ralph W(infred), 5001 Irving St, Philadelphia, Pa. *Physics*. Oakland City, Ind, Sept. 19, 82. A.B., Indiana, 09; fellow, Pennsylvania, 10-12, Ph.D., 12. Instr. *physics*, high sch, Ind, 07-09; *Pennsylvania*, 09-10, 12-21, *asst. prof.*, 21- *Assoc. physicist*, Bur. Standards, 18. A.A.; Physical Soc. Optical constants of metals; cotton fabrics; measurement of photographic densities.

- Duncan, Dr. Robert C(arithers)**, Bureau of Ordnance, U. S. Navy Department, Washington, D. C. *Physics*. Loveland, Colo, July 14, 86. A.B., Indiana, 09; fellow, Pennsylvania, 10-12, Ph.D, 12. Instr. physics, Pa. State, 08-09; Pennsylvania, 09-10, 13-17; asst. physicist, Bur. Standards, 17-18, assoc. physicist, 18-19, *physicist*, 19-20; *bur. ordnance, U. S. Navy Dept.*, 20-A.A; Physical Soc; Wash. Philos. Soc. Optical constants of sodium and potassium; ballistics.
- Dundon, Dr. Merle L(eroy)**, Eastman Kodak Co, Rochester, N. Y. *Chemistry*. Edinburg, Ohio, Oct. 27, 92. B.S., Mt. Union, 17; M.S., Ohio State, 19, Grasselli fellow, 21-22, Ph.D, 22. National Research Council fellow, 22-23; *research chemist, Eastman Kodak Co*, 23- Bronze medal, Soc. française de Photographie, 24. Chem. Soc. Physical and photographic chemistry; solubility and surface energy of fine powders; photographic developing solutions, fogging and staining properties; bacterial growth in developers; desensitizing dyes.
- Dungan, Prof. Geo(rge) H(arian)**, University of Illinois, Urbana, Ill. *Agronomy*. Rocklane, Ind, Dec. 12, 87. B.S., Illinois, 17, M.S., 21; Ph.D, Wisconsin, 25. Asst. *crop production, Illinois*, 17-19, instr, 19-20, assoc, 20-23, *asst. prof.*, 25- Collaborator plant disease surv, U. S. Dept. Agr, 20-25. Soc. Agron; Soc. Plant Physiol; Bot. Soc; Phytopath. Soc. Crop production; corn root, stalk and ear rots; the kernel composition of corn and germinating vigor.
- Dungay, Prof. Neil S(tanley)**, 107 Union St, Northfield, Minn. *Zoology, Medicine*. Near Faribault, Minn, Sept. 28, 82. A.B., Minnesota, 04, M.D, 25; Ph.D, Chicago, 13. Instr. science, high sch, Minn, 04-06; instr, asst. prof. and *prof. zool, Carleton*, 07-, *director health service*. Asst, Minn. Geol. and Nat. Hist. Surv, 03-04. Woods Hole Corp. A.A; fel. Am. Med. Ass. Experimental embryology; effects of injury upon sperm.
- Dunkel, Dr. Otto**, Washington University, St. Louis, Mo. *Mathematics*. Richmond, Va, May 25, 69. M.E., Virginia, 96, A.B., A.M., 98; A.M., Harvard, 99, Shattuck scholar, 00-02, Ph.D, 02; Göttingen, 04-05; Paris, 05-06. Asst. astron, Virginia, 96-97; instr. *math*, Wesleyan, 02-04; Minnesota, 06-07; Missouri, 07-16; asst. prof, *Washington (St. Louis)*, 16-19, *assoc. prof.*, 19- Assoc. ed, 'Am. Math. Monthly.' A.A; Math. Soc; Circolo Mat. di Palermo. Regular singular points of a system of homogeneous linear differential equations of the first order; algebraic equations.
- Dunlap, Frederick**, State Forester, Columbia, Mo. *Forestry*. Near Chillicothe, Ohio, June 17, 81. Ohio State, 99-01; F.E., Cornell, 04. Forest asst, U. S. Forest Service, 04, examiner, 13, physicist, forest products lab, 09-13; lecturer forestry, Wisconsin, 10-13; prof, Missouri, 13-21; consulting forester, 21-25; *state forester, Mo*, 25-; *exten. forester, Mo. Agr. Exten. Service*, 25- Assoc. ed, 'Forestry Quarterly,' 02-A.A; Soc. Foresters; Forestry Ass; Mo. Forestry Ass. (see'y, 21-); Royal Soc. Arts. Seasoning and kiln-drying of wood; durability, specific heat and porosity of wood; heat of absorption of water in wood; growth of hardwoods.
- Dunlap, Dr. Frederick L(ey)**, 528 Monadnock Block, Chicago, Ill. *Chemistry*. Chillicothe, Ohio, May 16, 70. Ohio State, 88-89; B.S., Michigan, 92; Sc.D, Harvard, 95; Yale, 96. Instr. indust. chem, Worcester, 96-00; inorg. chem, Michigan, 00-01, anal. chem, 01-07; assoc. chemist, bur. chem, U. S. Dept. Agr, and mem. Board Food and Drug Inspection, 07-12; consulting chemist, Victor Chem. Works, 12-15; *consulting chemist*, 15- Summers, instr, Harvard, 93-95. A.A; Chem. Soc; Chem. Eng. Foods; cereal chemistry; manufacturing processes.
- Dunlap, Prof. H(oward) L(eroy)**, Rolla, Mo. *Chemistry*. Flushing, Ohio, Jan. 22, 86. B.S., Ohio (Athens), 12; fellow, Ohio State, 13-14, A.M., 14, Ph.D, 25. Prin, high sch, Ohio, 12-13; instr. chem, Iowa, 14-17; asst. prof, *Mo. Sch. Mines*, 17-19, *assoc. prof.*, 19- Exp. chem. engineer, Goodyear Tire and Rubber Co, 19; chemist, White Star Ref, 23, 25. Chem. Soc. Distillation of cannel coals; petroleum refining; neutral salt catalysis in organic reactions.
- Dunlap, Dr. Knight**, Johns Hopkins University, Baltimore, Md. **Psychology*. Diamond Spring, Calif, Nov. 21, 75. Ph.B., California, 99, M.L., 00, Le Conte fellow, 00-01; A.M., Harvard, 01, James Walker fellow, 01-02, Ph.D, 03. Asst. psychol, California, 02-04, instr, 04-06; *Hopkins*, 06-10, assoc, 10-11, *assoc. prof.*, 11-16, *prof. exp. psychol.*, 16- Managing ed, 'Jour. Comp. Psychol.'; joint ed, 'Mental Measurements Monographs.' A.A; Psychol. Ass. (councilor, 16, pres, 22); S. Soc. Philos. and Psychol. (pres, 20). Effects of subliminal stimulations; time-perception; attention; reaction times; rhythm; effects of oxygen depletion and of narcotics; interrelations of optical and semicircular canal mechanisms; emotional responses; sex differences; head adjustments of fowls.
- Dunlevy, Prof. R(obert) B(aldwin)**, 302 College St, Winfield, Kans. *Geology*. Sparta, Wis, Dec. 14, 70. B.L., Wisconsin, 93, A.M., 10. Supt, high sch, Wis, 93-94; head dept. science, Southwestern (Kans), 95-09, dept. chem, 10-14; asst. chem, Wisconsin, 09-10; chief geologist, Inter-Sea Service Corp, 19-22; dept. chem, *Southwestern (Kans)*, 23-24, *dept. geol.*, 24- Consulting geologist, Foreign Concessions Corp, N. Y. and Compagnia Italiana Petroli, Italy, 24. A.A; Ass. Petrol. Geol; Kans. Geol. Soc; Kans. Acad; Southwest Sci. Club (pres, 26-).
- Dunn, Dr. Arthur D**, 630 Bankers Reserve Life Building, Omaha, Nebr. *Internal medicine*. Meadville, Pa, Nov. 1, 73. Ph.B., Chicago, 95, M.D., Rush Med. Col, 02. *Prof. med*, col. med, Creighton, 08-21; *exp. med*, *Nebraska*, 24- Am. Med. Ass; Col. Physicians; Ass. Physicians. Stomach gas; focal infections; acquired diverticulitis of the sigmoid; epidemic encephalitis; pachymeningitis hemorrhagica interna.
- Dunn, Dr. Elizabeth H(opkins)**, Woods Hole, Mass. *Neurology*. Toulon, Ill, April 13, 67.

- A.B, Grinnell, 89, A.M, 92; M.D, Northwestern, 94. Clin. asst. nervous diseases, Woman's Med. Sch, Northwestern, 98-01, instr. physiol, 01-02, asst. prof. nervous diseases, 01-02; clin. asst. nervous and mental diseases, Rush Med. Col, 02-06, assoc. med, 06-08, research asst. neur, Chicago, 03-06, asst. anat, 06-07, assoc, 07-09, instr, 09-12. In charge, 'Mem. Funds for Study of Nervous System.' A.A; Ass. Anat; Am. Med. Ass. The medullated nerve fibers in the leg of the frog; growth of the white rat; nerve fibers; cerebral transplantation in the rat; growth changes in the human nervous system.
- Dunn, Prof. E(mmett) R(eid)**, Smith College, Northampton, Mass. *Zoology*. Alexandria, Va, Nov. 21, 94. A.B, Haverford, 15, A.M, 16; Ph.D, Harvard, 21. Asst. zool, *Smith*, 16-17, instr, 17-18, asst. prof, 21-26, *assoc. prof*, 27- Aid, U. S. Nat. Museum, 19; field naturalist, Am. Museum Nat. Hist, 15, 26; museum comp. zool, Harvard, 19-26. Soc. Zool; Soc. Ichthyol. and Herp. (sec'y, and ed, 'Copeia,' 24-); Boston Soc. Nat. Hist; Wash. Biol. Soc. Herpetology.
- Dunn, Gano**, 20 Washington Square, New York, N. Y. **Electrical engineering*. New York, Oct. 18, 70. B.S, Col. City of N. Y, 89, M.S, 97; E.E, Columbia, 91, hon. M.S, 14. Operator, West. Union Tel. Co, 86-91; v. pres. and chief engineer, Crocker-Wheeler Co, 98-11; v. pres. in charge eng. and construction, J. G. White and Co, 11-13; *pres*, J. G. White Eng. Corp, 13- Chairman, Nat. Research Council, 23-; Eng. Foundation, 15-16; visiting committee, Bur. Standards, 24- Chairman board awards, John Fritz medal, 14, Edison medal, 25- Int. Electro-tech. Commission, 10-26; Int. Elec. Cong, St. Louis, 04, U. S. delegate and v. pres, Turin, 11; second Pan-Am. Sci. Cong, Washington, D. C, 15; Pan-Pacific Sci. Cong, Honolulu, 22. Trustee, Barnard, Columbia; Cooper Union. Nitrate commission, U. S. War Dept, 16-18; chairman, State Dept, Committee on Submarine Cables, 18-19. Nat. Acad; A.A; Elec. Eng. (pres, 11); Radio Eng; Mech. Eng; Civil Eng; Illum. Eng. Soc; Optical Soc; Franklin Inst; Philos. Soc; Am. Acad; N. Y. Elec. Soc. (pres, 00-02); N. Y. Zool. Soc; N. Y. Eng. Club; Phila. Eng. Club; Royal Micros. Soc; British Inst. Elec. Eng. (hon. sec'y for U. S); London Eng. Club. Dynamo and motor design; commutation of direct current machines; distribution of power in factories; power transmission.
- Dunn, Prof. Halbert L(ouis)**, Johns Hopkins University, Baltimore, Md. *Medicine, Statistics*. New Paris, Ohio, May 17, 96. A.B, Minnesota, 17, A.M, 20, M.B, 21, M.D, 22, Ph.D, 23. Instr. anat, Minnesota, 22-23; asst. med, Presb. Hosp, New York, 23-24; fellow, Mayo Clinic, 24-25; *assoc. prof. biometry and vital statistics, sch. hygiene and pub. health, Hopkins*, 25- A.A; Am. Med. Ass; Ass. Anat; Soc. Exp. Biol; Harvey Soc. Human growth; statistical medicine; variability by biometric constants.
- Dunn, Harold Houghton**, 52 Vanderbilt Ave, New York, N. Y. *Railway engineering*. Tiskilwa, Ill, Oct. 30, 84. B.S, Illinois, 08, fellow, 10-11, M.S, 15. Research asst. ry. eng, Exp. Sta, Illinois, 12-15, research assoc, 17-20; ry. engineer, Westinghouse Elec. and Mfg. Co, 20-23; *consulting engineer, The Beeler Organization*, 23- Elec. Ry. Ass; Eng. Educ. Train resistance; valuation; engineering and management of electric railway properties.
- Dunn, Hugh K(enneth)**, California Institute, Pasadena, Calif. *Physics*. Shawneetown, Ill, Oct. 31, 97. A.B, Miami, 18. Asst. prof. *physics*, Miami, 18-22; *teaching fellow, Calif. Inst*, 22- A.A; Physical Soc. Effect of gases on the photo-electric long wave-length of mercury.
- Dunn, Dr. L(eslie) C(larence)**, Storrs, Conn. *Genetics*. Buffalo, N. Y, Nov. 2, 93. B.S, Dartmouth, 15; M.S, Harvard, 17, Sc.D, 20. Asst. zool, Harvard, 15-17, 19; *geneticist, Storrs Exp. Sta*, 20- Lecturer, Harvard, 20. Ed. board, 'Jour. Heredity' and 'Poultry Science,' 24- A.A; Genetic Ass; Soc. Zool. (sec'y and treas, joint genetics sect. with Bot. Soc); Soc. Mammal; Soc. Exp. Biol; Poultry Sci. Ass; Int. Ass. Poultry Husbandry. *Zoology*; genetics in rodents and fowls.
- Dunn, Prof. Marin S(heppard)**, 7205 Pine St, Philadelphia, Pa. *Botany*. Merchantville, N. J, Dec. 23, 98. A.B, Pennsylvania, 20, A.M, 21, Ph.D, 26. Instr. bot, *Phila. Col. Pharmacy and Science*, 20-22, *asst. prof*, 22- Bot. Soc; Pharmaceut. Ass; Entom. Soc; Pa. Pharmaceut. Ass. Plant physiology; the isolation of single spores; effects of certain acids and their sodium salts upon the growth of *Sclerotinia cinerea* (Bon) schröt.
- Dunn, Prof. M(ax) S(haw)**, 1210 N. Mariposa St, Los Angeles, Calif. *Biochemistry*. Milo, Iowa, Aug. 22, 95. A.B, Simpson (Iowa), 16; M.S, Illinois, 18, fellow, 20-21, Ph.D, 21. Asst. chem, Illinois, 17-18, 19-20; instr, med. sch, *California*, 21-22, *California at Los Angeles*, 22-24, *asst. prof*, 24- Second lieut, Sanit. C, 18. A.A; Soc. Exp. Biol; Chem. Soc. Origin of endogenous uric acid; the action of nitrous acid on casein; hydrolysis and deaminized casein; influence of position and temperature on reaction of nitrous acid with primary aliphatic amines.
- Dunnam, Erastus Waldon**, Boll Weevil Laboratory, Florence, S. C. *Entomology*. Richton, Miss, Dec. 29, 92. B.S, Miss. Agr. and Mech. Col, 21; M.S, Iowa Col, 23. Asst, Iowa Col, 21-23; asst. prof. entom, Louisiana, 23-24; *asst. entomologist, boll weevil lab, bur. entom, U. S. Dept. Agr*, 24- Summers, asst. state entomologist, Iowa, 22-23. Ass. Econ. Entom; Iowa Acad. Apple trumpet leaf-miners; biology of the cotton boll weevil; cotton boll growth in relation to boll weevil injury.
- Dunning, H(enry) A(rlitt) B(rown)**, Charles and Chase Sts, Baltimore, Md. *Pharmacy*. Denton, Md, Oct. 24, 77. Phar.D, Hopkins, Phar.M, 25. *Director research lab, Hynson, Westcott and Dunning*. Remington honor medal, 26. Chem. Soc. (Md. chairman, prize essay contest committee); Md. Pharmaceut. Ass. (pres). Production and development of phenol-

sulphonphthalein; urease; hydrogen ion indicator dyes.

Dunnington, Prof. F(rancis) P(erry), University of Virginia, University, Va. **Chemistry*. Baltimore, Md, March 3, 51. B.S, Virginia, 71, C.E, M.E, 72. Adjunct prof. anal. chem, Virginia, 73-84, prof, 84-08, indust. and anal. chem, 08-19; *retired*, 19. A.A. (sec'y, C, 85); Chem. Soc; Electrochem. Soc; British Ass; London Chem. Soc. Universal occurrence of titanic acid in soils; inorganic chemistry; synthesis; analysis of unusual products and rare minerals; analysis of ashes of weeds; determination of chlorid, bromid and iodid; fusion of silicates with lithium carbonate.

Dupler, Dr. A(lphaeus) W(illiam), Juniata College, Huntingdon, Pa. *Botany*. Thornville, Ohio, July 27, 83. A.B, Juniata, 11; M.S, Chicago, 14, Ph.D, 16. *Prof. biol*, Juniata, 11-14; bot, Lawrence, 16-17; *biol*, Bridgewater, 17-19; *Juniata*, 19- A.A; Bot. Soc; Ecol. Soc; Torrey Bot. Club. Plant morphology; gymnosperms; liverworts.

Du Porte, Dr. E(rnest) Melville, Macdonald College, Ste. A. de Bellevue, Que, Can. *Entomology*. Nevis, B. W. I, Oct. 24, 91. B.S.A, McGill, 13, M.S, 14, Ph.D, 21. *Asst. prof. zool. and entom*, Macdonald. A.A; Soc. Zool; Entom. Soc; Ecol. Soc; Ont. Entom. Soc. Insect morphology and behavior; medical zoology; bio-nomics.

Durand, Prof. W(illiam) F(rederick), Stanford University, Calif. *Marine engineering*. Bethany, Conn, March 5, 59. Grad, U. S. Naval Acad, 80; Ph.D, Lafayette, 88; LL.D, California, 23. E.C, U.S.N, 80-87; prof. mech. and supt. mech. dept, Mich. State Col, 87-91; prof. marine eng, Cornell, 91-04, acting director, Sibley Col, 03-04; *prof. mech. eng*, Stanford, 04-24, *emer. prof*, 24- Special duty, Lafayette, 83-85. Advisory ed, 'Marine Eng,' 01-03. Chairman, Nat. Advisory Committee for Aeronaut, 16-18; Nat. Research Council, 17-19; sci. attaché, Paris, 18. Gold medal, Naval Eng, 00. Nat. Acad; A.A; Mech. Eng; Eng. Educ; Naval Eng; Naval Archit; Franklin Inst; Soc. Technique maritime. Hydrodynamics; thermodynamics; aerodynamics; resistance and propulsion of ships; performance of the screw propeller; air propellers.

Durell, Prof. Fletcher, Belleplain, N. J. *Mathematics*. Clarksburg, N. J, Dec. 17, 59. A.B, Princeton, 79, A.M, 82, Ph.D, 87. Master math, Pennington Sem, 79-83; prof. math. and astron, Dickinson, 83-95; master math, Lawrenceville Sch, 95-25. A.A; Math. Soc; Circolo Mat. di Palermo. Principles of efficiency.

Durfee, Prof. W(illiam) P(itt), 639 Main St, Geneva, N. Y. *Mathematics*. Livonia, Mich, Feb. 5, 55. A.B, Michigan, 76; Ph.D, Hopkins, 83. Instr. math, Univ. Mound Col, San Francisco, 76-77; Berkeley Gymnasium, Calif, 77-81; *prof*, Hobart, 84-, dean, 88-25. A.A; Math. Soc. Symmetric functions.

Durham, George B(enjamin), Connecticut Agricultural College, Storrs, Conn. *Botany*. New-

castle, N. Y, Sept. 14, 96. B.S, Conn. Col, 19, M.S, 21; Wisconsin, 22-24. Asst. hort, Conn. Col, 18-22, bot, 19-22; asst. bot, Wisconsin, 22-24; *plant breeder*, Conn. Col, 24- A.A; Bot. Soc. Plant breeding; inheritance and morphology of squash; sterility in tomatoes.

Durham, Lieut. Col. Henry Welles, care of K. Durham, 2 Rector St, New York, N. Y. *Civil engineering*. Chicago, Ill, Sept. 15, 74. C.E, Columbia, 95. Asst. engineer, Nicaragua Canal, 95-04; in charge munic. eng. works, Panama Canal, 04-07; Cape Cod Canal, 07-12; *chief engineer* highways, New York and Bergen Co, N. J, 12-16; *Rene Keilhauer and E. W. Hebard and Co, Managua, Nicaragua*, 19- Lecturer, Columbia, 14-15, North Carolina, 24. Officier du mérite agricole, France, 19. Major, C.Eng, 16-19. A.A; Civil Eng; Soc. Test. Mat; Boston Soc. Civil Eng; Soc. de Ingenieros del Peru; Int. Ass. du Congrès de la Route. Roads and hydraulic problems.

Durkee, Prof. Frank W(illiams), Tufts College, Mass. *Chemistry*. North Tunbridge, Vt, Oct. 5, 61. A.B, Tufts, 88, A.M, 89, hon. Sc.D, 21. Instr. chem, Tufts, 89-96, asst. prof, 96-97, *prof. inorg. chem*, 97-13, *chem*, 13- A.A; Chem. Soc; Soc. Chem. Indust; Min. and Metal. Eng; Electrochem. Soc. Oxidation by electrolysis of sodium sulphid and hydrosulphid to the sulphate; action of water of the Hub coal mine upon cast iron; the production of zinc by electrolysis.

Durley, R(ichard) J(ohn), 176 Mansfield St, Montreal, Que, Can. *Mechanical engineering*. Buckinghamshire, Eng, Feb. 11, 68. B.Sc, Univ. Col, London, 87; Ma.E, McGill, 98. Asst. prof. mech. eng, McGill, 98-01, prof, 01-12; consulting engineer, 12-15; *sec'y*, Can. Eng. Standards Ass, 19-25; *Eng. Inst. Can*, 25- Officer in charge gauges and standards, Imp. Ministry Munitions, 15-19. Mech. Eng; Eng. Inst. Can; British Inst. Civil Eng. Flow of air; fuel testing.

Durrant, Prof. E(dwin) P(oe), 111 Fallis Road, Columbus, Ohio. *Physiology*, *Entomology*. Berlin Cross Roads, Ohio, July 21, 65. Ohio Wesleyan; A.B, Otterbein, 04; A.M, Ohio State, 08. Instr. biol. and geol, Otterbein, 04-05, prof, 05-09, 11-12, 23-24; instr. physiol, Ohio Med. Col, 10; asst. prof. anat. and physiol, Ohio State, 10-17, physiol, biochem. and pharmacol, 17-20, instr. *physiol*, *col. med*, 20-25, *asst. prof*, 25- A.A; Am. Med. Ass; Entom. Soc; Ohio Acad. Systematic studies; isolation, specialization and life history of the Mallophaga; endocrinology.

Durrell, Prof. L(aurence) W(ood), 1003 Remington Ave, Fort Collins, Colo. *Botany*, *Plant pathology*. Lincoln, Nebr, Feb. 16, 88. B.S.A, Ohio State, 14; fellow, Iowa Col, 15-17, M.S, 17, Ph.D, 23. Instr. path, Iowa Col, 17-19; pathologist, Mo. State Fruit Sta, 19-21; asst. pathologist, Iowa Exp. Sta, 21-24; *prof. bot. and path*, Colo. Agr. Col, and *botanist*, Exp. Sta, 24- Field asst, U. S. Dept. Agr, 17-19. Phytopath. Soc. (assoc. ed, 25); Soc. Plant Physiol. Crown rust of oats; diseases of corn; physiology of fungi.

- Durst, C(harles) E(lmer)**, Wheaton, Ill. *Horticulture*. Knox City, Mo, May 3, 84. B.S, Illinois, 09, M.S, 12, Ph.D, 24. Asst. olericulture, Illinois, 09-10, instr, 10-11, assoc, 11-18, asst, Exp. Sta, 09-11, assoc, 11-18; county agent, Union Co, Ill, 18-20; Cook Co, Ill, 20-21; director fruit and veg. marketing, Ill. Agr. Ass, 21-23; *managing ed*, 'Am. Fruit Grower,' 24- Sec'y, Nat. Fruit Committee, 21. A.A; Soc. Hort. Sci. (asst. sec'y, 16); Pomol. Soc; Veg. Growers Ass. (sec'y, committee on nomenclature, 13-15); Ill. Hort. Soc. Olericulture; pomology; genetics.
- Duschak, Dr. L(ionel) H(erman)**, 86 Tamalpais Road, Berkeley, Calif. *Chemistry*. Buffalo, N. Y, Sept. 25, 82. A.B, Michigan, 04; A.M, Ph.D, Princeton, 08. Instr. chem, Princeton, 07-09; research chemist, Corning Glass Works, 09-13; *chem. engineer in charge*, Exp. Sta, U. S. Bur. Mines, Calif, 13-; *consulting chem. engineer*, 21- Summers, asst, Michigan, 05, 06, instr, 08. Chem. Soc; Min. and Metal. Eng. Physical chemistry; industrial inorganic chemistry; non-ferrous metallurgy.
- Dusham, Prof. E(dward) H(enry)**, State College, Pa. *Entomology*. Amesbury, Mass, Sept. 1, 87. A.B, Dartmouth, 10; M.S, Pa. State, 15; Ph.D, Cornell, 24. Asst. zool. and physiol, Iowa Col, 10-12; instr. zool. and entom, Pa. State, 12-14, asst. prof, 15-16; asst. biol, Cornell, 16-17, instr. nat. hist, 17-18; entom. inspector, fed. hort. board, U. S. Dept. Agr, 18; *prof. entom*, Pa. State, 18- A.A; Entom. Soc; Ass. Econ. Entom; Soc. Parasitol; Crop Protection Inst; Wash. Entom. Soc. Insect morphology; economic entomology.
- Dushman, Dr. Saul**, General Electric Co, Schenectady, N. Y. *Physical chemistry*. Rostov, Russia, July 12, 83. B.A, Toronto, 04, Ph.D, 12. Demonstrator electrochem, Toronto, 04-09, lecturer, 09-12; *research lab*, Gen. Elec. Co, 12-; director research, Edison Lamp Works, 22-25. A.A; Physical Soc; Chem. Soc; Elec. Eng. Electrochemistry; determination of e/m; molecular gage; photoelectric cell; electronics; atomic structure; the quantum theory; electron emission; unimolecular reactions; high vacuum.
- Dustan, Alan G(ordon)**, Entomological Branch, Department of Agriculture, Ottawa, Ont, Can. *Entomology*. Halifax, N. S, March 15, 92. B.S.A, Toronto, 15; M.Sc, McGill, 22. Asst. entomologist, Dominion Entom. Lab, Annapolis Royal, N. S, 15-18, Fredericton, N. B, 18-21; asst. entom. in charge field lab, Wolfville, N. S, 21-24; *entomologist*, Entom. Branch, Can. Dept. Agr, Ottawa, 25- Entom. Soc; Acadian Entom. Soc; Ottawa Field Nat. Soc. Economic entomology; truck crop insects; orchard insects; insect repellents and attractants; entomophthorous fungi; natural control.
- Dustheimer, Prof. Oscar L(ee)**, Baldwin-Wallace College, Berea, Ohio. *Mathematics*. Near Newark, Ohio, Oct. 3, 89. B.S, Ohio (Athens), 13; fellow, Clark, 13-14, A.M, 14; M.S, Michigan, 25. Teacher, high sch, Ohio, 10-11; *prof. math. and astron*, Baldwin-Wallace, 14- A.A; Math. Soc; Astron. Soc. Determinants.
- Dutcher, Dr. John B(enjamin)**, Indiana University, Bloomington, Ind. *Physics*. Decatur, Ind, July 17, 75. A.B, Indiana, 06, A.M, 07, Ph.D, 15. Instr. *physics*, Indiana, 07-08; Pennsylvania, 08-09; asst. prof, Indiana, 09-15, assoc. prof, 15-22, *prof*, 22- A.A; Physical Soc; fel. Ind. Acad. Weight and chemical reactions; recalcence in Heusler alloys; explosion wave in gases; radiation constants of insulating materials; effect of magnetic field on certain spectrum lines.
- Dutcher, Prof. R(aymond) Adams**, Pennsylvania State College, State College, Pa. *Biochemistry*. Raymond, S. Dak, March 23, 86. B.S, S. Dak. Col, 07, M.S, 10; A.M, Missouri, 12. Instr. chem, S. Dak. Col, 07-10; asst, Missouri, 10-12; Illinois, 12-13; instr. and asst. prof. biochem, Oregon Col, 13-17; asst. prof, Minnesota, 17-18, assoc. prof. biochem. and head sect. animal nutrition, 18-21; *head dept. agr. and biol. chem*, Pa. State, 21- Nat. Vitamin Committee, 25- A.A; Chem. Soc. (chairman, div. biol. chem, 24); Soc. Exp. Biol; British Biochem. Soc. Vitamins; deficiency diseases.
- Dutton, L(ora)ine O(rr)**, Methodist Hospital, Memphis, Tenn. *Bacteriology*. Waco, Texas, Aug. 2, 98. A.B, Texas Christian, 18, M.S, 21. Teaching fellow, California, 20; instr. bacter, Texas Christian, 20-21; asst. director laboratories, Baptist Mem. Hosp, Memphis, 21-24; *director laboratories*, Methodist Hosp, 24- Instr. Tennessee, 21-22; field investigation, U. S. Pub. Health Service, 18. Laboratories, U.S.A, Siberia, 18-19. A.A; Soc. Bact. Action of the bacteriophage in streptococcus cultures.
- Duval, Prof. Charles W(arren)**, 8 Richmond Place, New Orleans, La. *Pathology, Bacteriology*. Annapolis, Md, Sept. 28, 76. St. Johns (Md), hon. A.M, 97; Rockefeller fellow, Pennsylvania, 02-03, M.D, 03. Path. house officer, Boston City Hosp, 03-04, second asst. pathologist, 04-05, first asst, 05-06; lecturer path. and bacter, McGill, 06-09; *prof. path. and bacter. and head dept*, Tulane, 09- Director path. lab, Montreal Gen. Hosp, 06-09, visiting pathologist, 24-; director path. dept, Charity Hosp, New Orleans, 13-23; Turo Infirmary, 10-22, consulting pathologist, 26-; director path. div, Presb. Hosp, 12- A.A; Soc. Exp. Biol. (council mem, 26-; chairman, south. branch, 26-); Soc. Exp. Path; Am. Med. Ass; Soc. Bact; Ass. Path. and Bact; Soc. Trop. Med; Pub. Health Ass; South. Med. Ass. (chairman, path. sect, 26-). Acute bacillary dysentery; summer diarrhoeas in infants; experimental tuberculosis; vascular disease; experimental pathology; respiratory diseases; leprosy; cancer; meningitis; scarlet fever; experimental nephritis; dengue fever; measles.
- Duval, Charles R(aymond)**, Carnegie Institution, Washington, D. C. *Terrestrial magnetism*. Clarke Co, Va, Jan. 2, 69. B.S, West Virginia, 91; Hopkins, 92-96. Teacher, McGuire's Sch, Va, 91-92; asst. math, Hopkins, 94-95; computer, U. S. Coast and Geod. Surv, 99-13; *expert computer, dept. terrestrial magnetism*, Carnegie Inst, 13- Asst. observer, latitude variation sta, Int. Geod. Ass, Gaithersburg,

- Md, 13. A.A.; Wash. Acad.; Wash. Philos. Soc. Geodesy; gravity; least squares; hidden periodicities; correlation of terrestrial magnetism and electricity with solar activity.
- Duvall, Prof. T(rumbull) G(illette)**, 36 Forest Ave, Delaware, Ohio. *Philosophy, Psychology*. Indianapolis, Ind, March 20, 61. A.B, De Pauw, 88; S.T.B, Boston, 89, Ph.D, 92. Instr. *philos*, De Pauw, 92-95, *prof*, 95; *Ohio Wesleyan*, 95-, dean faculty, 00-05. Psychol. Ass; West. Philos. Ass. Psychology and logic of cognition; psychology of religion.
- Duvel, Dr. J(oseph) W(illiam) T(ell)**, U. S. Department of Agriculture, Washington, D. C. *Botany*. Wapakoneta, Ohio, Nov. 16, 73. B.S, Ohio State, 97; fellow, Michigan, 99-02, Sc.D, 02. Asst. botanist, Ohio Exp. Sta, 98-99; asst, seed lab, U. S. Dept. Agr, 02-07, in charge grain standardization, 08-18; grain expert, U. S. Grain Corp, 18-20; grain merchant, Winnipeg grain exchange, 20-22; supervisor, Chicago grain exchange, 22-25; *chief grain futures administration*, U. S. Dept. Agr, 25- A.A.; Wash. Bot. Soc. (v. pres, 16); Wash. Biol. Soc; Int. Ass. Bot. Vitality of seeds; respiration in dry seeds; effect of gases on vitality; cold storage of cow-peas; storage and germination of wild rice; germination, harvesting and storing of seed-corn; moisture in grain; deterioration of grain in storage; handling grain in Australia; grain futures.
- Dwight, Dr. Jonathan**, 43 W. 70th St, New York, N. Y. *Ornithology*. New York, Dec. 8, 58. A.B, Harvard, 80; M.D, Columbia, 93. *Physician*, 93- A.A; fel. Ornith. Union (pres, 23-26); Nat. Ass. Audubon Soc. (treas); Am. Geog. Soc; fel. N. Y. Acad; N. Y. Linnean Soc. (pres, 99-21).
- Dyar, Dr. Harrison G(ray)**, U. S. National Museum, Washington, D. C. **Biology, Entomology*. New York, N. Y, Feb. 14, 66. B.S, Mass. Inst. Tech, 89; A.M, Columbia, 94, Ph.D, 95. Asst. bacter, col. physicians and surg, Columbia, 95-97; *custodian Lepidoptera*, U. S. Nat. Museum, 97- Capt, sanit. dept, O.R.C, 24- Boston Soc. Nat. Hist. Macrolepidoptera and mosquitoes.
- Dyche, Prof. H(oward) E(dward)**, University of Pittsburgh, Pittsburgh, Pa. *Electrical engineering*. Jan. 19, 84. M.E, Ohio State, 06. Eng. dept, Westinghouse Elec. and Mfg. Co, 06-10; *dept. elec. eng, Pittsburgh*, 11- Consulting engineer. Elec. Eng; Eng. Educ; Eng. Soc. West. Pa. Special devices for oscillographic work.
- Dye, Dr. Harry Wilmer**, Niagara Sprayer Co, Middleport, N. Y. *Plant pathology*. New Matamoras, Ohio, May 17, 92. B.S, Wisconsin, 15; M.S.A, Cornell, 16, fellow, 17-20, Ph.D, 19. Instr. plant path, N. Y. State Col. Agr, Cornell, 19-20, asst. prof, 20-22; *Niagara Sprayer Co*, 22- A.A; Phytopath. Soc. Vegetable diseases; fungicides.
- Dye, Prof. Marie**, Michigan State College, East Lansing, Mich. *Home economics*. Chicago, Ill, Sept. 13, 91. B.S, Chicago, 14, M.S, 17, Ph.D, 22. Teacher, Starretts Sch. for Girls, Chicago, 16-17; Tech. Nor. Sch, Chicago, 17-18; Univ. of Chicago high sch, 18-19; research fellow, Michael Reese Hosp, 21-22; *assoc. prof. home econ, Mich. State Col*, 22- A.A; Home Econ. Ass; Chem. Soc; Child Health Ass. Nutrition; respiratory metabolism; metabolism in obesity.
- Dyer, Dr. D(on) C**, 18 E. 41st St, New York, N. Y. *Chemistry*. Ohio, 80. Ph.D, Heidelberg, 05. Research chemist, bur. animal indust, U. S. Dept. Agr, 12-16; in charge chem. dept, Del. Exp. Sta, 16-18; information service dept, Gen. Chem. Co, 18-25. Chem. Soc. Organic and inorganic chemistry.
- van Dyke, Dr. H(arry) B(enjamin)**, University of Chicago, Chicago, Ill. *Pharmacology, Physiology*. Des Moines, Iowa, Jan. 31, 95. Ph.D, Chicago, M.D, Rush Med. Col. Asst. physiol. chem, Chicago, 18, anat, 19, *assoc. pharmacol. and physiol*, 20-21, asst. prof, 24; Nat. Research Council fellow, 24-26; *assoc. prof, Chicago*, 26-
- Dykstra, Dr. R(alph) R(alph)**, Kansas State Agricultural College, Manhattan, Kans. *Veterinary medicine*. Groningen, Holland, Sept. 24, 79. D.V.M, Iowa Col, 05. Prof. anat. and obstet, Iowa Col, 05-11; *prof. surg. and dean div. vet. med, Kansas Col*, 11-
- Dymond, Prof. J(ohn) R(ichardson)**, University of Toronto, Toronto, Ont, Can. *Zoology*. Kerwood, Ont, Oct. 4, 87. B.A, Toronto, 12, M.A, 20. Dept. Agr, Ottawa, Can, 12-20; lecturer *syst. zool, Toronto*, 20-23, *asst. prof*, 23- Sec'y, Royal Ont. Museum Zool, 22- A.A; Ecol. Soc; Soc. Mammal; Ass. Mus. Taxonomy and distribution of vertebrates of Canada, especially fish.
- Dynes, Prof. O(liver) W(esley)**, 2119 White Ave, Knoxville, Tenn. *Agronomy*. Hornings Mills, Ont, Can, March 10, 81. B.S, N. Dak. Col, 07; M.S.A, Cornell, 12. Instr. N. Dak. Col, and asst, Exp. Sta, 07-10, *assoc. prof. agron. and assoc. agronomist*, 11-14; instr. farm crops, Cornell, 14-20; *assoc. prof. agron, Tennessee*, 20-25, *prof*, 25- Soc. Agron; Genetic Ass. Field crops.
- D'zmura, Dr. Andrew P(eter)**, Physicians' Building, Pittsburgh, Pa. *Medicine*. Braddock, Pa, Oct. 8, 90. St. Vincent; Duquesne; M.D, Pittsburgh, 12, Mellon research fellow internal med, 14-15. *Demonstrator med, Pittsburgh*, 13-17, instr, 19-21, *asst. prof*, 21- Capt, M.C, 17-19. A.A; Am. Med. Ass; Soc. Pittsburgh Biol. Research. Cardiology.
- E**
- Eagles, Prof. Theophilus R(andolph)**, 8016 Second Ave, S, Birmingham, Ala. *Mathematics*. Wilson, N. C, Nov. 10, 85. A.B, North Carolina, 08, A.M, 12. Prof. math, Catawba, 08-09; Bethany (W. Va.), 09-10; instr, North Carolina, 10-13; *prof, Howard (Ala)*, 13-, v. pres. and *treas*, 24- Math. Soc; Math. Ass.
- Eagleson, Dr. Helen E(lizabeth)**, 928 13th St, N, Seattle, Wash. *Psychology*. Seattle, Jan. 2, 99. B.S, Washington (Seattle), 20, M.S, 21; Ph.D, Hopkins, 24. Teaching fellow and asst, Gatzut Clinic, Washington (Seattle),

- 24-26; *asst. prof. psychol.*, Agnes Scott Col, 26- Periodic variations in blood pressure.
- Eakle, Dr. Arthur S(tarr)**, 1818 Marin Ave, Berkeley, Calif. *Mineralogy*. Washington, D. C, July 27, 62. B.S, Cornell, 92; Ph.D, Munich, 96. Instr. *miner.*, Cornell, 92-94; Harvard, 98-01; *California*, 01-03, *asst. prof.*, 03-12, *assoc. prof.*, 12-19, *prof.*, 19- A.A; Miner. Soc; Geol. Soc; Wash. Acad. Minerals of California.
- Eames, Dr. Arthur J(ohnson)**, N. Y. State College of Agriculture, Ithaca, N. Y. **Botany*. Framingham, Mass, Oct. 10, 81. A.B, Harvard, 08, A.M, 10, Ph.D, 12. *Asst. bot.*, Harvard, 06-10, 11-12, Sheldon traveling fellow, 10-11; instr. *Cornell*, 13-14, *asst. prof.*, 14-20, *prof.*, 20- A.A; Bot. Soc. Morphology; anatomy of vascular plants.
- Earhart, Dr. Rob(er)t F(rancis)**, Ohio State University, Columbus, Ohio. **Experimental physics*. Toledo, Iowa, Feb. 2, 73. B.S, Northwestern, 93; Hopkins, 97-98; Chicago, 98-99, fellow, 99-00, Ph.D, 00. Electrician, Peoples Power Co, Ill, 93-97; instr. *physics*, Mich. Mil. Acad, 00-01; Rose, 01-03; *asst. prof.*, Ohio State, 03-09, *assoc. prof.*, 09-12, *prof.*, 12- A.A; Physical Soc. Sparking distances; properties of natural gas.
- Earl, Dr. Geo(rge) G(oodell)**, Sewerage and Water Board Building, New Orleans, La. *Civil engineering*. Monmouth Co, N. J, Oct. 9, 63. C.E, Lafayette, 84, Sc.D, 18. *Practising engineer*, 84-; *gen. supt. and chief engineer*, New Orleans Sewerage and Water Board, 00- U. S. Geol. Surv, 84-85. Civil Eng; Ass. Eng; Water Works Ass. (v. pres, 10-14, pres, 15); Pub. Health Ass; Munic. Improv. Ass; New Eng. Water Works Ass; La. Eng. Soc. Hydraulic and sanitary engineering; municipal improvement works; measurement of fluid flows.
- Earle, Prof. F(ranklin) S(umner)**, Herradura, Cuba. **Botany, Horticulture*. Grundy Co, Ill, Sept. 4, 56. Illinois, 72-80; hon. A.M, Ala. Polytech, 02. *Asst. mycol.*, Illinois, 86; *supt. branch of Miss. Exp. Sta*, 92-95; *asst. pathologist*, U. S. Dept. Agr, 95; *assoc. prof. hort.*, Ala. Polytech, 96, *prof. biol. and hort.*, 96-01, horticulturist, Exp. Sta, 96, biologist and horticulturist, 96-01; *asst. curator*, N. Y. Bot. Garden, 01-04; *director*, Estacion Cent. Agron. de Cuba, 04-06; *agr. inspector*, Cuban-Am. Sugar Co, 08; *specialist sugar cane culture*, U. S. Dept. Agr, 18-19; *expert*, Insular Exp. Sta, P. R, 19-21; *consulting agriculturist*, Cent. Aguirre, P. R, 21-23; *Gen. Sugar Co, Cuba*, 23-24; *sugar cane technologist*, Trop. Plant Research Foundation, 24- A.A; Bot. Soc. (pres, 06); Torrey Bot. Club. Systematic mycology; horticulture of southern United States; Agaricaceae; tropical agriculture; sugar cane technology.
- Earle, Prof. M(arshall) D(elph)**, Greenville, S. C. *Mathematics*. Greenville, Aug. 7, 71. A.M, Furman, 92; Cornell, 93; Cambridge, 96; Wisconsin, 98, 99. Instr. math, Furman, 89-93, *asst. prof.*, 93-97, *prof. physics*, 97-00, *math.*, 00- Prof, S. C. State Summer Sch, 00-06. Board Trustees, pub. schools, S. C. A.A; Math. Soc; Math. Ass.
- Earle, Dr. Richard B(lair)**, 133 Power St, Providence, R. I. *Chemistry*. Worcester, Mass, May 29, 76. B.S, Worcester, 97; M.S, Harvard, 99, Sc.D, 02. Private *asst.*, Worcester, 97-98; *research asst. org. chem.*, Chicago, 02-03; *asst.*, Mass. Inst. Tech, 03-04, *instr.*, 04-06; *research chemist*, Hood Rubber Co, 06-19; *chemist*, Agawam Chem. Works, 19; *partner*, Cadmus Chem. Co, 19-21; *chemist*, Gen. Adhesive Co, 21-22; U. S. Finishing Co, 22- Chem. Soc. Organic chemistry.
- Earp, Dr. J(ohn) Rosslyn**, Antioch College, Yellow Springs, Ohio. *Hygiene*. Matlock, Eng, Sept. 5, 91. M.A, Cambridge, L.R.C.P, London, 17; D.P.H, Hopkins, 26. *Asst. res. med. officer*, London Chest Hosp, 17; ed, 'Tubercle,' 20-21; *assoc. ed.*, 'Int. Jour. Pub. Health,' 21-23; *director hygiene*, Antioch, 23- Am. Med. Ass; Pub. Health Ass; Royal Soc. Med. Applied physiology; vital statistics; effects of the tobacco habit.
- Earp, Dr. Samuel E**, Indiana University School of Medicine, Indianapolis, Ind. *Internal medicine*. Lebanon, Ill, Dec. 19, 58. B.S, McKendree Col, 79, M.S, 81, M.L; M.D, Ind. Central Col, 82, Indiana, 15. Dean and *prof. med.*, Ind. Central Col. Physicians and Surg, 83-01; *prof.*, State Col. Physicians and Surg, Ind, 03-07; *clin. med. sch. med.*, Indiana, 07- Lecturer, St. Vincent's Training Sch. for Nurses, 96-25; *clinician*, Indianapolis City Hosp. and St. Vincent's Hosp, 88- Ed-in-chief, 'Indianapolis Med. Journal,' 08- Am. Med. Ass; Ind. State Med. Ass. (pres, 24); Indianapolis Med. Soc. (pres, 10); Ind. Acad. Spartein sulphate; improvement of murexide for uric acid.
- Easley, Prof. C(harles) W(ilson)**, Syracuse University, Syracuse, N. Y. *Chemistry*. Louisville, Ky, Dec. 11, 76. A.B, Dickinson, 97, A.M, 99; Ph.D, Clark, 08. Instr. chem, Clark, 02-08, *asst. prof.*, 08-09; *assoc. prof.*, Maine, 09-16, *prof.*, 16-19; *Syracuse*, 19- Nichols medal, Chem. Soc, 09, 10. A.A; Chem. Soc. Vapor pressures of binary mixtures; apparatus; atomic weight and electro-deposition of mercury; electrochemical processes; flow of heat conductivity of liquid films.
- East, Prof. E(dward) M(urray)**, Bussey Institution, Forest Hills, Boston, Mass. **Biology*. DuQuoin, Ill, Oct. 4, 79. B.S, Illinois, 00, M.S, 04, Ph.D, 07; LL.D, Kenyon, 26. *Asst. chemist*, Ill. Exp. Sta, 00-03, *first asst. plant breeding*, 03-05; *agronomist*, Conn. Exp. Sta, 05-09; *asst. prof. exp. plant morphol.*, Harvard, 09-14, *prof.*, 14-26, *genetics*, 26- Collaborator, bur. plant indust, U. S. Dept. Agr, 08-18; *chairman bot. raw products committee*, Nat. Research Council, 17-19; *acting chief statist. div.*, Food Ad, 18; *Harvard lecturer*, Yale, 24-25. Nat. Acad; A.A; Soc. Nat. (treas, 10, v. pres, 13, pres, 19); Bot. Soc; Philos. Soc; Am. Acad; New Eng. Bot. Club. Genetics; population; physiological chemistry; plant physiology.
- Easter, G(eorge) J(ones)**, 2434 South Ave, Niagara Falls, N. Y. *Ceramic engineering*. Seawane, Tenn, 93. B.S, Mass. Inst. Tech, 15. Chemist, A. S. and R. Co, Texas, 15-17; *asst.*

director research, Carborundum Co., 20— Inspector, ordnance dept, U.S.A., 17—19. Ceramic Soc. Sizing of fine powders; flow of air through porous membranes; factors affecting adhesion of abrasives to glue; specialized refractories of silicon carbide, fused alumina and other super-refractory materials; catalysis of oxidation by refractory materials; thermal emissivity.

Eastham, J(ohn) W(illiam), Court House, Vancouver, B. C., Can. *Plant pathology*. Liverpool, Eng., Dec. 4, 79. B.S., Edinburgh, 99. Lecturer biol., Cheshire Agr. Col., 02—06; bot., Ont. Agr. Col., 06—10; chief asst., div. bot., Can. Dept. Agr., 10—14; *provincial plant pathologist*, B. C., 14— *Phytopath. Soc.* Mycology; fungous diseases of plants.

Eastham, Melville, 11 Windsor St., Cambridge, Mass. *Electrical engineering*. Oregon City, Oregon, June 26, 85. *Pres. and engineer, Gen. Radio Co.* Physical Soc; Elec. Eng; Radio Eng. Electrical frequency measurements; electrical measuring instruments; dielectric losses.

Eastlack, Dr. Herbert E(ugene), Parlin, N. J. *Chemistry*. Crawfordsville, Ind., May 17, 90. A.B., Wabash, 12; Ph.D., Columbia, 16. Instr. chem., Illinois, 16—18; assoc. prof., Nebraska, 18; *research chemist, E. I. du Pont de Nemours and Co.*, 18— *Chem. Soc.* Colloid and inorganic chemistry; nitrocellulose lacquers.

Eastman, Dr. A(lbert) S(herman), University of Delaware, Newark, Del. *Chemistry*. Vermont, Jan. 24, 82. B.S., Vermont, 05, M.S., 11; Harvard fellow, Princeton, 14—16, Ph.D., 16. Instr. chem., Union (N. Y.), 06—12; Princeton, 13—14; asst. prof., Univ. of South, 16—17; research chemist, Hercules Powder Co., 17—19; supt. plant labs, Calco Chem. Co., N. J., 19—22; *prof. chem., Delaware*, 22—, *chairman dept.*, 26—

Eastman, Dr. Ermon D(wight), University of California, Berkeley, Calif. *Physical chemistry*. Calif., 91. Ph.D., California, 17. Asst. chem., California, 12—17, instr., 17—20, asst. prof., 20—25, *assoc. prof.*, 25— *Chem. Soc.* Specific heats at high and low temperatures; conductivity of solutions; equilibria involving oxides of iron; crystal structure of benzene; the metallic state; the third law of thermodynamics; non-isothermal systems; titration; vapor pressure of amalgams; multiple bonds; calculation of entropies.

Eastman, Prof. M(oses) Gale, University of New Hampshire, Durham, N. H. *Agronomy*. Sanbornton, N. H., Sept. 13, 86. B.S., New Hampshire, 13; M.S., Cornell, 16. County agr. agent, Sullivan Co., N. H., 13—14; asst. commissioner agr., Concord, 15—16; asst. prof. agron., New Hampshire, 18—25, *assoc. prof.*, 25— *Farm Econ. Ass.* Farm management; marketing.

Eastwood, Miss Alice, Golden Gate Park, San Francisco, Calif. **Botany*. Toronto, Ont., Can., Jan. 19, 59. High sch. Teacher, high sch., Denver, 80—90; *curator dept. bot., Calif. Acad. Sciences*, 92— A.A.; Bot. Soc; Ecol. Soc; Calif. Acad. Systematic botany; phanerogams.

Eaton, Prof. E(lon) H(oward), Hobart College, Geneva, N. Y. *Biology, Ornithology*. Springville, N. Y., Oct. 8, 66. A.B., Rochester, 90, A.M.,

93, Sc.D., 27; Columbia, 99—00. Instr. science, Canandaigua, N. Y., 90—95; master science, Bradstreet Sch., Rochester, N. Y., 96—07; *prof. biol., Hobart*, 08— A.A.; Ornith. Union; Ecol. Soc; Forestry Ass; Bird-Lore Council; Rochester Acad. Birds of New York state, distribution, migration, numbers and habits; ecological survey of the Geneva quadrangle, N. Y.

Eaton, Dr. Frank M(orris), U. S. Department of Agriculture, Sacaton, Ariz. *Plant physiology*. Nebr., Jan. 12, 93. B.S., Minnesota, 23, M.S., 24, Ph.D., 26. Asst. plant nutrition, *bur. plant indust., U. S. Dept. Agr.*, 19—23, *biophysical investigator, office crop acclimatization*, 25— Instr., Minnesota, 23—25. A.A.; Bot. Soc; Soc. Plant Physiol. Water requirements of plants; causes of the excessive shedding of upland cottons in the Southwest.

Eaton, Dr. George F(rancis), 70 Sachem St., New Haven, Conn. *Comparative osteology, Paleontology*. New Haven, May 30, 72. A.B., Yale, 94, Ph.D., 98. Instr. osteol., Yale, 99—16, curator univ. museum, 02—20, assoc. curator vert. paleont., 04—10, assoc. paleont., 19—20. A.A.; Soc. Nat; Paleont. Soc; Anthropol. Ass; Soc. Vert. Paleont; Conn. Acad. (sec'y, 06—).

Eaton, Prof. H(arry) N(elson), Syracuse University, Syracuse, N. Y. *Geology*. Eaton, N. Y., Jan. 11, 80. A.B., Colgate, 04; Harvard, 04—09, A.M., 06; Ph.D., Pittsburgh, 12. Asst. geol., Harvard, 05—06, Radcliffe, 06—07; instr., North Carolina, 07—10; Pittsburgh, 10—12; asst. prof. and assoc. prof., Pa. State, 12—18; *assoc. prof., Syracuse*, 19— Summers, asst. geologist, N. Dak. Geol. Surv., 20, Pa. Geol. Surv., 21. A.A.; Geog. Soc; Seismol. Soc. Stratigraphy; structural geology in Pennsylvania and Massachusetts; Ordovician stratigraphy of central Pennsylvania; lower Devonian faunas of New York and Pennsylvania.

Eaton, Dr. Scott V(erne), University of Chicago, Chicago, Ill. *Plant physiology*. Liberty, Ind., Nov. 7, 85. A.B., Earlham, 08; M.S., Chicago, 13, Ph.D., 20. Asst. prin. high sch., Ind., 09—12; instr. and asst. prof. bot., Washburn, 13—17; asst. plant physiologist, Md. Exp. Sta., 18—19; *instr. and asst. prof. bot., Chicago*, 21— A.A.; Soc. Plant Physiol; Bot. Soc; Ecol. Soc. Relation of sulphur to plant nutrition; effect of salts on nodule development.

Ebaugh, Prof. Franklin Gessford, University of Colorado, Denver, Colo. *Psychiatry*. Reisterstown, Md., May 14, 94. A.B., Hopkins, 15, M.D., 19. Res. house officer, Phipps Psychiat. Clinic, and asst. dispensary psychiatrist, Hopkins Hosp., 19—20; asst. physician, N. J. State Hosp., 20—22; instr. psychiat., Pennsylvania, 22—25; *prof., Colorado, and director, Colo. Psychopathic Hosp.*, 25— Visiting psychiatrist, N. J. State Home for Boys, 20—22; director dept. neuro-psychiat., Phila. Gen. Hosp., 22—25; clin. prof., Woman's Med. Col. of Pa., 23—25. Ass. Psychiat; Neur. Ass; Phila. Psychiat. Soc. (v. pres, 24); Phila. Neur. Soc; Phila. Pediat. Soc. Clinical psychiatry.

Ebaugh, Dr. W(illiam) Clarence, Granville, Ohio. *Chemistry*. Philadelphia, Pa., Jan. 3, 77. B.S.

- Pennsylvania, 98, Ph.D., 01. Asst. and chief chemist, iron and steel lab, near Reading, Pa, 98-99; director *pro tem*, dept. physics and chem, Kenyon, 01-02; chemist, Am. Smelting and Ref. Co. and public analyst, Salt Lake City, 02-03; director dept. chem, Utah; 03-15; *prof. chem, Denison*, 17-, ed., 'Jour. Scientific Laboratories,' Denison, 24-; consulting chemist, 02- Assoc. ed., 'Jour. Indust. and Eng. Chem,' 08-11. A.A.; Chem. Soc.; Eng. Educ; West. Ass. Tech. Chem. and Metal; Utah Acad. (pres, 09); Utah Soc. Eng. (sec'y). Industrial chemistry; atomic weight of arsenic; steel analysis; pollution of atmosphere by smelter fumes; smelter smoke; gas producers.
- Eberson, Dr. Frederick**, University of California Medical School, San Francisco, Calif. *Immunology, Bacteriology*. New York, N. Y., Feb. 10, 92. B.S., Col. City of N. Y., 12; A.M., Columbia, 16, Ph.D., 18; fellow, Iowa Col., M.S., 15; M.B., M.D., Minnesota, 24. Instr. bacter, Iowa Col., 14; asst. path. and bacter, Rockefeller Inst., 17-18; assoc. dermat. and in charge syphilis research lab, Washington (St. Louis), 19-21; assoc. dermat. research and in charge lab, Mayo Clinic, 22-23; instr. med. sch., California, 24-26, asst. prof., 26-, physician, Univ. Hosp. and Chest Clinic, 24-, epidemiologist, 26- Research asst., Mass. Inst. Tech., 12-13; physician-in-chief, Children's Tuber. Dept., San Francisco Hosp., 27-; research bacteriologist in charge dept. research bacter. and path., N. Manchurian Plague Prevention Service, China, 16; instr., Rockefeller Inst. Army Med. Sch.; army lab, Yale. Ed. staff, 'Nelson's System of Med,' 20- Committee, Standardization Wassermann Technique, 21- A.A.; fel. Am. Med. Ass.; Soc. Bact. (committee, bacter. technic, 20-23); Soc. Exp. Biol.; Tuber. Ass.; Calif. Acad. Med.; Nat. Med. Ass. China. Biology; infectious diseases; typhoid-paratyphoid group; hog cholera; plague; poliomyelitis; meningitis; diphtheroids; Hodgkin's disease; streptococcus; measles; pneumonia; syphilis; tuberculosis.
- Eccles, Prof. David C(harles)**, 191 Dean St., Brooklyn, N. Y. *Chemistry*. Brooklyn, Dec. 10, 76. B.S., Columbia, 00, A.M., 01; M.D., L. I. Col. Hosp., 10. Instr. chem, Wash. Col., 01-02; sch. pharmacy, Northwestern, 02-05, asst. prof., 05-06. A.A.; Chem. Soc. New derivatives of antipyrin.
- Eccles, Dr. R(obert) G(ibson)**, 681 Tenth St., Brooklyn, N. Y. *Chemistry, Botany*. Kilmaurs, Ayrshire, Scotland, Jan. 1, 48. M.D., L. I. Col. Hosp., 81; Ph.G., Brooklyn Col. Pharmacy, 90; hon. Phar.D., Scio, 03. Prof. org. chem, Brooklyn Col. Pharmacy, 90-92; chemist, U. S. Dept. Indian Affairs, 93-95; assoc. ed., 'Merck's Report,' 95- Ed., 'Popular Science News,' 95; 'Am. Medico-Surg. Bul.,' 97-98; 'Merck's Archives,' 99-01. Committee of revision, U. S. Pharmacopœia, 90-00. A.A.; Chem. Soc.; Am. Med. Ass.; Pharmaceut. Ass. (chairman, dept. educ); Phytopath. Soc.; Ass. Anat.; Torrey Bot. Club; N. Y. State Pharmaceut. Ass. (pres); fel. N. Y. Acad.; Brooklyn Inst. (pres, chem. sect). Pepsin; antiseptics; chemistry of *Calycanthus glaucus*; drugs and digestion; alkaloids; disease, natural selection and variation.
- Echols, Prof. W(illiam) H(olding)**, University, Va. **Mathematics*. San Antonio, Texas, Dec. 2, 59. B.S., C.E., Virginia, 82. Civil and mining engineer, 82-87; prof. applied math. and director, Mo. Sch. Mines, 87-91; *prof. math, Virginia*, 91- Past ed-in-chief, 'Annals of Math.' Math. Soc. Theory of functions; the construction of functions by infinite series of functions; mathematical analysis.
- Echterbecker, Charles F(rederick)**, 771 Snelling Ave, N, St. Paul, Minn. *Psychology, Education*. New York, N. Y., Jan. 25, 79. A.B., Dartmouth, 18; Chamberlain fellow, Columbia, 19-21. Instr. psychol., Dartmouth, 18-19; asst., Columbia, 19-21; head departments psychol. and educ, *Hamline*, 21- The variability of reaction time in individuals.
- Eckart, Dr. Carl**, 492 Center St, Pasadena, Calif. *Physics*. St. Louis, Mo., May 4, 02. B.S., Washington (St. Louis), 22, M.S., 23; Edison Lamp Works research fellow, Princeton, 23-25, Ph.D., 25. Nat. Research Council fellow, Calif. Inst., 25- Physical Soc. Quantum theory.
- Eckart, C(harles) F(ranklin)**, Oakland, Calif. *Agriculture*. Marysville, Calif., June 18, 75. M.S., California, 05. Tech. chemist, 95; chemist, Hawaiian Sugar Planters' Ass., 96-00; director agr. and chem, Sugar Planters' Exp. Sta., 01-09, gen. director, 09-13; manager, Olaa Sugar Co, Ltd, 13-20; plantation consultant, 20-25; *agr. research worker, Calif*, 25- Agricultural chemistry; sugar technology; improvement of sugar-cane varieties; paper mulch for crop culture.
- Eckel, Edwin C(larence)**, 1503 Decatur St, N. W., Washington, D. C. *Engineering, Geology*. New York, N. Y., March 6, 75. Col. City of N. Y., 89-91; B.S., N. Y. Univ., 95, C.E., 96. Asst. geol., N. Y. State Museum, 00-02; U. S. Geol. Surv., 02-06; consulting engineer and geologist, 07- Capt., C.Eng., 17-19, major, 19. A.A.; Geol. Soc.; assoc. Civil Eng. Cements; economic geology; iron ores and fuels.
- Ecker, Dr. E(nrique) E(duardo)**, Western Reserve University, Cleveland, Ohio. *Pathology*. Willemstad, Curaçao, D. W. I., Jan. 26, 87. Wageningen, Holland, 04-08; Ph.D., Chicago, 17. Diagnostician, Cleveland Board Health, 18-19; demonstrator hygiene and bacter, *Western Reserve*, 18-19, instr. immunol., 19-21, senior instr., 21-24, asst. prof., 24- Soc. Exp. Path.; Ass. Path. and Bact.; Soc. Bact. Bacteriology; immunity.
- Eckhardt, Dr. E(ngelhardt) A(ugust)**, Marland Oil Co, Ponca City, Okla. *Physics*. Cedarburg, Wis., 88. B.S., Pennsylvania, 08, Ph.D., 12, Harrison research fellow, Pennsylvania, at Göttingen, 12-13. Instr. physics, Pennsylvania, 08-12, asst. prof., 13-17; assoc. physicist, Bur. Standards, 17-19, physicist, 19-24, senior physicist, 24-25; asst. chief research dept., *Marland Oil Co*, 25- A.A.; Physical Soc.; Franklin Inst.; Wash. Philos. Soc.; Wash. Acad.; London Physical Soc. Magneto-optics and acoustics; ballistic measurements; geophysics.
- Eckles, Prof. C(larence) H(enry)**, University of Minnesota, Minneapolis, Minn. *Dairy hus-*

- bandry*. Marshalltown, Iowa, April 14, 75. B.S.A. Iowa Col, 95, M.S. 97, Sc.D. 16; Wisconsin, 96; Göttingen and Berne, 04-05. Asst. dairy bacter, Iowa Col, 96-01; asst. prof. dairy husbandry, Missouri, 01-06, prof, 06-19; *chief dairy div, Minnesota*, 19- Instr. Mass. Col, 98-99. Dairy Sci. Ass. (pres, 21); Soc. Exp. Biol; fel. Iowa Acad. The composition of milk; nutrition, growth and development of dairy cattle.
- Eckman, Dr. James Roy**, 325 Maryland Ave, N. E, Washington, D. C. *Chemistry*. Leechburg, Pa, Sept. 7, 87. A.B. West Virginia, 10; A.M. Harvard, 17; Ph.D. Hopkins, 24. Asst. chem. West Virginia, 08-10; anal. and research chemist, Merrimac Chem. Co, 12-15; chief chemist, Essex Aniline Works, 17-18; *assoc. chemist, Bur. Standards*, 19-; *lecturer physical chem, George Washington*, 25- Research physical chemist, War Dept, 18-19. A.A.; Chem. Soc. Synthetic drugs; heavy chemicals; intermediates and dye-stuffs; explosives and poisonous gases; analytical methods; gases in metals; chemical metallurgy; heat of reaction.
- Eckstein, Prof. Henry C**, University of Michigan, Ann Arbor, Mich. *Physiological chemistry*. Sheboygan, Wis. A.B. Illinois, 15, M.S. 18; Ph.D. Yale, 23. Instr. *physiol. chem, Michigan*, 23-26, *asst. prof*, 26- Soc. Biol. Chem. Chemistry of the fats and proteins.
- Eddy, Prof. C(larence) L(eroy)**, 1793 E. 86th St, Cleveland, Ohio. *Railroad engineering*. Atlanta, Ill, Oct. 20, 77. B.S. Illinois, 00, C.E. 09. Practising ry. engineer, 00-07; assoc. prof. and *prof. ry. eng, Case*, 07- A.A.; Eng. Educ; Ry. Eng. Rolling resistance of cars.
- Eddy, C(lifford) O(tis)**, Clemson College, S. C. *Entomology*. Ellicottville, N. Y. Feb. 17, 94. A.B. B.S. Ohio State, 20, M.S. 23. Asst. zool. and entom, Ohio State, 20-21; instr. N. C. State, 21-23; *assoc. prof. entom. and assoc. entomologist, Clemson*, 23- A.A.; Entom. Soc; Ass. Econ. Entom; Ecol. Soc; N. C. Acad. Economic entomology; insecticides; biology and control of economic insects; Mexican bean beetle; persimmon Psylla.
- Eddy, Prof. M(ilton) W(alker)**, 249 W. Louthier St, Carlisle, Pa. *Zoology*. Calcutta, India, Dec. 6, 84. B.S. Northwestern, 10, M.S. 12. Instr. zool, Pa. State, 10-11, head dept, 12-18; Atlas Powder Co, 18; U. S. Pub. Health Service, Md, 20-21; *head dept. biol, Dickinson Col*, 21- Ordinance dept, U.S.A. 19. A.A.; Soc. Zool; Ass. Econ. Entom. Animal ecology.
- Eddy, Prof. Samuel**, 542 W. Packard St, Decatur, Ill. *Biology*. Decatur, March 26, 97. A.B. James Millikin, 24; A.M. Illinois, 25. *Asst. prof. biol, James Millikin*, 24- Soc. Mammal; Ecol. Soc; Wilson Ornith. Club; Micros. Soc. Linnology; ecology.
- Eddy, Prof. Walter Hollis**, Teachers College, Columbia University, New York, N. Y. *Physiological chemistry*. Brattleboro, Vt, Aug. 26, 77. B.S. Amherst, 98; A.M. Columbia, 08, Ph.D. 09. Teacher, high schools, Mass, N. J. and N. Y. 98-17; asst. prof. *physiol. chem, Teachers Col, Columbia*, 19-20, *assoc. prof*, 20-21, *prof*, 21- Assoc. Columbia, 09-13; research chemist, N. Y. Hosp, 14- Major, Sanit.C. 17-19. A.A.; Chem. Soc; Biochem. Soc; Soc. Exp. Biol; Harvey Soc. Protein chemistry; vitamin content of foods; isolation of a bios; vitamin B.
- Edelman, Philip E**, 1367 E. 53d St, Chicago, Ill. *Electrical engineering*. Duluth, Minn, July 16, 94. B.S. Minnesota, 16, Research Corp. fellow, E.E. 17. Engineer, War and Navy Dept. Laboratories, 17-18. Radio Eng. Radio communication; electrochemistry; automatic chemical control.
- Edgar, Dr. Graham**, Ethyl Gasoline Corporation, 25 Broadway, New York, N. Y. **Chemistry*. Fayetteville, Ark, Sept. 19, 87. B.S. Kentucky, 07; Ph.D. Yale, 09. Instr. chem, Virginia, 09-10, adjunct prof, 10-12, *assoc. prof*, 12-17; prof, Throop, 17-18; Virginia, 19-24; *director research, Ethyl Gasoline Corp*, 24- Exec. sec'y, research information service, Nat. Research Council, 18-19. Consulting chemist, nitrate div, ordnance dept, 19. A.A.; Chem. Soc. Physical and analytical chemistry; analysis of vanadium; reaction velocity in heterogeneous systems; diffusion of iodine; fuels.
- Edgar, Prof. J(ames) Clifton**, 28 W. 56th St, New York, N. Y. *Obstetrics*. New York, June 14, 59. Ph.B. Lafayette, 82, A.B. A.M. 85; M.D. N. Y. Univ, 85. Prof. *obstet. and clin. midwifery*, Univ. and Bellevue Hosp. Med. Col, 85-98; *med. col, Cornell*, 98-, *emer. prof*. Consulting obstetrician, Bellevue, N. Y. Maternity and Jewish Hospitals; obstet. surgeon, Manhattan Maternity and Dispensary. Gynec. Soc. (v. pres, 04); Am. Med. Ass; N. Y. Obstet. Soc. (pres, 08); N. Y. Acad. Med. Toxemia of pregnancy; hepatic insufficiency; instrumental dilatation of the cervix; obstetric teaching; urine of pregnancy; ophthalmia of the newly born.
- Edgerton, Prof. A(lanson) H(arrison)**, University of Wisconsin, Madison, Wis. *Education*. Elba, N. Y. May 16, 88. B.S. Columbia, 13, M.A. 17, Ph.D. 25. Teacher, N. Y. State Nor. Sch, Plattsburg, 10-11; Mt. Vernon Pre-vocational Sch, 11-12; Lawrence Indust. Arts Sch, N. Y. 12-13; head indust. arts, East. Ill. State Nor. Sch, 13-14; supervisor indust. educ. and apprentices, Panama, 14-16; Lincoln Exp. Sch, Columbia, 17-20; asst. prof. vocational educ, Indiana, 20-21; chief vocational information div, Board Educ, Detroit, 21-23; exp. teaching, Teachers Col, Columbia, 23-24; *head dept. indust. educ. and applied arts and prof, Wisconsin*, 24- Lecturer, Michigan, 21-23. Sect. ed, 'Book of Knowledge,' 'Popular Science Monthly,' 18-20, ed, 'Yearbook,' Nat. Vocational Guidance Ass, 25-27. Nat. Soc. Study Educ. (ed. director, 'Yearbook,' part II, 23-24); Nat. Vocational Guidance Ass. (v. pres, 25-27, pres, 27); Am. Vocational Ass. (chairman, committee). Industrial arts; prevocational education; local occupations; vocational guidance.
- Edgerton, Dr. C(laude) W(ilbur)**, Louisiana State University, Baton Rouge, La. *Botany, Plant pathology*. Woodbine, Iowa, March 9, 80. B.S. Nebraska, 03; Ph.D. Cornell, 08. Asst. bot,

- Cornell, 05-07, instr, 07-08; plant pathologist, La. Exp. Sta, 08-24; *prof. bot. and plant path, Louisiana*, 24- Assoc. ed, 'Phytopath,' 16-18. A.A.; Bot. Soc; Phytopath. Soc. (pres, 25). Anthracnose diseases of plants; diseases of cotton, rice, sugar-cane, alfalfa and truck crops.
- Edington, Prof. Will(iam) E(dmund)**, 633 Russell St, West Lafayette, Ind. *Mathematics*. Rantoul, Ill, Dec. 8, 86. A.B, Ind. State Nor. Sch, 09; A.M, Illinois, 19, Ph.D, 21. Head dept. *math*, New Mexico, 14-17; *asst. prof.*, Pa. State, 21-22; *Purdue*, 22- A.A; Math. Soc; Math. Ass. Mathematical physics; group theory; corona losses in high voltage transmission lines.
- Edison, Dr. Tho(ma)s A(lva)**, Orange, N. J. **Physics*. Milan, Ohio, Feb. 11, 47. Self educated; hon. Ph.D, Union, 78; hon. Sc.D, Princeton, 15; LL.D, Univ. State N. Y. Telegraph operator up to 69; *elec. engineer and inventor*, 69- Commander, Légion d'honneur. Adelskiold gold medal, Royal Acad, Stockholm. Nat. Acad; A.A; Elec. Eng; Mech. Eng; Min. Eng; Philos. Soc; Royal Swedish Acad. Science as applied to invention; Universal Stock Ticker and Unison Device; quadruplex and sextuplex telegraphic transmission; 'etheric force'; microtastimeter; phonograph; 'Edison effect'; incandescent lamp and light system; moving pictures; noval rock breakers and crushers; long kiln for burning Portland cement; alkaline storage battery; mimeograph; poured concrete houses; transmitter of the telephone; microphone; magnetic separator.
- Edler, G(eorge) C(hristian)**, 1350 Kennedy St, Washington, D. C. *Agriculture*. Chicago, Ill, Dec. 13, 89. B.S, Illinois, 11. Traveling buyer and salesman, The Albert Dickinson Co, Minn, 12-16; *asst. chief marketing specialist in charge seed marketing and seed reporting service*, bur. agr. econ, U. S. Dept. Agr, 16- Asst, Illinois, 10-11. Delegate, Int. Inst. Agr, Rome, 24; Int. Seed Testing Cong, Eng, 24. Ass. Marketing Officials; Int. Crop Improvement Ass. Marketing of grass and clover seeds; the seed industry.
- Edlund, Dr. K(arl) R(ichard)**, Walnut Creek, Calif. *Chemistry*. Fresno, Calif, Aug. 29, 98. A.B, California, 19, M.S, 20, Ph.D, 22. Head dept. chem, Humboldt Col, 22-23; Albany (Oregon), 23-24; *research chemist*, Associated Oil Co, 24- Chem. Soc. The carbon-carbon double bond; petroleum.
- Edmister, Prof. F(loyd) H(arris)**, University of North Carolina, Chapel Hill, N. C. *Inorganic chemistry*. Canaseraga, N. Y, Oct. 31, 81. B.S, Syracuse, 12, Ph.D, 18; M.S, Louisiana, 13. Instr. chem, Clemson, 14-15; *prof. physical sciences*, Porto Rico, 18-23; *asst. prof. chem*, North Carolina, 23-25, *assoc. prof.*, 25- Chem. Soc. Fluorides of the heavy metals.
- Edmonds, Dr. Harry M(arcus) W(eston)**, Department of Terrestrial Magnetism, Washington, D. C. *Physics*. Oshkosh, Wis, June 25, 62. A.B, California, 82; M.D, Hahnemann Med. Col, 93; Göttingen; Bonn; Leipzig. Observer and magnetic observer in charge, Sitka Magnetic Observatory, U. S. Coast and Geod. Surv, 89-09; *magnetician*, dept. terrestrial magnetism, Carnegie Inst, 09- Commander, yacht 'Carnegie,' 17-18; in charge, Huancayo Magnetic Observatory, Peru, 19-21. A.A; Wash. Philos. Soc. Magnetism.
- Edmondson, Prof. C(harles) H(oward)**, University of Hawaii, Honolulu, Hawaii. *Zoology*. Milton, Iowa, Oct. 14, 76. Ph.B, Iowa, 03, M.S, 04, Ph.D, 06. *Prof. biol*, Iowa Wesleyan, 06-07; nat. hist, Washburn, 07-08, *zool. and physiol*, 08-13; *asst. prof. and prof. zool*, Oregon, 13-20; *Hawaii, and zoologist*, Bishop Museum, 20- A.A; Soc. Zool; Micros. Soc. Protozoa of Iowa; high mountain lakes of Colorado, Japan and of Devil's Lake; reformation of the crystalline style in *Mya arenaria*; crustacea; Hawaiian corals; growth and development of corals.
- Edmondson, Prof. C(larence) E(dmund)**, Bloomington, Ind. *Physiology, Hygiene*. Ellettsville, Ind, April 9, 83. A.B, Indiana, 06, A.M, 12, Ph.D, 14. Instr. *physiol*, Indiana, 12-16, *asst. prof.*, 16-19, *assoc. prof. hygiene*, 19-25, *prof.*, 25-, *dean men*, 19- A.A; Ind. Acad. Physiology of the thyroid and thymus glands.
- Edmondson, Prof. T(homas) W(illiam)**, 141 Franklin Ave, Mt. Vernon, N. Y. *Mathematics*. Skipton, Eng, June 26, 69. B.A, London, 88; Cambridge, 91; fellow, Clark, 94-96, Ph.D, 96. Asst. *prof. physics*, N. Y. Univ, 96-03, *assoc. prof.*, 03-05, *prof. math*, 05-, acting dean grad. sch, 16-21. Asst. tutor, Univ. Correspondence Col, Cambridge, Eng, 89-93. Math. Soc; Math. Ass. Spark discharge in dielectrics; theory of potential; spherical harmonic analysis; theory of curves; elliptic functions.
- Edmunds, Dr. Cha(rlie)s K(eyser)**, Johns Hopkins University, Baltimore, Md. *Physics, Electrical engineering*. Baltimore, Sept. 21, 76. Baltimore City Col, 90-93; A.B, Hopkins, 97, fellow, 02-03, Ph.D, 03. Acting *prof. physics*, Utah, 98-99; magnetic observer, U. S. Coast and Geod. Surv, 00; instr. physics, high sch, Washington, D. C, 00-01; *prof. physics and elec. eng.*, Canton Christian Col, China, 03-24, pres, 07-24; *provost*, Hopkins, 24- Observer in charge Magnetic Surv. of China, Carnegie Inst, 06-17. A.A; Physical Soc. Optical properties of selenium; the magnetic field of the earth; geography of China.
- Edmunds, Prof. C(harles) W(allis)**, University of Michigan, Ann Arbor, Mich. **Pharmacology, Therapeutics*. Bridport, Eng, Feb. 22, 73. Indiana, 94-95; M.D, Michigan, 01, A.B, 04. *Prof. mat. med. and therapeut. med. sch.*, Michigan, 07-, sec'y, 11-21, *asst. dean*, 18-21. Committee of revision, U. S. Pharmacopeia, 10-; Nat. Research Council. Second Int. Conf. on Standardization of Biol. Products, League of Nations, 25. Soc. Pharmacol; Physiol. Soc; Am. Med. Ass. (councilor, chem. and pharmacy); Am. Physicians; Soc. Exp. Biol. Action of lobelin; poisons on nerve endings; tolerance to poisons; action of bacterial poisons, and of drugs on suprarenal glands.
- Edquist, Prof. J(oshua) A(nderson)**, St. Peter, Minn. *Biology*. Knoxville, Ill, April 16, 62. A.B, Augustana, 86, A.M, 95; M.Di, Iowa State Teachers' Col, 89; Minnesota, 94; Wisconsin,

02; Woods Hole, 04. Asst. science, *Gustavus Adolphus*, 89-94, prof. nat. science, 94-15, *biol*, 15-20, 21-

Edsall, Dr. David L(inn), Harvard Medical School, Boston, Mass. **Medicine*. *Hambury*, N. J., July 6, 69. A.B., Princeton, 90, hon. Sc.D., 13; M.D., Pennsylvania, 93, Woodward fellow, 05; Mercy Hosp. and Rosalia Foundling Asylum, Pittsburgh, 93-94; London, Vienna and Graz, 94-95, 01. Assoc. William Pepper lab, Pennsylvania, 95-05, instr. med, 99-03, assoc, 03-05, asst. prof, 05-07, prof. therapeut. and pharmacol, 07-10; prev. med, sch. med, Washington (St. Louis), 11-12; Jackson prof. clin. med, *Harvard Med. Sch.*, 12-23, *dean faculty med*, 18-, *dean sch. pub. health*. A.A.; Am. Physicians; Soc. Clin. Invest. (pres, 09); *Pediat. Soc.* (pres, 09); *Philos. Soc.*; Am. Acad. Physiology and pathology of digestion and metabolism; clinical medicine; industrial disease and hygiene.

Edson, Dr. Carroll E(verett), 518 Majestic Building, Denver, Colo. *Medicine*. *Roxbury*, Mass, Oct. 14, 66. A.B., Harvard, 88, A.M., M.D., 92. Physician, out-patient dept, Boston City Hosp, 95-96; prof. therapeut, Denver, 97-07; med, Colorado, 07-11. Acting assoc. surgeon, U.S.A., 98. Assoc. ed, 'Boston Med. and Surg. Jour.' A.A.; Am. Med. Ass.; *Climat. Ass.* (v. pres, 09, 12, pres, 20); *Tuber. Ass.* (director, 06); *Colo. Sci. Soc.* Clinical medicine; climatology.

Edson, Dr. H(oward) A(ustin), 3822 Fourth St., N. W., Washington, D. C. *Plant pathology*. *Randolph*, Vt, Aug. 14, 75. B.S., Vermont, 06, M.S., 10; Ph.D., Wisconsin, 13. Instr. bacter, Vermont, and asst. botanist, Exp. Sta, 06-08, asst. prof. and bacteriologist, 08-10; physiologist and pathologist, bur. plant indust, U. S. Dept. Agr, 10-24, senior pathologist in charge cotton truck and forage crop investigations, 24-27; *chief examiner*, U. S. Civil Service Commission, 27-Plant disease survey, P. I., 16; sugar beet and Irish potato diseases in Europe, 14. Joint Congressional Commission, Reclassification of Salaries, 19-20; staff, Personnel Classification Board, 23-24. A.A.; Bot. Soc.; *Phytopath. Soc.*; *Wash. Bot. Soc.*; *Wash. Acad.* Bacteriology of maple products; vegetable diseases.

Edwards, Dr. Arthur R(obin), 104 S. Michigan Ave, Chicago, Ill. *Medicine*. Chicago, June 26, 67. A.B., Northwestern, 88, A.M., M.D., 91. Intern, Cook Co. Hosp, 91-92; prof. therapeut, med. sch, Northwestern, 96-98, principles and practice of med. and clin. med, 98-17, dean faculty, 07-16. Attending physician, Cook Co. Hosp, 93-05; St. Luke's Hosp, 96-05; Wesley Hosp, 98-15; Michael Reese Hosp, 00-; Mercy Hosp, 01-17. Am. Physicians; Am. Med. Ass. Internal medicine.

Edwards, Prof. A(ustin) S(outhwick), University of Georgia, Athens, Ga. *Psychology*. Oswego, N. Y., March 2, 85. B.S., Columbia, 08; A.M., Minnesota, 10; Ph.D., Cornell, 12. Instr. *psychol*, Minnesota, 12-16; assoc. prof, *Georgia*, 16-19, *prof*, 19- *Psychol. examiner*, Sanit.C, 18, educ. service, 19. A.A.; *Psychol. Ass.*; *Ga. Acad.* Sensory suggestion; learning and dis-

tribution of time; habit and education; nature and procedure of studying.

Edwards, Dr. Charles L(incoln), 2476 Glendower Place, Los Angeles, Calif. **Zoology*. *Oquawka*, Ill, Dec. 8, 63. B.S., Lombard, 84; Indiana, 86, A.M., 87; Hopkins, 86-89; Ph.D., Leipzig, 90; fellow, Clark, 90-92. Asst. prof. *biol*, Texas, 92-93, adjunct prof, 93-94; prof, Cincinnati, 94-00; Trinity (Conn), 00-10; *embryol. and histol*, Southern California, 11-13; *director nature study, pub. schools*, Los Angeles, 12-Kristineberg Zool. Sta, 09; Wurzburg, 10; Naples, 10; Bahamas, 88, 91, 93; Fla. Keys, 96; Texas, 92. A.A.; Soc. Nat.; Soc. Zool.; Ass. Anat.; Folk-Lore Soc. (pres, 99); Calif. Acad; cor. mem. Soc. de Geog. y Est. Mex; hon. mem. Soc. Mex. Hist. Nat.; Soc. Cient. Ant. Alz. Embryology, growth and variation of holothurians and reptiles; influence of warmth on protoplasm; idiochromosomes in Ascaris; copepods and abalones.

Edwards, Prof. C(harles) W(illiam), Duke University, Durham, N. C. *Physics*. Arkadelphia, Ark, 73. A.B., Trinity (N. C), 94; A.M., Tulane, 96; M.S., N. Y. Univ, 98; Columbia, 98-99. Instr. math, Tulane, 94-96; *prof. physics*, Duke, 00- Assoc. mem. Physical Soc; assoc. Elec. Eng; N. C. Acad. (pres). Electrical engineering; armature reactions; radioactivity and application of electrical waves to wireless telegraphy.

Edwards, Dr. D(ayton) J(ames), Cornell Medical College, New York, N. Y. *Physiology*. Otisfield, Maine, Sept. 7, 82. B.S., Maine, 06; Ph.D., Columbia, 13. Asst. and instr. *biol*, Maine, 06-08; asst. zool, Columbia, 08-09; tutor and instr. *physiol*, Col. City of N. Y., 09-17, asst. prof. and *assoc. prof, med. col, Cornell*, 18- A.A.; Soc. Nat; *Physiol. Soc.*; Soc. Exp. Biol; Harvey Soc. The physiology of circulation.

Edwards, F(rancis) R(ees), Georgia Experiment Station, Experiment, Ga. *Animal industry*. Ottawa, Ohio, March 31, 97. B.S., Florida, 18; M.S., Ohio State, 21. Asst, Florida, 18; prof. animal husbandry and dairying, Porto Rico, 21-23; teaching scholar *animal husbandry*, Iowa Col, 23-24; *head dept, Ga. Exp. Sta*, 24-U. S. Marine Corps, Aviation, 18. A.A.; Soc. Animal Production. Animal feeding; effects of climate on animals; soft pork; infectious abortion.

Edwards, Dr. Gall P(hillips), 1014 S. Michigan Ave, Chicago, Ill. *Chemistry*. Chicago, Oct. 4, 95. B.S., Illinois, 18, M.S., 21, Ph.D., 23. Chemist, Ill. State Water Surv, and research asst, Illinois, 19-23; *asst. chemist, Sanitary District of Chicago*, 23- Chem. Soc. Water purification; sewage treatment; industrial wastes.

Edwards, Prof. Geo(rge) C(unningham), 2546 Dana St, Berkeley, Calif. *Mathematics*. Spencer Acad, Okla, 52. Ph.B., California, 73, LL.D., 23. Instr, asst. prof, assoc. prof, prof. and *emer. prof. math, California*, 73- In charge mil. dept, California, 73-77, 79-82. Trustee, Mills Col. A.A.; Math. Soc; Pacific Astron. Soc. (pres, 04); Calif. Acad. Elementary mathematics; ratio of the values of silver and gold.

- Edwards, H(arry) T(aylor)**, 1432 Webster St, N. W., Washington, D. C. *Agriculture*. Chesterfield, Mass., Oct. 28, 77. B.S., Mass. Col., 96. Fiber expert, Govt. P. I., 02-12, asst. director agr., 12-14, director, 14-17; fiber specialist, U. S. Dept. Agr., 17-24, *technologist*, 24- A.A.; Wash. Bot. Soc. Production and uses of plant fibers.
- Edwards, Dr. Hiram W(heeler)**, University of California at Los Angeles, Los Angeles, Calif. *Pedagogy*, *Physics*. Spring Valley, Minn., Sept. 9, 85. B.S., California, 08, Ph.D., 11. Prof. physics, Baylor, 11-12; director science, Calif. State Nor. Sch., Fresno, 12-18; supervisor, training of science teachers, *California*, 18-22, asst. prof. *physics*, *California at Los Angeles*, 22-24, *assoc. prof.*, 24- Inspector, instr. and efficiency expert, U. S. Sch. Mil. Aeronautics, 18. Physical Soc. Electricity; conductors carrying high frequency currents; energy in X-rays.
- Edwards, Ira**, Public Museum, Milwaukee, Wis. *Geology*. Hulberton, N. Y., April 22, 93. B.S., Rochester, 13, M.S., 14. Asst. paleont., N. Y. State Museum, 15-16; *geol.*, Milwaukee Pub. Museum, 16-19; adjunct prof., Texas, 20-21; *curator*, *Milwaukee Pub. Museum*, 21- A.A.; Paleont. Soc.; Wis. Archeol. Soc.; Wis. Acad. Geology and paleontology of the Upper Mississippi Basin; Cambrian paleontology of Wisconsin.
- Edwards, J(ames) F(ranklin)**, Iowa State College, Ames, Iowa. *Hygiene*, *Public health*. Pittsburgh, Pa., Jan. 10, 74. A.B., Grove City, 94, A.M., 96; M.D., Pennsylvania, 98. Health commissioner, Pittsburgh, Pa., 06-17; *prof. hygiene and head student health work*, Iowa Col., 21- Lecturer, Pittsburgh, 15-17. Chairman, Pa. Typhoid Commission, 08-12. M.C., U.S.A., 17-19; instr., Infantry and Cavalry Sch., Leavenworth, 02-06. A.A.; Am. Med. Ass.; Pub. Health Ass.; Student Health Ass. Health reports; personal and community hygiene.
- Edwards, J(ohn) Graham**, Johns Hopkins Medical School, Baltimore, Md. *Physiology*. Surry Co., Va., Oct. 13, 90. A.B., A.M., Virginia, 15; Bruce fellow, Hopkins, 20-21, Ph.D., 21. Asst. zool., Virginia, 15-16, instr. biol., 16-17; asst. zool., Hopkins, 21-22, *physiol.*, sch. med., 22-23, instr., 24-26. Naples Zool. Sta., 26. Botany; zoology.
- Edwards, Junius D(avid)**, Aluminum Co. of America, New Kensington, Pa. *Chemistry*. Minneapolis, Minn., March 17, 90. B.S., Minnesota, 12, Ch.E., 13. Assoc. chemist, Bur. Standards, 13-19; physical chemist, *research bur.*, *Aluminum Co. of Amer.*, 19-20, *asst. director research*, 21- Chem. Soc.; Electrochem. Soc. Gas chemistry; chemistry and physical metallurgy of aluminum.
- Edwards, Dr. M(erwin) G(uy)**, Shell Company of California, Higgins Building, Los Angeles, Calif. *Geology*. Ashland, Wis., Nov. 28, 89. A.B., Wisconsin, 12, A.M., 13; Ph.D., California, 23. Instr. *geol.*, Case, 14-16; *California*, 16-17; chief geologist and asst. supt., Cerro de Pasco Copper Corp., Peru, 17-22; asst. prof., *California*, 23-24; *geologist*, *Shell Co. of Calif.*, 24- Geol. explorations, Lake Superior Iron Dist., South. Appalachians, Alaska, Peru, Calif. Ass. Petrol. Geol.; Min. and Metal. Eng.
- Edwards, Dr. Philip R(arick)**, University of Kentucky, Lexington, Ky. *Bacteriology*. Owensboro, Ky., Aug. 30, 01. B.S., Kentucky, 22; Ph.D., Yale, 25. *Bacteriologist*, dept. *vet. science*, Ky. *Exp. Sta.*, 25- Paratyphoid bacilli; encapsulated bacteria.
- Edwards, Prof. Preston H.**, Winthrop College, Rock Hill, S. C. *Physics*. Darlington, S. C., June 25, 77. A.B., A.M., Virginia, 00; Ph.D., Hopkins, 10. *Prof. physics*, Allahabad Christian Col., India, 02-20; Texas, 21-22; *Winthrop*, 22- Sound dept., Bur. Standards, 17-18. Physical Soc. Analysis of sound.
- Edwards, Dr. R(ay) L(ee)**, Miami University, Oxford, Ohio. *Physics*. Forest Grove, Oregon, Nov. 12, 85. A.B., Oberlin, 08; B.S., Ohio Wesleyan, 09; fellow, Ohio State, 10-11, A.M., 11; Michigan; Chicago; Ph.D., Iowa, 25. *Prof. physics*, Park Col., 11-26; *Miami*, 26- Instr., Iowa, 24-25; summers, asst., Chicago, 21, 23. Physical Soc. Inductance and capacity; simple lecture table galvanometer of high sensitivity; magnetic properties of evaporated nickel and iron films; hysteresis and magnetostriction.
- Edwards, Dr. V(ictor) C(lyde)**, 339 N. Fullerton Ave., Upper Montclair, N. J. *Chemistry*. Ore Hill, N. C., Aug. 31, 84. A.B., North Carolina, 09, Ph.D., 15; Chicago, 11-13. Instr. chem. and physics, Wofford, 09-11, asst. prof., 15-17; research chemist, E. I. du Pont de Nemours and Co., 17-20, acting director, Delta Research Laboratories, 20-21, *director chem. research and chem. supt.*, *Arlington Works*, du Pont *Viscoloid Co.*, 21- Chem. Soc.; Chem. Eng. Tautomerism; naphthalene derivatives; dye intermediates; explosives; pyroxyline plastics.
- Eells, Walter C(rosby)**, Whitman College, Walla Walla, Wash. *Mathematics*, *Statistics*. Union, Wash., March 6, 86. A.B., Whitman, 08; A.M., Chicago, 11. Instr., high schools, Wash., 08-10; prof. math., Whitworth, 11-14; instr., U. S. Naval Acad., 14-16; *prof. applied math.*, *Whitman*, 16- Ed. board, 'The Math. Teacher,' 23- Capt., Eng. O.R.C. Math. Soc.; Math. Ass.; Nat. Educ. Ass. (pres., 21-23); Nat. Council Teachers Math. (exec. committee, 23-). Educational statistics; primitive number systems; history of mathematics.
- Egan, J(ames) E(verett)**, 799 Jewett Ave., Westerloigh, Staten Island, N. Y. *Chemistry*. Neoga, Ill., Feb. 25, 86. A.B., De Pauw, 08; A.M., Illinois, 10, fellow, 11-12, Ph.D., 12. Acting prof. chem., De Pauw, 12-13; asst. prof., Miami, 13-18; *chem. engineer*, *Procter and Gamble Co.*, 18-
- Egbert, Prof. Seneca**, 200 E. Beech Tree Lane, Wayne, Pa. *Hygiene*, *Sanitation*. Petroleum Center, Pa., Feb. 17, 63. A.B., Princeton, 84, A.M., 87; M.D., Pennsylvania, 88, D.P.H., 21. Demonstrator hygiene, Pennsylvania, 88-90, lecturer, 90-92; prof. hygiene and sanit., *Medico-Chirurg.* Col., Phila., 93-16, dean dept. med., 98-16; *prof. hygiene*, *Pennsylvania*, 16- Lecturer, P. E. Church Training Sch., 91; Drexel Inst., 92-93; prof., Temple, 96-99; lecturer, Ludwig Inst.,

- Phila. Acad. Nat. Sci., 00-06. A.A.; Am. Med. Ass.; Pub. Health Ass.; Sch. Hygiene Ass.; Social Hygiene Ass.
- Eggers, Prof. H(arold) E(verett)**, 42d St. and Dewey Ave, Omaha, Nebr. *Pathology*. Royalton, Wis, March 1, 82. B.S., Wisconsin, 03, A.M., 05; fellow, Chicago, 06, M.D., Rush Med. Col., 09. Res. physician, Cook Co. Hosp., 09-10; *prof. path. and bacter.*, Harvard Med. Sch. of China, 11-16; *col. med.*, Nebraska, 16- Research asst., McCormick Inst. for Infectious Diseases, 07-09, 11. Bacteriology; opsonins of normal serum; spirochaetal infection of ulcers.
- Eggerth, Prof. Arnold H(enry)**, Long Island College Hospital, Brooklyn, N. Y. *Bacteriology*. Luverne, Iowa, Aug. 15, 89. A.B., Michigan, 15, A.M., 17; Ph.D., Columbia, 26. Asst., Michigan, 14-18; asst. prof. and *assoc. prof.*, Long Island Col. Hosp., 19- Soc. Exp. Path. Second lieut., Sanit. C., 18-19. Anaphylatoxin; membrane permeability; agglutination and cataphoresis of cells; chemotherapy; soaps.
- Eggleston, Dr. Cary**, 34 E. 75th St., New York, N. Y. *Pharmacology*. Brooklyn, N. Y., Aug. 18, 84. Jena, 03; M.D., Cornell, 07. Intern., N. Y. Hosp., 08-10; Sloane Hosp. for Women, 10; instr. pharmacol. *med. col.*, Cornell, 11-18, *asst. prof.*, 18-21, *clin. med.*, 21- Asst. physician, outpatient dept., N. Y. Hosp., 10-12, attending physician, dept. contagious diseases, 11; tuber. clinic, Bellevue Hosp., 10-12, asst. visiting physician, 21-; chief clinic, children's dept., DeMilt Dispensary, 11-12. Assoc. ed., 'N. Y. Med. Jour.', 12-18. A.A.; fel. Am. Med. Ass. (chairman, sect. pharmacol. and therapeut., 23); Soc. Clin. Invest.; Heart Ass.; assoc. fel. Am. Physicians; N. Y. Acad. Med. (chairman, sect. med., 18). General pharmacology; the digitalis bodies; cardiac diseases.
- Eggleston, H(arla) R(ay)**, Marietta College, Marietta, Ohio. *Zoology*. Walton, N. Y., Feb. 25, 90. B.S., Hamilton, 12, Root fellow, 12-13; A.M., Harvard, 13; Chicago, 16. *Prof. biol.*, Buena Vista, 13-15; *Marietta*, 15- Bermuda Biol. Sta., 15; Ohio State Lake Lab., 26-27. City bacteriologist, Marietta, 19- A.A.; Soc. Bact.; Pub. Health Ass.; Micros. Soc.; Ecol. Soc.; Soc. Ichthyol. and Herp.; Ohio Acad. Animal ecology; Mollusca; fishes; bacteriology.
- Eggleston, Prof. Julius W(ooster)**, Junior College, Riverside, Calif. *Geology*. New London, Conn., Oct. 1, 75. B.S., Amherst, 98; A.M., Harvard, 01, Ph.D., 24. Asst., U. S. Geol. Surv., 01-02; asst. and instr. geol. and miner, Colo. Sch. Mines, 01-05; asst. geol., Harvard, 05-10, 16-17; asst. prof. geol. and miner, Mo. Sch. Mines, 10-13; prof. geol. and bot., Occidental, 13-15; curator museum, Calif. State Mining Bur., 18; *asst. prof. geol., miner. and physical geog.*, Junior Col., 19- Summers, instr., Harvard, 06, 10. A.A.; fel. Am. Geog. Soc.; Miner. Soc.; Nat. Ass. Audubon Societies; Cooper Ornith. Club. Petrography; glacial geology.
- Eggleston, W(illard) W(ebster)**, 612 Randolph St., N. W., Washington, D. C. *Botany*. Pittsfield, Vt., March 28, 63. B.S., Dartmouth, 91; research scholar, N. Y. Bot. Garden, 07-09.
- Practising civil engineer, 91-04; aid, N. Y. Bot. Garden, 04-07; bot. asst., U. S. Nat. Museum, 08-09; *asst. botanist, Forest Service and bur. plant indust.*, U. S. Dept. Agr., 10- A.A.; Bot. Soc.; Fern Soc.; Torrey Bot. Club; Wash. Biol. Soc.; Wash. Bot. Soc.; New Eng. Bot. Club; Vt. Bot. Club (v. pres., 12-14). Systematic botany; Pomaceae of North America; Crataegi of the eastern United States; plants that poison stock.
- Eggleton, Frank E(gbert)**, University of Michigan, Ann Arbor, Mich. *Zoology*. Rutland Center, N. Y., Sept. 24, 93. A.B., Hillsdale, 22; A.M., Michigan, 23. Asst. biol., Hillsdale, 19-22; *zool.*, Michigan, 22-23; *instr.*, Syracuse, 23-26; *Michigan*, 26- Ecol. Soc.; Micros. Soc. Limnology; bottom organisms in deep waters of fresh-water lakes.
- Eggston, Dr. Andrew A**, 653 Park Ave., New York, N. Y. *Pathology*. Joelton, Tenn., Jan. 6, 90. B.S., Dickson; M.D., Vanderbilt. Asst. histol. path. and bacter., Vanderbilt, 12-13, instr. path. and bacter., 13-14, path., 14-16, asst. prof., 16-18; assoc. path., Columbia, 18-20; *pathologist, Manhattan Eye, Ear, Nose and Throat Hosp.*, 18- Chief pathologist, St. Thomas Hosp., Nashville, Tenn., 16-18; pathologist, Presb. Hosp., New York, 18-20; Mt. Vernon Hosp. A.A.; Soc. Exp. Path.; Am. Med. Ass.; Ass. Path. and Bact. Serum ferments and protein; split products in relation to pathology; epidemiology of pellagra; allergy; blood transfusion apparatus.
- Eglin, Dr. James M(ilton)**, Bell Telephone Laboratories, 463 West St., New York, N. Y. *Physics*. Berea, Ohio, May 12, 01. A.B., Oberlin, 19; fellow, Chicago, 20-22, Ph.D., 22. *Research physicist*, West. Elec. Co., 22-25, *Bell Telephone Laboratories*, 25- Physical Soc. The law of fall of a sphere in gases at low pressures; coefficients of viscosity and slip of carbon dioxide; vacuum tubes.
- Egloff, Dr. Gustav**, 1014 First National Bank Building, Chicago, Ill. *Physical chemistry*. New York, N. Y., Nov. 10, 86. A.B., Cornell, 12; A.M., Columbia, 13, Barnard research fellow, 14-15, Ph.D., 16. With U. S. Bur. Mines, 15-16; *hydrocarbon engineer and chief chemist, exp. hydrocarbon plant, Aetna Chem. Co.*, 16- Director research, Universal Oil Products Co., Chicago, 17. A.A.; Chem. Soc.; N. Y. Chemists Club. Petroleum; coal tar oils; cracking of hydrocarbons; effect of catalysis upon gasoline formation; physical constants of oils; petroleum formation.
- Ehlers, Prof. George M(arion)**, University of Michigan, Ann Arbor, Mich. *Paleontology*. Baltimore, Md., March 17, 91. A.B., Michigan, 13. Teaching asst. *geol.*, Williams, 13-14; *Michigan*, 14-18, instr., 18-21, *asst. prof.*, 21- Geologist, Mich. Geol. Surv.; Wis. Geol. and Nat. Hist. Surv. A.A.; Paleont. Soc.; Mich. Acad. (v. pres., 20). Invertebrate paleontology; stratigraphy and paleontology of the Paleozoic rocks of Michigan; Paleozoic corals.
- Ehlers, Dr. J(ohn) H(enry)**, University of Michigan, Ann Arbor, Mich. *Botany*. Piqua, Ohio, Nov. 4, 78. A.B., Michigan, 99, Ph.D., 14. Prin. and supt. schools, 00-08; instr. *bot.*, Agr. and

- Mech. Col. Texas, 14-15; *Michigan*, 15-20, *asst. prof.*, 20- Asst. prof. biol. sta, Michigan, and curator phanerogamic herbarium, 16- Business manager, 'Bot. Abstracts,' 24- A.A.; Bot. Soc.; Mich. Acad. Plant geography; taxonomy of flowering plants.
- Ehrenfeld, Pres. Charles H(atch)**, 57 S. Beaver St, York, Pa. *Chemistry*. Shippensburg, Pa, March 12, 64. A.B, Wittenberg, 86, A.M, 89, hon. Sc.D, 16; Ph.D, Pennsylvania, 94; hon. Litt.D, Gettysburg, 26. Asst. chem, Wittenberg, 86-87; *prof. chem. and physics, York Collegiate Inst*, 87-, *pres*, 16- V. pres, York Oil and Chem. Co; chief chemist, York Mfg. Co, 03-16, consulting chemist, 16- A.A.; Chem. Soc.; Soc. Test. Mat. Native minerals of York County, Pennsylvania; chemical refrigeration.
- Ehrenfeld, Dr. Frederick**, University of Pennsylvania, Philadelphia, Pa. *Geology, Mineralogy*. Washington Co, Pa, Jan. 8, 72. A.B, Wittenberg, 93; Ph.D, Pennsylvania, 98. Instr. chem. and physics, York Collegiate Inst, Pa, 93-94; instr. *geol. and miner, Pennsylvania*, 97-06, asst. prof, 06-23, *prof*, 23-, in charge dept, 17- Pa. Geol. Surv. Commission, 17-19. A.A.; Seismol. Soc; Franklin Inst; Miner. Soc; Phila. Acad.
- Ehrenfried, Dr. Albert**, 21 Bay State Road, Boston, Mass. *Surgery*. Lewiston, Maine, Feb. 9, 80. A.B, Harvard, 02, M.D, 05. Consulting surgeon and surgeon, hospitals; asst. anat, Harvard Med. Sch, 09-13, surg, 12-16. Fel. Col. Surg; Am. Med. Ass. Abdominal surgery; skin-grafting; club-foot; intratracheal insufflation anesthesia; blood vessel surgery; hereditary deforming chondrodysplasia; surgical after-treatment.
- Ehrhorn, Edw(ard) M(acfarlane)**, Box 2456, Honolulu, Hawaii. *Entomology*. San Francisco, Calif, Jan. 24, 62. Hamburg, 71-78; Grenchen, 78-79; Brighton (Eng), 79-80; Stanford, 91. Asst. entomologist and deputy quarantine officer, State Board Hort, Calif, 90-91; co. entomologist and hort. commissioner, Santa Clara Co, 92-04; first deputy state commissioner hort. and hort. quarantine officer, Calif, 04-09; supt. entom, Board Agr. and Forestry of Hawaii, 09-26, chief plant inspector, 16-26; *consulting entomologist*, 26- Collaborator, Fed. Hort. Board; Bur. Biol. Surv. A.A.; Entom. Soc; Ass. Econ. Entom; Pacific Coast Entom. Soc; Calif. Acad; Hawaiian Entom. Soc; Hawaiian Bot. Soc; Hawaiian Acad. Coccidae.
- Ehrlich, Dr. Jacob**, 304 Greylock Ave, Belleville, N. J. *Chemistry*. New York, N. Y, Jan. 6, 92. A.M, Columbia, 16, Goldschmidt fellow, 16-17, Ph.D, 17. Chemist, bur. chem, U. S. Dept. Agr, 14-15; *chief chemist, Verona Chem. Co*, 17- Chem. Soc. Organic chemistry; dyes; intermediates; pharmaceutical products.
- Eichelberger, Dr. Lillian**, 5849 N. Kostner Ave, Chicago, Ill. *Chemistry*. B.S, 16, M.S, 19, Ph.D, 21. Research instr, Chicago, 21-24; *research chemist, Munic. Tub. Sanitarium, Chicago*, 24- Chem. Soc.
- Eichelberger, Prof. W(illiam) S(nyder)**, U. S. Naval Observatory, Washington, D. C. **Astronomy*. Baltimore, Md, Sept. 18, 65. Balti-
- more City Col, 78-83; A.B, Hopkins, 86, fellow, 87-88, Ph.D, 91. Instr. math. and asst. astron, Wesleyan, 90-96; asst, 'Nautical Almanac' Office, 89-90, 96-98; computer, U. S. Naval Observatory, 98-00, *prof. math*, 00-, in charge astron. observations, 07-08; *director, 'Nautical Almanac' Office*, 10- U. S. eclipse exped, Pinehurst, N. C, 00; in charge eclipse sta, Sumatra, 01; Spain, 05. For. correspondent, Bur. des Longitudes. A.A. (v. pres, 06); Astron. Soc. (councilor, 03-16); Wash. Acad; Wash. Philos. Soc. (pres, 15); for. assoc. Royal Astron. Soc; Astron. Gesell. The orbit of Hyperion; perturbations of Minerva by Jupiter; star catalogues; satellite orbits; observations of sun, moon, planets and fundamental stars, 1903-1911; positions and proper motions of 1504 standard stars for the equinox 1925.0.
- Eiesland, Prof. John A(rndt)**, University of West Virginia, Morgantown, W. Va. **Mathematics*. Kristianssand, Norway, Jan. 27, 67. Ph.B, South Dakota, 91; Ph.D, Hopkins, 98. Instr. *math*, Luther Acad, 91-92; *prof*, Thiel, 95-03; instr, U. S. Naval Acad, 03-07; *prof, West Virginia*, 07- A.A.; Math. Soc; Circolo Mat. di Palermo. Differential equations; kinematics; surface theory; geometry of n-dimensional space; flat-sphere geometry; a Plücker geometry in odd-dimensional space.
- Eigenbrodt, Prof. Harold J(ohn)**, Northwestern College, Naperville, Ill. *Zoology*. Faribault, Minn, Aug. 2, 98. A.B, Northwestern Col, 21; A.M, Illinois, 22, fellow, 22-23, 24-25, Ph.D, 25. Asst. *zool*, Illinois, 23-24; *prof, Northwestern Col*, 25- Summers, Ill. State Nat. Hist. Surv, 24-26. Experimental zoology; effects of external factors on development.
- Eikenberry, Prof. W(illiam) L(ewis)**, State Normal School, East Stroudsburg, Pa. *Botany*. Waterloo, Iowa, July 12, 71. B.S, Michigan, 94; Chicago, 01-03, 13-14. Prof. science, Mt. Morris, 94-01; head dept. bot, McKinley High Sch, St. Louis, 03-09; instr, high sch, Chicago, 09-16; asst. prof. educ, Kansas, 16-19, assoc. prof, 19-22; *prof. and head science dept, The East Stroudsburg State Nor. Sch*, 22- Summer, Harvard, 25. A.A.; Bot. Soc; Ecol. Soc; Cent. Ass. Sci. and Math. Teachers (sec'y, 13). Plant physics; transpiration.
- Einarsson, Sturla**, University of California, Berkeley, Calif. *Astronomy*. Iceland, Dec. 15, 79. A.B, Minnesota, 05; Ph.D, California, 13. Asst. *practical astron, California*, 05-10, instr, 10-17, asst. prof, 18-20, *assoc. prof*, 20- Expert, recruiting service, U. S. Shipping Board, 17-18. A.A.; Astron. Soc; Seismol. Soc; Pacific Astron. Soc. Comet, planet and satellite orbits.
- Einhorn, Dr. Max**, 20 E. 63d St, New York, N. Y. *Medicine*. Grodno, Russia, Jan. 10, 62. A.B, Gymnasium, Riga, Russia, 79; Kiev, Russia, 80; M.D, Berlin, 84. *Prof. med, N. Y. Post-Grad. Med. Sch*, 96- Visiting physician, German Hosp, New York; consulting physician, White Plains and Hackensack hospitals, and N. Y. German Dispensary. Gastro-Enterol. Ass. (pres, 00-02); Am. Med. Ass; N. Y. Acad. Med; cor. mem. Paris Med. Soc; cor. mem. Munich Med. Gesell; hon. mem. Jap. Soc. Digest. Dis-

- eases. Fermentation; gastroduodenal; radium; gastric and intestinal digestion; duodenal ulcers; achylia gastrica; isochymia; pancreatic activity.
- Eiseman, John H (artshorn)**, 4600 Stanford St, Chevy Chase, Md. *Engineering*. Cincinnati, Ohio, Dec. 23, 97. B.S., Maryland, 21, M.E., 24. Asst. gas engineer, *Bur. Standards*, 21-25, *assoc. gas engineer*, 25- Summer, U. S. Geol. Surv, 16. Gas engineering.
- Eisen, Dr. Gustav (August)**, California Academy of Sciences, San Francisco, Calif. *Biology, Archeology*. Stockholm, Sweden, Aug. 2, 47. Ph.D., Upsala, 72. Docent zool., Upsala, 72; exploration exped., Calif., 73-80; Guatemala and Mex., 80-02; Lower Calif., 93-99; Algiers, Tunis, Spain and Italy, 04-15; curator, Calif. Acad. Sciences, 93-00; U. S. Dept. Agr., 10-15. Ed., 'California,' 89. Jury awards, Calif. Mid-Winter Fair, 95. Calif. Acad.; San Francisco Micros. Soc. (pres, 05); cor. mem. Prague Wissensch. Gesell.; cor. mem. Swedish Soc. Anthropol. and Geog. Oligochaeta; cytology; caprification of the fig; the plasmocytes; aquaria and biological stations; archeology; antique glass and beads.
- Eisenhart, Prof. Luther Pfahler**, Princeton, N. J. **Mathematics*. York, Pa., Jan. 13, 76. A.B., Gettysburg, 96, Sc.D., 21, LL.D., 24; Ph.D., Hopkins, 00. Tutor *math*, Gettysburg, 96-97; instr., Princeton, 00-05, preceptor, 05-09, *prof*, 09-, *dean faculty*, 25- Nat. Acad.; A.A. (v. pres, 17); Math. Soc. (v. pres, 14); Math. Ass. (ed., 'Annals'); Philos. Soc.; Soc. math. de France; Circolo Mat. di Palermo. Differential geometry and its physical applications.
- Eisenschiml, Otto**, 3518 Shields Ave, Chicago, Ill. *Chemistry*. Vienna, Austria, June 16, 80. Polytech., Vienna. Chemist, Carnegie Steel Co., 01-04; chief chemist, Am. Linseed Co., 04-12; *owner and manager, Sci. Oil Corp*, 12- Chief ed., 'Chicago Chem. Bul.', 14-17. Chem. Soc. (chairman, Chicago sect., 14). Oils.
- Eklaw, W(alter) Elmer**, Clark University, Worcester, Mass. *Geography, Geology*. Rantoul, Ill. A.B., Illinois, 10, A.M., 12, fellow, 17-19. Instr., Illinois, 10-13; research assoc., Am. Museum Nat. Hist., 17-23; hon. fellow, *Clark*, 24-26, *assoc. prof. geog*, 26- Managing ed., 'Econ. Geog.' Geologist and botanist, Crocker Land Arctic exped., 13-17. A.A.; Am. Geog. Soc.; Meteor. Soc.; mem. Ornith. Union; Wilson Ornith. Club; Soc. Mammal.; Ecol. Soc.; Acad. Polit. Sci. Lands and life north of 60° N; botany.
- Eke, Prof. Paul A(xel Clarence)**, University of West Virginia, Morgantown, W. Va. *Agricultural economics*. Pierre, S. Dak., Jan. 7, 94. B.S., Wisconsin, 20, M.S., 21, fellow, 23, Ph.D., 23. Instr., Illinois, 23-25; *asst. prof. farm econ*, *West Virginia*, 25- Cost of producing butter-fat surv., U. S. Tariff Commission, 24. Instr., A.E.F. Univ. France. Farm Econ. Ass.; Econ. Ass.; Ass. Marketing Officials; Wis. Hist. Soc. The price of farm land; cooperative buying of farm supplies in West Virginia.
- Ekeley, Prof. John B(ernard)**, 703 11th St, Boulder, Colo. *Chemistry*. Orebro, Sweden, Jan. 1, 69. A.B., Colgate, 91, A.M., 93, hon. Sc.D., 11; Ph.D., Freiburg, Baden, 02. Instr. chem., Colgate, 91-93; science master, St. Paul's Sch., Garden City, N. Y., 93-00; *prof. chem. and head dept*, Colorado, 02- State chemist, Colo., 11-; collaborating chemist, bur. chem., U. S. Dept. Agr., 11- A.A.; Chem. Soc.; Electrochem. Soc.; Colo. Sci. Soc. (v. pres, 19). Thioquinanthrenes; condensation of ketones; dihydroquinoxalins; benzmetoxazines; glyoxaline derivatives; tungsten; pure tungstic acid; extraction of potash from leucite; toxicology.
- Ekroth, Clarence V(ictor)**, Ekroth Laboratories, Inc., 461 Eighth Ave, New York, N. Y. *Chemistry*. New York, April 6, 87. Ch.E., Pratt Inst., 07; B.S., Brooklyn Polytech., 09. State chemist, N. Y., 10-16; *asst. chief chemist*, New York, 09-17; *asst. prof. tech. chem*, Pratt Inst., 14-17; head dept. chem., New Lots High Sch., New York, 17-21; *pres. and director, Ekroth Laboratories, Inc*, 21- Consulting chem. engineer, 12-; director, Harriman Food Research Lab., 17-19; special lecturer, Col. City of N. Y., 18; chem. expert, U. S. Dept. Justice, 20. A.A.; Chem. Soc.; Agr. Chem.; Pub. Health Ass. Industrial chemical engineering; concentration and dehydration of organic materials; composition and legal standards of milk; technical processes; toxicology.
- Elder, Prof. Cecil**, University of Wyoming, Laramie, Wyo. *Veterinary science, Bacteriology*. Aurora, Ill., June 23, 93. D.V.M., Kansas Col., 16; M.S., Ohio State, 24. Asst. pathologist, Kansas Col., 16-18; *research pathologist, Wyoming*, 19- V.C., U.S.A., 18-19. Vet. Med. Ass.; U. S. Livestock Sanit. Ass. Avian tuberculosis in cattle; corpus luteum; infectious abortion; tuberculosis of fowls; necrobacillosis; diseases of poultry.
- Elder, Dr. Jay Clinton**, 456 S. 12th St, San Jose, Calif. *Biology*. Hubbell, Nebr., Nov. 22, 86. A.B., Nebraska, 07, A.M., 08, fellow, 08-09; California, 09-10, Ph.D., 12. Asst. exp. physiol., California, 09-10; head dept. biol., high sch., 10-21; *head dept. biol. and dean lower div, San Jose State Teachers Col*, 21- Private investigator, Herzstein Research Lab., 09-19. Physico-chemical reactions in developing eggs of marine animals; intestinal parasites of marine fish; botulism.
- Eldred, Frank R(andall)**, Reed and Carnrick, Jersey City, N. J. *Chemistry*. Ligonier, Ind., Oct. 21, 74. Ph.C., Purdue, 97; Phar.D., Medico-Chirurg. Col., Phila., 13. Asst. chem., Purdue, 98; commercial chemist, 99-01; chemist, Eli Lilly and Co., 01-09, chief chemist and director sci. div., 09-20, chem. consultant, 20-21; consulting chem. engineer, 21-24; *director research, Reed and Carnrick*, 24- A.A.; Chem. Soc. (sec'y, div. pharmaceut. chem., 11-13, chairman, 14, pres, Ind. sect., 11); Pharmaceut. Ass. (chairman, sci. sect., 12); Chem. Eng. Medicinal and food products.
- Eldridge, Prof. John A(dams)**, 415 Summit St, Iowa City, Iowa. *Physics*. Washington, D. C., A.B., 13, Ph.D., 22. Instr. *physics*, Wisconsin, 18-24; *assoc. prof. Iowa*, 24- Conduction in gases; resonance and ionization potentials.

- Elftman, Dr. A(rthur) H(ugo)**, 704 DeYoung Building, San Francisco, Calif. *Geology*. B.L., Minnesota, 92, M.S., 93, Ph.D., 97. Field geologist, Minn. Geol. Surv., 92-97; *mining and petroleum geologist and engineer*, 97- Instr., Minnesota, 94-97. A.A. Petrography of mineral deposits; glacial geology.
- Elkin, Dr. W(illiam) L(ewis)**, 206 Livingston St., New Haven, Conn. *Astronomy*. New Orleans, La., April 29, 55. C.E., Royal Polytech., Stuttgart, 76; Ph.D., Strassburg, 80; hon. Ph.D., Christiania, 11; hon. A.M., Yale, 93. Astronomer, Yale Observatory, 84-96, director, 96-10, *emer. prof.*, Yale, 10- Volunteer, Royal Observatory, Cape of Good Hope, 81-83. Lalande prize, Paris Acad., 08. Nat. Acad.; A.A.; Astron. Soc.; Conn. Acad.; assoc. Royal Astron. Soc.; Astron. Gesell. Stellar parallaxes; star clusters; photography of meteors.
- Elkins, Dr. Marion Graham**, 10 Moody St., Amesbury, Mass. *Botany*. Amesbury, Jan. 28, 86. B.S., R. I. Col., 06; Ph.D., Yale, 12. Instr. bot., Randolph-Macon Woman's Col., 13-15; prof., Oxford, 17-18; field asst., bur. plant indust., U. S. Dept. Agr., 20; biol. asst., Boston Floating Hosp., 21. Plant pathology; ammonia production by a human tubercle bacillus.
- Elledge, Dr. H(arvey) G(erald)**, Shorelands, Painesville, Ohio. *Industrial chemistry*. McKune, Kans., July 1, 82. B.S., Kansas, 08; M.S., Pittsburgh, 16, Ph.D., 21. Chemist, Kans. Geol. Surv., 08; U. S. Bur. Mines, 09-11; indust. fellow, Mellon Inst., 14-23; *director chem. research*, Diamond Alkali Co., 23- Chem. Soc.; N. Y. Chemists Club. Alkalies and the surface tension of soap solutions; the bactericidal value of soap solutions; solubility determinations of calcium and magnesium soaps; laundering.
- Ellenberger, Prof. H(oward) B(owman)**, University of Vermont, Burlington, Vt. *Animal and dairy husbandry*. Dallas, Iowa, Nov. 15, 82. B.S.A., Iowa Col., 05; M.S.A., Cornell, 15, Ph.D., 17. Farm supt., 06-13; instr. dairy indust., Cornell, 14-17; *prof. animal and dairy husbandry*, Vermont, 17- Dairy Sci. Ass. Animal nutrition; dairy manufacturing.
- Ellenwood, Prof. Frank O(akes)**, 111 Harvard Place, Ithaca, N. Y. *Mechanical engineering*. Little Hocking, Ohio, Nov. 10, 78. A.B., Stanford, 04, M.E., 22. Teacher, pub. sch., Ohio, 99; asst. elec. eng., Stanford, 04; construction dept., C. C. Moore and Co., Calif., 04; Tonopah Ry. Co., Nev., 05-06; mem. Garage Co., Calif., 07-08; instr. mech. eng., Stanford, 08-11; asst. prof. *heat power eng.*, Cornell, 11-16, *prof.*, 16- Development dept., Goodyear Tire and Rubber Co., Ohio, 19-21. Summers, Gen. Elec. Co., Schenectady, 13, 16. Head engine dept., U.S.A. Sch. Mil. Aeronautics, Cornell, 17-19. Mech. Eng. (chairman, Akron sect., 21). Temperatures of pneumatic truck tires; steam charts suited for steam turbine calculations; effect of steam pressure and cycle on steam power plant economy; efficiency of steam prime movers; heat-power engineering.
- Ellerman, Ferdinand**, Mt. Wilson Observatory, Pasadena, Calif. *Astrophysics*. Centralia, Ill., May 13, 69. High sch.; hon. A.M., Occidental, 27. Business, 86-92; asst., Kenwood Observatory, 92-95; Yerkes Observatory, 95-01, instr. astrophys., 01-04; asst. astronomer, *Mt. Wilson Observatory*, *Carnegie Inst.*, 05-13, *astronomer*, 13- A.A.; Astron. Soc.; Pacific Astron. Soc.; Royal Astron. Soc. Can.; Royal Astron. Soc. London. Solar spectroscopy; stellar spectra; spectra of sunspots; chromosphere.
- Ellery, Prof. Edward**, Union College, Schenectady, N. Y. *Chemistry*. Albany, N. Y., July 24, 68. A.B., Colgate, 90, A.M., 93, Sc.D., 14; Ph.D., Heidelberg, 96; Berlin, 09. Instr. chem., Colgate, 90-91; science, Vt. Acad., 91-94, prin., 97-04; *prof. chem.*, Union, 04-, *dean faculty*, 19- Tour of Am. universities, 14-15; lecturer, universities, Eng., 25-26. Chem. Soc. (councilor, sect. east. N. Y., mem. committee on relation of industries and universities); Sigma Xi (nat. sec'y). Inorganic chemistry; organic derivatives; sulphuric acid; silicon compounds; mineral waters; sanitation.
- Ellett, Prof. A(lexander)**, University of Iowa, Iowa City, Iowa. *Physics*. Chillicothe, Mo., Sept. 5, 94. A.B., Colorado, 21; Ph.D., Hopkins, 23. Instr. *physics*, Colorado, 19-20, 21-22; Hopkins, 22-23; fellow, Nat. Research Council, 23-25; *asst. prof.*, Iowa, 25- Physical Soc. Polarization of resonance radiation and of light excited by electron impact.
- Ellett, Prof. W(alter) B(eal)**, Blacksburg, Va. *Chemistry*. Montgomery Co., Va., Nov. 11, 75. B.S., Va. Polytech., 94, M.S., 96; Ph.D., Göttingen, 04. Instr. chem., Va. Polytech., 96-00, 04-06, *prof. agr. chem.*, 15-, asst. chemist, *Exp. Sta.*, 96-01, 04-06, *chemist*, 06- A.A.; Chem. Soc.; Agr. Chem.; Soc. Agron. Green manuring; protein and energy requirements of cattle; sulphur oxidation in soils; phosphoric acid in soils.
- Elley, Dr. Harold W(alter)**, 2307 Saymore Road, Wilmington, Del. *Chemistry*. Madison, Nebr., May 16, 91. B.S., Nebraska, 12, A.M., 13; Ph.D., Cornell, 16. Asst. chem., Nebraska, 10-13; Cornell, 13-16; *assoc. director*, Jackson lab, *E. I. du Pont de Nemours and Co.*, 16- Chem. Soc. Organic chemistry; intermediates for dyes; dyes; accelerators for the vulcanization of rubber; flotation reagents; solvents.
- Ellinger, Dr. Tage U(lich) H(olten)**, Armour and Co., Chicago, Ill. *Zoology*. Fredericksberg, Denmark, Oct. 24, 92. B.Sc., Copenhagen, 17; Am-Scandinavian Foundation fellow, 19-20; Danish Govt. fellow, 19-22; Sc.D., Harvard, 23. Asst. zool., Copenhagen, 17-18; plant breeding, Sveriges Utsädesförening, Svalöf, Sweden, 18-19; *asst. director*, *Armour's Livestock Bur.*, 23- Lecturer, Chicago, 25- Director dept. livestock economics, Int. Livestock Expos., Chicago, 26. A.A.; Soc. Zool.; Soc. Animal Production; Econ. Ass.; Statist. Ass. Animal physiology and genetics; statistics; agricultural economics.
- Ellingson, Prof. E(mil) O(scar)**, 715 W. Fourth St., Northfield, Minn. *Chemistry*. Nicollet, Minn., Oct. 14, 77. B.S., St. Olaf, 06; A.M.,

- Wisconsin, 10, Ph.D, 12. Instr. *chem*, St. Olaf, 06-09; Wisconsin, 09-19; *prof*, St. Olaf, 19-
Chem. Soc. (treas. Wis. sect, 17-19). Abietic acid; heat of neutralization; action of ferric chlorid on wood; adsorption of bromin by dry lime.
- Elliott, Prof. Ben(jamin) G(eorge)**, University of Wisconsin, Madison, Wis. *Engineering*. North Platte, Nebr, Feb. 17, 89. B.S, Rose, 10, M.S, 11; fellow, Wisconsin, 12-13, M.E, 13. Instr. *mech. eng*, Wisconsin, 13-15; assoc. prof, Nebraska, 15-17; *Wisconsin*, 17-19, *prof*, 19-Mech. Eng. Gas and steam engineering; gas engines and turbines.
- Elliott, Dr. Charles Herbert**, 330 Lincoln Ave, New Brunswick, N. J. *Educational psychology*. Normal, Ill, Aug. 2, 78. B.S, McKendree Col, 07; A.M, Columbia, 08, fellow, 09-10, Ph.D, 14. Teacher, prin. and supt, pub. schools, 99-06, 08-09; prof. educ. and director training sch, N. C. Col. for Women, 14-15; prof. educ. and head dept, *Rutgers*, 15-24, *dean sch. educ*, 24-, *director exten. courses*, 17- Summer, director, Rutgers, 15-; director vocational teacher training, N. J. State Board Educ, 17-24, mem, 26-A.A; Acad. Polit. Sci; Educ. Research Ass; Nat. Soc. Study Educ; N. J. Council Educ. (chairman, committee on pedagogics, 20-25). Measurements of school work.
- Elliott, Dr. Charlotte**, U. S. Department of Agriculture, Washington, D. C. *Plant pathology*. Berlin, Wis, Aug. 2, 83. A.B, Stanford, 07, A.M, 13; Ass. Col. Alumnae fellow, Wisconsin, 17-18, Ph.D, 18. Teacher, high sch, S. Dak, 07-08; instr. biol. and geog, S. Dak. State Nor. Sch, Spearfish, 08-12; bot, S. Dak. Col, 14-16; sci. asst, *lab. plant path*, *bur. plant indust*, U. S. Dept. Agr, 18-22, asst. pathologist, 22-23, *assoc. pathologist*, 23- A.A; Bot. Soc; Phytopath. Soc; Wash. Bot. Soc. Bacterial diseases of oats; oat blast; bacterial blight of sorghum.
- Elliott, Prof. D(aniel) S(tanley)**, Tulane University, New Orleans, La. *Physics*. Baltimore, Md, Aug. 3, 85. A.B, Hopkins, 11, A.M, 13, fellow, 13-14, Ph.D, 14. Instr. *physics*, Ga. Tech, 14-15, asst. prof, 15-16, assoc. prof, 16-17, acting prof, 18-19; *prof*, *Tulane*, 20- V. pres. acad. board, and head departments radio and airplanes, U. S. Sch. Mil. Aeronautics, 17-18. A.A; Physical Soc; Eng. Educ; New Orleans Acad. Photoelectric effect.
- Elliott, Pres. Edward C(harles)**, Purdue University, Lafayette, Ind. *Education*. Chicago, Ill, Dec. 21, 74. B.S, Nebraska, 95, fellow, 95-97, A.M, 97; fellow, Columbia, 04-05, Ph.D, 05. Instr, high sch, Colo, 97-98, supt, schools, 98-03; assoc. prof. educ, Wisconsin, 05-07, prof, 07-16, director course for training of teachers, 09-16; chancellor, Montana, 16-22; *pres*, *Purdue*, 22- Summers, lecturer, Columbia, 07, 25, Chicago, 11, 26; special investigations, U. S. Bur. Educ, 06-10; sch. inquiry, New York, 11-12, Vt, 13. Educ. director, northwest. states, S.A.T.C, 18. Educ. finance inquiry, 22-25. A.A; Soc. Sci. Educ; Ind. Acad. Statistical analysis of expenditures for public education; educational legislation; unit costs of higher education; measurement of selective forces in higher education.
- Elliott, Dr. J(abez) H(enry)**, 11 Spadina Road, Toronto, Ont, Can. *Medicine, Zoology*. Hampton, Ont, Jan. 3, 73. M.B, Toronto, 97, George Brown Mem. scholar, 97-98. Physician in charge, Muskoka Cottage Sanatorium, 98-07; *assoc. med. and clim. med*, *Toronto*, 09- Senior asst. physician, St. Michael's Hosp, Toronto, 09-Trop. exped. to Nigeria, Liverpool Sch. Trop. Med, 00. Climat. Ass. (pres, 18); Can. Med. Ass; Can. Bot. Club; Can. Hist. Soc; Can. Ass. Tuber; Acad. Med. Toronto (pres, 20); Ont. Med. Ass. (v. pres, 04); Col. Physicians and Surg. Ont; British Med. Ass. Helminthology; Hemamebae; protein reaction; malaria; tuberculosis; Muskoka flora; filariasis in birds.
- Elliott, Dr. Louis D(unshee)**, 1158 S. Clayton St, Denver, Colo. *Chemistry*. Ithaca, N. Y, April 4, 89. A.B, Stanford, 11, Ph.D, 23; Cornell, 11-13. Nat. Canners Ass, 18-22; *bur. chem*, U. S. Dept. Agr, 13-18, 23- Lecturer, Washington (Seattle), 26. A.A; Chem. Soc. Food chemistry; chemistry of ammonia.
- Elliott, Prof. Richard M(aurice)**, University of Minnesota, Minneapolis, Minn. *Psychology*. Lowell, Mass, Nov. 3, 87. A.B, Dartmouth, 10; A.M, Harvard, 11, Ph.D, 13; Berlin, 13-14. Instr. *psychol*, Harvard, 14-15; Yale, 15-18; assoc. prof, *Minnesota*, 19-23, *prof*, 23-, *head dept*, 19- Ed, 'Century Psychol. Series.' Capt, Sanit.C, 18-19. A.A; Psychol. Ass.
- Elliott, Prof. W. W**, Duke University, Durham, N. C. *Mathematics*. Darlington Heights, Va, May 28, 98. A.B, Hampden-Sidney; fellow, Kentucky, 18-19, A.M; Chicago; fellow, Cornell, 21-22, Ph.D, 24. Head dept. *math*, Gordon Inst, 19-20; instr, Ga. Tech, 20-21; Cornell, 22-23; Yale, 23-25; asst. prof, *Duke*, 25-27, *prof*, 27- Differential and integral equations.
- Ellis, Dr. A(lexander) Caswell**, 2449 E. Overlook Road, Cleveland, Ohio. *Education*. Franklin Co, N. C, May 4, 71. A.B, North Carolina, 94; Harvard, 94; Ph.D, Clark, 97; Berlin, 05. Adjunct prof. pedag, *Texas*, 97-03, assoc. prof. science and art of educ, 03-08, prof. philos. of educ, 08-26, director extension, 11-13, 14-16; *director*, *Cleveland Teachers Col*, *Western Reserve*, 26-Summers, lecturer, North Carolina, 95, 96, N. Y. Univ, 08. Board visitors, U. S. Naval Acad, 02, 03. A.A; Ass. Col. Teachers Educ; Nat. Soc. Study Educ; S. Soc. Philos. and Psychol; fel. Texas Acad. Child psychology; philosophy of education; religious education; dolls; methods of testing fatigue; literary tastes of children; relation of educational systems to social ideals; stubbornness; individual instruction; retardation periods; formal discipline; money value of education; rating of university professors; education of adults.
- Ellis, Carleton**, 92 Greenwood Ave, Montclair, N. J. *Chemistry*. Keene, N. H, Sept. 20, 76. B.S, Mass. Inst. Tech, 00. Instr. chem, Mass. Inst. Tech, 00-02; *research*, *applied chem*, 02- Gold medals for inventions, Jamestown Expos, 07; Longstreth medal, Franklin Inst, 16. Chem. Soc; Electrochem. Soc; Chem. Eng; Franklin Inst; N. Y. Chemists Club; London Chem. Soc. Catalytic hydrogenation; petroleum oxidation;

- chemical derivatives from petroleum oils; products of cracking; pressure cracking of oils; production of alcohols from still gases; synthetic resins and plastics; nitrocellulose products; ultraviolet radiation; the utilization of solar energy.
- Ellis, Charles A(lton)**, 307 N. Michigan Ave, Chicago, Ill. *Civil engineering*. Parkman, Maine, June 23, 76. A.B. Wesleyan, 00; C.E. Illinois, 22. Engineer, Am. Bridge Co, 02-08; asst. prof. civil eng, Michigan, 08-12; designing engineer, Dominion Bridge Co, 12-14; asst. prof. civil eng, Illinois, 14-15, prof. struct. eng, 15-21; *v. pres*, *The Strauss Bacule Bridge Co*, 21- Civil Eng; Ry. Eng. Ass. Statically indeterminate and framed structures; reinforced concrete arches.
- Ellis, Dr. F(rederick) W(arren)**, 1175 Center St, Newton Center, Mass. *Physiology, Biophysics*. Wales, Mass, April 10, 57. M.D. Harvard, 81, 83-86. A.A; Physiol. Soc; Optical Soc. Physiology of vasomotor nerves; plethysmographic experiments with piston-recorder; photography of minute movements; the osseous fishes; visual sensations; circulation of the blood in the orbit; action of drugs on motor nerves; double refraction in embryonic muscle; the nerve impulse.
- Ellis, Dr. James H(awes)**, Glendora, Calif. *Physical chemistry*. Covington, Ky, July 8, 90. B.S. Mass. Inst. Tech, 12, Savage fellow, 14, Ph.D, 16. Asst. physics, Mass. Inst. Tech, 12-14, research assoc. physical chem, 14-16; Calif. Inst, 16-20, assoc. prof, 20-24. A.A; Chem. Soc; Physical Soc; Optical Soc. Photochemistry; measurement of electrode potentials.
- Ellis, Dr. Joseph W(esley)**, University of California at Los Angeles, Los Angeles, Calif. *Physics*. Richfield, Ohio, April 20, 97. A.B. Oberlin, 20; A.M. California, 22, Ph.D, 23. Asst. physics, California, 20-22, research asst, 22-23, *instr*, California at Los Angeles, 23-26, *asst. prof*, 26- A.A; Physical Soc. Infra-red absorption spectra.
- Ellis, Prof. M(ax) M(apes)**, University of Missouri, Columbia, Mo. *Physiology*. Lawrence, Ind, Dec. 3, 87. Vincennes, 05, Sc.D, 14; Illinois, 06; A.B. Indiana, 07, fellow, 07-08, A.M, 08, Ph.D, 11. Prof. nat. science, Vincennes, 08-09; teaching fellow zool, Indiana, 09; instr. and asst. prof. biol, Colorado, 14-19; *physiol*, Missouri, 19-23, assoc. prof, 23-27, *prof*, 27- Summer, asst. state entomologist, Ind, 09. Director, Gimble exped, British Guiana, 10. A.A; Physiol. Soc; Soc. Exp. Biol. Respiration; ichthyology.
- Ellis, O(wen) W(illiam)**, Westinghouse Electric and Manufacturing Co, East Pittsburgh, Pa. *Metallurgy*. Swindon, Eng, Sept. 22, 88. B.Sc. Birmingham, 14, M.Sc, 17. Metallurgist, Royal Lab. Dept, Royal Ordnance Factories, Eng, 14-21; asst. prof. metal eng, Toronto, 21-25; indust. fellow, Mellon Inst, 25-26; *research dept*, *Westinghouse Elec. and Mfg. Co*, 26- Min. and Metal. Eng; Inst. Metals; Iron and Steel Inst; assoc. Civil Eng. Effect of plastic deformation on ferrous and non-ferrous metals and alloys; bearing metals.
- Ellis, Prof. Rob(ert) S(idney)**, Syracuse University, Syracuse, N. Y. *Psychology*. Cordova, Tenn, Oct. 2, 90. A.B. Arkansas, 11; Ph.D, Clark, 14; Chicago, 15-16. Instr. psychol. and educ, W. Tenn. Nor. Sch, 14-15; acting prof, exten. dept, Ohio, 16-17; fellow, Wistar Inst, 17-19; prof. philos. and psychol, Tennessee, 19-23; instr. *psychol*, Princeton, 23-24; *asst. prof*, Syracuse, 24- A.A; Psychol. Ass; Genetic Ass. Neurology; mental growth.
- Ellis, Prof. R(obert) W(alpole)**, 904 W. Silver Ave, Albuquerque, N. Mex. *Geology*. Nevin, Iowa, July 16, 68. B.S. South Dakota, 97; A.M. Wisconsin, 10; Chicago; Colorado. Prin. and instr. schools, 98-12; instr. *geol*, Nebraska, 13-18; *prof*, *New Mexico*, 18- Acting state geologist, N. Mex, 18-; State Geol. Surveys, S. Dak, Ind, Nebr, N. Mex; field work, Minn. A.A; N. Mex. Ass. Sci; N. Mex. Archeol. Soc. Physiographic and economic geology.
- Ellison, Prof. Gayfree**, Oklahoma University, Norman, Okla. *Bacteriology*. Wallace Co, Kans, Oct. 29, 75. B.S. Bethany (Kans), 98; M.D. Rush Med. Col, 03. Director, Pub. Health Laboratories, Okla, 11-15; *prof. bacter. and hygiene*, Oklahoma, 12- A.A; Am. Med. Ass; fel. Am. Physicians; Okla. Acad. Rabies and cancer in Oklahoma.
- Ellison, W. Montgomery**, Insular Experiment Station, Rio Piedras, Porto Rico. *Animal husbandry*. Uvalde, Texas, June 3, 91. B.S.A. N. Mex. Col, 15; Agr. and Mech. Col. Texas, 26. Teacher agr, 15-17; agr. agent, N. Mex. Col, 17-19; Smith Hughes work, 19-20; special instr. in charge animal husbandry, Sch. of Rehabilitation, N. Mex. Col, 21-23; *chief div*, *Insular Exp. Sta*, 23- Hon. mem. N. J. Guernsey Breeders Ass. The feeding and care of live stock in the tropics.
- Ellms, Joseph W(ilton)**, Department of Public Utilities, Cleveland, Ohio. *Sanitary engineering*. Ayer, Mass, Oct. 4, 67. Mass. Inst. Tech, 90-93. Asst. chemist, Mass. State Board Health, 93-96; Louisville Water Co, 96; chemist, Dept. Health, Brooklyn, N. Y, 97; asst. chemist, Commission Water Works, Cincinnati, 98, chemist in charge, Exp. Sta, 99-07, supt, Filtration Plant, 07-18; *engineer water purification and sewage disposal, div. water, Dept. Pub. Utilities, Cleveland, Ohio*, 18-; *consulting sanitary engineer*. Consulting expert on water purification to municipalities and corporations. A.A; Chem. Soc. (pres, Cincinnati sect, 10, counselor and chairman, sect. water, sewage and sanit, 20; fel. Pub. Health Ass. (committee on water anal, 02-05); Water Works Ass. (trustee, 23-25, pres, Cent. States sect); Civil Eng. Water purification; chemistry, microscopy and physical characteristics of natural waters; colloids in relation to water purification.
- Ellsworth, Dr. H(ardy) V(incent)**, Geological Survey, Ottawa, Ont, Can. *Mineralogy*. Ridgeway, Ont, Sept. 1, 89. B.A. Toronto, 13, fellow, 13-16, M.A, 14, Ph.D, 16. Demonstrator electrochem, Toronto, 16-17; *mineralogist*, *Can. Geol. Surv*, 18- Committee determination of geol. age by atomic disintegration, Nat. Research

- Council. Fel. Miner. Soc; Chem. Soc; Can. Inst. Min. and Metal; Miner. Soc. Gt. Britain and Ireland. Geology; radioactivity.
- Elmer, Dr. O(tto) H(erman)**, Kansas State Agricultural College, Manhattan, Kans. *Plant pathology*. Oregon City, Oregon, Feb. 26, 91. B.S., Oregon Col., 11, M.S., 16; Ph.D., Iowa Col., 24. Sci. asst. *plant path*, Oregon Exp. Sta., 15-17; grad. asst., Iowa Exp. Sta., 21-23, asst., 23-24, asst. chief, 24-27; *asst. prof. and in charge plant path, div. agr. Exp. Sta.*, 27- Mosaic and cucurbit diseases.
- Elmore, Prof. C(larence) J(erome)**, 429 Wilson St, Liberty, Mo. *Botany, Geology*. St. Charles, Ill., Feb. 25, 70. A.B., Nebraska, 95, A.M., 96, Ph.D., 15. *Prof. biol. and geol.*, Grand Island, 08-18, 19-21; *biol.*, Westminster (Mo.), 18-19; Emporia, 21-23; *William Jewell*, 23- Collector, Nebr. Geol. Survey. A.A.; Bot. Soc; Micros. Soc; Nebr. Acad. (pres, 11). Diatoms.
- Elrod, Prof. Morton J(ohn)**, University of Montana, Missoula, Mont. *Zoology*. Monongahela, Pa., April 27, 63. A.B., Simpson, 87, A.M., 90, M.S., 02; Ph.D., Ill. Wesleyan, 05. Prin. high sch., Iowa, 88-89; asst. science, Ill. Wesleyan, 89-90, adjunct prof., 90-92, *prof. biol.*, 93-97; *Montana*, 97-, *director biol. sta.*, 90- Lit. ed., 'Iowa Schools,' 89-95; 'Intermountain Educator,' 13-25. Park naturalist, Glacier Nat. Park, 21-; chairman, Mont. State Board Game and Fish, 99-00. A.A.; Soc. Zool; Soc. Mammal; Ecol. Soc; Micros. Soc; Am. Bison Soc; Northwest Sci. Ass; Mont. Acad. (pres, 01-04). Limnobiology of Flathead Lake; Odonata; conchology of Montana; butterflies of Montana; mountain lakes.
- Elsburg, Dr. C(harles) A.**, 64 E. 58th St, New York, N. Y. *Surgery*. New York, Aug. 24, 71. A.B., Col. City of N. Y., 90; M.D., Columbia, 93. Asst. pathologist, *Mt. Sinai Hosp.*, 95-98, adjunct surgeon, 99-05, *attending surgeon*, 05-Surgeon, N. Y. Neur. Inst; consulting neur. surgeon, Montefiore Home and Hosp, Presb. Hosp. Neur. surgeon, Gen. Hosp. No. 1, U.S.A. A.A.; Soc. Exp. Biol; Am. Med. Ass; Neur. Ass; fel. Col. Surg; Surg. Soc; Soc. Neur. Surg; N. Y. Acad. Med; fel. Chem. Soc. Surgery of the brain and spinal cord; finer anatomy and physiology of the peripheral nerves.
- Elser, Prof. William J(ames)**, Cornell Medical College, New York, N. Y. *Pathology*. Milwaukee, Wis., Nov. 28, 72. M.D., Bellevue Med. Col., 95; Berlin, 97-98; Vienna, 98-01; Graz, 01. Asst. pathologist, *N. Y. Hosp.*, 03-05, *director path, laboratories*, 05-; instr. *bacter. med. col.*, Cornell, 01-06, asst. prof., 06-09, *prof.*, 09- Asst. director div. laboratories and infectious diseases, U.S.A., 17-18. Ass. Path. and Bact; Ass. Immunol; Soc. Serol. and Hematol; Harvey Soc. Meningitis; super immunization.
- Elsey, Prof. H(oward) M(cKee)**, Westinghouse Electric and Manufacturing Co., East Pittsburgh, Pa. *Physical chemistry*. Seattle, Wash., Jan. 25, 91. A.B., Stanford, 14, A.M., 15; Ph.D., 19. Teaching fellow, Stanford, 17-18; asst. prof. chem., Kansas, 18-21, assoc. prof., 21-25; *research chemist*, Westinghouse Elec. and Mfg. Co., 25- A.A.; Chem. Soc; Electrochem. Soc; Optical Soc; Franklin Inst; Kans. Acad. The alkyl amines as electrolytic solvents; properties of helium.
- Elston, Prof. E(llsworth) D(avid)**, Dana Road, Hanover, N. H. *Geology, Geography*. Port Jervis, N. Y., Jan. 15, 89. A.B., Cornell, 12, A.M., 15. Instr. geol., Cornell, 12-20; asst. prof. *geog.*, Dartmouth, 20-26, *prof.*, 26-
- Elting, Dr. Arthur Wells**, 119 Washington Ave., Albany, N. Y. *Surgery*. South Cairo, N. Y., Oct. 6, 72. A.B., Yale, 94; M.D., Hopkins, 98; LL.D., St. Lawrence, 16. Surgeon, Albany Hosp; chief surgeon, Childs Hosp; *prof. surg.*, Albany Med. Col., 11- Surg. Ass; Soc. Clin. Surg; Am. Med. Ass; Interurban Surg. Soc.
- Elvove, Dr. Elias**, U. S. Public Health Service, Washington, D. C. *Chemistry*. Russia, March 31, 83. B.S., Kentucky, 03, fellow, 03-04, M.S., 04; Phar.D., George Washington, 10, Ph.D., 20. Research chemist, Int. Metal Savings Co., 04-07; *chemist*, U. S. Pub. Health Service, 07- Chem. Soc. Biological, pharmaceutical and sanitary chemistry.
- Elwyn, Prof. Adolph**, Croton-on-Hudson, N. Y. *Anatomy*. Libau, Baltic Provinces, Feb. 2, 88. B.S., Columbia, 15, A.M., 17. Instr. *anat.*, Long Island Col. Hosp., 14-17, asst. prof., 17-20; assoc., Columbia, 18-20, *asst. prof.*, 20- A.A.; Ass. Anat; Harvey Soc; N. Y. Acad. Development of the urogenital system in mammals; heart; history of medicine; histology.
- Ely, Fred(erick) B(urchard)**, Room 1117, 135 Broadway, New York, N. Y. *Geology*. Hoosick Falls, N. Y. B.S., Harvard. *Petroleum geologist*, Standard Oil Co. of N. J., 16- Ass. Petrol. Geol; Min. Eng; Min. and Metal. Soc.
- Ely, Prof. John A(ndrews)**, St. John's University, Shanghai, China. *Engineering*. New York, N. Y., April 2, 78. C.E., Princeton, 99. Civil engineer, 99-12; instr. and prof., *St. John's (China)*, dean col. arts and science, 22-, *acting pres.*, 25- A.A.; Civil Eng; Mech. Eng; Royal Soc. Arts; Ass. Chinese and Am. Eng. (director); Eng. Soc. China (v. pres). Engineering education.
- Ely, Prof. Leonard W(heeler)**, Lane Hospital, San Francisco, Calif. *Medicine*. Brooklyn, N. Y., Nov. 28, 68. A.B., Columbia, 89, M.D., 95. Assoc. prof. *surg.*, Stanford, 13-23, *prof.*, 23- Am. Med. Ass. Joint tuberculosis; anatomy; physiology and pathology of bones and joints.
- Ely, Prof. S(umner) B(oyer)**, 5122 Pembroke Place, Pittsburgh, Pa. *Mechanical engineering*. Watertown, N. Y., Nov. 5, 69. B.S., Mass. Inst. Tech., 92. Chief engineer, Am. Sheet and Tin Plate Co., 00-05; v. pres, Albree Iron Works Co., 05-20; *asst. prof. commercial eng.*, Carnegie Inst. Tech., 20- Consulting engineer. Giant Power Surv., Pa. A.A.; Mech. Eng; Eng. Educ. Power statistics.
- Embody, Dr. G(eorge) C(harles)**, Cornell University, Ithaca, N. Y. *Zoology*. Auburn, N. Y., Nov. 23, 76. B.S., Colgate, 00, M.S., 01, hon. Sc.D., 24; Hopkins, 06-07; Cornell, 08-10, Ph.D., 10. Teacher science, Del. Literary Inst, 01-02;

- high sch, Pa, 02-03; prof. nat. science, Bethel, 03-06; biol, Randolph-Macon, 07-08; instr. vert. zool, Cornell, 09-10; prof. biol, Butler, 10-11; instr. *aquiculture*, Cornell, 11-12, asst. prof, 12-20, *prof*, 20- Field biologist, N. Y. State Conservation Commission, 18-19; consulting biologist, N. J. Fish and Game Commission, 19. Prize, Fisheries Soc, 18. A.A.; Fisheries Soc. (pres, 24); Genetic Ass; Ecol. Soc. Nutrition and genetics of fishes; pond ecology.
- Embrey, Hartley (C)**, 1023 E. Ninth St, Chattanooga, Tenn. *Biochemistry*. Winchester, Tenn, Dec. 1, 86. A.B. Peabody Col, 14; Sorbonne; M.S., Chicago, 15. Prof. chem, Hollins Col, 15-17; chemist, Exp. Sta, E. I. du Pont de Nemours and Co, Wilmington, Del, and smokeless powder plant, Nashville, Tenn, 18-19; assoc. physiol. chem, Peking Union Med. Col, 19-23. Special work, trop. foods, leper colony, Culion, P. I, 21. Soc. Exp. Biol. Food chemistry; analysis of Chinese foods; the antiscorbutic vitamin; vitamin deficiency in children's diet.
- Emch, Dr. Arnold**, University of Illinois, Urbana, Ill. **Mathematics*. Gossliwil, Switzerland, March 24, 71. Cantonal Col, Solothurn, 86-90; Polytech, Zurich, 90-93; Ph.D., Kansas, 95. Asst. prof. graphics, Kansas, 95-97; prof. math, Technicum, Biel, Switzerland, 97-99; graphic math, Kansas Col, 99-00; asst. prof. pure and applied math, Colorado, 00-03, prof. graphics and math, 03-05; *math*, Cantonal Col, Solothurn, 05-10; Obere Realschule, Basel, 10-11; asst. prof, *Illinois*, 11-19, assoc. prof, 19-27, *prof*, 27- Math. Soc; Math. Ass; Swiss Alpine Club; Zurich Gesell. ehemaliger Polytech; Schweiz. Naturforsch. Gesell; Schweiz. Math. Gesell. Problems of closure; transformations realized by linkages; stresses corresponding to transformations in a plane; linkages for many valued functions; applications of elliptic functions; projective geometry; algebraic curves and surfaces; mathematical models.
- Emerson, Prof. A(lfred) E(dwads)**, University of Pittsburgh, Pittsburgh, Pa. *Zoology*. Ithaca, N. Y, Dec. 31, 96. B.S., Cornell, 18, A.M., 20, Ph.D., 25. Asst, Cornell, 16-18; research asst, Trop. Research Sta, N. Y. Zool. Soc, 19-20, assoc, 20-21; instr. entom, *Pittsburgh*, 21-22, asst. prof. ecol, 22-24, *assoc. prof. zool*, 25- Asst, Am. Museum Nat. Hist, 20; instr, Cold Spring Harbor Biol. Sta, 22; asst. director, Trop. Research Sta, N. Y. Zool. Soc, 24; assoc. prof, Chicago, 26; Guggenheim Mem. Foundation fellow, 26-27. A.A.; Soc. Zool; Entom. Soc; Ecol. Soc. Animal ecology; classification and biology of termites of British Guiana and the Belgian Congo.
- Emerson, Prof. B(enjamin) K(endall)**, Amherst, Mass. **Geology*. Nashua, N. H, Dec. 20, 43. A.B., Amherst, 65; Ph.D., Göttingen, 69. Prof. *geol*, *Amherst*, 70-17, *emer. prof*, 17- Prof, Smith, 79-12. Asst. geologist, U. S. Geol. Surv, 83-06, geologist, 06-20. V. pres, Int. Geol. Cong, St. Petersburg, 97. A.A. (v. pres, 96); Geol. Soc. (pres, 99); Philos. Soc; fel. Am. Acad; Wash. Acad; Geol. Gesell. Crystalline rocks of central and western Massachusetts; Connecticut Valley surface and Triassic geology; geology of Old Hampshire County, of Massachusetts and Rhode Island.
- Emerson, Prof. Charles P(hillips)**, 3177 N. Pennsylvania St, Indianapolis, Ind. *Medicine*. Methuen, Mass, Sept. 4, 72. A.B., Amherst, 94; M.D., Hopkins, 99. Assoc. med, Hopkins and med. research, Hopkins Hosp, 04-08; asst. prof, Cornell, 08-09; supt, Clifton Springs Sanitarium, 08-11; *prof. med. and dean med. faculty*, *Indiana*, 11- Pres, Nat. Committee on Mental Hygiene, 24- Am. Physicians; Am. Med. Ass; Ass. Am. Med. Colleges (pres, 22). Internal medicine; clinical diagnosis.
- Emerson, Prof. Fred W(ilbert)**, Earlham, Ind. *Biology*. Georgetown, Ill, Feb. 8, 86. B.S., Earlham, 13; M.S., Chicago, 18, Ph.D., 21. Instr. *biol*, Earlham, 13-14; *prof*, Friends, 14-18; Penn (Iowa), 18-27; *Earlham*, 27- A.A.; Bot. Soc; Ecol. Soc; fel. Iowa Acad. Plant ecology; subterranean organs of bog plants.
- Emerson, Dr. Haven**, 120 E. 62d St, New York, N. Y. *Medicine*. New York, Oct. 19, 74. A.B., Harvard, 96; A.M., M.D., Columbia, 99. Intern, Bellevue Hosp, 99-01; demonstrator physiol, Columbia, 02-10, asst. med, 06-10; visiting physician, Seton Hosp, 05-09; asst. visiting physician, Bellevue Hosp, 09-14; sanit. supt. and deputy commissioner, Dept. Health, New York, 14-15, commissioner health and pres, Board Health, 15-17; prof. hygiene and prev. med, med. col, Cornell, 19-20; med. adviser and asst. director bur. war risk ins, Treas. Dept, 20-21; *prof. pub. health administration and director inst. pub. health, col. physicians and surg*, *Columbia*, 22- Lecturer, Teachers Col, Columbia, 12-17, 19- Chevalier, Légion d'honneur. Silver medal, Epidemics, France, 19; D.S. medal, 19. Major, lieut. col. and col, M.C., 18-19. Am. Physicians; Soc. Internal Med; Pub. Health Ass; Harvey Soc; N. Y. Acad. Med. Public health; social medicine; epidemiology.
- Emerson, Prof. Herbert W(illiam)**, Ann Arbor, Mich. *Bacteriology*. Milton, Ont, Can, Oct. 6, 79. Ph.C, Michigan, 01, B.S., 02, M.D., 15. Instr. pharmacy, Kansas, 03-06; *asst. prof. hygiene and director, Pasteur Inst, Michigan*, 19- A.A.; Chem. Soc; Am. Med. Ass; Pub. Health Ass; Mich. Acad. (v. pres, 16). Peroxids; separation of by-products from buttermilk; immunity and blood relationship; gelsmium and its alkaloids; color reaction of protein split products; botulism from ripe olives.
- Emerson, Dr. Paul**, Iowa State College, Ames, Iowa. *Agronomy*. Wilmington, Del, July 6, 87. B.S., Delaware, 14, M.S., 15; Ph.D., Iowa Col, 17. Soil bacteriologist, Md. Exp. Sta, 17-18; acting bacteriologist, Idaho and Exp. Sta, 18-19; asst. prof. soils and asst. chief soil chem. and bacter, *Iowa Col*, 19-22, *assoc. prof. soils*, 22- A.A.; Soc. Agron; Ass. Soil Surv. Workers; Chem. Soc; Iowa Acad; Int. Soc. Soil Sci. Soil bacteriology and fertility.
- Emerson, Prof. R(ollins) A(dams)**, Cornell University, Ithaca, N. Y. **Genetics*. Pillar Point, N. Y, May 5, 73. B.S., Nebraska, 97, LL.D., 17; Sc.D., Harvard, 14. Horticulturist, office exp. stations, U. S. Dept. Agr, 97-98; asst. prof.

- hort, Nebraska, 99-04, *prof.*, 05-14; *plant breeding*, Cornell, 14-, *dean grad. sch.*, 25- Nat. Research Council, 25- Faculty representative, Board Trustees, Cornell, 25- Collector maize, Cornell and U. S. Dept. Agr., S. Amer., 24. Nat. Acad.; A.A.; Soc. Nat. (pres, 23); Genetic Ass.; Bot. Soc.; Soc. Agron.; Philos. Soc.; Am. Acad. Heredity in Zea mays.
- Emerton, James H.**, 30 Ipswich St, Boston, Mass. **Zoology*. Salem, Mass., 47. Illustrator of zool. publications; constructed zool. and anat. models for museums. A.A.; Soc. Nat.; Ecol. Soc.; Entom. Soc.; New Eng. Fed. Nat. Hist. Soc. (sec'y, 07-09). Structure and habits of spiders; common spiders of the United States; New England spiders.
- Emery, Dr. W(illiam) O(rrin)**, 2232 Cathedral Ave, N. W., Washington, D. C. *Chemistry*. Vernon, Vt., March 29, 63. B.S., Worcester, 85; Ph.D., Erlangen, 88. Instr. chem., Bonn, 87-92, privat-docent, 91-95; prof. chem., Wabash, 95-01; *chemist, bur. chem.*, U. S. Dept. Agr., 08- A.A.; Chem. Soc.; Wash. Acad. Synthetic organic chemistry; methods for detection and determination of synthetic drugs in medicine.
- Emery, Dr. Wilson B(arton)**, Ohio Oil Co, Casper, Wyo. *Geology*. Philadelphia, Pa., March 21, 90. A.B., Yale, 11, Ph.D., 14. Geol. aid, U. S. Geol. Surv., 14, asst. geologist, 14-17, assoc. geologist, 17-19; *geologist*, Ohio Oil Co, 19- A.A.; Geol. Soc.; Ass. Petrol. Geol.; Min. Eng.; Am. Geog. Soc.; Wash. Geol. Soc. Geology of oil and gas.
- Emig, Prof. W(illiam) H(arrison)**, University of Pittsburgh, Pittsburgh, Pa. *Botany*. Coulterville, Ill., Dec. 21, 88. A.B., Washington (St. Louis), 11, Ph.D., 15. Instr. bot., Oklahoma, 14-16; *Pittsburgh*, 16-17, asst. prof., 17-26, *assoc. prof.*, 26- Okla. Geol. Surv., 16-18. A.A.; Bot. Soc.; West. Pa. Bot. Soc. (pres, 21-23). Plant histology; history of botany; travertine; yeasts; mosses; history of plant industries.
- Emley, Warren E(dwards)**, 3604 Fulton St, Washington, D. C. *Chemistry*. Philadelphia, Pa., Jan. 9, 86. B.S., Michigan, 06, Ch.E., 12. Chemist, Fletcher Paper Co, Mich., 06-08; Bur. Standards, 09-17; gen. manager, Riverton Lime Co, Va., 17-18; *chemist, Bur. Standards*, 18- Rep. Soc. Test. Mat., Int. Eng. Cong., Rio de Janeiro, 22; rep. Bur. Standards, Brazilian Expos, 22; rep. 100th anniversary, Tech. Hoch. Frederisiana, Karlsruhe, Germany, 25. Gold medal, Brazilian Expos, 22. Chem. Soc.; Ceramic Soc.; Concrete Inst.; Soc. Test. Mat.; hon. mem. Sand-Lime and Brick Ass. Lime; gypsum; sand-lime brick; paper; textiles; rubber; leather.
- Emmel, Dr. V(ictor) E(manuel)**, University of Illinois College of Medicine, Chicago, Ill. **Anatomy, Histology, Embryology*. Valley Falls, Kans., June 17, 78. B.S., Pacific (Oregon), 03, M.S., 04; Ph.D., Brown, 07; Strassburg, 11. Instr. biol., Pacific (Oregon), 03-04; asst. embryol. and neur., Brown, 04-07; Austin teaching fellow anat., Harvard Med. Sch., 07-08; instr. histol. and embryol. sch. med., Washington (St. Louis), 08-10, assoc. prof. gross and topog.
- anat., 14-16; asst. prof. and assoc. prof. gross anat., col. med., Illinois, 16-19; *anat.*, California, 19-22; *prof., col. med.*, Illinois, 22- Biologist, R. I. Commission of Inland Fisheries, 04-07. Collaborator, 'Manual Surg. Anat.', U.S.A. and N.; 'Folia Haematologica.' A.A.; Ass. Anat.; Am. Med. Ass.; Soc. Exp. Biol.; St. Louis Biol. Soc. (pres, 14); Anat. Gesell. Morphological relations of chorda tympani; histogenesis and regulation in regeneration; hematological activities in embryonic coelomic cavities and dorsal aorta; sickle-cell anemia; coagulation in foetal blood; genesis of the non-nucleated elements of the blood in mammals and Amphibia; leucocytic reactions in lactation and inanition; B N A as an outline of regional and systematic anatomy.
- Emmet, W(illiam) L(e) R(oy)**, 48 Washington Ave, Schenectady, N. Y. *Electrical engineering*. Pelham, N. Y., July 10, 59. Grad. U. S. Naval Acad., 81; hon. Sc.D., Union, 10. *Engineer, lighting dept.*, Gen. Elec. Co., 95- Gold medal for vertical shaft steam turbine, La. Purchase Expos, 04; medal for elec. ship propulsion, Pan-Pacific Expos; Edison medal, 19. Nat. Acad.; Elec. Eng.; Mech. Eng.; Naval Archit.; Naval Eng.; Philos. Soc. Steam turbines; propulsion of ships by electricity.
- Emmett, Dr. A(rthur) D(onaldson)**, Parke, Davis and Co, Detroit, Mich. *Biochemistry*. Lee, Ill., Dec. 19, 79. B.S., Illinois, 01, A.M., 05; Columbia, 06-07, Ph.D., 15. Asst. chemist, Ill. State Water Surv., 01-02; Armour and Co, 02-03; research chemist, Illinois, 03-06, assoc. chief animal nutrition, 08-15; instr. biochem., Columbia, 15-16; *nutrition chemist, med. research dept.*, Parke, Davis and Co, 16- A.A.; Chem. Soc.; Soc. Biol. Chem.; Soc. Animal Production. Chemistry of flesh; animal nutrition; fatigue; vitamins; proteins in serums.
- Emmons, Dr. R(ichard) C(onrad)**, University of Wisconsin, Madison, Wis. *Geology*. Winnipeg, Man., Can., 98. B.A., 19; M.A., 20; Ph.D., 24. Instr. geol., Chicago, 24; *asst. prof.*, Wisconsin, 24- Geologist, Can. Geol. Surv. Can. Min. Inst. Mineralogy.
- Emmons, Prof. William H(arvey)**, University of Minnesota, Minneapolis, Minn. **Geology*. Mexico, Mo., Feb. 1, 76. A.B., Central (Mo.), 97; fellow, Chicago, 01-02, Ph.D., 04. Research asst. geol., Chicago, 03-04; aid, U. S. Geol. Surv., 04-06; lecturer ore deposits, Chicago, 07, petrol, 08, asst. prof. petrol. and econ. geol., 08-09, assoc. prof. econ. geol., 09-11; *prof. geol. and head dept.*, Minnesota, and *director*, State Geol. Surv., 11- Asst. geologist, U. S. Geol. Surv., 06-09, geologist, 09-15. Assoc. ed., 'Jour. Geol.' Mining commission, China, 21. A.A.; Geol. Soc.; Min. Eng.; Wash. Geol. Soc.; Wash. Acad. Ore deposits of mining districts in Nevada, Montana, Colorado, Maine and New Hampshire; genetic classification of minerals; superficial alteration and secondary enrichment of gold deposits of the United States; principles of economic geology; petroleum geology; enrichment of ore deposits; zonal series of lode deposits.

- Emory, Kenneth P(ike)**, Bishop Museum, Honolulu, Hawaii. *Anthropology*. Fitchburg, Mass., Nov. 23, 97. B.S., Dartmouth, 20; California, 21; A.M., Harvard, 23. Asst. ethnologist, *Bishop Museum*, 20-25, *ethnologist*, 25- Head archeol. exploration, Hawaiian Islands; archeologist, U.S.S. Tanager exped, 24; ethnologist, Kaimiloa exped, South Seas, 24-25; archeol. exploration, Society Islands, 25- A.A. Archeology in Polynesia.
- von Ende, Dr. Carl L(eopold)**, University of Idaho, Moscow, Idaho. *Chemistry*. Burlington, Iowa, July 2, 70. B.S., Iowa, 93, M.S., 94; Ph.D., Göttingen, 99. Demonstrator chem, med. col, Iowa, 94-95; teacher, high sch, Ill, 95-96; instr. chem, Iowa, 96-97, 99-05, asst. prof, 05-07; research staff, Mass. Inst. Tech, 07-08; *prof. chem. and head dept, Idaho*, 08- A.A.; Chem. Soc; Iowa Acad. (v. pres, 07). Physical, inorganic and applied physical chemistry.
- Enders, Prof. Howard E(dwin)**, 249 Littleton St, West Lafayette, Ind. *Zoology*. Enders, Pa, June 18, 77. B.S., Lebanon, 97, M.S., 00; B.S., Michigan, 98; Harvard, 02; Ph.D., Hopkins, 06. Teacher, high sch, Mich, 98-00; prof. biol. sciences, Lebanon, 00-03; instr. asst. prof. and assoc. prof. *zool*, *Purdue*, 06-15, *prof*, 15-, *head dept. biol*, 26- Lecturer, St. Elizabeth Hosp, Lafayette, 15; summers, field asst, Mich. Geol. Surv, 99, investigator, U. S. Fisheries Lab, Beaufort, N. C, 03-08, prof, Indiana, 11-15, Hopkins, 16-20, investigator parasitol. and field assoc, Kartabo Jungle Lab, British Guiana, 25. A.A.; Soc. Zool; Entom. Soc; Soc. Parasitol; fel. Ind. Acad. (sec'y, 15-20, pres, 21). Morphology of Annelata; food of fledgling birds; commensalism; parasitology.
- Endres, Herbert A**, Celite Co, Lompoc, Calif. *Chemistry*. Akron, Ohio, Oct. 14, 96. A.B., Stanford, 20; Goodyear fellow, Akron, 20-21, M.S., 21. *Research chemist*, Goodyear Tire and Rubber Co, Ohio, 22-24; *Celite Co*, 24- Chem. Soc. Vulcanization of rubber; crystallization of sulfur in rubber; reinforcing value of fillers in compounded rubber; size of pigments.
- Endsley, Louis E(ugene)**, University of Pittsburgh, Pittsburgh, Pa. *Railway engineering*. Wayne Co, Ind, Sept. 9, 79. B.S., Purdue, 01, M.E., 03. Instr. locomotive lab, Purdue, 02-06, assoc. prof. *ry. mech. eng*, 06-12, *prof*, 12-14; *Pittsburgh*, 14- Trustee, Franklin, 09-14. In charge, Master Car Builders Lab, Purdue, 06-14. A.A.; Mech. Eng; Eng. Educ; Master Car Builders (chairman, draft gear committee); Master Mech. Ass. (locomotive testing committee); West. Ry. Club; Pittsburgh Ry. Club. Friction of freight car trucks; locomotive efficiency.
- Engberg, Prof. C(arl) C(hristian)**, University of Nebraska, Lincoln, Nebr. *Mathematics*. Hytön, Sweden, Nov. 13, 72. B.S., Nebraska, 95, A.M., 97, Ph.D., 99. Instr. math, *Nebraska*, 00-03, adjunct prof, 03-04, asst. prof, 04-07, *prof. applied math*, 07-, exec. dean, 13-26. Statistics; biometry; the Cartesian oval; evolutes; transformations.
- Engel, Prof. Martha (S)**, 1111 Rutledge St, Madison, Wis. *Botany*. Sun Prairie, Wis, April, 97. Milwaukee-Downer; A.B., Wisconsin, 19, A.M., 22. Asst. biol, Parsons Col, 19-21; teaching asst. bot, Wisconsin, 21-22; *asst. prof. biol*, *Parsons Col*, 22- Bot. Soc; Eugenics Soc. Taxonomy.
- Engelder, Dr. Carl J(ohn)**, University of Pittsburgh, Pittsburgh, Pa. *Chemistry*. Punxsutawney, Pa, Jan. 11, 90. A.B., Cornell, 13, B.Ch., 14, Ph.D., 17. Asst. instr. chem, Cornell, 13-17; instr. fuel technol, Illinois, 17; asst. prof. and *prof. anal. chem*, *Pittsburgh*, 21- Research chemist, nitrate div, ordnance dept, U.S.A., 18. Chem. Soc. Gas analysis; catalysis; petroleum.
- Engelhardt, Geo(rge) P(aul)**, Brooklyn Museum, Eastern Parkway, Brooklyn, N. Y. *Zoology*. Hanover, Germany, Nov. 23, 71. Gym, Baden Baden, 86. Asst. curator, Children's Museum, Brooklyn, 02-13; *curator invertebrates*, *Brooklyn Museum*, 13-, *dept. nat. science*, 19- In charge zool. expeditions, southwest. Utah, 04, 17; Guatemala, 08; Newfoundland and Labrador, 12; Bahamas, 14; Pacific Coast of the U. S., 16. A.A.; Soc. Ichthyol. and Herp; N. Y. Entom. Soc; Brooklyn Inst. (sec'y, dept. zool, 12-19); Brooklyn Entom. Soc. Marine invertebrates; metamorphosis of the amphibians of Long Island; Aegeriidae of North America.
- von Engelin, Prof. O(scar) D(iedrich)**, Ithaca, N. Y. *Geography*. Dayton, Ohio, July 3, 80. A.B., Cornell, 08, Ph.D., 11. Asst. geol, *Cornell*, 05-07, instr. *physical geog*, 07-12, acting head dept, 09-10, asst. prof, 12-21, *prof*, 21- Summers, instr. Missouri, 11, sci. expert, N. Y. Geol. Surv, 22-24. Sci. asst, U. S. Geol. Surv. exped, Yakutat Bay, Alaska, 06; Nat. Geog. Soc. research exped, Alaska, 09. Chairman committee physical geog, College Entrance Exam. Board, 24-; geog, N. Y. Regents, 25- Am. Geog. Soc; Ass. Geog. Geology; physical geography; glaciology; experimental physiography; regional geography of the West Indies.
- Enger, Prof. Melvin L(orenus)**, University of Illinois, Urbana, Ill. *Hydraulics*. Decorah, Iowa, May 5, 81. B.S., Illinois, 06, C.E., 11, M.S., 16. Instrument man, C. M. and St. P. Ry, 06-07; instr. theoret. and applied mech, *Illinois*, 07-09, assoc, 09-11, asst. prof, 11-17, assoc. prof, 17-18, *prof. mech. and hydraul*, 18- Civil Eng; Water Works Ass; Eng. Educ. Resistance to flow through locomotive water columns; penstock design; air inlet valves for hydraulic pipe lines; transmission of pressure in granular materials.
- Engerrand, Prof. George C**, University of Texas, Austin, Texas. *Archeology, Geology*. France. B.S., 95; grad. geol, State Univ, France, 97, bot, 98; A.M., Mississippi, 20. Prof. geol, Geog. Inst. of Brussels, 98-05; geologist, Belgian Geol. Surv, 01-07; prof. prehist. archeol, Ecole des Hautes Etudes, Brussels, 01-03; chief geologist, Mex. Govt, 07-15; prof. prehist. archeol, Mexico, 09-14; instr. geol, Mississippi, 19-20; adjunct prof. *anthrop*, *Texas*, 20-23, *assoc. prof*, 23-, *curator collections*, *Bur. Econ. Geol*, 24- Director, Int. Sch. Am. Archeol. and Ethnol,

- 12-13. Fossil man; ethnic boundaries of Europe; foreign population of Texas.
- Engle, Prof. Earl A (gard)**, 2233 S. Columbine St, Denver, Colo. *Chemistry*. Litchfield, Mich, Oct. 11, 97. A.B., Denver, 18, A.M., 19; du Pont fellow, Illinois, 21-22, Ph.D., 22. *Assoc. prof. chem, Denver, 22- C.W.S., U.S.A., 19. A.A.; Chem. Soc.* The metallurgy and alloys of beryllium; molybdenum.
- Engle, Dr. Earl Theron**, Stanford University, Calif. *Anatomy*. Waterloo, Iowa, March 19, 96. A.B., Nebr. Wesleyan, 20; A.M., Colorado, 23; Ph.D., Stanford, 25. *Instr. zool, Colorado, 21-23; anat, Stanford, 25- Summer, instr, Hopkins Marine Sta, 25. Soc. Zool; Soc. Anat; Calif. Acad. Accessory genital glands of the Mammalia.*
- Engle, Dr. Edgar W (allace)**, Lake Forest, Ill. *Chemistry*. B.S., Drury, 12; M.S., Illinois, 14, Ph.D., 16. *Instr. chem, Illinois, 16-17; chief engineer, Fansteel Products Co, 17- Electrochem. Soc; Min. and Metal. Eng. Metallurgy; rare earths; rare metals.*
- Engle, Prof. W (ilber) D (wight)**, 2233 S. Columbine St, Denver, Colo. *Chemistry*. Portland, Mich, Aug. 31, 70. A.B., Albion, 93, A.M., 94; Ph.D., Columbia, 98; hon. Sc.D., Denver. *Asst. prof. chem, Albion, 94-95; prof, Denver, 95-, v. chancellor, 17- Prof, Denver and Gross Col. Med, 98-08. A.A.; Chem. Soc; Electrochem. Soc; Colo. Sci. Soc; Denver Teknik Club; Chem. Gesell. Organic chemistry.*
- Englehardt, Dr. F (rancis) E (rnest)**, Syracuse, N. Y. *Chemistry*. Gieboldehausen, Germany, June 23, 35. Göttingen, 54-57; hon. Ph.D., St. Francis Xavier, 64. *Asst. chem, Amherst, 57-58; chemist, Phila, 58-60; asst. chem, Columbia, 60-61; prof, St. Francis Xavier, 61-67; mat. med, N. Y. Col. Pharmacy, 67-68; practising chemist, Syracuse, 69-20; retired, 20. Chemist for state salines, 70-90; city chemist and milk inspector, Syracuse, 77-20; expert, beer, wine and liquors, N. Y. State Board Health. Chem. Soc. (v. pres, Syracuse sect); cor. mem. N. Y. Acad. Salt; petroleum; liquors; beers; salt manufacture in United States and Canada.*
- Englis, Dr. D (uane) T (aylor)**, 906 S. Busey St, Urbana, Ill. *Chemistry*. Eureka, Ill, April 29, 91. A.B., Eureka, 12; Ph.D., Illinois, 16. *Instr. plant chem, Illinois, 16-17, assoc, 18, chem, 18-22, asst. prof, 22- A.A.; Chem. Soc; Ill. Acad. Plant chemistry; carbohydrates in plants.*
- English, Geo (rge) L (etchworth)**, 50 Brighton St, Rochester, N. Y. *Mineralogy*. Philadelphia, Pa, June 14, 64. Grad. Friends' Cent. Sch, Phila, 81. *Practising mineralogist, 87-03; expert, Nat. Light and Thorium Co, 03-13; mineralogist, Ward's Nat. Science Estab, 13- Lecturer, Board Educ, New York, 02-03; Brooklyn Inst. Miner. Soc; N. Y. Acad; N. Y. Miner. Club; Brooklyn Inst; Phila. Acad; Rochester Acad; British Miner. Soc. Penfieldite; graftonite; pyroxmangite; skemmatite.*
- English, Harry**, 2907 P St, N. W., Washington, D. C. *Mathematics, Education*. Baltimore, Md, Dec. 3, 66. A.B., Hopkins, 86, 86-87; I.L.B., George Washington, 90, LL.M., 91. *Head dept. math, high schools, Washington, D. C, 87-24; chief examiner pub. schools, Dist. Columbia, 24- A.A.; Math. Soc; Math. Ass; Nat. Council Math. Teachers (exec. committee); Ass. Teachers Math. Middle States and Md; D. C. Educ. Ass. (pres). Methods of teaching mathematics.*
- English, Dr. Horace B (idwell)**, Yellow Springs, Ohio. *Psychology*. Eagle, Nebr, Oct. 1, 92. Nebraska, 09-11; B.A., Oxford, 14; Ph.D., Yale, 16. *Asst. psychol, Yale, 14-16; instr. philos. and psychol, Wellesley, 16-17, 19-20, asst. prof, 20-21; prof. psychol, Antioch, 21-25; assoc. prof, Wesleyan, 25-27; prof, Antioch, 27- Summer, assoc. prof, Indiana, 20. Lieut. and capt, Sanit. C, 17-19. A.A.; Psychol. Ass; Eugenics Ass. Mental tests; memory and thought processes.*
- English, Prof. Pennoyer F (rancis)**, Agricultural and Mechanical College of Texas, College Station, Texas. *Biology*. Farmington, Wash, Feb. 21, 94. B.S., Oregon Col, 19; M.S., Agr. and Mech. Col. Texas, 25. *Instr. zool, Oregon Col, 19-21; head dept. biol, Col. St. Teresa, 24-26; asst. prof. biol, Agr. and Mech. Col. Texas, 21-24, assoc. prof, 26- A.A.; Soc. Mammal; Ecol. Soc; Nature Ass. Mammalogy; natural history; ecology.*
- Englund, Carl R (obert)**, 54 Court St, Freehold, N. J. *Physics*. Sioux City, Iowa, Nov. 13, 84. 10; prof. physics ad geol, Western Maryland, 10; prof. physics and geol, Western Maryland, 12-13; tech. staff, research dept, West. Elec. Co, 14-25, Bell Telephone Laboratories, 25- Physical Soc; Radio Eng. Radio transmission.
- Engman, Dr. M (artin) F**, Wall Building, St. Louis, Mo. *Medicine*. New Orleans, La, Aug. 20, 69. M.D., Col. City of N. Y. *Prof. clin. med, Washington (St. Louis); chief staff, Barnard Free Skin and Cancer Hosp. Am. Med. Ass; Dermat. Ass. (pres, 19). Skin diseases; syphilis; cancer.*
- Enlows, Mrs. Ella M (organ Austin)**, 122 Willow Ave, Takoma Park, D. C. *Bacteriology*. St. George, W. Va, Aug. 21, 89. A.B., George Washington, 15, M.S., 16, Ph.D., 23. *Sci. asst, U. S. Dept. Agr, 10-17, asst. pathologist, 17-18; bacteriologist, hygienic lab, U. S. Pub. Health Service, 18- Asst, George Washington, 14-16. A.A.; Soc. Bact; Wash. Biol. Soc. Plant pathology; standardization of antibacterial and antitoxic serums.*
- Ennis, William D (uane)**, 15 Park Row, New York, N. Y. *Mechanical engineering*. Bergen Co, N. J, Jan. 6, 77. M.E., Stevens, 97; Pittsburgh, 98-00. *Engineer, Am. Linseed Co, 02-04; Am. Locomotive Co, 05-07; prof. mech. eng, Brooklyn Polytech, 07-17; major, ordnance dept, 17-18; ordnance engineer, Watervliet Arsenal, and acting prof. mech. eng, Columbia, 18-19; prof, U. S. Naval Acad. and tech. adviser, claims board, War Dept, 19-20; v. pres, Technical Advisory Corp, 20- Consultant, indust. develop. A.A.; Mech. Eng; Eng. Educ.*
- Eno, Prof. F (rank) H (arvey)**, 222 16th Ave, Columbus, Ohio. *Civil engineering*. Elmwood, Ill, July 27, 65. B.S., Illinois, 91, C.E., 94. *Asst.*

- engineer and supt. water supply, sewerage and fire protection, World's Columbian Expos, 91-94; consulting engineer, 94-95; engineer and supt. pub. works, Winnetka, Ill, 95-98; asst. engineer and directing chief drafting and design, city engineer's office, Columbus, Ohio, 98-02; assoc. prof. civil eng, *Ohio State*, 02-05, *prof. munic. eng*, 05-26, *highway research, Eng. Exp. Sta.*, 26- Committees, Highway Research Council; Nat. Conf. City Planning. Civil Eng; Water Works Ass; Eng. Educ; Forestry Ass; Ohio Eng. Soc; Columbus Eng. Club. Improvement of bearing power of sub-soils for highway betterment.
- Enos, Dr. George M**(agee), 5858 Valley View Ave, Kennedy Heights, Cincinnati, Ohio. *Metalurgy*. Dubuque, Iowa, July 8, 96. B.S, S. Dak. Sch. Mines, 21, Met.E, 22; research fellow, Carnegie Inst. Tech, 21-22, M.S, 22; Ph.D, Cincinnati, 25. Anal. asst, S. Dak. Min. Exp. Sta, 18; junior metallurgist, U. S. Bur. Mines, Pittsburgh, 22-23; *instr. metal, Cincinnati*, 23-, *in charge div.*, 24- Metallurgist, Resource Surv, Univ. of Cincinnati. Min. and Metal. Eng; Electrochem. Soc. Corrosion in acid mine waters; general corrosion; chromium plating; heat treatment of iron and steel.
- Enright, Dr. John J**(oseph), 256 Blatchley Ave, New Haven, Conn. *Bacteriology*. New Haven, March 1, 96. Ph.B, Yale, 17, M.S, 20, Ph.D, 23. Research, U. S. Bur. Mines, 17; chief lab, U. S. Veterans' Bur. Hosp. No. 41, 20-26; *research, diagnostic clin, U. S. Veterans' Bur.*, 26- Instr. Tuber. Post-Grad. Sch, 23. Sanit.C, U.S.A., 18-19. Soc. Bact. Secondary organisms and urinary antigens in tuberculosis.
- Ensign, M**(artin) **R**(ussell), University of Florida, Gainesville, Fla. *Agriculture*. Brigham City, Utah, Nov. 24, 90. B.S, Utah Col, 12; Washington (St. Louis); M.S.A, Cornell, 17. Field asst, Utah Exp. Sta, 12; instr, high sch, Utah, 14-16; asst. pathologist, cotton, forage and truck crop disease investigations, U. S. Dept. Agr, 18-19; *farmer*, 19-; assoc. prof. agr. educ, Arkansas, 20-23; *exten. pathologist-entomologist, Florida*, 25- Field specialist, N. Y. State Food Commission, 17. Bot. Soc; Phytopath. Soc. Plant physiology and pathology.
- Enzian, Charles**, 707 15th St, Windber, Pa. *Mining engineering*. Carbon Co, Pa, Oct. 26, 77. C.E, Lehigh, 01, M.S, 13. Engineer's office, Carbon Co, 94-97; L. C. and N. Co, 01-02; Lehigh Valley Coal Co, 02-10; U. S. Bur. Mines, 10-16; P. and R. C. and I. Co, 16-20; consulting engineer, 20-22; *mining engineer and coal research, Berwind-White Coal Mining Co*, 22- Pa. State Anthracite Mine Cave Commission, 11-13. Civil Eng; Min. and Metal. Eng; Acad. Polit. and Social Sci; Northeast. Pa. Eng. Soc. (pres, 15). Mining roof supports; coal.
- Epling, Dr. Carl** (Clawson), University of California at Los Angeles, Los Angeles, Calif. *Botany*. Waverly, Ill, April 15, 94. A.B, California, 21; Rufus J. Lackland fellow, Washington (St. Louis), A.M, 23, Ph.D, 24. *Instr. bot.*, Oregon Col, 21-22; *California at Los Angeles*, 24- Traveling fellow, Nat. Research Council, 27-28. Office blister rust control, U. S. Dept.
- Agr. Taxonomy of flowering plants, especially Labiatae.
- Eppley, Dr. Marion**, 12 Sheffield Ave, Newport, R. I. *Chemistry*. West Orange, N. J, June 19, 83. B.S, Princeton, 06, A.M, 12, Ph.D, 19. Partner, Robert Goodbody and Co, bankers, 09-14; research worker, Princeton, 14-17. Lecturer, Princeton, 17- Staff, 'Sci. American,' 07. Lieut. commander, N.R.F, 17-20, commander, 20- A.A; Chem. Soc; Electrochem. Soc; Physical Soc; fel. N. Y. Acad; N. Y. Miner. Club. Physical chemistry; standards of electromotive force; cadmium standard cells; Ostwald dilution law; theory of solutions.
- Epps, F**(rederick) **W**(illiam), 1404 Plass Ave, Topeka, Kans. *Civil engineering*. Denmark, Iowa, Aug. 31, 80. B.S, Kansas, 04. Office engineer, bridge dept, Kansas City Terminal Ry. Co, 11-18; bridge engineer, Kans. Highway Commission, 18-23; *mem. firm, Kans. Eng. Co*, 23- Civil Eng. (sec'y-treas, Kans. sect, 22-); Kans. Eng. Soc. (exec. committee, 22-24); Topeka Eng. Club (sec'y-treas, 19-21, v. pres, 21-23, pres, 23). Bridge engineering.
- Epsteen, Dr. S**(aul) **R**, 232 Coronado Building, Denver, Colo. *Mathematics*. San Francisco, Calif, Aug. 10, 78. B.S, California, 00; Ph.D, Zurich, 01; Göttingen, 02. Assoc. math, Chicago, 02-05; instr, Colorado, 05-06, asst. prof, 06-10, head dept. eng. math, 06-13, prof, 10-13; insurance commissioner, Colo, 13-15; Special Deputy State Bank Commissioner, 22-25. Ed, 'Am. Math. Monthly,' 03-05; assoc. ed, 'Sch. Sci. and Math,' 05-08. Math. Soc; fel. Am. Inst. Actuaries; fel. Actuarial Soc; Colo. Math. Soc. (pres, 09-11). Differential equations; linear associative algebra; life insurance; rational integration of linear differential equations.
- Epstein, Dr. Albert A**, 70 E. 83d St, New York, N. Y. *Biochemistry*. Russia, July 4, 80. B.S, N. Y. Univ, 02, M.D, 05. *Assoc. attending physician and assoc. physiol. chemist, Mt. Sinai Hosp*, 11- A.A; Soc. Biol. Chem; Chem. Soc; Soc. Exp. Biol; Soc. Clin. Invest; Am. Med. Ass. Metabolism.
- Epstein, Albert K**(uba), 5 S. Wabash Ave, Chicago, Ill. *Chemistry*. Lodz, Poland, June 30, 90. Lewis Inst, Chicago; B.S, Chicago, 12, 16-20. Agr. chemist, Kankakee County; food research chemist, Columbus Laboratories, Chicago, 13-14; food chemist, State Food Commission, Ill, 14-19; *consulting chemist*, 19- A.A; Chem. Soc; Ass. Cereal Chem; fel. Inst. Chem. (chairman, Chicago chapter, 23); Soc. Bact; fel. Pub. Health Ass; Pharmaceut. Ass. Industrial chemistry; food; pharmaceutical preparations; colloids; emulsions; chemistry of blood; fermentation; enzymes; effect of organic radicals on toxicity of disinfectants.
- Epstein, Dr. Paul S**(ophus), California Institute, Pasadena, Calif. **Mathematical physics*. Warsaw, Poland, March 20, 83. B.Sc, Moscow, 05, M.Sc, 09; Ph.D, Munich, 14. Instr, Inst. Agr, Moscow, 06-07; Moscow, 07-09, privat-docent, 09-14; Zurich, 19-21; *prof. math. physics, Calif. Inst.*, 21- A.A; Physical Soc; Physik. Gesell; Soc. de Physique; Moscow Physical Soc. Quantum theory; structure of atoms.

- Erdman, Prof. H(enry) E(rnest)**, University of California, Berkeley, Calif. *Agricultural economics*. Armour, S. Dak, Nov. 6, 84. B.S., S. Dak. Col, 12; Ph.D., Wisconsin, 20. Deputy state dairy inspector, S. Dak, 12-14; asst., Wisconsin, 16-17; asst. prof. rural econ, Ohio State, 17-22; assoc. prof. rural institutions, California, 22-25, *prof. agr. econ*, 25- In charge cost of marketing div, U. S. Dept. Agr, 21-22; lecturer, Am. Inst. Cooperation, 25. Farm Econ. Ass; Econ. Ass; Ass. Marketing Officials. Marketing of farm products; cooperative marketing; the prices of butter and eggs.
- Erdman, Dr. Lewis W(ilson)**, Iowa State College, Ames, Iowa. *Soils*. Atlanta, Ga, Sept. 18, 95. B.S., Maryland, 16; fellow, Iowa Col, 20-22, M.S., 21, Ph.D., 22. Asst. soil investigations, Md. Exp. Sta, 17-19; Nat. Research Council fellow, Wash. Col, 22-23; *asst. prof. soils*, Iowa Col, and *asst. chief soil bact*, Exp. Sta, 23- A.A.; Soc. Agron; Int. Soc. Soil Sci. Soil bacteriology; effects of gypsum and sulfur on soils; Rhizobium leguminosarum; inoculated soybeans; nitrogen fixation in field soils; effects of fertilizers on microorganisms.
- Erdmann, Prof. Charles A(ndrew)**, University of Minnesota, Minneapolis, Minn. *Anatomy*. Milwaukee, Wis, Aug. 3, 66. Ph.G., 87; M.D., 93. Instr. anat, Minnesota, 93-95, asst. prof, 95-00, *prof*, 00- A.A.; Ass. Anat. Articulations; peritoneum; pituitary body; lymphatic system.
- Erickson, Dr. C(arl) I(mmanuel)**, 703 Michigan Ave, Pullman, Wash. *Psychology*. Alta, Iowa, Dec. 13, 87. A.B., Iowa State Teachers Col, 14; A.M., Iowa, 17, Ph.D., 21. Asst. prof. psychol, Wash. Col, 21-26, *assoc. prof*, 26- A.A. Basic factors in the human voice; discrimination of emotional expressions.
- Ericson, E(ric) J(ohn)**, 5435 Woodlawn Ave, Chicago, Ill. *Chemistry*. Gustafsfors Bruk, Sweden, Feb. 3, 71. Grad, Filipstad's Sch. Mines, Sweden, 89. Indust. companies, 90-05; chief chemist, Edgar Zinc Co, 05-16; chem. engineer, Pan-Am. Manganese Corp, 17-18; chief chemist, Chicago div, J. H. Williams Co, 19-21; *chemist and metallographist*, Standard Forgings Co, Ind, 22- Min. and Metal. Eng; Swedish Eng. Soc. Chicago. Determinations of sulphur in steel; lead in ores; lead and cadmium in spelter; titanium in alloys; fluorspar analysis; powdered coal application in zinc smelting.
- Erikson, Prof. Henry A(nton)**, 424 Harvard St, S. E, Minneapolis, Minn. *Experimental physics*. Mt. Morris, Wis. B.E.E., Minnesota, 96, Ph.D., 07. Instr. high sch, Minn, 96-97; *physics*, Minnesota, 97-05, asst. prof, 05-14, assoc. prof, 14-15, *prof. and chairman dept*, 15- A.A.; Physical Soc. Physical measurements; ionization of gases at high pressure; rate of recombination of ions at different temperatures; the mobility and nature of ions.
- Erlanger, Dr. Joseph**, Washington University Medical School, St. Louis, Mo. *Physiology*. San Francisco, Calif, Jan. 5, 74. B.S., California, 95; M.D., Hopkins, 99, fellow, 00. Res. med. officer, Hopkins Hosp, 99-00, asst. *physiol*, med. dept, Hopkins, 00-01, instr, 01-03, assoc, 03-04, assoc. prof, 04-06; *prof. med. sch*, Wisconsin, 06-10; *Washington (St. Louis)*, 10- Med. fellowship board, Nat. Research Council. Nat. Acad; A.A. (v. chairman, N, 20); *Physiol. Soc.* (councilor, 10-25, pres, 26-); Am. Physiologists; Soc. Exp. Biol; hon. mem. Harvey Soc. Metabolism in dogs with shortened small intestines; principles of sphygmomanometry; mechanism of sound production in arteries; impulse initiation and conduction in the heart; influence of pulse pressure on renal secretion; induction shocks as a stimuli; nerve action currents.
- Ernst, F(rank) A(rthur)**, U. S. Department of Agriculture, Washington, D. C. *Engineering*. Keyport, N. J, June 18, 92. C.E., Lafayette, 15. Construction and operating engineer, 15-17; *research engineer and chief div. eng, fixed nitrogen research lab*, U. S. Dept. Agr, 22- Consulting engineer, nitrate div, Army Ordnance, 17-22; special agent, nitrogen surv, West. Europe, U. S. Dept. Commerce, 23. Mech. Eng; Wash. Acad. Mechanical and chemical engineering; fixation and utilization of nitrogen; ammonia production.
- Erskine, Prof. A(rchibald) M(ortimer)**, College Hill, Clinton, N. Y. *Chemistry*. New York, N. Y, Aug. 2, 92. Ch.B., Cornell, 14, Ph.D., 21. Instr. chem, Cornell, 17-18; research chemist, E. I. du Pont de Nemours and Co, 18-21; asst. *prof. chem*, Smith, 21-22; *prof*, Hamilton, 22- C.W.S., U.S.A., 18. A.A.; Chem. Soc. Chemistry of petroleum.
- Erve, Prof. J(ohn) van de**, Medical College, Charleston, S. C. *Physiology*. Willemstead, Netherlands, Sept. 30, 70. A.B., Hope, 95; A.M., Princeton, 97, B.D., 10; M.S., Chicago, 10, M.D., Rush Med. Col, 11. Presb. minister, 97-11; *prof. physiol. and pharmacol*, Alabama, 11-13; *prof. and director dept. and assoc. dean sch. med*, Marquette, 13-19; *prof. physiol. med. col*, State of S. C., 19- Am. Med. Ass. Diastases in the blood; hunger movements of the stomach; stomaches; capillaries.
- Erwin, Prof. A(rthur) T(homas)**, Iowa State College, Ames, Iowa. *Horticulture*. Fulton, Mo, Nov. 8, 74. Washington (St. Louis), 92-96; Missouri, 96-98; B.S., Arkansas, 00; M.S.A., Iowa Col, 02. Asst. *hort*, Ark. Exp. Sta, 98-99; instr, Iowa Col, 00-03, *assoc. prof*, 03-, *chief vegetable crop sect*, Exp. Sta, 15- A.A.; Soc. Hort. Sci; Iowa Hort. Soc. (pres); fel. Iowa Acad. Vegetable crops.
- Esarey, Prof. Ralph E(merson)**, 340 S. Henderson St, Bloomington, Ind. *Economic geology*. Cannelton, Ind, April 25, 01. A.B., Indiana, 22, A.M., 23. Instr. *econ. geol*, Indiana, 24- Ind. Acad. Structural features of Mt. Carmel fault in Indiana; stratigraphic and economic study of Indiana Oolitic limestone.
- Escobar, Romulo**, Escuela de Agricultura, Ciudad Juárez, Mex. *Agriculture*. Ciudad Juárez, Feb. 17, 72. Ing. Agr, 91. Pres, Nat. Sch. Agr, Mexico City; *Agr. Col*, Ciudad Juárez. Soc. Cientifique. 'Antonio Alzate.'
- Escott, Edward B(rint)**, 1019 S. East Ave, Oak Park, Ill. *Mathematics*. Grand Rapids, Mich, May 24, 68. B.S., Michigan, 95; fellow, Chicago, 95-96, M.S., 96; Harvard, 96-97. Teacher,

- high sch, Wis. and Mich, 97-00; instr. math, Michigan, 00-14; auditor, Kansas City Life Ins. Co, 16-18; *accountant*, 18- Am. Inst. Actuaries; Math. Soc. Actuarial and statistical mathematics; theory of numbers; finite differences.
- Eshner, Prof. Augustus A.**, 1019 Spruce St, Philadelphia, Pa. *Medicine*. Memphis, Tenn, Nov. 17, 62. A.B, Cent. High Sch, Phila, 79, A.M, 84; M.D, Jefferson Med. Col, 88. Prof. clin. med, Phila. Polyclinic, 95-18; *consulting physician*, *Mercy Hosp*, Phila, 05- Physician, Phila. Gen. Hosp, 96-14; asst. physician, Phila. Orthop. Hosp. and Infirmary for Nervous Diseases, 00-17; physician, Hosp. for Diseases of Lungs, 01-03. Lieut, M.R.C, 17. Am. Med. Ass; Acad. Polit. Sci; Science League of Amer; Phila. Col. Physicians; Phila. Acad. Clinical and physiological medicine.
- Esper, Prof. Erwin A(llen)**, University of Washington, Seattle, Wash. *Psychology*. Columbus, Ohio, Aug. 14, 95. A.B, Ohio State, 17, A.M, 20, fellow, 22-23, Ph.D, 23; Vienna and Phonetics Inst, Hamburg, 24. Asst. Greek, Ohio State, 17-18, English, 18-19, instr, 19-20, *psychol*, 20-25; asst. prof, Illinois, 25-27; *assoc. prof*, *Washington (Seattle)*, 27- A.A; Psychol. Ass; Linguistic Soc; Ohio Acad. Psychology of language; psychological basis of analogic change and of the development of categories in language.
- Espino, Dr. Raf(ael) B.**, College of Agriculture, Los Baños, Laguna, P. I. *Plant physiology*. Bataan, P. I, Oct. 24, 90. B.Agr, Philippines, 15; fellow, Hopkins, Ph.D, 19. Asst. bot, *Philippines*, 15-17, instr. agron, 19-20, asst. prof, 20-24, *assoc. prof. plant physiol. and acting head dept*, 24- A.A. Crop physiology; salt requirements of plants; influence of climate on development; the coconut.
- Essary, Prof. S(amuel) H(enry)**, University of Tennessee, Knoxville, Tenn. *Botany, Agronomy*. Bluff, Tenn, Sept. 11, 70. B.S, Tennessee, 97, M.S, 07. Instr. science, La Grange, 99-02; Brenau, 02-04; bot, *Tennessee*, 04-08, asst. prof, 08-12, *assoc. botanist*, *Exp. Sta*, 12-19, *botanist*, 19- A.A; Phytopath. Soc. Anthracnose resistant red clover; wilt resistant tomatoes; *Lespedeza striata*; fusarium causing wilt of tomatoes; cotton improvement.
- Esselen, Dr. G(ustavus) J(ohn), Jr.**, 437 Puritan Road, Swampscott, Mass. *Chemistry*. Roxbury, Mass, June 30, 88. A.B, Harvard, 09, A.M, 11, Ph.D, 12. Research chemist, Gen. Elec. Co, 12-14; asst. manager and manager, Chem. Products Co, 14-18; research dept, A. D. Little, Inc, 18-21; *v. pres. and director research*, *Skinner, Sherman and Esselen, Inc*, 21- A.A; Chem. Soc. (chairman, cellulose div, 22-24, northeast. sect, 23, councilor, 24-); Chem. Eng. Cellulose and its compounds; paper; rayon.
- Essenberg, Mrs. C(hristine) E(lizabeth Adamson)**, Damascus, Syria. *Zoology*. Latvia, April 6, 81. B.S, B.Pd, Valparaiso, 11; M.S, California, 14, Ph.D, 17. Teacher languages, Petrograd, Russia, 05-08; teacher, pub. sch, Idaho, 12-13; zoologist and librarian, Scripps Inst, California, 16-23; *founder*, *Am. Sch. for Girls, Syria*, 25- A.A; Micros. Soc. Aquatic Hemiptera; marine annelids; Desmoptera; Appendicularia.
- Essenberg, Dr. J(acob) M(artin)**, University of Oklahoma, Norman, Okla. *Embryology*. Courland, Latvia, 83. B.Pd, B.S, Valparaiso, 13; Ph.D, Chicago, 22. Asst. prof. biol, Valparaiso, 13-18, *anat*, 22-23; *assoc. prof*, *Oklahoma*, 23- A.A; Ass. Study Int. Secretions; Okla. Acad. Endocrinology; sex-differentiation and sex-reversal in *Xiphophorus helleri*; sex-reversal in the domestic fowl; internal secretions and sex-determination.
- Essex, Prof. Harry**, Syracuse University, Syracuse, N. Y. *Chemistry*. Meadville, Pa, Nov. 2, 84. A.B, Cornell, 07; Ph.D, Göttingen, 14. Instr. chem, Kentucky, 07-10; head dept, high sch, Utah, 10-11; research assoc, Mellon Inst, 14-18, prof. chem, Pittsburgh, 15-18; research chemist, E. I. du Pont de Nemours and Co, 18-20; *prof. physical chem*, *Syracuse*, 20- Chem. Soc. Compressibility of liquids and solids; synthesis of amyl acetate, glycerine and glycols; reaction kinetics in homogeneous systems.
- Essick, Dr. Charles Rhein**, 520 Franklin St, Reading, Pa. *Anatomy*. Reading, Feb. 17, 83. A.B, Yale, 05; M.D, Hopkins, 09. Asst. anat, Hopkins, 09-10, instr, 10-12, *assoc*, 12-14; *manager lens grinding plant*, *Pa. Optical Co*, 15- Capt, M.C, 18-19. A.A; Ass. Anat; Chem. Soc. The nervous system.
- Essig, Prof. E(dward) O(liver)**, University of California, Berkeley, Calif. *Entomology*. Arcadia, Ind, Sept. 29, 84. B.S, Pomona, 09, M.S, 12. Hort. commissioner, Ventura Co, Calif, 10-11; sec'y, State Hort. Commission, Calif, 11-14; asst. prof. entom, *California*, 14-20, *assoc. prof*, 20- A.A; Entom. Soc; Ass. Econ. Entom; Pacific Coast Entom. Soc; Calif. Acad. Economic entomology; taxonomic and economic Aphididae and Coccidae; history of entomology.
- Estabrook, Dr. Arthur H(oward)**, Cold Spring Harbor, N. Y. *Biology*. Leicester, Mass, May 9, 85. A.B, Clark, 05, A.M, 06, fellow, 06-07; Ph.D, Hopkins, 10; N. Y. Sch. Philanthropy, 14. Asst. zool, Clark, 06-07; *eugenics record office, sta. for exp. evolution*, *Carnegie Inst*, 10- Investigator, Ind. Committee on Mental Defectives, 17-18. Lieut. and capt, Sanit.C, 18. A.A; Soc. Nat; Eugenics Research Ass. (pres, 25); hon. mem. Soc. Bird Restoration; Ind. Acad. Zoology; botany; heredity; eugenics.
- Estabrook, E(dward) L(ewis)**, Pan-American Petroleum and Transport Co, 120 Broadway, New York, N. Y. *Petroleum engineering*. Brandon, S. Dak, May 10, 85. E.M, Pittsburgh, 11. Instr. geol, Lehigh, 11-13; geol. and surveying, State Mining Sch, Wis, 13-14; geologist, Standard Oil Co. of N. Y., 14-16; Wis. Zinc Co, 16-17; Johnson and Huntley, 17-18; Midwest Ref. Co, 18-25; *chief petrol. engineer*, *Pan-Am. Petroleum and Transport Co*, 25- Min. and Metal. Eng.
- Estabrook, Leon M(oyer)**, 1026 17th St, N. W, Washington, D. C. *Statistics*. Rockford, Ill, March 24, 69. A.B, Georgetown, 93, LL.B, 96; Berlitz Sch. of Languages; George Washington. Stenographer and clerk, War Dept, 93; mem. congressional commission to investigate business

- methods, 93-95; clerk, War Dept, 95-03; stenographer, bur. plant indust, U. S. Dept. Agr, 04-05; officer in charge records, 05-09, chief office seed distribution, 09-13, chief clerk, U. S. Dept. Agr, 13, statistician and chief bur. statist. and crop estimates, 13-21, assoc. chief bur. agr. econ, 21-22; specialist rural econ. and agr. statistics, Argentine Govt, 23-24; *agr. commissioner, U. S. Dept. Agr, 24-*, *director, World Agr. Census, Int. Inst. Agr, Rome, 25-* Chairman committee on finance and business methods, U. S. Dept. Agr, Crop Reporting Board, 13-22, in charge govt. seed grain loans, southwest, 18-19, northwest, 21-22; agr. econ. surv, S. Amer, 24. Delegate at large, World Cotton Convention, New Orleans, 19; delegate, Int. Inst. Agr, 20; Int. Inst. Statist, Rome, 25; Int. Cotton Cong, Cairo, 27; Int. Cong. Social Econ. and Int. Cong. Hist. and Geog, Buenos Aires, 24. Council Nat. Defense, 19. A.A.; Statist. Ass; Econ. Ass; Agr. Hist. Soc; Polit. Sci. Ass. Agriculture; economics.
- Estabrooke, Prof. W(illiam) L(udlow)**, College of the City of New York, New York, N. Y. *Chemistry*. New York, April 15, 76. B.A., New Brunswick, 00, M.A., 03, Ph.D., 05; Harvard, 01. Teacher, pub. schools, N. B. Can, 94-95; asst. geol, Harvard, 00-01; teacher, Kingston Acad, 01-04; high sch, N. Y., 04-08; *prof. chem, Col. City of N. Y., 08-* Lecturer, New York Board Educ, 07; prof, Columbia, 17. A.A.; Chem. Soc; N. Y. Chemists Club. Food gelatin; soya bean casein; gas masks; iron, steel and cement; reactions of cations and anions.
- Esten, Prof. W(illiam) M(errill)**, Storrs, Conn. *Bacteriology*. Glendale, R. I., Aug. 27, 62. B.S., Wesleyan, 94, M.S., 96. Asst. biol, Wesleyan, 94-06; dairy bacteriologist, Storrs Exp. Sta, 01-16; *prof. bacter, Conn. Col, 06-* Summers, instr, Brooklyn Inst, 95, prof, Chautauqua, 97-98. Special agent, exp. sta. div, U. S. Dept. Agr, Columbian Expos, 93; investigator, Rockefeller Inst. Soc. Bact; Middletown Sci. Ass. (sec'y, 01-06). Soil bacteria; application of the fixation of nitrogen by bacteria; use of insoluble phosphates with bacteria; bacteria and soil fertility.
- Esterly, Prof. C(alvin) O(lin)**, Occidental College, Los Angeles, Calif. *Zoology*. Fort Stockton, Texas, Aug. 1, 79. A.B., California, 02, A.M., 04; Le Conte fellow, Harvard, 04-05, Ph.D., 07. Asst. zool, California, 02-04, 05-06; Harvard, 06-07; *prof, Occidental, 07-*; *zoologist, Scripps Inst, California, 10-* A.A.; Soc. Zool; Ecol. Soc; assoc. Ornith. Union; Cooper Ornith. Club; Genetic Ass; Micros. Soc. (v. pres, 19, pres, 25). Taxonomy; histology of sense organs and reactions of Copepoda; distribution and movements of marine invertebrates.
- Estes, Dr. W(illiam) L(awrence), Jr**, Bethlehem, Pa. *Medicine*. Bethlehem, March 1, 85. A.B., Lehigh, 05; M.D., Hopkins, 09. Intern, Hopkins Hosp, 09-10; asst, Mayo Clinic, 10-12; med. adviser, Lehigh, 13-22; chief staff, *St. Luke's Hosp, 12-18, senior adjunct surgeon, 20-* A.A.; Col. Surg; Am. Med. Ass; S. Surg. Soc; Am. Acad. Med. (asst. sec'y, 13-15); N. Y. and New Eng. Ry. Surg. Ass; Pa. Med. Soc. (chairman, surg. sect, 23-); Phila. Path. Soc. Surgery; fractures; gynecology.
- Estill, Howard W(ilmot)**, University of California, Berkeley, Calif. *Biochemistry*. Columbus, Ohio, Sept. 5, 90. B.S., Arizona, 13, M.S., 16; Sc.D., Hopkins, 27. Fellow, Calif. Inst, 24-25; instr. chem, Arizona, 16-17, 20-21, asst. prof, 21-24; research fellow, Hopkins, 25-27; *asst. prof. bacter, California, 27-* A.A.; Chem. Soc. Physical and inorganic chemistry; fat soluble vitamins.
- Esty, Dr. James Russell**, 322 Battery St, San Francisco, Calif. *Bacteriology*. Slatersville, R. I., March 22, 93. B.S., R. I. Col, 14; M.S., Brown, 15, Ph.D., 18. Instr. bacter, Brown, 14-16; bacteriologist, milk dept, Providence, R. I., 16-17, chemist, 17-19; *bacteriologist, Nat. Cannery Ass, 19-* Bacteriology of canned foods; thermophilic organisms; biology of *Clostridium welchii*.
- Esty, Prof. T(homas) C(ushing)**, Amherst College, Amherst, Mass. *Mathematics*. Amherst, Dec. 8, 70. A.B., Amherst, 93, A.M., 97. Instr. math. and drawing, Case, 94-95; *math, Amherst, 95-98, 99-01; prof, Rochester, 01-05; Amherst, 05-*, acting dean, 20-21, *dean, 22-* A.A.; Math. Soc; Math. Ass.
- Esty, Prof. William**, 42 W. Market St, Bethlehem, Pa. *Electrical engineering*. Amherst, Mass, July 9, 68. A.B., Amherst, 89, A.M., 93; B.S., Mass. Inst. Tech, 93. Elec. engineer, Thomson-Houston Elec. Co, 92-93; instr. *elec. eng, Illinois, 93-95, asst. prof, 95-98, assoc. prof, 98-01; asst. prof, Lehigh, 01-03, prof, 03-* A.A.; Elec. Eng; Eng. Educ. Dynamo electric, and alternating current machinery; resistance of insulating materials; electromagnets.
- Etchererry, Prof. Bernard Alfred**, 2678 Buena Vista Way, Berkeley, Calif. *Civil engineering*. San Diego, Calif, June 30, 81. B.S., California, 02. Assoc. prof. civil eng, Nevada, 03-05; *prof. irrig. eng, California, 05-* Consulting engineer, Calif. and B. C. Civil Eng. Irrigation engineering practice and drainage.
- Etheridge, Prof. W(illiam) C(arlyle)**, University of Missouri, Columbia, Mo. *Agronomy*. Roanoke Isl, N. C., June 30, 85. B.Agr, N. C. State, 06; M.S., Cornell, 12, Ph.D., 15. Asst. and assoc. agronomist, N. C. Exp. Sta, 06-11; asst. farm crops, Cornell, 11-15; *prof. agron, Florida, 15-16; field crops, Missouri, 16-* Field crops.
- Ettlinger, Prof. H(yman) J(oseph)**, 3110 Harris Park Ave, Austin, Texas. *Mathematics*. St. Louis, Mo, Aug. 30, 89. A.B., Washington (St. Louis), 10; A.M., Harvard, 11, Ph.D., 20; Chicago, 17. *Assoc. prof. math, Texas, 13-* A.A.; Math. Soc; Math. Ass; Math. Verein; Circolo Mat. di Palermo. Applied mathematics; boundary values; definite integrals; differential and integral equations.
- Eustis, Dr. F(rederic) A**, 131 State St, Boston, Mass. *Metallurgy, Chemistry*. Milton, Mass, Oct. 7, 77. Mass. Inst. Tech; A.B., Harvard, 01, A.M., 02, M.S., 03, Sc.D., 15. *Practising metallurgist, 03-* U. S. Shipping Board, 17-18. Min. and Metal. Eng; Min. and Metal. Soc; Chem. Soc; Boston Affiliated Tech. Societies (chairman, 26). Washing of smelter smoke; production of electrolytic iron from sulphide ores; liquid sulphur dioxide.

Evans, Dr. Alexander W(illiam), Osborn Botanical Laboratory, New Haven, Conn. **Botany*. Buffalo, N. Y., May 17, 68. Ph.B. Yale, 90, M.D., 92, Ph.D., 99. Instr. bot, Yale, 95-01, asst. prof., 01-06, *Eaton prof. Sheffield Sci. Sch.*, 06- A.A.; Soc. Nat.; Bot. Soc. (v. pres, 11); Am. Acad.; Conn. Acad. (sec'y, 97-03); Torrey Bot. Club (assoc. ed, 07-14, 24-, ed, 14-24). Hepaticae.

Evans, Miss Alice C(atherine), 1277 New Hampshire Ave, N. W., Washington, D. C. *Bacteriology*. Neath, Pa., Jan. 29, 81. B.S., Cornell, 09; M.S., Wisconsin, 10. Dairy bacteriologist, U. S. Dept. Agr., 10-18; *assoc. bacteriologist, U. S. Pub. Health Service*, 18- Committee on infectious abortion, Nat. Research Council, 25-A.A.; Soc. Bact. (sec'y-treas, Wash. branch, 21-27). Cheese ripening; bacteria in the cow's udder; bacteriotropins; infectious abortion in animals and undulant fever in man; the etiology of epidemic encephalitis.

Evans, Dr. Arthur T(hompson), South Dakota State College, Brookings, S. Dak. *Botany*. Wellington, Ill., May 22, 88. A.B., Illinois, 12; M.S., Colorado, 15; fellow, Chicago, 17-18, Ph.D., 18. Prin. high sch., Mich., 12-14; instr. bot., Colorado, 14-17; asst. pathologist, bur. plant indust., U. S. Dept. Agr., 18-19; prof. biol. and dean, Huron, 19-20; assoc. prof. agron., S. Dak. Col. and assoc. Exp. Sta., 20-23, *prof. bot. and plant path. and head dept. bot.*, 23- A.A.; Bot. Soc.; Ecol. Soc. Morphology; cytology; ecology.

Evans, Prof. Griffith C(onrad), Rice Institute, Houston, Texas. **Mathematics*. Boston, Mass., May 11, 87. A.B., Harvard, 07, A.M., 08, Ph.D., 10. Sheldon traveling fellow, Harvard, at Rome, 10-12; instr. math., 09-10; asst. prof. *pure math.*, *Rice Inst.*, 12-16, *prof.*, 16- Ed., 'Am. Jour. Math.', 27- Math. Soc. (v. pres, 24-26); Circolo Mat. di Palermo. Differential integral and integro-differential equations; Kirchhoff's law; mathematical economics.

Evans, Dr. H(enry) B(rown), University of Pennsylvania, Philadelphia, Pa. *Mathematics*. Dayton, Ohio, July 2, 71. M.E., Lehigh, 93; Ph.D., Pennsylvania, 01. Instr. math. and astron., Lehigh, 94-95; Pennsylvania, 95-01; asst., 'Nautical Almanac,' 01-04; asst. prof. *math.*, *Pennsylvania*, 04-11, *prof.*, 11- Dean, Towne Sci. Sch., 18-19. A.A.; Math. Soc.; Astron. Soc.; Eng. Educ.

Evans, Prof. Herbert M(cLean), University of California, Berkeley, Calif. **Anatomy*. Modesto, Calif., Sept. 23, 82. B.S., California, 04; M.D., Hopkins, 08. Asst. instr., assoc. and assoc. prof. *anat.*, Hopkins, 08-15; *prof.*, *California*, 15- Research assoc., Carnegie Inst., 13-15. Nat. Acad.; A.A.; Soc. Nat.; Ass. Anat.; Am. Med. Ass.; Physiol. Soc.; Soc. Exp. Biol.; Soc. Study Int. Secretions; Soc. Zool. Histology; embryology; endocrinology; nutrition; blood supply of lymphatic vessels in man, and of parathyroid glands; resection of small intestine; lymphatic vessels in malignant growths; development of vertebrate vascular trunks from capillary plexuses; vital dyes of benzidim group; macrophages of mammals; follicular atresia; physiological anatomy of reproduction; discovery

of 48 chromosomes in man; endocrinology, especially hormones of the anterior hypophysis; experimental production of gigantism and cessation of ovulation with parenteral anterior hypophyseal administration; relations of fertility and nutrition; discovery of fat soluble vitamin E(x) essential for mammalian reproduction.

Evans, Prof. Herbert S(ilas), University of Colorado, Boulder, Colo. *Electrical engineering*. Stella, Nebr., July 20, 75. B.S., Nebraska, 98, E.E., 01. Electrician, C. B. and Q. Ry. Co., 98-11; instr. and adjunct prof. *elec. eng.*, Nebraska, 01-05; *prof.*, *Colorado*, 05-, *dean col. eng.*, 19- Gen. Elec. Co., 05. Elec. Eng.; Electrochem. Soc.; Eng. Educ. (v. pres). Electrical transmission at high altitudes; electrical measuring instruments; dielectron strength of insulating materials.

Evans, Prof. J(ohn) E(llis), Iowa State College, Ames, Iowa. *Psychology*. Brazil, Ind., Jan. 1, 82. A.B., Indiana, 10, A.M., 11; Ph.D., Columbia, 16. Teacher, pub. schools, 99-09; asst. educ., Indiana, 09-14; instr. psychol., Ohio State, 14-20; development expert, sect. testing and grading, War Dept., 19-22; *prof. psychol. and head dept.*, *Iowa Col.*, 22- Asst., Columbia, 13-14. A.A.; Psychol. Ass.; Nat. Soc. Study Educ. General, experimental, industrial and vocational psychology.

Evans, Dr. J(oseph) S(pragg), University of Wisconsin, Madison, Wis. *Medicine*. West Chester, Pa., March 6, 75. A.B., Haverford, 95; M.D., Pennsylvania, 99. Instr. *clin. med.* and assoc., Pepper Lab., Pennsylvania, 02-09; *prof.*, *Wisconsin*, 09- Col. Physicians; Phila. Col. Physicians. Bacteriology; clinical medicine.

Evans, Morgan W., U. S. Department of Agriculture, North Ridgeville, Ohio. *Agronomy*. Neath, Pa., Feb. 22, 79. B.S.A., Cornell, 06; M.S., George Washington, 20. Sci. asst., U. S. Dept. Agr., 07-18, asst. agronomist, 18-24, *assoc. agronomist*, 24- A.A.; Soc. Agron.; Ohio Acad. Timothy.

Evans, Prof. Nevil Norton, McGill University, Montreal, Que., Can. *Chemistry*. Montreal, Sept. 28, 65. B.S., McGill, 86; M.S., 92; Royal Sch. Mines, Freiberg, 89-90; Leipzig, 90-91. Demonstrator *chem.*, *McGill*, 86-89, lecturer, 91-01, asst. prof., 01-07, *assoc. prof.*, 07- Lecturer, Nor. Sch., Montreal. A.A.; Chem. Soc.; Can. Inst. Chem. Rock and mineral analysis.

Evans, Prof. Newton (Gurdon), Loma Linda, Calif. *Pathology*. Hamilton, Mo., June 1, 74. B.S., Union (Nebr.), 95; M.D., Cornell, 00. Instr. and *prof. path. and histol.*, Am. Med. Missionary Col., 00-05; *path.*, Tennessee, 08-11; *Col. Med. Evangelists*, 14- Summer, pathologist, Michael Reese Hosp., Chicago, 08. A.A.; Ass. Path. and Bact.; Am. Med. Ass. Blastomycetic dermatitis; coccidioidal granuloma and blastomycosis of the central nervous system; brain tumors; nephritis from high protein diet; malignant myoma of uterus; mitosis in malignant tumors.

Evans, Prof. Oren F(rank), 810 Monnett St., Norman, Okla. *Geology*. Shelby, Mich., 78. Mich. State Col., 05; A.B., Albion, 10; A.M., Michigan, 20. Teacher, high schools, 98-17; instr. math. and physics, Albion, 17-19; *asst. prof. geol.*,

- Oklahoma, 20— Summers, Okla. State Geol. Surv., 21, 22, 27. Miner. Soc.; Ass. Petrol. Geol. Geology of Oklahoma; Wichita Mountain area; stream erosion in interior plains of U. S.
- Evans, Dr. P(ansy) Alice**, 39 West St, Northampton, Mass. *Botany*. Boulder, Mont, Oct, 90. A.B, Utah, 17; M.S, Chicago, 18, fellow, 23—25, Ph.D, 25. *Instr. bot. and nat. science*, Utah, 18—23; *bot. Smith*, 25— A.A; Utah Acad. (cor. sec'y, 22). Plant ecology.
- Evans, Dr. R(alph) L(iggett)**, 33 W. 46th St, New York, N. Y. *Chemistry*. Texarkana, Ark, April 15, 95. B.S, Chicago, 19; Ph.D, Columbia, 25. Lecturer, Columbia, 20—24; *chemist, Inecto, Inc*, 23— Chem. Soc. Organic chemistry.
- Evans, Dr. Walter H(arrison)**, U. S. Department of Agriculture, Washington, D. C. *Botany*. Delphi, Ind, Jan. 3, 63. A.B, Wabash, 87, A.M, 89, Ph.D, 96. *Instr. bot*, Wabash, 88—90; botanist, Eli Lilly and Co, Ind, 90—91; *bot. ed*, 'Exp. Sta. Record,' U. S. Dept. Agr, 92—, *chief, Insular Exp. Stations*, 93— Special agent, Columbian Expos, 92—93; special commissioner to Alaska, U. S. Dept. Agr, 97. Gold medal, Paris, 00; grand prize, La. Purchase Expos, 04. Delegate, Int. Cong. Forestry, Paris, 00. A.A; Wash. Bot. Soc; Wash. Biol. Soc. Cornaceae; effect of copper sulphate upon the germination of seed; economic botany.
- Evans, Prof. W(ard) V(inton)**, Northwestern University, Evanston, Ill. *Physical chemistry*. Rawlinsville, Pa, June 8, 83. Ph.B, Franklin and Marshall, 07; Ph.D, Columbia, 16. Asst. chem, Columbia, 15—16; instr, Northwestern, 16—17, *prof. physical chem*, 18—19, *chem*, 19— Lieut, U.S.A, 17—18. Chem. Soc. Surface tensions of mutually soluble liquid systems; interatomic arrangements; detonation rates of high explosives; E.M.F. of non-aqueous solvents; critical solution constants of furfural; luminescent Grignard compounds.
- Evans, Dr. W(illiam) A(ugustus)**, Tribune Tower, Chicago, Ill. *Public health*. Marion, Ala, Aug. 5, 65. B.S, Miss. Agr. and Mech. Col, 83, M.S, 85; M.D, Tulane, 85, LL.D; M.D, Illinois, 99; D.P.H, Michigan. Demonstrator path, col. med, Illinois, 91—95, *prof*, 95—08; *hygiene and sanit. science, Northwestern*, 08— Commissioner health, Chicago, 07—11. Health editor, 'Chicago Tribune.' Am. Med. Ass; Pub. Health Ass.
- Evans, Prof. W(illiam) Lloyd**, Ohio State University, Columbus, Ohio. *Chemistry*. Columbus, Dec. 22, 70. B.S, Ohio State, 92, fellow, 95—96, M.S, 96; Löwenthal fellow, Chicago, 04—05, Ph.D, 05. Asst. ceramics, Ohio State, 96—98; instr. *chem*, high sch, Colo, 98—02; asst. prof, Ohio State, 05—08, assoc. prof, 08—11, *prof*, 11— Major and director chem. lab. and inspection div, Edgewood Arsenal, C.W.S, 17—19. A.A. (councilor, C, 16); Chem. Soc; Eng. Educ; Ohio Acad. Dissociation phenomena in aromatic carbinols; oxidation of organic compounds; carbohydrate oxidation.
- Eve, Prof. A(rthur) S(tewart)**, McGill University, Montreal, Que, Can. *Physics*. Silsoe, Eng, Nov. 22, 62. B.A, Cambridge, 84, M.A, 89; D.Sc, McGill, 08. Asst. master, Marlborough Col, Eng, 86—03; lecturer *math*, McGill, 03—05, asst. prof, 05—09, assoc. prof, 09—12, *prof*, 12—, *director*, 19— Capt. and major, C.E.F, 15—17, col. and director exp. sta. anti-submarine div, 17—18. Physical Soc; fel. Royal Soc. Can; Royal Soc. Radio-activity; ionization.
- Evenenden, J(ames) C(lawston)**, U. S. Department of Agriculture, Washington, D. C. *Entomology*. McMinnville, Oregon, June 19, 89. B.S, Oregon Col, 14. *Bur. entom. U. S. Dept. Agr*, 14— Ass. Econ. Entom; Forestry Ass; Soc. Foresters. Forest entomology.
- Evenson, O. L**, U. S. Department of Agriculture, Washington, D. C. *Chemistry*. B.S, St. Olaf, 05; A.M, Columbia, 13. *Chemist*, Oliver Iron Mining Co, 05—12; Clinton Sugar Ref. Co, 12; *bur. chem. U. S. Dept. Agr*, 14— Chem. Soc. Food colors and dyes; milk and milk powder.
- Everett, Prof. H(arold) A(rthur)**, State College, Pa. *Engineering*. Manchester, N. H, March 17, 80. B.S, Mass. Inst. Tech, 02; M.E, Pa. State, 25. Instr. and assoc. prof, Mass. Inst. Tech, 03—15; prof. marine eng, U. S. Naval Acad, 15—18; chief engineer and naval architect, Union Shipbuilding Co, Md, 18—22; *prof. thermodynamics, Pa. State*, 22— Mech. Eng; Naval Archit; Eng. Educ. Naval architecture; marine and mechanical engineering.
- Everett, Prof. H(arry) S(cheidy)**, 28 University Ave, Lewisburg, Pa. *Mathematics*. Lehigh Co, Pa, Jan. 25, 91. A.B, Bucknell, 12, A.M, 13, M.S, 14; fellow, Chicago, 21—22, Ph.D, 22. *Prof. applied math. and astron*, Bucknell, 15—, *director observatory*, 23— Prof, dept. home study, Chicago, 22— Ed. board, 'Am. Math. Monthly,' 26— A.A; Math. Soc; Math. Ass; Eng. Educ; Elec. Eng; Pa. Acad. Algebra; expression of forms as determinants whose elements are forms.
- Everett, Prof. James Roy**, Golden, Colo. *Mathematics*. Brownsburg, Ind, Aug. 22, 85. Grad, Ind. State Nor. Sch, Terre Haute, 09; A.B, Ind. State Nor. Col, 15; A.M, Wisconsin, 16. Prin, high sch, Ill, 16—19; asst. prof. *math*, Baker, 19—20; instr, Carnegie Inst. Tech, 20—22; *assoc. prof. Colo. Sch. Mines*, 22— Math. Ass. Centro-surfaces of central quadrics; mathematics of gear cutting and of gear-cutting machines.
- Everett, Prof. Walter G(oodnow)**, Brown University, Providence, R. I. *Ethics*. Rowe, Mass, Aug. 21, 60. A.B, Brown, 85, A.M, 88, Ph.D, 95; Berlin and Strassburg, 95—96. Instr. Greek and Latin, Brown, 90—94, assoc. prof. *philos*, 94—00, *prof*, 00— Acting pres, Brown, 12—13; trustee, Butler Hosp, 13— Psychol. Ass; Philos. Ass. (exec. committee, 19—22, pres, east. div, 21); Inst. Social Sci. Ethics and religion and their mutual relations; moral values.
- Everhart, Dr. Edgar**, 150 N. Jackson St, Atlanta, Ga. *Chemistry*. Stokes Co, N. C, April 8, 54. A.B, Racine, 73, A.M, 75; Columbia, 74—75; Fresenius' Lab, Wiesbaden, 76; Ph.D, Freiburg, 78. Asst. chem, Stevens, 78—84; prof, Texas, 84—94; Cox, 94—97; *chemist, Ga. Geol. Surv*, 04— Chem. Gesell. Organic and physiological chemistry.
- Evermann, Dr. Barton W(arren)**, Museum, California Academy of Sciences, San Francisco,

- Calif. **Ichthyology, Biology*. Monroe Co, Iowa, Oct. 24, 53. Howard (Ind), 70-72; Butler, 78-79; B.S. Indiana, 86, A.M., 88, Ph.D., 91; LL.D., Utah, 22. Teacher, pub. schools, Ind, 71-79; Calif, 79-81; supt, Ind, 83-85; prof. biol. and geol, Ind. State Nor. Sch, 86-91; ichthyologist, U. S. Fish Commission, 91-13; asst. in charge div. sci. inquiry, U. S. Bur. Fisheries, 03-10, chief, Alaska Fisheries Service, 10-14; curator div. fisheries, U. S. Nat. Museum, 05-14; *director museum, Calif. Acad.*, 14-, *Steinhart Aquarium*, 23- Lecturer, Stanford, 93-94; col. forestry, Cornell, 99-03; forest sch, Yale, 04-06. U. S. Fur Seal Commission, 92; Board Sci. Surv. Philippines; assoc. Int. Fisheries Commission, 08-09; chairman committee fisheries, 24-; Board Educ, Washington, D. C, 06-10. Gold medal, Paris Expos, 00; Panama-Pacific Expos, 15. A.A. (v. pres, Pacific div, 17-21, pres, 21-22); fel. Ornith. Union; Cooper Ornith. Club (pres, 16-18); Soc. Mammal; Plant Preservation Soc; Soc. Preservation Wild Life; Pacific Fisheries Soc. (pres, 16-18); Calif. Acad. (ed, 14-); Ind. Acad; Wash. Acad. (ed, 04-10); Wash. Biol. Soc. (pres, 03). Geographic distribution of fishes; fishes of north and middle America, Porto Rico and Hawaii; food and game fishes; physical and biological survey of Lake Maxinkuckee; Salmonidæ; museum administration.
- Eversole, W(illiam) G(eorge)**, 7239 Lindell Boulevard, St. Louis, Mo. *Physical chemistry*. Caledonia, Mo, June 9, 98. A.B., Westminster Col, 20; M.S., Iowa, 22, Ph.D., 24. *Instr. chem. sch. med, St. Louis*, 24- Transference numbers.
- Eversull, Dr. Bess M(arie)**, 277 Crescent St, Northampton, Mass. *Mathematics*. Elmwood Place, Ohio, May 18, 99. A.B., Cincinnati, 21, Baldwin fellow, 21-23, A.M., 22, Taft fellow, 23-24, Ph.D., 24. *Instr. math, Smith*, 24- Math. Soc; Math. Ass. Summability of infinite series; triple Fourier series.
- Evvard, Prof. John M(arcus)**, Iowa State College of Agriculture and Mechanic Arts, Ames, Iowa. *Animal husbandry and nutrition*. Saunemin, Ill, Nov. 6, 84. B.S.A., Illinois, 07; M.S., Missouri, 09; Ph.D., Arizona, 27. Asst. city ed, 'Pontiac Daily Sentinel,' 04; asst. to dean col. agr, Missouri, and asst. to director, Exp. Sta, 07-10; asst. chief animal husbandry, *Iowa Exp. Sta*, 10-14, in charge sect. and chief swine production, 11-, chief animal nutrition, 11-19, chief sheep and beef cattle production, 19-, as soc. prof. animal husbandry, *Iowa State*, 16-18, prof, 18- *Instr.* Arizona, 22. Cor. ed, 'Farm and Fireside.' U. S. Livestock Indust. Commission, 17; chairman swine commission and advisory committee on swine, U. S. Food Ad, 17-18. A.A.; Soc. Animal Production (v. pres, 16, pres, 18); Chem. Soc; U. S. Livestock Sanit. Ass; fel. Iowa Acad. Beef cattle, swine and sheep production and economic management; applied mineral nutrition; feeding standards for swine and beef cattle.
- Ewell, Dr. Arthur W(oolsey)**, Worcester Polytechnic Institute, Worcester, Mass. **Physics*. Bradford, Mass, Oct. 20, 73. A.B., Yale, 97, Sloane fellow, 97-99, Ph.D., 99; Hopkins, 99-00; Berlin, 04. Asst. physics, Yale, 97-99; instr, *Worcester*, 00-04, asst. prof, 04-10, prof, 10- Capt, major and head bomb unit, A.S.; tech. expert aerial bombs, War Dept. Trustee, Dummer Acad; Bancroft Sch. Physical Soc; Am. Acad; Soc. de Physique. Optical properties of transparent bodies when subjected to torsion and other mechanical strains; elastic properties of jellies; optical properties of distorted jelly and glass; magnetic double refraction; electrolytic conduction; production and estimation of ozone; electrode potentials; dispersion in artificial rotatory polarization; measurement of explosive waves and forces; moist steam; hygrometry at low temperatures.
- Ewell, Dr. Marshall D(avis)**, Osprey, Fla. *Microscopy*. Oxford, Mich, Aug. 18, 44. LL.B., Michigan, 68, LL.D., 79; hon. A.M., Northwestern, 79, M.D., 84. *Microscopical and handwriting expert*. A.A.; Micros. Soc. (pres, 91, 06); Physical Soc; Optical Soc; Philos. Soc; Ill. Micros. Soc. (pres, 09-11); hon. fel. Chicago Acad. Med; hon. fel. Royal Micros. Soc. Metrology; handwriting; medical jurisprudence.
- Ewer, Prof. Bernard C(apen)**, 706 Indian Hill Boulevard, Claremont, Calif. *Psychology*. Vernon, Conn, Oct. 5, 77. A.B., Brown, 99, A.M., 00; Ph.D., Harvard, 04. Instr. and asst. prof. philos, Northwestern, 05-11; prof, Reed Col, 11-15; acting prof, Brown, 15-16; prof. psychol, *Pomona*, 16- Summers, lecturer, Stanford, 22, Oregon, 24. Philos. Ass.
- Ewing, Prof. Dwight T**, East Lansing, Mich. *Chemistry*. Iowa. B.S., Parsons, 11; M.S., Chicago, 15, du Pont fellow, 18-19, Ph.D., 20. Asst. prof. chem, *Mich. State Col*, 14-23, assoc. prof, 23- Summer, asst, Chicago, 18. Chem. Soc. (chairman, Mich. sect, 17); Electrochem. Soc. Adsorption; electrometric titration of uranium salts; density of charcoals; surface energy; electrolytic preparation of potassium bromate; boiling point of hydrobromic acid solution; electrolytic chromium; state of water in silica gel.
- Ewing, Dr. H(enry) E(llsworth)**, National Museum, Washington, D. C. *Entomology*. Arcola, Ill, Feb. 11, 83. Knox, 02-04; A.B., Illinois, 06, A.M., 08; Chicago, 06-07; Schuyler fellow, Cornell, 10-11, Ph.D., 11. Asst. biol, Knox, 03-04; zool, Illinois, 07-08; teacher, high sch, 08-09; asst. zool, Iowa Col, 09-10; entom, Oregon Exp. Sta, 11-14; asst. prof, Iowa Col, 14-16, assoc. prof, 16-19; specialist, bur. entom, U. S. Dept. Agr, 19- A.A.; Entom. Soc; Ass. Econ. Entom; Soc. Mammal; Soc. Parasitol; Ecol. Soc; Iowa Acad; Ill. Acad; Wash. Entom. Soc; Wash. Biol. Soc; Wash. Helminth. Soc. Arachnida; the parasitic Acarina; animal parasites; pure line inheritance; smaller orders of insects.
- Ewing, Prof. James**, Cornell University Medical College, New York, N. Y. **Pathology*. Pittsburgh, Pa, Dec. 25, 66. A.B., Amherst, 88, A.M., 91; M.D., Columbia, 91; Vienna, 95; hon. Sc.D., Pittsburgh, 12, Amherst, 22. Tutor histol, Columbia, 93-97, Clark fellow, 96-99, instr. clin. path, 97-98; prof. path, med. col, Cornell, 99- Pathologist and director cancer research, Memorial Hosp. A.A.; Ass. Path. and Bact. (pres, 06); Am. Physicians; Soc. Exp.

- Biol. (pres, 12); Soc. Bact; Ass. Cancer Control; Ass. Cancer Research (pres, 07); Am. Med. Ass; Harvey Soc. (pres, 08); N. Y. Acad. Med. Blood; ganglion cells; malaria; variola; toxemia of pregnancy; tumors.
- Ewing, Dr. James**, Leeds University, Leeds, England. *Botany*. Aberdeen, Scotland, June 14, 88. M.A. Aberdeen, 10, B.Sc. 11, D.Sc. 16. Asst. lecturer bot, Aberdeen, 11-12; instr. biol, Carleton, 12-13, asst. prof, 13-20; *lecturer, Leeds, 20-* Ecol. Soc. Plant ecology and physiology.
- Ewing, Dr. Scott (Preston)**, U. S. Bureau of Standards, Washington, D. C. *Physics*. Smithfield, Utah, May 20, 98. B.S. Utah Col, 20; Ph.D. California, 25. Asst. physics, Utah Col, 17-20; teaching fellow, California, 21-25; instr, Lehigh, 25-26; *junior physicist, Bur. Standards, 26-* Summers, soil technologist, bur. soils, U. S. Dept. Agr. and Bur. Reclamation, 20-22, 23-26. Physical Soc. Determination of number of molecules in 1 c.c. of gas by measurement of light scattering coefficient.
- Ewing, Prof. Warren W(alter)**, Lehigh University, Bethlehem, Pa. *Physical chemistry*. Winterset, Iowa, Nov. 4, 89. B.S. Parsons, 12; M.S. Chicago, 18, Ph.D. 20. Teacher, high sch, India, 12-16; asst. chem, Chicago, 19; *asst. prof. physical chem, Lehigh, 20-* C.W.S. U.S.A., 18. A.A.; Chem. Soc. Surface tension of mercury; activation of chlorine; electrolytic calomel; equilibria of hydrated salts.
- Exmouth, Rt.-Hon. Viscount (Charles E(rnest) Pellew)**, 7 W. 43d St, New York, N. Y., or Hindhead, Surrey, Eng. **Chemistry*. London, Eng, March 11, 63. E.M. Columbia, 84. Instr. and demonstrator physics and chem, col. physicians and surg, Columbia, 87-97, adjunct prof. chem, 97-10. Chem. Soc; Soc. Chem. Indust; fel. N. Y. Acad; fel. Royal Chem. Soc. Handicraft dyeing with modern dyestuffs.
- Exner, Dr. Franz F(rederick)**, Carleton College, Northfield, Minn. *Chemistry*. Silesia, Austria, March 23, 68. A.B. Carleton, 95; Ph.D. Pennsylvania, 03. Teacher, high schools, Minn, 95-00; instr. gen. chem, Pennsylvania, 01-02; *prof. chem, Carleton, 03-* A.A.; Chem. Soc; Am. Geog. Soc. Complex inorganic acids of WO_3 , V_2O_5 , and P_2O_5 ; purification of tungsten and its atomic weight; halides of tungsten; rapid precipitation of metals by electrolysis; determination of Pb in baking powders and of F_2O_3 in phosphate rocks; quantitative sublimation; catalytic dehydration of amides to nitriles.
- Exton, Dr. William G(ustave)**, 271 Central Park West, New York, N. Y. *Medicine*. Savannah, Ga, Feb. 25, 75. M.D. Columbia, 96; Vienna; London; Paris. *Director lab. and longevity service, Prudential Ins. Co, 14-* Am. Med. Ass; Soc. Clin. Path. (pres); Chem. Soc; Urol. Ass; Optical Soc. Experimental medicine; longevity promotion; gastroscopy; dispersions; clinical calorimetry; pathology.
- Eyerman, John**, P. O. Box 567, Hollywood, Calif. *Chemistry, Mineralogy*. Easton, Pa, Jan. 15, 67. Lafayette, 84-87; Harvard, 87; Princeton, 88-94. Lecturer determinative miner, Lafayette, 87-92; assoc. ed, 'Jour. Anal. Chem'; 'Am. Geologist,' 89-99. Fel. Miner. Soc. Mining geology; vertebrate paleontology; mineralogical chemistry; Temnoceyon; Hypotemnodon; zirconium; tungsten; tantalum; glucinum.
- Eyre, Dean Thomas T(aylor)**, University of Southern California, Los Angeles, Calif. *Engineering*. Dolington, Pa, Jan. 8, 83. B.S. Purdue, 05, M.E. 27. Instr. Purdue, 05-13; asst. prof. applied mech. and hydraul, Case, 13-14; Purdue, 14-17, 19-20; dean eng, New Mexico, 20-26; *prof. mech. eng, Southern California, 26-* Capt, C.Eng, 17-19. Mech. Eng; Eng. Educ.
- Eyring, Dean Carl F(erdinand)**, Brigham Young University, Provo, Utah. *Physics*. Colonia Juárez, Chihuahua, Mex, Aug. 30, 89. A.B. Brigham Young, 12; A.M. Wisconsin, 15; Columbia, 19; Chicago, 20; Ph.D. Calif. Inst, 24. Instr. physics, Brigham Young, 12-14; asst. Wisconsin, 14-15; Calif. Inst, 22-23; asst. prof. *physics and math, Brigham Young, 15-16, prof, 16-, dean col. arts and sciences, 24-* Science and research div, A.S. 18. A.A.; Physical Soc; Utah Acad. (pres, 23). Determination of Ne for hydrogen from measurements of Brownian movements; the pulling of electrons out of metals by intense electrical fields.
- Eyster, Prof. J(ohn) A(ugustine) E(nglish)**, University of Wisconsin, Madison, Wis. **Physiology, Pharmacology*. Augusta Co, Va, July 31, 81. B.S. Maryland, 99; Hopkins, 99-01, M.D, 05, fellow, 05-06; Freiburg, 06. Asst. physiol, Hopkins, 06-07, instr, 07-08, assoc, 08-09; *prof. pharmacol, Virginia, 09-11; physiol, Wisconsin, 11-* A.A.; Physiol. Soc; Soc. Pharmacol; Soc. Exp. Biol; Am. Physicians; Am. Med. Ass. Physiology of respiration and circulation.
- Eyster, Dr. William H(enry)**, Bucknell University, Lewisburg, Pa. *Genetics*. Fishers Ferry, Pa, July 13, 89. A.B. Bucknell, 14, A.M. 15; Ph.D. Cornell, 20. Instr. biol, Pa. State Forest Acad, 14-16; nat. science and head dept. science, Cortland State Nor. and Training Sch, 16-18; asst. plant breeding, Cornell, 18-19, instr. bot, 19-20; asst. prof, Missouri, 20-24; prof, Maine, 24-27; Guggenheim Mem. Foundation fellow, 27-28; *prof. bot, Bucknell, 28-* A.A.; Genetic Ass; Bot. Soc. Genetics of maize.
- Ezekiel, Mordecai (Joseph Brill)**, U. S. Department of Agriculture, Washington, D. C. *Agricultural economics*. Richmond, Va, May 10, 99. B.S. Maryland, 18; M.S. Minnesota, 23; Ph.D. Robert Brookings, 26. Junior agr. economist, *bur. agr. econ, U. S. Dept. Agr, 22-23, asst. agr. economist, 23-25, assoc. agr. economist, 25, agr. economist, 25-* Farm Econ. Ass; Econ. Ass; Statist. Ass. Multiple correlation; multiple curvilinear correlation; farm organization and production; quantitative analysis of the forces affecting demand and price of individual commodities.
- Ezekiel, Dr. Walter N(aphtali)**, University Farm, St. Paul, Minn. *Plant pathology*. Richmond, Va, April 26, 01. B.S. Maryland, 20, M.S. 21, Ph.D. 24. Asst. plant pathologist, Md. Exp. Sta, 20-25; *Nat. Research Council fellow bot, Minnesota, 25-* A.A.; Soc. Plant Physiol; Phytopath. Soc. Fruit-rotting Sclerotinias; physiology of parasitism.

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- Faber, Dr. Harold K(niest)**, Stanford University School of Medicine, San Francisco, Calif. *Pediatrics*. Westfield, N. Y., June 19, 84. A.B., Harvard, 06; M.D., Michigan, 11. Res. pathologist, Babies Hosp., N. Y., 13-14; fellow, Rockefeller Inst., 14-15; instr. and asst. prof., *sch. med.*, Stanford, 15-23, *prof. pediat.*, 23-
Pediat. Soc.; Soc. Exp. Biol. Tuberculosis; arthritis; glomerulonephritis; weight of infants; scurvy; blood pressure in infancy and childhood; surface area of infants; food requirements of infants; hydrogen-ion concentration and buffer value of infant foods; leishmaniasis; hydrogen chloride milk; oxycephaly.
- Faber, Dr. Henry B(urnell)**, 50 E. 41st St., New York, N. Y. *Chemical engineering*. Brooklyn, N. Y., July 10, 77. B.S., Harvard, 98; Sc.D., Emory, 20. *Consulting chemist*, 14-
Lecturer, Columbia. Major, ordnance dept., O.R.C. Chem. Soc. Military pyrotechnics.
- Fabian, Prof. F(rederick) W(illiam)**, Michigan State College, East Lansing, Mich. *Bacteriology, Hygiene*. Diamond, Pa., March 26, 88. B.S., Allegheny, 14; M.S., Mich. State Col., 24. Asst. chem., Allegheny, 13-14; head dept. science, high sch., Pa., 14-15; Board Health, Detroit, 16-17; hygienic dept., Ford Motor Co., 16; *assoc. prof. bacter. and hygiene, and research assoc.*, Mich. State Col., 17-
Second lieut., M.C., 18. Soc. Bact.; Pub. Health Ass.; Chem. Soc.; Dairy Sci. Ass.; Mich. Acad. Hydrogen-ion; bee diseases; ice cream; vinegar; flax retting.
- Fabyan, Prof. Marshal**, Harvard Medical School, Boston, Mass. *Pathology*. Brookline, Mass., Feb. 17, 79. A.B., Harvard, 00, M.D., 04. Intern, Mass. Gen. Hosp., 04-05; asst. res. physician, Hopkins Hosp., 06-07; *instr. comp. path.*, Harvard Med. Sch., 09-12, *asst. prof.*, 12-
Ass. Path. and Bact. Comparative pathology.
- Faccioli, Giuseppe**, General Electric Co., Pittsfield, Mass. *Electrical engineering*. Rome, Italy, April 7, 77. E.E., Polytech, Milan, Italy, 99. Asst. to William Stanley, Jr., 05-08; engineer, *Gen. Elec. Co.*, 08-14, *works engineer*, 13-
Elec. Eng.; British Inst. Elec. Eng.; Ital. Soc. Elec. Eng. High tension and high frequency phenomena.
- Fagan, Prof. F(rank) N(elson)**, State College, Pa. *Horticulture*. Richmond, Ind., Sept. 29, 88. B.S., Ohio State, 10. Farm manager, Everett Ranch, Texas, 10-11; inspector, nurseries and orchards, Ohio Dept. Agr., Columbus, 11-12; asst. prof. and *prof. pomol.*, Pa. State, 12-
A.A.; Soc. Hort. Sci. Pomology; propagation of tree nursery stock; orchard pest control; pruning and shaping fruit trees.
- Fahr, Prof. G(eorge)**, 400 Fifth St., S. E., Minneapolis, Minn. *Physiology, Internal medicine*. Meadville, Pa., Jan. 25, 82. B.S., 04; M.D., Wurzburg, 09. Asst. physiol., Wurzburg, 07-10; Leiden, 11-13; *instr. med.*, Wisconsin, 19-21; *assoc. prof.*, Minnesota, 23-
Physiology of muscle; electrophysiology; diseases of the heart; edema of nephritis.
- Fahrenwald, A(rthur) W(illiam)**, U. S. Bureau of Mines, University of Idaho, Moscow, Idaho. *Metallurgy*. Yankton, S. Dak., May 22, 90. B.S., S. Dak. Sch. Mines, 14, Met.E., 16; E.M., N. Mex. Sch. Mines, 16. Prof. min. and metal, N. Mex. Sch. Mines, 15-17; engineer, Phelps Dodge Corp., Ariz., 17-18; instr. and head dept. sci., high sch., Mont., 18-19; instr. metal, Idaho Sch. Mines, 19-20; *engineer ore dressing*, U. S. Bur. Mines, 20-
Min. and Metal. Eng. Ore classification; concentration of ores by flotation and gravity; surface tension; oscillating ore treator.
- Fahy, Frank P.**, 16 E. 41st St., New York, N. Y. *Physics*. New Haven, Conn., May 5, 82. Ph.B., Yale, 02. Gen. Elec. Co., 02-04; Pa. Ry. Co., 04-16; *private research*, 16-
John Scott medal, 18. Soc. Test. Mat. (chairman, committee on magnetic analysis, 26); Soc. Steel Treat. (director, 20); Elec. Eng. Ferro magnetism; magnetic analysis of ferrous materials and apparatus.
- Failla, G(ioacchino)**, Riverdale-on-Hudson, N. Y. *Biophysics*. Italy, July 19, 91. E.E., Columbia, 15, A.M., 16; Sc.D., Paris, 23. *Physicist, Mem. Hosp., New York*, 15-
Asst. to sci. attaché, Am. Embassy, Rome, 18-19. A.A.; Physical Soc.; fel. Optical Soc.; Radium Soc.; N. Amer. Radiol. Soc. Radium and X-rays; engineering; correlation of physical properties and biological actions of radium and X-rays.
- Fain, Prof. John R(ichard)**, University of Georgia, Athens, Ga. *Agronomy*. Jefferson City, Tenn. B.S., Tennessee, 00; hon. Sc.D., Georgia, 21. Supt. farm, Tennessee, 98-04; asst. prof. agron., Va. Polytech, 04-07; *prof.*, Georgia, 07-
A.A.; Soc. Agron.; Farm Econ. Soc. (pres, 19). Farm economics.
- Fairbanks, Ernest E(merson)**, U. S. Bureau of Mines, Reno, Nev. *Economic geology*. Wakefield, Mass., Nov. 6, 97. A.E.F. Univ. Beaune; Utah; Mass. Inst. Tech.; Harvard. *Mineralogist, rare and precious metals, exp. sta.*, U. S. Bur. Mines, 24-
Fel. Miner. Soc. Mineralogy; ore microscopy; physico-chemical properties of silver minerals; dielectric constants of minerals.
- Fairbanks, Prof. Floyd C(oooper)**, University of Rochester, Rochester, N. Y. *Physics*. William-son, N. Y., Nov. 27, 73. A.B., Rochester, 01, 04-05; Cornell, 05-06. Instr., high sch., N. Y., 01-04; *physics*, Drexel, 06-14, senior instr., 14-18; *asst. prof.*, Rochester, 18-
Physical Soc.; Optical Soc.; Rochester Acad. Heat of vaporization of liquid air; density of rocks from deep mines; optics.
- Fairbanks, Dr. H(arold) W(ellman)**, 1625 Grand View Ave., Glendale, Calif. *Geology, Physiography*. Conewango, N. Y., Aug. 29, 60. B.S., Michigan, 90; Ph.D., California, 96. Calif. State Mining Bur., 90-94; asst., U. S. Geol. Surv., 99-00; *independent research*, 00-
A.A.; Ass. Geog.; Am. Geog. Soc. School geography.
- Fairchild, C(harles) O(wen)**, C. J. Tagliabue Manufacturing Co., Brooklyn, N. Y. *Physics*. Marinette, Wis., Feb. 27, 90. M.S., Rose, 12. Chem. engineer, West. Chem. Mfg. Co., 12-14; Bur. Standards, 15-19, *assoc. physicist*, 19-20, *physicist*, 20-26; *research engineer*, C. J. Taglia-

- bue Co, 26- Physical Soc; Optical Soc; Wash. Philos. Soc. Pyrometry.
- Fairchild, Dr. David G(randison)**, U. S. Department of Agriculture, Washington, D. C. **Botany, Agriculture*. Agricultural College, Mich, April 7, 69. B.S, Kansas Col, 88, M.S, 93; Naples Zool. Sta, 93; Breslau and Berlin, 94; Bonn, 95; Buitenzorg Bot. Gardens, 96; Ph.D, Oberlin, 16. Second asst. pathologist, U. S. Dept. Agr, 89-92, first asst. pathologist, div. veg. path, 92-93, special agent in charge *sect. seed and plant introduction*, 97-98, agr. explorer, 98-03, *in charge office*, 03- Asst. to Barbour Lathrop on expeditions in search of valuable seeds and plants, 98-00, 01-03; sci. leader, Allison V. Armour exped, 25-27. A.A; Bot. Soc. (councilor, 14-16); Genetic Ass. (pres, 13-); Nat. Geog. Soc. (director); Pomol. Soc; Int. Ass. Bot. Plant introduction; plant diseases; microscopic fungi and marine algae; introduction into America of valuable seeds and plants.
- Fairchild, Dr. D(avid) S(turgess)**, Clinton, Iowa. *Surgical pathology*. Fairfield, Vt, Sept. 16, 47. M.D, Albany Med. Col, 68. Prof. comp. physiol. and anat, Iowa Col, 79-93; surg. path. and surg, Drake, 82-09, dean, 03-09; ed, 'Jour. Iowa State Med. Soc,' 11- Col. Surg; Am. Med. Ass. (first v. pres, 14); West. Surg. Ass. (pres, 98); Iowa Acad.
- Fairchild, Prof. H(erman) L(eRoy)**, University of Rochester, Rochester, N. Y. **Geology*. Montrose, Pa, April 29, 50. B.S, Cornell, 74; hon. Sc.D, Pittsburgh, 10. Teacher, Wyoming Sem, Pa, 74-76; lecturer, New York private schools, Cooper Union, etc, 77-88; prof. *geol*, Rochester, 88-20, *emer. prof*, 20- Ad interim prof, Vassar, 78. A.A. (gen. sec'y, 94, v. pres, 98); Geol. Soc. (sec'y, 90-07, pres, 12); N. Y. Acad. (sec'y, 85-88); Rochester Acad. (pres, 89-18); hon. and cor. mem. of various other societies. Pleistocene geology.
- Fairfield, Prof. John G(uthrie)**, 2334 16th St, Troy, N. Y. *Mechanical engineering*. Bedford, Mass, Aug. 1, 93. B.S, Mass. Inst. Tech, 16. Instr. *mech. eng*, Rensselaer, 16-20, *asst. prof*, 20- Jr. mem. Mech. Eng; Eng. Educ; Automotive Eng. Thermodynamics; heat engineering.
- Fairfield, Prof. Priscilla**, 8 Green Ave, Northampton, Mass. *Astronomy*. Spokane, Wash, April 14, 96. A.B, Boston, 17; Lick Observatory fellow, California, 18-21, Ph.D, 21. Teacher, high sch, Mass, 17-18; asst. math, California, 21-22; instr. *astron*, Smith, 22-24, *asst. prof*, 24- A.A; Astron. Soc. Relation of widths of hydrogen lines to absolute magnitude of A type stars; proper motions of 9th magnitude M stars.
- Fairhall, Dr. L(awrence) T(urner)**, 82 Ellery St, Cambridge 38, Mass. *Physical and biological chemistry*. Chicago, Ill, Aug. 30, 88. B.S, Illinois, 11, M.S, 12; A.M, Harvard, 15, Ph.D, 18. Austin teaching fellow, Harvard, 13-14, head asst. chem, 14-17, *faculty instr*, Harvard Med. Sch, 21-24, *sch. pub. health*, 24- Lieut, capt. and major, Sanit.C, 17-19, major, Sanit.O.R.C. Chem. Soc; Soc. Biol. Chem. Nutrition.
- Fairlie, Andrew M(iller)**, Citizens and Southern Bank Building, Atlanta, Ga. *Chemical engineering*. Glasgow, Scotland, Feb. 11, 77. A.B, Harvard, 00. Chief chemist, Tenn. Copper Co, 06-07, asst. supt, acid dept, 08-16, supt, 16-17; chem. engineer, 17-18; *consulting chem. engineer*, 18- Chem. Soc; Chem. Eng; Inst. Metals (sec'y, 07). Design, construction, operation and equipment of sulfuric acid plants; water-cooled sulfuric acid chambers.
- Fairman, Dr. C(harles) E(dward)**, Lyndonville, N. Y. *Mycology*. Yates, N. Y, Dec. 28, 56. A.B, Rochester, 74, A.M, 77; M.D, St. Louis Med. Col, 77. Cor. mem. Rochester Acad. Mycology of western New York; North American Pyrenomycetae and Lophiostomaceae.
- Fales, Prof. Harold A(thelstane)**, Columbia University, New York, N. Y. *Chemistry*. Brooklyn, N. Y, Aug. 5, 82. B.S, Brooklyn Polytech, 11; A.M, Columbia, 14, Ph.D, 16. Instr. *chem*, Columbia, 13-19, *asst. prof*, 19- Chem. Soc. Analytical and physical chemistry.
- Fales, Dr. W(illiam) Thurber**, 519 Dexter Ave, Montgomery, Ala. *Statistics, Epidemiology*. Milford, Mass, April 29, 94. B.S, Massachusetts, 17; C.P.H, Harvard, 20; Sc.D, Hopkins, 24. Health officer, Glen Ridge, N. J, 17; instr. epidemiology, Hopkins, 20-24; *state registrar and director bur. vital statistics*, Ala. State Board Health, 24- Assoc. sanitarian, Framingham tuber. demonstration, 17; municipal pub. health administration, Pub. Health Ass, 21. M.C, U.S.A, 18-19. A.A; Statist. Ass; fel. Pub. Health Ass. (committee, int. vital statistics, 26). Epidemiological significance of age distribution of communicable diseases; vital statistics; general epidemiology.
- Falk, Prof. I(sidore) S(ydney)**, 1151 E. 56th St, Chicago, Ill. *Hygiene, Bacteriology*. Brooklyn, N. Y, Sept. 30, 99. Ph.B, Yale, 20, Ph.D, 23. Asst. pub. health, Yale, 15-20, instr, 20-23; asst. prof. *hygiene and bacter*, Chicago, 23-26, *assoc. prof*, 26- A.A; Soc. Bact; fel. Pub. Health Ass; Ass. Immunol; Soc. Exp. Biol. Public health; immunology; vital statistics.
- Falk, Dr. K(aufman) George**, Roosevelt Hospital, New York, N. Y. **Chemistry*. New York, Sept. 8, 80. B.S, Columbia, 01; Hopkins, 01-03; Ph.D, Strassburg, 05; Berlin, 05-06. Asst. physical chem, Columbia, 06-07, tutor physics, 07-09; research assoc. physical chem, Mass. Inst. Tech, 09-11; *chemist, Harriman research lab, Roosevelt Hosp*, 11-, *consultant, Plant research lab*, 25- Capt, Sanit.C, 18-19. A.A; Chem. Soc. (v. chairman, N. Y. sect, 14); Soc. Biol. Chem; Soc. Exp. Biol; Harvey Soc; fel. N. Y. Acad. (sec'y, sect. astron, physics and chem, 18); London Chem. Soc. Valence; enzymes; catalysis; meat spoilage; food dehydration; antibody analysis; glycin; refractive indices and temperatures; ignition temperatures; condensation of o-phthalaldehyde; hexamethylene-tetramin.
- Falk, Myron S(amuel)**, 130 E. 44th St, New York, N. Y. *Civil engineering*. New York, Sept. 13, 78. C.E, Columbia, 99, Ph.D, 04; M.E, Stevens Inst, 00. Tutor, instr. and lecturer civil eng, Columbia, 00-10; *chief engineer*,

- Godwin Construction Co, 06-*; H. H. Oddie, Inc, 09-25. Consulting civil engineer, 00- N. Y. Bay Pollution Commission, 03; consulting engineer, N. Y. State Water Supply Commission, 05-07; chairman board directors, Wonham, Bates and Goode Trading Corp, 20-23; v. pres, Am. Bemberg Corp, 25-27. Major, ordnance dept, 17-19, lieut. col, 19. Civil Eng; Soc. Test. Mat. Cements, mortars and concretes; influence lines for bridges; metallie bridges.
- Fall, H(enry) C(linton)**, Tyngsboro, Mass. *Entomology*. Farmington, N. H, Dec. 25, 62. B.S, Dartmouth. Entom. Soc. American Coleoptera; the Ptinidae of boreal America; the Lathridiidae; American Diplotaxes; revision of American Hydropori and Gyrini.
- Fall, Prof. Paul H**, Hiram College, Hiram, Ohio. *Physical chemistry*. Fountain City, Ind, May 8, 92. A.B, Oberlin, 14, A.M, 18; Palmolive fellow, Cornell, 23-25, Ph.D, 25. Teacher, high sch, Ill, 14-15; Houghton Col, 15-16; research chemist, Dye Lab, E. I. du Pont de Nemours and Co, 18-20; head dept. chem, Hiram, 20-A.A; Chem. Soc. Colloids.
- Famulener, Dr. L(emuel) W(illiam)**, 395 Ft. Washington Ave, New York, N. Y. *Pharmacology, Pathology*. Galesburg, Ill, Aug. 27, 75. Ph.C, Michigan, 00, A.B, 03, M.D, 06. Asst. prof. path, Indiana, 06-07; bacteriologist and asst. director research lab, Dept. Health, New York, 07-14; *bacteriologist, St. Luke's Hosp, 13-* A.A; Ass. Path. and Bact; Soc. Exp. Biol; Soc. Bact; Soc. Immunol; fel. N. Y. Acad. Med. Physiological assays; serology; bacteriology; immunology.
- Fant, G(ordon) W**, State College, Raleigh, N. C. *Botany*. Walhalla, S. C. B.S, Clemson, 20; M.S, Rutgers, 22. *Exten. plant pathologist, N. C. Agr. Exten. Service, 22-* Phytopath. Soc; N. C. Acad. Plant pathology; tobacco diseases.
- Fantus, Prof. B(ernard)**, 3239 Washington Boulevard, Chicago, Ill. *Pharmacology, Therapeutics*. Budapest, Hungary, Sept. 1, 74. Real-Gymnasium, Vienna; M.D, Illinois, 99; M.S, Michigan, 17; Strassburg, 06; Berlin, 09. Intern, Cook Co. Hosp, 99-00; adjunct prof. mat. med. and therapist, Illinois, 00-02, prof, 03-12, asst. prof. clin. med, 09-12, prof. pharmacol. and therapist, 13-17; *assoc. prof. therapist, Rush Med. Col, Chicago, 17-* Lecturer, sch. pharmacy, Illinois, 13-17. Ed, 'Gen. Therapeutics,' 18- Revision committee, U. S. Pharmacopeia and Nat. Formulary. A.A; Soc. Internal Med; Pharmaceut. Ass; Am. Med. Ass; Col. Physicians. Therapeutics; Fuller's earth; comparison of optochin and quinin; candy medication; antidotes to mercuric chlorid; prescription writing; blood-pressure; useful cathartics; technic of medication.
- Faragher, Prof. Paul V(ance)**, Aluminum Company of America, New Kensington, Pa. *Metalurgy*. Sabetha, Kans, June 17, 88. A.B, Kansas, 09, 10; Mass. Inst. Tech, 11-12, Ph.D, 13; fellow, California, 12-13. Instr. chem, Kansas, 10-11, asst. prof, 13-18, assoc. prof, 18; fellow, Mellon Inst, 18-19; *tech. direction bur, Aluminum Co. of Amer. A.A; Chem. Soc.*
- E.M.F. in aqueous solvents; metallurgy of light alloys.
- Faragher, Dr. W(arren) F(red)**, Universal Oil Products Co, Chicago, Ill. *Chemistry*. Sabetha, Kans, April 25, 84. A.B, Kansas, 05, fellow, 07-09, Ph.D, 10. Instr. chem, Kansas, 05-07; research chemist, Alden Speare's Sons Co, 09-18; fellow, Mellon Inst, 18-23, asst. director, 23-26, lecturer chem. and tech. of petrol, Pittsburgh, 18-22, prof. and head dept. petrol. ref, sch. mines, 22-26; *director research lab, Universal Oil Products Co, 26-* A.A; Chem. Soc; Soc. Test. Mat; Petrol. Inst; Kans. Acad. Petroleum products; refining processes.
- Faribault, E(u)gène Rodolphe**, Geological Survey, Ottawa, Ont, Can. *Geology*. L'Assomption, Que, Nov. 4, 60. B.A.S, C.E, Laval, 82; D.Sc, Montreal, 22. *Geologist, Can. Geol. Surv, 82-* Jury awards, Paris Expos, 00. Gold medal, Pan-Am. Expos, 04. Int. Geol. Cong, Paris, 00. Geol. Soc; Can. Min. Inst; N. S. Inst; hon. mem. N. S. Min. Soc; fel. Royal Soc. Can. Geological survey, mapping and study of the gold fields of Nova Scotia; structure of the anticlinal folds and auriferous saddle-veins and their recurrence in depth.
- Faris, Prof. Ellsworth**, University of Chicago, Chicago, Ill. *Psychology*. Salem, Tenn, 74. B.S, Texas Christian Col, 94; Ph.D, Chicago, 14. Prof. philos, Texas Christian Col, 06-11; instr, Chicago, 12-13; asst. prof, Iowa, 13-14; instr. psychol, Chicago, 14-15; assoc. prof. and later prof. psychol, Iowa, 15-20, acting director, Child Welfare Research Sta; *prof. sociol, Chicago, 19-*, chairman dept. sociol. and anthrop, 25-A.A; Psychol. Ass; Sociol. Soc; Philos. Ass; Anthropol. Ass. Psychology of punishment; primitive peoples; social psychology.
- Faris, Dr. James A(braham)**, 1350 B St, S. W, Washington, D. C. *Botany, Plant pathology*. Westboro, Mo, July 27, 90. B.Pd, Mo. Teachers Col, Maryville, 13; B.S, Missouri, 16; A.M, Nebraska, 20; research fellow, Brooklyn Bot. Garden, 21-24; Ph.D, Columbia, 23. Prof. biol, Stephens Junior Col, Mo, 16-17; bot, City Junior Col, 17-18; pathologist, bur. plant indust, U. S. Dept. Agr, 18-20; Dominican Govt, Santo Domingo, R. D, 20-21; Nat. Research Council fellow, 24; *senior pathologist, Trop. Plant Research Foundation, 24-* A.A; Bot. Soc; Phytopath. Soc; Genetic Ass; Torrey Bot. Club; Hawaiian Soc. Sugar Cane Tech. Violet root rot; infection in parasitic fungi; flowering and fruiting in cereals; cereal smuts; the mosaic disease of sugar cane; diseases of economic crops of Santo Domingo; diseases of sugar cane.
- Faris, R(obert) L(ee)**, U. S. Coast and Geodetic Survey, Washington, D. C. *Geophysics*. Caruthersville, Mo, 68. C.E, Missouri, 90. Civil asst. engineer, C.Eng, U.S.A, 90-91; recorder and aid, U. S. Coast and Geod. Surv, 91-95, asst, 95-17, asst. director, 20-, inspector magnetic work and chief div. terrestrial magnetism, 06-14, *hydrog. and geod. engineer, 17-*, asst. director, 15- Miss. River Commission, 19-; Geophys. Union. A.A; Seismol. Soc; Civil Eng; Mech. Eng; Wash. Acad. (treas); Wash. Philos.

- Soc. (pres, 22); Wash. Soc. Eng. (pres, 22); Wash. Geol. Soc.; assoc. Int. Navigation Cong. Terrestrial magnetism; oceanography.
- Farmer, Prof. C(hester) J(efferson)**, 303 E. Chicago Ave, Chicago, Ill. *Biological chemistry*. North Andover, Mass, July 18, 86. Diploma, Lowell Textile Sch, 07; A.M., Harvard, 13. Teaching fellow, Harvard Med. Sch, 09-11, asst. biol. chem, 11-13; prof. chem, Marquette, 13-18; assoc. prof, *Northwestern*, 18-19, prof, 19- Chem. expert, referee board, U. S. Dept. Agr, 08-09. A.A.; Chem. Soc. Bacterial metabolism; urine analysis; estimation of carbon in physiological fluids; colorimetry; enzyme efficiency in avian polyneuritis.
- Farmer, F(rank) M(alcolm)**, 1045 Park Ave, New York, N. Y. *Electrical engineering*. Iliion, N. Y., March 28, 77. M.E., Cornell, 99. Inspector, U. S. Navy Dept, Brooklyn, 00-02; engineer, *Elec. Testing Laboratories*, 03-11, chief engineer, 11- A.A.; Elec. Eng; Mech. Eng; Soc. Test. Mat. (pres, 24); Am. Welding Soc. (pres, 26-28); British Inst. Elec. Eng. Electrical measurements, tests and materials; insulating materials; electric power cables.
- Farnam, Prof. Henry (Walcott)**, Yale University, New Haven, Conn. *Economics*. New Haven, Nov. 6, 53. A.B., Yale, 74, A.M., 76; Berlin; Göttingen; R.P.D. Strassburg, 78; LL.D., Yale, 23. Tutor, *Yale*, 78-80, prof. econ, 80-18, emer. prof, 18- Sec'y, dept. econ. and sociol, Carnegie Inst, 03-09, chairman, 09-16. A.A.; Econ. Ass. (pres, 10-); Acad. Polit. Sci; Sociol. Soc; Ass. Labor Legis. (pres, 07-10); Statist. Ass; Am. Hist. Ass; fel. Am. Acad; Conn. Acad; N. Y. Acad. Polit. Sci; Royal Econ. Soc; Soc. de Légis. comp. Labor legislation; economic history of the United States.
- Farnau, Prof. E(arl) F(rederick)**, University of Cincinnati, Cincinnati, Ohio. *Chemistry*. Covington, Ky, July 5, 83. A.B., Cincinnati, 05, A.M., 07, Ph.D., 12. Instr. chem, Cincinnati, 07; N. Y. Univ, 12-16, asst. prof, 16-18; assoc. prof. org. chem, Cincinnati, 18- Chem. Soc. Luminescence; colloids.
- Farnsworth, Prof. Alice H(all)**, Mount Holyoke College, South Hadley, Mass. *Astronomy*. Williamstown, Mass, Oct. 19, 93. A.B., Mount Holyoke, 16; M.S., Chicago, 17, Ph.D., 20. Instr. astron, Mount Holyoke, 20-22, asst. prof, 22- Instr, Chicago, 25-26. A.A.; Astron. Soc; Ass. Variable Star Observers. Stellar photometry.
- Farnsworth, Prof. H(arry) E(dward)**, Brown University, Providence, R. I. *Physics*. Ripon, Wis, March 24, 96. A.B., Ripon, 18; A.M., Wisconsin, 21, Ph.D., 22. Research physicist, West. Elec. Co, 18; instr. physics, Pittsburgh, 18-19; Nat. Research Council fellow, Wisconsin, 22-24; assoc. prof. physics, Maine, 24-26; asst. prof, Brown, 26- Cooperating expert, Int. Critical Tables. A.A.; Physical Soc. Emission of electrons from metal surfaces due to electronic bombardment.
- Farnsworth, Dr. Marie**, New York University, Washington Square East, New York, N. Y. *Chemistry*. Holden, Mo, July 19, 96. B.S., Chicago, 18, Ph.D., 22. Instr. chem, Iowa Col, 22-23; research chemist, U. S. Bur. Mines, 23-26; instr. chem, N. Y. Univ, 26- A.A.; Chem. Soc. Radioactivity and sub-atomic phenomena; X-rays; non-metallic minerals.
- Farnsworth, Dr. P(aul) R(andolph)**, Stanford University, Calif. *Psychology*. Waterbury, Conn, Aug. 15, 99. A.B., Ohio State, 21, A.M., 23, fellow, 24-25, Ph.D., 25. Instr. psychol, Ohio State, 22-24; asst. prof, Stanford, 25- A.A.; Psychol. Ass. Psychology of music.
- Farr, Dr. C(lifford) B(ailley)**, 4401 Market St, Philadelphia, Pa. *Medicine*. Vineland, N. J., April 17, 72. A.B., Haverford, 94, A.M., 12; M.D., Pennsylvania, 98. Instr. and assoc. med, Pennsylvania, prof. gastroenterol, grad. sch; assoc. div. med. research, B. F. Goodrich Co; med. director in charge laboratories, dept. mental and nervous diseases, Pa. Hosp. Major, M.R.C. Phila. Col. Physicians (chairman, sect. med, 16-18). Influence of certain drugs on nitrogenous excretion; non-protein nitrogen and urea of blood in nephritis; liver diseases and pregnancy; gastric secretion and motility in mental patients; basal metabolism in mental cases.
- Farr, Prof. Clifford H(arrison)**, Washington University, St. Louis, Mo. *Botany*. New Hampton, Iowa, July 24, 88. A.B., Iowa, 11, M.S., 12; Cutting traveling fellow, Columbia, 15-16, Ph.D., 16. Asst. prof. biol, Agr. and Mech. Col. Texas, 16-18; asst. microscopist, bur. plant indust, U. S. Dept. Agr, 18-19; asst. prof. bot, Iowa, 19-25; assoc. prof, Washington (St. Louis), 25- Summers, prof, Rutgers, 16, 17; bot. explorations, Jamaica, 15. A.A.; Bot. Soc; assoc. Soc. Exp. Biol; Torrey Bot. Club; fel. Iowa Acad. Cytokinesis; morphology of Ambrosiaceae; flowering plants; ferns of Jamaica; psychology of plants and molecules; philosophy of growth; cellular interaction; calcium and hydrogen ions in relation to cell enlargement; growth of root hairs.
- Farr, Dr. M(arcus) S(tults)**, 20 Vandeventer Ave, Princeton, N. J. *Geology, Paleontology*. Cranbury, N. J, Feb. 19, 70. A.B., Princeton, 92, fellow, 92-93, M.S., 93, Sc.D., 96; fellow, Chicago, 93-94, A.M., 94. Lab. asst. paleont, Princeton, 96-98; asst. zoologist, N. Y. State Museum, Albany, 98-00; asst. geol. and curator vert. paleont, Princeton, 00- A.A.; Paleont. Soc. (sec'y-treas, 06); assoc. Ornith. Union; hon. mem. Del. Valley Ornith. Club. Morphology and phylogeny of extinct vertebrates; Cretaceous and early Tertiary fossil vertebrates of Montana; fossil birds of Patagonia; birds of New York.
- Farrand, Pres. Livingston**, Cornell University, Ithaca, N. Y. *Anthropology, Psychology*. Newark, N. J, June 14, 67. A.B., Princeton, 88; M.D., Columbia, 91; Cambridge, 91-92; Berlin, 92-93; LL.D., Colo. Col. Denver, Michigan, Colorado, Colgate, Union, Princeton, Yale, Pennsylvania, Dartmouth; L.H.D., Hobart; hon. Ph.D., Rensselaer. Instr. physiol. psychol, Columbia; 93-99, psychol, 99-01, adjunct prof, 01-03, prof. anthrop, 03-14; pres, Colorado, 14-19; chairman exec. committee, Red Cross, 19-21; pres, Cornell, 21- A.A.; Psychol. Ass.

- (sec'y, 95-04); Soc. Nat; fel. Ethnol. Soc. (sec'y, 99-); Folk-Lore Soc. (pres, 03); Tuber. Ass. (exec. sec'y, 05-14, pres, 23). Anthropology of American Indians.
- Farrar, Dr. C(larence) B.**, 2 Surrey Place, Toronto, Ont, Can. *Psychiatry*. New York, N. Y., 74. A.B., Harvard, 96; M.D., Hopkins, 00; Heidelberg, 02-04. Asst. physician, Shepard Pratt Hosp, Baltimore, 00-02, asst. physician and director lab, 04-13; research asst, Carnegie Inst., 04-06; instr. psychiat, Hopkins, 06-08, assoc, 08-13; lecturer abnormal psychol, Princeton, and asst. physician, N. J. State Hosp, Trenton, 13-16; chief psychiatrist, Dept. Soldiers Civil Re-establishment, Can, 18-23; med. supt, Homewood Sanitarium, Guelph, Ont, 23-25; *prof. psychiat, Toronto, and director, Toronto Psychiat. Hosp, 25-* Can. Nat. Committee for Mental Hygiene. Capt. and major, C.A.M.C., 16-19. Psychiat. Ass; Ass. Research Nervous and Mental Diseases; Can. Med. Ass. Neuropsychiatry; cerebral histology and histopathology; psychopathology; clinical and military psychiatry; delinquency.
- Farrell, Pres. F(rancis) D(avid)**, Kansas State Agricultural College, Manhattan, Kans. *Agriculture*. Smithfield, Utah, March 13, 83. B.S., Utah Col, 07; D.Agr., Nebraska, 25. Sci. asst, bur. plant indust, U. S. Dept. Agr, 07-09; director exp. farm, Idaho, 10-11; agronomist, bur. plant indust, U. S. Dept. Agr, 12-14; agriculturist in charge agr. development, govt. irrig. projects, 14-18; dean, *Kansas Col, and director, Exp. Sta, 18-25, pres, 25-* A.A.; Soc. Agron; Ass. Agr. Legis; Wash. Bot. Soc. (treas, 10). Agronomy; irrigation; agricultural industries.
- Farrington, Prof. E(dward) H(olyoke)**, University of Wisconsin, Madison, Wis. *Dairying*. Brewer, Maine, Dec. 20, 60. B.S., Maine, 81, M.S., 82; Yale, 82. Asst. chemist, Conn. Exp. Sta, 83-89; chemist, Ill. Exp. Sta, 90-94; *in charge dairy dept, Wisconsin, 94-* Chemist dairy tests, Columbian Expos, 93; La. Purchase Expos, 04. Examination and manufacture of dairy products.
- Farrington, Dr. Oliver C(ummings)**, 5741 Kenwood Ave, Chicago, Ill. **Geology, Mineralogy*. Brewer, Maine, Oct. 9, 64. B.S., Maine, 81, M.S., 88; Ph.D., Yale, 91. Teacher science, Maine academies, 83-87; asst. miner. and biol, Yale, 89-91; miner, U. S. Nat. Museum, 93-94; *curator geol, Field Museum Nat. Hist, 94-* Professional lecturer, Chicago, 95-03. Collaborator mines and mining, Paris Expos, 00; jury awards, La. Purchase Expos, 04. Int. Cong. Arts and Science, St. Louis, 04 (chairman, sect. petrol. and miner). A.A.; Geol. Soc; Ass. Mus. (pres, 15-17); Soc. astron. de France. Meteorites; gem minerals.
- Farwell, Prof. H(ermon) W(aldo)**, Columbia University, New York, N. Y. *Physics*. Keene, N. H., Dec. 29, 79. A.B., Dartmouth, 02, A.M., 06. Instr. *physics*, Dartmouth, 04-06; asst, *Columbia*, 06-09, tutor, 09-10, instr, 10-17; asst. prof, 17-23, *assoc. prof, 23-* A.A.; Physical Soc; Optical Soc. Ionization in gases; geometrical optics; laboratory management.
- Farwell, Oliver A(tkins)**, 271 Smith Ave, Detroit, Mich. *Botany*. Boston, Mass, Dec. 13, 67. Mich. Nor. Sch, 90-92. Teacher, pub. schools, 89-90; *curator herbarium and drug inspector, Parke, Davis and Co, 92-* Prof, Detroit Col. Pharmacy, 18-19. Pharmaceut. Ass; Bot. Soc; Bot. Cent. States; Torrey Bot. Club; Mich. Acad. Michigan flora.
- Farwell, Dr. Stanley P(ince)**, 79 W. Monroe St, Chicago, Ill. *Electrical engineering*. Chicago, Ill, Sept. 29, 83. B.S., Illinois, 07, M.S., 10, fellow, 13-14, Ph.D., 14. Asst. prof. elec. eng, Cent. Univ. of Ky, 08-10; instr. theoret. and applied mech, Illinois, 10-13; service engineer, Pub. Utilities Commission of Ill, 14-17; indust. engineer, Arthur Young and Co, 17-20; *v. pres, Business Research Corp. Elec. Eng; Indust. Eng. Corona produced by continuous potentials; business research.*
- Fassett, Dr. Norman C(arter)**, University of Wisconsin, Madison, Wis. *Botany*. Ware, Mass, March 27, 00. B.S., Harvard, 22, A.M., 23, Ph.D., 25. *Instr. bot, Wisconsin, 25-* A.A.; New Eng. Bot. Club. Taxonomy and distribution of flowering plants; flora of river estuaries from Chesapeake Bay to the Gulf of St. Lawrence.
- Fassig, Dr. Oliver L(anard)**, U. S. Weather Bureau, San Juan, P. R. *Meteorology*. Columbus, Ohio, April 5, 60. B.S., Ohio State, 82; Berlin, 96-97; Ph.D., Hopkins, 99. *Sect. director, U. S. Weather Bur, 83-*; instr. meteor, Hopkins, 97-98, assoc, 98-09; *in charge P. R. sect, U. S. Climatol. Service, 09-12, West Indies and Caribbean Service, U. S. Weather Bur, 19-* Chief instr, sch. meteor, Sig.C, 18. Meteorologist, Md. State Weather Service, 00-19. Sci. exped. to Bahama Islands, 03; Ziegler Arctic Relief Party, 05; Int. Commission for Sci. Aeronautics, 07-. A.A.; Ass. Geog. (sec'y, 19); Ecol. Soc; Meteor. Gesell. Bibliography and history of meteorology; climatology; the climate of Baltimore; the climate of Porto Rico.
- Fasten, Dr. Nathan**, Oregon Agricultural College, Corvallis, Oregon. *Zoology*. Austria, Dec. 4, 87. B.S., Col. City of N. Y., 10; Ph.D., Wisconsin, 14. Prof. biol, Marshall, 10-11; asst. zool, Wisconsin, 11-14; instr, Washington (Seattle), 14-19, asst. prof, 19-20; assoc. prof, *Oregon Col, 20-21, prof. and head dept, 21-* Summers, asst, Bur. Fisheries, Woods Hole, 11; special investigator, Fish Commission, Wis, 12-14, Wash, 19, Oregon, 23; in charge invert. zool, Puget Sound Biol. Sta, 15, 16, 20; animal biol, B. C. Dept. Educ, 22, 23. A.A.; Soc. Zool; Pacific Fisheries Soc. Cytology of Decapoda; parasites of fishes; game fishery problems.
- Fath, Dr. A(rthur) E(arl)**, Chrisman, Ill. *Geology*. Muscatine, Iowa, Aug. 7, 87. A.B., A.M., Oberlin, 10; Ph.D., Chicago, 22. Geologist, U. S. Geol. Surv, 13-22; Vacuum Oil Co, 22-26; *consulting geologist, 26-* A.A.; Geol. Soc; Ass. Petrol. Geol; Min. and Metal. Eng; Wash. Geol. Soc. Petroleum geology.
- Fath, Prof. E(dward) A(rthur)**, Carleton College, Northfield, Minn. *Astronomy*. Rheinischofshheim, Germany, Aug. 23, 80. B.S., Carleton,

02; fellow, Lick Observatory, 06-09, Ph.D, California, 09. Instr. math, Wilton, 03-04; Redfield, 04-05; astron, Illinois, 05-06; asst. astronomer, Mt. Wilson Observatory, 09-12; director observatory, Beloit, 12-14; pres, Redfield, 14-20; *prof. math. and astron, Carleton*, 20-26, *astron. and director, Goodsell Observatory*, 26- Assoc. ed, 'Popular Astron.', 20- Eclipse exped, Goldendale, Wash, 18; Catalina Island, 23; Bayfield, Wis, 24. A.A; Astron. Soc; fel. Royal Astron. Soc; Soc. astron. de France. Astrophysics; zodiacal light; nebulae; spectra of nebulae and star clusters; variable stars.

Faught, Prof. J(ohn) B(rookie), Yankton College, Yankton, S. Dak. *Mathematics*. Oaktown, Ind, Feb. 28, 63. A.B, Indiana, 93, A.M, 95; Chicago, 96-97; Ph.D, Pennsylvania, 99. *Prof. math*, Vincennes, 93-94; asst. prof, Indiana, 94-00; *prof*, North State Nor. Sch, Mich, 00-10; West. State Nor. Sch, Mich, 10-14; Kent Nor. Col, 14-20; *Yankton*, 20- *Math. Soc; Math. Ass.*

Faul, Prof. J(oseph) Horace, University of Toronto, Toronto, Ont, Can. *Botany*. L'Anse, Mich, May 3, 70. B.A, Toronto, 98, 00-01; Ph.D, Harvard, 04, 09-10. Master math, Albert, 98-00; Austin teaching fellow, Harvard, 01-03; lecturer *bot*, Toronto, 02-07, assoc. prof, 07-18, *prof*, 18- A.A; Bot. Soc; Phytopath. Soc; fel. Royal Soc. Can. (pres, E, 19); Can. Inst. (ed, 'Trans,' 17-24). Cytology; mycology; plant pathology; anatomy of ferns; forest pathology.

Faust, Prof. Ernest Carroll, Peking Union Medical College, Peking, China. *Parasitology*. Carthage, Mo, Sept. 7, 90. A.B, Oberlin, 12; A.M, Illinois, 14, Ph.D, 17. Research asst. parasitol, Illinois, 12-14, instr. zool, 17-19; assoc. *parasitol*, *Peking Union Med. Col*, 19-23, *assoc. prof. in charge div*, 23- Visiting assoc. prof, Hopkins, 23-24. A.A; Soc. Parasitol; Soc. Trop. Med; Soc. Exp. Biol; Soc. Zool; Wash. Helminth. Soc; fel. Royal Soc. Trop. Med. and Hygiene; Far East Ass. Trop. Med; China Med. Ass. (research council); Anat. and Anthropol. Ass. China. Parasitology and tropical medicine in the Far East; morphology and life history of digenetic trematodes, parasitic in man and mammals.

Favill, Dr. John, University of Chicago, Chicago, Ill. *Neurology*. Madison, Wis, Sept. 9, 86. A.B, Yale, 09; M.D, Harvard, 13. Psychiatrist, Ill. Inst. for Juvenile Research, 20-21; instr. med, Rush Med. Col, Chicago, 21-24, *asst. clin. prof. neur*, Chicago, 24- Attending neurologist, Cook Co. Hosp, 21-; consulting neurologist, St. Elizabeth's Hosp, 23-25; junior neurologist, St. Luke's Hosp, 25- Major, M.O.R.C. A.A; Neur. Ass; fel. Psychiat. Ass; Ass. Research Nervous and Mental Diseases; fel. Am. Med. Ass; fel. Am. Physicians; Ass. Study Int. Secretions; Cent. Neuropsychiat. Ass; Chicago Neur. Soc. (pres, 26-27); fel. Chicago Inst. Med; Chicago Int. Med. Soc; Chicago Soc. Med. Hist. Voluntary acceleration of rate of heart beat; mechanism of induced rotary and vertical nystagmus; vestibular tests.

Faville, A(lpheus) D(avis), Cheyenne, Wyo. *Animal husbandry*. Lake Mills, Wis, Feb. 27,

80. B.S, Lawrence, 02; Wisconsin, 06-08, M.S, 15. Instr, high sch, Wis, 02-03; prof. animal husbandry, Wyoming, 08-22, dean agr. col. and director, Exp. Sta, 18-22; *commissioner agr, Wyo*, 23- Soc. Animal Production. Stock feeding and management, especially in Wyoming.

Fawcett, Edna H., U. S. Department of Agriculture, Washington, D. C. *Plant pathology*. Feb. 26, 79. B.L, Smith, 01; fellow, Woods Hole, 01; Barnard, 02-03. Sci. asst. soil bacter, *bur. plant indust*, U. S. Dept. Agr, 06-13, plant path, 21-22, *junior pathologist*, 22- Phytopath. Soc; Soc. Bact. Hydrogen-ion concentration; culture media.

Fawcett, Prof. H(oward) S(amuel), Citrus Experiment Station, Riverside, Calif. *Plant pathology*. Salem, Ohio, April 12, 77. B.S, Iowa Col, 05; M.S, Florida, 08; Ph.D, Hopkins, 18. Asst. bot. and hort, Florida, 05-06, plant pathologist, Exp. Sta, 06-12; Calif. State Commission Hort, 12-13; assoc. prof. *plant path, California*, 13-18, *prof*, 18- A.A; Bot. Soc; Phytopath. Soc; St. Louis Acad. Temperature relations of certain parasitic fungi; fungus parasites of insects; citrus diseases.

Fay, Dr. Henry, 11 Worthington Road, Brookline, Mass. **Chemistry, Metallurgy*. Williamsburg, Pa, Jan. 12, 68. A.B, Lafayette, 89, A.M, 92, Sc.D, 15; Ph.D, Hopkins, 95. Lecture asst, Hopkins, 93-95; instr. anal. chem, Mass. Inst. Tech, 95-00, asst. prof. anal. chem. and metallurg, 00-05, assoc. prof. anal. chem, 05-07, *prof*, 07-25; *retired*. A.A; Chem. Soc; Min. Eng; Am. Acad; British Iron and Steel Inst. Analytical chemistry; properties of metals and alloys; manganese sulphid and slag as causes of steel rail breakages; effect of heat treatment on various kinds of steel and iron; microscopic examination of steel; erosion of large caliber guns; the effects of nitrogen on steel.

Fay, Prof. Irving W(etherbee), 578 E. 21st St, Brooklyn, N. Y. *Chemistry*. Natick, Mass, Nov. 30, 61. A.B, Harvard, 86; Ph.D, Berlin, 96. Instr. sciences, Montpelier Sem, 86-87; chem. and physics, Belmont Sch, Calif, 87-93; *prof. chem*, Ohio (Athens), 96-97; *Brooklyn Polytech*, 97- A.A; Chem. Soc; fel. Brooklyn Inst. (pres, dept. chem); Chem. Gesell. Sugars and related acids and alcohols; temperature of reduction of metallic oxides by hydrogen and carbon monoxid; influence of concentrated sulphuric acid upon sulphate salts containing water of crystallization; red and white anilin salts of Congo red; application of electrolysis to detection of coal-tar dyes.

Fay, Dr. Marion (Spencer), University of Texas School of Medicine, Galveston, Texas. *Physiological chemistry*. New Orleans, La, July 24, 96. A.B, 15; A.M, 22; Ph.D, 25. Asst. biochem, Colorado, 20-21, instr, 21-22; *asst. physiol. chem*, Yale, 23-25; *instr. sch. med*, Texas, 25- Protein metabolism.

Fazel, Dr. Charles S(tever), Atmospheric Nitrogen Corporation, Syracuse, N. Y. *Physics*. Wichita, Kans, May 31, 93. A.B, Fairmount, 14; A.M, Illinois, 15, Ph.D, 20. Asst. physics, Illinois, 15-17, 19-20; asst. physicist, Bur.

- Standards, 19; instr. Michigan, 20-23; *physicist*, fixed nitrogen research lab, U. S. Dept. Agr, 23-26; *Atmospheric Nitrogen Corp*, 26- Instr. U.S.A. Sch. Mil. Aeronautics, 17-18. Physical Soc; Wash. Philos. Soc. Physical chemistry; electrical corona discharge; activated states of molecules and atoms.
- Fearing, Dr. Franklin (Smith)**, Ohio Wesleyan University, Delaware, Ohio. *Psychology*. Durango, Colo, Nov. 24, 92. A.B, Stanford, 23, A.M, 24, Ph.D, 26. Director, Psychol. Clinic, Louisville, Ky, 19-21; psychologist, Nat. Committee Mental Hygiene, Cincinnati, 21-22; instr. *psychol*, Stanford, 23-26; *assoc. prof*, *Ohio Wesleyan*, 26- Psychologist, med. dept, U.S.N, 18-19. A.A; Psychol. Ass; Ohio Acad. Postural and tendon reflexes; functions of semi-circular canals in pigeons; modification of reflex action by mental process; the 'Romberg Sign'; history of theories of reflex action; variability in moral judgments in various social groups.
- Fehr, Roy B(enner)**, 1688 E. 133d St, East Cleveland, Ohio. *Mechanical engineering*. Parkasie, Pa, Oct. 27, 90. B.S, Pa. State, 10, M.E, 12, M.S, 14. Special eng. apprentice, Westinghouse Machine Co, 10-11; teaching fellow eng, Pa. State, 11-12, instr. mech. eng. and electrochem, 12-15, asst. prof. mech. eng, 15-18, in charge investigations, eng. exp. sta, 11-18; asst. physicist, Recording and Computing Machines Co, 18-19; physicist, Dayton Photo Products Co, 20-22; development engineer, Rail Welding and Bonding Co, 22-26; *director research*, *UNA Welding and Bonding Co*, 26-; *director lab*, *Copland Gear Lapping Syndicate*, 26- A.A; Mech. Eng. Engineering thermodynamics; vertical pressure in earth; absorption of ultra-violet light; annealing of carbon steels; heat treatment of steel; explosions in grain dust; corrosion of metals and alloys; gas engines; heat transmission; time fuses for anti-aircraft guns; optical manufacturing and inspection methods; Ham monocular and binocular; motion picture optical systems; carbon arc and metal arc welding processes and welding rods; precisioning and methods of measuring gears.
- Feild, A(lexander) L(ittlejohn)**, Union Carbide and Carbon Corporation, 30 E. 42d St, New York, N. Y. *Physical chemistry*. Oxford, N. C, Nov. 14, 90. A.B, North Carolina, 11; M.S, N. C. Col, 14. Asst. chemist, N. C. Exp. Sta, 13-14; junior physical chemist, U. S. Bur. Mines, Pittsburgh, 14-16, asst. metallurgist, 16-17; research physical chemist, Nat. Carbon Co, 18-19; *research metallurgist*, Electro Metal. Co, 19-21; Union Carbide and Carbon Research Laboratories, 21-25; Central Alloy Steel Corp, 25-27; *Union Carbide and Carbon Corp*, 27- J. E. Johnson, Jr, award, Min. Eng, 23. Chem. Soc; Physical Soc; Electrochem. Soc; Min. and Metal. Eng. (iron and steel committee, 23-); Min. Eng; Faraday Soc; N. Y. Chemists Club. Ferrous metallurgy; electrometallurgy; zirconium steel; stainless iron.
- Feinberg, Dr. B(enjamin) G(eorge)**, 118 W. 44th St, New York, N. Y. *Chemistry*. New York, Aug. 16, 86. B.S, Col. City of N. Y, 06; A.M, Columbia, 10, Ph.D, 13. Instr. chem, Col. City of N. Y, 16-18; *consulting and mfg. chemist*, 19- First lieutenant, U.S.A, 18-19. A.A; Chem. Soc. Analysis and reactions of aldehydes.
- Feingold, Dr. Gustave A(lexander)**, 37 Tremont St, Hartford, Conn. *Psychology, Education*. Russia, June 17, 83. B.S, Trinity (Conn), 11, M.S, 12; A.M, Harvard, 12, Ph.D, 14. Asst. philos. and psychol, Harvard, 12-14; psychol, Clark, 15-16; v. prin. and director mental tests, Hartford Pub. High Sch, 17-26; *prin*, *Bulkeley High Sch*, 26- A.A; Psychol. Ass; Nat. Soc. Study Educ. General and applied psychology; mental tests.
- Feld, Dr. Jacob**, 103 Park Ave, New York, N. Y. *Civil engineering*. Austria, March 3, 99. B.S, Col. City of N. Y, 18; Baldwin fellow, Cincinnati, 19-22, C.E, A.M, 21, Ph.D, 22. *Consulting engineer*, 23- Collingwood prize, Am. Soc. Civil Eng, 23. A.A; assoc. Civil Eng; Brooklyn Eng. Club. Mechanics; lateral earth pressure; soil mechanics; elastic cables; plates and footings.
- Feldman, Dr. Horace W(enger)**, Bussey Institution, Forest Hills, Boston, Mass. *Zoology, Genetics*. South Bend, Ind, March 22, 99. B.S.A, Purdue, 21; M.S, Illinois, 22; M.S, Harvard, 23, Sc.D, 25. Asst. genetics, Illinois, 21-22; asst. instr. *zool*, *Harvard*, 22-23, 24-25, *Nat. Research Council fellow*, *Bussey Inst*, 25- A.A; Soc. Zool; Ind. Acad. Animal genetics; physiology of reproduction; fertilization.
- Fellers, Dr. Carl R(aymond)**, Massachusetts Agricultural College, Amherst, Mass. *Bacteriology*. Hastings, N. Y, Oct. 4, 93. A.B, Cornell, 15; fellow, Rutgers, 15-17, M.S, 16, Ph.D, 17. Asst. bacter. and agron, Rutgers, and N. J. Exp. Sta, 17; sanit. bacteriologist, U. S. Pub. Health Service, 18-19; bacteriologist, bur. chem, U. S. Dept. Agr, 19-20; Nat. Canners Ass, Wash, 21-24; assoc. prof. food preservation, Washington (Seattle), and state bacteriologist, Wash, 24-26; *research prof. hort. manufactures*, *Mass. Col. and Exp. Sta*, 26- Asst. sanitarian, U. S. Pub. Health Service Reserve. A.A; Soc. Bact; Chem. Soc; Pub. Health Ass; Pacific Fisheries Soc. Microbiology and biochemistry of food; sanitary and soil science; food preservation.
- Fellows, A(braham) Lincoln**, 301 Custom House, Denver, Colo. *Civil engineering*. Kennebunk, Maine, Nov. 1, 64. A.B, Yale, 86. Various positions, 87-97; deputy state engineer, Colo, 97-98; res. hydrographer, U. S. Geol. Surv, 98-02; dist. engineer, U. S. Reclamation Service, 02-05; state engineer, N. Dak, 05-07; pres, Pub. Utilities Commission, Denver, 10-16; *irrig. engineer*, *U. S. Dept. Agr*, 18- Soc. Agr. Eng. Irrigation; evaporation; water supplies; flood prevention.
- Fellows, Dr. Hurley**, Kansas State Agricultural College, Manhattan, Kans. *Plant pathology*. Oregon City, Oregon, Oct. 31, 92. B.S, Oregon Col, 20; M.S, Ph.D, Wisconsin, 23. Asst. and associate pathologist, *bur. plant indust*, *U. S. Dept. Agr*, 23- Relation of growth in the potato tuber to the potato scab disease; resistance of the host plant wheat to *Ophiobolus graminis*.

- Felsing, Prof. William A. (August)**, 3007 Washington Square, Austin, Texas. *Physical chemistry*. Denton, Texas, May 19, 91. A.B., Texas, 13, A.M., 15; Savage fellow, Mass. Inst. Tech., 17-18, Ph.D., 18. Tutor *chem*, Texas, 13-16, adjunct prof., 18-19, assoc. prof., 19-25, *prof*, 25- Capt., C.W.S. Chem. Soc.; Texas Sci. Club. Equation of state; free energy and electromotive work; free energy of selenides; low temperature.
- Felt, Dr. Ephraim P. (Orter)**, State Museum, Albany, N. Y. **Entomology*. Salem, Mass., Jan. 7, 68. Mass. Col., 91; B.S., Boston, 91; fellow, Cornell, 92-93, Sc.D., 94. Teacher science, Clinton Liberal Inst., 93-95; asst. to state entomologist, N. Y., 95-98, *state entomologist*, 98- Collaborator, bur. entom., U. S. Dept. Agr.; chief entomologist, N. Y. Conservation Commission, 23-24. Entom. ed., 'Country Gentleman,' 98-11; supervisory board, 'Am. Year Book'; ed., 'Jour. Econ. Entom.' 08-; 'Index Am. Econ. Entom.' Gold medal and three silver medals, Pan-Am. Expos., 01. A.A.; Ass. Econ. Entom. (pres, 02); Entom. Soc. (v. pres, 16); N. Y. Entom. Soc.; Wash. Entom. Soc. Shade and forest tree insects; agricultural pests and gall insects.
- Felton, Dr. Lloyd D. (err)**, 7 Trowbridge Place, Cambridge, Mass. *Preventive medicine*. Pine Grove Mills, Pa., Nov. 18, 85. A.B., Wooster, 10, Sc.D., 25; M.D., Hopkins, 16. Instr. bacter. and immunol., Hopkins, 16-17; assoc. and director clin. lab., Joseph Hosp., 17-20; assoc. path. and bacter., Rockefeller Inst., 20-22; *asst. prof. prev. med. and hygiene*, Harvard Med. Sch., 22- A.A.; Soc. Exp. Biol.; Chem. Soc.; Harvey Soc. Cerebrospinal fluids; experimental meningitis; action of organic chemicals on pneumococcus infection; conditions influencing the virulence of microorganisms; separation, purification and immunological and chemical study of the pneumococcus antibody.
- Fenkell, Geo. (rge) H. (arrison)**, 176 E. Jefferson Ave., Detroit, Mich. *Civil engineering*. Chagrin Falls, Ohio, Feb. 4, 73. B.S., Michigan, 95. Civil engineer, water works, Erie, Pa., 02-08; engineer, Pa. Dock Commission, 08; civil engineer, Dept. Water Supply, Detroit, 08-13, commissioner public works, 13-18, *gen. manager*, Dept. Water Supply, 18- Lieut. Col., C.Eng., O.R.C. Civil Eng. (director, 23-26); Mech. Eng.; Water Works Ass. (trustee, 25-28); Detroit Eng. Soc. (pres, 25); Mich. Eng. Soc. (pres, 26). Hydraulics.
- Fenn, Prof. Irwin H.**, 99 Livingston St., Brooklyn, N. Y. *Mathematical physics*. Odessa, Russia, Feb. 12, 83. E.E., M.S., Brooklyn Polytech. Asst. prof. and *assoc. prof. math*, Brooklyn Polytech. Math. Soc.; Physical Soc. Theory of elasticity; electromagnetic shielding.
- Fenn, Prof. Wallace O. (sgood)**, 153 Rockingham St., Rochester, N. Y. *Physiology*. Lanesboro, Mass., Aug. 27, 93. A.B., Harvard, 14, A.M., 16, Ph.D., 19. Instr. *physiol*, Harvard Med. Sch., 19-23; traveling fellow, Rockefeller Inst., 23-25; *prof. sch. med. and dentistry*, Rochester, 25- Physiol. Soc.; British Physiol. Soc. Effects of electrolytes on gelatin; phagocytosis; heat production of muscles; oxygen consumption of nerves.
- Fennel, Dr. Charles T. (heodore) P. (iderit)**, Cincinnati College of Pharmacy, Cincinnati, Ohio. *Chemistry*. Cincinnati, Sept. 5, 52. Ph.G., Cincinnati Col. Pharmacy, 82, Pharm.D., 90. *Prof. chem*, Cincinnati Col. Pharmacy, 86- State chemist, Ohio, 86-16. Chem. Soc. (pres, Cincinnati sect., 15); Pharmaceut. Ass. (chairman, sci. sect., 93). Iodin; general pharmacy. [Died June 12, 27.]
- Fenneman, Prof. Nevin M.**, University of Cincinnati, Cincinnati, Ohio. **Geology*. Lima, Ohio, Dec. 26, 65. A.B., Heidelberg (Ohio), 83; A.M., Chicago, 00, Ph.D., 01. *Prof. physical science*, Colo. State Nor. Sch., 92-00; geol., Colorado, 02-03; Wisconsin, 03-07; *geol. and geog*, Cincinnati, 07- Geologist, U. S. Geol. Surv.; chairman div. geol. and geog., Nat. Research Council, 22-23; in charge sci. work on Africa for inquiry preparatory to Paris Peace Conf. A.A. (v. pres, chairman, sect. E, 23); Geol. Soc.; Ass. Geog. (pres, 18); Ohio Acad. Work of waves on shores; survey of Wisconsin lakes; oil fields of Colorado and the Gulf states; areal and economic geology in Colorado, Missouri and Ohio; physiographic provinces of the United States.
- Fenner, Dr. C. (larence) N. (orman)**, Geophysical Laboratory, Washington, D. C. *Geology*. Near Paterson, N. J., July 19, 70. E.M., Columbia, 92, A.M., 09, Ph.D., 10. Mining geologist, U. S., Can., Mex. and S. A., 92-07; *petrologist*, *geophys. lab*, Carnegie Inst., 10- In charge optical glass plant, W. I. B., 17-18. N. Y. Acad. exped. to P. R., 14; geologist, Nat. Geog. Soc. exped. to Mt. Katmai, Alaska, 19; leader *geophys. lab*, exped, 23; representative, Geol. Soc. on Nat. Research Council, 25-28. A.A.; Geol. Soc.; Physical Soc.; Am. Geog. Soc.; Min. Eng.; Seismol. Soc.; N. Y. Acad.; Wash. Acad.; Wash. Geol. Soc.; Wash. Philos. Soc.; Wash. Petrol. Club. Geology of New Jersey Trias; zeolites; silica minerals; ore deposition; gneisses of New Jersey; igneous and metamorphic rocks of District of Columbia; volcanoes; petrogenesis.
- Fenner, Robert C. (oyner)**, 410 N. Michigan Ave., Chicago, Ill. *Electrical engineering*. Baltimore, Md., Aug. 28, 80. M.E., Cornell, 03. Instr. physics, Cornell, 03-06; district manager, Cutler-Hammer Mfg. Co., Boston, 06-09, Chicago, 09-15; treas., George Zucker Co., 15-17; v. pres., A. P. Munning and Co., 17-19; director, companies; *consulting business engineer, counselor and analyst*, 19-
- Fenninger, William N. (orman)**, Mechanics Institute, Rochester, N. Y. *Physics*. Gap, Pa., Feb. 28, 89. Ph.B., Franklin and Marshall, 10; fellow, Ohio State, 11-13, A.M., 13. Asst. instr. physics, Pratt, 13-15, instr., 15-19; educ. director, Brooklyn Edison Co., Inc., 19-22, expediting engineer, 22-23; *supervisor elec. courses*, Mechanics Inst., 23- Elec. Eng.; Nat. Elec. Light Ass. Hall effect in mercury; variation of stray power losses in a generator and motor with change of load.
- Fenska, Prof. R. (ichard) R. (obert)**, 226 Kensington Road, Syracuse, N. Y. *Forestry*. Germany, Nov. 21, 84. B.S., Beloit, 11; M.F., Yale, 13. Instr. forestry, Wisconsin, 13-15; forest eng., Wyman Sch. of the Woods, Mich., 15-17; asst.

- prof. forestry, Montana, 17-21; *prof. forest eng.*, N. Y. State Col. Forestry, Syracuse, 21- Forestry asst, Wis. Board Forestry, 13-15; fire warden, Mich. Pub. Domain Commission, 17; technician, U. S. Bur. Pub. Roads, Mont, 18; scaler and forestry expert, U. S. Forest Service, 19-20; forester, paper companies, 23-25. Form and yield of forest trees.
- Fenton, Dr. Carroll Lane**, University of Cincinnati, Cincinnati, Ohio. *Invertebrate paleontology*. Near Costor, Iowa, Feb. 12, 00. B.S., Chicago, 21, fellow, 23-25, Ph.D., 26. Instr. geol, Michigan, 22-23; prof. biol, Southern Col, 25-26; *Nat. Research Council fellow and instr. geol, Cincinnati*, 26- Assoc. ed, 'American Midland Naturalist,' 22- Field expeditions, Devonian of Iowa for Michigan, 22; Carnegie Museum, 25. Birds of Iowa; upper Devonian faunas of Iowa; Ordovician faunas of Mississippi Valley; evolution of Brachiopods; adaptation.
- Fenton, Dr. F(rederick) A(zel)**, Pee-Dee Experiment Station, Florence, S. C. *Entomology*. Willimantic, Conn, Nov. 4, 92. A.B., Clark, 14; M.S., Wisconsin, 15; fellow, Ohio State, 16-18, Ph.D., 18. Sci. asst, bur. entom. U. S. Dept. Agr, 15-16; asst. chief entom. sect, Iowa Exp. Sta, 19-20, 22-24, acting chief, 20-22; acting state entomologist, Iowa, 20-22; research entomologist, Iowa Col, 19, assoc. prof. entom, 20-24; *entomologist, bur. entom, U. S. Dept. Agr*, 24- Summer, deputy state nursery inspector, Wis, 15; field asst. in charge white pine blister rust eradication, Wis, 18. A.A.; Entom. Soc; Ass. Econ. Entom; Iowa Acad. Life history and control of injurious insects; systematic study of Dryinidae.
- Fenton, Prof. Norman**, Athens, Ohio. *Psychology, Education*. New York, N. Y., March 21, 95. B.S., Harvard, 17, A.M., 18; Ph.D., Stanford, 25. Psychologist, Boston Psychopathic Hosp, 17-18; Nat. Committee Mental Hygiene, 19-20; prof. educ, Ariz. State Teachers Col, Tempe, 22-26; *assoc. prof. psychol, Ohio (Athens)*, 26- Psychologist, U.S.A., 18-19. A.A.; Psychol. Ass. War psychopathology; learning; educational measurements; teacher-training.
- Fenwick, Dr. Florence**, Yale University, New Haven, Conn. *Chemistry*. Green Bay, Wis, Oct. 11, 93. B.S., Michigan, 17, M.S., 20, Ph.D., 22. Chemist, Corning Glass Works, 18-19; Nat. Research Council fellow *chem, Yale*, 23-25, *research fellow*, 25- Chem. Soc. Electrometric analysis; electrode potentials; ion equilibria.
- Fergus, Prof. Ernest N(ewton)**, 122 Waller Ave, Lexington, Ky. *Morphology, Physiology*. Sidney, Ohio, March 19, 92. B.S.A., Ohio State, 16, M.S., 18; Chicago, 24-25. Asst. soils and crops, Exp. Sta, Purdue, 18-20; instr. *farm crops, Kentucky*, 20-23, *asst. prof*, 23-; *asst. agronomist, Exp. Sta*, 20- A.A.; Soc. Plant Physiol; Soc. Agron; Ky. Acad. Sci. Experimental morphology and physiology of forage clovers; red clover failures; clover improvement.
- Ferguson, A(lexander) M(cGowan)**, Sherman, Texas. *Botany*. Belton, Texas, Jan. 7, 74. B.S.H., Agr. and Mech. Col. Texas, 94, M.S., 96; Mo. Bot. Garden, 97-98; Cornell, 01-02. Asst. prof. hort. and mycol, Agr. and Mech. Col. Texas, 99-00; instr. bot, Texas, 00-06; manager, Texas Seed Breeding Farms, 06-08; *pres. and plant breeder, Ferguson Seed Farms, Inc, and Ferguson Pub. Co*, 08- Special agent, U. S. Dept. Agr, 03-04, 08-09; supply prof, Okla. Agr. and Mech. Col, 09-10. A.A.; Pomol. Soc; Soc. Agron; Soc. Hort. Sci; fel. Texas Acad. Crotons of the United States; ant fungus gardens; embryology of Ephedra; plant physiology; fungi cultivated by ants of Texas; flora of Austin quadrangle; mushrooms; agricultural education.
- Ferguson, Dr. A(lfred) L(ynn)**, Packard Road, Ann Arbor, Mich. *Chemistry*. Grass Lake, Mich, June 6, 84. B.Ph., Mich. State Nor. Col, 04; A.B., Michigan, 08, A.M., 09, Ph.D., 15. Prin, high sch, 04-07, supt, 09-10; private research asst, *Michigan*, 10-11, teaching asst. *gen. and physical chem*, 11-15, instr, 15-21, *asst. prof*, 21- A.A.; Chem. Soc; Electrochem. Soc; Electroplaters Soc; Mich. Acad. Physical and electro chemistry.
- Ferguson, Prof. George O(scar), Jr**, University, Va. *Psychology*. Leesburg, Va, Nov. 16, 85. A.B., William and Mary, 07; A.M., Columbia, 11, Ph.D., 17. Adjunct prof. philos. and educ, William and Mary, 07-11, prof. philos. and psychol. and assoc. prof. educ, 11-16; assoc. prof. psychol. and educ, Colgate, 16-19; *prof. educ. psychol, Virginia*, 19- Prin, William and Mary Nor. Acad, 13-16. Lieut, Sanit.C, 17. Psychol. Ass. Psychology of the Negro; mental tests.
- Ferguson, Henry G(ardiner)**, Geological Survey, Washington, D. C. *Geology*. San Rafael, Calif, June 21, 82. A.B., Harvard, 04, B.S., 05, A.M., 06; Ph.D., Yale, 24. Asst. geologist, Cleveland Cliffs Iron Co, 06-07; *econ. geologist*, Bur. Science, P. I, 07-10; *U. S. Geol. Surv*, 11-
- Ferguson, Dr. J(eremiah) S(weetser)**, Malba, Queensboro, New York, N. Y. *Histology*. Searsport, Maine, May 31, 71. B.S., Maine, 89, M.S., 92, Sc.D., 22; M.D., N. Y. Univ, 92. Asst. histol, N. Y. Univ, 92-96, instr, 96-98; *med. col, Cornell*, 98-08, asst. prof, 08-13, pediat, 19-24, *sec'y*, 09- Tutor, N. Y. Univ, 97-98. A.A.; Ass. Anat; N. Y. Acad. Med; Harvey Soc.
- Ferguson, Prof. J(ohn) A(rden)**, State College, Pa. *Forestry*. Canandaigua, N. Y., Dec. 23, 73. A.B., Hamilton, 96, A.M., 03; M.F., Yale, 08. Teacher, Brooklyn Polytech, 96-97; prep. sch, Rutgers, 98-06; asst. prof. forestry, Pa. State, and asst. forester, Exp. Sta, 08-11; *prof. forestry*, Missouri, 11-12; *Pa. State*, 13- Visiting prof, Yale, 26-27. A.A.; Soc. Foresters (v. pres, 18, chairman, Allegheny sect, 25). Reforestation of denuded lands; preservative treatment of timber with creosote; farm forestry.
- Ferguson, J(ohn) B(right)**, University of Toronto, Toronto, Ont, Can. *Physical chemistry*. Londresborough, Ont, Nov. 2, 89. B.A., Toronto, 12. Physical chemist, geophys. lab, Carnegie Inst, 12-19; West. Elec. Co, 19-20; *assoc. prof. research chem, Toronto*, 20- Manufacturer optical glass, W. I. B., 17-18. Chem. Soc; Soc. Chem. Indust. (sec'y, Toronto sect, 23-26);

Wash. Acad; fel. Can. Inst. Chem. (treas, 25-); fel. Royal Soc. Can. Inorganic analytical chemistry; silicate systems; gas equilibria; high temperature technic; Bucher cyanid process; ternary systems of silica, alumina, magnesia and lime; electrical properties of glass.

Ferguson, Louis Aloysius, 72 W. Adams St, Chicago, Ill. *Electrical engineering*. Dorchester, Mass, Aug. 19, 67. B.S. Mass. Inst. Tech, 88. Elec. engineer, Chicago Edison Co, 90-97, gen. supt, 97-02, second v. pres, 02-14; Commonwealth Elec. Co, 02-14; gen. supt, *Commonwealth Edison Co*, 98-02, v. pres, 14- Lecturer, Wisconsin, 95. Pres. and director elec. companies. Elec. Eng. (pres, 08); Nat. Elec. Light Ass. (pres, 02); Mech. Eng. Electric lighting; acetylene gas as an illuminant; electric energy; electric construction; incandescent lamps; centralization of power supply.

Ferguson, Dr. Margaret C(lay), Wellesley, Mass. **Botany*. Phelps, N. Y, Aug. 20, 63. Wellesley, 89-91; B.S. Cornell, 99, fellow, 99-00, Ph.D, 01. Teacher and prin. pub. schools, 77-88; dept. science, Harcourt Place Sem, Gambier, Ohio, 92-93; instr. bot, *Wellesley*, 94-96, 01-04, assoc. prof, 04, prof. and head dept, 05-, director bot. greenhouses and gardens. Summers, asst, Cornell, 01, 02, instr, 03, 04. A.A; Soc. Nat; Bot. Soc. (v. pres, 22); Genetic Ass; Eugenics Soc; Mass. Hort. Soc. Fertilization and related phenomena; germination of the spores of basidiomycetous fungi; spongy tissue of Strasburger; life history of Pinus; cytology; comparative morphology; genetics.

Ferguson, Dean Olin Jerome, 645 N. 30th St, Lincoln, Nebr. *Electrical engineering*. Annawan, Ill, Nov. 21, 75. B.S.(E.E), Nebraska, 03; M.E.E, Union, 09. Instr. elec. eng, Union, 05-06, asst. prof, 06-10, assoc. prof, 10-12; prof, *Nebraska*, 12-, dean col. eng, 20- Fel. Elec. Eng; Eng. Educ; Nat. Elec. Light Ass. Synchronous converters; three-wire generators; transmission and distribution of electric power; electric lighting.

Fergusson, S(terling) P(rice), U. S. Weather Bureau, Washington, D. C. *Meteorology*. Dixon's Spring, Tenn, Nov. 8, 68. Pub. schools. Asst, Blue Hill Observatory, 87-11; prof. meteor, Nevada, and assoc. meteorologist, Exp. Sta, 11-16; meteorologist, U. S. Weather Bureau, 16-, in charge testing lab, 17- A.A; Meteor. Soc; Wash. Philos. Soc; Boston Sci. Soc; Appalachian Mt. Club. Anemometry; apparatus for aerology; meteorology of total solar eclipses; exploration of atmosphere with kites and balloons; hygrometry; relation of wind to aeronautics.

Fernald, Prof. Evelyn I(da), Connecticut College, New London, Conn. *Plant physiology*. East Boston, Mass, March 22, 89. A.B, Vassar, 12; A.M, Cornell, 20, Ph.D, 24. Instr, high schools, Mass, 12-15; biol, Mass. State Nor. Sch, Framingham, 15-18; bacter, Women's Col. of Del, 18-19; instr. bot, N. Y. State Col. Agr, Cornell, 19-24; asst. prof. bot, Rockford, 24-25; Conn. Col. for Women, 25- A.A; Bot. Soc. Osmotic concentration of cell sap as correlated with bud development.

Fernald, Dr. Grace M(axwell), 740 N. Harvard Boulevard, Los Angeles, Calif. *Psychology*. Clyde, Ohio, Nov. 29, 79. A.B, Mt. Holyoke, 03, A.M, 05; Bryn Mawr, 04-06; fellow, Chicago, 06-07, Ph.D, 07. Asst. psychol. and educ, Bryn Mawr, 07-08; acting head dept. psychol, Lake Erie, 08-09; asst. director, Chicago Psychopathie Inst, 09; director psychol. lab, State Nor. Sch, Los Angeles, 09-18; asst. prof. psychol, *California at Los Angeles*, 18-20, assoc. prof, 20- Psychol. Ass. Peripheral vision; Purkinje phenomena in peripheral vision; delinquent and atypical children; education of non-readers.

Fernald, Dr. H(enry) T(orsey), Amherst, Mass. *Entomology*. Litchfield, Maine, April 17, 66. B.S, Maine, 85, M.S, 88; Wesleyan, 85-86; Ph.D, Hopkins, 90. Prof. zool, Pa. State, 90-99; state zoologist, Pa, 98-99; prof. entom, *Mass. Col*, 99- State nursery inspector, Mass, 02-18. A.A; Soc. Nat; Entom. Soc; Ass. Econ. Entom. Economic entomology; injuries of insecticides to foliage; Sphecidae of America.

Fernald, Dr. Mabel R(uth), 2356 Auburn Ave, Cincinnati, Ohio. *Psychology*. Springfield, Ohio, May 7, 83. A.B, Mount Holyoke, 06; Ph.D, Chicago, 10. Instr, prep. dept, Denison, 06-07; psychol, Chicago Nor. Col, 10-14; psychologist, Lab. Social Hygiene, Bedford Hills, N. Y, 14-18; S.G.O, 18-19; asst. prof. psychol, Minnesota, 19-21; director psychol. lab, vocation bur, *Cincinnati Pub. Schools*, 21-; lecturer psychol, *Cincinnati*, 23- Instr, Bryn Mawr Summer Sch. for Women in Indust, 22, 23. A.A; Psychol. Ass. The diagnosis of mental imagery; mental tests; delinquency; educational problems.

Fernald, Prof. M(erritt) L(yndon), Cambridge, Mass. **Botany*. Orono, Maine, Oct. 5, 73. B.S. Harvard, 97. Asst, Gray Herbarium, Harvard, 91-02, instr. bot, *Harvard*, 02-05, asst. prof, 05-15, *Fisher prof. nat. hist*, 15- Instr, Alstead Sch. Nat. Hist, N. H, 99-01. Assoc. ed, 'Rhodora,' 99- A.A; Bot. Soc; Ass. Geog; Am. Acad; New Eng. Bot. Club. Relationships and distribution of higher plants of North America; relations of North American and old world plants; systematic and geographic botany of North America, especially New England and eastern Canada and Newfoundland.

Fernald, Prof. R(obert) H(eywood), University of Pennsylvania, Philadelphia, Pa. *Mechanical engineering*. Orono, Maine, Dec. 19, 71. B.M.E, Maine, 92; Mass. Inst. Tech, 92-93; M.E, Case, 98; fellow, Columbia, 00-01, A.M, 01, Ph.D, 02; Sc.D, Pennsylvania, 24. Instr. math. and mech. eng, Case, 93-96, asst. prof, 96-01; prof. mech. eng, Washington (St. Louis), 02-07; Case, 07-12; *Whitney prof. dynam. eng. and director dept. mech. eng, Pennsylvania*, 12- Engineer in charge tech. branch, U. S. Geol. Surv, 04-10; consulting engineer, U. S. Bur. Mines, 10-20; Pa. Pub. Service Commission, 13-15. Advisory board engineers and architects, Sesqui-Centennial Commission, 21-24, board directors, Sesqui-Centennial Exhib. Ass, 22-24; joint committee, Eng. Educ. and Nat. Indust. Conf. Board, 22-; Giant Power Surv. Board,

- Pa, 23- Mech. Eng. (chairman, gas power sect, 11, Phila. sect, 15, manager, 16-19, v. pres, 19-21); Eng. Educ.; Franklin Inst.; Phila. Eng. Club (sec'y, 16, pres, 22-24); Cleveland Eng. Soc. (pres, 12). Gas engine investigations; the fuel resources of the United States; producer-gas; combustion of fuels; the engineering of power plants.
- Fernandez, Dr. Francisco M(aria)**, Prado 105, Havana, Cuba. *Medicine*. Matanzas, Cuba, June 18, 86. B.S., Matanzas Inst, 00; M.D., Columbia, 08; Havana, 08. Visiting ophthalmologist, San Lazaro Hosp. for Lepers, 10; *ophthalmologist*, Insane Asylum, 13-16; *Benefica Hosp*, 13- Delegate, Int. Cong. Sch. Hygiene, Paris, 10; Int. Cong. Ophthal., Washington, 22; Int. Cong. Hist. Med., Geneva, 25; pres, 7th Cuban Med. Cong. Acad. Ophthal. and Otolaryngol.; Am. Med. Ass.; Cuban Ophthal. Soc. (sec'y, 11); Cuban Med. Ass. (pres); Havana Soc. Clin. Studies (pres); Havana Acad. (treas). Trachoma; ocular tuberculosis; ocular leprosy; auto-serum therapy.
- Fernberger, Prof. Samuel W(eiller)**, University of Pennsylvania, Philadelphia, Pa. *Psychology*. Philadelphia, June 4, 87. B.S., Pennsylvania, 08, A.M., 09, Ph.D., 12. Asst. psychol., Pennsylvania, 08-10, instr., 10-12; *asst. prof. exp. psychol*, Clark, 12-20; *Pennsylvania*, 20- A.A.; Psychol. Ass. (treas, 22-24, sec'y, 26-). Experimental psychology; psychophysical measurement methods.
- Fernow, Prof. Karl H(ermann)**, 122 College Ave, Ithaca, N. Y. *Plant pathology*. Washington, D. C., Oct. 12, 93. B.S., Cornell, 16, Ph.D., 25. Instr. *plant path*, Cornell, 24-25, *exten. asst. prof*, 25- A.A.; Phytopath. Soc.; Genetic Ass. Mosaic diseases of plants.
- Ferraro, Dr. A(rmando)**, Psychiatric Institute, Ward's Island, New York, N. Y. *Neuropathology*. Naples, Italy, Dec. 15, 94. M.D., Naples, 14. Asst. and chief, Clinic Nervous and Mental Diseases, Sassari, Italy; for. asst., Clinic Nervous Diseases, Paris, 23-24; asst., Clinic Nervous Diseases, Utrecht, Holland, 24; neuropathologist, St. Elizabeth's Hosp., Washington, D. C., 25-26; *chief assoc. neuropath*, *Psychiatric Inst*, New York. N. Y. Neur. Soc.; Wash. Soc. Nervous Diseases; Italian Soc. Neur.; Italian Soc. Oto-neuro-ophthal. Neuro-pathology; neuro-anatomy.
- Ferree, Dr. C(larence) E(rrol)**, Bryn Mawr, Pa. **Psychology*. Sidney, Ohio, March 11, 77. B.S., A.M., Ohio Wesleyan, 00, M.S., 02; Sage fellow, Cornell, 02-03, Ph.D., 09. Asst. psychol., Cornell, 03-05; instr. physics and exp. psychol., Arizona, 05-06; asst. *psychol*, Cornell, 06-07; lecturer, *Bryn Mawr*, 07-09, assoc., 09-12, assoc. prof. and director lab, 12-17, *prof*, 17- Committee on standardization of perimetry, Int. Cong. Ophthal., 22; committee on indust. lighting, Nat. Research Council, 24. A.A.; Psychol. Ass.; Illum. Eng. Soc.; Optical Soc. Lighting; efficiency and hygiene of the eye; methods of refraction and photometry; ocular functions in aviation and navy signal service; perimetry and campimetry; blind spot studies; diagnostic scales for the form and color fields; speed of accommodation and convergence; speed of vision and other acuity functions; after image and contrast phenomena; achromatic and chromatic sensitivity; variable factors influencing the visual response and sensitivity; apparatus for testing visual acuity, astigmatism, heterophoria and strabismus, speed of accommodation and convergence, and the light and color sense; spectrum color mixer and other spectroscopic apparatus; filter color mixer; illuminometer; pupillometer; illuminating devices; audition; attention.
- Ferree, Mrs. C. E. (Dr. Gertrude Rand)**, Bryn Mawr, Pa. *Psychology*. New York, N. Y., Oct. 29, 86. A.B., Cornell, 08; fellow, Bryn Mawr, 09-11, A.M., Ph.D., 11, fellow, 11-12, Sarah Berliner research fellow, 12-13. Reader exp. psychol., *Bryn Mawr*, 13-14, assoc. exp. and applied psychol., 14-24, *demonstrator exp. psychol*, 24- A.A.; Psychol. Ass.; Optical Soc. Experimental and applied psychology; lighting in relation to the eye; hygiene and refraction of the eye; photometry; color sensitivity; psychological optics; ocular functions in aviation and navy signal service; optical and ophthalmological apparatus; mental measurement.
- Ferris, Prof. C(harles) E(dward)**, Kingston Pike, Knoxville, Tenn. *Mechanical engineering*. Napoleon, Ohio, Sept. 23, 64. B.S., Mich. State Col., 90, McGill, 04. Civil engineer, Mich. and Ky., 90-92; instr. mech. eng. and drawing, *Tennessee*, 92-98, *prof*, 98-03, *mech. eng*, 03-, *dean col. eng*, 15- Mech. Eng. Internal cooling of the gas engine; descriptive geometry.
- Ferris, G(ordon) F(loyd)**, Stanford University, Calif. *Entomology*. Bayard, Kans., Jan. 2, 93. A.B., Stanford, 16, A.M., 18. Asst. entom., Stanford, 16-17, instr., 17-21, asst. prof., 21-27, *assoc. prof*, 27- Summer, exped. to lower Calif., 19; Guggenheim Foundation fellow, Mexico, 25- Entom. Soc.; Ass. Econ. Entom.; Pacific Coast Entom. Soc. Scale insects; ectoparasites of birds and mammals; methods for the study of minute insects; systematic methods in entomology.
- Ferris, Dr. H(arry) B(urr)**, 395 Saint Ronan St., New Haven, Conn. *Anatomy*, *Anthropology*. Old Greenwich, Conn., May 21, 65. A.B., Yale, 87, M.D., 90. Instr. *anat*, *sch. med*, Yale, 91-92, asst. prof., 92-95, *prof*, 95- A.A.; Soc. Nat.; Ass. Anat.; Soc. Zool.; Am. Med. Ass.; Conn. Med. Soc. (pres, 24); Conn. Acad. Mitosis in cancer; chronic internal hydrocephalus with absence of optic chiasm; cerebrospinal fluid; the neuron; the Indians of Cuzco and the Apurimac; Quichua and Machiganga Indians.
- Ferris, Mrs. R(oxana) S(tinchfield)**, Stanford University, Calif. *Botany*. Sycamore, Calif., April 13, 95. A.B., Stanford, 15, A.M., 16. *Asst*, *Dudley Herbarium*, Stanford, 16- Systematic botany.
- Ferriss, James H(enry)**, Joliet, Ill. *Biology*. Yorkville, Ill., Nov. 18, 49. *Editorial writer*, *Joliet, Ill*, *park commissioner*. A.A.; Ill. Acad. American ferns and land shells; exploring Arizona and nearby desert regions.
- Ferry, Prof. E(rvin) S(idney)**, 420 Lingle Ave, Lafayette, Ind. **Physics*. Croydon, N. H., June 14, 68. B.S., Cornell, 89, 91-93; Hopkins,

93-94; Upsala, 97-98. Instr. *physics*, Wisconsin, 95-99; *prof.*, *Purdue*, 99-^{*} Physical Soc; Astron. Soc; Electrochem. Soc; Soc. de Physique. Radiation; physiological optics; specific inductive capacity; pyrometry.

Ferry, Pres. Frederick C(arlos), Hamilton College, Clinton, N. Y. *Mathematics*. Braintree, Vt., Jan. 22, 68. A.B., Williams, 91, A.M., 94, LL.D., 17; A.M., Harvard, 95; Ph.D., Clark, 98; Christiania, 98-99; hon. Sc.D., Colgate, 09; LL.D., Hamilton, Williams, 17, George Washington, 21. Instr. math. and classics, Williams, 91-94, asst. prof. math, 99-02, prof., 02-17, dean faculty, 02-03, dean col., 03-17; *pres. and prof. math.*, Hamilton, 17- Nat. Conference Committee on Standards of Colleges and Secondary Schools. Trustee, Teacher Ins. and Annuity Ass; Carnegie Foundation for Advancement of Teaching; J. S. Guggenheim Foundation. A.A.; Math. Soc; Math. Ass; Ass. Colleges State of N. Y. (pres). Geometry; the special geometries of particular surfaces; geometry on the crunodal cubic cone and on the cubic scrolls of the first kind and of the second kind.

Ferry, Dr. Ronald M(ansfield), Concord, Mass. *Biochemistry*. June 14, 91. A.B., Harvard, 12; M.D., Columbia, 16. Intern, Presbyterian Hosp., N. Y., 17-18; research fellow biochem, *Harvard*, 20-22, Nat. Research Council fellow med, 22-24, *instr. biochem*, 24- Lieut., M.C., 18-19. A.A.; Soc. Biol. Chem; Chem. Soc. Physical chemistry of hemoglobin; immuno-chemistry.

Fessenden, Prof. C(harles) H(orace), University of Michigan, Ann Arbor, Mich. *Engineering*. St. Louis, Mo., Jan. 28, 85. B.S., Missouri, 06, M.E., 08. Eng. dept, Babcock and Wilcox Co, 06-08; instr., asst. prof. and *prof. mech. eng.*, *Michigan*, 08- Capt., ordnance dept, 17-19, major, 19- Mech. Eng. Heat engineering; valve gears.

Fessenden, R(eginald) A(brey), 45 Waban Hill Road, Chestnut Hill, Mass. **Physics, Engineering*. Bolton, Que., Can., Oct. 6, 66. Bishop's Col., Que. Prin., Whitney Inst, Bermuda, 85-86; inspecting engineer, Edison Machine Works, 86-87; head chemist, Edison Lab, 87-90; electrician, Westinghouse Elec. and Mfg. Co, 90-91; prof. elec. eng, *Purdue*, 92-93; elec. eng. and post-grad. math, *Pittsburgh*, 93-00; special agent, U. S. Weather Bur, 00-02; gen. manager, Nat. Elec. Signaling Co, 02-10; *consulting engineer*, *Submarine Sig. Co*, 10- Soc. Prom. Quaternions; Archeol. Inst. Electrostatic double theory of matter; qualitative mathematics; nature of quantum; nature of electron; gravitation and inertia; hysteresis in social, moral and economic functions; design of electrical machines, instruments and methods; wireless telephone; sine wave and commutated wave telegraphy; heterodyne system; undamped radiation; wireless pelorus; sound ranging for aeroplane, submarine, artillery and icebergs; echo sounding; Doppler effect aeroplane log; turbo-electric ship drive; horizontally polarized wave radio; deluged civilization of the Caucasus Isthmus; the route of the Book of the Dead.

Fettermann, John Colvin, National Certification Laboratory, Pittsburgh, Pa. *Biology*. Mt. Lebanon, Pa., Dec. 29, 75. Ph.B., Pittsburgh,

96, Ph.M., 99. Instr. *biol.*, *Pittsburgh*, 97-08, prof., 08-22, dean col. lib. arts, 10-22, *director*, *Nat. Certification Lab*, 21- Director, Pittsburgh District Dairy Council; Pittsburgh Child Health Council. A.A.; Soc. Bact; West. Pa. Bot. Soc; Pittsburgh Acad. Dairy bacteriology; water supply; bacteriology of the electro-purification of milk.

Fetterolf, Dr. Daniel (Webster), Army Medical School, Washington, D. C. *Chemistry*. Deep Creek Valley, Pa., March 28, 63. Ph.G., Phila. Col. Pharmacy, 87; M.D., Pennsylvania, 93. Asst. demonstrator chem, med, dental and vet. departments, Pennsylvania, 93-97, demonstrator, 97-11; director lab, U.S.A., 11-23; prof. chem, Army Med. Sch., 23-27; *retired capt.*, *Med. Corps*, 27- Chem. Soc; Am. Med. Ass. The Lloyd reaction for morphin and other alkaloids, for heroin and veratrin; diabetic foods; antienzyme in tapeworm; laboratory manual; chlorin output of individual chlorin inhalator apparatus in treatment of colds.

Fetterolf, Dr. George, 2010 Spruce St, Philadelphia, Pa. *Otolaryngology*. Collegeville, Pa., March 31, 69. A.B., Pennsylvania, 87, M.D., 91; Sc.D., Ursinus, 11. Asst. prof. anat, *Pennsylvania*, 11-24, *prof. otolaryngol.*, 24- Major, M.C., 18-19. Shared Casselberry prize, Laryngol. Ass., 23. Laryngol. Ass. (v. pres, 22, treas, 23-); Laryngol., Rhinol. and Otol. Soc; Ass. Anat.; Phila. Col. Physicians (chairman, committee of Mutter Museum, 23-25, sect. otol. and laryngol, 23-24). Clinical anatomy of the chest, tonsils and lung abscess.

Fettke, Prof. Cha(rls) R(einhard), Carnegie Institute of Technology, Pittsburgh, Pa. *Geology, Petrology*. San Francisco, Calif., March 25, 88. B.S., Washington (Seattle), 10; A.M., Columbia, 11, Ph.D., 14. Field asst., Wash. Geol. Surv., 09-11; asst. geol., Columbia, 11-13; *instr. geol.*, *Carnegie Inst. Tech.*, 13-18, asst. prof., 18-20, *assoc. prof.*, 20- Summer, instr., Columbia, 12; geol. aid, U. S. Geol. Surv., 13; geologist, Pa. Topog. and Geol. Surv., 14-15, 17-19; Nat. Hist. Surv., P. R., 16; cooperating geologist, Pa. Geol. Surv., 19- A.A.; fel. Geol. Soc; Ass. Petrol. Geol.; fel. Miner. Soc; Min. and Metal. Eng; Ceramic Soc; Chem. Soc. Economic geology; Manhattan schist; geology of Porto Rico; iron ore deposits; coal; oil shale; oil and gas sands of Pennsylvania; clays, glass sands and other ceramic materials.

Fetzer, Prof. L(ewis) W(illiam), Dallas, Texas. *Physiology, Biochemistry*. Brooklyn, N. Y., Oct. 3, 78. Cooper Union, 00; Ph.D., Munich, 02; M.D., George Washington, 10; Sc.D., Dallas, 20. Technical biologist and sanit. engineer, 03-06; instr. chem, George Washington, 07; physiol. chemist, Md. Exp. Sta., 07-09; specialist biochem, office exp. stations, U. S. Dept. Agr., 09-15; assoc. prof. path. chem, Georgetown, 12-15; prof. physiol. and biochem, Fordham, 15-16; pharmacol., Baylor, 16-17, physiol. and pharmacol., 18-19, physiol., pharmacol. and biochem, 19-20; biol., Dallas, 19-25. Consulting physician, 22- Major, M.O.R.C., 24; flight examiner div. aviation med, A.S. U.S.A., 25- A.A.; fel. Am. Med. Ass; Chem. Soc. (chairman, committee on occupational diseases); Pub. Health Ass. Plant

and animal chemistry and physiology; pharmacology; diseases of metabolism and digestive system; industrial toxicology.

Fewkes, Dr. J(esse) Walter, Bureau of American Ethnology, Washington, D. C. **Ethnology*. Newton, Mass, Nov. 14, 50. A.B, Harvard, 75, A.M, Ph.D, 77; Leipzig, 78-80; LL.D, Arizona, 15. Asst. museum comp. zool, Harvard, 81-89; ed, 'Jour. of Ethnol. and Archeol,' 90-94; ethnologist, *Bur. Am. Ethnol*, 95-17, *chief*, 18-Nat. Acad; A.A; Soc. Nat; Anthrop. Ass. (pres, 11); Ass. Geog; Folk-Lore Soc; fel. Am. Acad; Wash. Anthrop. Soc. (v. pres, 07, pres, 09); Wash. Acad. (v. pres, 16); Berlin Anthrop. Gesell; Soc. d'Anthrop. de France; Soc. Ital. d'Anthrop. Firenze; Vienna Anthrop. Gesell. American archeology and ethnology; zoology.

Ficht, George Augustus, Purdue University Experiment Station, Lafayette, Ind. *Entomology*. Vandear, Ont, Can, Nov. 27, 00. B.S.A, Toronto, 23; M.A, Western Ontario, 26. Junior entomologist, Dominion Entom. Lab, 23-24; acting in charge corn borer investigational lab, 25; *asst. entom. Exp. Sta, Purdue*, 27- Grad. asst, Iowa Col, 26-27; summer, acting in charge corn borer investigations, Chatham Lab, 26. A.A; Ass. Econ. Entom; Entom. Soc. Economic entomology; European corn borer investigations.

Fieberger, Col. G(ustav) J(oseph), West Point, N. Y. *Engineering*. Akron, Ohio, May 9, 58. Grad, U. S. Mil. Acad, 19, Eng. Sch. Application, 79-82. Officer, C.Eng, U.S.A, 79-96; instr. and asst. prof. eng, U. S. Mil. Acad, 83-88, prof, 96-22; *retired*. Civil Eng.

Field, Miss Ada M(artitia), Newnan, Ga. *Nutrition*. Climax, N. C, Sept. 30, 77. A.B, Guilford, 98; A.M, Washington (Seattle), 09; Columbia, 13. Instr. science, Intermountain Inst, Idaho, 04-07; prof. chem, Guilford, 10-12; lecturer nutrition, Woman's Med. Col. of N. Y., 13-14; asst. prof. home econ, Peabody Col, 14-16, assoc. prof, 16-25. A.A; Home Econ. Ass. (councilor, 17-21); S. Home Econ. Ass. (pres, 17, sec'y-treas, 18). Potable water supplies; purification of protein.

Field, Crosby, 205 Water St, Brooklyn, N. Y. *Engineering*. Jamestown, N. Y., March 12, 89. B.S, N. Y. Univ, 09; M.E, Cornell, 12; M.S, Union, 14. Engineer, Gen. Elec. Co, 12-14; consulting engineer, 14-15; chief engineer, Standard Aniline Products, Inc, 15-17; eng. manager, Nat. Aniline and Chem. Co, 19-23; *factory and development manager, v. pres, sec'y and director, Brillo Mfg. Co, and factory and development manager, v. pres. and director, Chem. Machinery Corp. and Chem. Machinery Construction Co, Inc*, 23- Capt. and major, ordnance dept, 17-19; lieutenant, major and lieutenant col, O.R.C, 17- Fel. Elec. Eng; Mech. Eng; Chem. Eng; Chem. Soc; Electrochem. Soc; N. Y. Chemists Club. Electrical, chemical and mechanical machinery; lightning arrester; vapor heating; cooling and temperature control systems; Flakie machine.

Field, Dr. Cyrus W(est), 126 E. 64th St, New York, N. Y. *Pathology*. New York, April 27, 78. M.D, Yale, 00. Asst. path. lab, Presb. Hosp, New York, 00-03; bacteriologist,

research lab, Dept. Health, New York, 03-08; prof. path. sch. med, Fordham, 05-08; path. and bacter. med. dept, Louisville, 08-10; asst. director, Bellevue and allied hospitals, 10-15. Tutor, Columbia, 02. A.A; Ass. Path. and Bact; Soc. Exp. Biol; Soc. Biol. Chem. Bacteriology; tetanus toxin; etiology of scarlet fever and measles; typhoid infection from oysters; colloidal chemistry and immunity; standard antigens for Wassermann reaction.

Field, Prof. Floyd, Decatur, Ga. *Mathematics*. Salem, Oregon, Dec. 19, 73. A.B, Willamette, 97; A.B, Harvard, 00, A.M, 02. Instr. math. and physics, Allen Sch, West Newton, Mass, 00-01; Pa. State, 02-03; head math. dept, Evanston Acad, Ill, 03-06; adjunct prof. *math, Ga. Tech*, 06-07, junior prof, 07-09, *prof. and head dept*, 09-, *dean men*, 22- Math. Soc; Math. Ass.

Field, Dr. George W(ilton), Cosmos Club, Washington, D. C. **Biology*. North Bridgewater, Mass, Sept. 29, 63. A.B, Brown, 87, A.M, 90; Ph.D, Hopkins, 92; Smithsonian table, Naples Zool. Sta. and Munich, 92-93. Asst. biol, Hopkins, 91-92; assoc. prof. cellular biol, Brown, 93-96; biologist, R. I. Exp. Sta, 96-01; instr. econ. biol, Mass. Inst. Tech. and director, Sharon Biol. Observatory, 01; biologist, Mass. Commission on Fisheries and Game, 03, chairman, 04-16; in charge mammal and bird reservations, biol. surv, U. S. Dept. Agr, 16-19; biologist, Brazil Ministry of Marine, 19-21. Advisory committee, dept. biol. and pub. health, Mass. Inst. Tech; pollution committee, President's Conf. on Outdoor Recreation. Soc. Nat; Soc. Zool; Soc. Mammal; Mass. Audubon Soc; British Ass. Morphology and physiology of echinoderms; planktology; biology of birds; factors which determine sex and the secondary sex characteristics; removal of the odors and tastes in drinking water due to the presence of micro-organisms; biology of edible fish and shell-fish; effects of various pollutants.

Field, J(ohn), 2d, 1636 Emerson St, Palo Alto, Calif. *Chemistry, Biology*. Philadelphia, Pa, May 11, 02. A.B, Stanford, 23, A.M, 24. Teaching asst. chem, *Stanford*, 23-24, fellow, Food Research Inst, 24-25, *instr. physiol*, 25- Chem. Soc. Biochemistry; physiology; starch; anisotropy of agar; adsorption.

Field, John E(llis), 325 Kittredge Building, Denver, Colo. *Civil engineering*. Ph.B, Yale, 88. Mining eng, Aspen Pub. Sampling Co, and Taylor and Brunton, 87-92; consulting mining engineer, 92-94; state engineer, Colo, 97-98, 13-14; sewer construction engineer in charge Denver, 01-03; project engineer, Colo. and Wyo, 03-07; chief examiner, U. S. Surveyor General's Office, 04-06; *consulting civil engineer*, 07- Engineer mem. State Land Board, 13-19. Civil Eng. (pres, Colo. chapter, 16). Irrigation drainage; water supplies and resources; interstate litigation on water.

Field, Prof. Peter, 904 Olivia Ave, Ann Arbor, Mich. *Mathematics*. Mitchell Co, Iowa, Sept. 1, 76. B.S, Minnesota, 96, M.S, 97; fellow, Cornell, 98-99, Ph.D, 02. Prof. *math*, Carthage, 99-03; instr, *Michigan*, 03-07, asst. prof,

07-13, assoc. prof, 13-19, *prof*, 19- Asst, Cornell, 01-02. A.A.; Math. Soc. Analytical mechanics; forms of quintic curves; the circuits of a plane curve; theory of friction; projective geometry with applications to engineering.

Field, Prof. Richard M(ontgomery), Princeton University, Princeton, N. J. *Geology*. Jamaica Plain, Mass, April 21, 85. B.S, Harvard, 10, A.M, 14, Ph.D, 19. Asst. geol, Harvard, 15; lecturer and instr, Brown, 16-19; asst. vert. paleont, museum comp. zool, Harvard, 18; asst. prof. geol, Brown, 20; *Princeton*, 22-26, *assoc. prof. and curator stratigraphy and hist. geol*, 26- Director, Summer Sch. of Geol. and Nat. Resources. Collaborator, Smithsonian Inst, 25. Shaler Mem. exped, South. Appalachians, 18; Brown Univ. exped, Europe, 22; Princeton-Smithsonian exped, Europe, 25. A.A; Geol. Soc; Paleont. Soc; Boston Malacol. Club (pres, 20); Boston Soc. Nat. Hist. Stratigraphy; X-ray photography of fossils; origin of limestones; intraformational structures; lower Paleozoic stratigraphy of Europe and North America; sedimentation.

Field, Prof. Robert F(ranklin), Harvard University, Cambridge, Mass. *Physics*. Center Tuf-tonboro, N. H, July 10, 85. A.B, Brown, 06, A.M, 07; Harvard, 16. Instr. physics, Brown, 10-15; *Harvard*, 17-26, *asst. prof. applied physics*, 26- A.A; Physical Soc; Radio Eng. High frequency measurements.

Field, William L(us)k W(ebster), Milton Academy, Milton, Mass. *Zoology*. Milton, July 17, 76. Harvard, 94-98, hon. A.M, 24. Instr. nat. science, *Milton Acad*, 00-14, asst. head master, 14-17, *head master*, 17- Summers, instr, Alstead Sch. Nat. Hist, 99-04. Ed, 'Psyche', 04-09. A.A; Soc. Nat; Entom. Soc; New Eng. Bot. Club; Boston Soc. Nat. Hist; Cambridge Entom. Club; Harvard Travelers Club; Harvard Eng. Soc. Experimental evolution; insects; variation; variation and inheritance in Lepidoptera.

Fieldner, A(rno) C(arl), Bureau of Mines, Pittsburgh, Pa. **Chemistry*. Ney, Ohio, Dec. 12, 81. B.S, Ohio State, 06, C.E, 23. Indust. fuel engineer and chemist, 06-07; asst. chemist, U. S. Geol. Surv. and Bur. Mines, 07-13; chemist in charge fuels, chem. lab, *Pittsburgh Exp. Sta*, U. S. Bur. Mines, 13-17, supervising chemist, 19-25, *supt*, 21-, *chief chemist*, 25- Chemist in charge gas mask research sect, Am. Univ. Exp. Sta, U. S. Bur. Mines, 17-18. Major, C.W.S, 19. Chem. Soc. (chairman, Pittsburgh sect, 15, councilor, 16-27); Min. and Metal. Eng; Soc. Test. Mat; West. Pa. Eng. Soc; Coal Research Club, London. Fuels; gas; coal and coke; coal ash and slags; gas masks; ventilation.

Fields, Dr. J(ohn) Charles, University of Toronto, Toronto, Ont, Can. *Mathematics*. Hamilton, Ont, May 14, 63. B.A, Toronto, 84; fellow, Hopkins, 85-86, fellow by courtesy, 86-89, Ph.D, 87; Paris, Göttingen and Berlin, 93-00. Prof. *math*, Allegheny, 89-92; special lecturer, *Toronto*, 02-04, assoc. prof, 04-14, prof, 14-23, *research prof*, 23- Univ. senate, Toronto. Pres, Int. Math. Cong, 24; hon. pres, Int. Math.

Union, 24- A.A. (v. pres, sect. A, 24); Math. Soc; fel. Royal Soc. Can; Royal Inst. Can. (pres, 19-25); British Ass. (v. pres, 24); fel. Royal Soc; London Math. Soc; Soc. math. de France; cor. mem. Russian Acad; cor. mem. Coimbra Acad. Algebraic functions and Abelian integrals; theory of the algebraic functions of one or more variables; theory of algebraic numbers.

Fields, W(alter) S(amuel), U. S. Department of Agriculture, Washington, D. C. *Plant pathology*. Buffalo, N. Y, July 22, 86. B.S, Mich. State Col, 13. Instr. plant path, Arkansas, 13-16, asst. prof, 16-18; asst. state pathologist, Ark, 13-18; exten. pathologist, U. S. Dept. Agr. and Miss. Agr. and Mech. Col, 18-19; path. inspector, *fed. hort. board*, U. S. Dept. Agr, 19-24, *assoc. pathologist*, 24- *Phytopath.* Soc; Bot. Soc; Wash. Bot. Soc.

Fieser, Dr. Louis F(rederic), 830 Morton Road, Bryn Mawr, Pa. *Organic chemistry*. Columbus, Ohio, April 7, 99. A.B, Williams, 20; Ph.D, Harvard, 24. *Assoc. chem*, Bryn Mawr, 25- Chem. Soc; Franklin Inst; Chem. Gesell. Oxidation-reduction potentials of quinones.

Fillman, Prof. Louise, Simpson College, Indianola, Iowa. *Geology*. Gardner, Ill, Sept. 3, 99. A.B, Iowa, 20, M.S, 21, Ph.D, 24. Asst, Iowa, 21-24; *prof. geol*, Simpson, 25- A.A; fel. Iowa Acad. Physiography; Cenozoic history of northern Black Hills of South Dakota; Wassonville formation and its fossils.

Filter, Prof. Raymond O(tto), University of Pittsburgh, Pittsburgh, Pa. *Psychology*. Milwaukee, Wis, June 19, 91. A.B, Baldwin-Wallace, 14; A.M, Wisconsin, 16; Ph.D, Minnesota, 20. *Asst. prof. psychol*, Utah, 20-21; Minnesota, 22-24; *Pittsburgh*, 24- *Psychol.* Ass. Character traits; capacity for work.

Finch, J(ohn) W(ellington), 705 First National Bank Building, Denver, Colo. *Geology*. Lebanon, N. Y, Nov. 3, 73. A.B, Colgate, 97, A.M, 98; fellow, Chicago, 98-99, Sc.D, 13. Instr. geol. and physics, Colgate, 98; geol, Chicago, 99; consulting geologist, 01-16; state geologist, Colo, 01-04; gen. manager, Goldfield Cons. Mines Co, 06-07; N. Y. Orient Mines Co, 16-23; v. pres. and gen. manager, *West. Exploration and Mining Co*. Exploration, China, 16-20, Africa, 21. Director, Anglo-Am. Corp. S. Africa, 22-23; indust. adviser to governor, Yunnan, China. Soc. Econ. Geol; Ass. Petrol. Geol; Min. Eng. (director, 14-16); Min. and Metal. Soc; Rocky Mt. Ass. Petrol. Geol; Colo. Sci. Soc. (v. pres). Process of ore deposition; mineral deposits of Asia and Africa.

Finch, R(uy) H(erbert), Mineral, Calif. *Seismology*, *Meteorology*. Sunbury, Ohio, Aug. 31, 90. George Washington. Meteorologist, Weather Bur, 19-24; U. S. Geol. Surv, 24- Instr. meteorol. and forecaster U. S. naval aviation. Volcanology.

Finch, Prof. V(ernor) C(lifford), College Hills, Madison, Wis. *Geography*. Tecumseh, Mich, 83. B.S, Kalamazoo, 08; Chicago, 08; Ph.D, Wisconsin, 16. Instr, asst. prof. and assoc.

- prof. geog., Wisconsin, 11-* Asst. U. S. Dept. Agr, 15; special expert foreign trade and shipping, U. S. Shipping Board, 18-19. Economic and agricultural geography.
- Finck, Dr. J (oseph) Louis**, Bureau of Standards, Washington, D. C. *Physics*. Russia, Oct. 5, 93. B.S., Mass. Inst. Tech, 15; fellow, Harvard, 21-22, A.M., 22; Ph.D., Hopkins, 23. *Assoc. physicist, Bur. Standards*. A.A.; Physical Soc.; Wash. Philos. Soc. Thermodynamics; dimensional analysis.
- Findlay, Prof. M(erlin) C(hamberlin)**, Parkville, Mo. *Anatomy*. Franklinville, N. Y., Oct. 24, 68. A.B., Hamilton, 92, A.M., 95; Chicago; Minnesota; Sc.D., Park, 17. *Prof. biol. Park, 92-* A.A.; Micros. Soc.; Health League.
- Findlay, Dr. William**, McMaster University, Toronto, Ont, Can. *Mathematics*. Glanford, Ont, June 21, 74. B.A., McMaster, 96, M.A., 98; Ph.D., Chicago, 01. Tutor *math*, Barnard, Columbia, 01-05; *prof, McMaster, 05-* Math. Soc. Finite groups.
- Fine, Prof. H(enry) B(urchard)**, Princeton, N. J. **Mathematics*. Chambersburg, Pa, Sept. 14, 58. A.B., Princeton, 80; Ph.D., Leipzig, 85; LL.D., Williams, 09. Tutor *math, Princeton, 81-84*, asst. prof, 85-90, *prof, 91-*, dean, 03-12, *departments of science, 12-* Math. Soc. (pres, 11); Philos. Soc. Singularities of curves; functions defined by differential equations; number concept.
- Fine, Dr. Morris S**, Postum Company, Inc, Battle Creek, Mich. *Pathological chemistry*. Bridgeport, Conn, Nov. 8, 86. Ph.B., Yale, 08; Ph.D., 11. Instr. path. chem, N. Y. Post-Grad. Med. Sch, 11-14, lecturer, 14-15, adjunct prof, 15-17; *director therapeut, Calco Chem. Co, 17-21*; *research dept, Postum Co, Inc, 21-* A.A.; Chem. Soc.; Soc. Biol. Chem.; Soc. Exp. Biol.; Harvey Soc.; assoc. fel. N. Y. Acad. Med. Utilization of vegetable proteins; metabolism in pellagra; creatin, creatinin and uric acid metabolism and elimination; mineral metabolism; uremia; nutrition.
- Fink, Prof. Bruce**, Miami University, Oxford, Ohio. **Botany*. Blackberry, Ill, Dec. 22, 61. B.S., Illinois, 87, M.S., 94; A.M., Harvard, 96; Ph.D., Minnesota, 99. *Prof. biol, Upper Iowa, 92-03*; *bot, Grinnell, 03-06*; *Miami, 06-* Instr., Harvard, 96; in charge bot, Puget Sound Biol. Sta, 06. Assoc. ed, 'Mycologia' and lichenist, Minn. Bot. Surv, 96-03. A.A.; Soc. Nat.; Bot. Soc.; Bot. Cent. States; Iowa Acad. (pres, 04); Ohio Acad. (v. pres, 10, pres, 12); Iowa Park and Forestry Ass; Ohio Forestry Ass. Nature and classification of lichens; lichens of the United States; taxonomy of Graphidaceae; classification of Ascomycetae.
- Fink, Dr. Colin G(arfield)**, 440 Riverside Drive, New York, N. Y. **Electrochemistry*. Hoboken, N. J, Dec. 31, 81. A.B., Columbia, 03; Ph.D., Leipzig, 07. Asst. electrochem, Leipzig, 06-07; research chemist, Gen. Elec. Co, 07-17; director research lab, Chile Exploration Co, 17-21; *head div. electrochem, Columbia, 22-* A.A.; Chem. Soc. (ed, sect. electrochem, 'Chem. Abstracts'); Electrochem. Soc. (pres, 17, sec'y, 21-); Min. and Metal. Eng.; N. Y. Chemists Club. Kinetics of contact sulphuric acid; electrometallurgy; vacuum furnace metallurgy; tungsten; ductile tungsten and molybdenum; leading-in wires; insoluble anodes; corrosion; catalysis; copper; tin; chromium; restoration of ancient bronzes.
- Fink, David Ely**, University of Pennsylvania, Philadelphia, Pa. *Entomology*. Russia, Nov. 28, 81. B.S.A., Cornell, 11, M.S.A., 13; Ph.D., Pennsylvania, 25. *Assoc. entomologist, bur. entom, U. S. Dept. Agr, 12-* A.A.; Entom. Soc.; Ass. Econ. Entom.; Wash. Entom. Soc.; Phila. Physiol. Soc. Economic entomology; physiology and metabolism of insects.
- Fink, Dr. G(ail) J**, 927 15th St, N. W., Washington, D. C. *Chemistry*. Yountsville, Ind, June 19, 87. A.B., Wabash, 09; Ph.D., Cornell, 14. Asst. prof. chem, Iowa Col, 15-16; research chemist, Hooker Electrochem. Co, 16-21; *Nat. Lime Ass, 21-23*, chem. director, 23- Chem. Soc.; Electrochem. Soc.; Chem. Eng.
- Finkel, Prof. B(enjamin) F(ranklin)**, 1227 Clay St, Springfield, Mo. *Mathematics, Physics*. Fairfield Co, Ohio, July 5, 65. B.S., Ohio Nor. Univ, 88; Chicago, 95-00; special fellow, A.M., Pennsylvania, 04, Harrison fellow, 05-06, Ph.D., 06; LL.D., Drury, 23. Teacher, pub. schools, Ohio, 84-88; instr. math, Fostoria Acad, 89; prin, Gibson Acad, Tenn, 90; supt, schools, Ohio, 90-92; instr. math, Kidder Inst, 92-95; *prof. math. and physics, Drury, 95-* Summers, director, Drury, 16-18; head dept. math, Colorado, 13, 18. Founder and ed, 'Am. Math. Monthly,' 94- A.A.; Math. Soc.; Math. Ass; London Math. Soc.; Circolo Mat. di Palermo. Pure mathematics.
- Finkelstein, Dr. Leo**, Edgewood Arsenal, Edgewood, Md. *Physical chemistry*. Chicago, Ill, July 28, 90. B.S., Armour, 14; Ph.D., Chicago, 21. *Research chemist, U. S. Bur. Mines, 20-23*; *C.W.S., 24-* Chief control div, Paris Lab, C.W.S., 18. Chem. Soc. Radium content of meteorites; ranges of alpha particles from radium and its decomposition products; purification of helium by means of charcoal adsorption; smoke filtration.
- Finkenbinder, Dr. E(rwin) O(liver)**, 815 West 26th St, Cedar Falls, Iowa. *Psychology, Education*. Kent, Ill, Aug. 22, 84. A.B., Illinois, 10, A.M., 11; Ph.D., Clark, 13. Asst. psychol. lab, and research asst. to Dr. Baird, Clark, 10-13; teacher psychol. and educ, Wis. State Nor. Sch, Milwaukee, 13-20; head dept. educ. and in charge bur. placement of teachers, Cornell (Iowa), 20-21; *prof. educ. and psychol, Iowa State Teachers Col, 21-* A.A.; Nat. Soc. Study Educ; fel. Iowa Acad. Forgetting; memory; learning; teaching of spelling.
- Finlay, Prof. G(eorge) I(rving)**, 32 Waverly Place, New York, N. Y. *Geology*. Ulster Co, N. Y, July 9, 76. A.B., Harvard, 98; Ph.D., Columbia, 03. Asst. *geol, Columbia, 01-03*; *prof, Colo. Col, 03-13*; *N. Y. Univ, 13-* Asst. geologist, U. S. Geol. Surv, 01- Petrography; general geology; geologic folio of the Colorado Springs region.
- Finlay, J(ames) R(alph)**, 45 Cedar St, New York, N. Y. *Mining engineering*. Blenheim, Ont, Can,

- Sept. 30, 69. A.B., Harvard, 91. Supt. mines, Minn., 95; Ecuador, 96-99; manager, Idaho, Colo., 00-04; *mining engineer*, 04-; *gen. manager*, *Goldfield Cons. Mines Co.*, 10- Lecturer, Harvard, 08- Min. and Metal. Soc. (sec'y); Min. Eng. Ore deposits; cost of mining.
- Finlayson, Prof. John N(orison)**, University of Manitoba, Winnipeg, Man. Can. *Civil engineering*. Merigomish, N. S., Aug. 27, 80. B.S., McGill, 08, M.S., 09. Lecturer, McGill, 08-11; *prof. civil eng.*, Dalhousie, 13-19; *Manitoba*, 19- Bridge designer, 10- Civil Eng; Soc. Test. Mat; Concrete Inst; Water Works Ass; Eng. Inst. Can. Determination of shearing strength of ice; effect of cold weather on rubber; effect of sulphate ground water on concrete.
- Finley, Prof. George William**, Greeley, Colo. *Mathematics*. Parallel, Kans., Nov. 22, 76. B.S., Kansas Col., 96, M.S., 20. Teacher and supt, schools, Kans., 97-02; *prof. math.*, prep. sch., Oklahoma, 02-12; *Colo. State Teachers Col.*, 12- Math. Ass; Colo. Sci. Soc. Junior high school mathematics.
- Finley, William Lovell**, Jennings Lodge, Oregon. *Ornithology*. Santa Clara, Calif., Aug. 9, 76. A.B., California, 03. Lecturer for Nat. Ass. Audubon Societies; field naturalist, Am. Nature Ass; ed. staff, 'Nature Magazine.' Advisory board, U. S. Dept. Agr. Migratory Bird Treaty Act; Oregon Game Commission, 25- A.A.; Ornith. Union; Oregon Audubon Soc. (pres). American birds; the California condor; birds of the desert areas; natural history motion pictures.
- Finner, Dr. P(aul) F(rederick)**, 185 Woodward Ave., Tallahassee, Fla. *Psychology*. Arcadia, Wis., Nov. 19, 85. Ph.B., Wisconsin, 11, fellow, Ph.D., 23; A.M., Chicago, 15. Prin. and supt, schools, Wis. and Mich., 06-15; asst, Wisconsin, 15-17; *head dept. educ.* and psychol., N. Dak. State Teachers Col., Mayville, 17-21; *psychol.*, *Florida State*, 21- A.A. Independent criterion in intelligence testing; standardization of intelligence tests.
- Fippin, Elmer O(tterbein)**, State Conservation and Development Commission, Richmond, Va. *Agriculture*. Columbus, Ohio, Sept. 18, 79. B.S., Ohio State, 00. Asst, bur. plant indust, U. S. Dept. Agr., 00-01, bur. soils, 01-05; asst. prof. soils, Cornell, 05-09, prof. soil tech., 09-13, exten. prof., 13-19; manager agr. dept, Nat. Lime Ass., 19-20, gen. manager, 20-22, agr. consultant, 22-24; director agr. exp. sta, Haiti, and chief agron., 24-26; *exec. sec'y*, *State Conservation and Development Commission*, Va., 26- Lecturer, Cornell, 04-05. A.A. Soil classification and surveying; physical properties of soil; soil granulation; lateral capillary movements of soil moisture; land drainage; lime in relation to soil improvement; lime in animal nutrition; tropical field crops; coffee culture.
- Fireman, Dr. Peter**, 601 Cass St, Trenton, N. J. **Chemistry*. Lipovetz, Russia, April 4, 63. Odessa, 81; Königsberg, Zurich and Bern, 88-93; Ph.D., Bern, 93. Asst. chem, George Washington, 93-95, instr., 95-98, asst. prof., 98-01; prof., Mo. Sch. Mines, 01-02; chem. geologist, U. S. Nat. Museum, 01, in charge chem. research lab, Alexandria, Va., 04-06; *mfg. chemist*, 06-; *pres*, *Magnetic Pigment Co.*, 11- A.A.; Chem. Soc. (pres, Wash. sect); Wash. Philos. Soc. Physical chemistry; preparation of organic phosphines; action of ammonium chlorid on certain chlorids; action of phosphonium iodid on polychlorids; replacement of three atoms of hydrogen by one of nitrogen in organic compounds; iron oxid pigments.
- Fischelis, Prof. Philipp**, 828 N. Fifth St, Philadelphia, Pa. *Histology*, *Embryology*. Odessa, Russia, Dec. 10, 57. Studied biol. under Metschnikof and Kowalewsky at Odessa; Leipzig, Königsberg and Berlin, 80-85; M.D., Berlin, 85. Instr. laryngol, Phila. Polyclinic, 94-02; demonstrator histol. and embryol, Medico-Chirurg. Col, Phila., 03-09, assoc. prof., 09-17; assoc. prof. and *prof. histol. embryol. and gen. path. and director laboratories*, Temple, 17- A.A.; Ass. Anat; Am. Med. Ass; New Russia Soc. Nat. Development of thyroid, thymus gland and lungs; reproduction and evolution; anatomy and histology of the mouth and teeth; building human intelligence.
- Fischelis, Dr. Robert P(hilipp)**, 640 W. State St, Trenton, N. J. *Pharmaceutical chemistry*. Philadelphia, Pa., Aug. 16, 91. Ph.G., Medico-Chirurg. Col. Phila., 11, Ph.C., 12, Phar.D., 13; B.Sc., Temple, 12; Ph.M., Phila. Col. Pharmacy, 18. Instr. pharmacy and org. chem, Medico-Chirurg. Col. Phila., 12-14; assoc. ed, 'The Druggists Circular,' 14-16; chemist and technical exec, H. K. Mulford Co., 16-19; *consulting chemist*, 19-; *lecturer*, *Phila. Col. Pharmacy*, 16- Dean and prof, N. J. Col. Pharmacy, 21-25. Managing ed, 'Indust. and Eng. Chem.,' 22-; consulting ed, 'Basic Material for a Pharmaceutical Curriculum.' Sec'y and chemist, N. J. State Board Pharmacy, 26-; cooperating state official, bur. chem, U. S. Dept. Agr., 26- Pres, Drug Trade Bur. Pub. Information, 20. C.W.S., U.S.A., 18. Chem. Soc; Am. Med. Ass; Pharmaceut. Ass; Ass. Col. Pharmacy (v. pres, 24); Pa. Pharmaceut. Ass. (sec'y, 16-19, pres, 19); N. J. Pharmaceut. Ass. (v. pres, 23-25, sec'y, 26); Newark Mus. Ass; N. Y. Chemists Club. Pharmaceutical manufacturing; industrial pharmacy; pharmaceutical education.
- Fischer, Dr. Martin H(enry)**, General Hospital, Cincinnati, Ohio. **Physiology*, *Medicine*. Kiel, Germany, Nov. 10, 79. Fellow, Rush Med. Col., 00, M.D., 01; hon. Phar.D., Cincinnati, 25. Student asst. path, Rush Med. Col., 98-00, asst. physiol, Chicago, 00-01, assoc., 01-02; instr, California, 02-03, asst. prof., 03-05; *prof. path.*, Oakland Col. Med. and Surg., 05-10; *physiol.*, *Cincinnati*, 10- Cutter lecturer, Harvard, 17. Nathan Lewis Hatfield prize, Phila. Col. Physicians, 09; Cartwright prize, Col. Physicians and Surg, New York, 11; gold medal for research, Am. Med. Ass., 13, diploma, 15, 20, silver medal, 16; diploma, Ohio Acad., 23; Int. prize, Kolloid Gesell., 24. Trustee, Helen S. Trounstone Foundation (pres, 17-20). A.A.; Physiol. Soc; Soc. Exp. Biol; fel. Am. Med. Ass; Soc. Biol. Chem; Chem. Soc. (pres, Cincinnati sect, 22); Cincinnati Research Soc. (pres, 12); Soc. Spinozana;

- for. mem. Leopold-Carl Acad. Sci; Czecho-Slovakia Bot. Soc. Histology of motor ganglion cells; false diverticula of the intestine; toxic effects of formaldehyde; artificial alimentary excretion; edema, nephritis, glaucoma and coma; theories of growth, muscular contraction and hemolysis; absorption and secretion of water and dissolved substances by plants and animals; emulsions; fatty degeneration; focal infections; colloids; soaps; indicators; electrical and other physico-chemical properties of mutually soluble systems and of protoplasm.
- Fischer, Prof. Richard**, University of Wisconsin, Madison, Wis. *Chemistry*. New Ulm, Minn., Nov. 18, 69. Ph.C, Michigan, 92, B.S., 94; Ph.D, Marburg, 00. Asst. chem, Michigan, 92-94; instr. pharmacy, *Wisconsin*, 94-98, asst. prof., 00-09, *prof. chem*, 09- State chemist, Wis., 03-09; consulting chemist, Wis. Food and Drug Commission, 09-; sec'y, Madison Rivers and Lakes Commission, 24-26, chairman, 26-A.A.; Chem. Soc; Pharmaceut. Ass; Ass. State and Nat. Food and Dairy Departments (chairman, committee on food standards, 06-09); Wis. Acad; Chem. Gesell. Organic chemistry; alkaloids; chemistry of foods.
- Fish, Dr. Charles J(ohn)**, U. S. Bureau of Fisheries, Woods Hole, Mass. *Zoology*. Fall River, Mass., May 13, 99. Ph.B, Brown, 21, M.S., 22, Ph.D, 23. Asst. U.S.S. 'Albatross,' 22-24; *marine investigator*, *Bur. Fisheries*, 24-; *director*, *Buffalo Museum of Science*, 27- Expeditions, plankton surv, Long Island Sound, 22-23, Vineyard Sound and Buzzards Bay, 23-24, Labrador Current, Newfoundland, 24, Continental Plateau to Gulf Stream, 24; biol. surv, Coast of Maine and Mass. Bay, 24; oceanographic surv, Mass. Bay, 24-25, 26; oceanographer, 'Areturus' oceanographic exped, 25. Seasonal vertical and horizontal distribution of plankton organisms with governing physical and biological factors; physical oceanography; food, enemies, spawning centers and distribution of pelagic young fish with controlling factors.
- Fish, Prof. F(red) A(lan)**, Ames, Iowa. *Electrical engineering*. Milan, Ohio, Feb. 21, 75. M.E, Ohio State, 98; hon. fellow, Wisconsin, 01. Asst. prof. *elec. eng*, Ohio State, 01-05; assoc. prof, *Iowa Col*, 05-09, *prof*, 09- Elec. Eng; Eng. Educ; Nat. Elec. Light Ass.
- Fish, Prof. H(arold) D(ufur)**, 1905 Times Building, New York, N. Y. *Zoology*. Tunbridge, Vt., Aug. 13, 83. A.B, Dartmouth, 07; A.M, Harvard, 15. Prof. biol, Highland, 12-14; Austin teaching fellow, Harvard, 14-15; research asst, Bussey Inst, and asst. *zool*, Harvard and Radcliffe, 15-16; prof, Denison, 16-19; Pittsburgh, 20-27; research assoc, dept. genetics, Carnegie Inst, 19-24; *director*, *Kartabo Lab. of Trop. Biol*, *British Guiana*, 24- A.A; Ecol. Soc; Soc. Mammal; Ornith. Union; Eugenics Research Ass. Animal genetics; inheritance in mammals and Drosophila.
- Fish, Prof. J(ohn) C(harles) L(ounsbury)**, Stanford University, Calif. *Engineering economics*. Collins, Ohio, June 3, 70. C.E, Cornell, 92. Asst. engineer, Sandusky and Columbus Ry, 91; instr. civil eng, Cornell, 92-93; asst. prof, *Stanford*, 93-98, assoc. prof, 98-09, *prof. railroad eng*, 09-25, *civil eng*, 25- Recorder, U. S. Coast and Geod. Surv, 99; field asst, U. S. Geol. Surv, 00; res. engineer, L. S. and M. S. Ry, 05-07, div. engineer, 07-09. Fuertes gold medal, Cornell, 15. Civil Eng; Ry. Eng.
- Fish, Prof. P(ierre) A(ugustine)**, 931 E. State St, Ithaca, N. Y. *Comparative physiology*. Chatham, N. Y., Feb. 17, 65. B.S, Cornell, 90, Sc.D, 94, D.V.M., 99. Instr. physiol, vert. zool. and neur, Cornell, 90-95; asst, bur. animal indust, U. S. Dept. Agr, 95-96; asst. prof. comp. physiol. and pharmacol, *Cornell*, 96-02, *prof. vet. physiol*, 02- Instr, Woods Hole, 91-95. Major, Vet.C, 18-19. Vet. Med. Ass. (ed, 'Jour,' 15-18). Physiologic action of various drugs upon the circulation; mature and immature meat; salivary digestion in the horse; fat absorption; endocrine glands.
- Fishberg, Dr. Maurice**, 1136 Fifth Ave, New York, N. Y. *Medicine, Anthropology*. Kamenetz-Podolsk, Russia, Aug. 16, 72. M.D, N. Y. Univ, 97. Prof. clin. med, Univ. and Bellevue Hosp. Med. Col, 15-25. Attending physician, Montefiore Hosp; consulting physician, Bedford Hills Sanatorium. A.A; Ethnol. Soc; Anthropol. Ass; Folk-Lore Soc; N. Y. Acad. (chairman, sect. psychol. and anthrop, 09-10). Physical anthropology; medicine; ethnic and social conditions of the Jews; some clinical phases of tuberculosis; pulmonary tuberculosis.
- Fishel, Prof. W(aite) P(hilip)**, 1023 17th Ave, S, Nashville, Tenn. *Chemistry*. Pleasant City, Ohio, Dec. 9, 90. A.B, Ohio, 18; M.S, Iowa Col, 22. Instr. *chem*, Ohio, 18-20; asst, Iowa, 20-23; *asst. prof*, *Vanderbilt*, 23- Chem. Soc. (sec'y-treas, Nashville sect, 26); Soc. Steel Treat. Analysis of the Grignard reagent; carburizing iron with carbon monoxide.
- Fisher, A(lbert) K(enrick)**, U. S. Department of Agriculture, Washington, D. C. *Biology*. Ossining, N. Y., March 21, 56. Col. physicians and surg, Columbia, 76-79. Asst. ornithologist, *U. S. Dept. Agr*, 85-96, asst. biologist, 96-02, asst. chief biol. surv, 02-06, in charge *econ. investigations*, 06- Fel. Ornith. Union (v. pres, pres, 14); Soc. Mammal; Game Protective Ass; Del. Valley Ornith. Club; Baird Ornith. Club (pres); Cooper Ornith. Club; Wash. Biol. Soc; Wash. Biol. Field Club (pres); Nuttall Ornith. Club; cor. mem. N. Y. Linnean Soc; Int. Soc. Game Commissioners. Geographic distribution and natural history of vertebrates.
- Fisher, C(assius) A(sa)**, 711 First National Building, Denver, Colo. *Geology*. Fremont, Nebr., Feb. 15, 72. A.B, Nebraska, 98, A.M, 00. Asst. geologist, U. S. Geol. Surv, 96-09, geologist, 09-10, asst. chief fuel sect; *mem. firm*, *Fisher and Lowrie, consulting geologists and engineers*, Denver, Colo, 19- Asst. instr, Yale, 02-03. A.A; Geol. Soc; Wash. Geol. Soc; Wash. Acad. Oils; coal; fuels.
- Fisher, C(harles) K(ing)**, P. O. Box 297, Alhambra, Calif. *Agriculture*. Rural Retreat, Va., April 1, 92. B.S, Va. Polytech, 17. Asst. prin, high sch, Va, 17-18; U. S. Dept. Agr, 19-21; county agr. agent, Va, 21-23; *junior entomologist*, *U. S. Dept. Agr*, 23- Assoc. mem.

Ass. Econ. Entom. Bruchus; obtectus; bruchus quadrimaculatus.

Fisher, Dr. D(aniel) Jerome, University of Chicago, Chicago, Ill. *Geology*. Canton, N. Y., June 14, 96. B.S., Chicago, 17, M.S., 20, Ph.D., 22. Instr. *geol. and miner*, Chicago, 21-26, *asst. prof.*, 26- Junior geologist, U. S. Geol. Surv., 24-25, *asst. geologist*, 25- Fuels; areal and stratigraphic geology; crystallography.

Fisher, D(urward) F(rederick), Wenatchee, Wash. *Plant pathology*. Clarence, N. Y., Aug. 17, 88. B.S., Mich. State Col., 12; M.Hort., 18. *Pathologist, fruit disease investigations*, U. S. Dept. Agr., 12- A.A.; Soc. Hort. Sci.; Phytopath. Soc. Fruit diseases.

Fisher, Prof. Elizabeth F(lorette), Wellesley, Mass. *Geology, Geography*. Boston, Mass., Nov. 26, 73. B.S., Mass. Inst. Tech., 96. Instr. *geol. and geog.*, Wellesley, 94-96, *assoc. prof. geol. and miner*, 06-08, *prof. geol. and geog.*, 08-26, *emer. prof.*, 26-, *chairman dept.* Summers, oil field expert, 18, 19. Lecturer, Boston Commission Exten. Courses, 12- Int. Geol. Cong., St. Petersburg, 97. A.A.; Am. Geog. Soc. Physiography; conservation of natural resources; oil geology.

Fisher, Dr. G(eorge) Clyde, American Museum of Natural History, New York, N. Y. *Botany, Astronomy*. Near Sidney, Ohio, May 22, 78. A.B., Miami, 05, LL.D., 26; Ph.D., Hopkins, 13. Prin. acad., Palmer, 07-09, acting pres., 09-10; *asst. curator dept. pub. educ.*, Am. Museum Nat. Hist., 13-17, *assoc. curator*, 17-24, *in charge astron.*, 23-, *curator visual instruction*, 24- A.A.; *assoc. mem.* Ornith. Union; Wilson Ornith. Club; Torrey Bot. Club; Soc. Mammal; fel. N. Y. Acad.; N. Y. Linnean Soc. Nature education; astronomy.

Fisher, Dr. Harry L(inn), U. S. Rubber Co., 561 W. 58th St., New York, N. Y. *Chemistry*. Kingston, N. Y., Jan. 19, 85. A.B., Williams, 09; A.M., Columbia, 10, Ph.D., 12. *Asst. org. chem.*, Columbia, 10-11; *instr. med. col.*, Cornell, 11-12; Columbia, 12-19; *research chemist*, B. F. Goodrich Co., 19-26; U. S. Rubber Co., 26- Sec'y, org. sect., Eighth Int. Cong. Applied Chem., 12. Chem. Soc. (sec'y, org. div., 15-19, chairman, Akron sect., 20). Rubber; resins; organic combustions; nitrogen heterocycles.

Fisher, Henry W(right), Perth Amboy, N. J. *Electrical engineering*. Youghal, Ireland, Jan. 31, 61. M.E., Cornell, 88. *Asst. engineer*, Bergmann and Co., 88; S. U. Cable Co., 88-89, *elec. engineer and supt.*, Pittsburgh factory, 89-99, *chief engineer and manager rubber and lead cable factories*, 15-, *technical director elec. eng. and manager cable and rubber factories*, 23- Fel. Elec. Eng.; Soc. Test. Mat.; Electrochem. Soc.; West. Pa. Eng. Soc. (past pres.). Electric cables; glucinum by electrometallurgy; insulation and electrostatic temperature coefficients of different cables; power factors of cables; losses, induced volts and amperes in armor and lead of cables; carrying capacity of cables.

Fisher, Prof. Irving, 460 Prospect St., New Haven, Conn. *Political economy*. Saugerties, N. Y., Feb. 27, 67. A.B., Yale, 88, Ph.D., 91; Berlin

and Paris, 93-94. Tutor math., Yale, 91-93, *asst. prof.*, 93-95, *polit. econ.*, 95-98, *prof.*, 98- Pres., Pro-League Independents, 20; mem. Roosevelt Commission for the Conservation of Nat. Resources; Hitchcock lecturer, California, 17. A.A.; Am. Acad.; Econ. Ass. (pres., 19); Acad. Polit. and Social Sci.; Inst. Social Sci. (pres., 18); Anthropol. Ass.; Eugenics Research Ass. (pres., 20); Eugenics Soc. (pres., 23-26); Math. Soc.; Am. Acad. Med.; fel. Statist. Ass.; Conn. Acad.; fel. Royal Statist. Soc.; Royal Econ. Ass.; Accad. dei Lincei. Mathematical economics; statistics; public health; capital and income; rate of interest; purchasing power of money; high cost of living; commodity and stock index numbers.

Fisher, Prof. James, 117 Clark St., Houghton, Mich. *Mathematics, Physics*. Hancock, Mich., March 29, 73. E.M., Mich. Col. Mines, 90; Cornell, 99. Draftsman, Mich. Col. Mines, 93-94; Hodge Iron Works, 94-95; *instr. math. and physics*, Mich. Col. Min. and Tech., 95-99, *prof.*, 99-, *head departments*, 00- A.A.; Eng. Educ.; Lake Superior Min. Inst.

Fisher, Prof. M(artin) L(uther), 325 Vine St., Lafayette, Ind. *Agriculture*. Near Murray, Ind., Oct. 24, 71. B.S., Purdue, 03; M.S., Wisconsin, 11. *Prof. agron. and dean men*, Purdue, *assoc. soils and crops*, Exp. Sta. Soc. Agron.; Ind. Acad.; Ind. Audubon Soc. (pres., 19). Agronomy; forage crops; corn pollination; correlation of phenological data with corn-planting dates.

Fisher, Prof. N(elson) F(ranklin), 709 Ashland Boulevard, Chicago, Ill. *Physiology*. Selinsgrove, Pa., July 1, 95. A.B., Gettysburg, 18, M.S., 22; Ph.D., Chicago, 23, M.D., Rush Med. Col., 26. *Asst. prof. physiol.*, col. med., Baylor, 23-24; col. med., Illinois, 24-25. *Physiol. Soc.* Pancreas and parathyroid hormones; function of the seminal vesicles; effects of X-ray on the pancreas and adrenal glands.

Fisher, O(ra) S(tanley), 1464 Spring Road, N. W., Washington, D. C. *Agronomy*. Washburn, Ill., Sept. 1, 78. B.S., Illinois, 08. *Asst.*, *assoc.* and *assoc. prof.*, Illinois, 08-15; *agriculturist*, U. S. Dept. Agr., 15- Soc. Agron.

Fisher, Prof. R(ichard) T(hornton), Petersham, Mass. *Forestry*. Brooklyn, N. Y., Nov. 9, 76. A.B., Harvard, 98; M.F., Yale, 02. Special agent, U. S. Biol. Surv., 98; *asst.*, English, Harvard, 99; *forest asst.*, bur. forestry, U. S. Dept. Agr., 01-; *asst. prof. forestry*, Harvard, 05-, *director*, Harvard Forest, 08- Fel. Soc. Foresters; Ecol. Soc. The redwood; the woodlot; forest management.

Fisher, Dr. S(ara) C(arolyn), 328 S. Ave. 60, Los Angeles, Calif. *Psychology*. Bridgeport, Conn., Sept. 17, 89. A.B., Lombard, 09; A.M., Illinois, 10; Ph.D., Clark, 13. Instr. *psychol.*, Wellesley, 13-14; *research asst.*, Clark, 14-15; State Nor. Sch., Los Angeles, Calif., 15-19; *asst. prof. psychol.*, California at Los Angeles, 19- Psychologist, Los Angeles Juvenile Court. Psychol. Ass. Higher mental processes; general concepts; classifying; growth of meaning.

- Fisher, Prof. W(alter) K(enrick)**, Pacific Grove, Calif. **Zoology*. Ossining, N. Y., Feb. 1, 78. A.B., Stanford, 01, A.M., 03, Ph.D., 06. Special field naturalist, U. S. Biol. Surv., 97-01; asst. zool., Stanford, 02-05, acting instr., 05-07, instr., 07-09, asst. prof., 09-20, assoc. prof., 20-25, prof., 25-, director, Hopkins Marine Sta., 17- Curator, Calif. Acad., 16- Asst., 'Albatross', exped., U. S. Fish Commission, 02, 04. Ed., 'The Condor,' 02-06. A.A.; Soc. Zool.; Ornith. Union; Calif. Acad.; Cooper Ornith. Club (pres). Anatomy of gastropods; ornithology; Echinodermata of the Hawaiian Islands; Asteroidea of the north Pacific and East Indies; classification of the Asteroidea.
- Fisher, Dr. Willard J(ames)**, 49 Langdon St., seum, Washington, D. C. *Entomology*. Highspire, Pa., April 4, 78. High sch.; Harrisburg Business Col. Asst. zoologist, Pa. Dept. Agr., 02-12; specialist forest Coleoptera, bur. entom., U. S. Dept. Agr., 12- Entom. Soc.; Ass. Econ. Entom.; Wash. Entom. Soc. Coleoptera.
- Fisher, Dr. Willard J(ames)**, 49 Langdon St., Cambridge, Mass. *Physics*. Waterford, N. Y., Sept. 29, 67. A.B., Amherst, 92; Ph.D., Cornell, 08; Göttingen, 08-09; hon. fel., Clark, 16-18. Prin., high sch., Mass., 92-94, 96-99, 01-03; asst. biol., Amherst, 95; physics, Cornell, 03-04, instr., 04-08, 09-12; prof., New Hampshire, 12-16; lecturer, Worcester, 18; asst. prof., Philippines, 18-20; acting prof., Hawaii, 22; research assoc., Harvard Col. Observatory, 27- A.A.; fel. Physical Soc. Gas viscosity; height of the atmosphere; history of mechanics; low sun phenomena; lunar eclipses; meteor photographs.
- Fishman, Dr. J(acob) B(enjamin)**, 35 Elizabeth St., New Haven, Conn. *Organic chemistry*. Russia, Sept. 24, 95. Ph.B., Yale, 16, Ph.D., 20. Research chemist and chief, Heyden Chem. Co., 20- Ordnance dept., U.S.A., 17-18. Chem. Soc. Organic substances of pharmacological interest.
- Fisk, Dr. Emma L(uella)**, University of Wisconsin, Madison, Wis. *Botany*. Newark, N. Y., July 28, 92. A.B., Wellesley, 14; A.M., Wisconsin, 21, Ph.D., 25. Asst. bot., Wellesley, 14-16; instr., Sweet Briar, 16-18; Wellesley, 18-20; asst., Wisconsin, 20-23, instr., 23-26, asst. prof., 26- A.A.; Bot. Soc.; Wis. Acad. Morphology; cytology; the chromosomes of Zea mays.
- Fisk, Dr. Eugene Lyman**, Life Extension Institute, 25 W. 43d St., New York, N. Y. *Medicine*. Brooklyn, N. Y., Jan. 1, 67. N. Y. Trinity Sch.; M.D., N. Y. Univ. Med. director, Provident Savings Life Ass., N. Y., 98-10; Postal Life Ins. Co., 10-13; med. director and v. pres., Life Extension Inst., Inc., 13- Committee on alcohol, med. sect., committee, Nat. Defense; chairman pub. health committee, Civitan Club. A.A.; fel. Am. Med. Ass. (advisory committee, eugenics council); Pub. Health Ass.; Ass. Study Int. Secretions; Tuber. Ass.; Am. Heart Ass.; Am. Ass. Indust. Physicians and Surgeons; Child Health Ass.; Inst. Social Sci.; Acad. Polit. Sci.; Statist. Ass.; Econ. Ass.; N. Y. Acad.; Royal Inst. Pub. Health, London. Mortality and the degenerative diseases; periodic health examinations; phases of personal hygiene.
- Fisk, Prof. Harlan W(ilbur)**, 36th St. and Broad Branch Road, Washington, D. C. *Physics*. Geneva, Kans., Sept. 25, 69. B.S., Carleton, 96. Prof. math., Fargo, 99-06, dean faculty, 04-06; magnetician and chief sect. land magnetic surv., dept. terrestrial magnetism, Carnegie Inst., 06- A.A.; Wash. Philos. Soc.; Wash. Acad. Terrestrial magnetism.
- Fiske, Dr. Augustus H(enry)**, P. O. Box 1515, Providence, R. I. *Chemistry*. Boston, Mass., May 28, 80. A.B., Harvard, 01, A.M., 02, Ph.D., 12. Instr. chem., Harvard, 12-13; asst. chemist, Rumford Chem. Works, 14-15, chief chemist, 15- Chem. Soc.; Chem. Eng. Halogen and nitrogen derivatives of benzol; orthoquinones; acidic value of phosphates; baking powder ingredients.
- Fiske, Prof. Cyrus H(artwell)**, Harvard Medical School, Boston, Mass. *Biochemistry*. St. Paul, Minn., Sept. 22, 90. A.B., Minnesota, 10; M.D., Harvard, 14. Asst. biol. chem., Harvard Med. Sch., 14-15; assoc. biochem., Western Reserve, 15-17, asst. prof., 17-18; biol. chem., Harvard Med. Sch., 18- A.A.; Soc. Biol. Chem.; Chem. Soc. Metabolism; biochemical methods.
- Fiske, Lieut. Col. Harold C(hamberlayne)**, Sixth Regiment Engineers, Camp Lewis, Wash. *Engineering*. Jamestown, N. Y., March 1, 80. Union Col.; grad., U. S. Mil. Acad., 03, eng. sch., 08. Second lieut., C.Eng., 03-04, first lieut., 04-11, capt., 11-16, major, 16-26, lieut. col., in command sixth regiment engineers, Camp Lewis, 26- U. S. dist. engineer in charge surv., Tenn. River. Lieut. col. and col., C.Eng., 17-19. Civil Eng.; Soc. Mil. Eng. Tennessee river and its tributaries; the power, navigation and other water resources of the Tennessee basin.
- Fiske, R(aymond) J(ohn)**, Fiske Fruit Farms, Lunenburg, Mass. *Entomology*. Cambridge, Mass., May 4, 88. B.S., Mass. Col., 10, 13. Agr. and educ. worker, P. I., 10-12; asst. entomologist, P. R., 13-14; sci. asst., bur. entom., U. S. Dept. Agr., 14-20; proprietor, Fiske Fruit Farms, 20- A.A.; Ass. Econ. Entom. Deciduous fruit insects.
- Fiske, Prof. Thomas S(cott)**, Columbia University, New York, N. Y. **Mathematics*. New York, May 12, 65. A.B., Columbia, 85, A.M., 86, fellow, 85-88, Ph.D., 88. Tutor math., Columbia, 88-91, instr., 91-94, adjunct prof., 94-97, prof., 97- Acting dean, Barnard, Columbia, 99; sec'y, Col. Ent. Exam. Board, 01- A.A.; Math. Soc. (sec'y, 88-95, ed., 'Bul.', 91-99, v. pres., 98-01, ed., 'Trans.', 99-05, pres., 02-04); Ass. Teachers Math. Middle States and Md. (pres., 04); London Math. Soc.; Circolo Mat. di Palermo. Theory of functions; algebra; calculus; theory of assemblages; properties of assemblages and their application to functions.
- Fitch, Prof. A(lbert) L(ewis)**, University of Maine, Orono, Maine. *Physics*. Byron Center, Mich., Oct. 3, 87. A.B., Albion, 11, A.M., 12; Ph.D., Michigan, 16. Teacher, high sch., Mich., 13-15; research physicist, West. Elec. Co., 16-19; prof. physics, Maine, 19- A.A.; assoc. Physical Soc. The aluminum rectifier.
- Fitch, Prof. C(lifford) P(enney)**, University Farm, St. Paul, Minn. *Veterinary medicine*. Sauquoit,

- N. Y., July 1, 84. B.S., Hamilton, 06, M.S., 09; D.V.M., Cornell, 11. Asst. vet. med., Cornell, 09-11, instr., 11-13, asst. prof., 13-16, prof., 16-17; *chief div. vet. med. and prof. animal path., Minnesota*, 17- A.A.; Vet. Med. Ass.; Soc. Exp. Biol.; Pub. Health Ass.; Minn. Vet. Med. Ass. (sec'y, 19-). Bovine infectious abortion; diseases of poultry; abortion of mares; navel ill of foals; disease in cattle caused by sweet clover; glands; anthrax.
- Fitch, Col. Graham D(enby)**, 2400 20th St, N. W., Washington, D. C. *Engineering, Mathematics*. Chicago, Ill, Feb. 19, 60. Grad, U. S. Mil. Acad., 82. All grades from lieutenant to colonel; C.Eng.; retired, 12. Major, U. S. volunteers, Spanish-Am. War. Prize for essay on fourth dimension, 'Sci. American.' Lock and dam construction; space of four dimensions.
- Fitch, Prof. J(ames) B(urgess)**, Kansas State Agricultural College, Manhattan, Kans. *Dairy husbandry*. Hunterton, Ind, June 26, 88. B.S., Purdue, 10. Asst. dairying, *Kansas Col*, 10-11, instr., 11-13, asst. prof., 13-15, assoc. prof., 15-18, *prof. dairy husbandry*, 18- *Dairy Sci. Ass.* (sec'y-treas, 21-25, pres, 27); Soc. Animal Production. Feeding and development of dairy cattle; temperature of silage fermentation; influence of material on keeping quality of silos.
- Fitchet, Dr. Seth (Marshall)**, 992 Beacon St, Newton Center, Mass. *Medicine*. San Bernardino, Calif, July 14, 87. A.B., Clark, 15; M.D., Harvard, 21, B.P.H., 24. *Instr. surg., med. sch., Tufts*, 24-; *asst. orthop. surg., Harvard Med. Sch.*, 25- Instr. and asst. Mass. Gen. Hosp., 24-; junior asst. surgeon, Children's Hosp., 24- Lieut. col., F.A.R. A.A.; fel. Am. Med. Ass.; Am. Geog. Soc.; Boston Orthop. Club. Atmospheric particulate matter; surgical treatment of fractures and of mal-development of the terminal bowel and anus; the use of electric precipitation for quantitative determinations and microscopy.
- Fite, Dr. Warner**, Princeton, N. J. *Philosophy, Psychology*. Philadelphia, Pa, March 5, 67. A.B., Haverford, 89; Berlin, 91-92; Munich, 92-93; Ph.D., Pennsylvania, 94. Instr. philos. and Hebrew, Williams, 94-96, dean faculty, 95-97; docent psychol., Chicago, 97-98, asst., 98-01, instr., 01-03; *philos.*, Texas, 03-06; junior prof., Indiana, 06-08, *prof.*, 08-15; *Princeton*, 15- Lecturer, Harvard, 11-12; Stanford, 13-14. Philos. Ass.; Psychol. Ass. Social and ethical theory, especially with reference to psychological foundations.
- Fite, Dr. William Benjamin**, Columbia University, New York, N. Y. **Mathematics*. Marion, Ohio, Aug. 23, 69. Ph.B., Cornell, 92, Ph.D., 01. Teacher *math.*, Mich. Mil. Acad., 92-98; instr., Cornell, 01-05, asst. prof., 05-10; *prof., Columbia*, 10- *Math. Soc.* (treas, 21-); *Math. Ass.* Theory of groups of finite order; differential equations.
- Fitterer, Prof. J(ohn) C(onrad)**, University of Wyoming, Laramie, Wyo. *Civil engineering*. Clyde, Ohio, Dec. 15, 71. B.S., Ohio State, 98; B.S.(C.E.), Colorado, 04, C.E., 12. Instr. eng. *math.*, Colorado, 04; *prof. civil and irrig. eng., Wyoming*, 08- U. S. Geol. Surv.; U. S. Reclamation Service; res. engineer, Glenwood Tunnel, Colo. A.A.; Math. Soc.; Civil Eng.; Eng. Educ.; Soc. Test. Mat. Mathematics; irrigation; drainage.
- Fitts, E(dward) B(lodgett)**, Pennsylvania State College, State College, Pa. *Dairy husbandry*. East Windsor, Conn, Jan. 11, 71. Grad, Conn. Col., 93. Instr. *dairy husbandry*, Conn. Col., 06-13; *prof. exten.*, Oregon Col., 13-22; *Pa. State*, 22- A.A.; Dairy Sci. Ass.; Soc. Animal Nutrition.
- Fitz, Dr. G(eorge) W(ells)**, Peconic, N. Y. *Physiology, Hygiene, Physical education*. New York, N. Y., March 16, 60. M.D., Harvard, 91. Instr., Cook Co. Nor. Sch., Ill, 83-87; instr. and asst. prof. physiol. and hygiene and med. visitor, Harvard, 92-99. Ed., 'Am. Physical Educ. Rev.', 96-01, 04-06. A.A.; Physiol. Soc.; N. Y. Acad. Med. Respiratory types; ventilation tests (methods of CO₂); spinal curvature; physiology of exercise; photometric method of case record; new direct-reading scoliometer; resistant forward shoulders; animal mechanics; shadow pupillometer; mirrorometer for space angles; physiology and hygiene of clothing; carbon dioxide retention as cure for cramp.
- Fitz, Dr. Reginald**, Peter Bent Brigham Hospital, Boston, Mass. *Medicine*. Boston, Feb. 28, 85. A.B., Harvard, 06, M.D., 09. *Assoc. prof. med., Harvard Med. Sch.* Am. Physicians; Soc. Clin. Invest. Nephritis; diabetes mellitus.
- FitzGerald, Desmond**, Brookline, Mass. *Engineering*. Nassau, Bahama Islands, May 20, 46. Phillips Acad., Andover, Mass. Chief engineer, B. and A. Ry, 71-73; engineer and supt., Boston Water Works, 73-96; dept. engineer, Metropolitan Water Works, Mass, 96-02; *consulting engineer*, 02- Chairman, Board of Park Commissioners, Brookline; Mass. Topog. Surv. Commission, 96-00; Metropolitan Improv. Commission; chairman, Water Supply and Sewerage Commission, Manila, P. I., 04. Norman gold medal, Civil Eng., twice. Civil Eng. (past pres); New Eng. Water Works Ass. (past pres); Am. Acad.; Boston Soc. Civil Eng. (past pres). Evaporation; hydraulics; rainfall; flow of streams; storage of water; temperature of lakes; construction of water works. [*Died Sept. 23, 26.*]
- FitzGerald, Francis A(lexander) J(ames)**, The FitzGerald Laboratories, Niagara Falls, N. Y. **Electro-metallurgy*. Dublin, Ireland, June 1, 70. B.A., Dublin, 92; B.S., Mass. Inst. Tech., 95. Chemist, Carborundum Co, 95-00; Int. Acheson Graphite Co, 00-03; *consulting engineer*, 03- A.A.; Elec. Eng.; Electrochem. Soc. (pres, 16); Franklin Inst.; Faraday Soc. Electric furnaces; electric furnace products; refractories; carbon and graphite electrodes; resistor materials; electro-metallurgical products.
- Fitzgerald, Dr. F(red) F(inley)**, 11th Ave. and St. Charles Road, Maywood, Ill. *Chemistry*. Clarion, Pa, June 27, 82. A.B., Stanford, 05, A.M., 06, Ph.D., 10. Instr. chem., Cooper Med. Col., 06-09; chemist, South. Pacific Ry, 09-12; asst. chemist, bur. chem., U. S. Dept. Agr., 12-13; chemist, Nat. Canners Ass., 13-20; *manager research dept., Am. Can Co*, 20- A.A;

Chem. Soc. Food chemistry; reactions of potassium amid; discoloration of canned food products; viscosity and conductivity of solutions.

FitzGerald, Prof. J(ohn) G(erald), University of Toronto, Toronto, Ont, Can. *Preventive medicine*. Drayton, Ont, Dec. 9, 82. M.B. Toronto, 03, M.D. 20; Harvard Med. Sch., 08-09; Pasteur Inst. Brussels and Paris, 10; Freiburg, 11; LL.D. Queen's (Can.), 25. Pathologist, Hosp. for Insane, Toronto, 07-08; lecturer bacter, Toronto, 09-11; assoc. prof. California, 11-13; assoc. prof. hygiene, Toronto, 13-20, *prof. hygiene and prev. med.*, 20-, *director, Connaught Laboratories*, 13-, *director sch. hygiene*. Int. health board, Rockefeller Foundation. A.A.; Pub. Health Ass; Ass. Path. and Bact; Soc. Exp. Biol; fel. Royal Soc. Can; Can. Med. Ass. Bacteriology; immunity.

Fitzgerald, Prof. Thomas W(itt), Georgia School of Technology, Atlanta, Ga. *Electrical engineering*. Wolf Creek, W. Va., Nov. 16, 85. Diploma, Marshall Col, 05; B.S. West Virginia, 09, E.E., 24; M.S. Emory, 25. Westinghouse Elec. and Mfg. Co, 09-10; maintenance dept, New River and Pocahontas Consolidated Coal and Coke Co, 10-12; instr. Mich. State Col, 12-14; in charge dept. elec. eng. Arizona, 14-18; elec. engineer, Ray Consolidated Copper Co, 18-20; *head dept. elec. eng. Ga. Tech.*, 20- Elec. Eng; Ga. Acad.

Fitzpatrick, Prof. F(rederick) L(inder), Coe College, Cedar Rapids, Iowa. *Zoology*. Iowa City, Iowa, May 6, 00. A.B. Iowa, 19, M.S. 21, Ph.D., 24. Research asst, Iowa, 20-23; asst. prof. biol. Colo. State Teachers Col, 23-24, *head dept.*, 24-25; *head dept. zool. Coe*, 25- A.A.; Wilson Ornith. Club; fel. Iowa Acad. Comparative anatomy and ecology; economic zoology; ecology and economic status of *Citellus tridecemlineatus*.

Fitzpatrick, Prof. H(arry) M(orton), 220 Bryant Ave, Ithaca, N. Y. *Mycology, Plant pathology*. Greenwood, Ind, June 27, 86. Wabash, 05-08; A.B. Cornell, 09, Ph.D., 13. Asst. bot. Cornell, 08-11, *instr. plant path.*, 11-13, asst. prof., 13-22, *prof.*, 22- *Instr.* Harvard, 20-21; summer, Michigan, 20. Assoc. ed. 'Mycologia'; ed. mycol. sect. 'Bot. Abstracts.' Exec. sec'y, Fourth Int. Bot. Congress. A.A.; Phytopath. Soc; Bot. Soc. Sphaeriales; discomycetes; auriculariales; subterranean basidiomycetes; fungi.

Fitzpatrick, Prof. T. J., Station A, Lincoln, Nebr. *Botany*. Centerville, Iowa, April 2, 68. B.S. Iowa, 93, M.S., 95; fellow, Nebraska, 13-18. Prof. math. and bot. Graceland, 95-99; collector, Iowa Hist. Soc, 04-07; prof. math. Graceland, 08-12; science, Cotner, 13-14; *asst. prof. bot. Nebraska, and curator herbarium*, 18- A.A.; Math. Soc; Math. Ass; Bot. Soc; Fern Soc; Torrey Bot. Club; Cooper Ornith. Club; Am. Hist. Ass; fel. Iowa Acad. Flora of Iowa and midland states; bibliography of scientific literature of Iowa.

Flad, Edward, Chemical Building, St. Louis, Mo. *Engineering*. Arcadia, Mo, Nov. 23, 60. C.E., Washington (St. Louis), 81. Water commissioner, St. Louis, 99-03; *mem. Pub. Service*

Commission, Mo, 17-21; *Miss. River Commission*, 24-; *consulting engineer*. Civil Eng. (director, 11); Mech. Eng; St. Louis Eng. Club (past pres).

Flagg, A(rthur) L(eonard), 29 Holly St, Phoenix, Ariz. *Engineering, Geology*. Woonsocket, R. I., June 29, 83. A.B. Brown, 06. Asst. geol. miner. and petrog. Brown, 04-06; assaying, surveying, mining, Ariz, 06-07; mine exam, Mex, 08; mining eng, Santa Cruz Mining Co, 08-12; private practice, Wash, 12; receiver, Kelvin Sultana Copper Co, 13-19; *consulting engineer*, 19- Trustee, Ariz. Museum. A.A. (exec. committee, southwest. div, 20-24, v. pres, 24-26, pres, 27); Min. and Metal. Eng. Economic geology; mining districts; silver ores in Mexico; vanadium in the southwest; geophysical methods for the study of the sub-soil.

Flagg, Frederick P(otter), 20 Floyd St, Waltham 54, Mass. *Chemistry*. Waltham, July 16, 94. B.S. Tufts. *Chief chemist, Waltham Watch Co*, 16- A.A.; Chem. Soc; Soc. Test. Mat; Electrochem. Soc; Min. and Metal. Eng; Soc. Steel Treat. Metallography.

Flammer, Prof. Ernest, Queen's University, Kingston, Ont, Can. *Physics*. San Francisco, Calif, April 18, 80. B.S. California, 03; Munich, 08-12; Berlin, 12-13; Göttingen, 13-15; Ph.D. Harvard, 17. Elec. engineer, 03-07; instr. elec. eng. Wisconsin, 07-08; asst. prof. physics, Queen's (Can), 17-24, *assoc. prof.*, 24- Math. Soc. Mathematical physics.

Flanders, Dr. Fred F(ord), Room 540, State House, Boston, Mass. *Chemistry*. Yolo Co, Calif, Sept. 5, 76. A.B. Wash. Col, 02, A.M., 05; Ph.D. Harvard, 12. Instr. chem, Wash. Col, 02-07; asst. chemist, bur. chem, U. S. Dept. Agr, 07-10; chemist, Mass. Dept. Mental Diseases, 12-17, 21-23; director sardine inspection, Nat. Cannery Ass, 19-21; chemist, *purchase lab, Mass. Dept. Pub. Health*, 23-25, *chief chemist, committee on Admin. and Finance*, 25- Capt, Sanit. C, 17-19. Chem. Soc. (sec'y, div. food and agr. chem). Biological and food chemistry.

Flanders, Ralph E(dward), 41 Pleasant St, Springfield, Vt. *Engineering*. Barnet, Vt, Sept. 28, 80. High sch. Designing engineer, Int. Paper Box Machinery Co, N. H., 03-05; assoc. ed. 'Machinery', N. Y., 05-10; engineer, Fellows Gear Shaper Co, Vt, 10-12; *Jones and Lamson Machine Co, Vt*, 12-15, *manager*, 15-, *director*, 17- Aldred lectureship, Hopkins, 21. Mech. Eng. (publication committee, 20-, chairman, counselor); Machine Tool Builders Ass. (pres, 24); Franklin Inst. Gear tooth curves; screw thread and machine tool design; gear tooth systems; design manufacture and production control of standard machines.

Flannagan, Dr. Roy K(night), State Board of Health, Richmond, Va. *Public health*. Charlottesville, Va, Nov. 23, 70. M.D. Virginia, 94; Harvard, 02; Virginia, 06. Health officer, Charlottesville, Va, 05-10; director inspections, Va. State Board Health, 10-13, district health officer, 13-15, asst. state health commissioner, 15-17, chief health officer, Richmond, 17-18, *asst. state health commissioner*, 18- Lecturer,

Richmond Sch. Social Work and Pub. Health; director surveys, Va. State Board Health, 13-16; Int. Health Board work, Va; Bur. Social Hygiene. Am. Med. Ass; Pub. Health Ass; S. Med. Soc. (chairman, pub. health sect); Richmond Acad. Med; Va. Tuber. Ass. (sec'y, board directors). Rural health organization.

Fleck, Dr. Herman, 1203 Sixteenth St, Santa Monica, Calif. *Chemistry*. Philadelphia, Pa, Dec. 3, 70. Pennsylvania, 86-91; Nat. Se.D, Tübingen, 92. Prof. chem, high sch, Pa, 92-93; instr. org. chem, Pennsylvania, 93-00; chemist and asst. supt, West. Mfg. and Oil Co, 00-01; prof. chem, Colo. Sch. Mines, 03-16; mfg. and practising chem. eng, 16-26; *gen. manager*, Clark Chem. Co, 26- Chem. Soc; West. Ass. Tech. Chem. and Metal; Colo. Sci. Soc; Chem. Gesell. Metallo-organic alkyls; molybdenyl amids; reduction with magnesium amalgam; oxyphosphates; dental chemistry, especially plastic; the technical production of uranium and vanadium; alkali lakes of the San Luis Valley; carnotite deposits of San Miguel and Montrose Counties and vanadium deposits of the Placerville region, Colo; tungsten in Colorado; importance of the rare metals; technical production of barium peroxide and barium oxide; short commercial process for production of radium.

Fleece, Prof. C(harles) L(eslie), Central College, Fayette, Mo. *Organic chemistry*. Campbells-ville, Ky, Feb. 11, 89. A.B, Centre, 10; A.M, Princeton, 12, fellow, 12-13, Ph.D, 26. Asst. chem, Princeton, 10-12, 13-14, instr, 14-19, asst. prof, 19-26; *prof. and head dept*, Central (Mo), 26- Reader, Chem. Col. Ent. Exam. Board, N. Y, 18-26, examiner, 24-26. A.A; Chem. Soc; N. J. Chem. Soc. Reactivity of halogenated ethers.

Fleet, Prof. R(obert) R(yland), Liberty, Mo. *Mathematics*. Urbana, Va, Sept. 16, 70. A.B, William Jewell, 96; Missouri, 98, fellow, 99-00, A.M, 00; Berlin and Heidelberg, 00-03; Ph.D, Heidelberg, 03. *Prof. math*, Clarksburg, 96-98; *William Jewell*, 03- A.A; Math. Soc. Partial differential equations.

Fleisher, Prof. Moyer S(pringer), St. Louis University School of Medicine, St. Louis, Mo. *Bacteriology*. Philadelphia, Pa, May 13, 84. B.S, Pennsylvania, 04, M.D, 07. Asst. exp. path, Pennsylvania, 07-10; path, Barnard Skin and Cancer Hosp, St. Louis, 10-15; asst. prof. bacter, *sch. med*, St. Louis, 15-19, *prof. bacter. and hygiene*, 19- A.A; Ass. Path. and Bact; Soc. Bact; Soc. Exp. Biol; Soc. Exp. Path; Am. Med. Ass; Soc. Cancer Research; St. Louis Acad. Bacteriology; immunity; edema; pathology of the kidneys and of the cardio-vascular system; coagulation of blood; tumor and tissue growth; venom of Heloderma; monilia in human beings; etiology of Psoriasis; absorption in anaphylaxis; physical chemistry of blood in thyroidectomized animals.

Flemer, J(ohn) A(dolph), Oakgrove, Westmoreland Co, Va. *Topography*. New York, N. Y, April 1, 59. Polytech. Sch, Cassel, Germany, 78; C.E, Charlottenburg, 81. Topographer, D. C. Topog. Surv, 82-86; asst, U. S. Coast and

Geod. Surv, 86-00; topog. and landscape engineer, Springfield, N. J, 00-02; engineer to U. S. commissioner for demarcation of Alaskan boundary, 04-06; topog. engineer, Jamaica Bay Improv. Commission, 09-10. Wash. Soc. Eng. Topographical and landscape engineering; photo-topography.

Fleming, J(ames) H(enry), 267 Rusholme Road, Toronto, Ont, Can. *Zoology*. Toronto, July 5, 72. Upper Canada. *Hon. curator ornith*, Nat. Museum of Can, Ottawa, Can, 13- Supt. nat. hist, Ont. Commission, Columbian Expos, 93; hon. curator, Can. Inst, 95-97; Royal Ont. Museum Zool, 27; Canadian rep, Ornith. Cong, Copenhagen, 26; Int. Ornith. Committee, 26. Int. Ornith. Cong, London, 05 (gen. committee). Fel. Ornith. Union (councilor, 23-26, v. pres, 26); Wilson Ornith. Club (exec. council, 11-13); Soc. Mammal; colonial mem. British Ornith. Union; cor. mem. London Zool. Soc. Ornithology and mammalogy; island forms.

Fleming, John A(dam), 36th St. and Broad Branch Road, Washington, D. C. *Physics*. Cincinnati, Ohio, Jan. 28, 77. B.S, Cincinnati, 99. Aid, U. S. Coast and Geod. Surv, 99-03, asst, 03-04, magnetic observer, 04-10; *magnetician*, dept. terrestrial magnetism, Carnegie Inst, 04-, *asst. director*, 25- Ed. sci. results of Ziegler polar exped, 03-05. Geophys. Union (gen. sec'y, 25-). A.A; Physical Soc; Wash. Acad; Wash. Philos. Soc. (sec'y, 16, pres, 25). Terrestrial magnetism.

Fleming, Dr. Walter E(rnest), Riverton, N. J. *Economic entomology*. West Orange, N. J, Jan. 4, 99. B.S, Rutgers, 21, M.S, 22, Ph.D, 24. Insecticide investigator, N. J. Dept. Agr, 21-24; asst. entomologist, *bur. entom*, U. S. Dept. Agr, 24-26, *assoc. entomologist*, 26- A.A; Ass. Econ. Entom; Chem. Soc. Poisons and other methods of destroying the Japanese beetle.

Fletcher, A(ustin) B(radstreet), 511 Willard Building, Washington, D. C. *Engineering*. Cambridge, Mass, Jan. 19, 72. B.S, Harvard, 93. Sec'y and chief exec. officer, Mass. Highway Commission, 93-10; sec'y-engineer, San Diego Co. Highway Commission, 10-11; state highway engineer, Calif, 11-23; road engineer, Joint New Eng. Ry. Committee, 23; *consulting highway engineer*, *bur. pub. roads*, U. S. Dept. Agr, 23- Pres, Calif. State Reclamation Board, 17-23; director pub. works, Calif, 21-23. Mass. delegate, First Int. Road Cong, Paris, 08; Calif. delegate, Third Int. Road Cong, London, 13. A.A; Civil Eng; Soc. Test. Mat; Concrete Inst. Highway engineering and transportation.

Fletcher, Dr. C(harles) C(loyes), U. S. Department of Agriculture, Washington, D. C. *Agronomy*. Jamestown, N. Y, Aug. 29, 83. M.D, Nat. Univ, 03; George Washington. *Scientist*, *bur. soils*, U. S. Dept. Agr, 06- A.A; Soc. Agron; Chem. Soc. Fertilizers; soil amendments.

Fletcher, Dr. Harvey, 463 West St, New York, N. Y. **Physics*. Provo, Utah, Sept. 11, 84. B.S, Brigham Young, 07; fellow, Chicago, 10-11, Ph.D, 11. Instr. *physics*, Brigham Young, 07-08; Chicago, 09-10; prof, Brigham Young, 11-16; *research lab*, Bell Telephone Lab, 16-

Summers, prof, Chicago, 13, lecturer, Michigan, 25. Louis Edward Levy medal, Franklin Inst, 24. A.A; Physical Soc; Elec. Eng; N. Y. Elec. Soc; Utah Acad. (pres, 14). Brownian movements; gaseous ionization; determination of elementary electrical charge and Avogadro's constant; Stokes' law of fall of small particles; physical measurements of audition; loudness of a complex sound.

Fletcher, Prof. John M(adison), Sharondale Drive, Nashville, Tenn. *Psychology*. Murfreesboro, Tenn, June 27, 73. A.B, Vanderbilt, 01; A.M, Colorado, 04; fellow, Clark, 10-11, Ph.D, 12. Asst. educ, Colorado, 05-06; philos, Stanford, 09-10; lecturer psychol, Clark, 11-12; asst. prof. exp. and clin. psychol, Tulane, 12-14, prof. psychol. and head dept, 14-24, head dept. educ, 19-23, acting dean grad. dept, 19, dean, 20-24; prof. psychol, Vanderbilt, lecturer med. psychol, sch. med, 24- A.A; Psychol. Ass; S. Soc. Philos. and Psychol. (v. pres, 19, pres, 20); New Orleans Acad. (pres, 16). Pathology of speech.

Fletcher, Prof. L(eonard) J, Peoria, Ill. *Agricultural engineering*. Chadron, Nebr, May 1, 91. B.S, Iowa Col, 15. Instr. agr. eng, Wash. Col, 15-16; head agr. eng. div, col. agr, California, 16-27; agr. engineer and director agr. dept, Caterpillar Tractor Co, 27- Chairman, Calif. State Committee, Relation of Elec. to Agr, 25-27. Agr. Eng. (v. pres, 24). The application of power to agriculture; research and teaching methods in agricultural engineering.

Fletcher, Prof. Robert, Dartmouth College, Hanover, N. H. *Civil engineering*. New York, N. Y, Aug. 23, 47. Col. City of N. Y, 61-64; grad, U. S. Mil. Acad, 68; hon. A.M, Dartmouth, 71, Ph.D, 81. Instr. math, U. S. Mil. Acad, 69-70; prof. civil eng. and director, Thayer Sch. Civil Eng, Dartmouth, 71-18, emer. prof, 18- Pres. and engineer, Hanover Water Works Co, 93-; inspector bridges, Vt. Ry. Commission, 88; mem. N. H. Board Health, 95-, pres, 15-; consulting engineer, bridges, water works and sewerage works, 02-09. Civil Eng; Eng. Educ. (pres, 01). Surveying; bridgetruss analysis; hydraulics; engineering education; sanitary engineering.

Fletcher, Prof. S(tevenson) W(hitcomb), State College, Pa. *Horticulture*. Littleton, Mass, Sept. 10, 75. B.S, Mass. Col, 96; M.S, Cornell, 98, fellow, 98-99, Ph.D, 00. Prof. hort, Wash. State, and horticulturist, Exp. Sta, 00-02; West Virginia, 02-03; asst. prof. exten. teaching agr, Cornell, 03-05; prof. hort, Mich. State Col, 05-07; director, Va. Exp. Sta, 07-14; prof. hort, Pa. State, and horticulturist, Exp. Sta, 17- Soc. Hort. Sci. Strawberry growing; soils.

Flexner, Dr. Simon, Rockefeller Institute, New York, N. Y. *Pathology*. Louisville, Ky, March 25, 63. M.D, Louisville, 89; fellow, Hopkins, 92-93, LL.D, 15; Strassburg and Prague, 96; hon. Sc.D, Harvard, 06, Yale, 10, Princeton, 13; LL.D, Maryland, 07, Brown, 15, Washington (St. Louis), 15, Cambridge, (Eng), 20; Dr, Strassbourg, 23. Assoc. path, Hopkins, 94, assoc. prof, 95-98, prof. path. anat, 98-99; path, Pennsylvania, 99-03; di-

rector laboratories, Rockefeller Inst, 03- Director, Ayer Clin. Lab, Pa. Hosp, 01; Huxley lecturer, Charing Cross Hosp. Med. Sch, 12; Hamilton lecturer, Smithsonian Inst, 12. Hopkins Commission, Philippines, 99; Nat. Plague Commission, 01. Cameron prize, Edinburgh, 11. Nat. Acad; A.A. (v. pres, 01, pres, 20); Ass. Path. and Bact; Am. Physicians; Am. Med. Ass; Soc. Exp. Biol. (pres, 06); Harvey Soc. (pres, 10); Philos. Soc; Am. Acad; N. Y. Acad. Med; Royal Soc. London; Royal Soc. Trop. Med. and Hyg; Paris Acad. Med; Soc. biol. de Paris; Soc. med. des Hôp. Paris; Soc. de Path. exot; Acad. Royale de med. de Belg; Soc. Royale de Sci. Med; Soc. Belge de Biol; Soc. Belge de Med. Trop; Imp. Inst. Exp. Therap, Frankfurt; Bataafsche Genootschap de Profondervindelijke Wijsbegeerte, Rotterdam; Halle Acad. der Naturforscher; Swedish Med. Soc; Copenhagen Med. Soc; Vienna Gesell. Ärzte; Caracas Acad. Med; Soc. Argentina de Biol; Bologna Medico-Chirurg. Soc; Micro-Biol. Soc. Leningrad; Royal Danish Sci. Soc; Soc. Med. Guir. de Guyas, Guayaquil. Pathology of toxalbumin intoxication; biochemical constitution of snake vescoms; experimental pancreatitis and fat necrosis; epidemic cerebrospinal meningitis and its serum treatments; cause, mode of transmission and serum treatment of poliomyelitis; experimental epidemiology; epidemic encephalitis.

Flick, Fulton B(rooks), Aluminum Company of America, New Kensington, Pa. *Chemistry*. Dallas, Texas, Dec. 2, 95. B.S, Iowa Col, 19, M.S, 21, Ch.E, 22. Asst. chem, Iowa Col, 19-22; research chemist, Aluminum Co. of Amer, 22- Metallography of aluminum and its light alloys; soldering aluminum.

Flinn, Alfred D(ouglas), 29 W. 39th St, New York, N. Y. *Civil engineering*. New Berlin, Pa, Aug. 4, 69. B.S, Worcester, 93. Asst. engineer, Metropolitan Waterworks, Boston, 95-02; instr. water supply and sewerage, Harvard, 00-02; managing ed, 'Eng. Record,' 02-04; deputy chief engineer, N. Y. Board Water Supply, Catskill Aqueduct, 05-18; sec'y, United Eng. Soc, 18-; sec'y, Eng. Foundation, 18-22, director, 22- Chester S. Lyman lecturer, Yale, 21. Sec'y, Eng. Council, 18-22; Nat. Research Council, 18-23. Civil Eng. (director, 17-22); Min. and Metal. Soc; Soc. Test. Mat; Water Works Ass; Math. Soc; hon. for. mem. Masaryk Acad, Czecho-Slovakia. Brasses and Portland cement concrete in waterworks; waterworks problems.

Flinn, Prof. Frederick B, 437 W. 59th St, New York, N. Y. *Physiology*. Reedsville, Pa, Sept. 16, 76. A.B, Hopkins, 00; Ph.D, Columbia, 23. Consulting metallurgist, Cia. Metal. Mexicana, 00-16; assoc. physiologist, U. S. Pub. Health Service, 19-24; asst. prof. physiol, Columbia, 24- Soc. Exp. Biol; Chem. Soc; fel. N. Y. Acad. Med. Effect of environmental temperature; fatigue; industrial toxicology.

Flint, Dr. E(dward) R(awson), U. S. Department of Agriculture, Washington, D. C. *Chemistry, Medicine*. Boston, Mass, Sept. 8, 64. B.S, Mass. Col, 87; Ph.D, Göttingen, 92; M.D, Harvard, 03; LL.D, Florida, 19. Asst. chemist,

Hatch Exp. Sta, Amherst, 87-90; asst. prof. chem, Mass. Col, 93-99; prof, Florida, 04-17; *administrative and sci. asst. office of exp. stations, U. S. Dept. Agr, 17-*, chemist, Exp. Sta, 04-05. Fertilizer experiments with citrus fruits.

Flint, Dr. Joseph Marshall, Room 804, 185 Church St, New Haven, Conn. **Anatomy, Surgery*. Chicago, Ill, July 8, 72. B.S, Chicago, 95; A.M, Princeton, 00; M.D, Hopkins, 00; hon. A.M, Yale, 07. Assoc. anat, Chicago, 00-01; *prof*, California, 01-07; *surg, Yale, 07-* Summer, asst, Chicago, 97. Asst, Hopkins Med. Commission to Philippines, 99; acting asst. surgeon, Marine Hosp. Service, San Francisco, 01; attending surgeon, New Haven Hosp, 07-; surgeon-in-chief, New Haven Dispensary, 07-Ed, 'Am. Jour. Anat,' 04-07. In command 6th surg. div, Arsakeion Hosp, Athens, Graeco-Bulgarian War; commanding officer, Hosp. 32, Chateau de Passy, France, 16; commanding officer, Mobile Hosp. 39, U.S.A., 17-19; liaison officer to French war office, U.S.A., 18; Officier de l'Instruction Pub, 19; citation for distinguished and meritorious services, U.S.A., 19. D.S. medal, 19. A.A.; Ass. Anat. (v. pres, 04); Col. Surg; Anthropol. Soc; Wash. Yellow Fever Inst; Manila Med. Soc; Vienna Physiol. Gesell. Suprarenal bodies; salivary glands; development of the blood vessels in organs; form of joint cavities; connective tissue; development of lung; intestinal anastomosis; hypertrophy of the intestine; healing of gastro-enterostomy; surgery of the lungs; empyaema; stitch ulcers in gastro-intestinal surgery.

Flint, Dr. Richard Foster, Yale University, New Haven, Conn. *Geology*. March 1, 02. B.S, Chicago, 22, Ph.D, 25. Asst. *geol*, Chicago, 22-25; *instr*, Yale, 25- Areal and historical geology.

Flint, W(esley) P(illsbury), State Entomologist Building, Urbana, Ill. *Economic entomology*. South Hampton, N. H, May 4, 82. New Hampshire. Mass. Gipsy Moth Commission, 06-07; H. L. Frost and Co, 07-08; State Entomologist's Office, Ill, 08-18; *chief entomologist, Nat. Hist. Surv*, 19- Consulting entomologist, Ill. Exp. Sta. A.A; fel. Entom. Soc; Ass. Econ. Entom; Crop Protection Inst. (trustee); Ill. Acad. Insect pests of field crops and orchards; chinch-bug; codling moth; San Jose scale.

Flint, Dr. William R(uthven), Union League Building, Los Angeles, Calif. *Chemistry*. McIndoes Falls, Vt, April 12, 75. A.B, Yale, 98, A.M, 06, Ph.D, 09. Prof. chem, Maryville, 10-11; inorg. and anal. chem, Calif. Inst. Tech, 11-14; research in photographic chem, Mt. Wilson Observatory, 15; *consulting chem. engineer*, 16- Chem. Soc; Cooper Ornith. Club; Sierra Club. Complexity of tellurium.

Flodin, Prof. John, University of Minnesota, Minneapolis, Minn. *Mechanical engineering*. Helsingfors, Finland, July 3, 83. B.S, Washington (Seattle), 13, M.E, 19; A.M, Minnesota, 25. Marine design, 13-23; *asst. prof. mech. eng, Minnesota, 23-* Mech. Eng; Naval Archit; Eng. Educ. Analysis of strength of Isherwood system of ship construction; stresses in tripod masts; deflection and strength of slop-

ing beams; educational psychology; mechanics of materials.

Florence, Dr. Laura, N. Y. Homeopathic Medical College and Flower Hospital, 64th St. and Ave. A, New York, N. Y. *Histology, Embryology*. Aberdeen, Scotland, June 17, 82. M.A, Aberdeen, 07, B.Sc, 09, Carnegie research scholar, 09-11, fellow, 11-13, grantee, 13-14; A.M, Stanford, 16; Ph.D, Cornell, 20. Asst. biol. and entom, Cornell, 17-18; asst, Rockefeller Inst, 18-22, assoc, 22-25; *asst. prof. histol. and embryol, N. Y. Homeop. Med. Col. and Flower Hosp, 25-* A.A; Ass. Anat; Soc. Exp. Biol; Entom. Soc; Harvey Soc. Entomology; microscopic anatomy.

Flowers, Alan E(stis), De Laval Separator Co, Poughkeepsie, N. Y. *Engineering*. St. Louis, Mo, Oct. 4, 76. M.E, Cornell, 02, M.M.E, 14, fellow, Ph.D, 15. With Westinghouse Elec. and Mfg. Co, 03-04; instr. elec. eng, Missouri, 04-06, asst. prof, 06-12; prof, Ohio State, 12-18; test engineer, Nat. Aniline and Chem. Co, 19-22; manager, Chem. Machinery Construction Co, 22-23; *engineer in charge development, De Laval Separator Co, 23-* Design office, Bullock Elec. Mfg. Co, 07; asst. supt, light and heat sta, Missouri, 08-; engineer, Telluride Power Co, 09. Asst. ed, 'Electric Jour,' 04. Capt, Sig.C, 18-19. Physical Soc; Elec. Eng; Mech. Eng; Eng. Educ; Soc. Test. Mat; Soc. Steel Treat; Acad. Polit. Sci. Solid contact rectifiers; oil friction testing machines; ball and slanted tube viscosimeter.

Floyd, B(ayard) F(ranklin), Wilson and Toomer Fertilizer Co, Jacksonville, Fla. *Botany*. Kempton, Ind, March 18, 82. A.B, Indiana, 05; A.M, Missouri, 07. Asst. bot, Missouri, 05-07; plant physiologist, Fla. Exp. Sta, 07-20; *v. pres. and horticulturist, Wilson and Toomer Fertilizer Co, 20-* A.A; Bot. Soc; Soc. Hort. Sci; Fla. Hort. Soc. (sec'y). Plant physiology; normal and mal-nutrition in tropical and sub-tropical plants; fertilizers for citrus trees and avocados.

Floyd, Dr. Cleaveland, 246 Marlborough St, Boston, Mass. *Bacteriology*. Providence, R. I, Oct, 80. M.D, Harvard, 03. Director clinic, Boston Sanatorium. Ass. Path. and Bact; Soc. Immunol; Climat. Ass; Am. Med. Ass.

Floyd, Prof. W(ilbur) L(eonidas), University of Florida, Gainesville, Fla. *Horticulture*. Nichols, S. C, April 6, 66. B.S, Citadel, 86; M.S, Florida, 06. Prof. nat. science, E. Fla. Sem, 92-05; bot. and hort, Florida, 05-15, hort. and asst. dean col. agr, 15- A.A; Soc. Hort. Sci; Fla. Hort. Soc. Avocado culture; deciduous fruits and peach growing in Florida.

Fluke, Prof. C(harles) L(ewis), Jr, University of Wisconsin, Madison, Wis. *Entomology*. Grand Junction, Colo, Aug. 7, 91. B.S, Colo. Agr. Col, 16; M.S, Wisconsin, 18. Deputy, Colo. Agr. Col, 16; *asst. prof. entom, Wisconsin, 16-* Economic and systematic entomology; Syrphidae; grasshoppers; codling and pea moth; pea aphid.

Focke, Prof. Theo(dore) M(oses), Case School of Applied Science, Cleveland, Ohio. *Mathematical*

- physics.* Massillon, Ohio, Jan. 3, 71. B.S., Case, 92; Ph.D., Göttingen, 98. Instr. math., Case, 92-93; physics, Oberlin, 93-96; *math.*, Case, 98-02, asst. prof., 02-08, *Kerr prof.*, 08-, *dean.*, 18-A.A.; Math. Soc.; Math. Ass.; Eng. Educ. Heat conductivity; coefficient of expansion; alloys of nickel and cast iron; heat conductivity of fire bricks.
- Foerste, Dr. Aug(ust) F(rederick)**, 129 Wroe Ave., Dayton, Ohio. *Geology.* Dayton, May 7, 62. A.B., Denison, 87; A.M., Harvard, 88, Ph.D., 90; Heidelberg and Paris, 90-92. *Teacher physics, Steele High Sch.*, 93- Asst. U. S. Geol. Surv., 87-91, 95; Ohio Geol. Surv., 92, 08-10, 18-19; Ind. Geol. Surv., 96, 97, 99; asst. geologist, Ky. Geol. Surv., 04-12. Geol. Soc.; Paleont. Soc.; Ohio Acad. Morphology of phanerogams; relations between flowers and insects; Cincinnati and Silurian geology; Paleozoic formations within the area traversed by the Cincinnati geanticline; Ordovician and Silurian cephalopods and cystids; Arctic fossil cephalopods.
- Fogler, Dr. Mayor F(arthing)**, Solvay Club, Syracuse, N. Y. *Chemistry.* Loogootee, Ill., Nov. 15, 97. B.S., Illinois, 20, M.S., 21, Ph.D., 23. Development engineer, West. Elec. Co., Chicago, 23-25; *assoc. chem.*, fixed nitrogen research lab., U. S. Dept. Agr., 25-26; *Atmospheric Nitrogen Corp.*, 26- Chem. Soc. Physical properties of metals; oxides of nitrogen.
- Foglesong, Dr. John E(dward)**, Trinity College, Hartford, Conn. *Chemistry.* Lucerne, Ind., July 20, 85. A.B., Wabash, 10; A.M., Ohio State, 12; Ph.D., Cornell, 19. Commercial chemist, 12-16; asst. chem., Cornell, 16-17, instr., 17-19; research chemist, Barrett Co., 19-21; asst. prof. chem., Univ. of South, 21-22, *assoc. prof.*, 22-23; *asst. prof.*, Trinity (Conn.), 23- Chem. Soc. Physical and inorganic chemistry.
- Fohs, F(erdinand) Julius**, 51 E. 42d St., New York, N. Y. *Geology.* New York, March 1, 84. Columbia, 09. Mine supt., Ky., 01; asst. field geologist, U. S. Geol. Surv., 02; engineer in charge mines, Ky., 02-05, asst. state geologist, 05-12; *specialist, oil-finding*, 12-; *consulting geologist and executive, Humphreys Corporation, Olean Petrol. Co. and Red Bank Oil Co.*, 14- Lecturer, Kentucky, 06-08; Columbia, 27. Investigator natural resources, Palestine, 19-20. Ed., 'Petrol. Div. and Tech.', 25. A.A.; Geol. Soc.; Ass. Petrol. Geol.; Min. and Metal. Eng. (past chairman, petrol. div., v. pres. and director, 27-); Am. Geog. Soc.; N. Y. Acad. Mineral resources; oil fields.
- Foley, Prof. Arthur L(ee)**, Bloomington, Ind. **Physics.* Hancock Co., Ind., Feb. 22, 67. Cent. Nor. Col., 82-87; Hayward, 86-87; A.B., Indiana, 90, A.M., 91; Chicago, 94; fellow, Cornell, 96-97, Ph.D., 97; Europe, 08. Teacher, pub. schools, 84-86, 87-88; instr. physics, Indiana, 90-91, *assoc. prof.*, 91-97, prof. and head dept., 97-27; *chairman, Bur. Science Service, Indiana Univ.*, 27- Research prof., Waterman Inst., 17-25; director research, physics, affiliated colleges, Ind., 17- Acoustic committee, Nat. Research Council, 19-21; cooperating expert, Int. Critical Tables. A.A.; Physical Soc.; fel. Ind. Acad. (pres., 09, ed., 'Proc.', 12, chairman, research committee, 23-); Sigma Xi (pres., 04). Surface tension; arc spectra; interference and diffraction; photographic studies of sound waves and electric sparks; velocity of sound; locomotive whistles; acoustic horns; microphones; architectural acoustics.
- Foley, Dr. James Owen**, 1318 Nashville Ave., New Orleans, La. *Cytology.* Erie, Kans., March 1, 97. B.S., Oregon Col., 19, M.S., 21; Ph.D., Wisconsin, 25. Asst. zool., Wisconsin, 21-25; *instr. micros. anat. sch. med., Tulane*, 25- Microscopic anatomy; spermatogenesis of *Umbra limi*; cytology of fishes.
- Folin, Dr. Otto (Knut Olof)**, 133 Buckminster Road, Brookline, Mass. **Physiological chemistry.* Asheda, Sweden, April 4, 67. B.S., Minnesota, 92; Ph.D., Chicago, 98, hon. Sc.D., 16; Washington (St. Louis), 15; hon. M.D., Lund, 18; Upsala, Berlin and Marburg, 97-98. Commercial chemist, Chicago, 99; asst. prof. chem., West Virginia, 99-00; research chemist, McLean Hosp., 00-07; *assoc. prof. biol. chem., Harvard Med. Sch.*, 07-09, *prof.*, 09- Nat. Acad.; Chem. Soc.; Physiol. Soc.; Soc. Pharmacol.; Soc. Exp. Biol.; Soc. Biol. Chem. (v. pres., 08, pres., 09). Technique of urine analysis; laws governing the chemical composition of urine; metabolism in the insane; preponderance of acid or of basic inorganic constituents in urine; protein metabolism; blood analysis; uric acid.
- Folkmar, Dr. Daniel**, 1730 I St., N. W., Washington, D. C. *Anthropology.* Roxbury, Wis., Oct. 28, 61. A.B., Leander Clark, 84, A.M., 88; fellow, Clark, 90; D.ès-Sc. Soc., Université Nouvelle, Brussels, 99; certificate, Ecole d'Anthropologie de Paris, 99; D. de l'Université de Paris, 00. Prof. psychol., Milwaukee State Nor. Sch., 95-98; anthrop., Université Nouvelle, Brussels, 98-01; anthropologist and lieut. governor, Bontoe, P. I., 03-06; immigrant inspector and special agent, Immigration Commission of U. S., 07-09; *chief sect. on foreign-born and Indians*, 13th Census, 10-20, *14th Census*, 20- A.A.; Anthrop. Ass.; Statist. Ass.; cor. mem. Wash. Anthrop. Soc. (sec'y, 15). Educational and racial statistics; dictionary of immigrant races; Philippine ethnology; Igorot social institutions and law.
- Follansbee, Robert**, 403 Post Office Building, Denver, Colo. *Engineering.* Minneapolis, Minn., June 7, 79. C.E., Cornell, 02. U. S. Geol. Surv., 04-, *dist. engineer in charge surface water investigations*, 06- Civil Eng. Rocky Mountain region surface water supply, annual runoff and floods.
- Folsom, Dr. D(onald)**, Orono, Maine. *Plant pathology.* Henderson, Iowa, Oct. 23, 91. A.B., Nebraska, 12; A.M., Minnesota, 14, Ph.D., 17. Asst. bot., Minnesota, 12-17; instr. bot. and plant path., N. C. State, 17-18; asst. plant pathologist, *Maine Exp. Sta.*, 18-20, *assoc. plant pathologist*, 20-23, *chief plant pathologist*, 23- A.A.; Bot. Soc.; Phytopath. Soc.; Potato Ass. Degeneration; potato, apple and virus diseases.
- Folsom, Prof. Joseph K(irk)**, Sweet Briar, Va. *Sociology, Psychology.* Poundridge, N. Y.,

- Sept. 29, 93. B.S., Rutgers, 13; A.M., Clark, 15; Ph.D., Columbia, 17. Instr. physics, St. Lawrence, 14; asst. prof. social econ, Pittsburgh, 19-20; econ, Dartmouth, 22-24; *prof. econ. and sociol., Sweet Briar, 24-* Summers, Boston, 24; N. C. Col. for Women, 26. Regional educ. director, Y. M. C. A., Czecho-Slovakia, 20-21. Psychol. examiner, U.S.A., 18-19; collaborator social econ, Czecho-Slovak Govt. Sociol. Soc. Statistical study of character; mental tests; rating scales; social surveys and statistics.
- Folsom, Dr. J(ustus) W(atson)**, Delta Laboratory, Tallulah, La. *Entomology*. Cambridge, Mass, Sept. 2, 71. B.S., Harvard, 95, Sc.D., 99. Prof. nat. science, Antioch, 99-00; instr. entom, Illinois, 00-06, assoc. 06-08, asst. prof. 08-23; *assoc. entomologist, bur. entom., U. S. Dept. Agr., 25-27, entomologist, 27-* Asst., Harvard. A.A.; Entom. Soc. (v. pres, 19); Ecol. Soc.; Soc. Econ. Entom.; Cambridge Entom. Club (pres, 00). Anatomy, physiology, embryology and ecology of insects; systematic entomology; Collembola and Thysanura; cotton insects.
- Folwell, Dr. A(mory) Prescott**, Montclair, N. J. *Civil engineering*. Rondout, N. Y., Jan. 15, 65. A.B., Brown, 85; Mass. Inst. Tech., 88; Sc.D., Lafayette, 07. Practising civil engineer, 88-97; instr. civil eng., Lafayette, 97-99, assoc. prof. munic. eng., 99-04, prof., 04-06; *ed., 'Munic. Jour. and Engineer,' 06-20; 'Pub. Works,' 20-* Civil Eng.; Soc. Munic. Improv. (pres, 04); Eng. Educ.; Water Works Ass.; New Eng. Water Works Ass. Sewer design and construction; municipal sanitation; flow of water in pipes, tubes and jets; law of flow of water from orifices and standard tubes; municipal refuse disposal.
- Fonda, Dr. G(orton) R(osa)**, General Electric Co., Schenectady, N. Y. *Engineering*. New York, N. Y., Nov. 27, 84. B.S., N. Y. Univ., 07, A.M., 08; Dr. Ing., Karlsruhe, 10. *Research chemist, research lab, Gen. Elec. Co., 10-* A.A.; Chem. Soc. Kinetics of reactions; incandescent lamps.
- Fondiller, William**, 463 West St., New York, N. Y. *Electrical engineering*. Russia, Dec. 21, 85. B.S., Col. City of N. Y., 03; E.E., Columbia, 09, A.M., 13. Eng. dept., West. Elec. Co., 09-25, *in charge gen. development lab, Bell Telephone Laboratories, 25-* Elec. Eng.; Soc. Test. Mat. Loading of telephone lines; magnetic properties of iron.
- Food, Prof. J(ames) A(lfred)**, Massachusetts Agricultural College, Amherst, Mass. *Agriculture*. Portsmouth, Eng., Oct. 30, 72. B.S., New Hampshire, 98; M.S.A., Cornell, 02. Prof. agr., Del. Col., 03-06; assoc. prof. agron., Ohio State, 06-07; *Mass. Col., 07-08, prof. farm management and head div. agr., 08-* A.A.; Soc. Agron.; Farm Econ. Ass. Animal husbandry; farm management.
- Foot, Miss Katharine**, 31 Brookfield, West Hill, London, N 6, Eng. **Zoology*. Geneva, N. Y., Oct. 14, 52. Private schools. Soc. Nat.; Soc. Zool. Cytology; maturation and fertilization of the egg of *Allolobophora fetida*; spermatogenesis and oogenesis of Hemiptera.
- Foot, Dr. N(athan) C(handler)**, Cincinnati General Hospital, Cincinnati, Ohio. *Pathology*. New York, N. Y., July 27, 81. A.B., Harvard, 03; M.D., Columbia, 07. Intern., N. Y. Hosp., 08-09; voluntärsst. path., Munich, Jena, Berlin, 10-12; asst. instr., Harvard Med. Sch., 12, instr., 13-19, comp. path., 19-22; asst. prof. path., col. med., Cincinnati, 22-24, *assoc. prof., 24-*; *asst. director path. service, Cincinnati Gen. Hosp., 22-* A.A.; Soc. Exp. Path.; Ass. Path. and Bact.; Am. Med. Ass.; Ornith. Union; Cincinnati Acad. Med.; Boston Soc. Nat. Hist.; Boston Hort. Soc.; Int. Ass. Med. Mus. General and comparative pathology; growth of chicken bone marrow in vitro; Rocky Mountain spotted fever; the endothelial phagocyte in inflammation and repair; reticulum; teratology; amyotonia congenita; laboratory methods; Gaucher's disease.
- Foot, Prof. F(rancis) S(eeley)**, University of California, Berkeley, Calif. *Civil engineering*. Brooklyn, N. Y., March 31, 83. E.M., Columbia, 05. Engineer, coal, timber and railway companies, 05-07; asst. civil eng., Columbia, 07-10; instr. railway eng., Illinois, 10-12; assoc. prof., California, 12-17, *prof., 17-* Director summer sch. of surv., California, 12- Assoc. Civil Eng.; Ry. Eng.; Eng. Educ.
- Foot, Prof. H(arry) W(ard)**, 209 Livingston St., New Haven, Conn. **Chemistry*. Guilford, Conn., March 21, 75. Ph.B., Yale, 95, Ph.D., 98; Leipzig, 99-00. Asst. prof. chem., Yale, 04-12, *prof., 12-* Chem. Soc.; Conn. Acad.; Royal Geog. Soc. Inorganic and physical chemistry; mineralogy.
- Foot, Dr. H(erbert) Elliott**, 1285 M. H. del Pilar, Manila, P. I. *Chemistry*. Winchester, Mass., Aug. 15, 92. Ph.B., A.M., Brown, 14, Ph.D., 17. Chemist, E. I. du Pont de Nemours and Co., 17-18; research chemist, Indust. Chem. Co., Providence, R. I., 19-21; Picatinny Arsenal, 21-22; Bur. Science, P. I., 23-25; *asst. manager, Negros plants, Philippine Motor Alcohol Corp., 25-* Research chemist, U. S. Bur. Mines, 18. Lieut. ordnance dept., 18-19. Chem. Soc. Organic chemistry; anthraquinone compounds; cyanids; motor alcohol.
- Foot, Dr. J(ohn) A(mbrose)**, 1861 Mintwood Place, Washington, D. C. *Pediatrics*. Archibald, Pa., June 9, 74. M.D., Georgetown, 06, hon. A.M., 25. Prof. mat. med., Georgetown, 06-10, asst. prof. anat., 10-13, med., 15-18, *prof. pediat., 18-* Fel. Am. Med. Ass.; Child Health Ass. (director, ed., 'Bul.,' 21-24); Ass. Teachers of Diseases of Children (pres, 23); fel. Royal Geog. Soc.; Gesell. für Gesch. Med. und Naturwissensch.; Soc. d'Hist. de Méd.; Soc. géog. de France. History of medicine; diseases of the newborn; mental hygiene.
- Foot, Dr. Paul D(arwin)**, Bureau of Standards, Washington, D. C. **Physics*. Andover, Ohio, March 27, 88. A.B., Western Reserve, 09; A.M., Nebraska, 11; Ph.D., Minnesota, 17. Asst. physics, Nebraska, 09-11; lab. asst., Bur. Standards, 11-13, asst. physicist, 13-16, assoc. physicist, 16-19, *physicist, 19-* See'y, pyrometry committee, Nat. Research Council, 19-21, chairman, committee on ionization

- potentials, 22-25, mem. spectros. and exec. committees, 24-26; div. Physical Soc, 23-26; Int. Union Pure and Applied Physics, 23- Physical Soc; Optical Soc. (sec'y, 20, ed-in-chief, 'Jour,' 20-); Franklin Inst. (assoc. ed, 'Jour,' 24-); Wash. Philos. Soc; Wash. Acad; Physik. Gesell; Soc. de Physique. Pyrometry; magnetooptics; critical potentials; radiation; absorption; photoelectric effect; spectroscopy; atomic structure.
- Foraker, Prof. F(orest) A(imos)**, 1313 Macon Ave, Pittsburgh, Pa. *Mathematics*. Sharon, Ohio, Dec. 26, 81. B.S. Ohio Northern, 03, M.S., 05; Chicago, 07; Columbia, 11. Fairmount Acad, 04-08; Bradley Polytech, 08-12; *prof. math, Pittsburgh, 12- A.A.; Math. Soc; Math. Ass; Eng. Educ.* Cubic and quartic curves.
- Forbes, Dr. Alexander**, Harland St, Milton, Mass. **Physiology*. Milton, May 14, 82. A.B. Harvard, 04, A.M., 05, M.D., 10; Liverpool, 11-12. Instr. *physiol, Harvard Med. Sch.*, 10-11, 12-21, *assoc. prof.*, 21- A.A.; *Physiol. Soc; Am. Med. Ass; Am. Acad; Boston Soc. Med. Sci; Boston Soc. Nat. Hist.* The psycho-galvanic reflex; physiology of the central nervous system; reflex inhibition; electro-physiology of the nervous system; conduction of the nerve impulse.
- Forbes, Dr. Charles S(avage)**, 68 William St, New York, N. Y. *Mathematics*. Warren, Mass., July 8, 79. A.B. Columbia, and diploma, Teachers Col, 01, A.M., 03, Ph.D., 04. Asst. math, Columbia, 01-04; statistician and supt, liability dept, Casualty Co. of Amer, 04-17; *consulting actuary, 17-; sec'y-treas, Smyth, Sanford and Gerard, Inc.*, 19- Reader, Col. Ent. Exam. Board, 03-04. *Math. Soc; assoc. Actuarial Soc.* Geometry of circles orthogonal to a given sphere.
- Forbes, Dr. E(rnest) B(rowning)**, State College, Pa. *Animal nutrition*. Normal, Ill., Nov. 3, 76. B.S., Illinois, 97, B.S.A., 02; Ph.D., Missouri, 08. Asst. zool, Ill. Biol. Sta, 94-96; asst. to state entomologist, Minn., 97-98; zool. asst, Ill. State Lab. Nat. Hist., 99-01; acting state entomologist, Minn., 01; asst. animal husbandry, Ill. Exp. Sta, 01-02; instr, Illinois, 02-03; asst. prof, Missouri, 03-07; chief dept. nutrition, Ohio Exp. Sta, 07-20; specialist nutrition, United Chem. and Org. Products Co, 20-21; *director dept. nutrition, Inst. Am. Meat Packers*, 21; *inst. animal nutrition, Pa. State*, 21- Chairman subcommittee on animal nutrition, Nat. Research Council, 22-26. Major, Sanit.C, 18-19. A.A.; *Physiol. Soc; Soc. Animal Production (pres, 14-16); Dairy Sci. Ass; Physiol. Soc; Chem. Soc; Hist. Sci. Soc.* Mineral and energy metabolism of animals; net energy values of feeds.
- Forbes, Prof. G(eorge) S(hannon)**, Harvard University, Cambridge, Mass. **Chemistry*. Boston, Mass., March 17, 82. A.B. Harvard, 02, A.M., 04, Ph.D., 05; Leipzig and Berlin, 06-07. Austin teaching fellow physical chem, Harvard, 04-05, lecturer, 05-06; assoc. chem, Bryn Mawr, 07-09; instr. physical chem, Harvard, 09-10, *chem*, 10-13, asst. prof, 13-20, assoc. prof, 20-26, *prof*, 26- Assoc. Radeliffe, 17-20.
- A.A.; Chem. Soc; Electrochem. Soc; Am. Acad. Electrochemistry; atomic weights; photochemistry; concentration effects in solutions.
- Forbes, Dr. Henry S(tone)**, Forest St, Milton, Mass. *Medicine*. Milton, May 27, 82. A.B., Harvard, 05, M.D., 11. Intern, Boston City Hosp, 11-13; Peter Bent Brigham Hosp, 13-14; physician, infirmary, California, 14-15; sanit. commission, Am. Red Cross, Serbia, 15-16; Anglo-Am. physiol. exped, Peru, 21-22; *research fellow neuropath, Harvard Med. Sch.*, 25- M.C. U.S.A., 17-19. A.A.; Am. Med. Ass. Ultra-violet light and heat effect on protoplasm; effects of carbon monoxid poisoning; asphyxial headache; cerebro-spinal fluid; cerebral blood circulation.
- Forbes, R(eginald) D(underdale)**, 326 Custom House, New Orleans, La. *Forestry*. Morristown, N. J., July 8, 91. A.B., Williams, 11; M.F., Yale, 13. Forest asst, U. S. Forest Service, 13-16; asst. state forester, N. J., 16-17; state forester, La, 17-21; *director, South. Forest Exp. Sta, U. S. Forest Service*, 21- Sec'y, South. Forestry Cong, 21-24. A.A.; Soc. Foresters. Silvical research; forest protection, management and mensuration.
- Forbes, Dr. R(obert) H(umphrey)**, Koulikoro, Soudan Française, French West Africa. *Agriculture*. Cobden, Ill., May 15, 67. B.S., Illinois, 92, M.S., 96; Harvard, 93-94; Ph.D., California, 16; hon. Sc.D., Arizona, 25. Prof. chem, Arizona, 94-02, director, Exp. Sta, 99-18, dean agr. col, 15-18; agronomist, Soc. Sultan. d'agr, Cairo, Egypt, 18-22; *engineer-in-chief agron, Mission Niger*, 22- Subtropical agriculture; soils; crops; irrigation; toxic effects of copper upon plants; cotton culture in French West Africa.
- Forbes, Prof. Stephen A(lfred)**, University of Illinois, Urbana, Ill. **Zoology, Entomology*. Silver Creek, Ill., May 29, 44. Rush Med. Col, 65-66; Ill. Nor. Univ, 72; Ph.D., Indiana, 84; LL.D., Illinois, 05. Curator museum, Ill. State Nat. Hist. Soc, 72-77; instr. zool, Ill. State Nor. Univ, 75-78; prof, Illinois, 84-09, entom., 09-21, dean col. sci, 88-05; founder and director, Ill. State Lab. Nat. Hist., 77-17; state entomologist, Ill, 82-17; *chief, Ill. Nat. Hist. Surv.*, 17- Biol. exped, Rocky Mountains, U. S. Fish Commission, 91-92; chairman, Nat. Cong. Zool, Columbian Expos, 93; director aquarium, U. S. Fish Commission, Columbian Expos, 93. Medal, Soc. d'Acclimatation de France, 86. Nat. Acad; A.A.; Soc. Nat; hon. mem. Ornith. Union; cor. mem. Entom. Soc. (v. pres, 10, pres, 12); Ass. Econ. Entom. (pres, 03, 08); Philos. Soc; Ecol. Soc; cor. mem. Phila. Acad; Soc. entom. de France. Economic entomology of Illinois; food of birds, fishes and insects; Entomotraca of North America; ichthyology of Illinois; local distribution and ecology of Illinois birds and fishes.
- Forbes, Dr. William T(rowbridge) M(errifield)**, Cornell University, Ithaca, N. Y. *Entomology*. Westborough, Mass., 85. A.B., Amherst, 06; Cornell, 08-09; Ph.D., Clark, 10; Harvard, 10. Instr. biol, Robert Col, Constantinople, 06-08; zool. and entom, Rutgers, 10-11; asst. and instr.

- entom.*, Cornell, 15- Cornell exped, Asia Minor, 07; South America, 20. A.A.; Entom. Soc.; Geog. Soc.; N. Y. Entom. Soc.; Cambridge Entom. Club. Lepidoptera; geology.
- Forbush, E(dward) H(owe)**, Westboro, Mass. *Ornithology*. Quincy, Mass, April 24, 58. Willow Park Sem; Hinman Commercial Col. Curator, v. pres, pres. and managing director, Worcester Nat. Hist. Soc, 80-91; field director, Mass. State Board Agr, 91-00, *ornithologist*, 94- State ornithologist, Mass, 08, director div. ornith, 20- Fel. Ornith. Union; Worcester Nat. Hist. Soc. Economic entomology and ornithology.
- Force, Prof. John Nivison**, 614 Alvarado Road, Berkeley, Calif. *Epidemiology*. Arcata, Calif, Oct. 2, 77. B.S, 98, M.D, 01, M.S, 10, Grad. P.H, 15, Dr.P.H, 24. Acting asst. surgeon, U. S. Pub. Health Service, 08; surgeon, U. S. Coast Surv, 02-08; assoc. prof. *epidemiol.*, California, 11-25, *prof.*, 25- Capt. M.C, 18-19. Pub. Health Ass; Am. Med. Ass. Communicable diseases; epidemiology; smallpox vaccination.
- Ford, Adelbert**, 609 Second St, Ann Arbor, Mich. *Psychology*. Cadillac, Mich, April 23, 90. Grad, Western State Nor. Sch, Mich, 12; A.B, Michigan, 20, A.M, 23, Ph.D, 26. *Instr.* *psychol.*, Drake, 20-21; *Michigan*, 22- Exten. lecturer, Michigan. Mich. Acad. Personnel management; advertising; salesmanship; functional psychology.
- Ford, Prof. Arthur H(illyer)**, Iowa City, Iowa. *Electrical engineering*. Chicago, Ill, Feb. 6, 74. B.S, Wisconsin, 95, fellow, 95-97, E.E, 96; fellow, Columbia, 97-98. Acting prof. *elec. eng.*, Colorado, 00-01; *prof.*, Ga. Tech, 01-05; *Iowa*, 05- A.A; Elec. Eng; Eng. Educ; Illum. Eng. Soc; Iowa Eng. Soc. (sec'y, 06-10). Hysteresis in sheet iron and steel; testing alternating current transformers; induction coils; automobile headlights; power line interference with telephones; design of radio receivers.
- Ford, Dr. Helen W**, 1081 South St, Roslindale, Mass. *Public health*. Denver, Colo. B.S, R. I. Col, 14; Susan Rhodes Cutler fellow, Yale, 22-23, Ph.D, 25. *Instr.* Kansas Col, 20-21; research, children's bur, U. S. Dept. Labor, 23-24. Child welfare; statistics on infant mortality; bibliography on the development of the normal child.
- Ford, Dr. Lester R**, Rice Institute, Houston, Texas. *Mathematics*. Rich Hill, Mo, Oct. 29, 86. A.B, Missouri, 11, A.M, 12; A.M, Harvard, 13, traveling fellow, Paris, 15-16, Ph.D, 17. Lecturer math, Edinburgh, 14-15, 16-17; *instr.* math. and life insurance, Harvard, 17-20; *asst. prof. math.*, Rice Inst, 20- Nat. Research Council fellow, Leipzig, 26-27. Head dept. math, F.A. Cent. Officers' Training Sch, 18. Math. Soc; Math. Ass; Edinburgh Math. Soc. Automorphic functions; approximate methods.
- Ford, Prof. W(alter) B(urton)**, University of Michigan, Ann Arbor, Mich. **Mathematics*. Oneonta, N. Y, May 18, 74. A.B, Harvard, 97, A.M, 98, Ph.D, 05. *Instr.* math, Albany Acad, 00-01; Michigan, 01-03; Williams, 04-05; *prof.*, Michigan, 05- Assoc. ed, 'Am. Math. Monthly,' 20-22, ed-in-chief, 22-27. Math. Soc. (chairman, Chicago sect, 15-17); Math. Ass. (pres, 27-); Soc. math. de France. The convergence of the series developments of mathematical physics; the analytic extension of functions of a complex variable; divergent series; linear difference equations; calculus of residues.
- Ford, Dr. William Ebenezer, Jr**, Yale Station, New Haven, Conn. *Mineralogy*. Westville, Conn, Feb. 18, 78. Ph.B, Yale, 99, Ph.D, 03. Asst. *miner.*, Yale, 00-03, *instr.*, 03-06, asst. prof, 06-20, *prof.*, 20- Geol. Soc; Optical Soc; Am. Acad; Conn. Acad. Chemical composition and crystallography of minerals.
- Ford, Dr. W(illiam) W(ebber)**, School of Hygiene and Public Health, Johns Hopkins University, Baltimore, Md. **Hygiene, Bacteriology*. Norwalk, Ohio, Dec. 15, 71. A.B, Western Reserve, 93; M.D, Hopkins, 98; D.P.H, McGill, 00, fellow, 99-01; research fellow, Rockefeller Inst, 01-03. *Instr.* bacter, med. sch, Hopkins, 03-05, assoc, 05-06, assoc. prof. bacter. and hygiene and lecturer legal med, 06-17, *bacter, sch. hygiene and pub. health*, 17-20, *prof.*, 20- Md. Dept. Health. A.A; Soc. Nat; Soc. Bact; Soc. Pharmacol; Ass. Path. and Bact; Am. Physicians; Pub. Health Ass. Diseases of the liver; intestinal bacteria; agglutinations; classification of intestinal bacteria; toxins and antitoxins; poisonous fungi; Amanita phalloides; Amanita muscaria; spore-bearing bacteria in milk, water and soil; toxins and hemotoxins of Bacterium Welchii; pollution of milk; Rhus toxicodendron; poisonous glucosids; water supplies; sewage; typhoid fever; cattle poisons; food poisoning.
- Fordyce, Geo(rge) L(incoln)**, Youngstown, Ohio. *Ornithology*. Pub. sch. A.A; Audubon Soc; Wilson Ornith. Club. Migration of birds in the vicinity of Youngstown, Ohio.
- de Forest, Dr. H(oward)**, University of Southern California, Los Angeles, Calif. *Botany*. New York, N. Y, Nov. 2, 77. B.S, Princeton, 95; M.F, Yale, 11; fellow, Chicago, 19-20, Ph.D, 20. Field asst, U. S. Forest Service, 10, forest asst, 11-12; acting asst. prof. forestry, Missouri, 13; asst. prof. bot, Kansas, 20-21; head dept. science, Ind. Nor. Sch, Indianapolis, 21-22; asst. prof. bot, Southern California, 22-23, *prof.*, 23-, chairman div, 23-26. A.A; Bot. Soc; Ecol. Soc; Kans. Acad; S. Calif. Acad. Plant ecology and physiology.
- de Forest, Dr. Lee**, 1391 Sedgwick Ave, New York, N. Y. *Radio engineering*. Ph.B, Yale, 96, Ph.D, 99; hon. Sc.D, Syracuse, 19. *Founder, de Forest Radio Telephone and Telegraph Co, pres, de Forest Phonofilm Corp. and Lee de Forest, Inc.* Gold medal, La. Purchase Expos, 04; Panama-Pacific Expos, 15. Elec. Eng; Radio Eng; Franklin Inst; N. Y. Elec. Soc. Radio phenomena and broadcasting; detectors and amplifiers in radio signalling.
- Forman, Prof. A(lexander) H(ardie)**, West Virginia University, Morgantown, W. Va. *Electrical engineering*. Grafton, W. Va, June 12, 83. B.S, M.E, West Virginia, 06, E.E, 08; fellow, Cornell, 08-09, M.M.E, 09, Ph.D, 12. Research div, eng. dept, Westinghouse Elec. and

- Mfg. Co, 06-07; asst. elec. lab, West Virginia, 08-09; asst. physics, Cornell, 09-10, instr, 10-13; asst. prof. exp. and elec. eng. and head dept. elec. eng, West Virginia, 13- Elec. Eng; Physical Soc; Eng. Educ. Special prony brake and recording mechanism; effect of magnetization on opacity of X-rays.
- Forman, Dr. Jonathan**, Grant Hospital, Columbus, Ohio. *Pathology*. Austinburg, Ohio, Sept. 30, 87. A.B, Ohio State, 10; M.D, Starling Med. Col, 13. Asst. path, Starling Med. Col, 11-13; instr, Ohio State, 14-16, asst. prof, 16-19; teaching fellow physiol, Harvard Med. Sch, 19-20; pathologist, Grant Hosp, 20- A.A; Am. Med. Ass; Ass. Anat; Soc. Clin. Path; Ohio Acad.
- Forrest, C(harles) N(eedham)**, Maurer, N. J. *Chemistry*. Baltimore, Md, Sept. 30, 73. Maryland Inst; George Washington. Asst. chemist, Baltimore and Ohio Ry, 92-96; Southern Ry, 96-97; chemist, Long Island Ry, 97-04; chief chemist, N. Y. Testing Lab, 04-14; *Barber Asphalt Paving Co*, 14-17, manager tech. dept, 17- A.A; Chem. Soc; Soc. Chem. Indust; Soc. Test. Mat; Civil Eng; Min. Eng. Asphalt and petroleum; composition of native bitumens and their application in the arts.
- Forrester, Dr. Glenn C**, Phosphorus Compounds Co, Niagara Falls, N. Y. *Chemistry*. Empire, Mich, Aug. 26, 95. A.B, Michigan, 19, M.S, 20, Ph.D, 23. Research chemist, *Phosphorus Compounds Co*, 23-24, manager, 24- A.A; Chem. Soc; Electrochem. Soc. Tri-valent carbon; history of the buried whirlpool, St. Davids gorge.
- Forsaith, Dr. C(arl) C(heswell)**, 242 Westminster Ave, Syracuse, N. Y. *Forestry*. Auburn, N. H, Sept. 2, 88. A.B, Dartmouth, 13; A.M, Harvard, 14, Sheldon traveling fellow, 14-15, Ph.D, 17. Asst. bot, Radcliffe, 14-16, Austin teaching fellow, Harvard, 15-16; instr. biol, Dartmouth, 16-17; *wood technol*, N. Y. State Col. Forestry, Syracuse, 17-19, asst. prof, 19- Head branch of wood structure and properties, Imp. Forestry Inst, Oxford, 25-26. Walker prize, Boston Soc. Nat. Hist, 16. Soc. Foresters; Bot. Soc. Structure and properties of wood.
- Forsling, C(larence) L**, U. S. Forest Service, Ogden, Utah. *Forestry*. Cheyenne, Wyo, Nov. 7, 93. B.S, Nebraska, 15. Range reconnaissance, Intermountain Region, U. S. Forest Service, 15-16, Jornada Range Exp. Sta, New Mexico, 16-20, in charge, 17-20, asst. in charge range investigations, Washington, D. C, 20-22, director, *Great Basin Range Exp. Sta*, Ogden, 22- Soc. Foresters; Ecol. Soc. Range and cattle management; relation of vegetative cover to runoff and erosion; artificial reseeded of depleted ranges; effect of climate on plant growth in relation to range management; range management related to botanical problems.
- Forst, Leo B**, 1122 Walnut St, Cincinnati, Ohio. *Chemistry*. Birmingham, Ala, 84. A.B, Louisville; B.S, Columbia. Asst. chemist, bur. chem, U. S. Dept. Agr, 10-14; Bur. Int. Revenue, 07-10; chief, Cincinnati Sta, bur. chem, U. S. Dept. Agr, 14-18, 19-22; chief chemist, U. S. Food Products Corp, N. Y, 22; *Forst Laboratories and Hy Pure Laboratories*, 22- Chief chemist, U.S.N. food supply dept, 18. Chem. Soc. Food and drug analysis and manufacture.
- Forster, Dr. George F(rancis)**, Olivet College, Olivet, Mich. *Immunology*. Palmyra, Mo, Dec. 3, 95. A.B, Emory, 16; A.M, Wisconsin, 20, Ph.D, 22. Asst. zool, Wisconsin, 16-17, research asst, 19-22; prof. biol, Olivet, 22- Acting instr, Harvard Med. Sch, 25-26. A.A; Soc. Bact; Pub. Health Ass. Precipitins; horse dander and asthma.
- Forsyth, Prof. C(hester) H(ume)**, Thayer Lodge, Hanover, N. H. *Mathematics*. Trafalgar, Ind, March 17, 81. A.B, Butler, 06; A.M, Illinois, 10; Ph.D, Michigan, 15. Asst. instr. math, Illinois, 07-11; instr, Michigan, 11-12, 13-16; prof, Eureka, 12-13; asst. prof, Dartmouth, 16- Math. Soc; Statist. Ass. Vital statistics.
- Forsythe, Dr. Warren E(llsworth)**, University Health Service, Ann Arbor, Mich. *Medicine*. Joseph, Oregon, Nov. 8, 85. B.S, Oregon Col, 07; Ph.C, Michigan, 08, M.D, 13; D.P.H, Hopkins, 25. Asst. physiol. chem, Michigan, 08-11, house physician, Univ. Hosp, 13-14, staff physician, health service, 14-15; col. physicians, Pa. State, 15; prof. hygiene and director health service, Michigan. A.A; Am. Med. Ass; Am. Acad. Med; fel. Pub. Health Ass. Physiological chemistry; trypsin; college health work.
- Forsythe, Dr. W(illiam) E(lmer)**, Nela Research Laboratory, Nela Park, Cleveland, Ohio. **Physics*. Muskingum Co, Ohio, Aug. 22, 81. B.S, Denison, 07; M.S, Wisconsin, 09, Ph.D, 11; Sc.D, Kenyon, 26. Teacher, schools, 99-03; asst. physics, Wisconsin, 07-08, instr, 09-13; asst. physicist, *Nela Research Lab*, 13-19, physicist, 19-24, director, 24- A.A; Physical Soc; Optical Soc. (v. pres, 24, pres, 25-); Illum. Eng. Soc; Wash. Acad. Melting points of tungsten and tantalum; radiant efficiency and temperature of incandescent filaments; relation between black body and true temperatures for various metals; high temperature measurements; comparison of capacity and inductance; optical pyrometry; monochromatic and neutral screens; rotation of constant deviation prisms; acetylene flame energy; speed in signalling with light; brightness of black body; properties of tungsten.
- Fort, Prof. Tomlinson**, Hunter College, New York, N. Y. *Mathematics*. Albany, Ga, Dec. 17, 86. A.B, Georgia, 06, A.M, 09; Harvard, 10, Ph.D, 12, Kirkland traveling fellow, in Europe, 12-13. Instr. math, Georgia, 07-09; Harvard, 10-11; Michigan, 13-14, asst. prof, 14-17; prof, Alabama, 17-24; *Hunter*, 24- A.A; Math. Soc; Math. Ass. Linear differential difference equations and infinite series.
- Fortier, Dr. S(amuel)**, 582 Santa Rosa Ave, Berkeley, Calif. *Irrigation engineering*. Leeds, Que, Can, April 24, 55. B.A.Sc, McGill, 85, M.E, 96, D.Sc, 07. Asst. and chief engineer, Colo. and Utah, 86-93; prof. civil eng, Utah Col, 93-98; consulting engineer, 93-05; res. hydrographer, U. S. Geol. Surv, 95-02; director, Mont. Exp. Sta, 99-04; agent and expert irrig. investigations, U. S. Dept. Agr, 99-03, agent and expert in

- charge Pacific div. irrig. investigations, 03-07, chief irrig. investigations, 07-25; *consulting prof., California*, 25- Civil Eng; hon. mem. Agr. Eng. Relation between soil moisture and crop yield; duty of water in irrigation; application of water to crops; storage of water.
- Fortner, Prof. Harry C(adwallader)**, 393 S. Prospect St, Burlington, Vt. *Histology*. Beaver Valley, Pa, Nov. 8, 90. A.B, Michigan, 17, A.M, 20. Col. of St. Thomas, 17-18; Tennessee, 19-22; *asst. prof. histol. col. med., Vermont*, 22- Second lieut, Sanit.C, 18-19. A.A. Parasitology; ornithology.
- Foshag, Dr. W(illiam) F(rederick)**, U. S. National Museum, Washington, D. C. *Mineralogy*. Sag Harbor, N. Y, March 17, 94. A.B, California, 19, Ph.D, 23. Chemist, Riverside Portland Cement Co, 17-18; *asst. curator, U. S. Nat. Museum*, 19- Assoc. ed, 'Am. Mineralogist,' 20- Miner. Soc; Wash. Geol. Soc; Wash. Petrol. Club; Wash. Acad. Chemical, physical and crystallographic properties of minerals; mineral paragenesis and classification; origin of borax and other saline deposits.
- Fossler, Prof. Mary L(ouise)**, University of Southern California, Los Angeles, Calif. *Biochemistry*. Lima, Ohio, Sept. 14, 68. B.S, Nebraska, 94, fellow, 97-99, A.M, 98; Chicago, 00, 01, 03; Northwestern, 02. Prin, high sch, Nebr, 95-97; instr. chem, Nebraska, 99-08, *asst. prof*, 08-19; *biol., Southern California*, 19- Chem. Soc. Organic chemistry; synthesis of certain glutaric acids; separation of a group of alkaloids; composition of some proteins.
- Foster, Prof. Alice**, Mount Holyoke College, South Hadley, Mass. *Geography*. Ashton, Iowa, Dec. 4, 72. B.A, Iowa, 18; M.S, Chicago, 21. *Asst. prof.*, dept. teaching, Iowa Teachers' Col, 19-20; *geol., Mt. Holyoke*, 21- Summer, lecturer, Calif. State Teachers Col, San Diego, 24. A.A; Am. Geog. Soc; Iowa Acad. Principal geographic divisions of Mexico; geography of Orizaba, Mexico.
- Foster, Arthur C(rawford)**, Box 549, Sanford, Fla. *Pathology*. Meridian, Miss, Nov. 27, 93. B.S, N. C. State, 17; research fellow, Wisconsin, 19-21, M.S, 21. *Asst. pathologist*, N. C. Exp. Sta, 16-18; *assoc. pathologist, office cotton, truck and forage crop disease investigations, bur. plant indust., U. S. Dept. Agr.*, 21- A.A; Bot. Soc; Phytopath. Soc; Wis. Acad. Physiology of fungi and bacteria; non-parasitic diseases of celery and lettuce.
- Foster, Dr. Donald (DeLacy)**, 463 West St, New York, N. Y. *Physics*. West Torbrook, N. S. Can, March 19, 00. B.Sc, Acadia, 20; Loomis fellow, Yale, 21-24, Ph.D, 24. Eastman Kodak Co, 25-26; *Bell Telephone Laboratories*, 26- Physical Soc. Spectroscopy; magnetism.
- Foster, Prof. Duncan G(raham)**, St. Stephen's College, Annandale-on-Hudson, N. Y. *Organic chemistry*. Worcester, Mass, May 26, 97. A.B, Harvard, 18, A.M, 21; Ph.D, Hopkins, 23. Instr. org. chem, Simmons (Mass), 19-20; *assoc. prof. chem., St. Stephen's*, 23- Chem. Soc. Azo dyes; selenium organic compounds.
- Foster, Prof. G(oodwin) L(eBaron)**, University of California, Berkeley, Calif. *Biochemistry*. Calcutta, India, June 4, 92. A.B, Dartmouth, 13; Ph.D, Harvard, 21. Teaching fellow, Shaw Sch. of Bot, 13-14; *biol. chem., Harvard Med. Sch.*, 14-17; instr, *California*, 19-22, *asst. prof.*, 22- Soc. Biol. Chem.
- Foster, Prof. Malcolm C(ecil)**, Wesleyan University, Middletown, Conn. *Mathematics*. West Torbrook, N. S. Can, March 10, 94. B.Sc, Acadia, 14; Ph.D, Yale, 21. Instr. math, Yale, 21-25; *asst. prof., Williams*, 25-27; *assoc. prof., Wesleyan*, 27- Differential geometry.
- Foster, Prof. Mary Louise**, Smith College, Northampton, Mass. *Chemistry*. Melrose, Mass, April, 65. A.B, Smith, 91, A.M, 12; Mass. Inst. Tech, 93-97; Columbia, 19; Ph.D, Chicago, 14. Research chemist with C. A. Herter, 00-01; indust. works, Maywood, N. J, 01-04; C. A. Herter, 04-07; *assoc. prof. chem., Smith*, 08- Chem. Soc; Soc. Biol. Chem; Hist. Sci. Soc. Biochemistry; effect of microorganisms on proteins; phosphatides.
- Foster, Dr. N(ellis) B(arnes)**, 121 E. 62d St, New York, N. Y. *Medicine*. Durhamville, N. Y, July 18, 75. B.S, Amherst, 98, Sc.D, 26; M.D, Hopkins, 02. Assoc. biol. chem, Columbia, 07-12; assoc. physician, N. Y. Hosp, 08-15; *asst. prof. med.*, med. col, Cornell, 12-16; *prof. med. sch., Michigan*, 16-18; *asst. prof. med. col., Cornell*, 19- Lieut. col, M.C, 18-19. Am. Physicians; Soc. Exp. Biol; Soc. Biol. Chem; Soc. Clin. Invest; Harvey Soc. Pathological metabolism; diabetes; nephritis; goiter.
- Foster, Dr. S(tuart) B(rooks)**, 40 Winter St, Framingham Centre, Mass. *Chemistry*. Somerville, Mass, July 12, 91. B.S, Mass. Col, 14; A.M, Columbia, 21, Ph.D, 25. Asst. chemist, McClure Laboratories, Mass, 15-17; *head dept. chem., State Nor. Sch., Framingham*, 21- Lieut, Sanit.C, 18-19. Chem. Soc. Chemistry of leather formation.
- Foster, Dr. William**, Princeton, N. J. *Chemistry*. Hartford, Ky, May 15, 69. A.B, Hartford, 92; B.S, Vanderbilt, 93; A.M, Princeton, 96, Ph.D, 99. Teacher science, Hartford, 93-95; *asst. chem.*, Princeton, 96-98; *prof.*, Cent. Univ. of Ky, 99-00; instr, *Princeton*, 00-05, *asst. prof.*, 05-10, *prof.*, 10- Contrib. ed, 'Jour. Chem. Educ'; 'Senate Chem. Educ.' A.A; Chem. Soc. The conductivity of electrolytes; the hydrolysis of stannic chlorid; chlorinated ethers; preparation of new acid chlorid; arsenic compounds and hydrogen sulphid; ethylene chlorid; trisulphoxyarsenic acid; glaze on Greek vases.
- Foster, W(illiam) J(ames)**, 2 Douglas Road, Schenectady, N. Y. *Electrical engineering*. Argyle, N. Y, Sept. 17, 60. A.B, Williams, 84, A.M, 87, Sc.D, 26; M.S, Cornell, 91. Instr, Williams, 84-85; *asst. prin.*, Burr and Burton Sem, 85-86; teacher, Hill Sch, Pottstown, Pa, 86-90; designing engineer, Thomson-Houston Co, 91-94; *consulting engineer, Gen. Elec. Co., Schenectady, N. Y.*, 94- A.A; fel. Elec. Eng. Alternating current design.
- Foster, Mrs. William S. (Dr. Josephine C(urtis))**, 60 Arthur Ave, S. E, Minneapolis, Minn. *Psy-*

- chology*.—Cambridge, Mass, April 6, 89. A.B., Wellesley, 10, A.M., 12; Ph.D., Cornell, 15. Asst. psychol., Wellesley, 10–12; instr. psychol., educ. and math., William Smith, 12–13; chief psychologist, Psychopathic Hosp., Boston, Mass., 15–19; psychologist, Child Guidance Clinic, Minneapolis, 23–24; asst. prof. and prin., Nursery Sch., Inst. Child Welfare, Minnesota, 26—Psychol. Ass. Child psychology.
- Foster, Prof. Wilnot Coyne**, Mayo Clinic, Rochester, Minn. *Anatomy*. Sheridan, Oregon, June 21, 92. A.B., Oregon, 16, fellow, 16–17, M.D., 20, A.M., 23; Minnesota, 17; Chicago, 18. Instr. zool., Oregon, 15–16, anat. med. sch., 17–20, asst. prof., 20–26; fellow surg., Mayo Clinic, 26—Experimental surgery and medicine.
- Foulk, Prof. C(harles) W(illiam)**, Ohio State University, Columbus, Ohio. *Chemistry*. Warren, Ohio, April 26, 69. A.B., Ohio State, 94; Leipzig, 99–01. Asst. to chemist, Ohio Board Agr., 94–96; asst. chem., Ohio State, 96–98, asst. prof., 98–02, assoc. prof., 02–08, *prof. anal. chem.*, 08—Consulting chemist, Ohio Geol. Surv., 14–16. A.A.; Chem. Soc.; Eng. Educ.; Water Works Ass. Analytical chemistry; influence of excess of reagent in the precipitation of barium sulphate; standardization of a magnesium salt solution; burette calibrating pipette; equipment for drying ovens; iodine for use in chemical measurements; new form of hydrometer; composition of constant boiling mixture of hydrogen chloride and water; foaming and priming in boiler water.
- Fountain, Prof. C(laude) R(ussell)**, George Peabody College for Teachers, Nashville, Tenn. *Physics*. Ashland, Oregon, Nov. 2, 79. A.B., Oregon, 01; Ph.D., Columbia, 08. Asst. physics, Columbia, 02–05; assoc. prof., Idaho, 05–06; instr., Williams, 06–09; asst. prof., Kenyon, 09–13; adjunct prof., Georgia, 13–18; *prof. physics and astron.*, Mercer, 18–26; math. and physics, Peabody Col., 26–27, *physics*, 27—Summers, asst., Columbia, 02–05, prof., Peabody Col., 14–19, 23–26. Asst. dist. educ. director, S.A.T.C., 18. A.A.; Physical Soc.; Meteor. Soc.; Ga. Acad. (v. pres., 26). Electromagnetic waves; light of firefly; wireless telegraphy and telephony; architectural acoustics; laboratory instruments.
- Fowke, Gerard**, U. S. Bureau of Ethnology, Washington, D. C. *Archeology, Geology*. Maysville, Ky., June 25, 55. *Asst. ethnologist*, Bur. Am. Ethnol. (at intervals), 84—Jesup North Pacific exped., Am. Museum Nat. Hist., 98. Mound-builders' remains; aboriginal work in stone; preglacial drainage of lower Ohio valley and eastern Missouri; cave explorations; Hawaiian Islands; Guatemala; British Columbia; Japan; Siberia; Mexico.
- Fowle, F(rederick) E(ugene)**, Smithsonian Institution, Washington, D. C. *Astrophysics*. Arlington, Mass., Nov. 20, 69. B.S., Mass. Inst. Tech., 94. Asst., Harvard Col. Observatory, 87–94; *astrophys. observatory, Smithsonian Inst.*, 94–07, aid, 07–24, *research asst.*, 24—, ed., 'Physical Tables,' 10—Lecturer, George Washington. A.A.; Astron. Soc.; Wash. Philos. Soc. Bolognometric research; atmospheric absorption.
- Fowler, Henry W(eed)**, Academy of Natural Sciences, Philadelphia, Pa. *Zoology*. Holmsburg, Pa., March 23, 78. Stanford, 02. Asst., museum, Acad. Nat. Sciences, Phila., 03–22, Bishop Museum fellow, 22–23, *assoc. curator vert. zool.*, 25—Soc. Ichthyol. and Herp. (treas., 14); Del. Valley Ornith. Club (pres., 16); Phila. Acad. Ichthyology; herpetology; fossil fishes; New Jersey Crustacea.
- Fox, Arthur L(awrence)**, 585 Longwood Ave., Glencoe, Ill. *Chemistry*. Chicago, Ill., April 25, 99. A.B., M.S., Illinois, 23; Ph.D., Northwestern, 27. Chemist, U. S. Dept. Agr., 23–24. Mercurated naphthoic acids.
- Fox, Prof. Errol L(ionel)**, Atlantic Christian College, Wilson, N. C. *Inorganic chemistry*. Sunbury, Ohio, Aug. 28, 92. A.B., Ohio State, 17; A.M., Indiana, 24. Instr. chem., Rose, 19–23; Indiana, 23–25; *prof. chem. and biol.*, Atlantic Christian, 25—Lieut. U.S.A., 17–19. Ohio Acad. Metallurgy of beryllium; plasticity of lime.
- Fox, Dr. Gerald W(illis)**, University of Michigan, Ann Arbor, Mich. *Physics*. Three Rivers, Mich., Sept. 23, 00. A.B., Michigan, 23, A.M., 24, Ph.D., 26. Instr. physics, Michigan, 24–26, *head dept. physics and chem.*, Univ. High Sch., 26—Band spectra; low voltage arc excitation.
- Fox, Helen E(dith)**, U. S. Department of Agriculture, Washington, D. C. *Plant pathology*. Westfield, Mass., Oct. 23, 91. A.B., Michigan, 18. *Junior pathologist, plant path. lab.*, U. S. Dept. Agr., 18—Bacteriology; bacterial diseases of plants; bibliography.
- Fox, Prof. Henry**, U. S. Bureau of Entomology, Riverton, N. J. *Biology*. Germantown, Pa., Feb. 18, 75. B.S., Pennsylvania, 99, A.M., 03, Ph.D., 05. Instr. biol., Wisconsin, 02–03; prof. biol. and chem., Temple, 03–05; instr. science, N. E. Manual Training Sch., Phila., 05–07; prof. biol., Ursinus, 07–12; investigator, bur. entom., U. S. Dept. Agr., 12–18; prof. biol., Mercer, 18–24; *assoc. entomologist, Japanese beetle project, bur. entom.*, U. S. Dept. Agr., 25—A.A.; Soc. Zool.; Entom. Soc.; Ass. Econ. Entom.; Ecol. Soc.; Ga. Acad. (sec'y-treas., 21–25). Vertebrate embryology; insect ecology; distribution, variation and specific integration in Orthoptera; insect life histories.
- Fox, Dr. Herbert**, University of Pennsylvania, Philadelphia, Pa. *Pathology*. Atlantic City, N. J., June 3, 80. A.B., Cent. High Sch., Phila., 97; M.D., Pennsylvania, 01; Vienna, 05. *Pathologist, Rush Hosp.*, Phila., 04—; *director lab. comp. path.*, Phila. Zool. Soc., 06—; *Pepper Lab. clin. path.*, Pennsylvania, 11—, *prof. comp. path.*, Pennsylvania, 27—Chief laboratories, State Dept. Health, Pa., 06–11. Ass. Path. and Bact.; Am. Med. Ass.; Phila. Acad.; Phila. Col. Physicians; Phila. Zool. Soc. Bacteriology and pathology of diseases of the lymphatic tissues; comparative pathology; disease in captive wild mammals and birds.
- Fox, Dr. L. Webster**, S. E. corner 17th and Spruce Sts., Philadelphia, Pa. *Ophthalmology*. Hummelstown, Pa., March 19, 53. Pa. State Nor. Sch., 72–75; hon. A.M., Lafayette; LL.D.,

- Dickinson, 08. Clin. asst. and house surgeon, Royal London Ophthal. Hosp, 81-82; asst. ophthalmologist, Jefferson Med. Col, Phila, 83-85; ophthal. surgeon, Germantown Hosp, 83-93; *prof. ophthal, Medico-Chirurg. Col. Phila, 93-* Lieut, O.R.C. Soc. Nat; Am. Med. Ass. Asymmetry of the face in relation to its effect upon anisometropia; diseases of the eye.
- Fox, Prof. Philip**, Dearborn Observatory, Evanston, Ill. **Astronomy*. Manhattan, Kans, March 7, 78. B.S, Kansas Col, 97, M.S, 01; B.S, Dartmouth, 02; Berlin, 05-06. Asst. graphics, Kansas Col, 98-99; commandant and teacher math, St. John's Mil. Sch, Kans, 00-01; asst. physics, Dartmouth, 02-03; Carnegie asst., Yerkes Observatory, 03-05; instr. astrophys, Chicago, 05-09; *prof. astron. and director, Dearborn Observatory, Northwestern, 09-* Second lieut. Spanish-Am. War; major, Inf, 17-19, col, Inf, R.C. Officier de l'ordre du Sauveur de la Grece. A.A. (sec'y, sect. D, 25-); Astron. Soc. (sec'y, 12-18, councilor, 21-23); Am. Acad; Royal Astron. Soc; Soc. astron. de France; Astron. Gesell. Solar physics; rotation of the sun; micrometric measures of double stars; stellar parallax.
- Fox, Rolland D(avid)**, Municipal University, Akron, Ohio. *Bacteriology*. Peninsula, Ohio, Feb. 10, 99. B.S, Akron, 21, M.S, 23. Demonstrator, biol. lab, Akron, 18-21, research assoc, bacter. lab, 21-23, *director lab. hygiene and bacter. and lecturer hygiene-sanit, 24-* Lecturer, City Hosp, Akron; collaborator, venereal clinic, U. S. Pub. Health Service, Akron. Summit Lake surv, 21-23; Cuyahoga Valley surv, 23- Soc. Bact; Ohio Acad. Pathogenic bacteriology; field sanitation; morphology and pathogenicity of Diphtheroids; cultivation of Gonococcus; bacteriology of goiter.
- Fox, Prof. William**, 457 W. 123d St, New York, N. Y. *Mathematical physics*. Horowitz, Bohemia, Sept. 18, 64. B.S, Col. City of N. Y, 84; M.E, Stevens, 86. Instr, Workingmen's Sch, New York, 86-87; mech. drawing, Col. City of N. Y, 87-92, applied math, 92-97, asst. *prof. physics, 97-14, prof, 14-* Lecturer, N. Y. Optical Soc. A.A; Physical Soc; Mech. Eng. Graphics as applied to practical calculation.
- Fox, W(illia)m J(oseph)**, Academy of Natural Sciences, Philadelphia, Pa. *Entomology*. Philadelphia, Nov. 21, 72. Pub. schools. Asst. *librarian, Acad. Nat. Sciences, Phila, 88-, ed, 21-* Entom. Soc; N. Y. Entom. Soc; Phila. Acad. The fossorial Hymenoptera; bibliography of natural history.
- Foxworthy, Dr. Fred W(illiam)**, Kuala Lumpur, Federated Malay States. *Botany*. Goodland, Ind, July 3, 77. B.S, De Pauw, 99; A.M, Cornell, 02, Ph.D, 04. Asst. bot, Cornell, 00-04; botanist, Bur. Science, P. I, 06-11, wood technologist, Bur. Forestry, 11-17, chief div. investigation, 13-17; assoc. *prof. dendrol, Philippines, 11-17; forest research officer, Federated Malay States, 18-* Lecturer, Cornell, 03-04. A.A; Bot. Soc; Soc. Foresters; Torrey Bot. Club; British Forestry Ass. Systematic and economic botany; dendrology; silviculture; woods of the Indo-Malayan region.
- Foye, Dr. Wilbur G(arland)**, Middletown, Conn. *Geology*. Brockton, Mass, Feb. 8, 86. A.B, Colby, 09; A.M, Harvard, 12, Ph.D, 15, Sheldon traveling fellow, Fiji Islands, 15-16. Instr. math, Mt. Hermon Boys' Sch, 09-11; Austin teaching fellow miner, Harvard, 12-15; asst. *prof. geol, Middlebury, 16-18; assoc. prof, Wesleyan, 18-24, prof, 24-* A.A; fel. Geol. Soc. Nephelite syenites; uplifted coral reefs and petrology of Fiji; structure of Connecticut Triassic; geology of eastern Highland of Connecticut; petrography.
- Foyles, Edward J(ohn)**, University of Rochester, Rochester, N. Y. *Geology*. Rutland, Vt, Oct. 18, 94. B.S, Columbia, 22; M.S, N. Y. Univ, 26. Am. Museum Nat. Hist, 15-26; *director museums, Rochester, 26-27, Museum of Nat. Hist, 27-* Vt. Geol. Surv. A.A; Paleont. Soc; Rochester Acad. Stratigraphy and paleontology of Vermont.
- Frachtenberg, Dr. L(eo Joachim)**, 414 Norris Building, Atlanta, Ga. *Anthropology*. Czernowitz, Austria, Feb. 24, 83. Gymnasium, Przemysl, Austria, 96-04; Cornell, 04-05; A.M, Columbia, 06, Ph.D, 10. Lecturer anthrop, Columbia, 10-12; ethnologist, Bur. Am. Ethnol, 13-17; head worker, Jewish Welfare Board, 18-19; director and supervisor, Service Clubs, U.S.A, 19-22; *exec. director, Palestine Foundation Fund, Region No. 4, 22-* A.A; Anthropol. Ass; Ethnol. Soc; Oriental Soc; Folk-Lore Soc. (sec'y, N. Y. branch, 09); fel. Am. Geog. Soc. Ethnology; linguistics; languages of Oregon Indians; Zoroastrian literature; Coos, Siuslaw and Alsea texts and grammars.
- Fracker, Prof. George C(utler)**, University of Arkansas, Fayetteville, Ark. *Psychology*. Iowa City, Iowa. Ph.B, Iowa, 94, A.M, 00, Ph.D, 07. Prof. philos. and psychol, Coe, 00-09; psychol. and educ, Northern State Nor. Sch, Mich, 09-13; district supt. religious educ, Presbyterian Church, Kansas City, Mo, 13-20; dean and *prof. educ, Dubuque, 20-24; psychol. and philos, Arkansas, 24-* Asst, Columbia, 04; summer, lecturer, Iowa, 06. Representative, Psychol. Corp, Ark, 26. A.A; Psychol. Ass. The transference of training in memory; correlation of intelligence with musical ability in students; objective determination of student progress.
- Fracker, Dr. S(tanley) B(lack)**, 1632 Adams St, Madison, Wis. *Entomology*. Ashton, Iowa, April 8, 89. A.B, Buena Vista, 10; Michigan, 10-11; Cornell, 11; M.S, Iowa, 12; Ph.D, Illinois, 14. Instr. econ. entom, Wisconsin, 14-15; asst. state entomologist, Wis, 15-18, acting state entomologist, 18-20, *state entomologist, 20-* A.A; Entom. Soc; Ass. Econ. Entom. (fourth v. pres, chairman, sect. apiculture, 23); Crop Protection Inst; Honey Producers League (sec'y, 22-25); Wis. Acad. Reduviidae; lepidopterous larvae; Coreidae; apiary inspection methods.
- France, Prof. Wesley G(eorge)**, Ohio State University, Columbus, Ohio. *Physical chem-*

- istry*.—Detroit, Mich, June 19, 92. B.S, Michigan, 17, M.S, 18, Ph.D, 21. Lab. asst, Union Carbide Co, 11-13; teaching asst. chem, Michigan, 17-20; *asst. prof. physical chem, Ohio State, 20*—Chem. Soc. Hydrophyllie colloids and dyes; size-frequency and distribution of salts precipitated in the presence of hydrophyllie colloids; colloidal content of clays and relation to plasticity; on the influence of gelatin sulfuric and hydrochloric acids; adsorption at crystal interfaces.
- Francis, Dr. Alfred W(est)**, 234 Lake View Ave, Cambridge, Mass. *Chemistry*. Brookfield, Conn, March 11, 96. B.S, Worcester, 17; Ph.D, Yale, 24. Asst. biochemist, U. S. Dept. Agr, 17-18; research chemist, E. I. du Pont de Nemours and Co, 18-22; Nat. Research Council fellow chem, Mass. Inst. Tech, 24-25; *research chemist, Arthur D. Little, Inc, 25*—A.A.; Chem. Soc. (abstractor, 25-). Directive influence in the benzene ring; rates of ionic reactions; petroleum.
- Francis, Dr. Cha(rl)e(s) Kenworthy**, 1221 E. 30th St, Tulsa, Okla. *Chemistry*. Chester, Pa, June 17, 75. Ph.B, Brown, 99, A.M, 04; fellow, Illinois, 07-08; Ph.D, Missouri, 10. Chemist, Va, 92-96; instr. chem, Brown, 98-99; adjunct prof, Ga. Sch. Tech, 99-01, junior prof, 01-03; prof, Converse, 03-07; instr, Missouri, 08-10; chemist, Okla. Exp. Sta, 10-17, prof. petrol. technol, 14-17; chief chemist, Cosden and Co, 17-19; manager refineries and chem. director, Transcontinental Oil Co, 19-20; chief chemist and tech. supt, Cosden and Co, 20-23; manager refineries, Producers and Refiners Corp, 23-24; *consulting petrol. technologist and chemist, 24*—; *chief technologist, Skelly Oil Co, 26*—Cement expert, U. S. Reclamation Service, 06. Tech. ed, 'Oil and Gas Jour,' 26—A.A.; Chem. Soc. (chairman, Okla. sect, 25, councilor, 26); Inst. Petrol. Technol. Coal; starches; colorimetric method for determining hydrocyanic acid in plants; corrosion; petroleum and natural gas.
- Francis, Dr. Mark**, College Station, Texas. *Veterinary science*. Shandon, Ohio, March 19, 63. D.V.M, Ohio State, 87. *Prof. vet. science, Agr. and Mech. Col. Texas, and veterinarian, Texas Exp. Sta, 88*—Vet. Med. Ass; Texas Vet. Ass. (pres, 02-04). Parasitic diseases of animals; blind staggers; Texas fever; infectious anemia of horses; hog cholera.
- Frandsen, Prof. Peter**, 210 Maple St, Reno, Nev. *Zoology*. Vilslev, Denmark, Sept. 27, 76. A.B, Nevada, 95, LL.D, 24; A.B, Harvard, 98, A.M, 99. Teacher, pub. schools, 95-96; asst. zool, Harvard and Radcliffe, 98-00; asst. prof. zool. and bacter, Nevada, 00-02, assoc. prof, 02-03, *prof, 03-06, biol, 06*—Lecturer, farmers' institutes; pub. and nor. schools; bacteriologist, Nev. Exp. Sta, 00-06, consulting biologist, 06—A.A.; Genetic Ass; Soc. Bact; Social Hygiene Ass. Animal behavior and habits; histology of the blood of various mammals; histology of the nervous system of flatworms.
- Frankel, Dr. E(dward) M(ichaelson)**, 1060 Park Ave, New York, N. Y. *Biochemistry*. Newark, N. J, Feb. 26, 93. B.S, Col. City of N. Y, 12; fellow, Yale, 14-15, Ph.D, 16. Asst. chemist, Phila. Polyclinic Hosp, 12-13; asst. to Prof. A. I. Ringer, Pennsylvania, 13-14; asst, Sheffield Sci. Sch, Yale, 15-16; research chemist, Harriman Research Lab, Roosevelt Hosp, 16-18; indust. chem. engineer, 18-22; *pres, E. M. Frankel, Inc, 22*—Chem. Soc; Soc. Biol. Chem. Experimental diabetes; proteolytic ferments; metabolism of micro-organisms.
- Frankel, Dr. Florence Hulton**, 25 E. 86th St, New York, N. Y. *Medicine, Biochemistry*. Philadelphia, Pa. B.S, Pennsylvania, 07, M.S, 14, Bennett fellow, 15-16, Ph.D, 16, M.D, 24. Instr, high schools, Pa, 07-15; fellow, Rockefeller Inst, 16-17; *bacteriologist and chemist, Roosevelt Hosp, 17*—Instr, col. physicians and surg, Columbia, 17-18; Univ. and Bellevue Hosp. Med. Col, 20-23; serologist, N. Y. State Board Health, 19-22; on staff, Montefiore Hosp, 24-27. Valentine Mott medal, 24. Protective ferments; bacterial fermentation; lipolytic actions; endocines.
- Frankenfield, Prof. H(arry) C(rawford)**, U. S. Weather Bureau, Washington, D. C. *Meteorology*. Easton, Pa, Nov. 24, 62. A.B, Lafayette, 81, A.M, 84; M.D, Howard, 86. Observer, U. S. Weather Bur, 82-91, forecaster, 91-04, prof. meteor, 04-17, meteorologist, 17-24, *senior meteorologist, 24*—, *in charge river and flood service, 98-12, 20*—Ed. board, 'Weather Forecasting in the U. S.' Storms and storm types; floods in rivers; improvements in weather forecasting.
- Frankforter, Prof. C(larence) J(ackson)**, University of Nebraska, Lincoln, Nebr. *Chemistry*. Lincoln, Oct. 30, 85. B.S, Nebraska, 08, A.M, 09. Asst. instr, instr. and asst. *prof. chem, Nebraska, 08*—, *in charge indust. chem. branch, dept. chem. C.W.S, 17-19*, capt, Inf, 17-19, lieut. col, Inf, R.C. Chem. Soc; Electrochem. Soc. Organic and inorganic chemistry; polymerization reactions of pinene; exchange reactions of zeolites; Nebraska clays.
- Frankforter, Prof. George B(ell)**, Stanford University, Calif. **Chemistry*. Potter, Ohio, April 22, 59. A.B, Nebraska, 86, A.M, 88; Ph.D, Berlin, 93. Instr. chem, Nebraska, 85-87; high sch, Nebr, 87-88; prof, Nebraska, 93-94; dean and director sch. chem, Minnesota, 94-17, *prof. org. and indust. org. chem, 20-25; Stanford, 25*—U. S. Mint Commissioner, 01. Director, O.T.C. for chemists, inspectors and linemen; supervisor control and research lab. for ordnance, Phila, Pa. Major, ordnance dept, 17-19; examiner explosives, chemicals and loading, Ordnance Claim Board, 18-19; tech. adviser, War Claims Board, 19-20; State Council of Defense, Minn. A.A. (v. pres, 10); Chem. Soc; Soc. Chem. Indust; Eng. Educ; N. Y. Chemists Club; Chem. Gesell; Electrochem. Gesell. Alkaloids, narcotin, narcein, veratrin and isopyroin vegetable oils; the terpenes, including camphor and crude pitch; eugenol; formaldehyde; the pitch of the northern pine; resins; mercury fulminate.
- Franklin, Prof. E(dward) C(urtis)**, Stanford University, Calif. **Chemistry*. Geary City, Kans, March 1, 62. B.S, Kansas, 88, M.S, 90; Berlin, 90-91; Ph.D, Hopkins, 94; Sc.D, North-

- western, 25. Asst. chem, Kansas, 89-94, assoc. prof, 94-99, prof. physical chem, 99-03; assoc. prof. *org. chem*, Stanford, 03-06, prof, 06- Chemist, sugar plantations, Donaldsonville, La, 89; gold mine, Miramar, Costa Rica, 97; U. S. Assay Commission, 07; prof, hygienic lab, U. S. Pub. Health Service, 11-12; physical chemist, Bur. Standards, 18. Nichols medal, 25. Nat. Acad; A.A.; Philos. Soc; Chem. Soc. (pres, 23); Am. Acad; Kans. Acad; Calif. Acad; Wash. Acad. Liquid ammonia as an electrolytic solvent; the ammonia system of compounds.
- Franklin, Dr. Fabian**, 617 W. 113th St, New York, N. Y. **Mathematics*. Eger, Hungary, Jan. 18, 53. Ph.B, George Washington, 69, LL.D, 04; fellow, Hopkins, 77-79, Ph.D, 80. Assoc, assoc. prof. and prof. math, Hopkins, 79-95; ed, 'Baltimore News,' 95-08; assoc. ed, 'N. Y. Evening Post,' 09-17; ed, 'The Weekly Review,' 19-23. Math. Soc; assoc. Am. Acad. Geometry; invariants.
- Franklin, Dr. H(enry) J(ames)**, Massachusetts Agricultural Experiment Station, Amherst, Mass. *Zoology, Entomology*. Guilford, Vt, Feb. 10, 83. B.S, Mass. Col, 03, Ph.D, 08. Instr. bot, Mass. Col, 04-06, asst. entom, Exp. Sta, summers, 06-07; asst. to state entomologist, Minn, 08-10; *supt, cranberry sub-station, Mass. Exp. Sta, 10-* Ass. Econ. Entom. Thysanoptera; Bombidae; cranberry insects.
- Franklin, Dr. Milton W(ashington)**, 784-810 Beretania St, Honolulu, Hawaii. *Electrical engineering*. San Francisco, Calif, Feb. 22, 76. M.D, California, 99; A.M.(E.E), Columbia, 06; Ph.D, Göttingen, 12. Lecturer dermat, N. Y. Post-Grad. Med. Sch, 01-03; prof. radio-therapy, N. Y. Polyclinic Med. Sch, and director radiog. clin, Dept. Health, New York, 03-06; asst, power and min. eng. dept, Gen. Elec. Co, 06-16, manager, ozone dept, 16; pres. and gen. manager, C. and C. Elec. and Mfg. Co, 16-17; chief consulting engineer and works manager, E. Houghton Co, 17-19; chief consulting engineer and director inspection, Remy Elec. Div, Gen. Motors Corp, 19-21, gen. manager service, Gen. Motors Export Co, 21-27; *pres. and gen. manager, M. W. Franklin, Ltd, 27-* A.A.; Elec. Eng; Physical Soc; Soc. Heat. and Vent. Eng. (v. pres, 19); Chem. Soc; Franklin Inst; Electrochem. Soc; N. Y. Acad. (sect. sec'y, 06). Röntgen rays; physiotherapy; electrotherapeutics; electrochemistry; electrical transmission of energy; high tension electrical phenomena; factory administration and organization.
- Franklin, Prof. Philip**, Massachusetts Institute of Technology, Cambridge, Mass. **Mathematics*. New York, N. Y, Oct. 5, 98. B.S, Col. City of N. Y, 18; fellow, Princeton, 19-20, A.M, 20, Jacobus fellow, 20-21, Ph.D, 21. Instr. math, Princeton, 21-22; Benjamin Peirce instr, Harvard, 22-24; instr, *Mass. Inst. Tech*, 24-25, *asst. prof, 25-* Ballistic computer, ordnance dept, U.S.A., 18-19. Math. Soc; Math. Ass. Analysis situs; theory of relativity; analysis.
- Franklin, Prof. W(illiam) S(uddards)**, Massachusetts Institute of Technology, Cambridge, Mass. **Physics*. Geary City, Kans, Oct. 27, 63. B.S, Kansas, 87, M.S, 88; Sc.D, Cornell, 01. Asst. prof. physics, Kansas, 87-90; *prof. physics and elec. eng*, Iowa Col, 92-97; Lehigh, 97-15; *physics, Mass. Inst. Tech*, 17- Jury awards, Nat. Export Expos, Phila; Pan-Am. Expos, 01. A.A. (sec'y, B, 98, v. pres, 02); Physical Soc; Am. Acad; hon. mem. Kans. Acad. Elementary physics; theory of alternating currents; elements of calculus; Poynting's theorem; technical education.
- Franz, Dr. S(hepherd) I(vory)**, University of California at Los Angeles, Los Angeles, Calif. **Physiology, Psychology*. Jersey City, N. J, May 27, 74. A.B, Columbia, 94, fellow, 95-97, Ph.D, 99; Leipzig, 96; hon. M.D, George Washington, 15; LL.D, Waynesburg, 15. Asst. psychol, Columbia, 97-99; *physiol, Harvard Med. Sch*, 99-01; instr. *physiol. and med. physics, med. sch, Dartmouth*, 01-04; *path. psychologist, McLean Hosp*, 04-07; *prof. physiol, George Washington*, 06-21, *exp. psychol, 07-24*; *psychol, Govt. Hosp. for Insane*, 07-09, *sci. director, 09-20*, *director laboratories*, 20-24; *lecturer psychol, California at Los Angeles*, 24-25, *prof, 25-* Research asst, Carnegie Inst; instr, Naval Med. Sch, 20-24; lecturer, Chicago, 22; Hopkins, 22-23. Ed, 'Psychol. Bul,' 14-23; 'Psychol. Monog,' 24-26; assoc. ed, 'Psychobiol,' 17- Psychol. committee, Nat. Research Council, 17-21. A.A; Psychol. Ass. (pres, 20); Psychopath. Ass; Physiol. Soc; hon. mem. Psychiat. Soc; S. Soc. Philos. and Psychol. (v. pres, 08-10, pres, 11); Am. Med. Ass; S. Calif. Acad. Criminol. Cerebral localization; reflexes; vision; skin sensations; fatigue; aphasia; pathological physiology and psychology; reeducation.
- Franzen, Prof. Raymond (Hugh)**, University of California, Berkeley, Calif. *Psychology*. A.B, Harvard, 17; A.M, Columbia, 18, Ph.D, 20. Director research, pub. schools, Iowa, 20-22; asst. prof. psychol. and educ, *California*, 22-26, *research director, Sch. Health Program Study, Am. Child Health Ass, 26-* Summers, California, 21-24, Utah Col, 24-26. Psychol. Ass; Statist. Ass. Statistical method; inheritance and acquisition; common factor of learning.
- Fraps, Dr. G(eorge) S(tronach)**, College Station, Texas. *Chemistry*. Raleigh, N. C, Sept. 9, 76. B.S, N. C. Col, 96; fellow, Hopkins, 98-99, Ph.D, 99. Asst. chem, N. C. Col, 95-96, asst. prof, 99-03, asst. chemist, Exp. Sta, 99-03; *Texas Exp. Sta*, 03-04, assoc. chemist, 04-05, acting chemist, 05-06, *chemist, 06-*, assoc. prof. chem, Texas Col, 04-05, acting prof, 05-06, assoc. prof, 06-12; *state chemist, Texas, 06-* A.A; Chem. Soc; Ass. Agr. Chem. (pres, 13); Soc. Animal Nutrition. Digestion experiments; soils; nitrification; phosphoric acid; methods of agricultural analysis; productive values of feeds.
- Frary, Dr. Francis C(owles)**, Aluminum Co. of America, New Kensington, Pa. **Chemistry*. Minneapolis, Minn, July 9, 84. A.C, Minnesota, 05, M.S, 06, Ph.D, 12; Berlin, 06-07. Asst. chem, Minnesota, 03-05, instr, 05-11, asst. prof, 11-15; research chemist, Oldbury Electrochem. Co, 15-17; *director research, Aluminum Co. of Amer*, 19- Capt, ordnance dept, O.R.C, and

- major, C.W.S., 18. Chem. Soc. (councilor, 17); Electrochem. Soc. (v. pres, 18, 25). Industrial and electro chemistry; aluminum.
- Fraser, Prof. Allan C(ameron)**, Cornell University, Ithaca, N. Y. *Plant breeding*. Brockport, N. Y., June 4, 90. B.S., Cornell, 13, Ph.D., 18. Asst. *plant breeding*, N. Y. Bot. Garden, 13-14; instr., *Cornell*, 14-18, *asst. prof.*, 19- A.A.; Bot. Soc. Heredity in Zea mays and Rosa.
- Fraser, Dr. C(harles) McLean**, University of British Columbia, Vancouver, B. C., Can. *Zoology*. Bluevale, Ont., June 1, 72. B.A., Toronto, 98, M.A., 03; Ph.D., Iowa, 11, fellow, 11-12. Lecturer and asst., Toronto, 01-03; director, Marine Biol. Lab. of Can., 12-24; *prof. zool.*, *British Columbia*, 20- A.A.; Soc. Zool.; Soc. Mammal; Fisheries Soc.; Ecol. Soc.; Pacific Fisheries Soc. (v. pres, 17-19, pres, 19); Iowa Acad.; fel. Royal Soc. Can.; B. C. Acad. (pres, 16-18). Marine zoology; taxonomy and ecology of hydroids; life history of fishes.
- Fraser, Samuel**, Geneseo, N. Y. *Agriculture*. Cheadle, Eng., Feb. 2, 76. Diploma, Cheshire Agr. Col., 98; M.S.A., Cornell, 05. Asst., Cheshire Agr. Col., 96-98; manager butter factory, 98-99; agriculturist, Sch. Practical Agr. and Hort, Briarcliff Manor, N. Y., 00-03; instr. agron., Cornell, 03-04, asst. agronomist, 04-06; agr. adviser to W. A. Wadsworth, 06-14; *consulting agriculturist*, 06- A.A.; Pomol. Soc.; Potato Ass.; Am. Nurserymen; fel. Scottish High. and Agr. Soc. The potato; root crops for stock; alfalfa and cultivated grasses; the rotation of crops; timothy; methods of farm management; American fruits; marketing and distribution of perishable products.
- Fraser, Thomas**, Pittsburgh, Pa. *Mining engineering*. White Hall, Ill., March 18, 93. B.S., Illinois, 17, E.M., 21. Asst. min. engineer, U. S. Bur. Mines, 19-23; research asst. prof. min., Illinois, 23-24; asst. prof., West Virginia, 24-27; *consulting engineer*. Consulting min. engineer, U. S. Bur. Mines, 23- Min. Eng. Coal chemistry and preparation; coal mine ventilation and power conditions; surface subsidence due to mining.
- Fraser, Prof. W(ilber) J(ohn)**, 1003 S. Wright St., Champaign, Ill. *Dairy husbandry*. Lockport, Ill., July 1, 69. B.S., Illinois, 93, M.S., 02. Asst. agr., Illinois, 93-96, instr. *dairy husbandry*, 96-01, asst. prof., 01-03, *prof.*, 03- Dairy Sci. Ass.; Soc. Animal Production; Agr. Econ. Ass.; Econ. Ass. Animal nutrition; dairy farm management.
- Frayne, Dr. John G(eorge)**, Antioch College, Yellow Springs, Ohio. *Physics*. Trinity (Ireland), 12-14; A.B., Ripon, 17; Ph.D., Minnesota, 21. Research engineer, Am. Tel. and Tel. Co., 19; instr. math. and mech., Minnesota, 19-21, *physics*, 21-22; *prof.*, *Antioch*, 22- Second lieut., Sig.C, 18. A.A.; Physical Soc. Radio telephony; thermionic tubes; piezoelectricity; absorption spectra of metallic vapors.
- Frazier, Dr. John**, 8013 Navajo St., Philadelphia, Pa. *Chemistry*. Paris, France, Feb. 5, 82. B.S., Pennsylvania, 03, A.M., 04, Ph.D., 07. Instr. *chem.*, *Pennsylvania*, 04-06, 07-08, asst. prof., 08-18, 19-21, *prof.*, 21-, *dean*, *Towne Sci. Sch.*, 12-18, 19- Sec'y, board deans, Pennsylvania, 21-22; exchange prof., universities, France, 22-23. Capt., C.W.S., 18-19, lieut. col., O.R.C., C.W.S., 24. A.A.; Chem. Soc.; Eng. Educ.; Soc. de Chim. indust. Electrodeposition of indium and certain electrolytic separations by the rotating anode; the effect of combustion products on vegetation.
- Frazier, Prof. J(oseph) C(hristie) W(hitney)**, Johns Hopkins University, Baltimore, Md. **Chemistry*. Lexington, Ky., Oct. 30, 75. B.S., 97, M.S., 98; Ph.D., Hopkins, 01; Sc.D., Kenyon, 26. Asst. chem., Kentucky, 97-98, asst. chem. dept., Ky. Exp. Sta., 98; *chem.*, *Hopkins*, 02-06, assoc., 06-14, *prof. and chairman dept.*, 14- Head research lab., Bur. Mines, Pittsburgh, 05-11. Osmotic pressure and vapor tension of solutions; catalysis and adsorption; surface chemistry.
- Frazier, Prof. Charles H(arrison)**, University of Pennsylvania, Philadelphia, Pa. *Surgery*. Philadelphia, April 19, 70. A.B., Pennsylvania, 89, M.D., 92, hon. Sc.D. Prof. clin. surg., *Pennsylvania*, 00-22, dean med. sch., 02-09, *John Rhea Barton prof. surg.*, 22- Surgeon, Univ. Hosp. A.A.; fel. Surg. Ass.; Neur. Ass.; Soc. Clin. Surg.; Am. Med. Ass.; Phila. Col. Physicians. Etiology of appendicitis; regeneration of the sensory root and morphology of the Gasserian ganglion; etiology of papilliderma in conditions of intracranial pressure; intracranial pressure; effects of cerebral decompression with relation to the degree of intracranial pressure and the site of decompression; recurrent laryngeal paralysis.
- Frazier, Dr. William C(arroll)**, U. S. Department of Agriculture, Washington, D. C. *Bacteriology*. Madison, Wis., Sept. 26, 94. B.S., Wisconsin, 17, Ph.D., 24. Instr., Wisconsin, 19-24; *assoc. bacteriologist*, *bur. dairying*, U. S. Dept. Agr., 24- Soc. Bact. Dairy bacteriology; the influence of bacteria on heat coagulation of milk; the proteolytic bacteria of milk.
- Freas, Prof. Tho(mas) B(ruce)**, Columbia University, New York, N. Y. **Chemistry*. Newark, Ohio, Nov. 2, 68. A.B., Stanford, 96; Ph.D., Chicago, 11. Prin., high sch., Kans., 96-97; chemist, West. Elec. Co., 97-98; manager, Ernst Leitz Supply House, 03-04; curator *chem.*, Chicago, 98-03, instr., 04-11; asst. prof., assoc. prof. and *prof.*, *Columbia*, 11- A.A.; Chem. Soc.; Electrochem. Soc.; Am. Geog. Soc.; N. Y. Acad. Thermodynamics of chemistry; constant temperature apparatus; laboratory design and management; ventilation.
- Fred, Prof. E(dwin) B(roun)**, 610 N. Francis St., Madison, Wis. *Bacteriology*. Middleburg, Va., March 22, 87. B.S., Va. Polytech, 07, M.S., 08, Ph.D., 11. Asst. bacteriologist, Va. Exp. Sta., 07-11, bacteriologist, 11-13; asst. prof. *bacter.*, *Wisconsin*, 13-14, assoc. prof., 14-18, *prof.*, 18- A.A.; Soc. Bact. Soil bacteriology; nitrogen-fixing bacteria; fermentation.
- Frederick, C(harles) W(arnock)**, 11 Fairview Heights, Rochester, N. Y. *Astronomy*. Des

- Moines, Iowa, May 13, 70. B.S., Kansas, 92. Computer, U. S. Naval Observatory, 01-02, asst. on equatorial, 02-04; asst. astronomer in charge observatory, Tutuila, Samoa, 04-06; asst. U. S. Naval Observatory, 06-09; instr. math, U. S. Naval Acad., 09-14; *head sci. div., H. E. dept., Eastman Kodak Co., 14-* In charge construction astron. observatory for U. S. Navy Dept., Samoa, 04-06. A.A.; Astron. Soc; Optical Soc. Optics; instrumental constants and differential refraction; the constant of aberration and variation of latitude; the solar parallax.
- Frederick, Dr. Edwin L(ouis)**, Rolling Road, Catonsville, Md. *Chemistry.* Baltimore, Md., March 17, 91. A.B., Hopkins, 11, fellow, 13-14, Ph.D., 14. Asst. chem., Hopkins, 11-12; asst. prof., N. C. Col., 14-17; research chemist, E. I. du Pont de Nemours and Co., 19-21; Baltimore City Col., 22-24; *head dept. science, Forest Park High Sch., Baltimore, 24-* Lieut., C.W.S., 17-19. Physical and organic chemistry; osmotic pressure of mannite solutions; poisonous gases; dyes.
- Free, Dr. E(dward) E(lway)**, 175 Fifth Ave., New York, N. Y. *Physics.* Dagus, Pa., May 3, 83. A.B., Cornell, 06; Ph.D., Hopkins, 17. Asst. chemist, Ariz. Exp. Sta., 07; physicist, bur. soils, U. S. Dept. Agr., 08-12; *consulting chemist and physicist, 12-* Research assoc., Carnegie Inst., 20. Ed., 'Sci. Am.', 24-25. Major, C.W.S., 18. A.A.; Physical Soc; Chem. Soc; Astron. Soc; Min. Eng; Wash. Acad. Soil physics; eolian geology; desert saline deposits; soil aeration; fertilizers.
- Freeborn, Prof. Stanley B(arron)**, University Farm, Davis, Calif. *Entomology, Parasitology.* Hudson, Mass., Dec. 11, 91. B.S., Mass. Col., 14, Ph.D., 24. Quarantine inspector, Mass., 13-14; instr. entom., California, 14-18, asst. prof. and asst. entomologist, 18-25, *assoc. prof. and assoc. entomologist, 25-* Consulting entomologist, Calif. State Board Health, 16-; asst. sanitarian, U. S. Pub. Health Service Reserve, 19- Officer, Sanit.C., 18-19. A.A.; Entom. Soc; Ass. Econ. Entom. Mosquitoes; malaria; poultry parasites.
- Freedman, Dr. Louis**, 644 Pacific St., Brooklyn, N. Y. *Chemistry.* New Haven, Conn., Jan. 28, 94. Ph.B., Yale, 15, Sheffield fellow, 15-16, Industrial fellow, 16-17, M.S., 17; Ph.D., Columbia, 22. *Research chemist, Calco Chem. Co., 17-19; H. A. Meta Laboratories, 19-* U.S.A., 18. A.A.; Chem. Soc; Inst. Chem; Soc. Exp. Biol. Synthetic organic chemistry; pharmaceutical and bio chemistry; vitamins; synthetic epinephrine and derivatives; arshenamines.
- Freedman, Prof. W(illiam) H(oratio)**, River Road, Nyack, N. Y. *Electrical engineering, Physics.* New York, N. Y., Dec. 28, 67. C.E., Columbia, 89, E.E., 91, John Tyndall fellow, 91-92; M.S., Vermont, 08. Tutor elec. eng., Columbia, 92-95, meech, 95-98, elec. eng., 98-99; prof., Vermont, 99-10; head dept. applied elec., Pratt Inst., 10-13; prof. elec. eng., Vermont, 13-20; Am. Tel. and Tel. Co., 20-22; *private radio research, 22-* Consulting elec. engineer, 99-;
- summers, asst., Columbia, 90-92. Assoc. ed., 'Elec. Power,' 95-96. A.A.; fel. Elec. Eng. The electric arc; hysteresis; eddy currents; electrolysis in railway structures.
- Freeman, Prof. E(dward) M(onroe)**, University Farm, St. Paul, Minn. **Botany.* St. Paul, Feb. 12, 75. B.S., Minnesota, 98, M.S., 99, Ph.D., 05; Cambridge, 01-02. Instr. col. pharmacy, Minnesota, 98-01, dept. bot., 02-03, asst. prof. bot., 03-05; pathologist, U. S. Dept. Agr., 05-07; *prof. bot. and plant path., Minnesota, 07-*, asst. dean dept. agr., 13-17, *dean col. agr., forestry and home econ., 17-* Special agent, bur. statist., U. S. Dept. Agr., 05, collaborator, bur. plant indust., 08- Agr. committee, Nat. Research Council, 17. Asst. Minn. Geol. and Nat. Hist. Surv., 98, 00, 02-05. Ed., 'Phytopath.', 11-14; 'Jour. Agr. Research,' 14. A.A.; Soc. Nat; Bot. Soc; Phytopath. Soc. (pres., 18-19); Genetic Ass. Dendro-pathology; mycological botany; cereal rusts.
- Freeman, Prof. E(rnest) H(arrison)**, Armour Institute of Technology, Chicago, Ill. *Electrical engineering.* Topeka, Kans., Sept. 26, 76. B.S., Kansas Col., 95; B.S., Armour, 02, E.E., 06. Instr. *elec. eng., Armour, 02-04*, asst. prof., 04-06, assoc. prof., 06-09, *prof. and head dept., 09-* Elec. Eng; Illum. Eng. Soc; Eng. Educ; Radio Eng.
- Freeman, Prof. Frank N(ugent)**, University of Chicago, Chicago, Ill. *Psychology.* Rockwood, Ont., Can., April 17, 80. A.B., Wesleyan, 04; A.M., Yale, 06, Ph.D., 08, traveling fellow, 08-09. Asst. psychol., Yale, 06-08; instr. *educ. psychol., Chicago, 09-13*, asst. prof., 13-17, assoc. prof., 17-20, *prof., 20-* Acting prof., Washington (Md), 07. A.A. (sec'y, 1, 19); Psychol. Ass; Educ. Research Ass. (sec'y, 22); Nat. Soc. Study Educ. Psychology of writing; mental tests; illumination standards; visual education; tests of instruction.
- Freeman, Dr. Geo(rge) F(ouche)**, Port au Prince, Haiti. *Botany.* Maple Grove, Ala., Nov. 4, 76. B.S., Ala. Polytech., 03; Sc.D., Harvard, 17. Prin. Downer Inst., S. C., 99-01; asst. bot., Mass. Col., 03-04; Kansas Col., 04-06, instr., 06-07, asst. prof., 07-09; plant breeder, Ariz. Exp. Sta., 09-19, acting dean col. agr. and director, Exp. Sta., 15-16; chief plant breeding, Soc. Sultan. d'Agr., Cairo, Egypt, 19-21; chief div. cotton breeding, Texas Exp. Sta., 21-22; agr. and econ. mission, Indo-China, 22; *director-gen. Service Technique d'Agr., et de l'Enseignement Professionnelle, Haiti, 22-* Soc. Nat; Bot. Soc; Soc. Agron; Cairo Sci. Soc. Plant breeding; alfalfa; wheat; corn; cotton; quantitative determination of transpiration in plants; evaporation; plant diseases; cotton breeding.
- Freeman, Dr. John R(ipley)**, 42 Freeman Park-way, Providence, R. I. *Hydraulic engineering.* West Bridgeton, Maine, July 27, 55. B.S., Mass. Inst. Tech., 76; hon. Sc.D., Brown, 04, Tufts, 05. Prin. asst. engineer, Water Power Co., Mass., 77-80; prin. asst. to consulting hydraulic engineer, 80-86; *consulting engineer, 86-* Chief engineer and supt. inspection, Ass. Faculty Mutual Ins. Companies, 87-96; Mass. Metropolitan Water Board, 95-96; pres. and treas., Manufacturers'

- Mutual Ins. Co, 96-; lecturer and mem. corp, Mass. Inst. Tech, visitor eng. dept; Board Consulting Eng, Isthmian Canal, 07-09; consulting engineer, N. Y. Water Supply, 00-; Los Angeles Aqueduct, 01; Can. Govt. water power development, 00-05; Baltimore water supply, 08; San Francisco, 10; San Diego, 23; improvement of grand canal, Chinese govt, 17-; pres, Providence Gas Co, 17. Chairman, Nat. Advisory Committee Aeronaut, 18. Nat. Acad; A.A.; Civil Eng. (v. pres, 02, pres, 21); Mech. Eng. (pres, 04); Am. Acad; New Eng. Water Works Ass; Boston Soc. Civil Eng. (pres, 94). Experimental hydraulics; fire protection; development of water power; municipal water supply; flow of water in pipes and pipe fittings; effect of damming tidal estuary of Charles River at Boston on health of community and on shoaling of harbor; fire protection of theatres; regulation of the Great Lakes; earthquake hazard to structures; development of hydraulic experimental laboratories for river flow problems.
- Freeman, Dr. Leonard**, St. Joseph's Hospital, Denver, Colo. *Surgery*. Cincinnati, Ohio, Dec. 16, 60. B.S., Cincinnati, 83; M.D., Med. Col. of Ohio, 86; A.M., Denver, 01. *Prof. surg*, Woman's Med. Col. 88-94; *Colorado*, 94-; *surgeon*, *Denver City and Co. Hosp.* and *St. Joseph's Hosp*, 94- Surgeon, Christ's Hosp, and pathologist, Cincinnati Hosp, 88-94; surgeon, Colo. Gen. Hosp. Am. Med. Ass; Surg. Ass. (v. pres); West. Surg. Ass. (pres, 17); Int. Surg. Ass.
- Freeman, Prof. O(tis) W(illard)**, Washington State Normal School, Cheney, Wash. *Geology*. Otsego, Mich, April 13, 89. A.B., Albion, 10; M.S., Michigan, 13. *Instr*, high schools, Mich, Mont. and Calif, 10-23; *geol. and geog*, Northwestern, 23-24; *Wash. State Nor. Sch*, Cheney, 24- Acting prof, Hawaii, 26-27; summers, instr, Cent. Mont. and San Francisco Nor. Schools, 16-24. A.A.; Meteor. Soc; Northwest Sci. Ass. Physical geology; economic geography; mineral resources and petroleum fields of Montana; geography and geology of Fergus County, Montana; petroleum fields of Montana.
- Freeman, Dr. R(owland) G(odfrey)**, 100 E. 74th St, New York, N. Y. *Pediatrics*, *Bacteriology*. New York, June 11, 59. A.B., Columbia, 83, M.D, 86. Clin. lecturer *pediat*, *Univ. and Bellevue Hosp. Med. Col*, 01-09, asst. prof, 09-12, assoc. prof, 12-19, *prof*, 19- Consulting pediatricist, Roosevelt Hosp; N. Y. Nursery and Child's Hosp; N. Y. Foundling Hosp; Seaside Hosp. of St. John's Guild; Somerset Hosp; St. Agnes Hosp; Holy Name Hosp. Am. Physicians; *Pediat. Soc*; *Tuber. Ass*; *Am. Med. Ass*; N. Y. Acad. Med. *Pediatrics*.
- Freeman, Dr. Walter (J), Jr**, 4035 Connecticut Ave, Washington, D. C. *Neuropathology*, *Neurology*. Philadelphia, Pa, Nov. 14, 95. A.B., Yale, 16; M.D., Pennsylvania, 20. Anatomist, Phila. Gen. Hosp, 20-21, asst. pathologist, 23; asst. instr. path, Pennsylvania, 23; asst. étranger, Paris, 23; *assoc. path*, *Georgetown*, and *prof. neuropath*, *George Washington*, 24-; *director lab*, *St. Elizabeth's Hosp*, 24- Am. Med. Ass; Ass. Research Nervous and Mental Diseases; Phila. Path. Soc; Phila. Neur. Soc; Wash. Nervous and Mental Diseases Soc. Pathological anatomy.
- Frehafer, Dr. M(abel) Katherine**, Goucher College, Baltimore, Md. *Physics*. Philadelphia, Pa, 86. A.B., Bryn Mawr, 08; A.M., Wisconsin, 09; Ph.D., Hopkins, 19. Demonstrator physics, Bryn Mawr, 10-14; asst. Wisconsin, 14-16; instr, Mt. Holyoke, 16-18; asst. physicist and assoc. physicist, Bur. Standards, 19-23; *prof. physics*, Wilson, 24-25; *instr*, *Goucher*, 25- A.A.; assoc. Physical Soc; assoc. Optical Soc. Reflection and transmission of ultra-violet by sodium and potassium; physical measurement of color.
- Freiberg, Dr. Albert H**, 3577 Alaska Ave, Cincinnati, Ohio. *Orthopedic surgery*. Cincinnati, Aug. 17, 68. M.D., Cincinnati, 90; Würzburg, Strassburg, Vienna, Berlin, 91-94; LL.D., Cedarville, 15. *Prof. orthop. surg*, *Cincinnati*, 02- Director orthop. service, Cincinnati Gen, Jewish and Children's Hospitals. Trustee, Cincinnati Acad. Med. A.A.; Am. Med. Ass; Orthop. Ass. (pres, 10); Ohio State Med. Ass. (councilor).
- French, Prof. A(rthur) W(illard)**, 202 Russell St, Worcester, Mass. *Civil engineering*. Battle Creek, Mich, July 13, 68. C.E., Dartmouth, 92. Practising engineer, 92-95; asst. *prof. civil eng*, Thayer Sch. Civil Eng, Dartmouth, 95-98; *prof*, *Worcester*, 99- Civil Eng; Eng. Educ; Boston Soc. Civil Eng; Concrete Inst. Properties of structural materials.
- French, C(harles) A(lonzo)**, Dominion Observatory, Ottawa, Ont, Can. *Physics*. Mt. Albert, Ont, July 9, 78. B.A., Toronto, 06. Observer, *Dominion Observatory*, 06-08, *magnetician*, 08- Royal Astron. Soc. Can. Terrestrial magnetism.
- French, G(eorge) H(azen)**, Herrin, Ill. *Pathology*, *Botany*, *Entomology*. Tully, N. Y., March 19, 41. A.M., Ill. Agr. Col, 73. Chemist, Ill. Col, 68-77; asst. state entomologist, Ill, 77-78; *prof. physiol. and plant path*, S. Ill. Nor. Univ, 78-17; pathologist, Herrin Hosp; *consulting pathologist and endocrinologist*. A.A.; Entom. Soc; Ass. Econ. Entom; Phila. Acad; St. Louis Acad; N. Y. Entom. Soc; Canadian, French and Belgian Entom. Societies; hon. mem. Lübeck Soc. Nat. Sci. Endocrinology; catolae.
- French, G(eorge) Talbot**, 1112 State Office Building, Richmond, Va. *Botany*. Stoughton, Mass, Jan. 14, 84. B.S., Mass. Col, 06; Cornell, 09-10. Asst. botanist, N. Y. Exp. Sta, Geneva, 06-12; *botanist in charge div. bot. and seed lab*, *Va. Dept. Agr. and Immigration*, 12- Ass. Seed Anal. (pres, 18, chairman, legis. committee, 18-27). Phytopath. Soc. Plant pathology; seed testing and identification.
- French, Dean H(arley) E(llsworth)**, 316 Hamline Ave, Grand Forks, N. Dak. *Anatomy*. Delphi, Ind, Dec. 7, 73. A.B., Wash. Col, 02; M.D., Northwestern, 07; M.S., Chicago, 11. *Prof. anat. and physiol*, South Dakota, 07-11; *anat. and dean sch. med*, *North Dakota*, 11- Asst. prof, sch. med, Pennsylvania, 25-26; sec'y, State Board Health, N. Dak, 21-23;

- director, State Pub. Health Lab, 23- Ass. Anat; Am. Med. Ass; N. Dak. Med. Ass. (pres, 21). Medical education and sociology.
- French, H(arry) F(ield)**, National Carbon Co, Inc, Cleveland, Ohio. *Chemistry*. Plymouth, N. H., Nov. 7, 86. B.S., New Hampshire, 08. Asst. chemist, N. H. State Lab. Hygiene, 08-10; chemist, *Nat. Carbon Co*, 10-12, *research chemist*, 12- A.A.; Chem. Soc. Manufacture of primary electrical batteries.
- French, Prof. Helen S(omersby)**, Wellesley College, Wellesley, Mass. *Chemistry*. Lynn, Mass, 84. A.B., Wellesley, 07, A.M., 10; Ph.D., Zurich, 13. Asst. chem, *Wellesley*, 07-10, instr., 10-11, 13-17, asst. prof., 17-20, assoc. prof., 20-25, prof., 25- A.A.; Chem. Soc. Absorption spectra of organic compounds.
- French, Herbert**, 1511 Ross St, Columbia, Mo. *Chemistry*. Ireton, Iowa, Nov. 13, 89. A.B., Morningside Col, 15; A.M., Illinois, 17, Ph.D., 20. Instr. chem, *Missouri*, 20-21, asst. prof., 21- Chem. Soc. Condensation of aldehydes and acid halides; oxalyl chloride as a reagent for alcohols; the Grignard reagent and organic acids; electrical properties of Grignard reagents.
- French, Dr. John S(haw)**, New Hampton, N. H. *Mathematics*. North Fayette, Maine, July 3, 73. A.B., Bowdoin, 95; fellow, Clark, 96-98, Ph.D., 98. Prof. math, Jacob Tome Inst, 98-08; prin, Morris Heights Sch, 08-18; sec'y and chairman board of admission, Clark, 18-21; prin, *New Hampton Lit. Inst*, 23- Assoc. examiner, Col. Ent. Exam. Board. A.A.; Math. Soc; Soc. astron. de France; Circolo Mat. di Palermo. The pertingents to a plane curve; the singularities and general class of a plane curve.
- French, Owen B(ert)**, 3420 36th St, N. W., Washington, D. C. *Civil engineering*. Cleveland, Ohio, Dec. 7, 65. B.S., Case, 88, C.E., 05. Asst, U. S. Coast and Geod. Surv, 95-15; prof. geod. and astron, Inst. Mil. Surv, Peking, China, 18-19; consulting geodesist, 16-17, 20-; prof. surv. and geod, *George Washington*, 20- Wellman Polar exped, 94; Wheat decoration, China. A.A.; Civil Eng; Eng. Educ; Wash. Philos. Soc; Wash. Acad; Wash. Soc. Eng. (treas, 18). Invar tapes for measurement of primary base lines; telegraphic longitudes.
- French, Dr. R(aymond) A(lbert)**, University of Dubuque, Dubuque, Iowa. *Botany*. Iowa, 76. B.Di, 02; A.B., 07; Ph.D., 20. Head dept. biol, Highland Park, 13-19; *Dubuque*, 20- A.A.; Iowa Acad.
- French, Rev. Thomas, Jr, R. F. D. 4**, Sebastopol, Calif. *Physics, Mining engineering*. Cincinnati, Ohio, Jan. 15, 48. A.B., Harvard, 72; Ph.D., Heidelberg, 76. Asst. physics, Pennsylvania, 76-78; prof. physics and math, Urbana, 76-83; physics, Cincinnati, 83-00; substitute prof, Amherst, 02-03; minister, New Jerusalem Church (Swedenborgian), Buffalo, N. Y., 05-10; *Swedenborgian Church, San Francisco, Calif*, 12-; fruit grower, 12- Lecturer, 03, 04. Consulting city electrician, Cincinnati, 89; manager, Santa Rita Mining Co, 01. Assoc. ed, 'Jour. Terrestrial Magnetism,' 99-00. A.A.; assoc. mem. Elec. Eng. Electric dis-
- charges through rarefied media; efficiency of different systems of electric illumination; comparative economy of illumination by gas and by electricity.
- French, Prof. Thomas E(wing)**, Ohio State University, Columbus, Ohio. *Engineering*. Mansfield, Ohio, Nov. 7, 71. M.E., Ohio State, 95; hon. Sc.D., Monmouth, 21. Assoc. prof. archit, *Ohio State*, 01-06; prof. eng. drawing, 06- Consulting engineer, Edward H. French and Co. A.A.; Mech. Eng; Eng. Educ. (councilor, 16-19). Graphics; paleography; plant design.
- Freud, Prof. B(enjamin) B(all)**, 1242 Rosedale Ave, Chicago, Ill. *Chemistry, Chemical engineering*. Chicago, Feb. 12, 86. B.S., Chicago, 04; Ch.E., Armour, 15. Instr, asst. prof. and assoc. prof, *Armour*, 04-; consulting chemist and chem. engineer, 10- Capt, C.W.S., 18; major, C.W.S.R., 25. A.A.; Chem. Soc; Chem. Eng. Organic and physical chemistry; industrial organic chemistry; metallurgy.
- Freud, Dr. Henrietta Zollman (Mrs. B. B.)**, 1242 Rosedale Ave, Chicago, Ill. *Physical chemistry*. Chicago, 99. A.B., Smith, 20; M.S., Chicago, 22, Ph.D., 24. Chemist, Miner Laboratories, 20-21. Chem. Soc. Surface tension.
- Freund, Dr. Hugo Abraham**, 62 W. Kirby Ave, Detroit, Mich. *Medicine*. Detroit, Dec. 6, 81. A.B., Michigan, 03, M.D., 05. First asst. internal med, Michigan, 05-07; senior attending physician, Harper Hosp, 10; pres, Board Health, Detroit, Mich. A.A.; Ass. Path. and Bact; Therapeut. Soc; Ass. Endocrinol. Internal medicine; intestinal parasites; cardiac arrhythmias; diabetes; Hodgkins disease; *Trichomonas hominis* of the intestinal tract; osteomalacia; influenza; lethargic encephalitis.
- Frevert, Dr. Harry L(ouis)**, The Midvale Co, Philadelphia, Pa. *Chemistry*. Dayton, Ohio, June 21, 82. A.B., Harvard, 05, Ph.D., 08. Instr. physical chem, Harvard, 06-09; chief chemist, Midvale Steel Co, 09-11, supt. armor dept, 13-17, armor, ordnance and heat treatment, 17-21, gen. supt, 21-23, v. pres, *The Midvale Co*, 23- Atomic weights; heats of combustion; amalgams; steel.
- Frey, Dr. Charles N**, 103 W. 183d St, New York, N. Y. *Biochemistry*. Hopkins, Mich. B.S., Mich. State Col, 11; M.S., Wisconsin, 15, Ph.D., 19. Biologist, Fed. Hort. Board, 15; inspection service, Wisconsin, 16-17; fellow, Mellon Inst, 20-22; research chemist, Ward Baking Co, 22-24; *Fleischmann Co*, 24-26, in charge laboratories, 26- Asst. ed, 'Chem. Abstracts.' First lieut, Sanit.C, 17-19, capt, 19- A.A.; Chem. Soc; Inst. Chem; Wis. Acad. Yeast; biochemistry of bacteria and fungi; nutrition; metabolism and commercial production; baking technology; foods.
- Frey, R(alph) W(ylie)**, 3120 Ash St, Mt. Rainier, Md. *Chemistry*. Washington, D. C., July 28, 89. B.S., George Washington, 12. Assoc. chemist, leather and tanning investigations, bur. chem, U. S. Dept. Agr, 14- Chem. Soc; Leather Chem. Ass. (council, 24-); Int. Soc. Leather Trades Chemists. Hides; tanning materials; tanning; leather.

- Freyn, H(enry) J(oseph)**, 310 S. Michigan Ave, Chicago, Ill. *Metallurgical engineering*. Blansko, Austria, Aug. 12, 76. M.E. Tech. Univ, Prague, Austria. Engineer, Breitfeld, Danek and Co, Prague, Austria; Société Anonyme John Cockerill, Belgium; Wellman, Seaver, Morgan Co, Cleveland, Ohio; asst. chief engineer, Ill. Steel Co; consulting engineer, Allis Chalmers Mfg. Co, Wis; v. pres, H. Koppers Co, Chicago; *pres*, *Freyn Eng. Co, Chicago*. Am. Iron and Steel Inst; Mech. Eng. (chairman, power sect); Min. and Metal. Eng. Elec. Eng; Min. Eng; West. Soc. Eng; British Iron and Steel Inst; Verein Deutsch. Eisenhüttenleute. Blast furnace and coke oven association.
- Frick, Dr. Carl E(mmit)**, 6756 Chappel Ave, Chicago, Ill. *Chemistry*. Akron, Ohio, June 17, 94. B.S. Akron, 16; A.M. Ohio State, 17; Ph.D, Wisconsin, 23. Instr, Case, 19; chemist, Phila. Rubber Works Co, 20-21; instr, Wisconsin, 22-23; *research chemist, Van Cleef Bros, 23-* Gas chemist, Exp. Sta, American Univ, 18. A.A; Chem. Soc. The chemistry of rubber; organic selenium compounds.
- Fricke, Dr. Hugo**, Cleveland Clinic Foundation, Euclid Ave. at E. 93d St, Cleveland, Ohio. *Physics*. Aarhus, Denmark, Aug. 15, 92. Ph.D, Copenhagen, 16, Lund, 18. Research asst. physics, Harvard, 19-20; *director dept. biophysics, Cleveland Clinic Foundation, 21-* Physical Soc; Optical Soc. X-rays; electric resistance and capacity of biological systems.
- Friedemann, Dr. Theodore E(dward)**, Washington University School of Medicine, St. Louis, Mo. *Biochemistry*. Kiel, Okla, Feb. 22, 96. B.S. Okla. Agr. and Mech. Col, 15; A.M. Missouri, 21; Ph.D, Washington (St. Louis), 23. Instr. chem, Mich. State Col, 15-17; asst. chemist, Mich. Exp. Sta, 17-19; asst. agr. chem, Mo. Exp. Sta, 20-21; *asst. biol. chem, Washington (St. Louis), 21-* Chem. Soc; Soc. Biol. Chem. Antiketogenesis; methyl glyoxal; lactic acid; oxidation of sugars and acetone bodies; glycuronic acid.
- Friedemann, Dr. William G(ustav)**, Georgia Experiment Station, Experiment, Ga. *Chemistry*. Kiel, Okla, Aug. 28, 94. B.S. Okla. Agr. and Mech. Col, 14, M.S. 16; Harvard, 20, 21; Ph.D, Chicago, 25. Asst. chem, Okla. Exp. Sta, 14-17, research chemist, 18-22; asst. chem, Chicago, 22-24; acting chemist, *Ga. Exp. Sta, 25-26, chemist, 26-* Chem. Soc; Okla. Acad. (v. pres, 22). Velocity of saponification of methyl formate at 25 degrees centigrade; hydrolysis of sodium cyanide, potassium cyanide and barium asparaginate at 25 degrees centigrade; carbohydrates of pecan; acetyl-methylcarbinol in saccharine sorghum silage; fats and fatty acids of the grain sorghums; digestion; plant analysis.
- Friedenwald, Prof. Harry**, 1212 Eutaw Place, Baltimore, Md. *Ophthalmology, Otolology*. Baltimore, Sept. 21, 64. A.B. Hopkins, 84; M.D. Col. Physicians and Surg, Baltimore, 86. Asst. Prof. Hirschberg's Eye Hosp, Berlin, 87-89; assoc. prof. *ophthal. and otol*, Col. Physicians and Surg, Baltimore, 94-02, *prof*, 02-16; *Maryland, 16-* Ophthalmic and aural surgeon, Baltimore Eye, Ear and Throat Charity Hosp, Mercy, Union Memorial, Woman's and Sinai Hospitals. A.A; Ophthal. Soc; Otol. Soc; Am. Med. Ass; Md. Med. and Chirurg. Faculty; Ophthal. Soc. United Kingdom; Heidelberg Ophthal. Gesell.
- Friedenwald, Prof. Julius**, 1013 N. Charles St, Baltimore, Md. *Gastro-enterology*. Baltimore, Dec. 20, 66. A.B. Hopkins, 87; M.D. Col. Physicians and Surg, Maryland, 90; A.M. Loyola, 94. *Prof. gastro-enterol, Maryland*. Gastro-enterologist, Union Mem. Hosp; Mercy Hosp; Church Home and Infirmary; Woman's Hosp; Sinai Hosp. A.A; Am. Physicians; Gastro-Enterol. Ass. (pres, 08-10); Am. Med. Ass; Col. Physicians; Therapeut. Ass. Gastro-enterology; dietetics.
- Friedline, Dr. C(ora) L(ouisa)**, Randolph-Macon Woman's Col, Lynchburg, Va. *Psychology*. New York, N. Y., Jan. 21, 93. A.B. Nebraska, 13, A.M. 15; fellow, Bryn Mawr, 15-16; Ph.D, Cornell, 18. Asst. *psychol*, Nebraska, 14-15; tutor, Cornell, 17-18; adjunct prof, *Randolph-Macon Woman's Col, 18-21, assoc. prof, 21-* A.A; Psychol. Ass; S. Soc. Philos. and Psychol. The discrimination of cutaneous patterns below the two point limen.
- Friedman, Dr. E(manuel) David**, 1192 Park Ave, New York, N. Y. *Neurology*. New York, Aug. 25, 84. B.S. Col. City of N. Y., 03; M.D. N. Y. Univ, 07; Europe, 08-09, 13. Instr. med, *Univ. and Bellevue Hosp. Med. Col, 13-18, C. A. Herter fellow research med, 14-15, instr. neuropath, 19-22, lecturer, 22-24, clin. prof. neur, 24-* Adjunct physician, Cent. Neur. Hosp, 12-21; Bellevue Hosp, 17-22, assoc. neurologist, 22-; Mt. Sinai Hosp, 20-; assoc. neurologist, Montefiore Hosp, 21-23; United Israel-Zion Hosp, 22-24, chief neur. service, 24- Am. Med. Ass; Neur. Ass; Ass. Research Nervous and Mental Diseases; Harvey Soc; N. Y. Acad. Med; N. Y. Neur. Soc; Am. Med. Ass. Vienna; Anglo-Am. Med. Soc. Berlin. Clinical pathological neurology; carbon dioxide content of the blood; alveolar air in obstructed expiration.
- Friedmann, Dr. Herbert**, Amherst College, Amherst, Mass. *Vertebrate zoology, Ornithology*. New York, N. Y., April 22, 00. B.S. Col. City of N. Y., 20; Ph.D, Cornell, 23. Nat. Research Council fellow zool, Bussey Inst, Harvard, 23-26; *instr. biol*, Brown, 26-27; *zool, Amherst, 27-* Summers, instr, Cornell, 22, Virginia, 23, asst. Am. Museum Nat. Hist, 20-22; expeditions, Mexican Border, Argentina, South, East. and Cent. Africa. A.A; Ecol. Soc; Cooper Ornith. Club; Ornith. Union; Boston Soc. Nat. Hist; Soc. Ornith. del Plata, Argentina. Vertebrate zoology; cyclical instincts of birds; brood parasitism; birds of Africa and Argentina; nestbuilding.
- Fries, Major General Amos A(lfred)**, 3305 Woodley Road, N. W., Washington, D. C. *Engineering*. Debello, Wis, March 17, 73. Grad. U. S. Mil. Acad, 98; grad. U. S. Eng. Sch, 12. All grades from second lieutenant to *major gen, C.Eng, 98-*; C.Eng, Philippine Islands, 01-03; asst. in charge harbor works, Oregon, 03-06; in charge Los Angeles river and harbor dist, 06-09; di-

- rector, Mil. Eng. Sch, 11-14; in charge road and bridge construction, Yellowstone Nat. Park, 14-17; *chief, Chem. Warfare Service, 17- A.A.*; Civil Eng; Ass. Eng; hon. mem. S. Calif. Eng. and Archit. Ass. Chemical warfare; road building.
- Fries, J(oens) E(lias)**, T. C. I. and Ry. Co, Birmingham, Ala. *Electrical engineering*. Sweden, April 6, 76. E.E, M.E, Royal Polytech, Stockholm, 98. Indust. concerns, Sweden, 98-03; U. S, 03-08; Crocker-Wheeler Co, 08-10, indust. engineer, 10-12, Pacific Coast engineer, 12-14, asst. chief engineer, 14-16; chief elec. engineer, *Tennessee Coal, Iron and Ry. Co*, 16-19, *chief engineer*, 19- A.A.; fel. Elec. Eng; N. Y. Eng. Club. Electric drive of turbine pumps; current surge; 60 vs. 25 cycles; gear ratio; reversing steel mill drives; relativity; fungi.
- Fries, J(öns) A(ugust)**, State College, Pa. *Animal nutrition*. Hälsingborg, Sweden, Aug. 31, 63. B.S, Pa. State, 99, M.S, 06; Halle, 94; Bonn, Leipzig, Zurich, 04-05. Asst. chemist, Pa. Exp. Sta, 89-98, expert asst. animal nutrition, 98-08, *asst. director, inst. animal nutrition, Pa. State*, 08- Chem. Soc; Soc. Animal Production; Nord. Jordbruksforsk Förening. Bomb calorimetry; respiration calorimetry with cattle; gas analysis.
- Friesner, Prof. Ray C(larence)**, Butler University, Indianapolis, Ind. *Botany*. Bremen, Ohio, Feb. 8, 94. A.B, Ohio Wesleyan, 16; Ph.D, Michigan, 19. Asst. prof. bot, *Butler*, 19-22, assoc. prof, 22-25, *prof*, 25- Summers, instr, Michigan, 18-19. A.A; Bot. Soc; Ind. Acad. Physiological cytology.
- Frink, Prof. H(orace) W(estlake)**, 17 E. 38th St, New York, N. Y. *Psychology*. Irontdale, N. Y, Feb. 7, 83. M.D, Cornell, 05. Asst. prof. neur. med. col, Cornell, 14-22; asst. attending neurologist, Bellevue Hosp, 14-18; assoc. ed, 'Int. Jour. Psychoanal,' 22-24. Psychopath. Ass. (sec'y, 15); Neur. Ass; N. Y. Psychoanal. Soc. (pres, 14-16, 22); N. Y. Neur. Soc; N. Y. Acad. Med. Psychiatry; psychoneuroses; morbid fears; sex psychology.
- Frison, Dr. Theodore H(enry)**, Natural History Building, Urbana, Ill. *Entomology*. Champaign, Ill, Jan. 17, 95. B.S, Illinois, 18, A.M, 20, fellow, 20-21, Ph.D, 23. Asst. entomologist, Wis, 20; bur. entom. U. S. Dept. Agr, 21-22; asst. entom. Illinois, 22-23; *systematic entomologist and curator, Ill. State Nat. Hist. Surv*, 23- A.A; Entom. Soc; Ass. Econ. Entom; Ill. Acad. Economic entomology; ecology; systematic and biological studies of Hymenoptera.
- Frissell, Dr. Lewis F(ox)**, 791 Park Ave, New York, N. Y. *Medicine*. Bloomfield, N. J, Aug. 2, 72. A.B, Yale, 95, A.M, 97; M.D, Columbia, 00. *Asst. prof. clin. med, Columbia*. A.A; Tuber. Ass; N. Y. Acad. Med. Internal medicine; diabetes.
- Fritts, Dr. E(dwin) C(oulthard)**, 40 Rosedale St, Rochester, N. Y. *Physics*. Carlisle, Ky, May 21, 94. B.S, Georgetown (Ky), 17; M.S, Illinois, 20, Ph.D, 23. Asst. physics, Illinois, 17-23; *physicist, Eastman Kodak Co*, 23- Physical Soc; Soc. Motion Picture Eng. Dielectric constants of gases; motion picture engineering.
- Frobisher, Dr. Martin, Jr**, 1833 E. Monument St, Baltimore, Md. *Bacteriology*. New York, N. Y, Jan. 17, 96. Cornell, 16-17, 19-20; B.S, Hopkins, 22, Sc.D, 25. Asst. bacter, sch. hygiene and pub. health, Hopkins, and asst. bacteriologist, Md. State Dept. Health, 22-23, acting chief bur. bacter, 23-24; chief div. chem, Dept. Health, Baltimore, 24-25; *instr. bacter, sch. med, Hopkins*, 25- Asst, Presb. Hosp, New York, 20; sci. aid, bur. animal indust, U. S. Dept. Agr, 21. Lab. Service, U.S.A, 18-19. A.A; Soc. Bact. Relations of surface tension to bacterial phenomena and disinfection; streptococci.
- Froberg, Dr. Sven**, Gustavus Adolphus College, St. Peter, Minn. *Psychology*. Sweden, 80. A.B, Bethany, 03; Ph.D, Columbia, 08. Instr. and prof. psychol, Upsala, 08-15; instr, Michigan, 15-17; asst. prof, Pa. State, 17-18; Utah, 20-21; *prof. psychol. and educ, Gustavus Adolphus*, 21- Vocational adviser, Fed. Board for Vocational Educ, 19; U. S. Dept. Justice, 20. A.A; Psychol. Ass; Eugenics Research Ass. Educational, applied and vocational psychology; mental efficiency tests; effects of smoking.
- Frölich, Dr. Per K**, Massachusetts Institute of Technology, Cambridge, Mass. *Chemical engineering*. Kristiansand, Norway, June 29, 99. B.S, Norway Inst. Tech, 21; Am-Scandinavian Foundation fellow, 22-23; M.S, Mass. Inst. Tech, 23, Sc.D, 25. Asst. chem. eng, Norway Inst. Tech, 19-21; instr, Kristiansand Business Col, 21-22; research asst, *Mass. Inst. Tech*, 23-25, *research assoc. and div. director research lab. applied chem*, 25- Electrochem. Soc; Chem. Soc; Norwegian Soc. Eng. Colloid industrial electrochemistry; high pressure gas reactions and catalysis.
- Fromme, Prof. F(red) D(enton)**, Blacksburg, Va. *Botany*. St. Paris, Ohio, April 2, 86. B.S, S. Dak. Col, 11; Ph.D, Columbia, 14. Asst. bot, Columbia, 12-13; asst. botanist, Ind. Exp. Sta, 14-15; *prof. plant path. and bacter, Va. Polytech, and plant pathologist and bacteriologist, Exp. Sta*, 16- A.A; Bot. Soc; Phytopath. Soc. (v. pres, 23, pres, 24); Bot. Cent. States. Phytopathology; cytology, morphology and physiology of fungi.
- Frost, Prof. Edwin B(rant)**, Williams Bay, Wis. *Astrophysics, Astronomy*. Brattleboro, Vt, July 14, 66. A.B, Dartmouth, 86, A.M, 89; Strassburg, 90-91; hon. Sc.D, Dartmouth, 11; Cambridge, 12. Instr, high sch, N. H, 86; physics and astron, Dartmouth, 87-90; volunteer and asst, Astrophys. Observatory, Potsdam, Germany, 91-92; asst. prof. astron, Dartmouth, 92-95, prof, 95-02 (non-res, 98-02); *prof. astrophys, Chicago, and astrophysicist, Yerkes Observatory*, 98-, *director*, 05- Asst. ed, 'Astrophys. Jour,' 95-01, ed, 02- Nat. Acad; A.A. (sec'y, A, 96); Astron. Soc. (v. pres, 12); Philos. Soc; Am. Acad; for. assoc. Royal Astron. Soc; Astron. Gesell; hon. mem. Russian Astron. Soc. Thermal radiation of the

- sun; sunspots; stellar spectroscopy; spectrographic determination of velocities of stars in line of sight.
- Frost, Dr. G(ilman) D(uBois)**, Hanover, N. H. *Medicine*. Randolph, Vt, May 7, 64. A.B, Dartmouth, 86, A.M, 89; M.D, Harvard and Dartmouth, 92. *Prof. anat, med. sch, Dartmouth*, 93-10, *clin. med*, 10-
- Frost, Dr. Grenville B(arker)**, Queen's University, Kingston, Ont, Can. *Chemistry*. Orillia, Ont, Jan. 27, 91. B.A, Toronto, 15; Ph.D, California, 23. Chemist, Imp. Ministry of Munitions, Can, 16-19; explosives div, Can. Dept. Mines, 19-21; asst. chem, California, 21-24; research chemist, Am. Cyanamid Co, 24-25; *lecturer chem, Queen's (Can)*, 25- Chem. Soc. Liquid sulphur dioxide as analytical standard; heats of formation of sulphur dioxide and sulphuric acid; reversible reactions of phosphorous compounds; absorption of hydrogen cyanide by alkalis.
- Frost, Dr. Howard B(rett)**, Citrus Experiment Station, Riverside, Calif. *Botany*. Dairyland, N. Y, Sept. 23, 81. B.S.A, Cornell, 08, M.S.A, 10, Ph.D, 13. Asst. hort, N. Y. State Col. Agr, Cornell, 10-12; asst. plant breeding, *Citrus Exp. Sta. and grad. sch. trop. agr, California*, 13-17, instr, 17-20, research assoc, 20-22, assoc. plant breeder, 22-25, asst. plant breeder, 25-27, *assoc. plant breeder*, 27- Clerk, U. S. Civil Service Commission, 09-10. A.A; Genetic Ass; Soc. Hort. Sci. Plant breeding; heredity in hybrids; mutation; cytology.
- Frost, Prof. S(tuart) W(ard)**, Arendtsville, Pa. *Entomology*. Tarrytown, N. Y, Dec. 4, 91. B.S, Cornell, 15, Ph.D, 25. Asst. *entom*, Cornell, 15-16; *Pa. State*, 18-23, *assoc. prof*, 23- N. Y. State Food Supply Commission, 17. Entom. Soc; Ass. Econ. Entom; Genetic Ass; Soc. Linnean de Lyon. Economic entomology; leaf-mining habits in Hymenoptera and Coleoptera; leaf-mining Diptera of North America; the food of frogs; ecology of leaf-mining insects; apple insects.
- Frost, Dr. Wade H(ampton)**, Johns Hopkins School of Hygiene and Public Health, Baltimore, Md. *Medicine*. Marshall, Va, March 3, 80. A.B, Virginia, 01, M.D, 03. Asst. surgeon, *U. S. Pub. Health Service*, 05-09, passed asst. surgeon, 09-17, *surgeon*, 17-; *head dept. epidemiol, sch. hygiene and pub. health, Hopkins*, 19- Pub. Health Ass; Am. Med. Ass. Epidemiology; stream pollution; infectious diseases.
- Frost, Prof. W(illiam) D(odge)**, 1010 Grant St, Madison, Wis. *Bacteriology*. Lake City, Minn, Sept. 13, 67. B.S, Minnesota, 93, M.S, 94; Ph.D, Wisconsin, 03; D.P.H, Harvard, 13. Biologist, Minn. State Board Health, 94-95; instr. bacter, *Wisconsin*, 95-02, asst. prof, 02-07, assoc. prof, 07-15, *prof. agr. bacter*, 15- Lecturer, Wis. Col. Physicians and Surg, 99-01. A.A; Soc. Bact; Pub. Health Ass. Physiological botany; laboratory technique; antagonism among bacteria; effect of external conditions on bacteria; fermentative organisms; experimental hygiene; tuberculosis; bacteriology of milk.
- Frothingham, Dr. Channing**, 395 Marlboro St, Boston, Mass. *Medicine*. Brooklyn, N. Y, May 10, 81. A.B, Harvard, 02, M.D, 06. Instr. *med, Harvard Med. Sch*, 13-21, *asst. prof*, 21- Am. Physicians; Ass. Path. and Bact; Soc. Clin. Invest. Trichinosis; proteolytic ferments; pancreas; liver; hexamethylenamin; typhoid agglutinins; arteriosclerosis; renal function.
- Frothingham, E(arl) H(azeltine)**, Medical Building, Asheville, N. C. *Forestry*. Manchester, Iowa, Aug. 31, 80. A.B, Michigan, 04, M.S, 06. Forest asst, *U. S. Forest Service*, 06-12, forest examiner, 12-20, silviculturist, 20-21, *director, Appalachian Forest Exp. Sta*, 22- A.A; Soc. Foresters (sec'y, 11-14); Ecol. Soc; N. C. Acad. Silviculture; growth, characteristics and requirements of forest trees.
- Frothingham, Dr. Langdon**, 476 Beacon St, Boston, Mass. *Comparative pathology*. Boston, April 21, 66. D.V.M, Harvard, 89; Dresden, 91, 92, 94; Prague, 92. Instr. *physiol*, Nebraska, 90-91; asst. bacter, Yale, 91-94; instr. comp. path, vet. sch, *Harvard*, 95-00, asst. path, *med. sch*, 96-98, Austin teaching fellow bacter, 00-06, instr, 07-14, *asst. comp. path*, 23- Vet. Med. Ass; Mass. Vet. Ass. (pres, 97-99). Bacteriology; tuberculosis; glanders; lesion caused by blastomycetes; cancer bodies in tumors of animals; rabies; pseudo-tubercular enteritis of cattle.
- Fry, Prof. H(arry) S(hiple)**, University of Cincinnati, Cincinnati, Ohio. *Chemistry*. Cincinnati, Oct. 24, 78. A.B, Cincinnati, 01, fellow, 01-02, A.M, 02, Ph.D, 05. Asst. *chem, Cincinnati*, 02-04, instr, 04-07, asst. prof, 07-10, assoc. prof, 10-18, *prof. and head dept*, 18- A.A; Chem. Soc. (pres, Cincinnati sect, 07). Appreciation of difference of phase of sound-waves; reduction of aromatic nitrocompounds; preparation of chromyl compounds and thiocarbonylids; reactions in non-aqueous solvents; electronic conception of positive and negative valence; electronic formula of benzene; electronic isomerism and tautomerism in relation to absorption spectra; free radicals; liberation of hydrogen from carbon compounds.
- Fry, Prof. Henry J(acob)**, New York University, Washington Square, New York, N. Y. *Zoology*. Lancaster, Pa, May 2, 92. A.B, Muhlenberg, 14; A.M, Columbia, 21, Ph.D, 25. Asst. zool, Columbia, 22-23; instr. *biol, N. Y. Univ*, 23-25, *asst. prof*, 25- A.A; Soc. Zool; N. Y. Acad. Experimental embryology.
- Fry, Prof. Howard M(asey)**, 509 State St, Lancaster, Pa. *Physics*. Drifton, Pa, Oct. 2, 89. E.E, Lehigh, 10, M.S, 15. Asst. prof. physics, Lehigh; *assoc. prof. physics and elec, Franklin and Marshall*. Telegraph sch, Lehigh, 18. A.A; Physical Soc; Elec. Eng; Eng. Educ.
- Fry, Dr. Thornton C(arl)**, 463 West St, New York, N. Y. *Mathematics*. Findlay, Ohio, Jan. 7, 92. A.B, Findlay, 12; A.M, Wisconsin, 13, Ph.D, 20. Instr. math, Wisconsin, 12-16; *mathematician*, West. Elec. Co, 16-24, *Bell Telephone Laboratories*, 25- A.A; Math. Soc. (trustee, 23); Math. Ass; Astron. Soc; Physical Soc. Applied mathematics; mathematical physics; divergent integrals.

- Frye, Royal M(errill)**, Massachusetts Institute of Technology, Cambridge, Mass. *Physics*. Milford, N. H., May 27, 90. A.B. Boston, 11, A.M., 12, Sleeper fellow, 12-13; Harvard, 12-13. *Instr. physics*, Boston, 13-15; *Mass. Inst. Tech.*, 15- Physical Soc; Chem. Soc. Radiation; spectroscopy; residual rays; X-rays.
- Frye, Prof. T(heodore) C(hristian)**, University Station, Seattle, Wash. *Botany*. Washington, Ill., Sept. 15, 69. B.S., Illinois, 94; Ph.D., Chicago, 02. Asst. bot., Chicago, 00-02; *prof. biol.*, Morningside, 02-03; *bot.*, *Washington (Seattle)*, 03-, *director*, *Puget Sound Biol. Sta.*, 14-, acting dean col. science, 14-16. Head, Puget Sound Marine Sta, 05, 07-10; in charge U. S. soils kelp exped, Alaska, 13. A.A. (exec. committee, Pacific div, 16); Bot. Soc; Sullivan Moss Soc. (pres, 08, 09). Experimental plant morphology; taxonomy of western mosses; marine algae; kelp products.
- Fryer, Prof. Douglas (H)**, New York University, New York, N. Y. *Psychology*. Willimantic, Conn., Nov. 7, 91. B.H., Springfield, 14; Brown, 15-16; Columbia, 21-22; A.M., Clark, 17, senior fellow, 22-23, Ph.D., 23. Director vocational dept, Y. M. C. A., Brooklyn, 20-22; *instr. psychol.*, Worcester Domestic Science Sch, 22-23; *asst. prof.*, Utah, 23-24; *N. Y. Univ.*, 24-, *administrative chairman dept.*, 25- Ed. board, 'Jour. Indust. Psychol.', 25-26, assoc. ed, 26- Second lieut, U.S.A., 17-18, capt, Red Cross, 19. Int. Cong. Psychol., Oxford, 23; Groningen, 26. Psychol. Ass. Industrial psychology; vocational guidance; abnormal psychology.
- Fryer, Prof. Ja(me)s R(obert)**, University of Alberta, Edmonton, Alta, Can. *Genetics, Cytology*. Wilsonville, Ont., Jan. 9, 84. B.A., Toronto, 13, M.A., 15. Asst. prof. *field husbandry, Alberta*, 20-25, *assoc. prof.*, 26- Seed analyst, Dominion Govt, 13-20. A.A.; Ecol. Soc. Origin of false wild oats; cytology of alfalfa.
- Fuchs, Dr. N(athaniel)**, 18 E. Priece St, Linden, N. J. *Chemistry*. New York, N. Y., July 20, 98. Ch.B., Cornell, 19, Grasselli fellow, 24-25, Ph.D., 25. U. S. Geol. Surv., Washington, D. C., 19-20; Navy Supply Depot, N. Y., 21-22; *asst. org. chem.*, Cornell, 22-24; *Grasselli Dyestuff Corp.*, Rensselaer, N. Y., 25-27, *Grasselli, N. J.*, 27- Chem. Soc. Pyrogallolsulfonephthalein.
- Fuertes, Louis Agassiz**, Cornell Heights, Ithaca, N. Y. *Ornithology*. Ithaca, Feb. 7, 74. A.B., Cornell, 97. *Lecturer ornith.*, Cornell. A.A.; fel. Ornith. Union. Ornithological illustrating.
- Fulcher, Dr. Gordon S(cott)**, Corning, N. Y. **Physics*. Evanston, Ill., March 21, 84. B.S., Northwestern, 05, M.S., 06; Clark, 06-07, fellow, 07-08, Ph.D., 10. Research asst. physics, Clark, 06-07; *instr.*, Amherst, 08-09; Wisconsin, 09-15, *asst. prof.*, 15-18; sci. assoc. Nat. Research Council, 19-20; *physicist*, *Corning Glass Works*, 20- Managing ed, 'Physical Rev.', 23-25. Exp. engineer, U.S.A., 18-19. A.A.; Physical Soc; Optical Soc; Ceramic Soc. Canal rays; band spectra; glass; abstracting and indexing of scientific articles.
- Fullaway, David T(immins)**, Board of Agriculture and Forestry, Box 3319, Honolulu, Hawaii. *Entomology*. Philadelphia, Pa., Sept. 21, 80. A.B., Stanford, 08; A.M., 10. Sec'y to pres, Stanford, 03-08; *entomologist*, Hawaii Exp. Sta., 08-13; *Hawaii Board Agr. and Forestry*, 13- A.A.; Ass. Econ. Entom.; Entom. Soc; Hawaiian Entom. Soc. Hymenoptera.
- Fuller, Prof. Almon H(omer)**, Iowa State College, Ames, Iowa. *Civil engineering*. Camptown, Pa., Dec. 29, 71. C.E., Lafayette, 97, M.S., 00; fellow, Cornell, 97-98, M.C.E., 98. *Prof. civil eng.* and dean col. eng., Washington (Seattle), 99-17; Lafayette, 17-20; *Iowa Col.*, 20- Consulting bridge engineer, Iowa State Highway Commission, 20-25. Civil Eng; Soc. Test. Mat; Eng. Educ. (councilor, 14-17); Pacific Northwest Soc. Eng. (pres, 07). Structural engineering; time tests of concrete; stresses in steel bridges; impact in highway bridges.
- Fuller, E(verett) W.**, 17 Newhall St, Springfield, Mass. *Chemistry*. Brooklyn, N. Y., June 8, 92. A.B., Amherst, 15; A.M., Columbia, 16. Research assoc. applied chem., Mass. Inst. Tech., 19-21; *research chemist*, *Fisk Rubber Co.*, 21- Lieut, C.W.S., 17-18. Chem. Soc. Rubber chemistry; chemical warfare gases.
- Fuller, Prof. Geo(rge) D(amon)**, University of Chicago, Chicago, Ill. *Plant ecology*. Adamsville, Que, Can., Jan. 18, 69. B.A., McGill, 01, McGill scholar, Woods Hole, 01-02; Chicago, 06-07, Ph.D., 13. Asst. bot., McGill, 01-02; *director*, *Macdonald Sch. Gardens*, 02-06; *asst. bot.*, *Chicago*, 07, *assoc. sch. educ.*, 07-09, *instr. plant ecol.*, 09-19, *asst. prof.*, 19- In charge plant ecol., Cold Spring Harbor, 08; acting prof., Ill. State Nor. Univ., 09. A.A.; Ecol. Soc; Bot. Soc; British Ecol. Soc. Forest ecology of Illinois; transition of grassland and forest.
- Fuller, Henry C(orbin)**, 2201 New York Ave, Washington, D. C. *Chemistry*. Worcester, Mass., Nov. 13, 79. B.S., Worcester, 01. Chemist, indust. firms, 01-07; U. S. Dept. Agr., 07-11; drug and food investigator, Inst. Indust. Research, 11-21, treas. and manager farms, 14-19; *consulting and research chemist*, 21- Chem. Soc; Agr. Chem. (referee, 09-11, 14-); Soc. Chem. Indust; Pharmaceut. Ass; Ornith. Union; Wash. Biol. Soc; Wash. Acad. Pharmaceutical chemistry; food technology and analysis; drug plant introduction and propagation; alkaloids.
- Fuller, Prof. James G(arfield)**, University of Wisconsin, Madison, Wis. *Animal husbandry*. Waterman, Ill., Sept. 12, 80. B.S., Wisconsin, 04; Europe, 10; Iowa Col., 25-26. Asst. *animal husbandry, Wisconsin*, 04-21, *prof.*, 21- Soc. Animal Production. Beef cattle feeding and production; horse feeding and draft horse production.
- Fuller, Prof. J(ohn) M.**, University of New Hampshire, Durham, N. H. *Dairy husbandry*. Brooks, Iowa. B.S., Iowa Col. Assoc. prof. dairy husbandry, S. Dak. Col., 12-15; *prof. dairying*, Okla. Agr. and Mech. Col., 15-16; *dairy husbandry, New Hampshire*, 16- Dairy Sci. Ass. Dairy manufactures and production.
- Fuller, Dr. Leonard F(ranklin)**, 1535 Cowper St, Palo Alto, Calif. *Electrical engineering*. Port-

- land, Oregon, Aug. 21, 90. M.E., Cornell, 12; Ph.D., Stanford, 18. Chief elec. engineer, Fed. Telegraph Co, 12-19; consulting research engineer, 19-23; *electrical engineer, Gen. Elec. Co., San Francisco.* A.A.; fel. Elec. Eng; fel. Radio Eng; Physical Soc. Radio telegraphy; radio transmitting apparatus of large power; broadcast receivers; carrier current telephony on high voltage transmission lines.
- Fuller, Dr. Margaret B(radley)**, Northwestern University, Evanston, Ill. *Geology.* Beatrice, Nebr., June 17, 92. B.S., Northwestern, 13; M.S., Chicago, 19, fellow, 19-20, Ph.D., 24. Head dept. science, high sch., Ill., 13-17; *instr. geol.* Smith, 17-18; *Northwestern*, 20- Paleont. Soc; Ill. Acad. Precambrian geology; petrology.
- Fuller, M(yron) L(eslie)**, 60 Main St, Brockton, Mass. *Geology, Hydrology.* Brockton, April 19, 73. B.S., Mass. Inst. Tech, 96. Asst. geologist, Mich. Geol. Surv, 97; asst. and instr. geol., Mass. Inst. Tech, 97-00; asst. geologist, U. S. Geol. Surv, 00-03, chief east. sect, div. hydrol, 03-07, geologist, 07-12; consulting hydrologist, water supplies, San Francisco, 12-13; oil explorations, China, 13-15; Cuba, 16; chief geologist, Sun Co, 17-20; *consulting geologist.* Reviewer miner. and geol. chem, 'Tech. Quarterly' and 'Rev. Am. Chem. Research,' 97-00. Special agent, Paris Expos, 99-00, gold medal; Walker prizes, Boston Soc. Nat. Hist, 97, 05. A.A.; Geol. Soc; Seismol. Soc; Wash. Geol. Soc. Petroleum engineering; glacial stratigraphic geology; geologic surveying in Indiana, Illinois, New York, Can, W. I. and Brazil; underground water in the eastern and central states.
- Fullmer, Prof. E(dward) L(awrence)**, Berea, Ohio. *Biology.* Defiance, Ohio, July 30, 70. B.S., Ohio State, 97, M.S., 98, fellow, 98-99. Asst., Ohio State, 98-99; *prof. nat. science*, S. Dak. Wesleyan, 99-03; *Baldwin-Wallace*, 03-09, *biol.*, 09- Summers, instr. lake lab, Ohio State, 11-17. A.A.; Ohio Acad. Variation; Myxomycetes of Ohio.
- Fulmer, Prof. Ellis I(ngham)**, Iowa State College, Ames, Iowa. *Chemistry.* Nebr., 91. A.B., Nebr. Wesleyan, 12; Ph.D., Toronto, 19. Asst. chem, Nebraska, 12-13; Pennsylvania, 13-14; in charge chem, Leander Clark, 14; Friends, 15-16; asst. chem, Toronto, 16-19; asst. prof. in charge agr. chem, *Iowa Col*, 19-23, *prof. biophysical chem*, 23- Chemist in charge, Aetna Explosives Co, 17; chemist, Cent. Exp. Farm, Ottawa, 18. A.A.; Chem. Soc; Soc. Plant Physiol; fel. Can. Inst. Chem. Biophysical chemistry; physiology of fermentation.
- Fulmer, Dr. Jervis M(oissan)**, Robert College, Constantinople, Turkey. *Chemistry.* Pullman, Wash., Aug. 10, 98. B.S., Wash. Col; M.S., Minnesota; Ph.D., Colorado. Instr. chem, Colorado; *head dept, Robert Col, Constantinople.* Chem. Soc. Condensations of guanidines with ortho aldehydes and their sodium bisulphite addition compounds.
- Fulton, Dr. B(entley) B(all)**, Iowa State College, Ames, Iowa. *Entomology.* Newark, Ohio, Aug. 29, 89. A.B., Ohio State, 12; M.S., Chicago, 16; Ph.D., Iowa Col, 26. Asst. entomologist, N. Y. Exp. Sta, Geneva, 12-19; assoc. entomologist, Oregon Exp. Sta, 19-24; *asst. entomologist, Iowa Exp. Sta, 24-* Katmai exped, Nat. Geog. Soc, 15. A.A.; Entom. Soc; Ass. Econ. Entom. North American tree crickets; Orthoptera; fruit insects; insect ecology.
- Fulton, Charles H(erman)**, Missouri School of Mines, Rolla, Mo. *Metallurgy.* Ludwigschafen, Germany, July 16, 74. E.M., Columbia, 97; hon. Sc.D., South Dakota, 11. Prof. metal, S. Dak. Sch. Mines, 00-05, pres, 05-11; prof. metal, Case, 11-20; *director, Mo. Sch. Mines*, 20- Min. and Metal. Eng; Electrochem. Soc; Min. and Metal. Soc. Metallurgy of gold, silver, copper and zinc.
- Fulton, Dr. Frank T(aylor)**, 273 Bowen St, Providence, R. I. *Internal medicine.* Westmoreland Co, Pa, April 28, 67. B.S., Knox, 94, hon. Sc.D., 24; A.B., Hopkins, 95, M.D., 99. Path. intern, Boston City Hosp, 99-00; instr. path. and nor. histol, Brown, 03-09; pathologist, R. I. Hosp, 00-10, attending physician and consulting pathologist, 10-; consulting physician, Providence City, Pawtucket Mem, Woonsocket, Westerly and S. County Hospitals. Major, M.C., 18-19. Am. Physicians; Soc. Clin. Invest; Climat. Ass; Ass. Path. and Bact; Tuber. Ass. Infections with the *Bacillus aerogenes capsulatus*; home treatment of tuberculosis; serum treatment of cerebrospinal meningitis; cardio-vascular disease.
- Fulton, H(arry) R(ascoe)**, U. S. Department of Agriculture, Washington, D. C. *Plant pathology.* University, Miss, Sept. 19, 80. A.B., Mississippi, 00; A.M., Missouri, 05; Harvard, 06. Plant pathologist, La. Exp. Sta, 06-08; asst. prof. bot., Pa. State, 08-10, assoc. prof., 10-12; prof. bot. and bacter., N. C. State, 12-16; *pathologist, office fruit disease investigations, bur. plant indust, U. S. Dept. Agr*, 16- Assoc. ed, 'Phytopathology,' 14-16. A.A.; Phytopath. Soc. (councilor, 14). Chemotropism of fungi; diseases of crop plants and of citrus and subtropical fruits.
- Fulton, Dr. John F(arquhar)**, 126 Longwood Ave, Brookline, Mass. *Physiology.* St. Paul, Minn., Nov. 1, 99. B.S., Harvard, 21-25; B.A., Oxford, 23, Christopher Welch scholar, 23-25, M.A., Ph.D., 25. Demonstrator physiol, Oxford, 23-25. Soc. Zool; Physiol. Soc; London Physiol. Soc; British Soc. Exp. Biol. Blood pigments of invertebrates, especially of Ascidians; affinities of the genus *Trichodina pediculus*; nature and significance of the electrical response of contractile tissues; reflex co-ordination of movement and posture.
- Fulweiler, W(alter) H(erbert)**, 319 Arch St, Philadelphia, Pa. *Chemistry.* Philadelphia, Jan. 3, 80. B.S., Pennsylvania, 01. *Chem. engineer, United Gas Improvement Co*, 13- Grasselli medal, 22. Chem. Soc; Soc. Chem. Indust; Physical Soc; Optical Soc; Illum. Eng. Soc; Soc. Test. Mat. (pres, 25); Civil Eng. Physical constants of hydrocarbons.
- Funchess, Prof. M(arion) J(acob)**, Alabama Polytechnic Institute, Auburn, Ala. *Agronomy.* Orangeburg, S. C, April 9, 84. B.S., Clemson,

- 08; M.S., Wisconsin, 11. *Prof. agron. Ala. Polytech*, 09-; *dean col. agr. and director, Exp. Sta.*, 24- Soil fertility; decomposition of organic toxins in soils; solubility of manganese in acid soils; infertility in acid soils.
- Funk, Dr. Casimir**, State School of Hygiene, Warsaw, Poland. *Biochemistry*. Warsaw, 84. Ph.D., Bern, 04; Pasteur Inst., 04-06; Beit fellow, Lister Inst., London, 10-13, D.Sc., 13. Biochemist, Town Hosp., Wiesbaden, 07; asst. to Prof. Abderhalden, Berlin, 06-07, 08-10; head dept. chem., Cancer Hosp. research inst., 13-15; chemist cancer research, med. col., Cornell, 15-16; head research dept., H. A. Metz and Co., 17-23; assoc. biochem. col. physicians and surg., Columbia, 21-23; *head biochem. dept., State Sch. Hygiene, Warsaw*, 23- Chem. Soc.; Soc. Exp. Biol.; London Physiol. Soc.; London Biochem. Soc.; Soc. de Chim. biol.; Polish Chem. Soc.; Polish Biol. Soc.; for. mem. Halle Acad. Synthetic organic chemistry; nutrition; chemistry and physiology of vitamins.
- Funke, Dr. John**, 1314 Hurt Building, Atlanta, Ga. *Pathology*. Hazleton, Pa., Aug. 20, 73. M.D., Jefferson Med. Col., 01. Demonstrator path., Jefferson Med. Col., 03-10; prof. path. and bacter., Emory, 10-19. Asst. pathologist, Jefferson Med. Col. Hosp. and Phila. Gen. Hosp., 03-10; pathologist, St. Joseph's Hosp., 04-05. Ass. Path. and Bact.; Soc. Bact.; Am. Med. Ass. Bacteriology; gall stones; otitis media; tumor of carotid body; acidosis; effect of ether on the liver during anesthesia; yatrien in the treatment of amebic dysentery.
- Funkhouser, Dean William D(elbert)**, University of Kentucky, Lexington, Ky. *Entomology*. Rockport, Ind., March 13, 81. A.B., Wabash, 05; hon. fellow, Cornell, 13, A.M., 13, Ph.D., 16. Headmaster, high sch., N. Y., 07-15; prin., Cascadilla Sch., 15-18; *prof. zool. and head dept., Kentucky*, 18-, *dean grad. sch.*, 25- Cornell exped., Okefinokee Swamp, 12. A.A.; fel. Entom. Soc.; Soc. Zool.; Ecol. Soc.; Eugenics Soc.; Ky. Acad.; N. Y. Entom. Soc.; Brooklyn Entom. Soc. Taxonomy of the family Membracidae.
- Furfey, Dr. Paul Hanly**, Catholic University of America, Washington, D. C. *Psychology*. Cambridge, Mass., June 30, 96. A.B., Boston Col., 17; A.M., St. Mary's (Md.), 18; Knights of Columbus fellow, Catholic Univ., 17-18, Ph.D., 26. *Instr. sociol., Catholic Univ.*, 25- Assoc. ed., 'Studies in Psychol. and Psychiat.' A.A. Social and child psychology; social development of children; technique of rating scales; a new correlation formula; reflexes of the newborn.
- Furia, John J(oseph)**, Manhattan College, 242d St. and Broadway, New York, N. Y. *Physics*. White Plains, N. Y., Oct. 1, 91. A.B., Columbia, 16, A.M., 17; Sc.M., N. Y. Univ., 20. Instr. math., Cooper Union, 15; physics, Manhattan Col., 16; N. Y. Univ., 17-20; fed. coordinator, Col. City of N. Y., 20-23; *prof. indust. eng. and director personnel, Manhattan Col.*, 23- Indust. engineer, Indust. Research and Eng. Ass., 17-; chief engineer, Elec. Light Radio Corp. A.A.; Physical Soc.; Elec. Eng.; Radio Eng.; Eng. Educ.; Soc. Indust. Eng. Surface tension by bubbles in liquid method; natural color and stereoscopic cinematography; high frequency circuit for measurement of temperature.
- Furman, Prof. F(ranklin) De R(onde)**, Stevens Institute, Hoboken, N. J. *Mechanical engineering*. Ridgely, Md., Aug. 30, 70. M.E., Stevens, 93. Instr. mech. drawing, Stevens, 93-99, asst. prof., 99-02, assoc. prof. mech. drawing and designing, 02-04, prof., 04-07, mechanism and machine design, 07-18, *prof. and head dept. machine design and dean junior class*, 18- Mech. Eng.; Eng. Educ. Valves and valve gears; cam design; engine design; planetary gearing; basic mechanism; history and biography in engineering.
- Furman, Prof. N(athaniel) Howell**, 13 College Road, Princeton, N. J. *Chemistry*. Lawrenceville, N. J., June 22, 92. B.S., Princeton, 13, A.M., 15, fellow, 17-18, Ph.D., 18. Asst. chem., Princeton, 13-17; instr., Stanford, 17-19; *asst. prof. anal. chem., Princeton*, 19- C.W.S., 18. Chem. Soc. Electroanalysis; hydrofluoric acid in analysis; analysis by physico-chemical methods.
- Furness, Prof. C(aroline) E(llen)**, Vassar College, Poughkeepsie, N. Y. *Astronomy*. Cleveland, Ohio, June 24, 69. A.B., Vassar, 91; Ph.D., Columbia, 00. Instr., high schools, Conn. and Ohio, 91-94; asst., observatory, Vassar, 94-98, 99-03, instr., astron., 03-11, assoc. prof., 11-15, *prof., 15-, director observatory*, 11- Summers, research asst., Yerkes Observatory, 99-01; astrophys. lab., Groningen, 08. A.A.; Astron. Soc.; Ass. Variable Star Observers; fel. Royal Astron. Soc. Reduction of astronomical photographs; telescopic observations of asteroids; reduction of photographs near North Pole; observations of variable stars; history of astronomy; stereo-comparator.
- Furrow, C(larence) L(ee)**, 215 N. Academy, Galesburg, Ill. *Zoology*. Grand Junction, Iowa, March 22, 96. A.B., Oklahoma, 21, fellow zool., 21-22, A.M., 22; class of 77 fellow, Princeton, 22-23. Asst. zool., Oklahoma, 20-21; research asst., Illinois, 23-24; instr., Kansas, 24-26; *asst. prof. biol., Knox*, 26- Summer, instr., Wayne State Teachers Col., 25. A.A.; Micros. Soc.; Soc. Parasitol.; Okla. Acad. Cytology; physiology; experimental zoology.
- Furth, Dr. J(acob)**, The Rockefeller Institute, New York, N. Y. *Immunology*. Miskoler, Hungary, 96. Fellow, German Univ., Prague, 20-21, M.D., 21. Asst., hygiene inst., German Univ., Prague, 21-22; fellow, Henry Phipps Inst., Pennsylvania, 24-25, *asst.*, 25-26; *Rockefeller Inst.*, 26- Serology; typhoid; paratyphoid; tuberculosis; serum precipitation.
- Fuson, Dr. Reynold C(layton)**, 3 Shepard St., Cambridge, Mass. *Chemistry*. Wakefield, Ill., June 1, 95. A.B., Montana, 20; A.M., California, 21; Ph.D., Minnesota, 24. Teaching fellow, California, 20-22; asst., Minnesota, 22-24; *Nat. Research Council fellow, Harvard*, 24- Chem. Soc.; Soc. chim. de France. Structure of benzene; orientation of naphthalene derivatives; β - α unsaturated esters; the mechanism of the Grignard reaction.

- Fussell, Prof. Lewis**, Swarthmore College, Swarthmore, Pa. *Electrical engineering*. Media, Pa., April 22, 82. B.S., Swarthmore, 02, M.S., 03; E.E., Ph.D., Wisconsin, 07. *Prof. and head dept. elec. eng., Swarthmore, 07-* Summers, elec. companies. Elec. Eng.; Eng. Educ.; Illum. Eng. Soc.; Nat. Elec. Light Ass.; Phila. Eng. Club. Electrolytic measurements; induction motors; electrolysis; illumination.
- Fussler, Dr. Karl H(artley)**, University of North Dakota, Grand Forks, N. Dak. *Physics*. Greencastle, Ind., Aug. 6, 87. A.B., Indiana, 09; Ph.D., Pennsylvania, 16. Asst. *physics*, Indiana, 08-09; instr., De Pauw, 09-10; instr. and asst. prof., Pennsylvania, 10-20; *prof., North Dakota, 20-* Radio physicist, Jefferson Hosp., 15. A.A.; Physical Soc.; N. Dak. Acad. (pres, 26-27). Radioactivity.
- Futcher, Prof. T(homas) B(arnes)**, 1129 N. Calvert St., Baltimore, Md. *Medicine*. St. Thomas, Ont., Can., Jan. 1, 71. M.B., Toronto, 93; Graz, 96; Strassburg, 98. House surgeon, Toronto Gen. Hosp., 93-94; asst. res. physician, *Hopkins Hosp.*, 94-98, res. physician, 98-01, *asst. visiting physician, 01-*, instr. and assoc. med., *Hopkins*, 96-01, *assoc. prof.*, 01-14, *clin. med.*, 14- Am. Physicians. Internal medicine.
- Fynn, Val(ere) A(lfred)**, 1734 Boatmen's Bank Building, St. Louis, Mo. *Engineering*. Krasno, Russia, April 11, 70. M.E., Swiss Fed. Polytech., Zurich. Engineer, Brown, Boveri and Co., Switzerland, 90-95; chief elec. eng., Easton, Anderson and Goolden, 95-99; partner, Rosling and Appleby, 99-02; consulting engineer, London, 02-09; Wagner Elec. Mfg. Co., 09-21; *patent adviser, St. Louis, 21-* Fel. Elec. Eng.; Elec. Eng. London. Alternating and direct current motors and generators; speed regulating devices; ignition; suction sweepers.
- G
- Gaba, Prof. M(eyer) G(rupp)**, University of Nebraska, Lincoln, Nebr. *Mathematics*. Syracuse, N. Y., June 25, 84. B.S., Chicago, 07, M.S., 08, fellow, 13-14, Ph.D., 14. Instr. *math*, Kansas, 08-10; Dartmouth, 10-12; Mo. Sch. of Mines, 12-13; Cornell, 15-18; assoc. prof., *Nebraska*, 18-26, *prof.*, 26- A.A.; Math. Soc.; Math. Ass.; Math. Verein; Circolo Mat. di Palermo. Foundations of mathematics.
- Gabel, Dr. Charles E(rnst)**, 1001 Locust Ave., Charleston, W. Va. *Bacteriology*. Milwaukee, Wis., March 9, 77. B.S., Wisconsin, 99; Leipzig and Wurzburg, 00-02; Ph.D., Vienna, 03; Besançon; Trieste; Chicago. Instr. *biol.*, Oklahoma, 04; teacher, schools, 05-07; prof. *biol. sciences*, Highland Park, 07-11; bacteriologist and asst. chemist, Iowa State Dairy and Food Commission, 11-13; bacteriologist, Ill. State Food Commission, 13-14; senior bacteriologist, Milwaukee, Wis., 14-15; bacteriologist and pathologist, Bur. Science, P. I., 15-17; instr. *bacter.*, sch. med., Texas, 17-18; *director, State Hygienic Lab., W. Va.*, 18- Summer, Chicago Munic. Tuber. Sanitarium, 17. A.A.; Soc. Bact.; Pub. Health Ass. Microscopy; microscopical examination of drugs; examination of catsups; pasteurization of milk; bacteriology of swimming pool, river and sea waters.
- Gabrielson, Ira N(oel)**, Post Office Building, Portland, Oregon. *Biology*. Sioux Rapids, Iowa, Sept. 27, 89. A.B., Morningside, 12. Teacher, sch., Iowa, 12-15; *sci. asst. and asst. biologist, U. S. Dept. Agr.*, 15- Ornith. Union; Cooper Ornith. Club; Wilson Ornith. Club; Ecol. Soc.; Iowa Acad. Distribution and economic importance of birds and rodents.
- Gaddum, Dr. Leonard William**, 812 Virginia Ave., Columbia, Mo. *Physical chemistry*. Cincinnati, Ohio, Jan. 18, 90. A.B., Missouri, 21, B.S., 22, fellow, 23-24, Ph.D., 24. Instr. *physical chem.*, Missouri, 24- Chem. Soc.; Electrochem. Soc. Oxidation potentials of organic compounds; organic electrolysis.
- Gaebler, Dr. O(liver) H(enry)**, State University of Iowa, Iowa City, Iowa. *Biochemistry*. Swiss, Mo., Nov. 14, 95. A.B., Central Wesleyan, 17; A.M., Missouri, 20; fellow, Toronto, 20-22, Ph.D., 22. Research asst. *physiol.*, Rochester, 24; assoc. *biochem.*, Iowa, 24-25, *asst. prof.*, 26-, *asst. path. chemist, Univ. Hosp.*, 25- Soc. Exp. Biol.; Soc. Biol. Chem. Creatinine and creatine metabolism; insulin and phlorizin diabetes; acid base balance in pregnancy; oxidation of the hydantoin nucleus in the body; muscular efficiency on meat and cereal diets.
- Gaehr, Prof. Paul F(rederick)**, Aurora, N. Y. *Experimental physics*. Thoune, Switzerland, May 15, 80. A.B., Cornell, 02, A.M., 05, Ph.D., 18. Asst. *physics*, Cornell, 01-03, instr., 03-08; head dept. *math.*, Robert Col., Constantinople, 08-11; *prof. physics, Wells*, 11- Summer, engineer, West. Elec. Co., 18; acting prof., S.A.T.C., Cornell, 18. A.A.; Physical Soc.; Optical Soc. Photometry; pyrometry with applications to measurements of alternating currents.
- Gaessler, W(illiam) G(eorge)**, Iowa Agricultural Experiment Station, Ames, Iowa. *Chemistry*. St. Louis, Mo., Dec. 15, 88. Cincinnati, 07-08; B.S., Ohio State, 11, M.S., 19. Anal. asst., *Iowa Exp. Sta.*, 11-12, anal. chemist, 12-13, assoc. chemist, 13-14, asst. chief chemist, 14-17, *acting chief chemist*, 17- Abstractor, 'Chem. Abstracts,' 13- A.A.; Chem. Soc. (pres, Ames sect, 20); Ass. Agr. Chem.; Iowa Acad. Agricultural and analytical chemistry; an iodine addition product of eumarin; morphin; pasteurization of cream for butter making; forage plants; digestibility of sudan grass; water requirements and calcium balance of dairy cattle; effect of iodine feeding.
- Gage, Prof. Geo(rge) Edward**, Amherst, Mass. *Bacteriology*. Springfield, Mass., Dec. 30, 83. A.B., Clark, 06; A.M., Yale, 07, Ph.D., 09. Asst. *bacter. and hygiene*, Yale, 07-09; assoc. biologist in charge avian diseases, Md. Exp. Sta., 09-10, biologist, 10-11; asst. prof. *animal path.*, Mass. Col., 11-13, assoc. prof., 13-20, *prof.*, 20-, head dept., 22- *Physiol. chemist*, sodium benzoate investigation, U. S. Dept. Agr., 08. Capt., Sanit.C., 18-19. Soc. Bact. Physiology; animal pathology; serology.
- Gage, Dr. H(enry) Phelps**, Corning Glass Works, Corning, N. Y. *Physics*. Ithaca, N. Y., Oct. 4, 86. A.B., Cornell, 08, A.M., 09, Ph.D., 11. Asst. *physics*, Cornell, 08-09; *physicist, Corning Glass Works*, 11-, chief optical div. A.A.; Physical Soc.; Optical Soc.; Illum. Eng. Soc. Radiant

efficiency of arc lamps; optic projection; types of signal lenses; optical properties of colored glasses.

Gage, Dr. Homer, Worcester City Hospital, Worcester, Mass. *Surgery*. Worcester, Oct. 18, 61. A.B., Harvard, 82, A.M., M.D., 89. Consulting surgeon, Worcester City Hosp., Mem. Hosp. and St. Vincent Hosp; *retired*. Board Overseers, Harvard, 21-27; trustee and treas., Worcester. Surg. Ass. (v. pres, 24); Col. Surg.

Gage, Dr. O(tis) A(msden), Corning Glass Works, Corning, N. Y. *Physics*. Bellona, N. Y., Oct. 14, 77. Ph.B., Rochester, 99; Ph.D., Cornell, 10. Asst. math., Rochester, 01-03; instr. physics, Cornell, 04-07; asst. prof., Wisconsin, 07-17; prof., Rutgers, 17-20; *tech. rep.*, *Corning Glass Works*, 20- A.A.; Physical Soc; Optical Soc; Illum. Eng. Soc; Motion Picture Eng; Ry. Ass. Discharge of electricity through gases; light projection.

Gage, Prof. S(imon) H(enry), Cornell University, Ithaca, N. Y. **Histology, Embryology*. Maryland, N. Y., May 20, 51. B.S., Cornell, 77. Asst. instr. vert. zool., Cornell, 78-81, asst. prof., 81-89, assoc. prof., 89-96, prof. *histol. and embryol.*, 96-08, *emer. prof.*, 08- Advisory board, Wistar Inst. Co-editor, 'Jour. of Anat,' 01-21. Trustee, Cornell, 20-22; chairman sect. embryol., Int. Cong. Arts and Science, St. Louis, 04. A.A. (v. pres, 85, 92, 99); Soc. Nat; Soc. Zool; Ass. Anat; Micros. Soc. (pres, 95, 06); assoc. Am. Med. Ass. Histology; embryology; life histories of animals; comparative histology and embryology, especially of domestic animals and of some characteristic American forms; optics of the microscope; history of optical apparatus.

Gage, Stephen DeM(eritte), State Board of Health, Providence, R. I. *Sanitary engineering, Bacteriology*. Durham, N. H., Jan. 4, 74. B.S., Mass. Inst. Tech., 96. Asst. bacteriologist, Lawrence Exp. Sta., 96-97, biologist and chief asst., 97-14; *chemist and sanit. engineer*, R. I. State Board Health, 14-; *commissioner shell fisheries*, 17-; R. I. Board Purification Waters, 21- Fitzgerald medal, Boston Soc. Civil Eng., 18. Chem. Soc; Pub. Health Ass; New Eng. Water Works Ass; Boston Soc. Civil Eng. Water purification and sewage disposal; chemistry and bacteriology of water and sewage; diagnostic chemistry.

Gager, Dr. C(harles) Stuart, Botanic Garden, Brooklyn, N. Y. **Botany*. Norwich, N. Y., Dec. 23, 72. A.B., Syracuse, 95, Sc.D., 20; Pd.B., Pd.M., N. Y. State Nor. Col., 97, Pd.D., 21; Ph.D., Cornell, 02. Asst., Syracuse, 94-95; v. prin., Ives Sem., 95-96; prof. biol. sciences and physiog., N. Y. State Nor. Col., 97-05; director laboratories, N. Y. Bot. Garden, 06-08; prof. bot., Missouri, 08-10; *director, Brooklyn Bot. Garden*, 10- Asst., N. Y. Bot. Garden, 04-05; acting prof., Rutgers, 05. Summers, asst., Cornell, 01, instr., 04, teacher, N. Y. Univ., 05-07. Collaborator, 'Jour. Applied Micros,' 01-02; ed., 'Brooklyn Bot. Garden Record,' 12-; business manager, 'Am. Jour. Bot,' 14-; 'Ecology,' 20-; 'Genetics,' 22-; ed. board, 'Bot. Abstracts,' 18-25. A.A. (v. pres, G, 17); Bot.

Soc; Soc. Exp. Biol; Soc. Biol. Chem; Torrey Bot. Club (sec'y, 05-08); Ass. Mus; N. Y. Acad. Development of pollinium and sperm cells in Asclepias; effects of radium rays on plants; physiology and experimental morphology; botanical education and administration.

Gahan, A(rthur) B(urton), U. S. National Museum, Washington, D. C. *Entomology*. Manhattan, Kans., Dec. 9, 80. B.S., Kansas Col., 03; M.S., Maryland, 06. Asst. entomologist, Maryland, and Exp. Sta., 04-13; asst., *bur. entom.*, U. S. Dept. Agr., 13-25, *entomologist*, 25- Entom. Soc; Wash. Entom. Soc. (recording sec'y, 15-18, v. pres, 19-21, pres, 22). Systematic entomology; parasitic Hymenoptera.

Gahl, Dr. Rudolph, 1155 Laurel St., Berkeley, Calif. *Metallurgy*. Berlin, Germany, May 27, 75. Ph.D., Göttingen, 00. Electrochemist, Accumulatoren Fabrik, 00-04; Elec. Storage Battery Co., 04-05; custom assayer and chemist, 05-07; research engineer, Detroit Copper Co. of Ariz., 07-12; Copper Queen Consol. Mining Co., 12-13; metallurgist, Inspiration Consol. Copper Co., 14-18; *consulting metallurgist*, 18-Min. Eng; Electrochem. Soc; Chem. Soc.

Gaige, Frederick M(cMahon), University of Michigan, Ann Arbor, Mich. *Zoology*. Ann Arbor, July 3, 90. B.S., Michigan, 13. *Curator insects, museum zool. Michigan*, 14-, *instr. zool.*, 16- Taxonomy, ecology and zoogeography of Formicidae.

Gail, Dr. Floyd W(hitney), University of Idaho, Moscow, Idaho. *Botany*. Topeka, Kans., Oct. 16, 84. A.B., Nebraska, 11, A.M., 12; Denny fellow, Washington (Seattle), 19-20, Ph.D., 20. Teacher bot., high sch., Nebr., 12-13; *instr.*, Idaho, 13-14, asst. prof., 14-16, assoc. prof., 16-22, *prof.*, 22- Summers, assoc. prof., Puget Sound Marine Sta., 18-20. A.A; Bot. Soc. Distribution of Fucus; photosynthesis of some red algae; some poisonous plants of Idaho; deep-sea illumination; osmotic pressure of cell sap.

Gaines, Dr. E(dward) F(ranklin), R. R. 1, Box 11, Pullman, Wash. *Plant genetics*. Avalon, Mo., Jan. 12, 86. B.S., Wash. Col., 11, M.S., 13; Sc.D., Harvard, 21. Asst. cerealist, *Wash. Exp. Sta.*, 11-17, *cerealist*, 17-; *instr. agron.*, *Wash. Col.*, 11-18, asst. prof. *farm crops*, 18-23, *assoc. prof.*, 23- Asst., Harvard, 15, 21; rep., Wash. Sixth Nat. Corn Show, Dallas, 14. A.A; Genetic Ass; Bot. Soc; Phytopath. Soc; Soc. Agron. (v. pres, 25-27). Inheritance of disease resistance in cereals; crop improvement.

Gaines, Richard H(eyward), New York Board of Water Supply, 147 Varick St., New York, N. Y. *Chemistry*. Mossingford, Va., Feb. 10, 62. Virginia, 83. Chief chemist in charge, Va. State Lab., Richmond, 88-99; chemist and examiner, Gas, Water and Light Dept., New York, 05; *chief chemist*, N. Y. Board Water Supply, 06- Asst., lab., Ledoux and Ricketts, New York. Chem. Soc; Electrochem. Soc; Soc. Chem. Indust; Soc. Test. Mat. Materials of construction; corrosion of iron and steel; gaseous compounds; bituminous materials; cement and concrete.

- Gaines, Prof. R(obert) E(dwin)**, University of Richmond, Richmond, Va. *Mathematics*. Abbeville Co, S. C, Dec. 7, 60. A.M. Furman, 83, hon. Litt.D.; Hopkins, 87-88; Harvard, 99-00. Instr. *math*, Furman, 82-87; *prof*, Richmond, 90- Dean, Richmond Col, 19-23. Math. Soc; Math. Ass.
- Gaines, Prof. W(alter) L(ee)**, University of Illinois, Urbana, Ill. *Dairy husbandry*. Crete, Ill, March 17, 81. B.S, Illinois, 08; Ph.D, Chicago, 15. Instr, Illinois, 08-13, *prof. milk production*, 18- Physiology of lactation.
- Gainey, Prof. P(ercy) L(eigh)**, Kansas State Agricultural College, Manhattan, Kans. *Bacteriology*. Fayetteville, N. C, March 9, 87. B.Agr, N. C. State, 08, M.S, 10; fellow, Shaw Sch. of Bot, 10-11; A.M, Washington (St. Louis), 11. Asst. bacter, N. C. Exp. Sta, 08-10; instr. bot, Missouri, 11-14; asst. *bacter*, Kansas Col, 14-15, instr, 15-17, asst. *prof*, 17-19, assoc. *prof*, 19-21, *prof*, 21-, *soil bacteriologist*, Exp. Sta, 14- Soc. Bact; Kans. Acad. Soil bacteriology.
- Gale, Dr. Arthur Sullivan**, University of Rochester, Rochester, N. Y. *Mathematics*. Appleton, Wis, June 26, 77. A.B, Yale, 99, Ph.D, 01. Instr. *math*, Yale, 02-06; asst. *prof*, Rochester, 06-07, *Fayerweather prof*, 07-, *dean freshmen*, 21- A.A; Math. Soc; Math. Verein. Geometry.
- Gale, H(arrow)**, Florence Court, 1000 University Ave, S. E, Minneapolis, Minn. *Psychology*. Minneapolis, June 29, 62. A.B, Yale, 85, 87-89; Minnesota, 85-87; Cambridge, 89-90; Leipzig and Berlin, 90-94. Instr. *psychol*, Minnesota, 94-03. Education; music; development of the nervous system; mental development of children.
- Gale, Dr. Henry G(ordon)**, 5646 Kimbark Ave, Chicago, Ill. **Physics*. Aurora, Ill, Sept. 12, 74. A.B, Chicago, 96, fellow, 97-99, Ph.D, 99. Asst. *physics*, Chicago, 99-00, assoc, 00-02, instr, 02-07, asst. *prof*, 07-11, assoc. *prof*, 11-16, *prof*, 16-, *dean col. science*, 12-22, *Ogden Grad. Sch. Science*, 22-, *chairman dept. physics*, 25- Physicist, Mt. Wilson Solar Observatory, 06; research assoc, Carnegie Inst, 09-11. Joint ed, 'Astrophys. Jour,' 12- Int. Commission Annual Table of Constants, 12- V. chairman, div. physical sciences, Nat. Research Council, 20, chairman, 21. Capt, Inf, N.A, 17, major, Sig.C, 18, lieut. col, 19- Chevalier, Légion d'honneur. A.A; Physical Soc. (v. pres, 27-); Astron. Soc. Spectroscopic investigations.
- Gale, Hoyt S(toddard)**, 1775 Hill Drive, Eagle Rock, Los Angeles, Calif. **Geology*. Cleveland, Ohio, Dec. 9, 76. A.B, Harvard, 00, B.S, 02. Asst. geologist, U. S. Geol. Surv, 02-10, geologist, 10-20, geologist in charge non-metal. deposits, 12-20; consulting geologist, 20-21; *staff geologist*, Gulf Oil Corp, 21- A.A; Geol. Soc; Soc. Econ. Geol; Ass. Petrol. Geol; Min. Eng; Seismol. Soc; Wash. Acad; Wash. Geol. Soc. General stratigraphic and structural geology; occurrence of oil.
- Gallaher, Dr. W(illiam) U(rnn)**, 20 Gerald Ave, Highland Park, Mich. *Chemistry*. Warren, Ill, April 3, 98. B.S, Iowa, 20, M.S, 21; Ph.D, Illinois, 24. Chemist, Ill. State Water Surv, 21-24; *supt. filtration*, Water Dept, Highland Park, 24- Chem. Soc; Water Works Ass. Purification of water.
- Gallaudet, Dr. Bern B(udd)**, 26 Gramercy Park, New York, N. Y. *Anatomy, Surgery*. New York, Feb. 11, 60. A.B, Trinity (Conn), 80, A.M, 83; M.D, Columbia, 84; Vienna, 86-87. Asst. demonstrator *anat*, Columbia, 87-91, demonstrator, 91-05, *asst. prof*, 05-, clin. lecturer *surg*, 91-97, *instr*, 97- Intern, N. Y. Hosp, 84-86; surgeon, Vanderbilt Clinic, 87-89; Bellevue Hosp, 89- Ass. Anat.
- Gallo, Prof. Joaquin**, National Astronomical Observatory, Tacubaya, Mex. *Astronomy*. Mexico City, Mex, Nov. 24, 82. Geod.E, Mexico, 08. Aid and asst, *Nat. Astron. Observatory*, 03-04, computer and astronomer, 04-14, acting director, 14-15, *director*, 15-; *prof. math. and astron*, Mexico, 12- Eclipse exped, Spain, 05; Mexico, 08. Astrographic Cong, Paris, 09. Astron. Soc; Soc. Astron. de Mex; Soc. Mex. de Geog. y Estadística. Catalogue of photographs.
- Galloway, Dr. B(everly) T(homas)**, U. S. Department of Agriculture, Washington, D. C. **Botany*. Millersburg, Mo, Oct. 16, 63. B.S, Missouri, 84, LL.D, 02. Asst. hort, Missouri, 84-87; asst. pathologist, U. S. Dept. Agr, 87-88, pathologist and chief div. veg. path. and physiol, 88-01, chief bur. plant indust, 01-13, asst. sec'y agr, 13-14; dean, N. Y. State Col. Agr, Cornell, 15-16; *pathologist*, bur. plant indust, U. S. Dept. Agr, 17- A.A. (sec'y, G, 93, 95); Bot. Soc. Plant physiology and pathology.
- Galloway, Dr. J(esse) J(ames)**, Columbia University, New York, N. Y. *Geology, Paleontology*. Cromwell, Ind, Aug. 23, 82. A.B, Indiana, 09, fellow, 10-13, A.M, 11, Ph.D, 13. Instr. geol, Indiana, 13-16; *curator paleont*, Columbia, 16-17, instr, 17-21, *asst. prof*, 21- Field asst, U. S. Geol. Surv, 07, 08, 10, 14. A.A; Geol. Soc; Paleont. Soc; Ass. Petrol. Geol; Min. Eng; N. Y. Acad; Ind. Acad. Stratigraphy; micropaleontology; Ordovician stratigraphy and paleontology; Paleozoic Bryozoa; lithogenesis of sedimentary rocks; Foraminifera; petroleum geology.
- Galloway, Dr. Thomas W(alton)**, 676 Riverside Drive, New York, N. Y. *Zoology, Education*. Columbia, Tenn, Nov. 2, 66. A.B, Cumberland, 87, A.M, 89, Ph.D, 92; A.M, Harvard, 90; hon. Litt.D, Missouri Valley, 14. Prof. nat. sciences, Baird Col. for Women, 87-89; asst. bot, Harvard, 89-91; *prof. biol*, Missouri Valley, 91-02, dean, 98-02; *prof. biol*, James Millikin, 02-15; Beloit, 15-19; *assoc. director educ. activities*, Am. Social Hygiene Ass, 20- A.A; Soc. Zool; Micros. Soc. (sec'y, 10-, ed, trans, 10-19). Regeneration; budding; sex education.
- Galpin, Dr. S(idney) L(ongman)**, West Virginia University, Morgantown, W. Va. *Geology*. Jefferson, Ohio, Oct. 29, 86. A.B, Western Reserve, 07; A.M, Cornell, 10, Ph.D, 12. Asst. geol, Cornell, 07-10, instr, 10-12; asst. state geologist, Ga, 12-13; asst. *prof*. and assoc. *prof. geol*,

- Iowa Col, 14-27; *prof. and head dept, West Virginia*, 27- Junior geologist, U. S. Geol. Surv, 10; asst. geologist, Iowa Geol. Surv, 16-17. Geol. Soc; Ass. Petrol. Geol; Ceramic Soc. (chairman, committee on geol. surveys, 22-). Clays; feldspar; quartz; mica; petroleum; coal.
- Galtsoff, Dr. Paul S(imon)**, U. S. Bureau of Fisheries, Washington, D. C. *Zoology*. Moscow, Russia, March 28, 87. Grad, Imperial Moscow Univ, 10; Ph.D, Columbia, 25. Instr. zool, Moscow, 10-14; privat-docent, Univ. Crimea, Russia, 18; senior zoologist in charge, Sebastopol Biol. Sta, Russian Acad. Science, 17-21; naturalist, 'Albatross,' *Bur. Fisheries*, 22-25, *biologist*, 25- Director biol. sta, Kossino, Russia, 10-14. Exped, Russian Acad. Science to Black Sea and Bosphorus, 14. A.A; Soc. Zool; Moscow Soc. Nat. Hist. Fresh water biology; oceanographical observations along Atlantic Coast and Gulf of Mexico; regeneration of sponges; physiology and ecology of the oyster.
- Gamble, Prof. E(leanor) A(cheson) McC(ulloch)**, Wellesley, Mass. *Psychology*. Cincinnati, Ohio, March 2, 68. A.B, Wellesley, 89; Ph.D, Cornell, 98. Teacher Greek and psychol, Western Female Col, 89-90; Greek and Latin, Plattsburg Nor. Sch, 91-95; instr. *psychol*, Wellesley, 98-03, assoc. prof, 03-10, *prof*, 10- Psychol. Ass; Philos. Ass. Smell intensities; memory for concrete impressions; memory; individual psychology.
- Gamble, Dr. James L(awder)**, Harvard Medical School, Boston, Mass. *Physiology*. Millersburg, Ky, July 18, 83. A.B, Stanford, 06; M.D, Harvard, 10. Instr. *pediat*, sch. med, Hopkins, 15-18, assoc, 18-22; asst. prof, *Harvard Med. Sch*, 22-25, *assoc. prof*, 25- *Pediat*. Soc; Soc. Exp. Biol; Soc. Clin. Invest; Soc. Biol. Chem. Metabolism of inorganic substances.
- Gane, Dr. Henry S(tewart)**, R. F. D. 1, Santa Barbara, Calif. *Paleontology*. West Newton, Mass, May 30, 69. A.B, Amherst, 91; Ph.D, Hopkins, 95. *U. S. Geol. Surv.* Geol. Soc.
- Gangloff, Dr. W(ilmer) C(harles)**, 27 Parkwood Place, Cincinnati, Ohio. *Chemistry*. Sandusky, Ohio, May 19, 93. A.B, A.M, Ohio State, 15, fellow, 16-17, Ph.D, 17. Asst. chem, Ohio State, 13-16; asst. chemist, Ohio Exp. Sta, 16; research chemist, Nat. Aniline and Chem. Co, 17-22; chief chemist, Dextro Products, Inc, 23; head dept. science, Judson Col, 24-25; *chem. director*, Drackett Chem. Co, 25- Chem. Soc. Heavy chemicals; pharmaceuticals; organic and photographic products; cosmetics; action of anhydrous aluminum chlorid upon unsaturated organic compounds; toxic gases; dyes.
- Ganier, Albert F(ranklin)**, 2507 Ashwood Ave, Nashville, Tenn. *Ornithology*, *Archeology*. Vicksburg, Miss, Sept. 9, 83. C.E, Purdue, 08. Railway civil engineer; *designing engineer*, N. C. and St. L. Ry, Nashville. A.A; Ornith. Union; Wilson Ornith. Club (sec'y, 18-23, pres, 24-26); Cooper Ornith. Club; Tenn. Ornith. Soc. (pres, 19, curator, 21-26); Tenn. Archeol. Soc; Tenn. Acad. (pres, 25); Nashville Eng. Ass. (pres, 24). General natural history; mammalogy.
- Gann, Dr. John A(dams)**, Dow Chemical Company, Midland, Mich. *Chemistry*. Wooster, Ohio, Aug. 8, 89. B.S, Case, 11; M.S, Mass. Inst. Tech, 13; Ing.D, Braunschweig, 15; Ph.D, Göttingen, 16. Asst. chem, Mass. Inst. Tech, 11-13; chief chemist, Röhm and Haas Co, 16-18; *metallurgist and research chemist*, Dow Chem. Co, 18- Chem. Soc. Colloidal chemistry; metallography.
- Gano, Dr. Laura**, Thonotosassa, Fla. *Botany*. Ohio, March 4, 74. Ph.B, Earlham, 93; B.S, Chicago, 98, Ph.D, 12; M.S.A, Cornell, 06. Ecol. Soc. Agriculture; plant ecology.
- Ganong, Prof. W(illiam) F(rancis)**, Smith College, Northampton, Mass. **Botany*. St. John, N. B, Can, Feb. 19, 64. B.A, New Brunswick, 84, M.A, 86, Ph.D. ad eundem, 98, LL.D, 20; A.B, Harvard, 87; Ph.D, Munich, 94. Asst. *bot*, Harvard, 87-89, instr, 89-93; *prof. and director bot. garden*, Smith, 94- A.A; Bot. Soc. (pres, 08); cor. mem. Royal Soc. Can. Plant physiology; botanical education; natural history of New Brunswick.
- Garabedian, Prof. Carl A(rshag)**, 3655 Middleton Ave, Cincinnati, Ohio. *Mathematics*. Dorchester Center, Mass, Aug. 17, 94. B.S, Tufts, 15, M.S, 16; A.M, Harvard, 21, Ph.D, 23; Paris, 23-24. Instr. *math*, New Hampshire, 16-18, asst. prof, 19-20; instr, Harvard, 20-22; asst. prof, Northwestern, 24-25; *assoc. prof*, Cincinnati, 25- Ballistic div, U.S.A, 18. A.A; Math. Soc; Math. Ass. Elasticity.
- Garard, Prof. Ira D(ufresne)**, New Jersey College for Women, New Brunswick, N. J. *Chemistry*. Dunkard, Pa, March 19, 88. B.S, Grove City Col, 11; A.M, Columbia, 16, Ph.D, 18. Instr, high sch, Pa, 11-15; assoc. prof. *chem*, N. J. Col. for Women, 19-23, *prof*, 23- U.S.A, 18-19. A.A; Chem. Soc. Colloids.
- Garbat, Dr. Abraham Leon**, 113 E. 81st St, New York, N. Y. *Medicine*. Warsaw, Poland, Aug. 3, 85. M.D, Cornell, 06. Intern, Lenox Hill Hosp, 06-09; asst. med. clinic, Berlin, Univ. Hosp, 09-10; *bacteriologist and serologist*, Lenox Hill Hosp, 10-, *assoc. visiting physician*, 12- Cartwright prize, Columbia, 19. A.A; Ass. Path. and Bact; Ass. Immunol; Soc. Exp. Biol; Gastro-Enterol. Ass; N. Y. Acad. Med. Internal medicine; bacteriology; immunity, diagnosis and therapy; typhoid fever; blood transfusion; gastric diseases.
- Garber, Prof. R(alph) J(ohn)**, Morgantown, W. Va. *Agronomy*. Deer Creek, Ill, April 24, 90. B.S, Illinois, 12; M.S, Minnesota, 17, Ph.D, 22. Teacher, high sch, 13-17; asst. prof. field crops, Minnesota, 17-18, plant breeding, 18-20; assoc. prof. *agron*, West Virginia, 20-22, *prof. and head dept*, 22- A.A; Soc. Agron; Genetic Ass. Economic and genetic plant breeding.
- Garcia, Prof. Fabian**, New Mexico College of Agriculture and Mechanic Arts, State College, N. Mex. *Horticulture*. Chihuahua, Mex. B.S, M.S.A, N. Mex. Col, 99; Cornell, 99-00; D.Agr, 27. Teacher, 05-12; *prof. hort*, N. Mex. Col.

- and director, *Exp. Sta.*, 13— Lecturer hort. exten, 12— Pomol. Soc. Fruits and vegetables.
- Gardiner, Prof. H(arry) Norman**, Northampton, Mass. **Philosophy*. Norwich, Eng. Nov. 6, 55. A.B., Amherst, 78, A.M., 85; Union Theol. Sem., 79–82, fellow, Göttingen, 82, Leipzig, 83–84, Heidelberg, 84; L.H.D., Smith, 24. Instr. languages, physics and chem, Glens Falls Acad., 78–79; *philos.*, Smith, 84–88, prof., 88–24, *emer. prof.*, 24— Instr., Amherst, 91–92. *Philos.* Ass. (sec'y, 02–04, pres., 07); *Psychol.* Ass.; *Soc. Psychical Research*. Greek philosophy; philosophy of religion; psychology of the emotions.
- Gardner, E(ugene) D(elos)**, U. S. Bureau of Mines, Tucson, Ariz. *Mining engineering*. Utah, March 31, 85. B.S., Utah, 06, E.M., 15. Chief engineer, Utah Apex Min. Co., 07–11; mineral examiner, U. S. Forest Service, 11–18; *min. and explosive engineer*, U. S. *Bur. Mines*, 18— *Min. Eng.*; *Ass. Eng.* (pres, Tucson chapter, 26). The proper class and grade of explosives to be used in metal mines; safest and most efficient methods of blasting.
- Gardner, Prof. Frank D(uane)**, State College, Pa. *Agriculture*. Gilman, Ill., Nov. 19, 64. B.S., Illinois, 91. Asst. agriculturist, Illinois, 91–95; soil expert, bur. soils, U. S. Dept. Agr., 95–01; director, P. R. Exp. Sta., 01–04; in charge soil management, bur. soils, U. S. Dept. Agr., 04–08; *head dept. agron.*, Pa. *State*, 08— *Soc. Agron.*; *Farm Econ. Ass.* Soils; soil fertility; crop improvement; farm management.
- Gardner, Dr. I(rvine) C(lifton)**, Bureau of Standards, Washington, D. C. *Physics*. Idaville, Ind., Sept. 19, 89. A.B., De Pauw, 10; A.M., Harvard, 12, fellow, 14–15, Ph.D., 15. Instr., Harvard, 15–17; *physicist*, *Bur. Standards*, 19— Cutting research fellow, Harvard, 16. Ordnance dept, U.S.A., 17–19. *Fel. Physical Soc.*; *Optical Soc.* (assoc. ed., 'Jour.', 26—). Fire control instruments; applied optics; vacuum spectroscopy; optical design.
- Gardner, Dr. James H(enry)**, 505 Exchange National Bank Building, Tulsa, Okla. *Geology*. Sonora, Ky., April 25, 83. B.S., Kentucky, 04, M.S., 06; Ph.D., George Washington, 10. Asst. geologist, Ky. *Geol. Surv.*, 04–06; field asst., U. S. *Geol. Surv.*, 06–07, junior geologist, 08, asst. geologist, 09–10; Ky. *Geol. Surv.*, 11–12; asst. geologist, Pa. *Geol. Surv.*, 12; consulting geologist, 13–18; *pres.*, *Gardner Petrol. Co.*, 19— Committee on geology and sedimentation, Nat. Research Council. *Geol. Soc.*; *Ass. Petrol. Geol.* (pres., 24); *Min. Eng.* Kentucky clay deposits; coal classification in southwest Colorado and northwest New Mexico; Cretaceous and Tertiary geology of Ignacio quadrangle, Colorado; the Torrejon and Puerco formations of New Mexico; oil resources of Kentucky; mid-continent oil fields.
- Gardner, Dr. John H(all)**, West Virginia University, Morgantown, W. Va. *Organic chemistry*. Evanston, Ill., Oct. 26, 98. B.S., Case, 19; M.S., Michigan, 21; fellow, Illinois, 22–23, Ph.D., 23. Asst. *chem.*, Illinois, 21–22; asst. prof., Maryland, 23–25; *instr.*, *West Virginia*, 25— A.A.; *Chem. Soc.* Anthraquinone derivatives; silver aryls.
- Gardner, Dr. Julia (Anna)**, Arts Club, 2017 I St., Washington, D. C. *Paleontology*. Chamberlain, S. Dak., 82. A.B., Bryn Mawr, 05; Ph.D., Hopkins, 11. Asst. paleont., Hopkins, 11–15; paleontologist, U. S. *Geol. Surv.*, 20–24, *geologist*, 24— Paleont. Soc.; *Geol. Soc.* Tertiary Mollusca of Virginia and North Carolina; Cretaceous Mollusca of Maryland; Mollusca of Alum Bluff formation and Texas Eocene.
- Gardner, Dr. Leroy U(pson)**, 36 Old Military Road, Saranac Lake, N. Y. *Pathology*. New Britain, Conn., Dec. 9, 88. A.B., Yale, 12, M.D., 14. Instr. path., Harvard Med. Sch., 16–17; asst. prof., Yale, 17; *director and pathologist*, *Saranac Lab.*, 18— *Ass. Path.* and *Bact.* Experimental tuberculosis.
- Gardner, Dr. Max W(illiam)**, Purdue Agricultural Experimental Station, Lafayette, Ind. *Plant pathology*. Lansing, Mich., May 11, 90. B.S., Mich. State Col., 12; M.S., Wisconsin, 15, Ph.D., 18. Instr. plant path., Michigan, 17–18; asst. pathologist, bur. plant indust., U. S. Dept. Agr., 18–19; *assoc. botanist*, *Purdue Exp. Sta.*, 19— A.A.; *Phytopath. Soc.*; *Mich. Acad.*; *Ind. Acad.* Chestnut blight; diseases of vegetables and fruits; bacterial diseases; mosaic diseases.
- Gardner, Dr. N(athaniel) L(yon)**, University of California, Berkeley, Calif. *Botany*. Keokuk, Iowa, Feb. 26, 64. B.S., Washington (Seattle), 00; M.S., California, 03, Ph.D., 06. Asst. bot., California, 00–06; head dept. biol., Polytech. High Sch., Los Angeles, 06–09; acting asst. prof. bot., California, 09–10; head dept. biol., Polytech. High Sch., Los Angeles, 10–13; asst. prof. bot., California, 13–23, *assoc. prof.*, 23— *Algae*; *Fucaceae* of the Pacific Coast; *Myxophyceae*.
- Gardner, Prof. V(ictor) R(ay)**, Michigan State College, East Lansing, Mich. *Horticulture*. Ann Arbor, Mich., March 25, 85. B.S., Mich. State Col., 05; M.S.A., Iowa Col., 07. Instr. hort., Iowa Col., 05–07; Macdonald, 07–08; asst. prof., Maine, 08–10, prof. and acting head col. agr., 10–11; *prof. pomol.*, Oregon Col., 11–18; *hort.*, Missouri, 18–22; *Mich. State Col.*, 22—
- Gardner, Prof. Willard**, Utah Agricultural College, Logan, Utah. *Physics*. Pine Valley, Utah, Oct. 14, 83. B.S., Utah Col., 12; M.S., California, 15, Ph.D., 16. Asst. and instr., California, 13–16; prin., Murdock Acad., Beaver, Utah, 16–17; prof. physics and math, Brigham Young, 17–18; *assoc. prof. physics*, *Utah Col.*, and *assoc. physicist*, *Exp. Sta.*, 18–24, *prof. and physicist*, 24— *Physical Soc.*; *Utah Acad.* (councilor, 23, 25—). Soil physics; statistics of economics and meteorology.
- Gardner, Prof. Wright A(ustin)**, Alabama Polytechnic Institute, Auburn, Ala. *Plant physiology*. Fenton, Mich., June 6, 78. B.S., Albion, 02; A.M., Michigan, 15; Ph.D., Chicago, 16. Prof. biol., Northeast. State Nor. Sch., Okla., 10–16; asst. prof. bot., Idaho, 16–17; *prof. bot. and plant physiol.*, *Ala. Polytech.*, 17— A.A.; *Soc. Plant Physiol.* (sec'y-treas., 25); *Bot. Soc.*; *Phytopath. Soc.*; *Ala. Acad.* (pres., 24—). Plant physiology; soil toxins; physiology of sweet potatoes; light germination.

- Garfias, Valentin R.**, Henry L. Doherty and Co, 60 Wall St, New York, N. Y. *Petroleum engineering*. Mazatlan, Mexico, Jan, 83. A.B., Stanford, 06, A.M., 10, M.E., 14. Asst. civil eng., Stanford, 06-07; engineer, South. Pacific Ry., 07-08; consulting engineer, 10-13; petrol. engineer, U. S. Bur. Mines, 13-15; prof. petrol. eng., Stanford, 15-19; investigator, Mexican oil, U. S. Treas. Dept., 18-19; *manager for oil develop.*, Henry L. Doherty and Co, 19- Min. and Metal. Eng.; Civil Eng.; Ass. Petrol. Geol.; Calif. Acad. Engineering; petroleum resources of the world.
- Garland, Dr. Clarence E(u)gene**, West Virginia University, Morgantown, W. Va. *Organic chemistry*. Crandall, Tenn., June 13, 98. A.B., Emory and Henry, 18; Ph.D., Hopkins, 24. Chemist, Smethport Extract Co, Inc, Va., 18-20; instr. chem., West Virginia, 24-26, asst. prof., 26- Chem. Soc.; Leather Chem. Ass. Vegetable tannins; naphthenes; chloro-ethers and esters from naphthenes.
- Garman, Prof. Harrison**, 638 S. Limestone St., Lexington, Ky. *Biology*. Stephenson Co, Ill., Dec. 27, 58. Hopkins, 81-82. First asst. State Lab. Nat. Hist., Illinois, 83-89; asst. prof. zool., Illinois, 85-89; *entomologist and botanist*, Ky. *Exp. Sta.*, 89-; *state entomologist*, Ky., 97-; *prof. entom.*, Kentucky, 17- Asst. state entomologist, Ill., 83-85; prof., Ky. State, 92-96. Assoc. ed., 'Agr. Science.' A.A.; Soc. Nat.; Soc. Zool.; Ass. Econ. Entom. (sec'y, pres); Forestry Ass.; Phytopath. Soc.; Ass. Agr. Col. (chairman, entom. sect.); Bot. Soc.; Ecol. Soc.; Ky. Acad.; St. Louis Acad. Economic entomology and botany; ecology; cave life.
- Garman, Dr. Philip**, Agricultural Experiment Station, New Haven, Conn. *Entomology*. Lexington, Ky., Sept. 25, 91. B.S., Kentucky, 13; M.S., Illinois, 14, Ph.D., 16. *Asst. entomologist*, Md. Exp. Sta., 16-19; *Conn. Exp. Sta.*, 19- A.A.; Ass. Econ. Entom.; Entom. Soc.; N. Y. Entom. Soc. Zygoptera of Illinois; oriental peach moth; Acarina.
- Garman, Samuel**, Museum of Comparative Zoology, Cambridge, Mass. **Zoology*. Indiana Co, Pa., June 5, 43. B.S., Harvard, 98, A.M., 99. Prin., Miss. Nor. Sch., 70-71; prof. nat. science, Ferry Hall Sem., Ill., 71-72; *asst. herp. and ichthyol.*, museum comp. zool., Harvard, 73- Deep sea collecting and exploring expedition; expeditions, Colo. and S. Amer. A.A.; Wash. Acad.; British Ass.; fel. Royal Geog. Soc.; for. mem. London Zool. Soc.; for. mem. London Linnean Soc.; Soc. sci. de France. Ichthyology; herpetology.
- Garner, Prof. J(ames) B(ert)**, 5624 Woodmont St, Pittsburgh, Pa. *Chemistry*. Lebanon, Ind., Sept. 2, 70. B.S., Wabash, 93, M.S., 95; fellow, Chicago, 95-97, Ph.D., 97. Instr. chem., Wabash, 01-14; *chem. eng.*, Pittsburgh, and fellow, Mellon Inst., 14-; *director chem. and eng. research*, Hope and affiliated Natural Gas Companies, 15- A.A.; Chem. Soc.; Natural Gas Ass. Charcoal as adsorbent; natural gas; petroleum.
- Garner, Dr. W(ightman) W(ells)**, U. S. Department of Agriculture, Washington, D. C. **Plant physiology*. Timmons ville, S. C., July 15, 75. A.B., South Carolina, 96; Ph.D., Hopkins, 00. Instr. chem., Tufts, 00-03; asst. chemist, bur. chem., U. S. Dept. Agr., 03-05, *physiologist*, bur. plant indust., 05-, in charge tobacco and plant nutrition investigations, 08- A.A.; Soc. Nat.; Bot. Soc.; Chem. Soc.; Wash. Acad. Action of urea on aromatic sulphon chlorids; substitution processes in the fatty acids; chemistry and physiology of the tobacco plant; oil in plants; action of light and temperature on growth and development of plants; photoperiodism.
- Garratt, Prof. George A(lfred)**, 205 Prospect St, New Haven, Conn. *Forestry*. Brooklyn, N. Y., May 7, 98. B.S., Mich. State Col., 20; M.F., Yale, 23. Instr. forestry, Mich. State Col., 20-22; prof. forestry and eng., Univ. of South, 23-25; *asst. prof. forest products*, Yale, 25- Soc. Foresters. Wood technology; wood structure and identification.
- Garretson, Prof. William V(an) N(est)**, Rutgers University, New Brunswick, N. J. *Mathematics*. Somerville, N. J. B.S., Rutgers, 02; M.S., Yale, 04, 09-10; Ph.D., Michigan, 16. Instr. math., Adelphi Acad., Brooklyn, 04-05; Michigan, 05-17; prof., Pa. Mil. Col., 17-19; *asst. prof.*, Rutgers, 19- A.A.; Math. Soc.; Math. Ass. Differential equations; solution of the linear, non-homogeneous differential equation for large values of the independent variable; asymptotic solution.
- Garrett, A(lbert) O(s)un**, 791 Ninth Ave, Salt Lake City, Utah. *Botany*. Lawrence, Kans., Nov. 15, 70. A.B., Kansas, 94. Instr. high sch., Kans., 95-02; bot. and physiog., *high sch.*, Salt Lake City, Utah, 02-10, head dept. biol., 10- A.A.; Bot. Soc.; Phytopath. Soc.; Torrey Bot. Club; Kans. Acad.; Utah Acad. (pres, 13). Systematic botany; parasitic fungi; rusts and smuts; distribution of fungi; systematics and life histories of the rusts and smuts of Utah.
- Garrett, Dr. Henry E(dward)**, 21 Claremont Ave, New York, N. Y. *Psychology*. Clover, Va., Jan. 27, 94. A.B., Richmond, 15; A.M., Columbia, 21, Ph.D., 22. Teacher math., high sch., Va., 15-17, 19-20; asst. *psychol.*, Columbia, 20-22, lecturer, 22-23, *instr.*, 23- A.A.; Psychol. Ass.; Statist. Ass. Relation of physical and mental traits; statistical study of tests and test methods; relation of speed and accuracy of perceptive processes.
- Garrett, Prof. W(illard) H(ayes)**, Baker University, Baldwin, Kans. *Mathematics, Astronomy*. Mendon, Ill., Nov. 20, 73. B.S., Ill. Col., 95, A.M., 23; Chicago, 97, 00-02; Harvard, 14-15. Instr. physics and math., Whipple Acad., Jacksonville, Ill., 95-98; *math. and astron.*, Ill. Col., 98-00; *prof.*, Baker, 02-, v. pres. Instr., Harvard, 14-15; summers, Yerkes Observatory, 05, 24-27. Math. Soc.; Math. Ass. (chairman, Kans. sect., 20, 25); Kans. Ass. Math. Teachers (pres, 04, 22). Magnitude and color indices of planetary nebulae.
- Garrey, Prof. W(alter) E(u)gene**, Vanderbilt University, Nashville, Tenn. **Physiology*. Reedsville, Wis., April 7, 73. B.S., Lawrence, 94; Berlin, 98; Ph.D., Chicago, 00; M.D., Rush Med. Col., 09. Instr. high sch., Ill., 96-98; prof.

- physiol. and pharmacol, Cooper Med. Col, 00-10; assoc. *physiol.*, Washington (St. Louis), 10-12, assoc. prof, 12-16; *prof.*, Tulane, 16-25; *sch. med.*, *Vanderbilt*, 25- Instr, Woods Hole, 99- Nat. Board Med. Examiners, 24- A.A.; *Physiol. Soc.*; *Soc. Biol. Chem.* Comparative physiology; the tropisms; artificial parthenogenesis; effects of various saline solutions upon protoplasm; heart nerves; cardiac fibrillation; adaptation of salivary secretion to diet; absorption by muscles in saline solutions; limulus heart; dynamics of nerve cells; inhibition of nerve cells; heart block; electrical variation in the heart.
- Garrison, Dr. Allen D(arnaby)**, Rice Institute, Houston, Texas. *Physical chemistry*. Lexington, Ky, July 29, 97. A.B, 18; M.S, 20; Ph.D, Rice Inst, 21. Nat. Research Council fellow *physical chem.*, 21-24; instr, *Rice Inst.*, 24-26, *asst. prof.*, 26- Photo- and electro-chemistry.
- Garrison, Dr. Fielding H(udson)**, Army Medical Museum, Washington, D. C. *Medical bibliography*. Washington, D. C, Nov. 5, 70. A.B, Hopkins, 90; M.D, Georgetown, 93. Asst. librarian, S.G.O., 89-12, prin. asst. librarian, 12-17; *lieut. col.*, *M.C.*, 18- Assoc. ed, 'Index Medicus', 03-11, ed, 12- A.A.; Am. Med. Ass; Royal Soc. Med. (hist. sect); *Soc. française d'Hist. de Méd.*; *Gesell. für Gesch. d. Med. und d. Naturwissenschaften*. History of medicine.
- Garrison, Dr. S. C.**, Peabody College, Nashville, Tenn. *Psychology*. Lincolnnton, N. C, Oct. 17, 87. B.S, Wake Forest, 10, A.B, 11, A.M, 13; Ph.D, Peabody, 19. Supt. and prin. schools, N. C; *prof. educ. psychol.*, *Peabody Col.*, 19- Capt, A.G.D. A.A.; *Psychol. Ass.*; *S. Soc. Philos. and Psychol.*; *Tenn. Acad. Educational psychology*; child study; mental tests; age norms.
- Garth, Prof. Thomas R(ussell)**, University of Denver, Denver, Colo. *Psychology*. Paducah, Ky, Dec. 24, 72. A.B, Denver, 09, A.M, 10; Ph.D, Columbia, 17. Prin. schools, Colo, 10-12; psychologist, N. Y. Post-Grad. Med. Sch, 13; assoc. educ, State Nor. Sch, Farmville, Va; head dept. educ, W. Texas State Nor. Col, 17-19; adjunct prof. psychol, Texas, 19-22; *head dept. educ.*, *Denver*, 22- Asst. in field work, Int. Health Commission, 12-13. A.A.; *Psychol. Ass.*; *Anthrop. Ass.*; *Eugenics Research Ass.* Educational and race psychology; mental fatigue; work curves; riddle solution; racial differences in fatigue; the American Indian.
- Garver, Prof. M(adison) M(onroe)**, State College, Pa. *Physics, Chemistry*. Scotland, Pa, Nov. 12, 48. B.S, Cornell, 76. Instr. math, Cornell, 76-77, chem, 79-80; supt, U. S. Elec. Light Co, Pa, 84-86; Weston Elec. Instrument Co, 86-90; asst. prof. physics, Pa. State, 93-10, assoc. prof, 10-25. A.A. Periodic character of nervous action; osmotic pressure; theory of solutions; kinetic theory; range of molecular action; polymerization in liquids; liquid films.
- Gary, L(ester) B(ennett)**, 31 Berkeley Place, Buffalo, N. Y. *Biology*. Lockport, N. Y, Sept. 21, 69. Ph.D, Hiram, 99; Western Reserve, 00-01. Teaching fellow, Missouri, 01-02; *head dept. biol.*, *Hutchinson-Cent. High Sch.*, 03- Instr, Buffalo, 13-14; director, Emery Museum, 26. A.A. Variation of the Trillium; the fresh-water mussel.
- Gasser, Dr. Herbert S.**, Kingshighway and Euclid Ave, St. Louis, Mo. **Physiology*. Platteville, Wis, July 5, 88. A.B, Wisconsin, 10, A.M, 11; M.D, Hopkins, 15. Asst, Wisconsin, 11-12, instr, 12-13, pharmacol, 15-16; *physiol.*, *Washington (St. Louis)*, 16-18, assoc, 18-20, assoc. prof, 20-21, *prof. pharmacol.*, 21- A.A.; *Physiol. Soc.*; *Soc. Pharmacol.*; *British Physiol. Soc.* Coagulation of blood; traumatic shock; electrophysiology of nerve with cathode ray oscillograph.
- Gast, P(aul) R(upert)**, Petersham, Mass. *Forestry, Biophysics*. Fitchburg, Mass, Jan. 27, 97. Ph.B, Brown, 20; M.S, Syracuse, 22; Sc.D, Harvard, 27. Asst. bot, N. Y. State Col. Forestry, Syracuse, 20-22; research asst, *Harvard Forest*, 22-24, *instr.*, 24-; *agent*, U. S. Forest Service, 24-; *research asst. biophysics*, *Harvard*, 22- Measurement of light and coniferous growth; ecology of conifers; fundamental factors of silvics.
- Gates, Dr. Arthur I(rving)**, Teachers College, Columbia University, New York, N. Y. **Psychology*. Red Wing, Minn, Sept. 22, 90. B.L, California, 14, A.M, 15; Ph.D, Columbia, 17. Lecturer *psychol.*, *Teachers Col.*, *Columbia*, 17-18, instr, 18-20, asst. prof, 20-22, assoc. prof, 22-24, *prof.*, 24- Director special sect, Horace Mann Schools, 22- A.A.; *Psychol. Ass.* Educational psychology; tests and measurements; psychology of learning.
- Gates, Dr. Burton N(oble)**, 24 Charlotte St, Worcester, Mass. *Entomology*. Worcester, Dec. 19, 81. Cornell, 01-02; A.B, Clark, 05, A.M, 06, Ph.D, 09. Asst. biol, Clark, 06-07; collaborator, bur. entom, U. S. Dept. Agr, 07, expert apiculture, 07-10; special lecturer apiculture, Mass. Col, 06-10, asst. prof. and assoc. prof. beekeeping; inspector apiaries, Mass. State Board Agr, 10-18; *prof.*, Ont. Agr. Col, and apiarist, Province Ont, 18-19; *state inspector apiaries*, *Mass. Dept. Agr.*, 19- A.A.; *Ass. Econ. Entom.* Apiculture; statistics; economy and behavior of bees and allied forms; life histories of insects.
- Gates, Prof. Cha(rie)s B(aldwin)**, 515 Stratford Court, Milwaukee, Wis. *Chemistry*. Milwaukee, June 2, 81. Ph.B, Wisconsin, 03, Ph.M, 06, Ph.D, 10. Teacher, high sch, Wis, 03-05; asst. instr. chem, Wisconsin, 06-09; instr. anal. chem, Mich. Col. Mines, 10-14; *prof. chem.*, *State Nor. Sch.*, *Milwaukee*, 14- Lecturer, *Columbia Hosp.*, *Milwaukee*. Chem. Soc. Phenomena in non-aqueous solutions.
- Gates, Prof. Fanny C(ook)**, 417 W. 114th St, New York, N. Y. *Physics, Mathematics*. Waterloo, Iowa, April 26, 72. A.B, Northwestern, 94, fellow, 94-95, A.M, 95; fellow, Bryn Mawr, 95-97; European fellow of Ass. Col. Alumnae at Göttingen and Zurich Polytech, 97-98; Chicago, 99; McGill, 02-03; research student, Cavendish Lab, Cambridge, 05; Ph.D, Pennsylvania, 09. Head dept. physics, Goucher, 98-11; *prof. physics* and dean women, Grinnell, 12-16; dean women, Illinois, 16-18. A.A.; *Phys-*

- ical Soc; Math. Soc. Radio-active bodies; effect of heat upon excited radio-activity; radio-active properties of certain chemical compounds; the conductivity of air due to sulphate of quinin.
- Gates, Prof. Frank C(aleb)**, Kansas Agricultural College, Manhattan, Kans. *Botany*, Chicago, Ill, Sept. 12, 87. A.B, Illinois, 10; Ph.D, Michigan, 12. Instr. bot, Philippines, 12-15; prof. biol, Carthage, 16-19; asst. prof. bot, *Kansas Col*, 19-22, *assoc. prof*, 22- Mich. Biol. Surv, 11; summers, instr. and asst. prof, biol. sta, Michigan, 15-, acting asst. prof, Michigan, 19-20. Second lieut, Sanit.C, 18. A.A; Bot. Soc; Ecol. Soc; Kans. Acad; Mich. Acad; Ill. Acad. Plant ecology; revegetation of Taal Volcano; evaporation and plant succession; leaf movements; flora of Kansas.
- Gates, Dr. Frederick L(amont)**, Rockefeller Institute, 66th St. and Ave. A, New York, N. Y. *Biophysics, Pathology*. Minneapolis, Minn, Dec. 17, 86. Chicago, 05-06; A.B, Yale, 09; M.D, Hopkins, 13. Fellow, *Rockefeller Inst*, 13-14, asst. and assoc, 14-21, *assoc*, 21- Woods Hole. A.A; Soc. Exp. Biol; Soc. Pharmacol; Soc. Exp. Path; Harvey Soc; N. Y. Acad. Med; N. Y. Path. Soc. Electrolysis of hydrochloric acid; pharmacologic action of magnesium salts; bacteriology; meningococcus meningitis; collodion membranes; anaerobic methods; influenza; effect of light on protoplasm.
- Gates, Dr. Georgina Stickland**, Barnard College, Columbia University, New York, N. Y. *Psychology*. Brooklyn, N. Y, Jan. 2, 96. A.B, Columbia, 17, Ph.D, 19. Asst. *psychol*, *Barnard, Columbia*, 18-20, lecturer, 20-22, *instr*, 22- Psychol. Ass. Experimental psychology; individual differences; practice; emotion; social perception.
- Gates, Dr. R(eginald) R(uggles)**, King's College, London, England. *Botany*. Middleton, N. S, Can, May 1, 82. B.A, Mt. Allison, 03, M.A, 04; B.S, McGill, 06; fellow, Chicago, 06-08, Ph.D, 08. Demonstrator biol, McGill, 05-06; asst. bot, Chicago, 08-09; experimenter, Mo. Bot. Gardens, 09-11; lecturer biol, St. Thomas' Hosp, London, 12-14; acting assoc. prof. zool, California, 15-16; reader bot, *King's (London)*, 19-21, *prof*, 21- Asst, Woods Hole, 08-10. Amazon exped, 25. Huxley gold medal, Royal Col. Sci, London, 13. A.A; Soc. Nat; Genetic Ass; assoc. Bot. Soc; Eugenics Soc. (consultative council); cor. mem. N. S. Inst; London Linnean Soc; fel. Royal Hort. Soc; fel. Royal Anthropol. Inst. (councilor); Soc. Exp. Biol. (joint sec'y); British Genetical Soc. (councilor); Royal Micros. Soc. (councilor). Heredity and evolution; cytology; genetics; eugenics.
- Gates, Prof. W(illiam) H(azen)**, Louisiana State University, Baton Rouge, La. *Zoology*. Mahableshwar, India, May 11, 83. A.B, Williams, 06; Sc.D, Harvard, 26. Zoologist, Gulf Biol. Sta, La, 08-09; *prof. zool. and entom*, *Louisiana*, 09- Zoologist, Mass. Fish and Game Commission. A.A; Genetic Ass; assoc. Soc. Zool. Parasitism; animal genetics.
- Gatewood, Dr. E(lizabeth Stuart)**, 28 High St, New Haven, Conn. *Organic chemistry*. Newport News, Va, Oct. 9, 97. B.S, Barnard, Columbia, 19; Ph.D, Mass. Inst. Tech, 22. National Research Council fellow chem, Yale, 22-24; Alice Freeman Palmer fellow and hon. research fellow, Manchester, 24-25; *Metz research fellow, Yale*, 25- Chem. Soc. Substituted uric acids; biurets; anthocyanidins.
- Gaudin, Prof. A(ntoine) M(arc)**, University of Utah, Salt Lake City, Utah. *Metallurgy*. Smyrna, Asia Minor, Aug. 8, 00. B.S, Paris, 17; E.M, Columbia, 21. Lecturer min, Columbia, 24-26; *assoc. prof. min. and metal. research*, *Utah*, 26- Min. Eng. Rock and ore crushing; the flotation process.
- Gauger, Dr. A(lfred) W(illiam)**, Grand Forks, N. Dak. *Chemistry*. St. Paul, Minn, July 31, 92. A.B, Minnesota, 14; A.M, Princeton, 20, Procter fellow, 21-22, Ph.D, 22. Asst. chem, Minnesota, 13-14; chemist, Great West. Sugar Co, 14-15; junior chemist, U. S. Bur. Mines, 15-17; research assoc, Am. Sheet and Tin Plate Co, 20-21; Nat. Research Council fellow, California, 22-24; chem. engineer and manager Westend plant, Burnham Chem. Co, 24-25; chemist, R. and H. Chem. Co, 26; *director div. mines, North Dakota*, 26- Summer, instr, Minn, 14. Capt, C.W.S. and director army gas sch, 18-19. A.A; Chem. Soc. (sec'y, Pittsburgh sect, 17); Mech. Eng. Educ. Explosive limits of gaseous mixtures; adsorption of gases by metallic catalysts; critical potentials of hydrogen on nickel catalyst; thin films of nickel, platinum and catalysis.
- Gault, Prof. R(obert) H(arvey)**, Northwestern University, Evanston, Ill. *Psychology, Criminology*. Ellsworth, Ohio, Nov. 3, 74. A.B, Cornell, 02; Clark, 02-03; Ph.D, Pennsylvania, 05. Prof. psychol. and educ, Washington (Md), 05-09; instr. *psychol*, *Northwestern*, 09-11, asst. prof, 11-12, *assoc. prof*, 12-15, *prof*, 16- Nat. Research Council, 24-27; summers, Wooster, 08, 09, N. Y. Univ, 13, 14, California, 18, 24, at Los Angeles, 22. Ed-in-chief, 'Jour. Criminal Law and Criminol,' 11- Director criminol. investigation, City Council Committee on Crime, Chicago, 14; Chicago Crime Commission (exec. committee, 19-24); Ill. Social Hygiene League (pres, 14-24); Ill. Committee Social Legis. (pres, 18-20). A.A; Psychol. Ass; Inst. Criminal Law and Criminol. (exec. council, 11-); Ass. Clin. Criminol. (exec. council, 13-); Prison Ass. Social psychology; history of investigations on reflex action from 1853-1902; causes of crime in Chicago; social unity; suggestion; tactual sensitivity; tactual interpretation of speech.
- Gavett, G(eorge) Irving**, 5613 12th Ave, N. E, Seattle, Wash. *Mathematics*. Sandstone, Mich, June 21, 68. B.S.(C.E), Michigan, 93; Stanford, 04-05; Cornell, 05-07. Prof. math, Fairmount, 99-04; instr. applied math, Stanford, 04-05; civil eng, Cornell, 05-07; instr. and asst. *prof. math, Washington (Seattle)*, 07- Summers, asst. surveyor, Alaska Boundary Surv, 08-09. A.A; Math. Soc; Statist. Ass. Statistical method.
- Gaw, Prof. Esther Allen**, Mills College, Calif. *Psychology*. Hudson, Ohio, Dec. 28, 79. A.B, Western Reserve, 00; Stern Conservatory, Berlin,

- 04-06; Ph.D, Iowa, 19. Teacher music, Salt Lake City, 00-15; instr. *psychol*, Iowa, 19-20; Calif. State Teachers Col, San Francisco, 20-22; assoc. dean in charge personnel, *Mills*, 22-23, *assoc. prof. and assoc. dean*, 23- Consulting psychologist, Williams Inst, 22-; instr, California, 22; summer, instr, Utah, 23. A.A.; Psychol. Ass; West. Psychol. Ass. Measurement of musical talent and of college intelligence.
- Gay, Prof. Frederick P(arker)**, 437 W. 59th St, New York, N. Y. **Pathology, Bacteriology*. Boston, Mass, July 22, 74. A.B, Harvard, 97; Pasteur Inst, Paris, 00; M.D, Hopkins, 01; Pasteur Inst, Brussels, 03-06. Asst. demonstrator path, Pennsylvania, 01-03; bacteriologist, Danvers Insane Hosp, 06-07; asst. *path*, Harvard Med. Sch, 07-09, instr, 09-10; *prof*, California, 10-23; *Columbia*, 23- Faculty research lecturer, California, 16. Chairman med. sect, Nat. Research Council, 22-23, chairman med. fellowship board, 22-26; C. R. B. Educ. Foundation lecturer, Belgian universities, 26. Major, M.C, 18. A.A; Ass. Path. and Bact; Am. Physicians; Soc. Exp. Path; Soc. Exp. Biol; hon. mem. Phila. Path. Soc; assoc. Soc. Belge de Biol. Immunology.
- Gay, Dr. George Washington**, 374 Hammond St, Chestnut Hill, Mass. *Medicine, Surgery*. Swansey, N. H, Jan. 14, 42. M.D, Harvard, 68; hon. A.M, Dartmouth, 95. Practising physician. Lecturer, Harvard Med. Sch, 88-02; surgeon, Boston City Hosp, 72, senior surgeon, 99; consulting surgeon, suburban hospitals. Trustee, Wrentham State Sch, 08- A.A; Am. Med. Ass; Surg. Ass; Mass. Med. Soc. (pres, 06-08); British Med. Ass. The use of opium in arteriosclerosis and senile gangrene; medical treatment of malignant disease; treatment of piles by injection.
- Gaylord, H(arry) D(avis)**, 20 Charlgate, W, Boston, Mass. *Mathematics*. Ashford, Conn, March 3, 74. B.S, Harvard, 07, A.M, 17. Instr. *math*, Throop, 98-03; asst, Harvard, 06-07; instr, Rindge Manual Training Sch, Cambridge, Mass, 07-08; asst. prof, Throop, 08-10; *instr*, Harvard, 10-16, *Radcliffe*, 11-15, 22-; *master*, *Brown and Nichols Sch*, 11- Summers, instr, Harvard, 07, 11-14. Int. Commission on Teaching Math. New Eng. Ass. Teachers Math. (sec'y, 13-).
- Gear, H(arry) B(arnes)**, 10767 S. Seeley Ave, Chicago, Ill. *Electrical engineering*. Marietta, Ohio, March 6, 72. A.B, Marietta, 92; M.E, Cornell, 95. Gen. inspector, *Commonwealth Edison Co*, 00-11, *engineer distribution*, 11-, *asst. to v. pres*, 21- Trustee, Chicago, 24- Chanute medal, West. Soc. Eng, 10; Billings prize, Nat. Elec. Light Ass, 14. Elec. Eng; Nat. Elec. Light Ass; West. Soc. Eng. Electrical distribution and economics; electric central station distribution.
- Gee, Dr. A(lbert) Haldane**, Yale University, New Haven, Conn. *Bacteriology*. Manchester, Eng, Nov. 27, 01. B.A, Toronto, 22, M.A, 23, Ph.D, 25. Asst. chem, Toronto, 22-23, research asst. zymol, 23-26; *Nat. Research Council fellow bacter*, Yale, 26- Zymology; influence of metallic salts on vital processes of microorganisms; carbohydrate metabolism.
- Gee, Prof. Wilson**, University of Virginia, University, Va. *Biology*. Union, S. C, Sept. 18, 88. B.S, Clemson, 08; A.M, South Carolina, 10; fellow, California, 12-13, Ph.D, 13. Asst. biol, South Carolina, 08-09; zool, Wisconsin, 09-11; asst. prof, Clemson, 11-12; prof. biol, South Carolina, 13-14; Emory, 14-18; asst. director agr. exten, Clemson, 18-19; *prof. rural econ. and sociol*, South Carolina, 19-23; *Virginia*, 23-, *director inst. for research in the social sciences*, 26- Contrib. ed, 'Jour. Social Forces'; 'Social Sci.' Yale Army Med. Sch. and Cent. Med. Dept. Lab, U.S.A, 18-19. Animal behavior; entomology; embryology; economics and sociology of rural life.
- Geer, Dr. William C(hauncey)**, Akron, Ohio. *Chemistry*. Ogdensburg, N. Y, June 17, 76. A.B, Cornell, 02, fellow, 03-04, Ph.D, 05. Instr, high sch, N. Y, 98-99; asst. chem, Cornell, 02-03, instr, 04-06; expert wood distillation, U. S. Forest Service, 06-07; chief chemist, B. F. Goodrich Co, 07-16, director development goods and processes, 16-18, second v. pres. in charge development, 18-20, v. pres, 20-25; *private research*, 25- A.A; Chem. Soc; Physical Soc. Rubber chemistry.
- Gelman, Dr. Harry Merrill**, 599 Whalley Ave, New Haven, Conn. *Mathematics*. Norristown, Pa, Jan. 15, 98. A.B, Pennsylvania, 19, A.M, 20, Ph.D, 25. Instr. *math*, Pennsylvania, 20-25; Nat. Research Council fellow, Texas, 25-26; *instr*, Yale, 26- A.A; Math. Soc; Math. Ass. Point sets with especial reference to continuous curves.
- Geidel, Carl D**, Le Sueur, Minn. *Chemistry*. Brandon, Wis, Oct. 21, 88. B.S, Wisconsin, 11, M.S, 13. Asst. chemist and bacteriologist, Wis. State Lab. Hygiene, 11-13; bacter. chemist, Wis. Dairy and Food Commission, 13-17; junior chemist, bur. chem, U. S. Dept. Agr, 17-19; *director*, Minn. *Canners Lab*, 19-; *director inspection*, Minn. *dist*, Nat. *Canners Ass*, 19-; *bacteriologist*, Minn. *Dairy and Food Commission*, 19-; *chemist*, Minn. *Valley Canning Co*. Soc. Bact; Chem. Soc; Pub. Health Ass. Organic and food chemistry; food bacteriology; canning.
- Geiger, Dr. George A(ugustus)**, 93 Christopher St, Montclair, N. J. *Chemistry*. Orange, N. J, Aug. 24, 86. A.B, Harvard, 08; A.M, Columbia, 10, Ph.D, 11. Chemist, Am. Viscose Co, 12-13; research chemist, bur. chem, U. S. Dept. Agr, 13-17; manager, Fries Bros. Chem. Works, 17-23; *production manager*, *Burton T. Bush, Inc*, 23- Quinazolin group, quantitative method for benzoic acid and benzaldehyde.
- Geiger, Dr. J(acob) C(asson)**, Department of Health, Chicago, Ill. *Public health*. Alexandria, La, Nov. 18, 85. A.B, Tulane, 05, Ph.M, 08, M.D, 12, D.P.H, 17. Asst. director and acting director laboratories, Calif. State Board Health, and asst. prof. hygiene, California, 13-16; asst. epidemiologist and epidemiologist, U. S. Pub. Health Service, 16-24; asst. commissioner in charge med. service sect, dept. health, *Chicago*, Ill, 24-27, *exec. officer*, dept.

- health, 27-; assoc. prof. epidemiol, Chicago, 22- Research fellow, Hooper Foundation, California, 19-22. Surgeon and senior surgeon, U. S. Pub. Health Service Reserve, 16- Pub. Health Ass; Am. Med. Ass; S. Med. Ass. Botulism; malaria; typhoid fever; food poisoning; rabies.
- Geiger, Dr. Paul H.**, 1361 Marlboro Ave, Pittsburgh, Pa. *Physics*. Paris, Mich, 96. B.S., Michigan, 18, A.M., 19, Acme White Lead and Color Works fellow, Ph.D., 22. Asst. Michigan, 19-20, instr., 21-22; *physicist, research lab, Union Switch and Signal Co*, 22- Physical Soc; Pittsburgh Physical Soc. Photoelectric effects; crystal conduction; color analysis; automatic train control apparatus.
- Geiling, Prof. E(ugene) M(aximilian) K(arl)**, Johns Hopkins University, Baltimore, Md. *Pharmacology*. Orange Free State, S. Africa, May 13, 91. A.B., South Africa, 11; M.S., Illinois, 15, Ph.D., 17; Seessel research fellow, Yale, 20; Govt. Union of S. Africa fellow, 21; M.D., Hopkins, 23. Lecturer chem, Col. Agr, S. Africa, 17-18; *physiol. chem, col. med, Univ. Cape Town*, 18-19; *asst. pharmacol, sch. med, Hopkins*, assoc., 23-25, *assoc. prof, 25-* Soc. Pharmacol. Physiological chemistry; nutritive value of amino acids; blood regeneration; pharmacology, chemistry, function and interrelation of endocrines; pharmacological action of protein split products; albumoses.
- Geiser, Prof. Samuel Wood**, 3637 Haynie Ave, Dallas, Texas. *Zoology*. Independence, Iowa, June 11, 90. A.B., Upper Iowa, 14, A.M., 19; Bruce fellow, Hopkins, 21-22, Ph.D., 22. Prof. biol., Guilford, 14-16; Upper Iowa, 17-19; sci. asst., Bur. Fisheries, 20-21; *asst. prof. zool, Washington (St. Louis)*, 22-24; *prof. biol. and head dept, Southern Methodist*, 24- Summers, instr., Woods Hole, 23-25. A.A.; Soc. Zool; Ecol. Soc; Iowa Acad. Experimental and invertebrate zoology; general physiology; biology of the poeciliid fishes.
- Geisler, Joseph F(rank)**, N. Y. Mercantile Exchange, Hudson and Harrison Sts, New York, N. Y. *Chemistry*. East Saginaw, Mich, March 20, 60. Ph.C., Michigan, 80, 80-83, Sc.D., 11. Asst. pharmacy and qual. chem. and to Prof. A. B. Prescott, Michigan, 80-83; chemist, Thurber, Wyland and Co, 83-87; *official chemist, N. Y. Mercantile Exchange*, 86- Chemist, N. Y. State Dept. Agr. and N. Y. State Dairy Commission, 85-14. Ebert prize, Am. Pharmaceut. Ass, 89. A.A.; Chem. Soc; Soc. Chem. Indust; Pharmaceut. Ass; London Chem. Soc. Analytical methods; chemistry of foods.
- Geissler, Prof. L(udwig) R(einhold)**, Randolph-Macon Woman's College, Lynchburg, Va. *Psychology*. Leipzig, Germany, Sept. 22, 79. Teachers' Sem, Loebau, Saxony; Litt.B., Texas, 05; Ph.D., Cornell, 09. Asst. psychol., Cornell, 05-09, instr., 09-11; research psychologist, Nela Research Lab, 11-12; *assoc. prof. psychol, Georgia*, 12-16; *asst. prof, Clark*, 16-20; *assoc. prof, Randolph-Macon Woman's Col*, 20-22, *prof, 22-* Non-res. lecturer, Wellesley, 17-19; exten. lecturer, Virginia, 25- Managing ed, 'Jour. Applied Psychol,' 17-20. State mental examiner, Va; psychologist, Va. Colony for Epileptics and Feeble-minded, 24- A.A.; Psychol. Ass; S. Soc. Philos. and Psychol; Va. Acad. Attention; color vision; affection; expectation; child study; mental tests; consciousness; physiognomic interpretation; indirect vision; attitude.
- Geister, Carl H(enry)**, Mellon Institute, Pittsburgh, Pa. *Ceramics*. Primghar, Iowa, Aug. 28, 95. B.S., Iowa Col, 20, M.S., 23. Asst. chemist, Fort Lupton Sugar Co, 20-21; chemist, eng. exp. sta, Iowa Col, 21-23; *indust. fellow, Mellon Inst*, 23- Ceramic Soc; Chem. Soc; Soc. Test. Mat. Flooring materials; tile.
- Gelbach, Dr. Ralph W(arren)**, 410 Montgomery St, Pullman, Wash. *Chemistry*. Near Grangeville, Idaho, Jan. 5, 97. A.B., Iowa, 20, M.S., 21, Ph.D., 23. Asst. instr. chem, Iowa, 18-22, research asst. physical chem, 22-23; *instr. chem, Wash. Col*, 23-25, *asst. prof, 25-* Aqueous solutions of barium halides.
- Geniesse, Dr. J(ohn) C(ollin)**, Atlantic Refining Co, 3144 Passayunk Ave, Philadelphia, Pa. *Chemical engineering*. Wausaukee, Wis, April 4, 95. B.S.E., Michigan, 20, M.S.E., 21, Ph.D., 24. Instr. chem. eng, Michigan, 20-25; *Atlantic Ref. Co*, 25- Chem. Eng. Motor fuels; fuel calorimetric determinations; specific and latent heats of petroleum fractions; fractional distillation.
- Gentry, Frank(lin) M(arion)**, The New York Edison Company, 130 E. 15th St, New York, N. Y. *Engineering*. New Orleans, La, March 10, 98. Kentucky, 18-20, 22, 23; B.S., Mass. Inst. Tech., 23. *Asst. to consulting engineer, N. Y. Edison Co*, 23- A.A.; Elec. Eng; Electrochem. Soc. Thermodynamics; hydroelectric engineering; heat transfer; steam power plants.
- Genung, Prof. Elizabeth F(aith)**, 2 West St, Northampton, Mass. *Bacteriology*. Ithaca, N. Y., March 12, 83. N. Y. State Nor. Sch., Cortland, 05; B.S.A., Cornell, 11, M.S.A., 14. Instr. bacter., Iowa Teachers' Col, 14-15; Simmons, 15-18; instr. and asst. prof. bot., Smith, 19-26, *assoc. prof. bacter*, 26- A.A.; Soc. Bact; Pub. Health Ass. The cause of color diffusion in Endo's medium.
- George, D(oroth) C(hauncey)**, 204 E. Clarendon Ave, Phoenix, Ariz. *Plant pathology*. Kans, Aug. 15, 87. B.S., Wash. Col, 12, M.S., 16. Asst. plant pathologist, Wash. Exp. Sta, 12-17; *plant pathologist, Ariz. Commission Agr. and Hort*, 17-, *sec'y*, 23- A.A.; Phytopath. Soc. Wind dissemination of spores of stinking smut; plant diseases of Arizona.
- George, Prof. E(noch) F(ranklin)**, Technological College, Lubbock, Texas. *Physics*. Petersburg, W. Va., March 25, 78. B.S., Valparaiso, 07; A.B., West Virginia, 14, A.M., 16; Ph.D., Ohio State, 20. District supervisor schools, P. I., 11-13; research physicist, B. F. Goodrich Co, 18-19; *asst. prof. physics, West Virginia*, 20-22, *assoc. prof*, 22-25; *prof. and head dept, Texas Tech. Col*, 25- Lieut. Field Artill, 17-18. A.A.; Physical Soc; Optical Soc; W. Va. Acad. The absorption of light by mixtures of inorganic salts; fading in radio signals.

George, H(arold) C(oulter), University of Oklahoma, Norman, Okla. *Engineering*. Oil City, Pa., May 24, 81. B.S., Pa. State, 04; E.M., Pittsburgh, 06. Production dept, John Ellis Oil Co, 99-00; instr. mining and metal, Pittsburgh, 04-07; manager, Columbia Lead and Zinc Co, 07-08; director, Wis. Mining Trade Sch, 08-11; mining engineer, chief engineer, gen. supt. and gen. manager, Wis. Zinc Co, 11-21; petrol. engineer, U. S. Bur. Mines, 21-24; *director sch. petrol. eng, Oklahoma, 24-* Committee on zinc industry, Am. Mining Cong, 13. A.A.; Min. and Metal. Eng; Ass. Petrol. Geol; Okla. Acad. Mining and petroleum engineering; geology; Wisconsin zinc district; Alaska oil fields.

George, Prof. N(athan) R(ichard), Jr, Massachusetts Institute of Technology, Cambridge, Mass. *Mathematics*. Mendon, Mass, Dec. 6, 65. A.B., Harvard, 90, A.M., 91. Instr. math, Mass. Inst. Tech, 91-99, asst. prof, 99-13, *assoc. prof, 13-*

George, Prof. R(ussell) D, University of Colorado, Boulder, Colo. *Geology, Petrology*. Claremont, Ont, Can, May 5, 66. Woodstock (Can), 84-85; B.A., McMaster, 97, M.A., 98, LL.D., 22; fellow, Chicago, 98-00. Master, Woodstock (Can), 91-95, science master, 95-96; instr. geol, Iowa, 00-01, asst. prof, 01-02, *prof. petrol. and econ. geol, 02-03; geol, Colorado, 03-*; *state geologist, Colo, 07-* Asst, Ont. Bur. Mines, 98; U. S. Geol. Surv, 99; summers, asst, Chicago, 00-02. A.A.; Geol. Soc; Soc. Econ. Geol; Ass. Petrol. Geol; Min. Eng; Colo. Sci. Soc. Mining and use of metals by ancient Egyptians; tungsten deposits of Boulder Co, Colorado; geology of Hahn's Peak region of Colorado; topographic and geologic maps of Colorado; common rocks and minerals; cracking of oils; economic use of fuels; smoke reduction; oil shales.

George, Dr. W(esley) C(ritz), University of North Carolina, Chapel Hill, N. C. *Zoology*. Yadkin Co, N. C., Aug. 20, 88. A.B., North Carolina, 11, A.M., 12, Ph.D., 17; Maule fellow, Princeton, 17-18. Instr. zool, North Carolina, 12-16; prof. biol, Guilford, 16-17; adjunct prof. zool, Georgia, 19; assoc. prof. *histol. and embryol*, Tennessee, 19-20; *North Carolina, 20-24, prof, 24-* Taxonomy of sponges; vertebrate embryology; ascidian blood.

Georgeson, Prof. C(harles) C(hristian), Sitka, Alaska. *Agriculture*. Langeland, Denmark, June 26, 51. B.S., Mich. State Col, 78, M.S., 82, Sc.D., 16. Prof. agr. and hort, Agr. and Mech. Col. Texas, 80-83; agr, Col. Agr, Tokyo, 86-89; Kansas Col, 90-97; *special agent in charge Alaska investigations, U. S. Dept. Agr, 98-*, *director, Alaska Exp. Stations, 23-* Special agent, dairy industry of Denmark, U. S. Dept. Agr, 93. Assoc. ed, 'Rural New Yorker,' 78-80. A.A.; Royal Danish Agr. Soc. Agricultural crops; stock breeding; stock feeding; agricultural capabilities of Alaska.

Georgia, Dr. F(rederick) R(aymond), Rollins College, Winter Park, Fla. *Chemistry, Bacteriology*. Sayre, Pa., Sept. 24, 92. Ch.B., Cornell, 15, Ph.D., 22. Instr. sanit. chem, Cornell, 15-17,

19-26; *prof. chem, Rollins Col, 26-* Lieut. Sanit.C, 17-19. Chem. Soc. (see'y, div. water sewage and sanit, 23); Water Works Ass; fel. Pub. Health Ass. Sanitary chemistry.

Gephart, Dr. F(rank) C(urtis), 23 E. 31st St, New York, N. Y. *Chemistry*. Valley Falls, Kans, July 15, 84. A.B., Kansas, 06; Ph.D., Cornell, 16. Teaching fellow chem, Kansas, 06-07; expert chemist, Remsen Referee Board, 07-11; chemist, Russell Sage Inst. Path, 12-17; *consulting chemist, 20-* Chief child feeding mission to Jugo-Slavia, Am. Relief Ad, 18-20. Order of St. Sava. Capt, Sanit.C, S.G.O., 17-19. A.A.; Chem. Soc; Soc. Biol. Chem; Pub. Health Ass. Physiological chemistry; nutrition; metabolism; food economy and chemistry.

Gerald, Prof. Herbert Franklin, Creighton University, Omaha, Nebr. *Pharmacology*. Turners Falls, Mass, Sept. 5, 81. Ph.G., Mass. Col. Pharmacy, 02; M.D., Tufts, 09. Pharmacist, 96-99, 02-04; instr. pharmacy, Mass. Col. Pharmacy, 04-09; intern, Worcester City Hosp, 10-11; practising physician, 11-12; prof. pharmacy, pharmacy dept, *Creighton, 12-13*, asst. prof. pharmacol. and mat. med. and instr. physiol, med. dept, 13-14, assoc. prof, 14-15, *prof. physiol, pharmacy dept, 12-15*, path, bacter, histol. and physiol, dental dept, 15-21, *pharmacol, med. dept, and physiol, pharmacy dept, 21-* Lecturer, Lister Hosp, 14-17; St. Joseph's Hosp, 19, 23- A.A.; Pharmaceut. Ass; Am. Med. Ass; Nebr. Pharmaceut. Ass. Bacteriology.

Gerhard, W(illiam) Paul, 25 Carman Ave, Scarsdale, N. Y. *Civil and sanitary engineering*. Hamburg, Germany, July 30, 54. Italian Col, Alexandria, Egypt, 64; Tech. Univ, Karlsruhe, 71-75; hon. D.Eng, Darmstadt, 11. Asst. engineer on railroad work, Hamburg, 77; asst. engineer to pres, Board Pub. Works, St. Louis, 77-79; with Capt. Jas. B. Eads, 79-80; Col. Geo. E. Waring, Jr, R. I., 81-93; chief engineer, Durham House Drainage Co, 83-85; *consulting engineer, 85-* Ed, 'Building,' 85-86. Sanit. engineer on staff of N. Y. state architect, Albany, 92-99. Int. jury awards, Sesqui-Centennial Expos. Brig. gen, Nat. Vol. Eng. Service. Mech. Eng; Pub. Health Ass; Soc. Eng; hon. cor. mem. Am. Inst. Archit. Sewage and sewage disposal; house drainage; gas lighting and gas fitting; fire protection, especially of theaters and institutions; water supply; corrosion of steel and iron pipes.

Gerhardt, Dr. W(illiam) Frederick, University of Michigan, Ann Arbor, Mich. *Aeronautics*. Harrisburg, Pa., Jan. 31, 96. B.S.E., Michigan, 17, M.S.E., 18, Sc.D., 24. Research engineer, eng. div, A.S., 19-20, asst. chief special research branch, 20-21, chief flight research branch, 21-24; acting assoc. prof. in charge dept. aeronaut, Michigan, 24; *consulting engineer, 25-*; v. pres. and research director, *Aeronautical Research Corp. of Detroit, 26-* Raphael Herman award, World Peace Contests. Int. Math. Cong. Automotive Eng; Soc. Psychic Research; British Col. Psychic Sci. Aeronautical engineering; the induction theory of aerofoils; airplane flight testing the cycle-plane; helicopters; theory of science; metaphysics.

- Gericke, Prof. W(illiam) F(rederick)**, University of California, Berkeley, Calif. *Chemistry*. Fremont, Nebr., Aug. 30, 84. B.S.A., Iowa Col., 12; M.S., California, 15; Ph.D., Hopkins, 21. Instr. soil chem. and bacter., *California*, 12-16, asst. prof. *soil chem*, 16- In service, Nat. Research Council, 18-19. A.A.; Soc. Agron.; Chem. Soc.; Bot. Soc. Salt requirements and rest and growth periods of plants; continuous crops; effect of toxic substances on plants; water culture experimentation.
- Gerke, Dr. Roscoe H(aran)**, Massachusetts Institute of Technology, Cambridge, Mass. *Physical chemistry*. Highland, Ill., Dec. 1, 95. B.S., Illinois, 18; fellow, *California*, 19-21, Ph.D., 22. *Instr. chem, California*, 21-22; *physical chem, Mass. Inst. Tech.*, 22- Second lieut., C.W.S., 18-19. Chem. Soc.; Physical Soc. Chemical thermodynamics; electromotive force of cells; dispersoids; photochemistry.
- Germann, Prof. Albert F(rederick) O(ttomar)**, Valparaiso University, Valparaiso, Ind. *Physical chemistry*. Peru, Ind., Feb. 18, 86. A.B., Indiana, 09, A.M., 10; Wisconsin, 10; Sc.D., Geneva, 12; Berlin, 12. Teaching fellow chem., Indiana, 09; asst., Wisconsin, 09-10; instr., Western Reserve, 13-15, asst. prof., 15-21, assoc. prof., 21; asst. prof., Stanford, 21-25; director research lab, The Laboratory Products Co., 25-26; *prof. chem. and head dept, Valparaiso*, 26- A.A.; Chem. Soc. (sec'y-treas., Cleveland sect., 15-19); Soc. de Chim. physique; Soc. Suisse de Chim. Density, vapor tension and critical constants of gases; phosgene; phosgenates; solvent systems.
- Germann, Dr. Frank E(rhart) E(mmanuel)**, University of Colorado, Boulder, Colo. *Physics, Chemistry*. Peru, Ind., Dec. 6, 87. Wisconsin, 10; Geneva, 14; fellow, Berlin, 12; Lausanne and Neuchâtel, 13. Research asst. and lecturer chem., Geneva, 12-13; instr. French, Indiana, 13-14; physics, Cornell, 14-18; *prof.*, Colo. Sch. Mines, 18-19; *physical chem, Colorado*, 19- Research fellow, Carnegie Inst., 15-18, 25-26. A.A. (exec. committee, S. W. div.); fel. Physical Soc.; Chem. Soc.; Soc. de Physique. Gas apparatus; microanalysis of gases; absorption spectra of gases; vapor tension of oxygen; nitrosyl chloride; atomic weights; colloid chemistry; radioactivity; fluorescence.
- Germann, Dr. George B(althasar)**, 167 Rutland Road, Brooklyn, N. Y. *Psychology, Education*. Brooklyn, Feb. 27, 72. N. Y. Univ., 92-94; A.B., Columbia, 95, fellow, 98-99, Ph.D., 99. Teacher, pub. schools, Brooklyn, 89-91; asst. math., Columbia, 95-98, philos. and educ., 99-00, lecturer educ., 99-02, registrar, 00-02; *prin. pub. sch., Brooklyn*, 02- A.A.; Psychol. Ass. Fatigue in the school room; growth and control of motor habits; fluctuations in retentiveness among school children.
- Germer, L(ester) H(albert)**, 463 West St., New York, N. Y. *Physics*. Chicago, Ill., Oct. 10, 96. A.B., Cornell, 17; A.M., Columbia, 22, Ph.D., 27. *Engineer, Bell Telephone Laboratories*. Physical Soc. Thermionics.
- Gerould, Prof. John H(iram)**, Hanover, N. H. *Zoology*. Stoddard, N. H., Oct. 2, 68. Litt.B., Dartmouth, 90; A.B., Harvard, 92, A.M., 93, Ph.D., 95. Instr. nat. science, Burr and Burton Sem., Vt., 90-91; *zool., Dartmouth*, 94-06, asst. prof., 06-15, assoc. prof., 15-18, *prof.*, 18- A.A.; Soc. Nat. (v. pres., 19); Soc. Zool. (sec'y-treas., 12); N. H. Acad. Genetics; morphology of holothurians; embryology and cytology of sipunculids; sipunculids of the eastern coast of North America; heredity, variations and general physiology in butterflies and moths; history of the cell theory.
- Gerry, Dr. Eloise**, 425 Sterling Place, Madison, Wis. *Botany, Forestry*. Boston, Mass., Jan. 12, 85. A.B., Radcliffe, 08, A.M., 09; Ph.D., Wisconsin, 21; fellow, Smith, 09. Expert forest products lab, *Wisconsin*, 10-11, *microscopist and lecturer forest products*, 11- A.A.; Bot. Soc.; assoc. Soc. Foresters; Forestry Ass. Plant anatomy and physiology; microchemistry; optics; microscopical structure and properties of woods; tyloses; oleoresin production.
- Gesell, Prof. Arnold**, 185 Edwards St., New Haven, Conn. **Psychology*. Alma, Wis., June 21, 80. Ph.B., Wisconsin, 03; Ph.D., Clark, 06; M.D., Yale, 15. Prin. high sch., Wis., 03-04; prof. psychol., Calif. State Nor. Sch., Los Angeles, 08-11; *prof. child hygiene and director psychoclinic, Yale*, 11-, *chief mental clinic, Yale Polyclinic*, 21- Summers, assoc. director sch. for special teachers, N. Y. Univ., 11-15; Nat. Committee for Mental Hygiene; sch. psychologist, Conn. Board Educ., 15-18; Conn. Commission on Child Welfare, 19-21. Psychol. Ass.; Am. Med. Ass.; Conn. Soc. Mental Hygiene (exec. committee); Conn. Child Welfare Ass. (v. pres.); Int. Ass. pour la Protection de l'Enfance (v. pres). Clinical and genetic psychology; child guidance; infancy studies; psychological norms of development.
- Gesell, Prof. Robert**, University of Michigan, Ann Arbor, Mich. **Physiology*. Alma, Wis., June 23, 86. A.B., Wisconsin, 10; M.D., Washington (St. Louis), 14. Asst. zool., Wisconsin, 09-10; *physiol.*, Washington (St. Louis), 10-12, instr., assoc. and assoc. prof., 12-19; *prof.*, California, 19-22; *Michigan*, 23- Physiol. Soc.; Soc. Exp. Biol. The relation of auricular systole to ventricular output; the relation of pulse pressure to renal secretion and to filtration; cardiodynamics; blood flow; electrical deflection of the submaxillary gland; the relation of blood volume to tissue-nutrition; the chemical regulation of respiration; the regulation of circulation.
- Gester, G(eorge) C(lark)**, Standard Oil Building, San Francisco, Calif. *Geology*. Buffalo, N. Y., June 16, 84. B.S., California, 08. Asst. instr. miner. and geol., California, 08-09; geologist, S. P. Ry., 09-14; Standard Oil Co. of N. Y., 14-16; *chief geologist, Standard Oil Co. of Calif.* Geol. exped. to Peru. Paleont. Soc.; Min. Eng.; Ass. Petrol. Geol.; Petrol. Inst.; Calif. Acad. Oil geology in California.
- Gester, Stephen H(owell)**, 225 Bush St., San Francisco, Calif. *Geology*. California, 89, B.S., 13. Geol. Surv., South. Pacific Ry., 13-14; *geologist*, Standard Oil Co. of N. J., 14-15; *Standard Oil Co. of Calif.*, 16- Ass. Petrol. Geol.; Petrol. Inst. Petroleum geology.

- Getman, Dr. F(rederick) H(utton)**, 66 Glenbrook Road, Stamford, Conn. *Physical chemistry*. Oswego, N. Y., Feb. 9, 77. Rensselaer, 93-96; Virginia, 96-97; fellow, Hopkins, 02-03, Ph.D., 03, fellow by courtesy, 03-04. Instr. high sch., Conn., 97-01; lecturer physical chem., Col. City of N. Y.; lecturer physics, Columbia, 07-08; assoc. chem., Bryn Mawr, 09-15; *private research*, 15- Carnegie research asst. A.A.; Chem. Soc.; Electrochem. Soc.; Franklin Inst.; fel. London Chem. Soc.; Soc. de Chim. physique. Depression of the freezing-points of solutions of electrolytes; viscosity of solutions; refractive indices of solutions; electrode potentials; theoretical chemistry.
- Gettler, Prof. Alexander O(scar)**, 338 E. 26th St., New York, N. Y. *Physiological chemistry*. Austria, 83. B.S. Col. City of N. Y., 04; A.M., Columbia, 09, Ph.D., 12. *Assoc. prof. chem.*, Univ. and Bellevue Hosp. Med. Col., 10-; N. Y. Univ., 23- Path. chemist, Bellevue Hosp., 15-; toxicologist, New York, 15-; consulting chemist, French Hosp., 23- A.A.; Soc. Biol. Chem.; Chem. Soc.; Soc. Exp. Biol.; Harvey Soc. Pathological chemistry; toxicology.
- Geyelin, Dr. Henry Rawle**, 33 E. 68th St., New York, N. Y. *Medicine*. Villa Nova, Pa., May 12, 84. A.B., Pennsylvania, 06, M.D., 09. Fellow med., Columbia, 12-13, instr., 14-15, assoc., 17-21, *asst. prof.*, 21- Assoc. attending physician, Presb. Hosp., 18-; consulting physician, Babies Hosp., U. S. Veterans Hosp. No. 81. Committee of Am. clinicians for Toronto Insulin Committee. Am. Med. Ass.; Am. Physicians; Soc. Clin. Invest.; Soc. Exp. Biol.; Harvey Soc.; N. Y. Clin. Soc. Clinical metabolism; hyperthyroidism; diabetes; epilepsy.
- Gibbens, Prof. Gladys (Elizabeth Corson)**, University of Minnesota, Minneapolis, Minn. *Mathematics*. A.B., Newcomb, 14; A.M., Tulane, 16; Ph.D., Chicago, 20. Instr. math., Minnesota, 20-25, *asst. prof.*, 25- A.A.; Math. Soc.; Math. Ass. Projective differential geometry.
- Gibbon, Dr. John H(eysham)**, 1608 Spruce St., Philadelphia, Pa. *Surgery*. Charlotte, N. C., March 16, 71. M.D., Jefferson Med. Col., 91. *Prof. surg.*, Jefferson Med. Col., 07- Surgeon, Pa. Hosp., 03- Fel. Surg. Ass. (past pres); Am. Med. Ass.; Phila. Col. Physicians (v. pres); Phila. Acad. Surg.
- Gibbons, Prof. Vernetta L(ois)**, Mills College, Oakland, Calif. *Chemistry*. Franklin, N. Y., Jan. 5, 74. B.S., Mt. Holyoke, 96, A.B., 99, fellow, 14-15; M.S., Chicago, 07; Cape of Good Hope, 08; fellow, Bryn Mawr, 11-12, 14-15, Ph.D., 14; fellow at Munich, 12-13. Teacher, Mass., 96-97; *asst. chem.*, Mt. Holyoke, 97-99, instr., 00-01; Wells, 02-04, *assoc. prof.*, 04-06; *prof.*, Huguenot, S. Africa, 07-11; *Mills*, 15-17, 19- Chemist, Nat. Aniline and Chem. Co., 18-19. A.A.; Chem. Soc. Potentials of metals in non-aqueous solutions of their salts; alcoholic solutions of cadmium salts.
- Gibbons, Dr. Willis A(lexander)**, 561 W. 58th St., New York, N. Y. *Chemistry*. Long Island City, N. Y., Nov. 1, 88. A.B., Wesleyan, 10, A.M., 11; Columbia, 13-14; Ph.D., Cornell, 16. Asst. chem., Cornell, 10-12; *chemist*, U. S. Rubber Co., 12-17, 19-, in charge research dept., gen. laboratories, 22- Capt., ordnance dept., 18-19; asst. mil. attaché, Am. Embassy, London, 17-18. Chem. Soc. (exec. committee, rubber div., 25); Soc. Automotive Eng.; fel. London Chem. Soc. Heat of dilution; addition compounds; aeronautic materials; vulcanization of rubber; loading high explosive shells; rubber latex.
- Gibbs, Prof. C(harles) S(helby)**, University of Nanking, Nanking, Kiangsu, China. *Bacteriology*. Errol, N. H., Nov. 28, 88. B.S., Bates, 16; M.S., Yale, 20, Ph.D., 21. Asst. bacteriologist, Conn. Exp. Sta., Storrs, 18-21; *research prof. animal and silkworm diseases*, Nanking, 21- Soc. Bact. Control of rinderpest in cattle; epidemiology and control of silkworm diseases; infectious abortion of cattle; bacillary white diarrhea of poultry.
- Gibbs, George**, Pennsylvania Station, New York, N. Y. *Mechanical engineering*. Chicago, Ill., April 19, 61. M.E., Stevens, 82. Chemist, mechanical and consulting engineer, ry, indust. and mfg. companies, 88-05; *chief engineer* elec. traction and station construction, Pa. Ry., 05-12; *elec. traction*, L. I. Ry., 12-; *consulting engineer*, Pa. Ry. and pub. service commissions. Adviser, Carnegie Institution; U. S. Commission Ry. Experts to Russia, 17; trustee, Stevens; Presb. and Woman's Hospitals, New York. Norman medal, Soc. Civil Eng., 11. Int. Ry. Cong., 10, pres, Rome session, 22. A.A.; Mech. Eng.; fel. Elec. Eng.; Civil Eng.; Consulting Eng. (past pres); Ry. Eng. Ass.; Ry. Ass.; Elec. Ry. Ass.; Master Car Builders' Ass.; British Inst. Civil Eng.
- Gibbs, Dr. H(arry) D(rake)**, U. S. Public Health Service, Washington, D. C. **Chemistry*. Cincinnati, Ohio, March 10, 72. B.S., Cornell, 94; California, 04; Ph.D., Stanford, 13. Asst. prof. chem., Oregon Col., 01-03; research asst., Stanford, 04; chemist, San Francisco Board Health, 04-07; food and drug chemist and asst. director, Bur. Science, P. I., 07-14; *assoc. prof. chem.*, Philippines, 11-14; *asst. chief east. food and drug inspection dist.* and in charge color lab, bur. chem., U. S. Dept. Agr., 14-19; research chemist, E. I. du Pont de Nemours and Co., 19-22; *senior chemist, hygienic lab*, U. S. Pub. Health Service, 19- Head chem. sect., dept. science and research, Bur. Aircraft Production, 18; mem. div. chem. tech, Nat. Research Council, 18, div. indust. relations, 19. A.A.; Chem. Soc.; Chem. Eng.; N. Y. Chemists Club; Wash. Acad. Alcohol and sugar production from palm trees; intermediates; catalytic reaction; oxidation-reduction.
- Gibbs, Prof. O(wen) S(tanley)**, Dalhousie University, Halifax, N. S., Can. *Pharmacology*. Sibley, Eng., May 25, 98. M.B., Ch.B., Edinburgh, 21. Asst. *pharmacol.*, Edinburgh, 22, lecturer, 22-24; *prof.*, Dalhousie, 24- A.A.; British Physiol. Soc. Measurement of blood coagulation; paraphenylene diamine poisoning; action of drugs on vagus of fowl.
- Gibbs, Prof. R(oswell) Clifton**, 221 Bryant Ave., Ithaca, N. Y. *Physics*. Hume, N. Y., July 1,

78. A.B., Cornell, 06, A.M., 08, Ph.D., 10. Instr. *physics*, Cornell, 06-12, asst. prof., 12-18, *prof.*, 18-, acting dean col. arts and science. Research assoc., Calif. Inst., 23-24. A.A.; Physical Soc. Spectroscopy; luminescence; absorption and fluorescence spectra; emission spectra in ultraviolet; spectral multiplets.
- Gibbs, Prof. William M(erriott)**, Northwestern University Medical School, Chicago, Ill. *Bacteriology*. Versailles, Mo., March 24, 92. B.S., Missouri, 15; M.S., Wisconsin, 16, fellow, 16, Ph.D., 19; Northwestern. Chemist, Wis. Geol. Surv., 17; prof. bacter., Idaho, and bacteriologist, Exp. Sta., 19-26; *med. student*, Northwestern, 26- Lieut. Sanit.C., 18. A.A.; Soc. Bact. Nitrifying bacteria; effects of woods and tree products and alkali salts on bacterial activities in soil; surface tension and bacterial growth.
- Gibson, Arthur**, Department of Agriculture, Ottawa, Ont., Can. *Entomology*. Toronto, Ont., Dec. 23, 75. Asst. entom. div, Exp. Farms branch, Can. Dept. Agr., 99-05, asst. entomologist, 05-08, chief asst. entomologist, 08-14, chief div. field crop and garden insects, entom. branch, 14-20, *Dominion entomologist*, and head entom. branch, 20- Curator, Victoria Mem. Museum. Chairman, Destructive Insect and Pest Act Advisory Board; Dominion Interdept. Advisory Board on Wild Life Protection; ex-officio, management committee, Imp. Bur. Entom. A.A.; fel. Entom. Soc. (past pres); Ass. Econ. Entom.; fel. Royal Soc. Can.; Ont. Entom. Soc. (past pres); hon. mem. Que. Soc. Protection Plants; fel. London Entom. Soc. Control of the cutworm, the army worm, the cabbage maggot, flea beetles and greenhouse insects; common garden insects; Lepidoptera.
- Gibson, Rev. Edmund Harrison**, Old Orchard Road, Ten Hills, Baltimore, Md. *Entomology*. Detroit, Mich., Jan. 15, 91. B.S., Mich. State Col., 12, M.Hort., 19. Bur. entom., U. S. Dept. Agr., 12-19. *Custodian Hemiptera*, U. S. Nat. Museum, 16- A.A.; Entom. Soc.; Ass. Econ. Entom.; Wash. Entom. Soc.; Wash. Biol. Soc. Hemiptera; Heteroptera; Jassoidea.
- Gibson, Dr. Edward T(homas)**, 710 Rialto Building, Kansas City, Mo. *Neurology, Psychiatry*. Kansas City, Kans., Jan. 17, 81. A.B., Kansas, 08, A.M., 10, M.D., 12. Asst. neuropath., Harvard Med. Sch., 14-15, instr. psychiat., 15-16; clin. director and pathologist, Conn. State Hosp., Middletown, 16-20; *asst. prof. neur.*, Kansas, 20- Asst. physician, Boston Psychopath. Hosp., 14-16. A.A.; Am. Med. Ass.; Psychiat. Ass.; Cent. Neuropsychiat. Soc.; Kans. City Acad. Med. Neuropathology; nervous and mental diseases.
- Gibson, Prof. G(eorge) E(rnest)**, University of California, Berkeley, Calif. *Chemistry*. Edinburgh, Scotland, Nov. 9, 84. B.Sc., Edinburgh, 06, Vans Dunlop scholar, 06-09; Ph.D., Breslau, 11. Asst. chem., Edinburgh, 12-13; instr., *California*, 13-18, asst. prof., 18-20, *assoc. prof.*, 20- Chem. Soc.; fel. Physical Soc. Thermodynamics; physical chemistry.
- Gibson, Prof. J(ames) L(ambert)**, University of Utah, Salt Lake City, Utah. *Mathematics*. Kamas, Utah, March 10, 73. B.S., Utah, 95; A.M., Columbia, 98; Ph.D., Vienna, 23; Cambridge, 02-03; Bonn, 22; Paris, 23. *Prof. math. and head dept.*, Utah, 04-, *dean sch. arts and sciences*, 15- A.A.; Math. Soc.; Math. Ass.; fel. Utah Acad. Rotating surfaces and solids; higher plane curves.
- Gibson, Dr. K(asson) S(tanford)**, Bureau of Standards, Washington, D. C. *Physics*. Afton, N. Y., Jan. 7, 90. A.B., Cornell, 12, Ph.D., 16. Instr. physics, Cornell, 12-16; asst. physicist, *Bur. Standards*, 16-19, *assoc. physicist*, 19-21, research assoc., 21-22, *physicist*, 22- A.A.; Physical Soc.; Optical Soc.; Wash. Philos. Soc.; Wash. Acad. Spectrophotometry; absorption; colorimetry; photometry.
- Gibson, Norman R(othwell)**, The Niagara Falls Power Co., Niagara Falls, N. Y. *Engineering*. Guelph, Ont., Can., March 23, 80. B.A.Sc., Toronto, 04. Draftsman and designer, companies, 04-08; in charge civil and hydraulic dept., Smith, Kerry and Chace, Can., 08-13; consulting engineer, 13-15; chief engineer, Elec. Power Co., Ltd., 15-16; asst. chief engineer, Ont. Power Co., 16-17; hydraulic engineer, Hydraulic Power Co., N. Y., 18-25; exec. engineer, *The Niagara Falls Power Co.*, 25-26, *chief engineer and v. pres.*, 26- Civil Eng.; Eng. Inst. Can. Hydraulics; pressures in penstocks caused by the gradual closure of turbine gates; method and apparatus for measuring the flow of water in closed conduits.
- Gibson, Dr. R(alph) E(dward)**, Carnegie Institution, Washington, D. C. *Chemistry*. King's Lynn, Eng., March 30, 01. B.Sc., George Watson's Col., 22; Carnegie research scholar, Edinburgh, 23-24, Ph.D., 24. *Physical chemist, geo-phys. lab, Carnegie Inst.*, 24- Chem. Soc.; Wash. Philos. Soc. Electrosynthesis; calcium carbonate; high pressure.
- Gibson, Prof. R(obert) B(anks)**, University Hospital, Iowa City, Iowa. *Physiological chemistry, Medicine*. Uncompahgre, Colo., March 8, 82. Ph.B., Yale, 02, Ph.D., 06. Research asst., Sheffield Sci. Sch., Yale, 03-04; bacteriologist, Dept. Health, New York, 04-07; instr. physiol. chem. and pharmacol., Missouri, 07-11; asst. prof. physiol. chem., Minnesota, 11-12; prof. physiol. and head dept., Philippines, 12-19; *asst. prof. med. and director clin. chem. lab.*, Iowa, 19- Acting head dept. pharmacol., Philippines, 14-19. Physiol. Soc.; Soc. Biol. Chem.; Soc. Exp. Biol.; P. I. Med. Ass. (sec'y and ed., 'Proc.', 14-18). Metabolism and nutrition; diurnal body temperature variation; practical concentration methods for antitoxins; blood plasma proteins; pharmacological action of proteoses; avitamin polyneuritis; blood chemistry and metabolism of muscular atrophies and of anemias; diabetic management; hyperglycemia; insulin edema.
- Gibson, Prof. Russell**, University of Colorado, Boulder, Colo. *Geology, Mineralogy*. St. Louis, Mo., Oct. 21, 87. A.B., Washington (St. Louis), 20; A.M., Colorado, 22; Harvard, 27. Asst. *geol.*, Washington (St. Louis), 18-20; instr., *Colorado*, 20-25, *asst. prof.*, 25- Geologist, Mo. Bur. Geol. and Mines, 18; asst. geologist, Okla. Producing and Ref. Corp., 20; Colo. Geol. Surv.,

20-25, geologist, 25- Min. and Metal. Eng. Ore deposits.

Giddings, Prof. Franklin H(enry), Columbia University, New York, N. Y. *Sociology*. Sherman, Conn, March 23, 55. A.B. Union, 77, A.M., 89, hon. Ph.D., 97; LL.D., Oberlin, 00, Iowa, 22, North Carolina, 24. Lecturer polit. sci., Bryn Mawr, 88-89, assoc., 89-91, assoc. prof., 91-92, prof., 92-94; lecturer *sociol.*, *Columbia*, 91-94, *prof.*, 94- Ed. writer, 'Springfield Republican,' 78; 'Springfield Union,' 84-88; ed. board, 'Polit. Sci. Quarterly,' 94-Cent. council, Charity Organ. Soc., 94; Board Educ., New York, 15-17; trustee, Union, 02-; Albany Med. Col. A.A.; Sociol. Soc. (pres, 10); Acad. Polit. and Social Sci. (v. pres, 90-, ed., 'Annals,' 90-94); Econ. Ass. (ed., 'Pub,' 91-93, first v. pres, 96); Nat. Inst. Arts and Letters; Anthropol. Ass.; Psychol. Ass.; Statist. Ass.; fel. Ethnol. Soc.; Phila. Acad.; Inst. Int. de Sociol. de Paris (v. pres, 01, pres, 13). Profit sharing; theory of interest; classification of social facts; statistical and historical studies of social causation, and the related concepts of evolution; pluralistic behavior and group psychology.

Giddings, Dr. N(ahum) J(ames), 36 University Driveway, Morgantown, W. Va. *Plant pathology*, *Bacteriology*. Ira, Vt, Nov. 13, 83. B.S., Vermont, 06, M.S., 09; Ph.D., Wisconsin, 18. Asst. botanist, Vt. Exp. Sta., 06-09; *bacteriologist and plant pathologist*, *W. Va. Exp. Sta.*, 09-, *prof. plant path.*, *West Virginia*, 19-, acting dean col. agr., 21-22. National Research Council, 26-. A.A.; Phytopath. Soc. (councilor, 20, v. pres, 22, advisory board, 23-, chairman, 26-); Bot. Soc.; Crop Protection Inst. (board governors, 25-). Late blight of potato; bacterial rot of muskmelon; apple rust; effect of pressure on bacteria and enzymes; dust materials as fungicides.

Gidley, J(ames) W(illiams), U. S. National Museum, Washington, D. C. *Vertebrate paleontology*. Winneshiek Co., Iowa, Jan. 7, 66. B.S., Princeton, 98, M.S., 01; Ph.D., George Washington, 22. Asst. vert. paleont., Am. Museum Nat. Hist., 92-94, 99-05; preparator and custodian *fossil mammals*, *U. S. Nat. Museum*, 05-12, *asst. curator*, 12- Paleont. Soc. (v. pres, 19); Geol. Soc.; Soc. Mammal. (treas, 20); Wash. Biol. Soc. (treas, 09, pres, 24); Wash. Geol. Soc.; Wash. Acad. Mammalian paleontology; stratigraphic geology; basal Eocene, upper Cretaceous and Pleistocene mammals.

Gidley, Prof. William Francis, Galveston, Texas. *Pharmacy*. Mich., 82. Ph.C., B.S., Michigan, 08. Dean pharmacy, Mercer, 09-12; prof. mat. med., Purdue, 12-18; asst. chief sci. staff, E. R. Squibb and Sons, 18-19; prof. mat. med., Purdue, 19-20, pharmacy, 20-24; head *dept. pharmacy*, *Texas*, 24-26, *dean*, 26- A.A.; Chem. Soc.; Pharmaceut. Ass.; Soc. Bact. Physiological chemistry; oral antiseptics; digestive ferments; volatile oils.

Gies, Prof. William J(ohn), 437 W. 59th St., New York, N. Y. *Biochemistry*. Reisterstown, Md., Feb. 21, 72. B.S., Gettysburg, 93, M.S., 96, Sc.D., 14; Ph.B., Yale, 94, Ph.D., 97; Bern,

99; Woods Hole, 01, 02; LL.D., Baylor and Gettysburg, 24. Asst. zool., Yale, 95, *physiol. chem.*, 94-96, *asst. physiol. chem.* and *tutor physiol.*, 96-98; *instr. physiol. chem.*, *Columbia*, 98-02, *adjunct prof.*, 02-05, *prof.*, 05-07, *biochem.*, 07-, *gen. chem.*, *col. physicians and surg.*, 04-09, *org. chem.*, 09-18, N. Y. Col. Pharmacy, 04-21, *Teachers Col.*, 09- Consulting chemist, N. Y. Bot. Garden, 02-21, board sci. directors, 11-; *path. chemist*, *Bellevue Hosp.*, 10-21; *Presb. Hosp.*, 21-; in charge study dental edue., Carnegie Foundation, 21-27. Sec'y, faculty, *col. physicians and surg.*, *Columbia*, 05-21. Ed., *biol. sect.*, 'Chem. Abstracts,' 11-21; 'Biochem. Bul,' 11-; 'Jour. Dental Research,' 19. Trustee, Irving, 00-10; Gettysburg, 08-20. A.A. (sec'y, K, 05-09); Soc. Biol. Chem. (sec'y and ed., 'Proc,' 06-10); Chem. Soc.; Soc. Physiol. Chem. (pres, 99-22); Physiol. Soc.; Soc. Pharmacol.; Soc. Exp. Biol. (sec'y, and ed., 'Proc,' 03-09, v. pres, 09-12, pres, 19-21); Philos. Soc.; fel. N. Y. Acad. (v. pres, 19-21); Harvey Soc.; Int. Ass. Dental Research (hon. pres, 22-). Constituents of animal tissue and fluids; toxicology and pharmacology; chemistry and physiology of plants; nutrition and metabolism; antitoxic action of ions; proteins; mucoids and albuminoids; enzymes; protagon; animal excretions; biochemical factors in disease; influence of various dietary conditions on physiological resistance; blood and lymph; saliva in its relation to dental caries; the composition and constitution of protoplasm; nutrition and dentition; composition of teeth; chemical coordination in the body.

Giesecke, Prof. F(rederick) E(rnest), University of Texas, Austin, Texas. *Engineering*. Washington, Texas, Jan. 28, 69. M.E., Agr. and Mech. Col. Texas, 90; B.S., Mass. Inst. Tech., 04; Ph.D., Illinois, 24; Cornell; Technische Hochschule, Charlottenburg. Faculty, Agr. and Mech. Col. Texas, 86-12; *prof. archit. eng. and director bur. eng. research*, *Texas*, 12- Inst. Archit.; Eng. Educ.; Civil Eng.; Heat. and Vent. Eng.; Soc. Test. Mat. Architectural engineering; heating and ventilation; hydraulics; concrete construction; building construction and sanitation.

Giesy, Dr. P(aul) M(iller), 165 Broadway, New York, N. Y. *Chemistry*. Cleveland, Ohio, Dec. 24, 90. A.B., Ohio State, 10, A.M., B.S., 12; Ph.D., Columbia, 20. Asst. chemist, bur. chem., U. S. Dept. Agr., 12-14; Procter and Gamble Co., 14-15; assoc. cancer research, Columbia, 16-17, 19-20; research chemist, Grasselli Chem. Co., 20; Calco Chem. Co., 20-22; director Brooklyn research laboratories, E. R. Squibb and Sons, 22-26; *instr. chem. eng.*, *Newark Col. Eng.*, 26-27, *asst. prof.*, 27-; *consulting chemist*, 26- Capt., U.S.A., 17-19. A.A.; Chem. Soc.; Soc. Chem. Indust.; Inst. Chem.; Pharmaceut. Ass. Organic chemistry; dyestuffs; placental hormone; pharmaceuticals.

Giffard, Walter M., P. O. Box 300, Honolulu, Hawaii. *Entomology*. Jersey Channel Islands, Eng. Commissioner, pres. and exec. officer, Board Agr. and Forestry, Hawaii, 03-23. Chairman committee in charge, Exp. Sta., Hawaiian Sugar Planters' Ass., 03-08. A.A.; Entom. Soc.;

- Calif. Acad; Wash. Biol. Soc; Hawaiian Entom. Soc. (past pres); fel. London Entom. Soc. Agriculture; forestry; Homoptera.
- Giffin, Dr. H(erbert) Z(iegler)**, Mayo Clinic, Rochester, Minn. *Medicine*. Kirkwood, N. J., Oct. 25, 78. B.S., Princeton, 00; M.D., Hopkins, 04. *Head clin. sect. No. 2, Mayo Clinic; assoc. prof. med., Minnesota, 15-* A.A.; assoc. Am. Physicians; Soc. Clin. Invest; Am. Med. Ass. Diseases of the blood, spleen and lymph glands.
- Gifford, Edward Winslow**, 1650 Vista St, Oakland, Calif. *Anthropology*. Oakland, Aug. 14, 87. Asst. and asst. curator ornith, Calif. Acad. Sciences, 04-12; asst. curator, assoc. curator and curator museum anthrop, California, 12- Assoc. ed, 'Am. Anthropologist.' A.A.; Anthropol. Ass; Ethnol. Soc; Folk-Lore Soc; Calif. Acad; Paris Soc. des Américanistes. Archeology; anthropology; society and religion.
- Gilbert, Prof. A(lfred) H(olley)**, 191 Loomis St, Burlington, Vt. *Plant pathology*. Dorset, Vt, Dec. 1, 78. B.S., Vermont, 04; M.S., Wisconsin, 13. Instr. bot, Kentucky, 07-09, asst. prof, 09-12, assoc. prof, 12-17; path. inspector, fed. hort. board, U. S. Dept. Agr, 17-18; exten. pathologist, Vt, 18-19; *asst. prof. bot., Vermont, assoc. pathologist, Exp. Sta. and potato inspector, Vt. Dept. Agr, 19-* A.A.; Phytopath. Soc; Potato Ass. Cytology; potato degeneration diseases.
- Gilbert, Dr. Arthur Witter**, Massachusetts Department of Agriculture, Boston, Mass. *Agriculture*. West Brookfield, Mass, April 20, 82. B.S., Mass. Col, 04; Boston, 04; M.S.A., Cornell, 05, fellow, 08-09, Ph.D., 09; Harvard, 17. Instr. agr, Maine, 05-06, asst. prof. and supervisor agr. exten. courses, 06-07; asst. prof. plant breeding, Cornell, 09-11, prof, 11-17; sec'y, dept. agr, Boston Chamber of Commerce, 17-19; *state commissioner agr, Mass, 19-* Summer, teacher, Chautauqua, 11, director sch. practical agr, 12-13. Fed. Milk Commission, 17-19; treas, New Eng. Dairy and Food Council, 22-; chairman, New Eng. agr. conference; chairman, Am. Committee, Int. Inst. Agr, Rome. Trustee, Mass. Col. A.A.; Soc. Nat; Genetic Ass; Soc. Agron; Int. Soc. Bot. Plant breeding; the food supply of New England.
- Gilbert, Dr. B(asil) E(lijah)**, Kingston, R. I. *Chemistry*. Shedden, Ont, Can, June 25, 92. B.A., 16; M.A., McMaster, 20, Ph.D., 25. *Chemist*, Imp. Varnish and Color Co, Can, 19-20; *R. I. Exp. Sta, 25-* A.A.; Chem. Soc; Bot. Soc; Soc. Plant Physiol. Phytochemistry; interrelation of photoperiodism and temperature; optimum nutrient requirements of field crops.
- Gilbert, Dr. C(harles) H(enry)**, Stanford University, Calif. **Zoology*. Rockford, Ill, Dec. 5, 59. B.S., Butler, 79; M.S., Indiana, 82, Ph.D., 83. Asst. nat. sciences and modern languages, Indiana, 80-84; *prof. nat. hist, Cincinnati, 84-88; zool, Indiana, 88-91; Stanford, 91-* Naturalist in charge investigations, 'Albatross,' 89, 90, 02, 04, 06; chief investigator salmon fisheries of Alaska, Bur. Fisheries, 17- Systematic ichthyology; bathybial fishes of Hawaiian Islands and Japan; trout and salmon of western North America.
- Gilbert, Prof. E(arl) C**, Oregon Agricultural College, Corvallis, Oregon. *Chemistry*. Palmyra, Ohio, Feb. 2, 95. B.S., Hiram, 16, M.S., 17; Ph.D., Chicago, 22. Prin, high sch, Ohio, 17; instr. chem, Oregon Col, 17-21; asst, Chicago, 21-22; asst. prof. chem, Oregon Col, 22-23, *assoc. prof, 24-* Summers, instr, Oregon, 19. C.W.S., U.S.A., 18. Chem. Soc. Molecular rearrangements; electrometric measurements; surface tension and activity; structure of hydrazines.
- Gilbert, Prof. E(dward) M(artinus)**, University of Wisconsin, Madison, Wis. *Botany*. Blair, Wis, Sept. 20, 75. Ph.B., Wisconsin, 07, Ph.D., 14. *Prof. biol, Wis. State Nor. Sch, Superior, 07-10; instr, Wisconsin, 10-11, asst. prof. and assoc. prof, 11-22, prof, 22-* A.A.; fel. Bot. Soc; Phytopath. Soc; Micros. Soc; Wis. Acad; British Mycol. Soc. Tremellineae; biologic forms of *Plowrightia morbosa*; yeasts; oogenesis and spermatogenesis of *Sphaeroplea*; *Vaucheria*; cytology of *Plowrightia morbosa* and of *Auricularia*; binucleated cells among lower Basidiomycetes; spore formation in *Saprolegnia*; *Clavarias*.
- Gilbert, Dr. Harvey N(icholas)**, Boulevard, La Salle, N. Y. *Chemistry*. Chambersburg, Pa, Aug. 22, 89. B.S., Pennsylvania Col, 10; Ph.D., Cornell, 15. Anal. chemist, E. I. du Pont de Nemours and Co, 10-11; Pa. Ry. Co, 11; asst. instr. chem, Cornell, 11-14; chemist, A. D. Little, Inc, 14-15; *chief chemist, Niagara Electrochem. Co, 15-* Chem. Soc; Electrochem. Soc; Buffalo Eng. Soc. Inorganic and physical chemistry; sodium peroxid.
- Gilbert, J(ames) Z(accheus)**, 3300 N. Griffin Ave, Los Angeles, Calif. *Biology, Paleontology*. North Manchester, Ind, Jan. 1, 66. Ph.B., McPherson, 94, Sc.D., 19; A.M., Kansas, 95; hon. LL.D., Mt. Morris, 19. Teacher, pub. schools, Ind, 84-88; tutor, McPherson, 91-94; prin, high sch, Kans, 95-97; head science dept, Plattsburg, 98-00; pres, Botetourt Nor. Col, Va, 00-03; *instr. zool. and physiol, high sch, Los Angeles, Calif, 04-* Lecturer, Southern California, 18- Paleont. Soc; South. Calif. Acad; Physical Geog. Club of Calif. (pres, 05). Cretaceous turtles of Kansas; fossil whales of California; fossil fishes; Rancho La Brea fossils.
- Gilbert, Prof. Norman E(verett)**, Dartmouth College, Hanover, N. H. **Physics*. Middletown, Conn, Dec. 15, 74. A.B., Wesleyan, 95, A.M., 96; fellow, Hopkins, 00-01, Ph.D., 01. Instr. science, Cayuga Lake Mil. Acad, N. Y, 96-97; math, Genesee Wesleyan Sem, N. Y, 97-98; *prof. physics, Hobart, 01-03; asst. prof, Dartmouth, 03-16, assoc. prof, 16-18, prof, 18-* Asst, astrophys. observatory, Smithsonian Inst, 02; Cambridge and Paris, 09-10, 24-25. U. S. Naval Observatory eclipse exped. to N. C, 00; Sumatra, 01; Algeria, 05. A.A.; Physical Soc; Astron. Soc. Relations between ether, matter and electricity; magnetic effect of electrical convection; eclipse problems.

- Gilbert, Dr. Ruth**, 116 N. Allen St, Albany, N. Y. *Bacteriology*. Warren, Conn, Oct. 31, 83. A.B., Colo. Col, 07, A.M., 10; M.D., Albany Med. Col, 23. Instr. biol. Colo. Col, 07-12; asst, N. Y. Post-Grad. Hosp, 13; instr. bacter., N. Y. Woman's Med. Col, 13-16; *bacteriologist*, State Dept. Health, N. Y., 14- Referee, standardization of Wassermann test, Am. Pub. Health Ass. A.A.; Soc. Bact; Ass. Path. and Bact; Am. Med. Ass; Pub. Health Ass; Ass. Immunol; Soc. Clin. Path; Royal Inst. Pub. Health. Complement fixation.
- Gilbert, W(illiam) W(illiams)**, U. S. Department of Agriculture, Washington, D. C. *Plant pathology*. Dorset, Vt, Sept. 17, 80. B.S.A., Vermont, 04, M.S., 09. Sci. asst, *bur. plant indust*, U. S. Dept. Agr, 04-09, asst. plant pathologist, 09-13, *plant pathologist*, 13- A.A.; Bot. Soc; Phytopath. Soc; Wash. Bot. Soc. (treas, 22-25). Breeding for disease resistance; cotton, tobacco and cucurbit diseases.
- Gilbertson, Dr. Albert N(icolay)**, Vermillion, S. Dak. *Anthropology*, *Psychology*. Ellsworth, Minn, Jan. 5, 85. A.B., Minnesota, 08, A.M., 09; fellow, Clark, 12-13, Ph.D., 13; S.T.M., Harvard, 20. Instr. psychol. and anthrop, Colorado, 09-10; psychol, Minnesota, 10-12, sociol. and anthrop, 13-15; lecturer anthrop, Clark, 16-17; rector, St. Luke's Church, Malden, Mass, 17-25; vicar, Wyman Mem. Chapel, Marblehead, Mass, 25-26; rector, St. Paul's Church, 26- Instr, Minneapolis-Kindergarten Nor. Sch, and lecturer, Minneapolis Nor. Art Sch, 11-12. A.A.; Anthropol. Ass. Primitive religion and ethics; Eskimo culture; folk-lore; ethnic and social psychology; religion and nationality; pre-Columbian relations of Norsemen and American aborigines; 'survivals' in the Christian cult; Dakota Indian ethnology.
- Gilchrist, Dr. Raleigh**, U. S. Bureau of Standards, Washington, D. C. *Metallurgy*. Windsor, Vt, Jan. 8, 93. A.B., Montana, 15; Ph.D., Hopkins, 22. Asst. chem, Cornell, 15-17; asst. and *assoc. chemist*, Bur. Standards, 19- U.S.A., 17-19. Chem. Soc; Wash. Chem. Soc. (sec'y, 25-); Wash. Philos. Soc. Physical properties, analytical separations and purification of platinum metals; gold-filled alloys; determination of iridium; atomic weight of osmium.
- Gilchrist, Dr. T(homas) Caspar**, Professional Building, Baltimore, Md. *Dermatology*. England, 62. L.M.S., London, 87; hon. M.D., Maryland, 07. *Clin. prof. dermat*, Hopkins, 98-; Maryland, 99- A.A.; Dermat. Ass. (pres, 08); Am. Med. Ass; Md. Med. and Chirurg. Faculty; Royal Col. Surg; British Med. Ass; cor. mem. French Dermat. Soc; hon. mem. Berlin Dermat. Gesell; Ital. Dermat. Soc; Danish Dermat. Soc. Blastomycetie dermatitis; etiology of acne vulgaris; pathology of experimental urticaria factitia; erysipeloid; X-ray dermatitis; porokeratosis; vaccine therapy as applied to cutaneous diseases; idiopathic sarcoma of skin; atrophy of fatty layer of skin; hyaline degeneration of cutaneous blood vessels and sweat glands; common skin diseases.
- Gildow, Dr. E(lton) M(aurice)**, University of New Hampshire, Durham, N. H. *Pathology*. Silverton, Oregon, Dec. 29, 98. B.S., D.V.M., Wash. State, 22; M.S., Wisconsin, 25. Asst. vet. science, Wisconsin, 23-25; *asst. poultry dept. and poultry pathologist*, New Hampshire, 25- Animal disease resistance; animal genetics; paralysis in chickens.
- Gile, Philip L(indsey)**, U. S. Department of Agriculture, Washington, D. C. *Chemistry*. Melrose, Mass, Sept. 5, 83. A.B., Harvard, 07. Asst. chemist, Mo. Exp. Sta, 07; P. R. Exp. Sta, 07-08, chemist, 08-18; Am. Agr. Chem. Co, 18-21; *chief div. soil chem, bur. soils*, U. S. Dept. Agr, 21- A.A.; Chem. Soc; Soc. Agron. Soil chemistry; soil colloids; fertilizers; mineral nutrition and physiological chemistry of plants; chlorosis.
- Giles, Prof. Albert W(illiam)**, University Station, Fayetteville, Ark. *Geology*. Watkins, N. Y., Nov. 23, 85. A.B., Rochester, 09, M.S., 10; fellow, Northwestern, 12-13; Chicago, 15-16, Ph.D., 22. Instr. *geol*, Allegheny, 11-12; prof, Kans. Wesleyan, 13-15; asst, Chicago, 15-16; adjunct prof, Virginia, 16-20, *assoc. prof*, 20-25, *prof*, 25-26; *Arkansas*, 26- Asst. geologist, Va. Geol. Surv, 17-24, acting state geologist, 25. Sec'y, Va. Water Power and Develop. Commission, 25. A.A.; Geol. Soc; Ass. Petrol. Geol; Min. Eng; Meteor. Soc; Seismol. Soc; Am. Geog. Soc; cor. mem. Rochester Acad. General geology of western New York; economic, stratigraphic and structural geology of western Virginia; geography, climate and water power of Virginia.
- Gillfillan, Dr. F(rancois) A(rchibald)**, University of Florida, Gainesville, Fla. *Pharmacy*. Ninnekah, Okla, Jan. 12, 93. B.S., Ph.C., Oregon Col, 18; fellow, Yale, 20-21, Ph.D., 21. Research chemist, Calco Chem. Co, 21-22; *assoc. prof. pharmacy*, Oregon Col, 22-25; *prof*, Florida, 25- Chem. Soc. (state sec'y, 23-) Dehydrogenation and dehydration catalysis; organic sulphur compounds; azo dyes.
- Gilkey, Dr. Helen M(argaret)**, Oregon Agricultural College, Corvallis, Oregon. *Botany*. Montesano, Wash, March 6, 86. B.S., Oregon Col, 07, M.S., 11; Ph.D., California, 15. Asst. *bot*, Oregon Col, 08-09, instr, 09-11; asst, California, 12, artist, 13-18; asst. prof, Oregon Col, 18-27, *assoc. prof*, 27-, *curator herbarium*, 18- A.A.; Bot. Soc; Calif. Bot. Soc. Hypogaeous fungi of North America.
- Gill, Prof. A(dam) Capen**, Cornell University, Ithaca, N. Y. *Mineralogy*, *Petrography*. Chesterville, Maine, Aug. 22, 63. A.B., Amherst, 84; Hopkins, 86-89; Ph.D., Munich, 93. Prof. math, Park, 84-86; asst. prof. *miner. and petrog*, Cornell, 94-09, *prof*, 09- A.A.; Geol. Soc; Wash. Acad. Crystallography; petrography; Sierra Tlayacac in Mexico; chromite of Kenai Peninsula, Alaska.
- Gill, Prof. Augustus H(erman)**, Massachusetts Institute of Technology, Cambridge, Mass. *Chemistry*. Canton, Mass, Aug. 1, 64. B.S., Mass. Inst. Tech, 84; Ph.D., Leipzig, 90; hon. Sc.D., R. I. Col, 23. Asst. *chem*, Mass. Inst. Tech, 84-87, instr, 90-94, asst. prof, 94-06, *assoc. prof*, 06-09, *prof*, 09- Water analyst, Mass. State Board Health, 87-88. A.A.; Chem.

- Soc; Chem. Gesell. Fuel, gas and oil analysis; determination of nitrates in water and of methane and hydrogen by explosion; cholesterol in olive oil; nitrates in water; spontaneous combustion test of oils; analysis of varnishes; hydrocarbons from distilled grease oleins; palm oil in fats; automobile lubricating oils; analysis of gases; carotin in palm and other oils.
- Gill, Dr. Eugene E(dward)**, 5419 Greenwood Ave, Chicago, Ill. *Chemistry*. Boring, Md, Sept. 17, 75. Ph.B, Dickinson, 97, A.M, 98; Ph.D, Hopkins, 09. *Assoc. prof. chem, Armour, 09*—Chem. Soc. Osmotic pressure of cane sugar solutions at 5° C.
- Gill, Dr. J(ames) E(dward)**, University of Rochester, Rochester, N. Y. *Geology*. Nelson, B. C, Can, Jan. 16, 01. British Columbia, 17–20; B.S, McGill, 21; fellow, Princeton, 23–24, Proctor fellow, 24–25, Ph.D, 25. *Asst. geol, Princeton, 22–23; instr, Rochester, 25*—Can. Min. Inst. Gunfint iron-bearing formation of Ontario.
- Gillespie, Prof. David C(linton)**, Cornell University, Ithaca, N. Y. *Mathematics*. Knob, Va, Dec. 13, 77. A.B, Virginia, 00; Ph.D, Göttingen, 06. *Instr. math, Cornell, 06–11, asst. prof, 11–24, prof, 24*—A.A; Math. Soc; Math. Ass; Circolo Mat. di Palermo. Theory of functions of a real variable.
- Gillespie, Prof. L(ouis) J(ohn)**, Massachusetts Institute of Technology, Cambridge, Mass. *Chemistry*. Hillsboro Bridge, N. H, June 10, 86. Ph.B, Brown, 08, A.M, Ph.D, 11. *Asst. physics, Brown, 10–11; instr. chem, R. I. Sch. Design, 10–11; fellow bacter, Rockefeller Inst, 11–13; bacteriologist, Board Health, New York, 13; scientist, bur. soils, U. S. Dept. Agr, 13–15, biochemist, bur. plant indust, 15–19; prof. physical chem, Syracuse, 19–20; asst. prof. physicochem. research, Mass. Inst. Tech, 20–26, assoc. prof, 26*—A.A; Chem. Soc; Wash. Acad. Biological and physical chemistry; chemical equilibria; gas metabolism of bacteria; pneumococci; Duclaux method for volatile acids; soil acidity; palladium and hydrogen; mass action law for compressed gases.
- Gillespie, Dr. William**, Princeton University, Princeton, N. J. *Mathematics*. Hamilton, Ont, Can, Nov. 3, 70. B.A, Toronto, 93; fellow, Chicago, 93–97, Ph.D, 00. *Instr. math, Princeton, 97–05, preceptor, 05–11, prof, 11*—A.A; Math. Soc.
- Gillett, Dr. Horace W**, 203 Raymond St, Chevy Chase, Md. *Metallurgy*. Steuben Co, N. Y, Dec. 12, 83. A.B, Cornell, 06, Ph.D, 10. *Asst. chem, Cornell, 06–07; chemist, A. D. Little, Inc, 07–08; asst. chem, Cornell, 08–10; manager research dept, Aluminum Castings Co, 10–12; chief alloy chemist, U. S. Bur. Mines, 12–24; chief div. metallurgy, Bur. Standards, 24*—Chem. Soc; Electrochem. Soc; Min. Eng; Soc. Test. Mat; Soc. Steel Treat; British Inst. Metals. Electric furnaces; physical metallurgy.
- Gillette, Prof. C(larence) P**, Fort Collins, Colo. *Entomology, Zoology*. Lyons, Mich, April 7, 59. B.S, Mich. State Col, 84, M.S, 87, Sc.D, 18. *Asst. entom. and physiol, Mich. State Col, 86–87; entomologist, Iowa Exp. Sta, 88–90; head dept. zool, entom. and physiol, Colo. Agr. Col, 91*—, director, *Exp. Sta, 10*—Expert entomologist, La. Purchase Expos, 04. A.A; Ass. Econ. Entom. Cynipidae; Typhlocybinae; economic entomology; Orthoptera of Colorado; long-tongued bees; Aphididae.
- Gillette, Halbert P(owers)**, 221 E. 20th St, Chicago, Ill. *Engineering*. Waverly, Iowa, Aug. 5, 69. E.M, Columbia, 92. *Asst. to state engineer, N. Y, 96–98; consulting engineer, 98–03; assoc. ed, 'Eng. News,' 03–04; consulting engineer and ed, 'Eng. and Contracting,' 04*—Civil Eng; Min. Eng; Eng. Educ. Engineering construction; rock excavation; earthwork; roads and pavements; efficiency of workmen and machines; chemistry; management and construction engineering.
- Gilliland, Prof. A(dam) R(aymond)**, 719 Emerson St, Evanston, Ill. *Psychology*. Reinersville, Ohio, Oct. 5, 87. B.O, Muskingum Col, 12, A.B, hon. M.Eloc, 13; A.M, Ohio State, 16; fellow, Chicago, 17–19, Ph.D, 22. *Asst., Ohio State, 16–17; instr. psychol, Dartmouth, 18–19, asst. prof, 19–20; Lafayette, 20–21, assoc. prof, 21–23; prof, Northwestern, 23*—A.A; Psychol. Ass. Reading; educational measurements; measurement of character traits; experimental psychology.
- Gilliland, Dr. W(illiam) L(ester)**, 1105 Massachusetts Ave, Cambridge, Mass. *Organic chemistry*. Harrington, Wash, March 29, 00. B.S, Washington (Seattle), 20, M.S, 21; Ph.D, Mass. Inst. Tech, 25. *Nat. Research Council fellow chem, Harvard, 25*—A.A; Chem. Soc; Pharmaceut. Ass. Reaction of carbon-monoxide and of nickel carbonyl with Grignard reagents; metallic carbonyls.
- Gillson, Prof. A(lbert) H(enry) S(teward)**, McGill University, Montreal, Que, Can. *Mathematics*. England, Dec. 4, 89. Math. Tripos, Cambridge, 11, M.A, Isaac Newton student, 13–16. *Assoc. prof. math, McGill, 21*—Lieut, Royal Navy, and instr, Royal Navy Col, London. London Math. Soc. Dynamical theory of tides; the application of integral equations to hydrodynamics.
- Gillson, Prof. Joseph L(incoln)**, Massachusetts Institute of Technology, Cambridge, Mass. *Geology*. Evanston, Ill, Feb. 12, 95. B.S, Northwestern, 17, A.M, 20; M.S, Mass. Inst. Tech, 21, Sc.D, 23. *Instr. geol, Harvard, 21–22; Mass. Inst. Tech, 22–24, asst. prof, 24*—Junior geologist, U. S. Geol. Surv, 21–25. A.A; fel. Miner. Soc; Min. Eng. Mineralogy, petrography and economic geology of non-metallic minerals.
- Gilluly, James**, U. S. Geological Survey, Washington, D. C. *Geology*. Seattle, Wash, June 24, 96. B.S, Washington, 20; Ph.D, Yale, 26. *Geologic aid, U. S. Geol. Surv, 21–23, asst. geologist, 23–25, assoc. geologist, 25*—Wash. Geol. Soc. Stratigraphy of eastern Utah; economic geology.
- Gilman, Prof. A(lbert) F(ranklin)**, 5419 University Ave, Chicago, Ill. *Chemistry*. Hallo-

- well, Maine, Sept. 9, 71. B.S., Amherst, 97, A.M., 01; Tennessee, 02; Harvard, 03; Chicago, 05, 06; England, France and Germany, 10; Ph.D., Denver, 13. Teacher, Maine, 97-98; prof. science, Dow Acad., 98-99; *prof. chem. and physics*, Maryville, 00-06; *chem.*, Ripon, 06-17; Huron, 17-18; Ill. Wesleyan, 18-20; Carroll, 20-21; *Cent. Y. M. C. A. Col.*, 21-A.A.; Chem. Soc.; Ill. Acad.; Wis. Acad.; S. Dak. Acad. Food of mountain families of East Tennessee; chlorin content of drinking water of Ripon, Wis. and vicinity; indicators for acids and alkalis; oxycellulose.
- Gilman, Benjamin I(ves)**, Museum of Fine Arts, Boston, Mass. *Psychology*. New York, N. Y., Feb. 19, 52. A.B., Williams, 72; fellow, Hopkins, 81-82, hon. A.M., 02; Berlin, 82-83; Harvard, 83-85; Paris and Italy, 85-88. Lecturer, Princeton, Columbia and Harvard, 90-91; instr. psychol., Clark, 92-93; sec'y, Museum of Fine Arts, Boston, 94-25; *retired*. Psychol. Ass.; Ass. Mus. (pres, 14). The theory of dimensional manifolds; song in the music of the Pueblo Indians; psychology of feeling and art; purposes and methods of museums of fine art; philosophy of popular sovereignty; structure of the universe.
- Gilman, Prof. Henry**, Ames, Iowa. *Chemistry*. Boston, Mass., May 9, 93. B.S., Harvard, 15, A.M., 17, Ph.D., 18. Asst. chem., Harvard, 14-17, instr., 18-19; assoc., Illinois, 19; asst. prof. *org. chem.*, Iowa Col., 19-20, assoc. prof., 20-23, *prof.*, 23- Chem. Soc. Organic chemistry; organometallic compounds.
- Gilman, Prof. Herbert L(ester)**, Cornell University, Ithaca, N. Y. *Veterinary medicine*. Woodbury, N. Y., Oct. 26, 95. D.V.M., Cornell, 17, M.S., 20, Ph.D., 22. Asst. path. and bacter., Cornell, 16-17, instr. vet. obstet., 19-22, *asst. prof. research*, *Vet. Exp. Sta.*, 22- Vet. Med. Ass.; Soc. Bact.; N. Y. Vet. Med. Ass. Sterility and abortion in cattle.
- Gilman, Dr. Joseph C(harles)**, Ames, Iowa. *Plant pathology*. Hastings, Nebr., March 23, 90. B.S.A., Wisconsin, 12, M.S., 14; fellow, N. Y. Bot. Garden, 13; Lackland fellow, Mo. Bot. Garden, 14; Ph.D., Washington (St. Louis), 15. Asst. plant path., Wisconsin, 12-13; *prof. biol.*, Ripon, 15-18; asst. plant pathologist, Iowa Exp. Sta., 18-21, asst. *prof. plant path.*, Iowa Col., 21-24, *assoc. prof.*, 24- Summer, asst., U. S. Dept. Agr., 18. Phytopath. Soc.; Bot. Soc. Attack of Fusarium on cabbage; fungicidal action of formaldehyde; mycology.
- Gilman, M. French**, Banning, Calif. *Ornithology, Botany*. Banning, Nov. 12, 71. High sch. Teacher, 92; ed., 'Banning Weekly,' 93; supt. and special dist. agent, Indian Service, Ft. Bidwell, Calif., 15-16; *collaborator*, U. S. Dept. Agr., 22- Ornith. Union; Soc. Mammal; Cooper Ornith. Club; Torrey Bot. Club.
- Gilmer, Dr. Paul M(cCullough)**, 2303 W. Douglas Ave., Wichita, Kans. *Entomology, Physiology*. Miles, Iowa, Feb. 29, 88. A.B., Monmouth, 08; A.M., Minnesota, 22, Ph.D., 24. Prof. chem. and physics, Pacific (Oregon), 17-18; assoc. prof. biol., N. Mex. Col., 24-26; *assoc. entomologist*, U. S. Dept. Agr., 26- Entom. Soc. Morphology of lepidopterous larval body wall; ecology of the codling moth.
- Gilmore, Charles W(hitney)**, U. S. National Museum, Washington, D. C. *Paleontology*. Pavilion, N. Y., March 11, 74. B.S., Wyoming, 01. Collector, dept. vert. paleont., Carnegie Museum, 01-04; preparator, sect. vert. paleont., U. S. Nat. Museum, 04-07, custodian, 07-11, asst. curator fossil reptiles, 11-18, assoc. curator, 18-23, *curator*, 23- Paleont. Soc.; Geol. Soc.; Wash. Geol. Soc.; Wash. Biol. Soc. Natural science; Mesozoic reptiles.
- Gilmore, Prof. John W(ashington)**, University Farm, Davis, Calif. *Agronomy, Botany*. White Co., Ark., May 9, 72. B.S.A., Cornell, 98, M.S.A., 06. Asst. supt., Agr. Sch., Wuchang, China, 98-00; fiber expert, Bur. Agr., P. I., 00-02; asst. prof. agron., Cornell, 02-07; *prof.*, Pa. State, 07-08; pres., Hawaii, 08-13; *head dept. agron., California*, 13- Gold medal, La. Purchase Expos., 04; medal and diploma, distinguished services, Panama-Pacific Expos., 15. A.A. Quality in potatoes; root crops in New York; timothy; fibers and fiber plant of the Philippines; sugar and dry matter content of pineapples; influence of soil temperature on production.
- Gilmore, Dr. Melvin R(andolph)**, Museum of the American Indian, Broadway at 155th St., New York, N. Y. *Ethnobotany, Ethnogeography*. Valley, Nebr., March 11, 68. A.B., Cotner, 04; A.M., Nebraska, 09, Ph.D., 14. Prof. biol., Cotner, 05-11; curator museum, State Hist. Soc., Nebr., 11-16; N. Dak., 16-23; *sci. staff*, Museum Am. Indian, Heye Foundation, 23- A.A.; Anthropol. Ass.; Soc. Mammal; Genetic Ass.; Ecol. Soc.; Ass. Mus.; Nebr. Acad. Ethnobotany and ethnogeography of the Great Plains; aboriginal agriculture of the Missouri River region; uses of plants by Indians of the Missouri River region; agency of aboriginal tribes in distribution of cultivated and wild plants.
- Gilmore, Prof. Ralph J(ohn)**, Colorado College, Colorado Springs, Colo. *Zoology*. Williamsport, Pa., Dec. 18, 85. A.B., Lehigh, 07, A.M., 10; Ph.D., Cornell, 14. Instr. biol., Lehigh, 07-10; asst., Cornell, 10-11, instr. zool., 11-12; acting *prof. biol.*, Western Reserve, 12-13; *prof.*, Huron, 14-20; *Colo. Col.*, 20- A.A.; S. Dak. Acad. (sec'y, 15-19). Skeletal variation in Amphibia; life history of Sphaeriidae and the spadefoot toad of western plains; renal portal systems in Amphibia.
- Gilroy, Miss H(elen) T(urnbull)**, Agnes Scott College, Decatur, Ga. *Physics*. Philadelphia, Pa., May 9, 87. A.B., Bryn Mawr, 09, A.M., 12; Chicago, 15-17, 20-21. Asst. *physics*, Bryn Mawr, 10-11; instr., Mount Holyoke, 12-14; demonstrator, Bryn Mawr, 14-15; instr., Vassar, 17-20, *asst. prof.*, 21-24; Lingnan Univ., 24-27; *Agnes Scott Col.*, 27- Director, Freeman Meteor. Observatory. A.A.; assoc. Physical Soc. Refractive indices of solutions of the cadmium halids; secondary radiation.
- Giltner, Prof. Ward**, 652 Hillcrest Ave., East Lansing, Mich. *Bacteriology*. Ithaca, N. Y., April 5, 82. D.V.M., Cornell, 06; M.S., Ala.

- Polytech, 08. Instr. and asst. vet. Ala. Exp. Sta, 06-08; research asst. *bacter*, Mich. State Col. and Exp. Sta, 08-12, prof, 12-, dean vet. med, 23- State veterinarian, Mich, 11-13. Representative, Vet. Med. Ass, Nat. Research Council. A.A.; Soc. Bact; Ass. Path. and Bact; Pub. Health Ass; Vet. Med. Ass; U. S. Live Stock Sanit. Ass; Mich. Acad. (pres). Hygiene; glands; hog cholera; infectious abortion of cattle; veterinary education.
- Gingrich, Prof. C(urvin) H(enry)**, Carleton College, Northfield, Minn. *Astronomy*. York, Pa, Nov. 20, 80. A.B, Dickinson, 03, A.M, 05; Ph.D, Chicago, 12. Instr. math, Baker, 07-09; *Carleton*, 09-12, prof. *astron. and math*, 12- Acting dean, Carleton, 14-15, dean, 15-17, asst. to pres, 17-19. Asst. ed, 'Popular Astron,' 10-12, assoc. ed, 12-26, ed, 26- *Astron. Soc*; Math. Ass. Micrometric measures of comet positions; stellar photometry; celestial photography; magnitudes of comparison stars in certain of the Hagen fields; photographic positions of asteroids.
- Ginsburg, Dr. Joseph M(ichel)**, Agricultural Experiment Station, New Brunswick, N. J. *Biochemistry*, *Entomology*. Russia, 95. B.S, Pa. State, 22; M.S, Rutgers, 23, Ph.D, 25. Research asst. plant physiol, 22-25; *biochemist entom*, N. J. *Exp. Sta*, 25- Analysis of soil gases; plant nutrition; soil fertility; arsenical burning of foliage; dusting and spraying.
- Giordano, Dr. A(lfred) S(abato)**, 604 N. Main St, South Bend, Ind. *Pathology*. Avellino, Italy, Feb. 3, 93. B.S, Syracuse, 18, M.D, 20; M.S, Minnesota, 22. First asst. path. anat, Mayo Clinic, 20-21; *director*, South Bend Med. Lab, 22- Fel. Am. Med. Ass; Ass. Path. and Bact; Soc. Clin. Path; Chem. Soc. Etiology of acute pancreatitis; post-mortem bacteriologic studies; precipitins; anatomic and pathologic study of lesions of gall bladder, pancreas and liver; the pathology of the thyroid gland; exophthalmic, toxic and non-toxic goiters.
- Girty, Dr. George H(erbert)**, U. S. Geological Survey, Washington, D. C. **Paleontology*. Cleveland, Ohio, Dec. 30, 69. A.B, Yale, 92, Ph.D, 94. *Geologist*, U. S. *Geol. Surv*, 95- A.A.; Wash. Geol. Soc. Carboniferous invertebrate paleontology of United States.
- Gish, O(liver) H(olmes)**, 315 Essex Ave, Chevy Chase, Md. *Geophysics*. Abilene, Kans, Sept. 7, 83. B.S, Kansas Col, 08; A.M, Nebraska, 13; Göttingen, 13-14; Chicago, 15, 16, 17. Instr. high sch, Kans, 08-09; observer, U. S. Weather Bur, Nebr, 09-10; research observer, Va, 10-11; asst. physics, Nebraska, 11-13, instr. math, 14-16, physics, 16-18; research engineer, Westinghouse Elec. and Mfg. Co, 18-22; *assoc. physicist*, dept. *terrestrial magnetism*, Carnegie Institution, 22- A.A.; Geophys. Union; fel. Physical Soc; Wash. Philos. Soc; Wash. Acad. Terrestrial electricity; optics; ionization of gases; metrology.
- Githens, Dr. Thomas S(totesbury)**, H. K. Mulford Co, Philadelphia, Pa. *Physiology*, *Pharmacology*. Philadelphia, July 29, 78. M.D,
- Pennsylvania, 99. Assoc. physiol. and pharmacol, Rockefeller Inst, 10-19; *pharmacologist*, H. K. Mulford Co, 19- Am. Med. Ass; Pharmacoeut. Ass; Soc. Exp. Biol; Physiol. Soc; Phila. Col. Physicians. Anesthesia in strychnin poisoning; relative effects of ether and chloroform on circulation and respiration; influence of cardectomy and of decerebration on action of convulsant drugs on frogs; physiologic assay of drugs; influence of ergotoxin on body temperature; antipyretics; digitalis.
- Given, Guy C**, 236 Livingston Ave, New Brunswick, N. J. *Chemistry*. Auburn, Maine, May 2, 87. B.S, N. Mex. Col, 06; M.S, Pa. State, 10; Ph.D, Göttingen, 14. Asst. chemist, Pa. State, 07-10, asst. prof. chem, 10-15, assoc. prof, 15-17; research chemist, Atlas Powder Co, 17-19, director, Stamford Exp. Lab, 19-25; *E. I. du Pont de Nemours and Co*, 25- A.A.; Chem. Soc; Soc. Chem. Indust; Chem. Eng; Electrochem. Soc. Industrial chemistry; bacteriology.
- Givens, Prof. Maurice H(ope)**, Northwestern Yeast Co, Chicago, Ill. *Physiological chemistry*. Pittsburg, Ky, Dec. 9, 88. Ph.B, Yale, 09, Ph.D, 17. Instr. biochem, med. col, Cornell, 09-14; asst. biochemist, U. S. Pub. Health Service, 14-16; asst. physiol. chem, Sheffield Sci. Sch, Yale, 16-17, asst. and Seessel research fellow, 17-18; asst. prof. biochem, Rochester, 18-19; biochemist, West. Pa. Hosp, 19-21; *chief biochemist*, Northwest Yeast Co, 21- Special investigator, bur. chem, U. S. Dept. Agr, 18-19. Physiol. Soc; Soc. Biol. Chem; Soc. Exp. Biol. Purin metabolism; metabolism and gastric studies of pellagra; calcium and magnesium metabolism; dried foods; the anti-scorbutic vitamin; chemistry of blood of mother and fetus; calcium and magnesium content of human fetus; toxemia of pregnancy.
- Givler, Prof. J(ohn) P(aul)**, 1209 W. Market St, Greensboro, N. C. *Zoology*. Paola, Kans, Aug. 4, 82. Ph.B, Hamline, 06, A.M, 12; Hopkins, 06-07, 09-10; Columbia, 16-17; Yale, 18. Prof. *biol*, Southwestern (Kans), 07-09, 11-16; tutor, Col. City of N. Y, 16-17; instr, Tennessee, 17-18; *prof. and head dept*, N. C. Col. for Women, 20-, *chairman faculty math. and science*, 23- Instr. Haverford, 10-11; summers, Hopkins, 12-14, *biol. exped*, B. W. I, 10. Lieut. Sanit. C, 18-20. N. C. Acad. (v. pres, 23, pres, 25). Japanese crayfishes; embryology of the horned lizard; tuberculosis.
- Givler, Prof. R(obert) C(henault)**, 226 College Ave, Tufts College, Mass. *Psychology*. Ft. Scott, Kans, Dec. 1, 84. A.B, Hamline, 06; A.M, Harvard, 13, Walker fellow, 13-14, Ph.D, 14. Instr. psychol, Washington (Seattle), 14-17; Harvard, 18-19; asst. prof. *philos. and psychol*, Tufts, 19-22, prof, 22-25, *Fletcher prof*, 25- Psycho-physiological effects of speech elements in poetry; psycho-physiological foundations of ethics, philosophy and logic.
- Gladson, Dean W(illiam) N(athan)**, Fayetteville, Ark. *Engineering*. Corning, Iowa, Feb. 22, 66. B.M.E, Iowa Col, 88, E.E, 11; Ph.D, McLennorsville, 06. Erecting engineer, Thomson-Houston Co, 88-90; Westinghouse Elec. and Mfg.

- Co, 90-92; asst. prof. *elec. eng.*, Ohio State, 92-93; *prof.*, Arkansas, 94-, *v. pres. and dean eng.*, 13- Assoc. Naval Consulting Board, Ark. Elec. Eng.; Electrochem. Soc.; Eng. Educ. Water power of Arkansas rivers.
- Gladwin, Fred E(Immer)**, Vineyard Laboratory, Fredonia, N. Y. *Horticulture*. New York Mills, N. Y., Sept. 3, 77. B.S., Rochester, 04. Head dept. biol. high sch., Texas, 04-07; hort. inspector, Texas Dept. Agr., 05-07; N. Y. Dept. Agr., 07-09; *assoc. horticulturist*, N. Y. *Exp. Sta.*, Fredonia, 09- Lecturer, Baylor, 05-07. Soc. Hort. Sci. Pomology; viticulture.
- Glancy, Warren E(ugene)**, 74 Riverview Ave., Waltham, Mass. *Chemistry*. Waltham, Dec. 8, 90. B.S., Mass. Inst. Tech., 13. Asst. anal. chemist, Mass. Inst. Tech., 13-14; anal. chemist, *Hood Rubber Co.*, 14-15, tire chemist, 15-18, research chemist, 19-20, chief chemist, 20-22, *lab. manager*, 22- A.A.; Chem. Soc.; Inst. Chem.; Soc. Test. Mat. The influence of compounding ingredients in hard rubber; rate of combination of sulfur with rubber in hard rubber.
- Glaser, Prof. Otto (Charles)**, Amherst College, Amherst, Mass. **Biology*. Wiesbaden, Germany, Oct. 13, 80. A.B., Hopkins, 00, fellow, 03-05, Ph.D., 04; A.M., Amherst, 22. Asst. U. S. Fisheries and N. C. Geol. Surv., 01-02; marine biologist, Gulf Biol. Sta., La., 03; demonstrator embryol. comp. anat. and biol. Col. Physicians and Surg., Baltimore, 01-03; instr. zool., Michigan, 05-08, asst. prof., 08-14, junior and assoc. prof., 14-18; *Stone prof. biol.*, Amherst, 18- Lecturer, New Sch. for Social Research, 22-24; instr., Woods Hole, 05-07, trustee. A.A.; Soc. Nat.; Soc. Zool.; Physiol. Soc.; Soc. Exp. Biol. Embryology; general physiology; physiology of development; fertilization; egg secretions; thermal increments in ciliary action and heart rates; analysis of 'critical' zones in thermal data.
- Glaser, Dr. R(udolf) W(illiam)**, Rockefeller Institute, Princeton, N. J. *Zoology, Pathology*. Catonsville, Md., 88. A.B., Michigan, 11; S.D., Harvard, 14. Asst. entom., Harvard, 11-13; entomologist, bur. entom., U. S. Dept. Agr., 12-20; *Rockefeller Inst.*, Princeton, N. J., 20- Summers, asst. biologist, Md. Shell Fish Commission, 09-10. A.A.; Entom. Soc. Physiology, pathology and bacteriology of insects.
- Glasgow, Dr. Hugh**, New York Agricultural Experiment Station, Geneva, N. Y. *Entomology*. Tennessee, Ill., Nov. 17, 85. A.B., Illinois, 08, Ph.D., 13. Asst. entom., Illinois, 12-13, instr., 13-14; *assoc. entomologist*, N. Y. *Exp. Sta.*, Geneva, 14- A.A.; Entom. Soc.; Ass. Econ. Entom. Economic entomology.
- Glasgow, Dr. Robert Douglass**, University of Illinois, Urbana, Ill. *Entomology*. Tennessee, Ill., April 3, 79. A.B., Illinois, 08, fellow, 11-12, Ph.D., 13. Asst. entom., Illinois, 09-11, instr., 13-24, *assoc.*, 24- Summer, asst., Illinois, 09. A.A.; Entom. Soc.; Ass. Econ. Entom.; Ecol. Soc.; Ill. Acad. Physiology and ecology of insects.
- Glashan, Dr. J(ohn Stuart) C(adenhead)**, 68 Somerset St, W, Ottawa, Ont., Can. *Mathematics*. Ellon, Scotland, Jan. 23, 44. Private study; LL.D., Toronto, 99. First asst., provincial model sch., Toronto, 64-67; inspector, pub. schools, Can., 71-10. Cent. committee examiners for Ont., 76-78; headquarters board examiners, Royal Mil. Col., Can., 90-95; board civil service examiners, Dominion of Can., 93-09. Math. Soc.; fel. Royal Soc. Can. The theorems of Taylor, Lagrange and Cayley; quintic and cyclotomic equations; septimic equations; matricular analysis of the concomitants of quantics; alternate numbers as geometrie indices; the embodiment in actual numbers of the Kummer ideals in the quadratic realm; expansion of circulants; isodyadic equations.
- Glasoe, Prof. P(aul) M(aurice)**, Northfield, Minn. *Chemistry*. Spring Grove, Minn., Aug. 24, 73. A.B., Minnesota, 97, fellow, M.S., 98, Ph.D., 02. Asst. chem., Minnesota, 95-97, instr., 98-01; chem. and physics, St. Olaf, 01-02, prof., 03-07; pres., Spokane, 07-10; prof. chem., St. Olaf, 10-16; pres., Augustana, 16-18; *prof. chem. and v. pres.*, St. Olaf, 18- Chem. Soc. Derivatives of camphor oxim; periodic system as a basis for instruction.
- Glattfeld, Prof. J(ohn) W(illiam) E(dward)**, University of Chicago, Chicago, Ill. *Chemistry*. Quincy, Ill., April 19, 83. B.S., Dartmouth, 07, M.S., 10; Ph.D., Chicago, 13. Instr. chem., Dartmouth, 09-10; *Chicago*, 13-18, *asst. prof.*, 19- Research assoc., desert lab., Carnegie Inst., 20. Chem. Soc. Oxidation of sugars; saccharinic acids.
- Glazier, Prof. Harriet E(udora)**, University of California at Los Angeles, Los Angeles, Calif. *Mathematics*. Haverhill, N. H., March 3, 70. A.B., Mt. Holyoke, 96; A.M., Chicago, 08. Instr. math., Mt. Holyoke, 96-97; Western Col., 97-98, asst. prof., 98-01, prof., 01-20; *asst. prof.*, *California at Los Angeles*, 20- Math. Soc.; Math. Ass. Curves generated by the focus of an ellipse and an hyperbola as they roll without sliding upon a straight line.
- Gleason, Dr. H(enry) A(rlan)**, New York Botanical Garden, Bronx Park, New York, N. Y. **Botany*. Dalton City, Ill., Jan. 2, 82. B.S., Illinois, 01, A.M., 04; fellow, Ohio State, 04-05; Ph.D., Columbia, 06. Curator herbarium, Illinois, 00-04, asst. bot., 01-03, instr., 03-04, 06-09, assoc., 09-10; asst. prof., Michigan, 10-16, assoc. prof., 16-19; first asst., N. Y. Bot. Garden, 19, asst. director, 20-23, *curator*, 24- Director biol. sta., Michigan, 13-15, bot. gardens and arboretum, 15-19. A.A.; Bot. Soc.; Ecol. Soc.; Torrey Bot. Club; Ass. Geog. Phytogeography; plant ecology; systematic botany of northern South America.
- Gleason, Dr. Josephine M(ixer)**, Vassar College, Poughkeepsie, N. Y. *Psychology*. North Adams, Mass., Oct. 92. A.B., Vassar, 14; fellow, Cornell, 17, Ph.D., 18. Asst. psychol., Vassar, 14-16; instr., Cornell, 18; *asst. prof.*, Vassar, 18- Psychol. Ass.
- Glenk, Robert**, 2407 Jefferson Ave, New Orleans, La. *Chemistry, Geology*. Esslingen, Germany, July 6, 70. Ph.G., Phila. Col. Pharmacy, 91; Pennsylvania, 98; B.S., Louisiana, 99. Green Chem. Co., 92-96; chemist, La. Sugar Exp.

Sta, 99-06; *curator in charge La. State Museum, 06-* Asst. state commissioner, Buffalo and Charleston expositions, 01-02; La. Purchase Expos, 04; Portland Expos, 05; Jamestown Expos, 07; Panama-Pacific Expos, 15. A.A.; Chem. Soc.; Ass. Mus.; Pharmaceut. Ass.; La. Hist. Soc. (sec'y, 11-17, ed, 'Proc'); La. Soc. Nat.; La. Entom. Soc.; Wis. Archeol. Soc. Louisiana lignite; perfumes and aromatic chemicals.

Glenn, Dr. L(eonidas) C(halmers), Vanderbilt University, Nashville, Tenn. *Geology*. Crowders Creek, N. C, Sept. 9, 71. A.B, South Carolina, 91; Ph.D, Hopkins, 99. Adjunct prof. geol. and biol, South Carolina, 99-00; *geol, Vanderbilt*, 00-03, *prof, 03-* Prof, Peabody Col, 14. Asst. geologist, U. S. Geol. Surv, 00-08; assoc. geologist, Tenn. Geol. Surv; special work, N. Y, Md. and N. C. Geol. Surveys; coal work, Ky. Geol. Surv; geologist, Sinclair Oil Co, 16-17; special agent oil and gas valuation, U. S. Int. Revenue, 18-19; geologist, Red River boundary dispute, U. S. Dept. Justice, 19-21. A.A.; Geol. Soc.; Ass. Petrol. Geol.; Min. Eng; Wash. Geol. Soc.; Ky. Acad; Tenn. Acad. Miocene paleontology; Devonian and Carboniferous stratigraphy; oil and gas; physiographic geology; initial stream development; bibliography of North and South Carolina geology; cartography of North and South Carolina; Appalachian coal field geology; denudation and erosion in southern Appalachians; river flood plains; stream changes; boundaries.

Glenn, Prof. Oliver E(dmunds), 127 McKinley Ave, Lansdowne, Pa. **Mathematics*. Moorefield, Ind, Oct. 3, 78. A.B, Indiana, 02, A.M, 03; fellow, Pennsylvania, 03-05, Ph.D, 05. Prof. math, Drury, 05-06; instr, *Pennsylvania*, 06-10, asst. prof, 10-14, *prof, 14-* Assoc. ed, 'Am. Math. Monthly,' 05-06. A.A.; Math. Soc. (councilor, 14-17, assoc. ed, 'Trans,' 21-23); Math. Ass; London Math. Soc. Theory of invariants and of relativity of motion; group theory; factorable forms; theory of numbers.

Glenn, Prof. P(ressley) A(dams), 713 W. Washington Boulevard, Urbana, Ill. *Entomology*. Westmoreland Co, Pa, July 9, 67. A.B, Campbell, 92; Kansas, 98; hon. A.M, Highland, 01. Prof. math. and science, Highland, 98-07; asst. prof. entom, Kansas, 07-11; entomologist, Ill. Dept. Agr, 11-17, *chief inspector div. plant indust, 17-* A.A. Climatic conditions in relation to Toxoptera graminum and Lysiphlebus tritici; forms of Toxoptera graminum; sexual forms in aphids; artificial introduction of Sporotrichum globuliferum; the relation of climatic conditions to the development of the stages and seasonal history of the codling moth.

Glenn, Dr. T(homas) H(aigh), 107 N. Ardmore Ave, Los Angeles, Calif. *Bacteriology, Physiological chemistry*. Salt Lake City, Utah, Aug. 18, 79. A.B, Chicago, fellow, 08, Ph.D, 10; M.D, Northwestern, 13. Bacteriologist, Sanit. Dist, Chicago, 09; instr. bacter, med. sch, Northwestern, 10-11; prof. path. and bacter, Southern California, 16-17. Soc. Bact; fel. Am. Med. Ass. Bacterial content of milk;

germicide activity of cows' milk; variation of bacilli of proteins group; composition of invertase; bacterial vaccines.

Gliddon, Dr. G(ordon) H(arkness), Dartmouth College, Hanover, N. H. *Physiological optics*. Rochester, N. Y, Dec. 9, 94. B.S, Rochester, 15, M.S, 18; Ph.D, Dartmouth, 26. Instr, high sch, N. Y, 15-16; physics, Rochester, 16-18; designer lens, Eastman Kodak Co, 18-23; instr. physiol. optics, Rochester Sch. of Optometry, 20-23; asst. physics, Dartmouth, 23-24; prof. *physiol. optics*, Rochester Sch. of Optometry, 24-26; *research fellow, Dartmouth*, 26- A.A; Optical Soc; Physical Soc. Replica of the human eye and the retinal image; accommodation and convergence.

Glock, Dr. Waldo S(umner), Ohio State University, Columbus, Ohio. *Geology*. Vinton, Iowa, Aug. 20, 97. A.B, Iowa, 20; Chicago, 19; Ph.D, Yale, 25. Asst, Iowa, 20-22; Yale, 22-23, *instr. hist. geol, 24; geol. and physiog, Ohio State*, 24- Junior geologist, U. S. Geol. Surv, 20-; Univ. of Iowa Nat. Hist. exped, Fiji and New Zealand, 22. A.A; Iowa Acad. Paleoclimatology; sedimentation; physiography of arid lands.

Glockler, Dr. Geo(rge), University of Minnesota, Minneapolis, Minn. *Chemistry*. Munich, Germany, Sept. 7, 90. B.S, M.S, Washington (Seattle), 15, Denny fellow, 15-16; Ph.D, California, 23. Anal. chemist, Japan, 16-21; teaching fellow, California, 22-23; Nat. Research Council fellow, Calif. Inst, 23-26; *research assoc, Minnesota*, 26- Resonance and ionization potentials.

Glomset, Dr. Daniel J(ohnson), 1300 46th St, Des Moines, Iowa. *Medicine*. Norway, Dec. 12, 81. B.S, Chicago, 09, M.D, Rush Med. Col, 11. Instr. histol, Northwestern, 09; prof. path, Drake, 11-13; research fellow, German Univ, Prague, 14; pathologist, Des Moines, Iowa, 15-16. Lieut, capt. and major, M.E.C, 17-19. Ass. Path. and Bact; Soc. Bact; Ass. Cancer Research; Iowa Acad. Pathology; bacteriology.

Glover, Prof. C(lifford) C(onklin), 925 Sylvan Ave, Ann Arbor, Mich. *Pharmacognosy*. Jackson, Mich, Jan. 16, 88. Ph.C, Michigan, 12, B.S, 13, M.S, 14. Instr. pharmacy, *Michigan*, 14-19, asst. prof. *pharmacog*, 19-21, *assoc. prof, 21-*, *sec'y col. pharmacy*, 18- A.A; Pharmaceut. Ass; Chem. Soc; Bot. Soc; Mich. Acad. Food and drug analysis.

Glover, Dr. Geo(rge) H(enry), 623 Remington St, Fort Collins, Colo. *Animal pathology*. Eagle Grove, Iowa, April 2, 64. B.S, Colo. Agr. Col, 84, M.S, 05; D.V.M, Iowa Col, 85. *Chairman vet. div, Colo. Agr. Col*, 99-, *director vet. sect, Exp. Sta*, 07- Vet. Med. Ass. (pres, 11); Colo. Vet. Med. Ass. (pres, 14). Brisket disease of cattle; poisonous plants; whorled milkweed as a poisonous plant; lamb losses in the feedlots; contagious abortion.

Glover, Dr. James Waterman, 620 Oxford Road, Ann Arbor, Mich. **Mathematics*. Clio, Mich, July 24, 68. B.L, Michigan, 92; A.B, Harvard, 93, Morgan fellow, 92-94, A.M, 94, Ph.D, 95. Instr. math, *Michigan*, 95-03, asst. prof. math. and lecturer insurance, 03-06, junior prof.

- math. and insurance*, 06-11, *prof*, 11- Expert, Royal Commission on Insurance of Canada; consulting actuary, Wis. Legislative Insurance Investigation Committee, 06, Joint Committee on Banks and Insurance, 07; expert special agent, U. S. Census Bur, 10-; consulting expert, office pub. roads, U. S. Dept. Agr, 13-; advisory statist. committee, children's bur, U. S. Dept. Labor, 16-; advisory board, War Risk Insurance, U. S. Treas. Dept, 17-18; actuary, Mich. Teachers Retirement Fund Board, 18-A.A.; Math. Soc; Math. Ass; fel. Am. Inst. Actuaries (v. pres, 18); Casualty Actuarial Soc. (assoc. ed, 25-); Statist. Ass. (v. pres, 23, assoc. ed, 24-); Royal Statist. Soc. Mathematical, actuarial and insurance theory; vital statistics; United States Life Tables; tables of applied mathematics.
- Gloyd, Howard K(ay)**, Kansas State Agricultural College, Manhattan, Kans. *Zoology*. De Soto, Kans, Feb. 12, 02. B.Sc, Ottawa, 24. Asst. zool, Kansas Exp. Sta, 23-24; asst. prof. biol, Ottawa, 24-27; *instr. zool, Kansas Col*, 27-A.A.; Ornith. Union; Soc. Mammal; Wilson Ornith. Club (sec'y, 25-); Soc. Ichthyol. and Herp. Birds of prey; taxonomy, life history and embryology of the crotaline snakes.
- Gloyer, W(alter) O(scar)**, 106 Lyceum St, Geneva, N. Y. *Plant pathology*. Milwaukee, Wis, Jan. 29, 86. A.B, Wisconsin, 09, A.M, 10. Asst. botanist, Ohio Exp. Sta, 10-12; *assoc. in research, N. Y. Exp. Sta, Geneva*, 12-Phytopath. Soc; Wis. Acad. Apple cankers; fungous and bacterial diseases of asters, beans and cultivated plants.
- Goddard, Prof. Henry H(erbert)**, 1638 Granville St, Columbus, Ohio. **Psychology*. Vassalboro, Maine, Aug. 14, 66. A.B, Haverford, 87, A.M, 89; Ph.D, Clark, 99. Instr, Southern California, 88; prof. psychol. and pedag, Pa. State Nor. Sch, West Chester, 99-06; director psychol. research, Training Sch, Vineland, N. J, 06-18; Ohio Bur. Juvenile Research, 18-22; *prof. abnor. and clin. psychol, Ohio State*, 22- Acting prof, Haverford, 00-01; lecturer, N. Y. Univ, 08-16. Summers, asst. and lecturer, Clark, 97, 98, 03. A.A.; Psychol. Ass; Ass. Study Feeble-Minded; Health League; Sch. Hygiene Ass; Soc. Belge de Pedotech. The psychology of faith cures; growth and heredity of feeble-minded children; psychology of delinquency; causes and consequences of feeble-mindedness; psychology of the normal and subnormal; juvenile delinquency; training of defective children; human efficiency and levels of intelligence; education of gifted children.
- Goddard, Dr. P(liny) E(arle)**, American Museum of Natural History, New York, N. Y. **Ethnology*. Lewiston, Maine, Aug. 24, 69. A.B, Earlham, 92, A.M, 96; Ph.D, California, 04. Asst. *anthrop*, California, 01-02, *instr*, 02-07, asst. prof, 07-09; assoc. curator, *Am. Museum Nat. Hist*, 09-14, *curator*, 14- A.A.; Anthropol. Ass. (ed, 16-20, treas, 19); Folk-Lore Soc. (pres); Linguistic Soc; fel. Am. Acad; fel. N. Y. Acad; cor. mem. Paris Soc. des Américanistes. Athapascan linguistic stock; linguistics of Apache Indians.
- Goddard, Dr. Robert H(utchings)**, 17 Gates Lane, Worcester, Mass. **Physics*. Worcester, Oct. 5, 82. B.S, Worcester, 08; hon. fellow, Clark, 10-11, A.M, 10, Ph.D, 11. Instr. physics, Worcester, 09-11; Princeton, 12-13; instr. and hon. fellow, *Clark*, 14-15, asst. prof, 15-19, *prof*, 19-, *director physics lab*, 23- A.A.; Physical Soc. Electrical conduction of powders; crystal rectifiers; mechanical force on dielectrics in a magnetic field; interference colors in clouds; balancing of aeroplanes; production of gases by electrical discharges in vacuum tubes; method for researches at very high altitudes.
- Godfrey, Edward**, Professional Building, Pittsburgh, Pa. *Engineering*. Pittsburgh, March 7, 71. C.E, Pittsburgh, 93. *Structural engineer, Robert W. Hunt Co*, 96- Instr, Pittsburgh, 00-02. Joint committee, Concrete and Reinforced Concrete, 16. Civil Eng; Concrete Inst; West. Pa. Eng. Soc; Inst. Structural Eng. London. Steel designing; gravitation; tides; the cause of earthquakes; causes of the sun's heat and of sun-spots.
- Godfrey, Geo(rge) H**, University of Hawaii, Honolulu, Hawaii. *Botany*. Madison, Kans, Oct. 28, 88. B.S, Wash. Col, 13; M.S, Iowa Col, 17; Ph.D, Wisconsin, 23. Asst. plant path, Oregon Exp. Sta, 13-14; sci. asst, bur. plant indust, U. S. Dept. Agr, 14-16, 18, asst. pathologist, 19-20, pathologist, 20-24; The Bayer Co, 24-26; *nematologist, Ass. Hawaiian Pineapple Cannery*, 26- A.A.; Phytopath. Soc; Wash. Bot. Soc. Rice and castor bean disease; nematode diseases; organic mercury seed and soil disinfectants; pineapple nematodes.
- Goding, Dr. F(rederic) W(ebster)**, Box 334, Livermore Falls, Maine. *Entomology*. Hyde Park, Mass, May 9, 58. M.D, Northwestern, 82; Ph.D, Bethel, 90. Special asst. to state entomologist, Ill, 85. Lecturer, London Col; Young Men's Ass, Newcastle, N. S. W. Consular Service. For. service officer, class 3, retired. A.A.; Ass. Econ. Entom; Linnean Soc. N. S. W; fel. Royal Anthropol. Soc. Australia; Polynesian Soc; Ecuador Med. and Surg. Soc. Biology; economic entomology; Cicadidae and Cercopidae; Membracidae; anthropology.
- Goebel, Dr. Walther F(rederick)**, Rockefeller Institute Hospital, New York, N. Y. *Pathology*. Palo Alto, Calif, Dec. 24, 99. A.B, Illinois, 20, fellow, 20-23, A.M, 21, Ph.D, 23; Friedrich Maximilian Univ, 23-24. Asst, *Rockefeller Inst*, 24- Physico-organic, structural organic and immunological chemistry.
- Goetsch, Dr. Emil**, Long Island College Hospital, Brooklyn, N. Y. *Anatomy, Physiology, Surgery*. Davenport, Iowa, Jan. 23, 83. B.S, Chicago, 03, fellow, 04-05, Ph.D, 06; M.D, Hopkins, 09. Asst. anat, Chicago, 06-07, assoc, 07-08; research asst. exp. therapeut, Chicago, 08-09; asst. surg, in charge Hunterian lab, Hopkins, 09-10, asst. res. surgeon, Hopkins Hosp, 10-12; asst. *surg*, Harvard Med. Sch, and res. surgeon, Peter Bent Brigham Hosp, 12-15; assoc, Hopkins, 15-18, assoc. prof, 18-19; *prof*, *L. I. Col. Hosp*, 19- Soc. Internal Secretions (sec'y, 17-19); fel. Col. Surg; Ass.

- Anat; Goiter Ass. Gastro-enterostomy; surgery of the ductless glands; goiter; general surgery.
- Goldbaum, Dr. Jacob S(amu)el**, Fels and Co, Philadelphia, Pa. *Electrochemistry*. New York, N. Y., Nov. 26, 87. B.S., Pennsylvania, 08, Ph.D., 10. Instr. electrochem, Pennsylvania, 08-11; research chemist, *Fels and Co*, 11-16, *director sales*, 16- A.A.; Electrochem. Soc.; Chem. Soc. (councilor, 14-); Franklin Inst. Atomic weights; electrochemical analysis; chemistry of soaps and petroleum.
- Goldberg, Prof. S(amu)el A(lexander)**, Bronx Hospital, New York, N. Y. *Pathology, Bacteriology*. Russia, Dec. 12, 83. D.V.M., Cornell, 14, A.M., 16, Ph.D., 17. Asst., Cornell, 13-15, instr., 15-17, asst. prof. comp. path., 17-27; *lab. director, Bronx Hosp*, 26- Pathologist, Ithaca City Hosp., 23. Ass. Path. and Bact; Soc. Exp. Biol. Pathology and bacteriology.
- Goldberger, Dr. Joseph**, U. S. Public Health Service, Washington, D. C. **Medicine*. Austria-Hungary, July 16, 74. M.D., N. Y. Univ., 95. *Commissioned med. officer, U. S. Pub. Health Service*, 99-, *director field studies in nutrition*, 14- Cutter lecturer, Harvard, 15. A.A.; Am. Med. Ass.; Ass. Path. and Bact; Pub. Health Ass; Wash. Acad. Yellow fever; measles; typhus fever; trematode parasites; pellagra.
- Goldblatt, Dr. Harry**, 2109 Adelbert Rd, Cleveland, Ohio. *Pathology*. Muscatine, Iowa, March 14, 91. B.A., McGill, 12, M.D., C.M., 16. *Asst. prof. path. sch. med, Western Reserve*, 24- Beit Mem. fellow med, London, 21-24. Ass. Path. and Bact; Soc. Exp. Biol; Fed. Am. Societies for Exp. Biol; Physiol. Soc. Gt. Britain; British Path. and Bact. Soc; British Path. Soc. Experimental rickets; vitamins; light; experimental peritonitis.
- Goldenweiser, Dr. A(lexander) A**, Raymond Wise, 1440 Broadway, New York, N. Y. *Anthropology, Sociology*. Kiev, Russia, Jan. 29, 80. Diploma, Gymnasium, Kiev, 00; A.B., Columbia, 02, A.M., 04, Ph.D., 10. Asst. lecturer and later instr. anthrop, Columbia, 10-19; instr., New Sch. for Social Research, 19-26; lecturer, Rand Sch. Social Science, 14-26; special lecturer, Walden Sch., 24-26. Summers, prof., Washington, 23, Oregon, 25. Investigator, Can. Geol. Surv., 11-14. Anthropol. Ass; Ethnol. Soc; Folk-Lore Soc. Religion; social organization; methodology of the social sciences.
- Goldforb, Prof. A(braham) J**, College of the City of New York, New York, N. Y. **Zoology*. London, Eng, March 13, 81. B.S., Col. City of N. Y., 00; Ph.D., Columbia, 10. Instr. zool, Boys' High Sch, Brooklyn, 09-10; tutor biol, *Col. City of N. Y.*, 10-11, instr. nat. hist., 11-13, asst. prof. biol., 13-20, assoc. prof., 20-26, *prof*, 26- Carnegie Inst. exped. to P. R. A.A. (sec'y, N); Soc. Nat; Soc. Zool; Soc. Exp. Biol. (sec'y, chief ed, 'Proc'); Marine Biol. Ass. Experimental zoology; embryology; physiology.
- Goldman, E(dward) A(iphonso)**, U. S. Department of Agriculture, Washington, D. C. *Zoology*. Mount Carroll, Ill, July 7, 73. Pub. schools. Field naturalist, *biol. surv, U. S. Dept.* Agr, 92-17, biologist in charge div. biol. invest, 19-25, *in charge game and bird reservations*, 25- Biol. explor. in Calif, N. Mex, Ariz, Panama and Mex. Major, Sanit.C, 18-19, Sanit.R.C, 21- A.A.; Ecol. Soc; Soc. Mammal; Soc. Ichthyol. and Herp; Ornith. Union; Wash. Biol. Soc. (v. pres); Cooper Ornith. Club. Revision of the woodrats of the genus *Neotoma*; revision of the spiny pocket mice; rice rats of North America; mammals of Panama; mammals; birds; conservation of wild life.
- Goldman, Dr. Marcus I(saac)**, U. S. Geological Survey, Washington, D. C. *Geology*. New York, N. Y., Jan. 11, 81. B.S., Harvard, 02; E.M., Columbia, 05; fellow, Hopkins, 12-13, Ph.D., 13. Asst. geologist, *U. S. Geol. Surv.*, 07-09, *assoc. geologist*, 14- A.A.; Geol. Soc; Wash. Geol. Soc. Petrology of sedimentary rocks.
- Goldmark, Henry**, 103 Park Ave, New York, N. Y. *Civil engineering*. New York, June 15, 57. A.B., Harvard, 78; Polytech, Hanover, 78-80. Civil engineer, 80-06; designing engineer, Panama Canal, 06-14; *consulting engineer*, 14- Rowland prize, Civil Eng. Civil Eng; Soc. Test. Mat; Eng. Inst. Can; British Inst. Civil Eng. Hydroelectric plants; steel bridges; ship canals.
- Goldring, Miss Winifred**, State Museum, Albany, N. Y. *Paleontology*. Kenwood, N. Y., Feb. 1, 88. A.B., Wellesley, 09, A.M., 12; Teachers Sch. of Science, 09-11; Harvard, 10-11; Columbia, 13; Hopkins, 21. Asst. geol. and geog., Wellesley, 09-12, instr., 12-14; expert, *N. Y. State Museum*, 14-15, asst. paleont., 15-20, *assoc. paleontologist*, 20-25, *paleobotanist*, 25- A.A.; Paleont. Soc; Geol. Soc; Ass. Mus. Freshwater conditions in the Pleistocene of the Champlain basin; Devonian crinoids and plants; Devonian stratigraphy.
- Goldsborough, Prof. Francis C**, University of Buffalo, Buffalo, N. Y. *Medicine*. Baltimore, Md, Sept. 13, 77. B.S., Princeton, 99; M.D., Hopkins, 03. Instr. and *assoc. obstet.*, Hopkins, 04-10; *prof, Buffalo*, 10- Obstetrics and gynecology; toxemia of pregnancy; blood pressure in pregnancy; involution and the position of the uterus.
- Goldsborough, Prof. W(inder) E(lwell)**, 60 Wall St, New York, N. Y. *Electrical engineering*. Baltimore, Md, Oct. 10, 71. M.E., Cornell, 92. Adjunct prof. elec. eng, Arkansas, 93; prof., Purdue, 94-05; v. pres, Denver Res. Irrigation Co, 07-10; gen. manager, Laramie Water Co, 10-13; New Home Sewing Machine Co, 18-20; *consulting engineer*, 14-17, 20-23; *Henry L. Doherty and Co*, 23- Chief dept. elec, La. Purchase Expos, 04; chairman exec. committee, Elec. Ry. Test. Commission, 03-06; with J. G. White and Co, 05-07. Knight, Order of the Crown, Italy. Int. Elec. Cong, St. Louis, 04 (v. pres). Elec. Eng. (v. pres); Eng. Educ; Mech. Eng; Electrochem. Soc; British Inst. Elec. Eng. Electromagnetic phenomena.
- Goldschmidt, Prof. Samuel**, University of Pennsylvania, Philadelphia, Pa. *Physiology*. Norwalk, Conn, Aug. 14, 87. Ph.B., Yale, 11, Ph.D., 14. Fellow research med, Pennsylvania, 14-

- 15; instr. path, sch. med, Hopkins, 15-19; lecturer *physiol.* med. col, Cornell, 19-21; *asst. prof., sch. med., Pennsylvania*, 21-Physiol. Soc; Soc. Biol. Chem; Soc. Exp. Biol; Harvey Soc. Mechanism of absorption from intestine; blood gases; cyanosis.
- Goldschmidt, Dr. S(amuel) A(nthony)**, 375 Park Ave, New York, N. Y. *Chemistry*. New York, Sept. 17, 48. A.B. Col. City of N. Y., 68, A.M., 93; E.M., Columbia, 71; Ph.D., Emory, 75. *Chairman, Parsons' Ammonia Co, Inc*, 80- A.A; Chem. Soc; fel. London Chem. Soc.
- Goldsmith, Dr. Alfred N(orton)**, 450 West End Ave, New York, N. Y. *Radio engineering*. New York, Sept. 15, 87. B.S., Col. City of N. Y., 07, fellow, 07-10; Ph.D., Columbia, 11. Tutor physics, *Col. City of N. Y.*, 10-11, instr., 11-15, *asst. prof.*, 15-19, *assoc. prof. elec. eng.*, 19- Consulting radio expert, U. S. Dept. Justice, 12; consulting radio engineer, Atlantic Communication Co, 14-; consulting engineer, Gen. Elec. Co, 15-17; director research, Marconi Wireless Telegraph Co. of Amer, 17-19; director research dept, Radio Corp. of Amer, 19-22, chief broadcast engineer, 22-; chairman board consulting engineers, Nat. Broadcasting Co. First, Second, Third and Fourth Nat. Radio Conferences, 22-25. A.A; fel. Elec. Eng; Physical Soc; fel. Radio Eng. (director, 12-, ed, 'Proc,' 12-, chairman, committee on standardization, 14, sec'y, 18); Radio Soc. Gt. Britain. Radio telegraphy; radio telephony; photophysics; transmission of canal rays through thin partitions; precision measurements in radio engineering.
- Goldsmith, Dr. G(lenn) W(arren)**, 123 E. Washington St, Colorado Springs, Colo. *Ecology*. Hutchinson, Minn., Jan. 29, 86. A.B., Minnesota, 11; Ph.D., Nebraska, 24. Asst. bot., Minnesota, 11-12; prof. biol., Southwest. Inst., 12-18; instr., Agr. and Mech. Col. Texas, 18-19; *investigator, Carnegie Institution*, 20- A.A; Ecol. Soc; Bot. Soc; Soc. Plant Physiol; Soc. Mammal; Micros. Soc. Ecological instrumentation; aeration and biological relations of soils; vital measurement of habitat factors; physico-chemical properties of plant fluids; movements of flowers; ecology of soil fauna; soil algae.
- Goldsmith, Prof. William M(arion)**, Southwestern College, Winfield, Kans. *Biology*. St. Francis, Ark., Feb. 19, 88. B.Pd., Mo. State Nor. Sch., 09; A.B., Hillsdale, 13; A.M., Indiana, 15, Ph.D., 20. *Prof. chem. and biol.*, Oakland City Col., 13-15; *biol.*, West. State Teachers Col., Colo., 17-19; *Southwestern (Kans)*, 20- Lecturer, Hopkins and Marine Biol. Lab., 20-21. A.A; Soc. Zool; Ecol. Soc; Eugenics Soc. (committee, Nat. Eugenics Exhibits); Eugenics Research Ass; Soc. Mammal; Ind. Acad; Kans. Acad; British Ass. Cytology; chromosomes of tiger beetles; plasmosomes; eugenics; inheritance of various human characters; poultry genetics.
- Goldthorpe, Dr. Harold C(lifford)**, 3245 Diversey Ave, Chicago, Ill. *Physiological chemistry*. Wakefield, Eng., Sept. 5, 95. B.S., Utah Col., 17; fellow, Chicago, 19-21, Ph.D., 25. Instr., Utah Col., 17-19; *assoc. instr.*, Chicago, 21-25; *research biochemist, Presb. Hosp., Chicago*, 25- Ammonia and urea formation.
- Goldthwait, Cha(rie)s F(rancis)**, Mellon Institute, Pittsburgh, Pa. *Chemistry*. Cumming-ton, Mass., April 23, 86. B.S., Worcester, 09. Chief chemist, S. Slater and Sons, Inc, Mass., 09-16; chemist in charge lab. and dyeing, Klear-flax Linen Looms, Inc, Minn., 16-23, supt. cotton mercerizing and dyeing, Md., 23-24; lab. installation, Heminway Silk Co, Conn., 24-25; *indust. fellow, Mellon Inst.*, 25- A.A; Chem. Soc; Soc. Chem. Indust; Ass. Textile Chem-ists and Colorists; British Soc. Dyers and Col-orists; British Textile Inst. Chemistry and physics of cotton and other textiles.
- Goldthwait, Prof. J(ames) Walter**, Dartmouth College, Hanover, N. H. **Geology, Physiogra-phy*. Lynn, Mass., March 22, 80. A.B., Harvard, 02, A.M., 03, Ph.D., 06. Instr. *geol.*, Northwest-ern, 04-06, *asst. prof.*, 06-08; *prof., Dart-mouth*, 08- A.A; Geol. Soc; Ass. Geog; Am. Acad; Seismol. Soc. Hurricane fault in south-western Utah; upwarped shorelines of Lakes Algonquin and other extinct lakes of the Lauren-tian system; raised sea beaches and Champlain clays of southern Quebec; surface geology of New Hampshire and maritime provinces.
- Goldthwaite, Dr. N(ellie) E(ster)**, South Had-ley, Mass. *Chemistry*. Jamestown, N. Y. B.S., Michigan, 94; fellow, Chicago, 94-97, Ph.D., 04. Head dept. chem., Mt. Holyoke, 97-05; *assoc. physiol. chem., Rockefeller Inst.*, 06-08; *asst. prof. dept. household science, Illinois*, 08-15; head dept. home econ., New Hampshire, 15-16; *assoc. prof., Colo. Agr. Col.*, 19-25. In the Orient, 16-19. A.A; Chem. Soc. Substituted benzhydrol derivatives and bromcyanacetic ether; chemistry and physics of jelly making; bread making; chemical composition of Colo-rado potatoes.
- Goll, Frank L(ouis)**, 6929 Ninth St, Washing-ton, D. C. *Plant physiology*. Philadelphia, Pa., Jan. 19, 81. Pa. Museum and Sch. Indust. Arts. Asst. botanist, Homeop. Lab., Phila., 00-01; *asst. to assoc. physiologist, bur. plant indust., U. S. Dept. Agr.*, 01- Awards and medals as collaborator, World's Expositions, St. Louis, 04, Seattle, 09, Jamestown, Buenos Aires, 10, Turin, Italy, San Francisco, 15. A.A; Soc. Bact; D. C. Bot. Soc. Legume and soil bacteriology; photographic notes.
- Gomberg, Prof. Moses**, 712 Onondaga St, Ann Arbor, Mich. **Chemistry*. Elizabetgrad, Rus-sia, Feb. 8, 66. B.S., Michigan, 90, M.S., 92, Sc.D., 94; Munich, 96-97; Heidelberg, 97. Instr. chem., *Michigan*, 93-96, 97-99, *asst. prof. org. chem.*, 99-02, junior prof., 02-04, *prof.*, 04- Nichols medal, Chem. Soc, 14; Willard Gibbs medal, 25. Nat. Acad; A.A; Chem. Soc; Franklin Inst; Philos. Soc. Major, ordnance dept, 18. Trivalent carbon and free radicals; quino-carbonium salts; tautomerism in tri-phenylmethane series; ethylene chlorhydrin.
- Gonnerman, H(arrison) F(rederick)**, Portland Cement Association, Chicago, Ill. *Civil engi-neering*. Dixon, Ill., Aug. 24, 85. B.S., Illinois, 08, M.S., 13. Asst. eng. exp. sta., Illinois, 08-10,

- instr. theoret. and applied mech, 10-14, first asst, 14-17, research assoc, 17-18, research asst. prof, 18-20; business, 20-22; assoc. engineer, structural materials research lab, Lewis Inst, 22-27; *research lab, Portland Cement Ass*, 22-27, *manager*, 27- Summer, test. engineer, Emergency Fleet Corp, 18. Soc. Test. Mat; Concrete Inst. Materials of construction; concrete methods.
- Gooch, Prof. F(rank) A(ustin)**, 291 Edwards St, New Haven, Conn. **Chemistry*. Watertown, Mass, May 2, 52. A.B, Harvard, 72, A.M, Ph.D, 77; Vienna, 75-76; hon. A.M, Yale, 87. Expert special agent, U. S. Geol. Surv, tenth census, 79-81; chemist, North. Transcont. Surv, 81-84; U. S. Geol. Surv, 84-86; prof. chem. and director, Kent Chem. Lab, Yale, 85-18, *emer. prof.*, 18- Nat. Acad; A.A; Philos. Soc; Am. Acad; N. Y. Acad. Analytical methods.
- Gooch, Prof. W(ilby) T**, 808 Speight Ave, Waco, Texas. *Chemistry*. Waco, Dec. 22, 85. B.S, Baylor, 06, M.S, 08; Ph.D, Chicago, 18. *Prof. chem, Baylor*, 08- Chemist, Waco City Water Works, 18- A.A; Chem. Soc. (chairman, central Texas sect); Water Works Ass; Pub. Health Ass; Texas Water Works Ass. (pres, 24). The effect of light on the velocity of saponification of ethyl acetate; the velocity coefficient of saponification of methyl acetate; halogen reactivity; ethylene chlor-bromide and chlor-iodide.
- Good, Dr. A(rthur) J(ohn)**, 906 Packard St, Ann Arbor, Mich. *Chemical engineering*. Faithorn, Mich, Aug. 19, 99. B.S, Michigan, 22, M.S.E, 24, Ph.D, 26. Experimental chemist, Sinclair Ref. Co, 22-24; engineer, E. B. Badger and Sons Co, 25; *petrol. research, dept. chem. eng, Michigan*, 25- Chem. Soc. The equilibrium vaporization of crude petroleum; two methods of vaporization.
- Good, Prof. E(dwin) S(tanton)**, University of Kentucky, Lexington, Ky. *Animal husbandry*. Clarence Center, N. Y, March 16, 71. B.S, Mich State Col, 03; European study, 05; M.S, Illinois, 06. Instr. and investigator *animal husbandry*, Illinois, 03-06; *head dept, Ky. Exp. Sta*, 06-, *prof, Kentucky*, 12- A.A; Soc. Animal Production; Ass. S. Agr. Workers; Ky. Acad. Infectious abortion in cows and mares; live stock feeding.
- Goodale, Dr. H(ubert) D(ana)**, 257 W. Main St, Williamstown, Mass. **Zoology, Genetics*. Troy, N. H, June 5, 79. A.B, Trinity (Conn), 03, A.M, 04; fellow, Columbia, 05-06, Ph.D, 13. Res. investigator, sta. for exp. evolution, Carnegie Institution, 11-13; research biologist poultry husbandry, Mass. Exp. Sta, 13-22; *biologist, Mt. Hope Farm*, 22- A.A; Soc. Nat; Soc. Zool; Poultry Ass. Embryology; inheritance and physiology of domestic fowl; animal husbandry.
- Goodale, Dr. J(oseph) L(incoln)**, 258 Beacon St, Boston, Mass. *Laryngology*. Saco, Maine, Jan. 22, 68. A.B, Harvard, 89, A.M, M.D, 93. Assoc. physician diseases of the throat, Mass. Gen. Hosp, 20-; *instr. laryngol, Harvard Med. Sch*, 08- A.A; Laryngol. Ass; Am. Med. Ass; Col. Surg. Diseases of nose and throat; pathology of the lymphoid tissue of the throat; infections entering the system through the nose and throat; anaphylaxis.
- Goodale, Prof. Stephen L(incoln)**, 1156 Murrayhill Ave, Pittsburgh, Pa. *Metallurgy*. Saco, Maine, Aug. 31, 75. A.B, Colo. Col, 99, A.M, 09, Sc.D, 21; E.M, Colo. Sch. Mines, 04. Consulting mining engineer; *prof. metal, Pittsburgh*, 09- A.A; Min. Eng; Electrochem. Soc; Soc. Steel Treat; West. Pa. Eng. Soc. Mining.
- Goode, Prof. J(ohn) Paul**, University of Chicago, Chicago, Ill. *Geography*. Stewartville, Minn, Nov. 21, 62. B.S, Minnesota, 89; Harvard, 94; fellow, Chicago, 96-97; Ph.D, Pennsylvania, 01. Prof. nat. science, Minn. State Nor. Sch, Moorhead, 89-98; physical science and geog, East. Ill. State Nor. Sch, 99-01; *instr. geog, Pennsylvania*, 01-03; asst. prof, *Chicago*, 03-10, assoc. prof, 10-17, *prof*, 17- Summers, instr, Chicago, 97-00, 02; lecturer for Philippine Govt, 11. Co-editor, 'Jour. of Geog.', 01-04. Expert econ. geog, Chicago Harbor Commission, 08; govt. escort with the hon. commercial commissioners of Japan in Am. tour, 09. Helen Culver gold medal, Chicago Geog. Soc, 23. A.A. (gen. sec'y, 08); Ass. Geog. (v. pres, 16, pres, 26); Ill. Acad; Chicago Geog. Soc. (pres, 04-06, director, 04-); Phila. Geog. Soc. (director, 01-03). Economic geography; geographical education; maps and globes for schools; geographic background of Chicago.
- Goodell, G(eorge) A(rthur)**, Kentucky Color and Chemical Co, Louisville, Ky. *Chemistry*. Westminster West, Vt, Sept. 16, 71. A.B, Amherst, 94; A.M, Columbia, 98. Asst. chem, Columbia, 98-00, tutor, 00-04; instr, Wellesley, 04-11; supt, Henry Woods Sons Co, 11-13; dry color dept, Sherwin-Williams Co, 13-20; *sec'y and gen. manager, Ky. Color and Chem. Co*, 20- Chem. Soc. (local chairman, 21-23; col. essay contest committee, Ky. state senator). Soap and food chemistry; dry colors and dyes; general and household chemistry.
- Goodenough, Prof. Florence L(aura)**, 520 Washington Ave, S. E, Minneapolis, Minn. *Psychology*. Honesdale, Pa, Aug. 6, 86. B.Pd, Pa. State Nor. Sch, Millersville, 08; B.S, Columbia, 20, A.M, 21; Ph.D, Stanford, 24. Teacher, pub. sch, and educ. research, 08-21; research asst, gifted children surv, Stanford, 21-24; psychologist, Child Guidance Clinic, Minneapolis, 24-25; *asst. prof. research, Inst. Child Welfare, Minnesota*, 25- Summer, lecturer, Minnesota, 25. Psychol. Ass; West. Psychol. Ass. Genetic and clinical psychology; mental and educational tests.
- Goodenough, Prof. G(eorge) A(lfred)**, 309 S. Lincoln Ave, Urbana, Ill. *Mechanical engineering*. Davison, Mich, May 3, 68. B.S, Mich. State Col, 91; M.E, Illinois, 00. Instr. mech, Mich. State Col, 91-93; mech. eng, *Illinois*, 95-97, asst. prof, 99-05, assoc. prof, 05-10, *prof. thermodynamics*, 10- Mech. Eng; Eng. Educ. Stresses in oval links; properties of saturated and superheated vapors; gaseous explosions.

- Goodman, Dr. Edward H(arris)**, 248 S. 21st St, Philadelphia, Pa. *Medicine*. Philadelphia, April 4, 79. M.D., Pennsylvania, 02; Berlin, Prague, Munich, Strassburg, 04-06. Asst. instr. med., Pennsylvania, 08-10, instr., 10-12, *assoc.*, 12- Chairmen, Pa. Sci. Committee, 09. A.A.; Am. Med. Ass.; Gastro-Enterol. Ass.; Climat. Ass.; Phila. Path. Soc. (curator, 08, sec'y, 09-11); Phila. Col. Physicians. Clinical medicine; pathology; physiological chemistry.
- Goodpasture, Prof. E(rnest William)**, Vanderbilt University School of Medicine, Nashville, Tenn. **Pathology*. Clarksville, Tenn, Oct. 17, 86. A.B., Vanderbilt, 07; M.D., Hopkins, 12. Rockefeller fellow path., Hopkins, 12-13, instr., 13-15; Harvard Med. Sch., 15-18, asst. prof., Harvard, 19-22; director, Singer Mem. Research Lab, Pittsburgh, Pa, 22-24; *prof. path. sch. med., Vanderbilt, 24-* Acting res. pathologist, Hopkins Hosp., 13-15; res. pathologist, Peter Bent Brigham Hosp., 15-18; chief dept. path. and bacter. sch. med., Philippines, 21-22; Gen. Educ. Board scholar, Vienna, 24-25. Lieut., U.S.N.R.F., M.C., 17-19. A.A.; Ass. Path. and Bact.; Ass. Exp. Path.; Soc. Trop. Med.; Ass. Cancer Research. Relation of senescence to tumors; hemorrhagic pancreatitis; fibrinogen; influenza; yaws; herpes; rabies.
- Goodrich, Forest J(ackson)**, 1302 E. 42nd St, Seattle, Wash. *Pharmaceutical chemistry*. Norfolk, Nebr., Jan. 23, 90. Ph.C., Washington (Seattle), 13, B.S., 14, M.S., 17, Ph.D., 27. Asst. state chemist, Wash., 14-17; instr. *pharmacy and mat. med., Washington (Seattle)*, 19-25, *asst. prof.*, 25- Lieut., C.W.S., 17-19. Pharmaceut. Ass. Pharmaceutical and organic chemistry; bacteriology.
- Goodrich, Dr. H(ubert) B(aker)**, Wesleyan University, Middletown, Conn. *Biology*. Salem, Mass., Sept. 11, 87. B.S., Amherst, 09; A.M., Columbia, 14, Ph.D., 16; fellow, Princeton, 14-15. Asst. biol., Amherst, 09-11; zool., Columbia, 12-14; instr. biol., Union, 15-16; zool., *Wesleyan*, 16-17, *assoc. prof.*, 17-23, *prof. biol.*, 23- Instr., Woods Hole, 18-21, in charge, 22- Amherst expd. to Maine Coast, 09. A.A.; Soc. Zool. Cytology; embryology; microdissection; tissue culture; genetic characters.
- Goodspeed, Dr. Arthur W(illis)**, University of Pennsylvania, Philadelphia, Pa. **Physics*. Hopkinton, N. H., Aug. 8, 60. A.B., Harvard, 84; Ph.D., Pennsylvania, 89. Asst. *physics, Pennsylvania*, 84-85, instr., 85-89, asst. prof., 89-04, *prof.*, 04- Jury awards, Nat. Export Expos, 99. A.A.; Physical Soc.; Philos. Soc. (sec'y, 00-); Röntgen Ray Soc. (v. pres, 01, pres, 02); Franklin Inst.; Soc. de Physique. Röntgen rays and their applications; constants of the induction coil; radioactivity.
- Goodspeed, Dr. T(homas) H(arper)**, University of California, Berkeley, Calif. *Botany*. Springfield, Mass., May 17, 87. A.B., Brown, 09; Ph.D., California, 12. Asst. *bot., California*, 09-12, instr., 12-15, asst. prof., 15-20, *assoc. prof.*, 20- A.A.; Soc. Nat.; Bot. Soc. Cytology of hybrid plants.
- Goodwin, Prof. H(arry) M(anley)**, Massachusetts Institute of Technology, Cambridge, Mass.
- *Physics, Electrochemistry*. Boston, Mass., April 18, 70. B.S., Mass. Inst. Tech., 90; Ph.D., Leipzig, 94. Asst. *physics, Mass. Inst. Tech.*, 90-92, instr., 92-97, asst. prof., 97-03, *assoc. prof.*, 03-06, *prof. physics and electrochem. and in charge dept. electrochem.*, 06-, *dean grad. students*, 26- A.A.; Physical Soc.; Electrochem. Soc.; Chem. Soc.; Astron. Soc.; Math. Soc.; Am. Acad.; Wash. Acad. Physical and electrochemical studies on the voltaic cell; viscosity of mercury vapor; vapor pressure determinations of certain ether solutions; electric conductivity of dilute acid solutions; dielectric constants of liquid ammonia; Billitzer's method of absolute potential measurements; electrical conductivity and viscosity of fused salts; specific heat and latent heat of fusion of inorganic salts; electrical properties of inorganic salts at high temperatures.
- Goodwin, Prof. L(eo) F(rank)**, Queen's University, Kingston, Ont., Can. *Chemistry*. A.C.G.I., London, 98; Leipzig, 01; Ph.D., Heidelberg, 03. Demonstrator chem., Univ. Col., London, 03-05; chief Carnegie research asst. to Prof. Chas. Baskerville, 05-06; tutor chem., Col. City of N. Y., 06, instr. and head div. physical chem., 06-09; asst. prof. physical and indust. chem., *Queen's (Can.)*, 09-12, *assoc. prof.*, 12-14, *prof. indust. chem. and chem. eng.*, 13-, *head dept.*, 22- Univ. Research Council, Queen's (Can.), 17-; chem. committee, Can. Nat. Research Council, 25- Major, C.E.F., 14-16. Chem. Soc.; Soc. Chem. Indust.; Chem. Eng.; Eng. Inst. Can.; fel. Can. Inst. Chem. (councilor, 18-22, 25-28); British Ass. (gen. committee); fel. London Chem. Soc.; fel. Inst. Chem. Gt. Britain and Ireland. Melting point determinations at low temperatures; specific and latent heats of ice and other substances; catalytic production of ketones; fixation of atmospheric nitrogen; pulp and paper manufacture.
- Goodwin, Dr. Ralph T(albot)**, 172 Lincoln Ave, Elizabeth, N. J. *Petroleum engineering*. Sardis, Ohio, March 8, 92. Ph.C., Southern California, 14, A.B., 15, A.M., 16; A.M., Columbia, 20, Ph.D., 22. Hercules Powder Co, Calif., 17-18; Columbia, 19-22; *petroleum technologist, Standard Oil Co. of N. J.*, 22- Bur. Aircraft Production, 18-19; eng. div., Air Service, 19; U.S.A. Balloon Sch., Nebr., 20. Cellulose acetate and nitrate; aeroplane lacquers; oil shale.
- Goodwin, Prof. W(illiam) L(awton)**, 237 Kensington Ave, Westmount, Que., Can. *Chemistry*. Baie Verte, N. B., 56. Mt. Allison Col., 76-77, LL.D., 19; Gilchrist scholar, Edinburgh, 77-80, B.S., 81, D.Sc., 82; Heidelberg, 80-81; B.S., London, 82. Asst. to Sir Wm. Ramsay, 81-82; prof. chem., Mt. Allison, 82-83; Queen's (Can.), 83-93, director sch. mining, 93-19, dean faculty sciences, 11-19, *retired*, 19. A.A.; Soc. Chem. Indust. (chairman); fel. Royal Soc. Can. (pres, sect. III); Can. Min. Inst. (v. pres). Properties of solutions; analysis of corundum; vanadium in titaniferous iron ores.
- Goodwin, W(illiam) N(elson)**, Jr, 30 Scheerer Ave, Newark, N. J. *Electrical engineering*. Philadelphia, Pa., Oct. 10, '76. B.S., Pennsyl-

vania, 97, E.E. 08. Designer, Pa. Iron Works Co, 97-98; engineer lab, *Weston Elec. Instrument Co*, 98-06, chief elec. engineer in charge research lab, 06- A.A.; fel. Elec. Eng.; Physical Soc; assoc. Radio Eng. Instruments for precision measurements of alternating and direct current phenomena.

Gordinier, Dr. H(ermon) C(amp), 89 Fourth St, Troy, N. Y. *Medicine*. Troy, May 21, 64. M.D, Albany Med. Col, 86; Prague, 89-90; hon. A.M, Williams. Instr. physical diagnosis, *Albany Med. Col*, 89-95, prof. anat. of the nervous system and physiol, 95-15, *practice of med*, 15- Physician, Samaritan and Cambridge Hospitals and Protestant Orphan Asylum, Troy. A.A.; Am. Physicians; Neur. Ass; Therapeut. Soc; Am. Med. Ass. Neurology; neuropathology.

Gordon, Dr. Alfred, 1812 Spruce St, Philadelphia, Pa. *Neurology*. Paris, France, 74. A.M, M.D, Paris, 95. Assoc. nervous and mental diseases and neuropath, Jefferson Med. Col, 98-09; *neurologist, hospitals*, 00- Examiner of insane, Phila. Gen. Hosp. Neur. Ass; Psychiat. Ass; Phila. Acad; for. cor. Soc. medico-psychol. de Paris. Psychiatry; aphasia; mental disorders due to traumata; nervous diseases.

Gordon, Prof. C(harles) H(enry), University of Tennessee, Knoxville, Tenn. *Geology, Petrography*. Caledonia, N. Y., May 10, 57. B.S, Albion, 86, M.S, 90; Ph.D, Chicago, 95; Heidelberg, 97-98. Teacher, pub. schools, Iowa, 87-90; instr. nat. hist, acad, Northwestern, 90-93; supt, schools, Wis, 95-97; Lincoln, Nebr, 99-03; lecturer sch. management, Nebraska, 00-03, geol. and petrog, 01-03; acting prof. geol, Washington (Seattle), 03-04; prof. geol. and miner, N. Mex. Sch. Mines, 04-05; asst. geologist, U. S. Geol. Surv, 05-12; *prof. geol. and miner, Tennessee*, 07- Asst, Mo. Geol. Surv, 90-92; Iowa Geol. Surv, 93-95; Mich. Geol. Surv, 98-99; assoc. state geologist, Tenn. Geol. Surv, 10-13; chief mines and minerals dept, Appalachian Expos, Knoxville, 10; Nat. Conserv. Expos, 13. A.A.; Geol. Soc; Tenn. Acad. (pres, 12). Geology and underground waters of northern Texas; geology and mineral resources of Tennessee; ore deposits of west central New Mexico.

Gordon, Prof. Clarence E(verett), Amherst, Mass. *Geology, Zoology*. Clinton, Mass, Feb. 15, 76. B.S, Mass. Col, 01, Boston, 03; Clark, 01, 03; A.M, Columbia, 05, fellow, 05-06, Ph.D, 11; Rensselaer, 15; Harvard, 15. Master science, Cushing Acad, Mass, 01-04; asst. prof. *zool. and geol*, Mass. Col, 06-10, *prof. and head dept*, 10- Acting prof, Amherst, 23-25; field geologist, Vt. Geol. Surv, 11-14, 18-25; summers, asst. geologist, N. Y. State Geol. Surv, 08, 09, 12. A.A.; fel. Geol. Soc; Paleont. Soc. Early Paleozoic corals; areal and structural geology of western Vermont; geology of the Poughkeepsie, N. Y. quadrangle.

Gordon, Prof. C(larence) McChayne, Lafayette College, Easton, Pa. *Physics*. Fannettsburg, Pa, April 14, 70. A.B, Princeton, 91, fellow, 91-92, A.M, 93; Ph.D, Göttingen, 97. Asst.

physics, Williams, 93-94, instr. physics and math, 94-95; asst. physical chem, Harvard, 97-98; *prof. physics*, Cent. Univ. of Ky, 98-09; *Lafayette*, 09- A.A.; Physical Soc; Optical Soc; Electrochem. Soc. Polarization capacity; electromotive forces of fused salt cells; capacity and resistance of aluminum anode films; passivity of iron; theory of passive state of metals.

Gordon, Prof. H(ugh) B(yron), U. S. Testing Co, 316 Hudson St, New York, N. Y. *Chemistry*. Near Georgetown, Ohio, March 23, 82. A.B, Miami, 08; M.S, Illinois, 10, Ph.D, 12. Bur. chem, U. S. Dept. Agr, 12-13; instr. chem, Oklahoma, 13; asst. prof, Agr. and Mech. Col. Texas, 13-15, assoc. prof, 15-17; asst. prof, Rutgers, 17-19; *research chemist*, U. S. Test. Co, 19-20; Leeds and Northrup Co, 20-21; *U. S. Test. Co*, 21- Chem. Soc; Inst. Chem. (councilor, 23-); Soc. Textile Chemists and Colorists; Soc. Test. Mat. Measurements of vapor pressure lowering of solutions; effect of light on cottonseed oil; estimation of mercury; colorimetry and fastness of dyes; identification and grading of textile fibers.

Gordon, Dr. Kate, University of California at Los Angeles, Los Angeles, Calif. *Psychology*. Oshkosh, Wis, Feb. 18, 78. Ph.B, Chicago, 00, Ph.D, 03; Col. Alumnae fellow, 03-04. Instr. philos, Mt. Holyoke, 04-05, assoc. prof. psychol, 05-06; instr. educ. psychol, Teachers Col, Columbia, 06-07; assoc. prof. educ, Bryn Mawr, 12-16; asst. prof. psychol. and educ, Carnegie Inst. Tech, 16-19, assoc. prof, 19-21; lecturer *psychol, California at Los Angeles*, 21-22, *assoc. prof*, 23- Psychologist, children's dept, Calif. State Board Control, 18-19. Psychol. Ass; Philos. Ass; Gesell. für Exp. Psychol. Memory and attention; affective memory; color vision of the peripheral retina; esthetics of color; memory for music; mental tests on children.

Gordon, Prof. Neil E(lbridge), 2320 Reisters-town Road, Baltimore, Md. *Physical chemistry*. Spafford, N. Y, Oct. 7, 86. Ph.B, Syracuse, 11, A.M, 12; Ph.D, Hopkins, 17. Asst. prof. inorg. chem, Goucher, 17-19; *prof. physical chem, Maryland, and state chemist*, 19- Ed, 'Jour. Chem. Educ,' 24. A.A; Chem. Soc; Pharmaceut. Ass; Royal Soc. Arts. Infinite solubilities; dehydrating agents; adsorption; emulsions; dyes.

Gordon, S(amuel) G(eorge), Academy of Natural Sciences, Philadelphia, Pa. *Mineralogy*. Philadelphia. *Asst. curator, dept. miner*, *Phila. Acad. Nat. Sciences*. Assoc. ed, 'Am. Mineralogist,' 16- Miner. exped. to Andes of Ecuador, Peru, Bolivia, Chile, 21, Greenland, 23, Andes of Bolivia and Chile, 25. Fel. Miner. Soc; Phila. Miner. Soc. (sec'y, 15-24); fel. London Miner. Soc. Crystallography; mineralogy of Pennsylvania, Greenland and Bolivia.

Gordon, Dr. Samuel M(orris), 1526 Adams St, Madison, Wis. *Organic chemistry*. Boston, Mass, Oct. 15, 98. B.S, Tufts, 22; M.S, Iowa, 23; Wrigley fellow, Wisconsin, 24-26, Ph.D, 26. Asst, Iowa, 22-23; *Nat. Research Council fellow biol*, 26- A.A; Chem. Soc. Plant physi-

- ology; biochemistry of mints; phytochemistry; physical chemistry of antagonism.
- Gordon, W(illiam) L(awrence)**, Manitoba Agricultural College, Winnipeg, Man, Can. *Plant pathology*. Lachute, Que, March, 01. B.S.A, McGill, 22, M.Sc., 24. Plant disease investigator, div. bot, Central Exp. Farms, Can. Dept. Agr., 22-25, *asst. plant pathologist, Dominion rust research lab, Man. Agr. Col.*, 25- Bursary, Nat. Research Council, Can., 24-25. A.A.; Phytopath. Soc.; Can. Soc. Tech. Agr. Injurious effects of smut treatments on oats; oat stem rust.
- Gore, H(erbert) C(harles)**, Fleischmann Laboratories, 158th St. and Mott Ave, New York, N. Y. *Chemistry*. New York, June 19, 77. B.S., Michigan, 99; fellow, Ohio State, 99-00, M.S., 01. Asst. chem, Ohio State, 00-01; teacher, high sch, Ill, 01-02; sci. asst. and chemist in charge fruit and vegetable utilization lab, bur. chem, U. S. Dept. Agr., 02-24; *research chemist, Fleischmann Laboratories*, 24- Chem. Soc. Biological and plant chemistry; physiology and technology of fruits; vegetables; cereals.
- Gore, Prof. James H(oward)**, 2210 R St, N. W, Washington, D. C. *Mathematics, Geodesy*. Gore, Va, Sept. 18, 56. Richmond, 74-77, LL.D., 11; B.S., George Washington, 77, Ph.D., 88, LL.D., 16, Litt.D., 18; Leyden, Berlin and Brussels, 94, 98. Tutor math, *George Washington*, 77-80, asst. prof., 80-82, prof., 82-02, head prof., 02-09, *emer. prof.*, 18- Astronomer, U. S. Geol. Surv.; civilian expert, U. S. Coast and Geod. Surv.; pres, jury, Columbian Expos, 93; Paris Expos, 00; commissioner gen. expositions of Antwerp, Amsterdam, Liège and Brussels. Grand Cross, Order of Leopold; Grand officer, Crown of Roumania and Crown of Siam; Mérite agricole; Officer, Order of Wasa, White Elephant, Légion d'honneur, Isabella of Spain and Mérite civil; Chevalier, Orange and Nassau; Grand Cross, Crown of Belgium. Metrol. Soc. (sec'y); Wash. Acad; Wash. Philos. Soc; Dutch Acad; Imp. Russian Geog. Soc. Compilation of mathematical factors and formulas.
- Gore, John K(insey)**, 69 High St, Orange, N. J. *Mathematics, Actuarial science*. Newark, N. J., Feb. 3, 64. A.B., Columbia, 83, A.M., 86. Instr. math. and physics, Woodbridge Sch, N. Y., 84-91; mathematician, *Prudential Ins. Co.*, 94, asst. actuary, 95-97, *actuary*, 97-, *director*, 07-, *v. pres.*, 12- Actuarial Soc. (past pres).
- Gorham, Prof. F(rederic) P(ooles)**, 151 Meeting St, Providence, R. I. *Biology*. Providence, April 29, 71. A.B., Brown, 93, A.M., 94. Instr. biol, *Brown*, 93-00, asst. prof., 00-01, assoc. prof., 01-13, *prof. bacter.*, 13- Bacteriologist, Providence Health Dept; deputy inspector milk, Providence. Sec'y, trustees, R. I. State Sanatorium. A.A.; Soc. Nat; Soc. Bact. (sec'y and treas, 04, *v. pres.*, 06, *pres.*, 07); Ass. Path. and Bact; Pub. Health Ass. (chairman, lab. sect); Wash. Acad; hon. mem. R. I. Med. Soc. Phosphorescent bacteria; diphtheria bacillus; diseases of fishes; oysters and sewage.
- Gortner, Prof. Ross Aiken**, University Farm, St. Paul, Minn. **Chemistry*. Near O'Neill, Nebr., March 20, 85. B.S., Nebr. Wesleyan, 07; M.A., Toronto, 08; fellow, Columbia, 08-09, Ph.D., 09. Research asst. agr. chem, Nebraska, 06-07; asst. chem, Toronto, 07-08; res. investigator biol. chem, sta. for exp. evolution, Carnegie Institution, 09-14; assoc. prof. soil chem, *Minnesota*, 14-16, *agr. biochem.*, 16-17, *prof. and chief div. Exp. Sta.*, 17- A.A.; Soc. Nat; Chem. Soc. (asst. ed, 'Abstracts,' chairman, div. biol, 19); Soc. Exp. Biol; Soc. Biol. Chem. Nitroso compounds; formation and chemistry of animal pigments (melanin); chemistry of embryonic growth; physico-chemical properties of vegetable saps; soil analysis; organic constituents of the soil; colloids; proteins.
- Gorton, Prof. F(rederick) R(ussell)**, State Normal College, Ypsilanti, Mich. *Physics*. Waterloo, Mich, Sept. 16, 71. Ph.B., Mich. State Nor. Sch, 99; B.S., Michigan, 00, A.M., 01; Ph.D., Berlin, 05. Instr. *physics, Mich. State Nor. Col.*, 92-03, asst. prof., 05-08, assoc. prof., 08-11, *prof.*, 11-16, *head dept.*, 16- A.A.; Physical Soc. Minimum potential of electrical discharge from points; point discharge.
- Gorton, Dr. W(illiam) S(tuart)**, Bell Telephone Laboratories, 463 West St, New York, N. Y. *Physics*. Baltimore, Md, March 28, 89. A.B., Hopkins, 08, A.M., 10, fellow, 10-11, 13-14, Ph.D., 14. Instr. elec. eng, Mass. Inst. Tech, 11-13; physicist, Brady Inst, Hopkins Hosp, 14-17; assoc. physicist, Bur. Standards, 17-19; *research physicist*, West. Elec. Co, 19-25, *Bell Telephone Laboratories*, 25- Physical Soc. High voltage corona in air; X-rays; voltage transformers; submarine cable telegraphy.
- Gosline, Dr. H(arold) I(nman)**, Institute for Social Adjustment, 3923 Swiss Ave, Dallas, Texas. *Mental hygiene*. West Newton, Mass, July 2, 88. A.B., Harvard, 09, M.D., 14. Intern, Psychopathic Hosp, Boston, 14; asst. physician, Danvers State Hosp, 14-15; asst. and instr. neuropath, Harvard Med. Sch, 14-16; pathologist, Worcester State Hosp, 15-16; N. J. State Hosp, 17; pathologist, State Institutions, and clin. director, State Hosp. for Mental Diseases, R. I., 19-23; director and chief psychiatrist, Dallas Child Guidance Clinic, and prof. mental hygiene, col. med, Baylor, 23-26; *private practice*, 26- Exten. lecturer, Brown, 20-23; lecturer, South. Methodist, 24-26. Lieut, M.C., 17-18, capt, 18-19, major, 19, M.O.R.C., 20-24, lieut. col, 24- Am. Med. Ass.
- Goss, Dr. B(yron) C(assius)**, 1874 E. 59th St, Cleveland, Ohio. *Physical chemistry*. Rochester, Ind, March 27, 90. A.B., Wabash, 12; Ph.D., Princeton, 16; Columbia, 16. Instr. chem, Princeton, 13-17; asst. manager, exp. eng. dept, nat. elec. lamp works, Gen. Elec. Co, 19-22; *pres. and gen. manager, Lake Erie Glass Co.*, 22-; *pres. Lake Erie Chem. Co.*, 25-Summer, chemist, bur. chem, U. S. Dept. Agr, 14, consulting chemist, 16-17. Lieut. col, C.W.S., 17-19. Chem. Soc. Colloid chemistry; light production at low temperature; solution of tin by canned foods.

- Goss, H(arold)**, University of California, Berkeley, Calif. *Nutrition*. Salt Lake City, Utah. B.S., California, 18. Instr. nutrition, California, 18-25, junior chemist, *Exp. Sta.*, 25- Vitamin C content in concentrated orange juice; metabolism and vitamin E.
- Goss, Dr. R(obert) W(hitmore)**, University of Nebraska, Lincoln, Nebr. *Plant pathology*. Fall River, Mass., May 28, 91. B.S., Mich. State Col., 14, M.S., 15; Ph.D., Wisconsin, 23. Asst. plant path., Mich. State Col., 15-16; asst. prof., Delaware, and asst. plant pathologist, *Exp. Sta.*, 17-18; asst. pathologist, cereal office, bur. plant indust., U. S. Dept. Agr., 19-20; asst. prof. *plant path.*, Nebraska, and asst. plant pathologist, *Exp. Sta.*, 20-23, *assoc. prof. and assoc. plant pathologist*, 23- A.A.; Phytopath. Soc.; Bot. Soc. Potato diseases; virus and degeneration diseases; environment and plant disease.
- Goss, Dr. W(illiam) F(reeman) M(yrick)**, Barnstable, Mass. *Steam engineering*. Barnstable, Oct. 7, 59. Certificate, Mass. Inst. Tech., 79; hon. M.S., Wabash, 88; D.Eng., Illinois, 04. Instr. mech. arts, Purdue, 79-83, prof. practical mech., 83-89, exp. eng., 89-07, director eng. lab., 99-07, dean sch. eng., 00-07; dean col. eng. and director sch. railway eng. and administration, Illinois, 07-17, director eng. exp. sta., 09-17; pres. Ry. Car Manufacturers Ass., 17-25. Chief engineer, Chicago Ass. Commerce Committee, 13-16. Jury awards, Columbian Expos., 93; exec. committee, Nat. Advisory Board Fuels and Struct. Materials, 06-; chairman, Eng. Foundation, 19-20. A.A.; Mech. Eng. (past pres); Elec. Eng.; Eng. Educ.; West. Soc. Eng.; West. Ry. Club; Ind. Acad.; Ill. Acad.; Ill. Soc. Eng. and Surv.; Int. Ass. Test. Mat. Locomotive testing plants; economic performance of locomotive; high pressure in locomotive service; superheated steam in locomotive service; car-axes; friction brakes; front-end arrangement of locomotive; fuel briquets in locomotive service; power transmission by friction wheels; graphite as a lubricant; smoke abatement.
- Gossard, Prof. H(arry) C(linton)**, Laramie, Wyo. *Mathematics*. Helena, Ohio, March 13, 84. B.S., Ohio Northern, 07; fellow, Hopkins, 12-13, Ph.D., 13. Instr. math., Oklahoma, 13-14, asst. prof., 14-16; instr. U. S. Naval Acad., 17-18; asst. prof., Oklahoma, 18; south. student sec'y, int. committee, Y. M. C. A., 19-21; prof. math. and head dept., Wyoming, 21-25; *student sec'y*, Nat. Council, Y. M. C. A. Rocky Mt. area, 26- A.A.; Math. Soc.; Math. Ass. Geometry; secondary mathematics; pedagogy.
- Gotthelf, Dr. August H(enry)**, Hastings-on-Hudson, N. Y. *Chemistry*. New York, N. Y., Sept. 7, 76. B.S., Columbia, 97, A.M., 98, Ph.D., 00. Chemist, U. S. Pharmacopœia Revision Committee on Inorganics, 02-05; research chemist, Schieffelen and Co., 05-07; with Dr. Leo H. Baekeland, 08-22; Gen. Bakelite Co., 10-22. Chem. Soc.; Chem. Gesell. Action of nitrils on organic acids; condensation products of phenols and formaldehyde; bakelite.
- Gottschalck, Prof. C(arl) A(ugust)**, 1126 Ninth St., N., Fargo, N. Dak. *Chemistry*. Bozeman, Mont., March 4, 86. B.S., M.S., Montana, 10; Hopkins, 17-18. Chemist, Washoe Copper Co., Mont., 09; asst. chem., Montana, and analyst, State Food and Drug Lab., 11-17; asst. to Prof. E. E. Miller, Hopkins, 17; research chemist, Aetna Explosive Co., 18-19; *prof. chem.*, N. Dak. Col., 19- Prof. Mt. Vernon Collegiate Inst., Md.; collaborator, Reclamation Service, U. S. Geol. Surv.
- Goucher, Frederick S(hand)**, Bell Telephone Laboratories, 463 West St., New York, N. Y. *Physics*. Truro, N. S., Can., Sept. 30, 88. B.A., Acadia, 09; A.B., Yale, 11, A.M., 12; Ph.D., Columbia, 17. Research assoc., Columbia, 16-17; engineer, West. Elec. Co., 17-18; research, Univ. Col., London, Eng., 19; research physicist, research laboratories, Gen. Elec. Co., Ltd., N. Wembley, Eng., 19-26; *Bell Telephone Research Laboratories*, 26- Ionization by electron impact; plastic deformation of single metallic crystals.
- Goudge, Dr. Mabel Ensworth**, 1210 Virginia Ave., Durham, N. C. *Psychology*. Halifax, N. S., Can., July 10, 85. B.A., Dalhousie, 08, M.A., 09; Sage fellow, Cornell, 13-14, Ph.D., 14; M.D., Ohio State, 22. Instr. psychol., Ohio State, 15-18, asst. prof., 18-19; intern, *Watts Hosp.*, 22-23, *physician and clin. psychologist*, 25- Columbus State Hosp., Ohio, 22. Psychol. Ass.; Am. Med. Ass.; S. Soc. Philos. and Psychol. Psychopathology.
- Gould, Dr. Cha(rle)s N(ewton)**, University of Oklahoma, Norman, Okla. *Geology, Engineering*. Lower Salem, Ohio, July 22, 68. B.S., Southwest. Col., 99; A.M., Nebraska, 00, Ph.D., 06. Instr. geol., Oklahoma, 00-03, prof. geol. and miner, 03-11; consulting geologist, 11-24; *director*, Okla. Geol. Surv., 08-11, 24- Res. hydrographer, U. S. Geol. Surv., 02-05; chairman, Okla. Conservation Commission, 07-11. V. pres., Am. Mining Cong., 06-08. A.A.; Geol. Soc.; Min. Eng.; Paleont. Soc.; Inst. Petrol. Technol.; Ass. Petrol. Geol.; Min. and Metal. Eng.; Okla. Acad. (pres, 12, v. pres, 24); Royal Soc. Arts. Water, oil, gas and coal resources of Oklahoma and adjacent states.
- Gould, Dr. Harley N(athan)**, Tulane University, New Orleans, La. *Anatomy*. West Springfield, Pa., Oct. 17, 87. A.B., Allegheny, 10; A.M., Princeton, 14, Ph.D., 16. Instr. zool., California, 16-17; asst. prof. anat., West Virginia, 17-18; Pittsburgh, 18-19; prof. biol., Wake Forest, 20-22; asst. prof. anat., Tulane, 22-24, *prof. biol.*, 24- Ass. Anat.; Soc. Exp. Biol. Germ cells; sex determination; internal ear.
- Gould, H(arris) P(erley)**, U. S. Department of Agriculture, Washington, D. C. *Pomology*. North Bridgton, Maine, Sept. 6, 71. B.S., Maine, 93; M.S.A., Cornell, 97. Asst. horticulturist, Maine Exp. Sta., 93-96; asst., Cornell Exp. Sta., 97; N. Y. State inspector of nurseries, 98; asst. entomologist and asst. horticulturist, Md. State Dept. Hort. and Exp. Sta., 99-01; asst. pomologist, U. S. Dept. Agr., 01-07, *pomologist*, 07- Jury awards, La. Purchase Expos., 04. A.A.; Hort. Soc.; Soc. Hort. Sci.; Pomol. Soc.;

- Wash. Bot. Soc. Fruit production in the United States; fruit geography.
- Gould, H(enry) W(illiam)**, 1508 Hobart Building, San Francisco, Calif. *Metallurgy*. Seneca, Mo, Aug. 18, 82. High sch. *Manager, metallurgist and consulting engineer quicksilver mines*, 06- Min. and Metal. Eng. (committee, non-ferrous metals, 19-). Metallurgy of quicksilver.
- Gould, Dr. L(aurence) M(cKinley)**, University of Michigan, Ann Arbor, Mich. *Geology*. Lacota, Mich, Aug. 22, 96. B.S., Michigan, 21, A.M., 23, Sc.D., 25. Instr. *geol. Michigan*, 21-26, *asst. prof.*, 26- Asst. director and geologist, first Univ. Michigan Greenland exped, 26; geographer and topographer, Putnam Arctic exped, 27. A.A.; fel. Am. Geog. Soc; Mich. Acad. (chairman, geol. miner. sect, 25). Dynamical and structural geology; geology of the La Sal Mountains, Utah.
- Gould, Prof. Miriam C(aris)**, Vassar College, Poughkeepsie, N. Y. *Psychology*. Oberlin, Ohio, April 13, 89. A.B., Smith, 11; A.M., Pittsburgh, 13; American Univ. fellow, Columbia, 16-18. Instr. Pittsburgh, 13-16; psychologist, N. Y. Probation and Protective Ass, 17-20; asst. prof. *psychol.* Smith, 18-19; *asst. prof. and director personnel research bur.* Vassar, 20- Summer, psychologist, Post-Grad. Hosp, New York, 17; prof. sch. for social work, Smith, 25-; consulting psychologist, Oakwood Sch, 25- Collegiate personnel problems.
- Gould, Ralph A(mos)**, 216 Pine St, San Francisco, Calif. *Chemistry*. Ortonville, Mich, March 7, 76. B.S., California, 97. Chemist, U. S. Navy Yard, Mare Island, Calif, 99-04; chief food and drug inspection lab, bur. chem, U. S. Dept. Agr, San Francisco, 05-12; *chem. engineer*, 12- Sec'y, Selby Smelter Commission, 13-14. A.A.; Chem. Soc. (pres, Calif. sect, 11, counselor, 09, 15, 22-24); Chem. Eng. Utilization of wastes; process improvement and process control; organic technology.
- Goulden, Dr. C(yril) H(arold)**, Manitoba Agricultural College, Winnipeg, Man, Can. *Agronomy*. Bridgend, Wales, June 2, 97. B.S.A., Saskatchewan, 21, M.S.A., 23; Ph.D., Minnesota, 25. Cerealist, Saskatchewan, 21-23; *cereal specialist, rust research lab, Dominion Exp. Farms*, 25- Soc. Agron; Can. Soc. Tech. Agr. Cereal breeding for rust resistance.
- Gourley, Prof. J(oseph) H(arvey)**, Wooster, Ohio. *Horticulture*. Homer City, Pa, July 1, 83. B.S., Ohio State, 08, M.S., 15. Asst. horticulturist, Ohio Exp. Sta, 08-10, asst. prof. hort, Ohio State, 10-12; prof, New Hampshire, and v. director, Exp. Sta, 12-20; prof, West Virginia, 20-21; *chief hort, Ohio Exp. Sta*, 21- Ed. hort, 'Bot. Abstracts.' A.A.; Soc. Hort. Sci. (pres, 23). Fertilization in orchards; flower-bud formation; pomology; orchard management.
- Gouwens, Dr. Cornelius**, 109 Hyland Ave, Ames, Iowa. *Mathematics*. South Holland, Ill, May 22, 89. B.S., Northwestern, 10; A.M., Illinois, 11; fellow, Chicago, 18, Ph.D., 24. Instr. *math.* Iowa, 12-16; Kansas, 19-20; asst. prof, Iowa
- Col, 20-26, *assoc. prof.*, 26- A.A.; Math. Soc; Math. Ass; Iowa Acad. Invariants; group theory; algebra.
- Gowdy, Prof. R(obert) C(lyde)**, University of Cincinnati, Cincinnati, Ohio. *Physics*. Springfield, Ohio, March 10, 86. A.B., Cincinnati, 06, Hanna fellow, 06-09, A.M., 07, Ph.D., 09; Cambridge (Eng), 10; Col. de France, 11. Instr. *physics*, Lehigh, 12-13; *Cincinnati*, 13-15, asst. prof, 15-18, *assoc. prof.*, 18-20, *prof.*, 20-, acting dean grad. sch, 24-25, *asst. dean col. eng. and commerce*, 25- A.A.; assoc. Physical Soc; Soc. Illum. Eng; Ohio Acad. (v. pres, 25); Soc. de Physique. Electric waves; ionization; X-rays.
- Gowen, J(ohn) W(hittemore)**, Rockefeller Institute, Princeton, N. J. *Biology*. Sept. 5, 93. B.S., Maine, 14, M.S., 15; Ph.D., Columbia, 17. Biologist, Exp. Sta, Maine, 17-26; *Rockefeller Inst, Princeton*, 26- A.A.; Soc. Nat; Soc. Animal Production. Genetics; physiology; dairy science; highway engineering; education; psychology.
- Grabau, Dr. A(madeus) W(illiam)**, 5 Tau Ya Tsai Hutung, W, Peking, China. **Paleontology, Stratigraphy*. Cedarburgh, Wis, Jan. 9, 70. B.S., Mass. Inst. Tech, 96; M.S., Harvard, 98, fellow, 98-99, Sc.D., 00. Asst. paleont, Mass. Inst. Tech, 92-96, instr. paleont. and asst. geol, 96-97; instr. geol, Rensselaer, 99-00, prof, 00-01; lecturer paleont, Columbia, 01-02, adjunct prof, 02-05, *prof.*, 05-19; *National Univ. Peking, and chief paleontologist, Chinese Geol. Surv.*, 20-; dean, *Peking Lab. Nat. Hist.*, 25- Guide and lecturer, museum, Boston Soc. Nat. Hist, 92-00; lecturer, Tufts, 00-01. Seventh Int. Zool. Cong. (sec'y, sect. paleozool). A.A.; Geol. Soc; Paleont. Soc; fel. N. Y. Acad. (v. pres, sect. geol. and miner, 06-07); Geol. Soc. China (councilor, 22-25, v. pres, 25); Sci. Soc. China; Peking Soc. Nat. Hist. (councilor); hon. mem. China Inst. Min. and Metal. Salt, oil and gas geology; applied stratigraphy; North American index fossils; geology of non-metallic mineral deposits other than silicates; succession of faunas in middle Devonian of United States; phylogeny of invertebrates, chiefly Gastropoda; Hamilton faunas of Michigan; stratigraphy of China; Chinese fossils.
- Grabner, Howard T.**, Digestive Ferments Co, Detroit, Mich. *Chemistry*. Peoria, Ill. B.S., Illinois; B.S., Mass. Inst. Tech. Research chemist, Parke, Davis and Co, 03-10; *chief chemist, Digestive Ferments Co*, 10-, v. pres. and director chem. lab. Lecturer, Detroit Inst. Tech. assoc, Naval Consulting Board. Chem. Soc; Pharmaceut. Ass; Ass. Study Int. Secretions; Detroit Soc. Chem. (pres, 10-12). Digestive ferments; ductless glands.
- Grabner, Prof. L(aurence) F(rederick)**, University of Wisconsin, Madison, Wis. *Agronomy*. Mineral Point, Wis, March 5, 87. B.S., Wisconsin, 10, M.S., 12. *Prof. agron, Wisconsin*, 13- A.A.; Soc. Agron. Forage crops; root reserves of herbaceous plants; winter killing; relation of cutting treatments to the growth, varieties and permanence of alfalfa.

- Graber, Prof. M(yron) Earle**, Morningside College, Sioux City, Iowa. *Mathematics, Physics*. Mt. Eaton, Ohio, July 25, 80. A.B., Heidelberg (Ohio), 01, A.M., 04; fellow, Chicago, 17-18; Ph.D., Iowa, 24. Instr. math., Heidelberg (Ohio), 03-05, *prof. physics*, 05-19; *Morningside*, 19- A.A.; Math. Soc.; Physical Soc.; fel. Iowa Acad.; fel. Ohio Acad.; Circolo Mat. di Palermo. Mathematical theory of projectiles; cyclidal surfaces; non-analytical functions in mathematics and physics; optical properties of zinc and manganese crystals.
- Grabfield, G(ustave) Philip**, 23 Bay State Road, Boston, Mass. *Pharmacology, Medicine*. Cincinnati, Ohio, Sept. 28, 92. A.B., Williams, 12; M.D., Harvard, 15. Instr. *pharmacol. and asst. med.*, Harvard Med. Sch. Physician, Boston Dispensary; assoc., Peter Bent Brigham Hosp.; consultant, Boston Psychopath. Hosp. and U. S. Vet. Bur. A.A.; fel. Am. Med. Ass.; Soc. Pharmacol.; Soc. Clin. Invest. Path of faradic sensibility; pulmonary conditions; effects of endocrine products; effects of iodides on nitrogen metabolism.
- van der Gracht, Dr. W(illiam) A. J. M. (van Waterschoot)**, Marland Oil Co, Ponca City, Okla. *Geology*. Amsterdam, Holland, May 15, 73. D. at Law, Amsterdam, 99; E.M., Sch. Mines, Freiberg, 05; hon. Sc.D., Colo. Sch. Mines, 24. Director, Netherlands Geol. Service, 05-17; pres., Roxana Petrol. Co, 17-21; *v. pres.*, Marland Oil Co, 22- Sec'y, Netherlands Bureau of Mines Council, 05-17. Adviser, Netherlands Colonial Govt. exped., D. E. I., 09-10; consultant mining companies' expeditions to S. America, Africa and Canada. Int. Geol. Cong. A.A.; Ass. Petrol. Geol.; Petrol. Inst.; Min. and Metal. Eng.; Okla. Acad.; fel. London Geol. Soc.; Geol. Gesell.; Netherlands Geol. Soc. (pres, 13); Soc. Belge de Geol. Subsurface geology of the Netherlands and adjacent territory of northwestern Europe; the North Sea basin; geology of North America and the Dutch East Indies; salt domes of the gulf coast of Texas and Louisiana.
- Grady, Prof. R(oy) I.**, 722 N. Bever St, Wooster, ton St, Chicago, Ill. *Ophthalmology*. Chicago, 83. A.B., Michigan, 06; M.D., Rush Med. Col, 08; Vienna, Prague, London, 09-10. *Post-Grad. Med. Sch., Chicago*, 15- Attending ophthal. surgeon, Cook Co. and Michael Reese Hospitals. Col., M.O.R.C. A.A.; Am. Med. Ass.; Ophthal. Soc.; Acad. Ophthal. and Oto-Laryngol.; Heidelberger Ophthal. Gesell. Blood condition in sympathetic ophthalmia; the blind spot.
- Grady, Prof. R(oy) I.**, 722 N. Bever St, Wooster, Ohio. *Chemistry*. Wooster, Dec. 18, 90. B.S., Wooster, 16; M.S., Ohio State, 18, fellow, 22-23, Ph.D., 23. Dairy chemist, Ohio Exp. Sta., 16-18; instr. *chem.*, Wooster, 18-20, asst. prof., 20-22, *prof. and head dept.*, 23- Chem. Soc.; Ohio Acad. Precise density determinations; influence of temperature on concentration of dilute solutions; determinations of the components of petroleum fractions.
- Graenicher, Dr. S(igmund)**, South Miami, Fla. *Zoology*. Natchez, Miss., April 29, 55. Ph.D., Bâle, 84; M.D., Munich, 88. A.A.; Entom. Soc. Amer; Wis. Nat. Hist. Soc. Animal behavior; pollination of flowers by insects; life history of bees and their parasites.
- Graf, J(ohn) E(nos)**, 1808 Eye St, N. W., Washington, D. C. *Entomology*. Banning, Calif., May 28, 89. A.B., Pomona, 10, 11-12. Asst. entom., bur. entom., U. S. Dept. Agr., 11-15; entomologist, Ky. Tobacco Products Co, 16; *bur. entom.*, U. S. Dept. Agr., 17-, in charge truck crop insect investigation, 23-26, *senior entomologist*, 26- Mem. Fed. Hort. Board, 26- A.A.; Ass. Econ. Entom.; Cotton States Entom. Soc.; Wash. Entom. Soc.; Fla. Entom. Soc.; La. Entom. Soc.; Wash. Biol. Soc.; Wash. Acad. Economic entomology; potato tuber-moth; sugar-beet wireworm; sweet-potato weevil eradication.
- Graff, Prof. Paul W(eidemeyer)**, Columbia University, New York, N. Y. *Botany*. Indianapolis, Ind., Oct. 10, 80. B.S., Conn. Col., 07; A.M., Columbia, 16. Austin teaching fellow, Harvard, 07-09; asst. bot., Kansas Col. and plant pathologist, Exp. Sta., 09-11; mycologist, Bur. Science, P. I., 11-14; instr. *bot.*, Montana, 16-18, asst. prof., 18-26; *Edna L. Smith fellow*, Columbia, 27- A.A.; Bot. Soc.; Phytopath. Soc. Cryptogamic botany; mycology.
- Graham, Duncan (Archibald Lamont)**, 1 Queen's Park, Toronto 5, Ont., Can. *Medicine*. Ivan, Ont., 82. M.B., Toronto, 05. Lecturer bacter., Toronto, 11-15, *prof. med. and physician-in-chief*, Toronto Gen. Hosp., 19- M.C., C.E.F., 15-19. Am. Physicians; Soc. Clin. Invest.; Can. Med. Ass. Carbon monoxide poisoning; tuberculosis; bacillary dysentery; endocarditis; diseases of the blood.
- Graham, Prof. Evarts A(mbrose)**, Washington University School of Medicine, St. Louis, Mo. *Surgery*. Chicago, Ill., March 19, 83. A.B., Princeton, 04; M.D., Rush Med. Col., 07, fellow, 07-09, Chicago. Intern, Presb. Hosp., Chicago, 07-08; asst. *surg.*, Rush Med. Col., 10-14, instr., 14-19; *prof. sch. med.*, Washington (St. Louis), 19- Harvey lecturer and Mütter lecturer, 24; surgeon-in-chief, Barnes Hosp. and St. Louis Children's Hosp.; temporary surgeon-in-chief, Peter Bent Brigham Hosp., 25. Co-editor, 'Archives of Surg.', 20- Gross prize, 20; gold medal, Radiol. Soc. N. Amer., 25; Leonard research prize, Am. Röntgenol. Soc., 25. Major, M.C. A.A.; Surg. Ass.; Col. Surg.; Am. Med. Ass. (chairman, surg. sect., 25); Ass. Path. and Bact.; Soc. Clin. Invest.; St. Louis Ass. Surg. (pres, 25). Experimental surgery; effects of anesthetics on the body; liver infections; mechanics of the thorax; lung suppurations; cholecystography.
- Graham, Mrs. Evarts Ambrose (Dr. Helen Tredway)**, 4711 Westminster Place, St. Louis, Mo. *Chemistry*. Dubuque, Iowa, July 21, 90. A.B., Bryn Mawr, 11, A.M., 12; Göttingen, 12-13; Ph.D., Chicago, 15. *Asst. pharmacol.*, Hopkins, 18; Washington (St. Louis), 26- Chem. Soc.
- Graham, Dr. G(eorge) S(ellers)**, 2620 Madison Ave, Birmingham, Ala. *Pathology*. Camden, N. J., 79. B.L., Dartmouth, 02, M.D., 05, A.M., 13. Path. intern, Boston City Hosp., 05-06;

- instr. path. and bacter. med. sch., Dartmouth, 05-10; asst. prof. bacter., 10-13; prof. path., grad. sch. med., Alabama, 13-14; first asst., Boston City Hosp., 14-15, second asst. pathologist, 15-16; pathologist and director lab., Vancouver (B. C.) Hosp., 16-17; *prof. path.*, Albany Med. Col., 17-21; *grad. sch. med.*, Alabama, 21- Asst. bacteriologist, N. H. State Board Health, 07-13. Ass. Path. and Bact.; Soc. Clin. Path.; Am. Med. Ass. Fat embolism; primary carcinoma of appendix; ovarian pregnancy; toxic lesions of adrenal; staining technique for marrow cells and leucocytes; hemie basophil; experimental syphilis in rabbit; toxic changes in leucocytic granules; sickle cell anemia; vascular factor in appendicitis.
- Graham, Prof. H(arrington) B(idwell)**, 490 Post St., San Francisco, Calif. *Medicine*. Santa Barbara, Calif., April 9, 74. B.S., California, 96, M.D., 99. *Assoc. clin. prof. surg.*, Stanford, 13- A.A.; Am. Med. Ass. (v. pres. laryngol. sect., 24); Laryngol. Rhinol. and Otol. Soc.; Acad. Ophthalm. and Oto-Laryngol.; cor. mem. Soc. Belge de Otol. Otology; rhinology; laryngology.
- Graham, James C(handler)**, Andover, Mass. *Geology, Chemistry*. Brooklyn, N. Y., June 14, 68. B.S., Wesleyan, 90, 90-93. *Instr. chem.*, Phillips Acad., 93- Asst., U. S. Geol. Surv., 90-91. A.A.; Chem. Soc. Sand transportation; artificial geysers.
- Graham, Prof. John Y(oung)**, University, Ala. *Biology*. Montgomery, N. Y., Dec. 31, 69. B.S., Princeton, 92, M.S., 94; Ph.D., Munich, 97. *Prof. biol.*, Alabama, 97- A.A.; Soc. Zool.; Boston Soc. Nat. Hist. Trichina spiralis.
- Graham, Dr. Margaret A(lexander)**, Hunter College, New York, N. Y. *Botany*. Jersey City, N. J., Sept. 23, 76. A.B., Cornell, 08, A.M., 09, Ph.D., 12. Substitute, Randolph-Macon Woman's Col., 09-10; instr. bot., Teachers Col., Columbia, 12-14; Hunter, 15-21, asst. prof., 21-24, *assoc. prof.*, 24- A.A.; Bot. Soc.; Torrey Bot. Club. Cytology and morphology of the liverworts.
- Graham, Prof. Minnie A(lmira)**, Dominican College, San Rafael, Calif. *Chemistry*. Lockport, N. Y., Sept. 17, 75. A.B., Mt. Holyoke, 00, Mt. Holyoke fellow, Michigan, 05-06, A.M., 06; fellow, Bryn Mawr, 06-07, 10-11, fellow by courtesy, 11-12, Ph.D., 12. Instr. chem., Mt. Holyoke, 02-05; prof., Lake Erie, 07-10, 12-13; acting prof., Wells, 13-15; instr., Wellesley, 15-17; abstractor and librarian, research dept., Gen. Chem. Co., 17-20; instr. chem., Hunter, 20-21; acting prof., Wells, 21-22; *assoc. prof.*, Mills, 22-27; *lecturer*, Dominican Col., 27- A.A.; Chem. Soc. Laboratory methods in electrochemistry.
- Graham, R(ichard) P(ercival) D(evereux)**, McGill University, Montreal, Que., Can. *Geology*. Co. Kildare, Ireland, June 14, 80. B.A., Oxford; M.Sc., McGill. *Prof. miner.*, McGill. Miner. Soc.; fel. Royal Soc. Can.; Miner. Soc. Gt. Britain and Ireland. Mineralogy; crystallography; economic geology.
- Graham, Prof. Robert**, 1010 S. Busey St., Urbana, Ill. *Animal pathology, Hygiene*. Ames, Iowa, 88. B.S.; D.V.M., Kentucky. *Prof. animal path. and hygiene*, Illinois. Capt., V.C. Soc. Bact.; Vet. Med. Ass.; U. S. Live Stock Ass.; Ill. Acad. Food poisoning in animals.
- Graham, Dr. Samuel A(lexander)**, University of Minnesota, St. Paul, Minn. *Entomology*. Salisbury, Md., March 22, 91. B.S., Minnesota, 14, Ph.D., 21; M.F., Cornell, 16. Asst., Cornell, 14-16; *Minnesota*, 16-18, instr. entom., 18-22, *asst. prof.*, 22- Entom. branch, Can. Dept. Agr., 19. A.A.; Entom. Soc.; Soc. Econ. Entom.; Ecol. Soc.; Soc. Foresters. Forest entomology; ecology of wood-boring insects; defoliators of conifers; forest insects.
- Graham, William A(rmstrong) P(atterson)**, State University of Iowa, Iowa City, Iowa. *Economic geology*. Philadelphia, Pa., 99. A.B., 23, M.S., 24. *Instr. econ. geol.*, Macalester, 23-24; Minnesota, 24-25; Iowa, 25- Minnesota Geol. Surv., 24. Enrichment of phosphate deposits; hornblendes.
- Graham, W(illiam) J(oseph)**, Equitable Life Assurance Society, 393 Seventh Ave., New York, N. Y. *Life insurance*. Jefferson Co., Ky., Sept. 23, 76. Xavier (Ky.); St. Francis Xavier (N. Y.). Actuary, Sun Life Ins. Co., 95-02; Metropolitan Life Ins. Co., 02-05; in charge of examination, N. Y. Life Ins. Co., 05-06; v. pres., actuary and director, Northwest. Nat. Life Ins. Co., 06-11; west. supt., *Equitable Life Assurance Soc.*, 11-12, supt. departments of group insurance, monthly premium and home purchase, New York, 12-20, *second v. pres.*, 20- Consulting actuary, Am. Sch. of Insurance. Int. Cong. Arts and Sciences, St. Louis, 04; Int. Cong. Math., Heidelberg, 04; Int. Cong. Actuaries, Berlin, 06; Int. Cong. Med. Directors, Berlin, 06. A.A.; Math. Soc.; Statist. Ass.; fel. Actuarial Soc.; Casualty, Actuarial and Statist. Soc.; Circolo Mat. di Palermo.
- Graham, Dr. W(illiam) P(ratt)**, 1205 Harrison St., Syracuse, N. Y. *Physica*. Oswego, N. Y., Nov. 24, 71. B.S., Syracuse, 93; Ph.D., Berlin, 97; Darmstadt Polytech., 97-98. *Assoc. prof. elec. eng.*, Syracuse, 98-01, prof., 01-22, dean col. applied science, 11-22, v. *chancellor*, 22- Astron. Soc.; Math. Gesell. Distribution of potential in vacuum tubes; nature of the electric spark; electrical engineering.
- Granger, Dr. Amédée**, 921 Canal St., New Orleans, La. *Röntgenology*. New Orleans, March 23, 79. M.D., Tulane, 01. *Prof. radiol.*, *grad. sch. med.*, Tulane. Director X-ray dept., La. Charity Hosp. Collaborator radiol. Medalist, Radiol. Soc. N. Amer. Officier, Acad. Française. A.A.; Am. Col. Radiol.; Röntgen Ray Soc.; N. Am. Radiol. Soc.; Am. Med. Ass.; hon. mem. Texas X-ray Soc.; La. X-ray Soc. (past pres). X-ray examination of the sphenoids and mastoids; localization of foreign bodies by means of X-rays.
- Granger, Walter**, American Museum of Natural History, New York, N. Y. *Vertebrate paleontology*. Middletown Springs, Vt., Nov. 7, 72. High sch., Rutland, Vt. Asst., dept. taxid., Am. Museum Nat. Hist., 90-96, dept. vert. paleont.,

- 96-09, asst. curator, 09-11, assoc. curator, 11-26, *curator fossil mammals*, 27- Geol. Soc.; Soc. Mammal; Paleont. Soc.; assoc. mem. Ornith. Union; N. Y. Linnean Soc. (sec'y, 97-04, v. pres, 04-06, 19). Vertebrate paleontology; Eocene stratigraphy and fauna.
- Granovsky, Dr. A(lexander) A(nastacievitch)**, University of Wisconsin, Madison, Wis. *Economic entomology*. Berezey, Ukraine, Russia, Nov. 4, 87. Kiev Inst, 08-09; B.S. Colo. Agr. Col, 18; Sorbonne, 19; M.S. Wisconsin, 23, Ph.D, 26. Teacher and prin, high schools, Colo, 19-22; instr. *econ. entom.* Wisconsin, 22-26, *asst. prof. and asst. entomologist*, 26- Asst. farm manager, Ukraine. A.A.; Ass. Econ. Entom; Entom. Soc.; Ecol. Soc.; Phytopath. Soc.; Soc. Agron; Wis. Acad; Ont. Entom. Soc. Biology and control of grasshoppers; insects in relation to plant diseases; intracellular symbionts of coccids; taxonomy of Aphididae.
- Grant, Dr. Adele Lewis**, Cornell University, Ithaca, N. Y. *Botany*. Carpinteria, Calif, July 3, 81. B.S. California, 02; Stanford, 16-17; A.M. Washington (St. Louis), 20, Ph.D, 23. Teaching fellow, Washington (St. Louis), 18-20; *instr. bot.* Cornell, 20- Instr. Sierra Summer Sch, 17, 18, 20. A.A.; Bot. Soc.; Ornith. Union; Calif. Bot. Soc. Taxonomy and morphology of Mimulus and allied genera.
- Grant, Prof. Elmer D(aniel)**, 330 College Ave, Richmond, Ind. *Mathematics*, *Physics*. Delhi, N. Y., Feb. 25, 73. A.B. Colgate, 95; A.M. Chicago, 97, Ph.D, 16. Instr. math, Lewis Inst, 96-99; math. and physics, Mich. Col. Mines, 00-04, asst. prof, 04-20; *head dept. math.* Earlham, 20-, *registrar*, 23- Math. Ass.
- Grant, Prof. U(lysses) S(herman)**, Evanston, Ill. **Geology*. Moline, Ill, Feb. 14, 67. B.S. Minnesota, 88; Ph.D, Hopkins, 93. Asst. state geologist, Minn, 93-99; *instr. geol.* Minnesota, 97-98; *prof. geol. and curator museum, Northwestern*, 99-, acting dean col. liberal arts, 07-08, 16-19. Geologist, Wis. Geol. and Nat. Hist. Surv, 99-07; U. S. Geol. Surv, 04-25; Oregon Bur. Mines, 13-15; consulting geologist, Ill. Geol. Surv, 05- Assoc. ed, 'Am. Geologist', 97-05. A.A. (v. pres, E, 15); Geol. Soc.; Soc. Econ. Geol; Min. and Metal. Eng. Petrographic and economic geology of the iron and copper districts of the Lake Superior region and the lead and zinc district of Wisconsin and Illinois; ore deposits of Prince William Sound and Kenai peninsula, Alaska; glaciers of Alaska; gas in Illinois; iron ores in Wyoming; gold in Oregon.
- Grantham, Prof. A(rthur) E(lliott)**, Virginia-Carolina Chemical Co, Richmond, Va. *Agronomy*. Ladoga, Ind, June 1, 77. A.B. Indiana, 03; B.S.A. Missouri, 05. Instr. agron, Missouri, and asst. agronomist, Exp. Sta, 05-07; prof, Del. Col. and agronomist, Exp. Sta, 07-19; *director agr. service bur.* Virginia-Carolina Chem. Co, 20- A.A.; Soc. Agron; Bot. Soc.; Farm Econ. Ass; Va. Acad. Agricultural botany.
- Grantham, Dr. G(uy) E(verett)**, Annapolis, Md. *Physics*. Ladoga, Ind, Feb. 1, 86. A.B. In-
- diana, 09, A.M, 13; Ph.D, Cornell, 20. Instr. *physics*, Purdue, 09-15; Cornell, 15-17; assoc. prof, Agr. and Mech. Col. Texas, 20-21; asst. prof, *post-grad. sch.* U. S. Naval Acad, 21-25, *assoc. prof.*, 25- Capt, Sig.C, 17-19. A.A.; Physical Soc. Infra-red absorption spectra of glasses and alkali hydroxids; selenium resistance.
- Granville, Dr. W(illiam) A(nthony)**, The Washington Fidelity National Insurance Co, 1607 Howard St, Chicago, Ill. *Mathematics*. White Rock, Minn, Dec. 16, 63. Ph.B, Yale, 93, Ph.D, 97; LL.D, Lafayette, 11, Muhlenberg, 20. Instr. math, Yale, 94-10; pres, Gettysburg, 10-23; educ. director, U. S. Nat. Life and Casualty Co, 23-26; *director publications*, Washington Fidelity Nat. Ins. Co, 26- Lecturer, Minnesota, 10. Trustee, Gettysburg, 10- A.A.; Math. Soc.; Am. Geog. Soc.; Ins. Econ. Soc. (pres, 22-); Soc. Swedish Eng. Differential and integral calculus; elementary analysis; plane and spherical trigonometry; addition theorem in elliptic functions; accident and health insurance.
- Grasty, Dr. J(ohn) S(harshall)**, Charlottesville, Va. *Geology*, *Mineralogy*. Versailles, Ky, March 15, 80. A.B. Hopkins, 02, Ph.D, 08; Mass. Inst. Tech, 03; Washington and Lee, 03-04; Sc.D, Washington (Md). Asst. U. S. Geol. Surv, 05; Md. Geol. Surv, 06-07; adjunct prof. geol. and miner, Virginia, 08-13, assoc. prof. geol, 13-16; prof. mining geol, Washington and Lee, 16-18. Asst. state geologist, Va. Geol. Surv, 08-16; petrol. geologist and director mining companies. Ordnance dept, U.S.A, 17-18. A.A.; fel. Geol. Soc; fel. Am. Geog. Soc; Min. and Metal. Eng; Min. Eng; Mil. Eng. Limestone and cement materials of Maryland; iron and coal in the southern states; origin, structure and occurrence of Virginia slates and associated rocks; petroleum geology in Pennsylvania, West Virginia, Kentucky and the Mid-continent field; potash-bearing iron ores; examinations and appraisal of mineral properties and mine and quarry operations.
- Graton, Prof. L(ouis) C(aryl)**, Cambridge, Mass. **Geology*. Parma, N. Y, June 10, 80. B.S. Cornell, 00, fellow, 02-03; McGill, 00-02. Demonstrator, McGill, 00-02; geologist, Ont. Crown Lands Exploring Exped, 02; U. S. Geol. Surv, 03-09; sec'y, Copper Producers' Ass, 09-14; asst. prof. *mining geol.* Harvard, 10-12, *prof.*, 12- Expert mine valuation, U. S. Revenue Bur, 19-20; finance committee on geol, Nat. Research Council, 19-24, committee on geol, 25-; sec'y, Copper Producers Committee for War Service, 18. Min. and Metal. Eng; Min. and Metal. Soc; Geol. Soc. (councilor, 21-23); Soc. Econ. Geol. (councilor, 22-24); Am. Acad. (councilor, 26-); Wash. Acad; Wash. Geol. Soc. Mining geology; ore deposition; secondary enrichment.
- Gratz, Dr. L(evi) O(tto)**, University of Florida, Gainesville, Fla. *Plant pathology*. Bluffton, Ohio, Jan. 29, 94. A.B, 15; fellow, Cornell, 20-22, Ph.D, 23. *Asst. plant pathologist*, Exp. Sta, Florida, 23- Summer, asst. exten. pathologist, Pa. State, 22. A.A. Phytopathology; wire stem of cabbage; potato diseases.

- Graul, Prof. E(dward) J(ohn)**, University of Wisconsin, Madison, Wis. *Soils*. Independence, Wis, March 23, 83. Northwestern Col; Lawrence; B.S, Wisconsin, 11, M.S, 18. Wis. Soil Surv, 11-12; instr. *soils*, Wisconsin, 12-16; chemist, Wis. Soils Lab, 16-20; *asst. prof*, Wisconsin, 20-26, *assoc. prof*, 26- Soc. Agron; Chem. Soc; Am. Geog. Soc; Int. Soc. Soil Sci. Nitrogen fixation in soils by symbiotic nitrogen fixing bacteria.
- Graustein, Dr. Mary Curtis (Mrs. William C)**, Wellesley College, Wellesley, Mass. *Mathematics*. Westminster, Mass, April 12, 84. A.B, Wellesley, 06; Leipzig, 10-11; A.M, Radcliffe, 15, Ph.D, 17. Instr. *math*, Wellesley, 11-14; Western Reserve, 17-18; *Wellesley*, 18-20, *asst. prof*, 20- Math. Soc. Functions of elliptic cylinders; point transformations.
- Graustein, Dr. W(illiam) C(aspar)**, Harvard University, Cambridge, Mass. **Mathematics*. Cambridge, Nov. 15, 88. A.B, Harvard, 10, A.M, 11, traveling fellow, Bonn, 11-13, Ph.D, 13. Instr. *math*, Harvard, 13-14; Rice Inst, 14-16, *asst. prof*, 16-18; lecturer, *Harvard*, 19, *asst. prof*, 19-26, *assoc. prof*, 26- Math. Soc; Math. Ass; Am. Acad; Math. Verein; Circolo Mat. di Palermo. Geometry.
- Gravatt, Mrs. Annie R(athbun)**, 105 Leland St, Chevy Chase, Md. *Forest pathology*. West Greenwich, R. I, May 15, 94. A.B, Brown, 16, M.S, 18. Collaborator, field *asst.* and *asst. forest path.* and *junior pathologist*, *office forest path*, *bur. plant indust*, U. S. Dept. Agr, 16- Assoc. ed, 'Phytopathology,' 26- Phytopath. Soc. Damping off of conifers; white pine blister rust.
- Gravatt, G(eorge) F(lippo)**, U. S. Department of Agriculture, Washington, D. C. *Plant pathology*. Roanoke, Va, April 27, 91. B.S, Va. Polytech, 11, M.S, 12. *Office of investigations in forest path*, U. S. Dept. Agr, 12- A.A; Phytopath. Soc; Soc. Foresters; Forestry Ass; Wash. Bot. Soc. Plant breeding; chestnut blight; white pine blister rust; maple wilt.
- Grave, Prof. B(enjamin) H(arrison)**, Wabash College, Crawfordsville, Ind. *Zoology*. Monrovia, Ind, 78. B.S, Earlham, 03; M.S, Carleton, 06; fellow, Hopkins, 09-10, Ph.D, 10. Instr. biol, Carleton, 04-06; *asst. prof*, Earlham, 08-09; *prof. zool*, Wyoming, 10-13; biol, Knox, 13-20; *zool*, *Wabash*, 20- A.A; Soc. Zool. Lamellibranchiata and annelids; anatomy, physiology and embryology of Pinna seminuda; recent changes of Wyoming fauna; life history of Zeugophora scutellaris and Teredo navalis; natural history of Bugula; embryology and breeding habits of Chiton; lunar periodicity in spawning; rate of growth and age at sexual maturity of sessile animals; the ootocyst of the Pinnidae; vitality of unfertilized gametes.
- Grave, Prof. Caswell**, Washington University, St. Louis, Mo. **Zoology*. Monrovia, Ind, Jan. 24, 70. B.S, Earlham, 95; Ph.D, Hopkins, 99, A. T. Bruce fellow, 99-01. *Asst.*, U. S. Fish Commission, 99-00; *asst. zool*, Hopkins, 01-02, *assoc*, 02-06, *assoc. prof*, 06-19; *Rebstock prof. and head dept*, *Washington (St. Louis)*, 19- Instr, Woods Hole, 01, instr. in charge, 12-19, board trustees, 20; director, U. S. Fisheries Lab, Beaufort, N. C, 02-06; prof, Goucher, 06; shellfish commissioner, Md, 06-12. Capt, C.W.S, 18. A.A; Soc. Nat; Soc. Zool. (sec'y-treas, 13-18, v. pres, 19). Embryology of echinoderms; experimental oyster culture; structure and activities of compound ascidians; coordinating and regulatory mechanism of ciliated epithelia.
- Grave, Dr. Thomas B(rooks)**, Edgewood Arsenal, Edgewood, Md. *Chemistry*. Richmond, Ind, Aug. 29, 98. A.B, Hopkins, 19, Ph.D, 23. Hynson, Westcott and Dunning fellow, 23-24; *asst. med*, Hopkins, 25-26; *assoc. chem*, *Chemical Warfare Service*, 26- Derivatives of pyridine and piperidine; catalytic hydrogenation.
- Graves, Dr. Arthur H(armount)**, Brooklyn Botanic Garden, Brooklyn, N. Y. *Botany*. New Haven, Conn, Jan. 22, 79. A.B, Yale, 00, Ph.D, 07; London, 14-15. *Asst. bot*, Sheffield Sci. Sch. and forest sch, Yale, 02-04, instr. forest bot, forest sch, 04-06, bot, Yale, 06-09, *asst. prof*, 09-14; *assoc. prof. biol*, Conn. Col. for Women, 16-17; *pathologist and collaborator*, *office investigations in forest path*, U. S. Dept. Agr, 18-; *curator pub. instruction*, *Brooklyn Bot. Garden*, 21- Collaborator, lab. forest path, bur. plant indust, U. S. Dept. Agr, 09-10. Ed, 'Brooklyn Bot. Garden Leaflets,' 21-; ed. board, 'Am. Jour. Bot,' 21-; *asst. ed. bot. educ. sect*, 'Bot. Abstracts,' 22-27, ed. plant sect. gen. biol, 27- A.A; Bot. Soc; Phytopath. Soc; Eugenics Soc; Torrey Bot. Club (sec'y, 24-); New Eng. Bot. Soc; Conn. Bot. Soc; Conn. Forestry Ass; N. Y. Forestry Ass. Morphology and physiology of fungi; North American forest trees and their diseases; disease resistance in the American chestnut.
- Graves, Dr. G(eorge) D(e Witt)**, 318 McLane St, Wilmington, Del. *Chemistry*. Owatonna, Minn, Feb. 11, 99. B.S, 20, M.S, 21, Ph.D, 23. *Research chemist*, Standard Oil Co. of Ind, 23-27; *E. I. du Pont de Nemours and Co*, 27- Organic and applied chemistry; petroleum chemistry; anthraquinone drugs.
- Graves, Dr. G(ordon) H(arwood)**, Purdue University, Lafayette, Ind. *Mathematics*. Logansport, Ind, July 10, 84. B.S, Earlham, 05; A.B, Haverford, 06; A.M, Columbia, 09, Ph.D, 14. Instr. *math*, George Sch, Pa, 06-08; Columbia, 11-15; *Purdue*, 15-20, *asst. prof*, 20- Math. Soc; Math. Ass. Algebraic curves.
- Graves, Prof. Henry S(olon)**, Yale Forest School, New Haven, Conn. *Forestry*. Marietta, Ohio, May 3, 71. A.B, Yale, 92, hon. A.M, 01; Harvard, 94-95, hon. A.M, 71; Munich, 95-96; LL.D, Syracuse, 23. *Asst. chief, div. forestry*, U. S. Dept. Agr, 98-00; *prof. forestry and director forest sch*, Yale, 00-01; chief forester, U. S. Forest Service, 10-20; consulting forester, 20-22; *dean forest sch*, Yale, 22-, provost, Yale, 23-27, *Sterling prof*, 27- Lieut. col, C.Eng; govt. div, Nat. Research Council. A.A; Soc. Foresters; Am. Geog. Soc; Conn. Acad; Wash. Acad; hon. mem. British and Scottish Arbor Societies. White pine; forest mensuration; principles of silviculture; factors affecting life of trees; public land and forest policies.

Graves, Dr. Lawrence M(urray), University of Chicago, Chicago, Ill. *Mathematics*. Topeka, Kans, Aug. 7, 96. A.B. Washburn, 18; A.M. Chicago, 20, fellow, 23-24, Ph.D. 24. Instr. *math*, Washington (St. Louis), 20-22; Nat. Research Council fellow, Harvard, 24-26; *asst. prof*, Chicago, 26- A.A.; Math. Soc. Calculus of variations; general analysis.

Graves, R(oy) R(alph), U. S. Department of Agriculture, Washington, D. C. *Dairy husbandry*. Cherokee, Kans, Oct. 8, 86. B.S. Kansas Col. 09; fellow, Missouri, 11-12, A.M. 12. Dairy husbandman, bur. animal indust, U. S. Dept. Agr, 12-13; prof. dairy husbandry, Oregon Col. 13-17; *in charge dairy cattle breeding investigations, bur. dairying, U. S. Dept. Agr*, 17- Growth, fertility, feeding, inheritance and type studies in dairy cattle.

Graves, Dr. Stuart, 101 W. Chestnut St, Louisville, Ky. *Pathology*. Boonville, N. Y, Feb. 6, 79. M.D. Syracuse, 11, A.B. 23. Path. intern, R. I. Hosp, 11-12; intern and second asst. path, Boston City Hosp, 12-13, first asst, 13-14; *prof. path. and bacter, dental dept, Louisville*, 18-22, *med. dept*, 14-, acting dean, 22-23, *dean*, 23- Pathologist, Louisville City Hosp, 14-, chairman hosp. staff, exec. committee, 23-; acting asst. surgeon, U. S. Pub. Health Service, 18-20. Med. advisory committee, Ky. Board Charities and Corrections, 20- Ass. Path. and Bact; Soc. Exp. Path; Ass. Cancer Research; fel. Col. Physicians; Ass. Immunol; Am. Med. Ass; S. Med. Ass. (chairman, sect, 23-24, sec'y, 25-); Int. Ass. Med. Mus. Bacteriology; serology.

Graves, Dr. William P(hillips), Harvard Medical School, Boston, Mass. *Gynecology*. Andover, Mass, June 29, 70. A.B. Yale, 91; M.D. Harvard, 99; Mass. Gen. Hosp, 00. Surgeon-in-chief, Free Hosp. for Women, Brookline, Mass, 08; *prof. gynec, Harvard Med. Sch*, 11-27, *W. H. Baker prof*, 27- Am. Med. Ass; Gynec. Soc; Cancer Research Soc; Col. Surg.

Graves, Dr. W(illiam) W(ashington), 5136 Enright Ave, St. Louis, Mo. *Neurology*. La Grange, Ky, 65. M.D. 88; Heidelberg, Berlin and Vienna, 01-04. Instr. *St. Louis*, 05-08, asst. prof, 08-13, assoc. prof, 13-14, *prof. nervous and mental diseases*, 14-, *director dept*, 24- A.A; Neur. Ass; Am. Med. Ass; St. Louis Neur. Soc. (pres, 19). The shoulder girdle; comparative osteology; heritable variation; experimental syphilis.

Gray, Dr. Arthur W(ellington), 3 Wahneta Drive, Bound Brook, N. J. *Physics*. Brooklyn, N. Y, Feb. 19, 75. A.B. California, 96, Whiting fellow, 02-04; Ph.D. Berlin, 04. Asst. physics, California, 97-99; teacher math, Wilmerding Sch. Indust. Arts, Calif, 00; head science and math, high sch, 00-02; research asst. to Prof. H. Kamerlingh Onnes, Leiden, 04-05; Whiting research instr. physics, California, 05-09; asst. physicist, Bur. Standards, 09-16; director physical research, The L. D. Caulk Co, Del, 16-25; *physicist, Calco Chem. Co*, 25- In charge exhib, Bur. Standards, Panama-Pacific Expos, 15. Preparatory commission, First Int. Commission, Ass. Int. du Froid, 13;

alternate delegate, Inst. Metals, to Second Pan-Am. Sci. Cong, 15. A.A; fel. Physical Soc; Optical Soc; Min. and Metal. Eng; Wash. Acad; British Inst. Metals; Royal Soc. Arts; Soc. de Physique. Ozonization; thermal expansivity; electrical conductivity; magnetostriction and magnetic induction; the electric furnace; micrometer microscopes; dental amalgams; scientific apparatus.

Gray, Dr. C(larence) T(ruman), 3202 West Ave, Austin, Texas. *Psychology*. Russell, Kans, Nov. 22, 77. A.B. Indiana, 04; A.M. Chicago, 11, Ph.D. 16. Instr. *educ. psychol, Texas*, 11-15, adjunct prof, 15-18, assoc. prof, 18-25, *prof*, 25- Research instr, Chicago, 16-17. Summers, Kansas, 18-20, Northwestern, 22, Cornell, 25. A.A; Psychol. Ass. Educational and experimental psychology.

Gray, Dean Dan(iel) T(homas), University of Arkansas, Fayetteville, Ark. *Agriculture*. Harrison Co, Mo, Jan. 27, 78. B.S. A.B. Missouri, 04; M.S. Illinois, 05. Prof. animal indust, Ala. Polytech, 05-13; N. C. State, 13-20; *dean col. agr*, Ala. Polytech, 20-23; *Arkansas*, 23- Ass. S. Agr. Workers (sec'y, 13-20, pres, 20). Animal nutrition.

Gray, Dr. Frank, Bell Telephone Laboratories, 463 West St, New York, N. Y. *Physics*. Alpine, Ind, Sept. 13, 87. B.S. Purdue, 11; M.S. Wisconsin, 13, Ph.D. 16. Asst. and instr. physics, Wisconsin, 11-18; *research physicist*, West. Elec. Co, 19-25, *Bell Telephone Laboratories*, 25- Research worker, U.S.N. Exp. Sta, 18-19. Physical Soc. Optical activity.

Gray, G(eorge) F(rancis), Gray Products, Inc, Poughkeepsie, N. Y. *Electrical engineering*. Wheelersburg, Ohio, May 24, 87. M.E. Ohio State, 09; Pittsburgh, 17. Student engineer, Gen. Elec. Co, 09-10, research worker and asst. director protective apparatus lab, 10-16; engineer, Standard Aniline Co, 16; fellow, Mellon Inst, 16-17; engineer, Nat. Aniline and Chem. Co, 19-24; asst. to pres, Dry Ice Corp, 24-25; chief engineer, Ware Radio Corp, 25-26; *pres, Gray Products, Inc*, 24- Capt, Sig.C, 17-19. A.A; Elec. Eng; Mech. Eng; N. Y. Eng. Club. Physics; electrophysics; thermal insulation; radio telegraphy and telephony; chemical manufacture; laboratory design; industrial research organization.

Gray, Harold F(arnsworth), 2114 Marin Ave, Berkeley, Calif. *Sanitary engineering*. San Francisco, Calif, June 29, 85. B.S. California, 07, M.S. 12, Grad.P.H. 15. Health officer, Palo Alto, Calif, 13-16; state dist. health officer, Calif. State Board Health, 17-19; chief div. sanit. eng, N. Mex. State Bur. Pub. Health, 19-23; *consulting sanit. and hydraul. engineer*, 26- A.A; Civil Eng. Public health; infectious diseases.

Gray, Harry LeB(reton), 38 Albemarle St, Rochester, N. Y. *Chemistry*. Springfield, Mass, June 11, 76. Ph.B. Yale, 99. Chemist, *Eastman Kodak Co*, 99-01, *supt, film dept*, 01-04, *org. research*, 14- Chem. Soc. (chairman, Rochester sect, 17, councilor, 19, chairman, building committee, 23-25, cellulose div, 24-26); Soc. Chem. Indust.

- Gray, Prof. Irving E.** Tulane University, New Orleans, La. *Zoology*. Providence, R. I., May 23, 97. B.S., Mass. Col., 21; M.S., Wisconsin, 24, Ph.D., 26. Instr. *zool.*, De Pauw, 21-22; asst., Wisconsin, 22-26; *asst. prof.*, Tulane, 26-Summers, Woods Hole. The blood of fish.
- Gray, Prof. Joseph Alexander.** Queen's University, Kingston, Ont., Can. *Physics*. Melbourne, Australia, Feb. 7, 84. B.Sc., Melbourne, 07; 1851 Exhib. scholar, 09-12; M.Sc., Manchester, 12, D.Sc., 13. Lecturer *physics*, McGill, 12-15, asst. prof., 15-19, assoc. prof., 19-24; *Chown research prof.*, Queen's (Can.), 24- A.A.; fel. Physical Soc.; Royal Soc. Can. Radio-activity; X-rays; properties of radiations.
- Gray, Dr. L(ewis) C(ecil),** U. S. Department of Agriculture, Washington, D. C. *Agricultural economics*. Liberty, Mo., Dec. 2, 81. A.B., William Jewell, 00, A.M., 03; Chicago, 07, 08; Ph.D., Wisconsin, 11. Prof. hist. and econ, Okla. Agr. and Mech. Col., 05-08; instr. econ, Wisconsin, 10-13; prof., Saskatchewan, 13-15; rural econ, Peabody Col., 15-19; *economist in charge div. land econ, bur. agr. econ.*, U. S. Dept. Agr., 19- Special agent, Bur. Census, 11; rep. for agr. census, U. S. Dept. Agr. In charge price fixing div, Food Ad, Tenn, 18. Chairman, Committee on Land Utilization. Rep, U. S. Dept. Agr, Int. Inst. Agr, Rome, 22. Econ. Ass; Farm Econ. Ass.
- Gray, Dr. P(ercival) A(llen), Jr.** 834 E. 56th St, Chicago, Ill. *Comparative anatomy*. Richmond, Ind, April 26, 00. B.S., Chicago, 22, fellow, 23-24, Ph.D., 24. *Asst. anat. sch. med.*, Loyola (Ill), 24- Cortical lamination pattern of the Virginian opossum.
- Gray, Dr. S(amuel) H(arold),** Washington University School of Medicine, St. Louis, Mo. *Pathology*. New York, N. Y., March 4, 97. A.B., Columbia, 20, M.D., 23. *Asst. path.*, Yale Med. Sch., 23-24; *instr. sch. med.*, Washington (St. Louis), 24- *Asst. res. pathologist*, New Haven Hosp, 23-24; summer, asst., Columbia, 21. Diffusion of sodium chloride through lecithin colloidal membranes; hyperplasia of islands of Langerhans; effect of potassium iodide on thyroid gland.
- Gray, T(homas) T(arvin),** 961-975 Frelinghuysen Ave, Newark, N. J. *Chemistry*. Franklin, Pa., Aug. 29, 81. Columbia, 07-08. Chemist, companies, 99-03; chief chemist, Tide Water Oil Co, 03-15; *consulting engineer*, 15-; *pres.*, Gray Indust. Laboratories and Gray Processes Corp. A.A.; Chem. Soc. (asst. ed., 'Abstracts,' committee on indust. terms); Soc. Test. Mat. (committee on lubrication and lubricants); Int. Ass. Test. Mat.; Royal Soc. Arts. Viscosity of oil mixtures; petroleum and its products.
- Gray, Dr. William Scott,** University of Chicago, Chicago, Ill. *Education*. Coatsburg, Ill, June 5, 85. B.S., Chicago, 13; A.M., Columbia, 14; Ph.D., Chicago, 16. Training sch., Ill. State Nor. Univ, 10-12; *instr. educ.*, Chicago, 15-17, asst. prof., 17-18, assoc. prof., 18-21, *prof.*, 21-, asst. dean *col. educ.*, 16-17, *dean*, 18- Elementary school reading; remedial cases in reading.
- Graybill, Dr. H(arry) W(ebster),** California State Department of Agriculture, Los Angeles, Calif. *Zoology*. Hamilton Co, Nebr., June 18, 75. B.S., Nebraska, 00, A.M., 02; D.V.M., George Washington, 11. Teacher, high sch., 02-05; zoologist, bur. animal indust., U. S. Dept. Agr., 05-14; prof. *zool.* and parasitol, George Washington, 11-14; animal pathologist and veterinarian, Am. Smelting and Ref. Co, 14-15; dept. animal path, Rockefeller Inst., 16-24; div. vet. science, California, 24-25; *Calif. State Dept. Agr.*, 25-27, *director poultry path. lab.*, 27- A.A.; Ass. Vet. Med.; Calif. Vet. Med. Ass; S. Calif. Vet. Med. Ass; Wash. Biol. Soc. Animal parasites; ticks.
- Greathouse, Dr. L(ucien) H(elm),** Box 24, Rosslyn, Va. *Chemistry*. Louisville, Ky, June 21, 91. A.B., Michigan, 11, B.Ch.E., 12, fellow, 16-17, Ph.D., 17. Asst. inorg. analysis, Michigan, 11-15; scientist, bur. soils, U. S. Dept. Agr., 15-18; asst. chemist, fixed nitrogen research lab, nitrate div, ordnance dept, U.S.A., 19-20; research chemist, Atmospheric Nitrogen Corp, 20-22; Edgewood Arsenal, C.W.S., U.S.A., 22; *consulting chemist and engineer*, 22- Lieut. C.W.S., 18-19, capt. C.W.R.C. Chem. Soc.; N. Y. Chemists Club. Physical chemistry; chemical engineering; periodates and periodic acid in analysis; electrical oxidation of ammonia.
- Greaves, Prof. J(oseph) E(ames),** Utah Agricultural College, Logan, Utah. *Biochemistry*. Logan, Nov. 2, 80. B.S., Utah Col., 04; M.S., Illinois, 08; Thompson fellow, California, 10-11, Ph.D., 11. Asst. chemist, *Utah Exp. Sta.*, 04-08, assoc. chemist, 08-09, *chemist and bacteriologist*, 14-, in charge dept. chem, *Utah Col.*, 08-09, asst. prof. chem, 08-11, assoc. prof., 11-12, *prof. physiol. chem. and bacter.*, 12- Consulting ed., 'Soil Science,' 18- A.A.; Chem. Soc.; Soc. Bact.; Int. Soc. Soil Sci. Milling qualities of wheat; nitric nitrogen in irrigated soil; gliadin in flour; effect of soluble salts on insoluble phosphates; soil bacteria; crop rotation; azofocaction; arsenic in soil; fertilizers; bacteria in soil fertility.
- Greeley, W(illiam) B(uckhout),** Forest Service, Washington, D. C. *Forestry*. Oswego, N. Y., Sept. 6, 79. B.L., LL.D., California; M.F., A.M., Yale. Inspector forest reserves, Calif, U. S. Forest Service, 04-06, supervisor in charge, Sequoia Nat. Forest, 06-08, forester in charge Dist. No. 1, Mont. and Idaho, 08-11, asst. forester, 11-20, *chief*, 20- Lieut. col. C.Eng., 17-19. Soc. Foresters (pres, 15); Forestry Ass. Forestry in the United States; forest-using industries.
- Greely, Gen. A(dolphus) W(ashington),** U.S.A., Cosmos Club, Washington, D. C. *Meteorology, Electricity*. Newburyport, Mass, March 27, 44. High schools. Sig.C, U. S. Weather Service, 70-91; *maj. gen.*, U.S.A., 06- Polar exploration. Gold medals, Royal Geog. Soc, French Geog. Soc, Am. Geog. Soc, Philos. Soc. American weather; meteorology and electricity as applied to war.
- Green, Dr. Charles M(ontraville),** 78 Marlborough St, Boston, Mass. *Obstetrics*. Medford, Mass,

- Dec. 18, 50. A.B., Harvard, 74, M.D., 77; Vienna, 79. Asst. obstet., *Harvard Med. Sch.*, 83-86, instr., 86-94, asst. prof., 94-04, assoc. prof., obstet. and clin. gynec., 04-07, prof., obstet., 07-11, *obstet. and gynec.*, 11-15, *emer. prof.*, 15- Sec'y, faculty of med., Harvard, 97-07, acting dean, 07-08; senior surgeon, Boston City Hosp.; visiting physician, Boston Lying-in Hosp. Fel. Gynec. Soc.; fel. Col. Surg.; Mass. Med. Soc. (v. pres, 99); Boston Obstet. Soc. (pres, 93-95); Boston Soc. Med. Improv. (pres, 04, 05). Gynecology.
- Green, C(harles) W(illiam)**, Bell Telephone Laboratories, 463 West St., New York, N. Y. *Electrical engineering*. Waukegan, Ill., June 23, 84. B.S., Wisconsin, 07. Instr. elec. eng., Mass. Inst. Tech., 07-14, asst. prof., 14-17; *telephone engineer*, West. Elec. Co., 19-25, *Bell Telephone Laboratories*, 25- Major, C.A., 17-19.
- Green, Prof. Franklin Theodore**, 1176 Fell St., San Francisco, Calif. *Pharmacy*. North San Juan, Calif., May 5, 63. Ph.G., California, 82. Prof. anal. and pharmaceut. chem., *col. pharmacy, California*, and *prof. chem. and director chem. lab.*, 93-, *dean*. City chemist and toxicologist to coroner, San Francisco. A.A.; Pharmaceut. Ass.; Chem. Soc.; Miner. Soc.; Calif. Acad.
- Green, Prof. George Rex**, State College, Pa. *Forestry, Natural science*. Glen Hope, Pa., June 29, 84. A.B., Michigan, 11; M.S., Pa. State, 15. Asst. state forester, Ohio, 11-12; assoc. prof. forestry, *Pa. State*, 12-19, *prof. wood technol. and nature study*, 19-24, *nature study*, 24- Wood technologist and aeroplane inspector, Naval Aircraft Factory, 17-19. A.A.; Soc. Foresters; Forestry Ass.; Ecol. Soc.; Nature Study Soc. Nature study; conservation; wood technology; forest utilization; properties and uses of wood.
- Green, Henry**, 461 Columbia Ave., Palmerton, Pa. *Chemistry*. Easton, Pa., Jan. 13, 88. B.S., Lafayette, 08. *Chemist*, Alpha Portland Cement Co., 09-10; John O. Wagoner and Co., 10-15; *N. J. Zinc Co.*, 15- Chem. Soc.; Optical Soc.; N. Y. Micros. Soc. Plasticity of paints; microscopcy of pigments.
- Green, Dr. Jerome B(oley)**, Harvard University, Cambridge, Mass. *Physics*. New York, N. Y., Dec. 28, 98. B.S., Col. City of N. Y., 18, fellow, 18-19; M.S., Wisconsin, 21, Ph.D., 25. Asst. *physics*, Wisconsin, 19-24, instr., 24-25; *Nat. Research Council fellow*, *Harvard*, 25- Summers, instr., Col. City of N. Y., 18-21. Physical Soc. Spectroscopy; spectrum of magnesium; pressure shifts; Lloyd's mirror; structure of red lithium line; Stark effect.
- Green, Prof. J(erome) J(oseph)**, 1028 N. Hudson Ave., Pasadena, Calif. *Physics, Electrical engineering*. Somerset, Ohio, Dec. 26, 66. M.E., Ohio State, 93; Paris, 08; Berlin, 09. Expert testing elec. apparatus, bur. awards, Chicago Expos, 93; chief instr., Nat. Sch. Elec. Chicago, 95; prof. physics and elec. eng., Notre Dame, 95-15; physics, San Diego Junior Col., 15-18; director vocational educ. and tech. dept., San Diego High Sch. and Junior Col., 18-20; *educ. supervisor, west. dept. educ. activities, Knights of Columbus*, 20- Prof., Southern California, 22-23. Int. Elec. Cong., St. Louis, 04. A.A. Wireless telegraphy; the alternating arc.
- Green, Dr. Robert G(ladding)**, 121 Cecil St., S. E., Minneapolis, Minn. *Bacteriology, Immunology*. Wadena, Minn., Jan. 11, 95. A.B., Minnesota, 18, A.M., 19, M.B., 20, M.D., 21. Instr. *bacter*, *Minnesota*, 18-21, asst. prof., 21-24, *assoc. prof.*, 25- Soc. Bact.; Soc. Exp. Biol.; Chem. Soc.; Sigma Xi (treas, 25). Surface energy of cellular suspensions; distemper in the silver fox.
- Green, Roy M(elvin)**, Western Laboratories, 826 Q St., Lincoln, Nebr. *Engineering*. McCook, Nebr., May 6, 92. B.S., Nebraska, 14; M.S., Columbia, 16. Draftsman, Frenchman Valley irrig. dist., Nebr., 13; asphalt plant chemist, 14-16; asst. prof., assoc. prof. and prof. highway eng., Agr. and Mech. Col. Texas, 16-20; *pres. and manager, West. Laboratories*, 20- Assoc. Civil Eng.; Soc. Test. Mat. Bituminous pavements.
- Green, Prof. R(ufus) L(ot)**, Stanford University, Calif. *Mathematics*. Rush Co., Ind., March 3, 62. Cornell, 81-83; B.S., Indiana, 85, A.M., 89; Hopkins, 87-88. Instr. math., Indiana, 85-86, assoc. prof., 86-88, prof. pure math., 88-93; assoc. prof. math., *Stanford*, 93-94, *prof.*, 94- A.A.; Math. Ass.; Calif. Acad.
- Green, Prof. Warren K(imball)**, Amherst College, Amherst, Mass. *Astronomy*. Salem, Mass., Jan. 24, 91. A.B., Harvard, 13, A.M., 14; Ph.D., California, 16. Martin Kellogg fellow, Lick Observatory, 16-17; instr. physics, Yale, 19-21; *director observatory, Amherst*, 21-, assoc. prof. *astron.*, 22-26, *prof.*, 26- U.S.A., 17-19. A.A.; Astron. Soc.; Physical Soc.; fel. Royal Astron. Soc. Stellar photometry.
- Green, Dr. Wyman R(eed)**, University of Chattanooga, Chattanooga, Tenn. *Zoology*. Moultrie Co., Ill., June 1, 81. A.B., A.M., Kansas, 11; Ph.D., Chicago, 19. Asst. biol., Northwest State Nor. Sch., Okla., 08-09; head dept. biol., high sch., Kans., 11-12; instr., Carleton, 14-19; zool., Northwestern, 19-20; *head dept. biol., Chattanooga*, 20- Life cycles in relation to environment; fossil fishes.
- Greenberg, Dr. D(avid) M(orris)**, University of California, Berkeley, Calif. *Biochemistry*. Boston, Mass., Sept. 94. A.B., California, 21, Ph.D., 24. Instr. *biochem, California*, 24- Chem. Soc.; Soc. Exp. Biol. Proteins.
- Greene, Dean Arthur M(aurice)**, Jr., Princeton University, Princeton, N. J. *Mechanical engineering*. Philadelphia, Pa., Feb. 4, 72. B.S., Pennsylvania, 93, M.E., 94, Sc.D., 16; D.Eng., Rensselaer, 22. Instr. Drexel Inst., 94-95; *mech. eng.*, Pennsylvania, 95-02; Missouri, 02-07; Rensselaer, 07-22; *prof. and dean, Princeton*, 22- Asst. engineer, Phila. Traction Co., 93, 97, 98, 04; junior dean sch. eng., Missouri, 06-07. Exec. committee, Engineering Foundation. Mech. engineer and chairman group jury, Nat. Export Expos, 99. A.A. (past v. pres); Mech. Eng. (past manager, past v. pres, past

- chairman, research committee); Eng. Educ. (past pres); Eng. Council. Heating; pumping; refrigeration; ventilation; steam engineering.
- Greene, Dr. Carl H(artley)**, Mayo Clinic, Rochester, Minn. *Medicine*. South Bend, Ind, June 22, 96. A.B, Missouri, 14; fellow, Yale, 15-17, Ph.D, 17; M.D, Hopkins, 20. Res. house officer, Hopkins Hosp, 20-21; *staff Mayo Clinic, 21-*, *instr. med, Mayo Foundation, Minnesota, 24-* Lieut. C.W.S. 18. A.A; Am. Med. Ass; Soc. Clin. Invest; Physiol. Soc; Soc. Biol. Chem; Soc. Exp. Path. Chemistry of metabolism; nephritis; oxygen utilization; liver function; bile salts.
- Greene, Dr. Cha(rle)s Lyman**, 914 Lowry Building, St. Paul, Minn. *Medicine*. Gray, Maine, Sept. 21, 62. M.D, Minnesota, 90; extern, Great Ormond St. Hosp. for Children, London, 90-91; Hopkins, 93; Harvard, 94, 95, 97; London, 02; Heidelberg and Berne, 06. House physician, City and Co. Hosp, St. Paul, 89-90; lecturer surg. anat, Minnesota, 92, prof, 93, prof. applied anat. and instr. clin. med, 94, prof. clin. med. and physical diagnosis, 97-03, theory and practice of med, 03-07, med, 07-15, chief dept. med, 09-15, resigned, 15. Chief staff, St. Luke's Hosp; attending physician, Miller Mem. Hosp; consulting physician, State Hosp. Crippled Children. Col. M.R.C. A.A; Am. Physicians; Therapeut. Soc; Am. Geog. Soc; Ass. Life Ins. Examiners; Minn. Acad. Med; Minn. Soc. Internal Med. (pres). Diagnosis and therapeutics of gastric diseases; tuberculosis; typhoid fever; chronic Bright's disease; visceroptosis and heart-outline; heart dilatation; myocardial insufficiency.
- Greene, Prof. Cha(rle)s W(ilson)**, 814 Virginia Ave, Columbia, Mo. **Physiology*. Crawford Co, Ind, Aug. 12, 66. A.B, Stanford, 92, A.M, 93; Ph.D, Hopkins, 98. Instr. physiol, Stanford, 93-98, asst. prof, 98-00; *prof. physiol. and pharmacol, Missouri, 00-* Instr, Woods Hole, 96-97, 00; special investigator, Bur. Fisheries, 01, 02, 04, 06-17. A.A; Physiol. Soc. (sec'y, 16-23); Ass. Anat; Soc. Biol. Chem; Am. Med. Ass. (chairman, sect. path. and physiol, 25); Soc. Pharmacol; Chem. Soc; Union Biol. Societies; Ind. Acad. Phosphorescent organs in fishes; influence of inorganic salts on cardiac tissues; circulatory system of the hag fish; physiology and chemistry of the Chinook salmon; speed of migration of fishes; growth in the absence of food; pharmacological reactions of the mammalian heart; chemistry of animal tissues in inanition; chemical composition of muscle tissue; chemistry of fish ova; storage of proteins in body tissue; changes in the human heart in oxygen want; reaction of organs at the asphyxial crisis; phosphorescence in the California singing fish; gases of the swim bladder of Porichthys; the vocal apparatus of the singing fish; the circulatory system of the brine shrimp; the respiratory gas percentages in nitrous oxide anesthesia; distribution of nitrous oxide and oxygen in the blood during anesthesia; physiology of the spawning migration.
- Greene, Pres. C(larence) W(ilson)**, Albany College, Albany, Oregon. *Electricity*. Hadley, Mich, July 17, 73. A.B, Michigan, 03, A.M, 05, Ph.D, 12; B.Pd, Mich. State Nor. Col, 06, M.Pd, 11. Prin, high sch, Mich, 95-02; prof. physics, Albion, 04-20; *pres, Hedding, 20-22; Albany (Oregon), 23-* Pres, Bay View Univ. Summer Sch, 18-21. Physical Soc. Polarization in the aluminum rectifier.
- Greene, F(rank) C(ook)**, 1434 S. Cincinnati Ave, Tulsa, Okla. *Geology, Paleontology*. New Albany, Ind, April 30, 86. A.B, Indiana, 08, A.M, 09. Geologist, Mo. Bur. Geol. and Mines, 10-16; Cosden Oil and Gas Co, 16-20; consulting geologist, 20-26; *chief geologist, Skelly Oil Co, 26-* Asst, Kans. Geol. Surv, 06; U. S. Geol. Surv, 09, junior geologist, 10-16. A.A; Geol. Soc; Ass. Petrol. Geol; Paleont. Soc; Ind. Acad; St. Louis Acad. Stratigraphy and paleontology of the Carboniferous of Western Interior Basin; Mississippian of Indiana.
- Greene, Katharine B(radford Graves)**, Bureau of Educational Experiments, 144 W. 13th St, New York, N. Y. *Psychology*. Laramie, Wyo, March 18, 97. B.S, Pennsylvania, 16; A.B, Vassar, 17; A.M, Columbia, 19, Grace Dodge fellow, 20-21, Ph.D, 24. Instr. psychol, Delaware, 18; state psychologist, Minn, 20-21; asst. prof. psychol. and philos, Russell Sage Col, 23-25; research assoc, Iowa Child Welfare Research Station, 25-26; *psychol. research, Bur. Educ. Experiments, 26-* Summer, Colorado, 25. A.A; Psychol. Ass. Clinical psychology; mental tests.
- Greene, Laurenz**, Purdue University, Lafayette, Ind. *Horticulture*. Lincoln, Kans, May 13, 83. B.S, Kansas Col, 06; M.S.A, Iowa Col, 09. Asst. hort, Ft. Hays Exp. Sta, 06; N. Mex. Col, 06-07; Iowa Col, 07-09, experimentalist, Exp. Sta, 09-17; *chief hort, Purdue, 17-* A.A; Soc. Hort. Sci; Pomol. Soc. Orchard management; seed improvement; spraying; cold storage; crown gall.
- Greenfield, Dr. R(obert) Edman**, A. E. Staley Manufacturing Co, Decatur, Ill. *Sanitary chemistry*. Sabetha, Kans, Feb. 17, 94. A.B, Kansas, 14; A.M, Illinois, 16, Ph.D, 21. Asst, Kans. State Water Surv, 14; asst. chem, Kansas Col, 14-15; asst. chemist, Ill. State Water Surv, 16-18, 19-21, chemist, 21-26; instr. chem, Illinois, 21-24, assoc, 24-26; *research chemist, A. E. Staley Mfg. Co, 26-* Lieut. and capt, Sanit.C, 18-19. A.A; Chem. Soc; Soc. Bact; Pub. Health Ass. The hydrogen electrode in water purification; stream pollution; the rate of deoxygenation of sewage dilutions.
- Greenleaf, Dr. William E(ben)**, Wesleyan University, Middletown, Conn. *Zoology*. Henniker, N. H, July 16, 90. A.B, Middlebury, 13; A.M, Yale, 17, Ph.D, 26; Army Med. Sch, 18-19. Prin, high sch, Vt, 13-14; prof. biol, Defiance Col, 15-16; visiting substitute instr. bot, Wesleyan, 17; dist. commander, Near East Relief, Turkey and Caucasus, Russia, 19-20; *instr. zool, Syracuse, 21-23; biol, Wesleyan, 24-* Head lab. asst, Army Med. Sch, private, M.C, and second lieut, Sanit.C, 18-19. A.A; Ass. Med. Progress. The influence of volume of culture medium and

cell proximity on the rate of reproduction of Infusoria.

Greenlees, Dr. A(lec) Lloyd, Rutgers University, New Brunswick, N. J. *Physics*. Pieton, Ont, Can, July 1, 96. M.A., Queen's (Can), 20; Ph.D., Calif. Inst., 25. Instr. *physics*, Rutgers, 24-26, *asst. prof.*, 26- Physical Soc. Ionization processes.

Greenman, Dr. Jesse More, Missouri Botanical Garden, St. Louis, Mo. **Botany*. North East, Pa, Dec. 27, 67. B.S., Pennsylvania, 93; M.S., Harvard, 99, Kirkland fellow, 99-01; Ph.D., Berlin, 01. Asst. bot., Pennsylvania, 90-93; asst., Gray Herbarium, Harvard, 94-05, instr. bot., 02-05; asst. curator dept. bot., Field Museum Nat. Hist., 05-12; asst. prof. bot., Chicago, 08-13; assoc. prof., Washington (St. Louis), 13-17, *prof.*, 17-; *curator herbarium*, Mo. Bot. Garden, 13- A.A.; Soc. Nat.; Bot. Soc.; Ecol. Soc.; Ass. Prof.; New Eng. Bot. Club; Ill. Acad.; St. Louis Acad. The flora of Mexico and western United States; North American species of the genus *Senecio*.

Greenman, Dr. M(ilton) J(ay), 3618 Woodland Ave, Philadelphia, Pa. **Anatomy*. North East, Pa, June 14, 66. Ph.B., Pennsylvania, 89, M.D., 92; hon. Sc.D., Pittsburgh, 12. Instr. biol., Pennsylvania, 89-91; asst. director, *Wistar Inst.*, 92-05, *director*, 05- Research assoc., Phila. Acad. Nat. Sciences. Trustee, Woods Hole; Mt. Desert Biol. Lab; Vineland Training Sch. A.A.; Soc. Nat.; Ass. Anat.; Philos. Soc.; Phila. Acad.; Phila. Col. Physicians; cor. mem. Peking Soc. Nat. Hist.; hon. mem. Cuban Nat. Hist. Soc. Peripheral nervous system; nerve fibers; problems of growth by experimental methods.

Greenough, Dr. Robert B(attey), 8 Marlborough St, Boston, Mass. *Medicine*. Cambridge, Mass, Nov. 9, 71. A.B., Harvard, 92, M.D., 96. *Asst. prof. surg.*, Harvard Med. Sch., 16-, *director cancer commission*, Harvard, 17- Visiting surgeon, Mass. Gen. Hosp., 16- Fel. Surg. Ass.; Soc. Clin. Surg.; Ass. Cancer Research (v. pres, 19); Am. Acad. Surgery and pathology of cancer.

Greenslade, Dr. G(rover) R(awie), Rooms 307-308, Flannery Building, Pittsburgh, Pa. *Physics*. Moscow, Idaho, May 21, 86. B.S., Whitman, 12, M.S., 13; A.M., Washington (Seattle), 14; fellow, Wisconsin, 14-16, Ph.D., 21, Instr. physics, Wisconsin, 16-21; physicist, U. S. Bur. Mines, Pittsburgh, 21-22; J. Rogers Flannery, 23-24; *chief physicist*, Flannery Bolt Co, Pittsburgh, 24- Physical Soc.; Radio Eng. Radiant energy of metals in vacuo; transmission of heat through coal in mines; smoke density measurements; interferometric measurements of thin films; thermal conductivity of ceramic materials; flexible staybolts in locomotive boilers; uncompensated expansion of the firebox sheet; yielding temperatures of boiler crown sheets.

Greenwald, Dr. Isidor, Roosevelt Hospital, New York, N. Y. *Biochemistry*. New York, July 7, 87. Col. City of N. Y., 00-04; Cooper Union, 04-08; A.B., Michigan, 09; Ph.D., Columbia, 11. Asst. med. col., Cornell, 05-08; Columbia, 09-

11; *chemist*, Montefiore Home and Hosp., 11-14; *Harriman research lab*, Roosevelt Hosp., 14- A.A.; Soc. Biol. Chem.; Chem. Soc.; Soc. Exp. Biol.; assoc. fel. Am. Med. Ass.; Pub. Health Ass.; N. Y. Acad. Med.; N. Y. Acad. Physiology of parathyroid glands; intermediary metabolism; blood analysis.

Greer, Frank E(mmett), Department of Health, Chicago, Ill. *Bacteriology*. Augusta, Mich, May 24, 96. A.B., Kalamazoo, 20, M.S., 21; Manchester, 19; Chicago, 21-26. *Bacteriologist*, Dept. Health, Chicago, 26- A.A.; Soc. Bact.; Pub. Health Ass. Sewage and water bacteriology.

Greer, Dr. James R(ichard), 5401 Greenwood Ave, Chicago, Ill. *Physiology*. Jamaica, Ill, Nov. 8, 76. B.S., Chicago, 06, Ph.D., 09, M.D., Rush Med. Col., 12. Asst. physiol., Chicago, 07-09; med. col., Cornell, 10-11; instr. med., Rush Med. Col., 14, *asst. clin. prof., med. dept.*, Chicago. A.A.; Physiol. Soc. Glandular activities; immunity; metabolism and diabetes; electrocardiography and heart disease.

Gregg, Dr. Alan, 61 Broadway, New York, N. Y. *Medicine*. Colorado Springs, Colo, July 11, 90. A.B., Harvard, 11, M.D., 16. Intern, Mass. Gen. Hosp., 16-17; field staff mem., Int. Health Board, Rockefeller Foundation, 19-22, *assoc. director div. med. educ.*, 22- R.A.M.C., B.E.F., 17-19. A.A.; Hist. Sci. Soc. Medical education.

Gregg, Dr. Donald, Channing Sanitarium, Wellesley, Mass. *Medicine*. Hartford, Conn, June 4, 80. A.B., Harvard, 02, M.D., 07. C. F. Folsom teaching fellow prev. med., Harvard Med. Sch., 09; res. physician, Philippine Gen. Hosp., Manila, 10-12; asst. prof. trop. med., Philippines, 11; *supt.*, Channing Sanitarium, 21- Mass. Gen. Hosp., 08-09. A.A.; Am. Med. Ass.; Neur. Ass.; Psychiat. Ass.; Ass. Research Nervous and Mental Diseases; New Eng. Soc. Psychiat.; Mass. Psychiat. Soc.; Boston Soc. Psychiat. and Neur. (sec'y, 18-25, pres, 26). Psychiatry.

Gregg, W(illis) R(ay), U. S. Weather Bureau, Washington, D. C. *Meteorology*. Phoenix, N. Y, Jan. 4, 80. A.B., Cornell, 03. Asst. observer, U. S. Weather Bur., 04-08, observer, 09-14, *meteorologist*, 15-, in charge *aerol. investigations*, 17- Meteor. observer, Smithsonian exped, Mt. Whitney, 13; meteor. adviser, transatlantic flights, NC seaplanes and British dirigible B 34, 19. Nat. Advisory Committee for Aeronautics, 22- Geophys. Union. A.A.; Meteor. Soc. (treas, 23-); Nat. Aeronaut. Ass. (contest committee, 25); Wash. Acad.; Wash. Philos. Soc. (treas, 21); Royal Meteor. Soc. Meteorology of transatlantic flights; aeronautical meteorology; aerology of the United States; upper air relations of temperature and wind.

Gregory, Prof. Charles T(ruman), 1022 First St, West Lafayette, Ind. *Plant pathology*. Ithaca, N. Y, Aug. 31, 87. B.S.A., Cornell, 10, Ph.D., 14. Asst. plant path., Cornell, 10-12, instr., 12-14, asst. prof., 14-19; *exten. pathologist*, Indiana, 19- Phytopath. Soc. Grape mildew;

oospore germination and the sexuality in Peronosporaceae; new bean disease; diseases of grasses; control of loose smut in wheat.

Gregory, Dr. Emily Ray, care of H. B. Allyn, The Stonehurst, 423 S. 45th St. and Osage Ave, Philadelphia, Pa. *Zoology*. Philadelphia, Nov. 1, 63. A.B. Wellesley, 85; fellow, Pennsylvania, 92-93, A.M. 96; Woods Hole, 93-95; Chicago, 95-97, fellow, 97-99, Ph.D. 99; scholar, Am. Woman's Table, Naples Zool. Sta. 99-00. Teacher, Mrs. Mitchell's Sch. for Girls, Phila., 85-86; private teacher, 86-87; teacher, Misses Case and Hallowell's Sch., 87-88; proofreader, Am. Acad. Polit. and Social Sci., 90-91; teacher, Home Sch. for Girls, Baltimore, 93-94; Milwaukee Co., 94-95; asst. zool. Chicago, 97-99; *prof. biol.* Wells, 01-09; *Am. Col. for Girls, Constantinople*, 09- Consultant, 09-12; substitute, Akron, Wellesley, Sweet Briar, 13-17; W. T. B., 18-19; U. S. Treasury Dept., 19-24. A.A.; Soc. Zool.; Wash. Biol. Soc. Origin of the pronephric duct in selachians; development of the excretory system in turtles; Echinarachnius parma; method for injecting embryos.

Gregory, Prof. Herbert E(rnest), Yale University, New Haven, Conn. **Physiography*. Middleville, Mich., Oct. 15, 69. A.B. Yale, 96, Ph.D. 99. Instr. physical geog., Yale, 99-01, asst. prof. physiog., 01-04, *Silliman prof. geol.*, 04-Asst. geologist, U. S. Geol. Surv., 00-09, geologist, 09; Yale exped., Peru, 12-13; supt., Conn. Geol. and Nat. Hist. Surv., 16-20; div. geol. and geog., Nat. Research Council, 18-21, chairman committee on Pacific investigations, 20- Assoc. ed., 'Am. Jour. Sci.', 04- Acting director, Bishop Museum, Honolulu, 19-20, director, 20- A.A.; Geol. Soc. (councilor, 07-09, v. pres, 19); fel. Ass. Geog. (councilor, 11-13, committee on pub., 13-16, v. pres, 19, pres, 20); Philos. Soc.; Am. Acad. Geology of Connecticut, Arizona and Utah; geography of Peru, Australia and Pacific Islands.

Gregory, Prof. John H(erbert), Johns Hopkins University, Baltimore, Md. *Civil engineering*. Cambridge, Mass., Aug. 7, 74. B.S. Mass. Inst. Tech., 95. *Practising hydraulic and sanit. engineer*, 95-; assoc. prof. civil eng., Hopkins, 19-20, *prof. civil and sanit. eng.*, 20- Engineer, improved water and sewage works, Columbus, Ohio, 04-09; Passaic Valley sewer, N. J., 09-10; Metropolitan Sewerage Commission, New York, 10-11. Thomas Fitch Rowland prize, Civil Eng., 10. Civil Eng.; Soc. Test. Mat.; Am. Water Works Ass.; Pub. Health Ass.; New Eng. Water Works Ass.; Boston Soc. Civil Eng. Water purification; sewage and refuse disposal.

Gregory, Dr. Louise H(oyt), Barnard College, Columbia University, New York, N. Y. *Zoology*. Princeton, Mass., July 21, 80. A.B. Vassar, 03, fellow, 05-07; A.M. Columbia, 07, Ph.D. 09. Asst. biol. Vassar, 03-05; *zool.*, Barnard, Columbia, 08-09, instr., 09-18, asst. prof., 18-23, *assoc. prof.*, 23- A.A.; Soc. Zool. Life history of Protozoa; cytology of conjugation of certain Protozoa.

Gregory, Prof. W(illiam) B(enjamin), Tulane University, New Orleans, La. *Engineering*.

Near Penn Yan, N. Y., March 13, 71. M.E., Cornell, 94, M.M.E., 08. Instr. drawing, *Tulane*, 94-97, asst. prof. *exp. eng.*, 97-02, assoc. prof., 02-05, *prof.*, 05- Consulting engineer, Miss. River Commission, 02-03; hydraulic expert, La. State Board Eng., 05-; irrig. engineer, U. S. Dept. Agr., 05- Major, C.Eng., 18-19. Mech. Eng. (council, 16-19, v. pres, 19); Civil Eng.; Eng. Educ.; Soc. Mil. Eng.; La. Eng. Soc. (pres, 10); New Orleans Acad. (pres, 14). Experimental engineering; hydraulics tests of centrifugal and rotary pumps and of pumping stations; the Pitot tube; rice irrigation; drainage investigations in Louisiana rainfall and run-off; tests of pumping plants handling large volumes of water through small lifts.

Gregory, Prof. William K(ing), 136 West 77th St., New York, N. Y. **Vertebrate paleontology*. New York, May 19, 76. A.B. Columbia, 00, A.M. 05, Ph.D. 10. Research asst. to Prof. H. F. Osborn, *Am. Museum Nat. Hist.*, 99-13, asst. curator *vert. paleont.*, 13, *assoc.*, 14-, *curator comp. anat.*, 21-, *ichthyol.*, 25-; lecturer, asst. prof., assoc. prof. and *prof. paleont.*, Columbia, 07- Ed., 'Am. Museum Jour.', 00-01. Int. Commission on Eugenics. Nat. Acad.; A.A.; Soc. Nat.; Paleont. Soc.; Anthropol. Ass.; Ass. Anat.; Galton Soc. (sec'y and treas., 18-); Soc. Mammal.; Philos. Soc.; N. Y. Acad. (v. pres, 22, 23); N. Y. Zool. Soc.; cor. mem. London Zool. Soc.; cor. mem. Vienna Anthropol. Gesell. Eocene and later Primates; morphology and evolution of the vertebrate skull and locomotor systems; evolution of mammalian molar teeth.

Greider, Dr. C(larence) E(dwin), Mellon Institute, Pittsburgh, Pa. *Industrial chemistry*. Lawrence, Kans., Feb. 25, 99. B.S. Washburn, 20; M.S. Iowa, 21; scholar, Hopkins, 22-23, Ph.D. 24. Asst. instr. chem., Iowa, 20-21; Hopkins, 22-23; *indust. fellow*, Mellon Inst., 24- A.A.; Chem. Soc. Organic chemistry; migration of radicals; heats of adsorption; chemistry of naval stores.

Greider, H(arold) W(illiam), Philip Carey Manufacturing Co., Plymouth Meeting, Pa. *Chemistry*. Manchester, Kans., Aug. 1, 94. B.S. Washburn, 16; M.S. Kansas, 17. Chemist, Topeka Pure Milk Co., 14-16; instr. chem., Kansas, 16-17; *indust. fellow*, Mellon Inst., 19-26; *Philip Carey Mfg. Co.*, 26- Asst. tech. ed. and contributor, 'India Rubber Rev.', 22-24. Asst. chemist, ordnance dept., 17-19. Chem. Soc. Physical properties of vulcanized compounded rubber; analysis of magnesia products; reactions of carbonyl diurethane; application of colloids to magnesia processes; high-temperature heat insulations.

Greisheimer, Dr. E(ster) M(aud), University of Minnesota, Minneapolis, Minn. *Physiology*. Chillicothe, Ohio, Oct. 31, 91. B.S. Ohio, 14; fellow, Clark, 14-16, A.M. 16; fellow, Chicago, 16-18, Ph.D. 19; M.D. Minnesota, 23. Asst. Chicago, 16-18; instr. *physiol.*, Minnesota, 18-21; *asst. prof.*, Wellesley, 21-22; *Minnesota*, 22- Summers, research asst., Eli Lilly and Co., 19, Harvard, 22. Physiol. Soc.; Minn. Trudeau Soc. The effect of salts on conductivity of nerve; irregularities of respiration; loss of

irritability and recovery of nervous system in various types of anesthesia.

Grennan, Mrs. Elizabeth B(ennett), 719 S. Seventh St, Ann Arbor, Mich. *Mathematics*. Shawnee, Pa, Oct. 9, 80. A.B, Ohio, 03; A.M, Illinois, 08, Ph.D, 10. Instr. math, Nebraska, 10-16; Illinois, 18-20. Math. Soc. Theory of groups.

Gress, Dr. E(rnest) M(ilton), Department of Agriculture, Harrisburg, Pa. *Botany*. Pa, Aug. 1, 76. Ph.B, Bucknell, 07; A.M, Pittsburgh, 12, Ph.D, 20. Teacher, high sch, Pa; *state botanist*, Pa, 20- A.A; Pa. Acad. Paleobotany; grasses of Pennsylvania.

Greve, Prof. F(rederick) W(illiam), 304 Russell St, West Lafayette, Ind. *Hydraulic engineering*. Brooklyn, N. Y, July 28, 85. B.S, Wisconsin, 08, M.E, 09. Designing dept, Int. Pump Co, 09-10; instr, Oregon Col, 10-11; *prof. hydraulic eng*, Purdue, 11- Hydraulics.

Grier, Prof. N(orman) M(acDowell), Des Moines University, Des Moines, Iowa. *Biology, Psychology*. Pittsburgh, Pa, June 13, 90. B.S, Pittsburgh, 11, fellow, 11-12, A.M, 12, Ph.D, 19; Cold Spring Harbor, 11; Yale, 12-14; Harris Teachers Col, 14-18; Paris, 19. Asst. biol, Yale, 12-14; instr, Cent. High Sch, St. Louis, 14-18; *prof. zool*, Hollins Col, 19-20; biol, Washington and Jefferson, 20-23; asst. *prof. evolution*, Dartmouth, 23-26; *prof. biol*, Des Moines, 26- Asst, Carnegie Museum, 14-16; Cold Spring Harbor, 21-22, in charge bot, 22-26; summers, instr, Pittsburgh, 14, 15, U. S. Bur. Fisheries, 20, 25. Ed. zool, 'Am. Midland Nat,' 22- Lieut. C.W.S, 19. A.A. (committee, place of science in education, 25-); Soc. Zool; Bot. Soc; Ecol. Soc; Paleont. Soc; St. Louis Acad. (sec'y, 17). Zoology; botany; vertebrate paleontology; paleobotany of coal; ecology of freshwater mussels; psychology and pedagogy of biological science.

Griffes, Prof. Fred, Oklahoma Agricultural and Mechanical College, Stillwater, Okla. *Genetics*. Frankfort, Kans, May 2, 90. B.S, Kansas Col, 19; M.S, Minnesota, 20, Ph.D, 24. Instr, asst. *prof.* and asst. plant breeder, Minnesota, 20-25; *prof. in charge plant breeding*, Okla. Agr. and Mech. Col, 25- A.A; Soc. Agron. Plant breeding; cytology.

Griffin, Dr. Edward L(awrence), U. S. Department of Agriculture, Washington, D. C. *Chemistry*. Heath, N. Y, Aug. 13, 89. A.B, Kansas, 11, B.S, 12, M.S, 13; Ph.D, George Washington, 23. Instr. org. chem, Kansas, 11-13; asst. chemist, *bur. chem*, U. S. Dept. Agr, 13-23, *assoc. chemist*, 23- A.A; Chem. Soc. Organic chemistry; chemistry of insecticides and disinfectants.

Griffin, Prof. F(rank) L(oxley), Reed College, Portland, Oregon. *Mathematics, Astronomy*. Topeka, Kans, Aug. 19, 81. B.S, Chicago, 03, M.S, 04, fellow, 04-06, Ph.D, 06. Asst, John Crerar Library, Chicago, 02-06; instr. *math*, Williams, 06-09, asst. *prof.*, 09-11; *prof*, Reed, 11- Administration committee, 20, 24. A.A; Math. Soc; Math. Ass; Northwest Sci. Ass;

Circolo Mat. di Palermo. Problem of n bodies; central orbits; differential equations; statistics; investments; mathematical analysis.

Griffin, H(oward) C(ousens), Carnegie Institute of Technology, Pittsburgh, Pa. *Chemistry*. Bangor, Maine, Oct. 2, 81. A.B, Bowdoin, 04; Columbia. Instr. chem, Hobart, 04-07; Col. City of N. Y, 07-11; Carnegie Inst. Tech, 11-17; chief chemist, Atlantic Chem. Co, 17-18; *assoc. prof. chem*, Carnegie Inst. Tech, 18- A.A; Chem. Soc.

Griffin, Prof. Lawrence E(dmonds), Reed College, Portland, Oregon. *Zoology*. Dalton, N. Y, Sept. 10, 74. A.B, Ph.B, Hamline, 95; Minnesota, 95-98; Ph.D, Hopkins, 00. Instr. biol, col. for women, Western Reserve, 00-02; *prof*, Missouri Valley, 02-08; asst. *prof*, Philippine Med. Sch, 08-10, *assoc. prof*, 10-13, dean col. liberal arts, 11-13; *prof. zool*, Pittsburgh, 14-20; *biol*, Reed, 20- Research asst, Carnegie Inst, 04-05; custodian, Carnegie Museum, 14-20. A.A; Soc. Zool; Micros. Soc. (pres, 18, 19); Ecol. Soc. Anatomy of Nautilus pompilius; dissection of the dog-fish; the Euplotidæ.

Griffin, Martin L(uther), Taunton, Mass. *Chemistry*. Northampton, Mass, May 21, 59. A.B, Amherst, 83, A.M, 86. Professional chemist, Holyoke, Mass, 83-92; chem. expert, W. Va. Pulp and Paper Co, 92-08; Emerson Lab, 08-10; Oxford Paper Co, 10-20; *chem. engineer*, 20- Chem. Soc; Soc. Chem. Indust; Min. Eng. Production of pulp and paper; processing of textiles and finishing bleacheries; water and sewage treatment; trades waste.

Griffin, Dr. R(obert) S(tanislaus), U.S.N, 2003 Kalorama Road, N. W, Washington, D. C. *Engineering*. Fredericksburg, Va, Sept. 27, 57. U. S. Naval Acad; Sc.D, Columbia, 19; D.E, Stevens, 22. Chief bur. eng, U. S. Navy Dept, 13-21; rear admiral, U.S.N, *retired*. D.S. medal. Commander, Légion d'honneur. Hon. mem. Mech. Eng; hon. mem. Naval Eng.

Griffin, Roger C(astle), 10 Washburn Ave, Needham, Mass. *Chemistry*. Montclair, N. J, Sept. 11, 83. A.B, Harvard, 04, A.M, 05, M.S, 06. Chemist, Mallinckrodt Chem. Works, Mo, 08; *Arthur D. Little, Inc*, 09-11, chief analyst, 11-17, *lab. director*, 17-, *asst. treas*, 20-, *board directors*, 24- Chem. Soc; Soc. Test. Mat; Ass. Pulp and Paper Indust. Chemical analysis.

Griffith, Prof. Coleman R(oberts), University of Illinois, Urbana, Ill. *Psychology*. Bear Grove, Iowa, May 22, 93. A.B, Greenville Col, 15; Ph.D, Illinois, 20. Instr. psychol, Illinois, 20-21, *assoc*, 21-22, asst. *prof*, 22-25, *assoc. prof. educ. psychol*, 25- Guggenheim Memorial Foundation fellow, 26-27. A.A; Ill. Acad. Equilibration; genetic psychology; history of psychology; psychology applied to athletics.

Griffith, Dr. Fred(erick) R(eece), Jr, 24 High St, Buffalo, N. Y. *Physiology*. St. Louis, Mo, June 30, 92. A.B, A.M, Washington (St. Louis), 14; Ph.D, Harvard, 23. Teaching fellow *physiol*, Harvard, 20-22, instr, 22-23; *assoc. prof*, Buffalo, 23- Physiol. Soc; Soc.

Exp. Biol. Muscle metabolism; mechanism of carbohydrate mobilization.

Griffith, John H(owell), Iowa State College, Ames, Iowa. *Civil engineering, Physics*. Detroit, Mich, June 16, 68. B.S, Wisconsin, 93, fellow, 97, M.S, 98. Practising engineer, 93-98; prof. math. and civil eng, Clarkson Col. Tech, 98-01; asst. engineer, Cambria Steel Co, 01-03; designing engineer, dept. bridges, Pa. Lines, 04; chief engineer, Metal Co. of Amer, 06; asst. prof. civil eng, Michigan, 07-11; as-soc. engineer-physicist, Bur. Standards, 11-19; *prof. exp. eng, Iowa Col*, 19- Civil Eng. Analytical mechanics; tests of engineering materials; bridge and concrete columns; physics of earth pressure.

Griffith, Prof. J(ohn) H(ughes), New Mexico State Teachers College, Silver City, N. Mex. *Chemistry*. Venedocia, Ohio, Jan. 14, 99. A.B, Miami, 21; A.M, Ohio State, 22. Instr. chem, Tennessee, 22-24; *head dept. science, N. Mex. State Teachers Col*, 24- A.A. (treas, southwest. div, 24); Chem. Soc. The preparation of paraalkyl phenols and catechols.

Griffith, Prof. Wendell H(orace), 1420 S. Grand Boulevard, St. Louis, Mo. *Biochemistry*. Churdan, Iowa, Nov. 7, 95. B.S, Greenville, 17; M.S, Illinois, 19, Ph.D, 23. Asst. *bio-chem*, Illinois, 20-22; instr, Michigan, 22-23; *sch. med, St. Louis*, 23-24, *asst. prof*, 24- Soc. Biol. Chem; Soc. Exp. Biol. Synthesis of amino-acids in the animal organism.

Griffiths, Dr. David, Takoma Park, D. C. **Botany*. Aberystwith, Wales, Aug. 16, 67. B.S, S. Dak. Col, 92, M.S, 93; Ph.D, Columbia, 00. Teacher, high sch, S. Dak, 93-98; prof. bot, Arizona, and botanist, Exp. Sta, 00-01; agriculturist, U. S. Dept. Agr, 01-19, *horticulturist*, 20- A.A; Soc. Hort. Sci; Bot. Soc; Wash. Bot. Soc; Wash. Acad; Torrey Bot. Club. North American Sordariaceae; certain groups of grasses; fungi; the genus *Opuntia*; flowering bulbous genera.

Griffiths, Prof. J(oseph) H(arry), 118 N. Rankin St, Appleton, Wis. *Psychology*. Longport, Eng, July 20, 89. A.B, Lawrence, 18; A.M, Northwestern, 20; Ph.D, Cornell, 23. Instr. *philos*, Cornell, 22-23; *prof, Lawrence*, 23- Psychology of religion.

Griffitts, Dr. C(harles) H(urlbut), University of Michigan, Ann Arbor, Mich. *Psychology*. Ozawkie, Kans, Jan. 5, 89. A.M, Kansas, 14; Ph.D, Michigan, 19. Instr. *psychol*, Park Col, 14-16; asst, *Michigan*, 16-17, instr, 17-22, asst. prof, 22-25, *assoc. prof*, 25- Psychol. Ass. Individual and race differences; attention; emotion; vocational psychology.

Griffitts, Dr. T(homas) H(ouston) D(ow), U. S. Public Health Service, Washington, D. C. *Medicine*. Unita, Tenn, Oct. 26, 78. M.D, Grant, 03. Intern and acting asst. surgeon, U. S. Pub. Health Service, 03-07; asst. to sec'y and registrar vital statist, Ill. State Health Dept, 07-14; *epidemiologist, U. S. Pub. Health Service*, 15- Nat. Drainage Cong; Nat. Malaria Committee. Malaria; impounded waters; Anoph-

eles mosquitoes; public health education; camp sanitation; control of salt marsh mosquitoes.

Griggs, Dr. Leland, Hanover, N. H. *Embryology, Ornithology*. Rutland, Vt, Aug. 22, 79. A.B, Dartmouth, 02, Ph.D, 08. Prof. biol, Doane, 05-08; instr. zool, *Dartmouth*, 08-16, asst. prof, 16-20, *prof. biol*, 20- A.A; Soc. Nat. Embryology of the salamander.

Griggs, Prof. Mary A(merman), Wellesley College, Wellesley, Mass. *Chemistry*. Somerville, N. J, Feb. 11, 86. A.B, Vassar, 08, Alumnae fellow; Barnard fellow, Columbia, A.M, 15, Ph.D, 17. Instr. *chem*, Vassar, 11-13, 16-18; Columbia, 19-20; *assoc. prof, Wellesley*, 20- Chem. Soc. Preparation and properties of pectin.

Griggs, Prof. Robert F(iske), George Washington University, Washington, D. C. *Botany*. Brooklyn, Conn, Aug. 22, 81. B.S, Ohio State, 03; A.M, Minnesota, 06; Ph.D, Harvard, 11. Asst. trop. agr, U. S. Dept. Agr, 01-02; prof. biol, Fargo, 03-05; asst. prof. *bot*, Ohio State, 06-20; *prof, George Washington*, 21- Govt. expeditions to Porto Rico, Guatemala, Texas, Alaska; director, Nat. Geog. Soc. exped. to Katmai, Alaska; discoverer, Valley of Ten Thousand Smokes, 16. A.A; Bot. Soc; Ecol. Soc; Wash. Bot. Soc. (v. pres).

Grimes, Prof. W(aldo) E(rnest), Kansas State Agricultural College, Manhattan, Kans. *Agricultural economics*. Oct. 5, 91. B.S, Kansas Col, 13; Ph.D, Wisconsin, 23. *Kansas Col*, 13-, *head dept. agr. econ*, 21- Farm Econ. Ass; Econ. Ass.

Grimsley, Dr. G(eorge) P(erry), Baltimore and Ohio Ry. Offices, Baltimore, Md. *Geology, Mineralogy*. Granville, Ohio, Feb. 21, 68. A.B, Ohio State, 90, A.M, 91; Ph.D, Hopkins, 94. Asst. geol, Ohio State, 90-91; asst. geologist, Ohio Geol. Surv, 90-93; Kans. Geol. Surv, 95-03; prof. geol. and nat. hist, Washburn, 95-04; asst. state geologist, W. Va. Geol. Surv, 04-10; geologist and gen. manager, Nat. Limestone Co, 09-15; *chief geol. bur, B. and O. Ry*, 16- Geologist, Kans. State Board Agr, 96-; Kans. mineral exhibit, La. Purchase Expos, 04; Fuel Ad, 18-19. A.A; Geol. Soc; Kans. Acad. Gypsum; cement clays; coal, gas and oil; gypsum deposits of Michigan and Kansas; clay industry of Kansas and West Virginia; iron ores of West Virginia; history of American oil development; mineral resources of Baltimore and Ohio Railroad.

Grindley, Dr. H(arry) S(ands), 1010 W. Green St, Urbana, Ill. **Chemistry*. Champaign, Ill, April 13, 64. B.S, Illinois, 88; Morgan fellow, Harvard, 93-94, Sc.D, 94. Instr. chem, Illinois, 88-92; asst, Harvard, 92-93; asst. prof, *Illinois*, 94-99, *assoc. prof*, 99-04, prof. and director chem. lab, 04-07, *prof. animal nutrition*, 07- A.A; Chem. Soc; Soc. Biol. Chem; Soc. Animal Nutrition; Pub. Health Ass. Animal and human nutrition; influence of preservatives upon the health; the nutrition value of silage and of the amino acids of proteins of feeding stuffs.

Grinnell, Dr. Geo(rge) Bird, 238 E. 15th St, New York, N. Y. *Anthropology*. Brooklyn, N. Y. Sept. 20, 49. A.B., Yale, 70, Ph.D., 80, Litt.D., 21. Asst. osteol. Peabody Museum, Yale, 74-80; ed., 'Forest and Stream,' 80-11. Naturalist, Custer's exped. to Black Hills, 74; Ludlow's reconnaissance to Yellowstone Park, 75; explorer and collector of fossils in plains and Rocky Mts, Peabody Museum, 75-95; commissioner for sale of lands of Blackfeet and Ft. Belknap Indians, 95; Harriman exped. to Alaska, 99. Roosevelt gold medal, 25. A.A.; Anthropol. Ass.; fel. Ornith. Union; Soc. Mammal; Am. Geog. Soc.; Am. Mus. Nat. Hist.; N. Y. Zool. Soc. (board managers). History and habits of plains Indians, chiefly Pawnee, Blackfeet and Cheyenne.

Grinnell, Prof. J(oseph), University of California, Berkeley, Calif. **Zoology*. Okla., Feb. 27, 77. A.B., Throop, 97; A.M., Stanford, 01, Ph.D., 13. Asst. instr. Throop, 97-98; asst. embryol., Hopkins lab, Stanford, 00, instr. ornith., 01-02; biol. high sch., Calif., 01-03; Throop, 03-05, prof., 05-08; *director museum vert. zool., California*, 08-, asst. prof. zool., 13-17, assoc. prof., 17-20, *prof.*, 20- Ed., 'The Condor,' 06- A.A.; fel. Ornith. Union; Soc. Mammal; Ecol. Soc.; fel. Calif. Acad; for. mem. British Ornith. Union; cor. mem. London Zool. Soc. Distribution and ecology of vertebrate animals along the Pacific Coast, especially in California.

Griscom, Ludlow, American Museum of Natural History, New York, N. Y. *Ornithology*. New York, June 17, 90. A.B., Columbia, 12; A.M., Cornell, 15. Asst. biol. and ornith., Cornell, 15-16; dept. ichthyol., *Am. Museum Nat. Hist.*, 16-17, dept. ornith., 19-21, *asst. curator*, 21-Summers, lecturer, Virginia, 14, prof., 15; exped. to Nicaragua, Am. Museum Nat. Hist., 17, leader, exped. to interior west Panama, 24, bot. exploration, Gray Herbarium exped, Quebec, 23, Arctic Newfoundland, 25, east Yucatan, 26, east Panama, 27. A.A.; Ornith. Union; Ecol. Soc.; Torrey Bot. Club; New Eng. Bot. Club; N. Y. Linnean Soc. (sec'y and ed., 12-14, v. pres, 22, counselor, 25, pres, 27); fel. N. Y. Acad; British Ornith. Union. Systematic ornithology; ichthyology and botany; birds of Central America; ecology of Nicaragua and Costa Rica.

Grisdale, Dr. J(oseph) H(iram), Experimental Farm, Ottawa, Ont. Can. *Agriculture*. St. Marthe, Que., Feb. 18, 70. Toronto; Ont. Agr. Col; B.S.A. Iowa Col, 98; hon. D.Agr., Laval, 13. Agriculturist, Cent. Exp. Farms, Ottawa, 99-07; Dominion agriculturist, 07-11; director, Dominion Exp. Farms, 11-18; *deputy minister agr., Can.*, 18- Can. Nat. Research Council. A.A.; Can. Soc. Tech. Agr. Breeding, feeding and marketing of livestock; soil culture; crop rotation and production; farm management.

Griswold, Dr. Grace H(all), 126 Roberts Place, Ithaca, N. Y. *Economic entomology*. Taylors Falls, Minn., Dec. 14, 72. B.S., Cornell, 18, Ph.D., 25. *Research instr. econ. entom., Cornell.* A.A.; Ass. Econ. Entom; Entom. Soc. Amer; Wash. Entom. Soc. Biology of parasitic

Hymenoptera; insects attacking ornamental plants.

Groat, B(enjamin) F(eland), 4233 Walnut St, Philadelphia, Pa. *Mathematics, Physics*. Hannibal, Mo., Oct. 18, 67. B.S.(Eng), Minnesota, 01, LL.B., 08, LL.M., 09. Instr. physics, Minnesota, 94-95, math. and mech. sch. mines, 98-01, asst. prof. in charge dept., 01-05, prof. mech. and math., 05-10; *consulting engineer*, 10- Norman medal, Civil Eng; silver medal, West. Pa. Eng. Soc. A.A.; Math. Soc.; Eng. Educ.; Civil Eng; Mech. Eng; West. Pa. Eng. Soc. Mechanics; hydraulics; engineering; characteristics of stream flow which determine backwater slopes; chemihydrometry; elastic catenaries; hydraulic models and similarity; water power; ice diversion works at canal intakes; rod float tables and theory; flow of gases and fluids generally; heating and ventilating machinery law.

Grob, Dr. A(rmin) R(udolf), 240 Prospect Ave, Milwaukee, Wis. *Organic chemistry*. Zurich, Switzerland, Sept. 16, 80. Basle; Ph.D., Zurich, 03. *Chemist*, Soc. Chem. Indust., Basle, 03-19; develop, Am. dyestuff indust., E. I. du Pont de Nemours and Co, 20-22; Nat. Aniline and Chem. Co, 22-26; *Newport Co, Carrollville*, 26- Asst. to Prof. A. Werner, 02-03. Chem. Soc. Industrial utilization of acenaphthene; fast dyeing of wool with chromium compounds of dyes; sulfonation of organic compounds; industrial filtration; vat dyes.

Grollman, Dr. Arthur, 2608 Loyola Southway, Baltimore, Md. *Chemistry, Physiology*. Baltimore, Oct. 21, 01. A.B., Hopkins, 20, Ph.D., 23. Instr. chem., *Hopkins*, 23-24, *physiol.*, 24-26, *assoc.*, 26- Chem. Soc. Osmotic and vapor pressure; adsorption; ultrafiltration; renal function.

Grondahl, Dr. L(ars) O(laf), 7150 Penn Ave, Pittsburgh, Pa. *Physics*. Hendrum, Minn., Nov. 27, 80. B.S., St. Olaf, 04, M.S., 05; Ph.D., Hopkins, 08. Instr. physics, St. Olaf, 04-05; lecture asst., Hopkins, 06-08; prof. physics and math, Spokane, 08-09; instr. physics, Washington (Seattle), 09-12; Carnegie Inst. Tech., 12-14, asst. prof., 14-17, *assoc. prof.*, 17-20; *director research, Union Switch and Sig. Co*, 20- Research with Naval Consulting Board, 17-19. A.A.; Physical Soc; Illum. Eng. Soc; Electrochem. Soc; Eng. Educ. A.C.-D.C. transformation; effects of magnetic field on thermal electromotive forces; thermoelectricity of Heussler alloys; box photometer; physical properties of magnetic substances; submarine detection; automatic control of trains; electrical properties of oxides; junction rectifier.

Groner, Prof. Orel Samuel, Lewisburg, Pa. *Chemistry*. B.S., Mich. State Col, 94; B.Pd., Mich. State Nor. Col, 95; A.B., Michigan, 02; M.S., Chicago, 09. Prin. high sch., Mich., 96-01; *prof. chem. and physics*, Grand Island, 02-07; *chem.*, Ottawa (Kans.), 07-18; Transylvania, 18-21; *Bucknell*, 21- A.A.; Chem. Soc; Pa. Acad. Combustion methods of analysis of carbon compounds.

Gronwall, Dr. T(homas) H(akon), 68 Banks St, New York, N. Y. **Mathematics*. Axberg,

- Sweden, Jan. 16, 77. Upsala, 93-94, Ph.D, 98; Stockholm, 94-98; C.E, Berlin, 02. Asst. math, Stockholm, 97; practising civil engineer, 02-13; instr. math, Princeton, 13-14, asst. prof., 14-15; math. expert, ordnance dept., 18-22; *consulting mathematician*, 22- Ed, 'Annals of Math,' 13- Math. Soc; Circolo Mat. di Palermo; Soc. math. de France. Fourier and Laplace series; theory of prime numbers; linear differential equations; functions of complex variables; nomography; conformal representation; integral equations; theory of elasticity.
- Groover, Dr. Thomas A(llen)**, 1909 Massachusetts Ave, N. W, Washington, D. C. *Medicine*. Piddcock, Ga, May 9, 77. M.D, George Washington, 98. *Consulting physician*. Am. Med. Ass; Röntgen Ray Soc. (pres, 25); Radiol. Soc; South. Med. Ass. (v. pres, 24); D. C. Med. Soc. (pres, 25); Wash. Acad. (v. pres, 25). Röntgenology.
- Gross, Prof. Alfred O(tto)**, 11 Boody St, Brunswick, Maine. *Zoology*. Atwood, Ill, April 8, 83. A.B, Illinois, 08; Ph.D, Harvard, 12. Instr, *Bowdoin*, 12-13, asst. prof. *biol*, 13-22, *prof*, 22- Field ornithologist, Ill. State Lab. Nat. Hist, 06-07; Roosevelt field ornithologist, 24- A.A; Soc. Zool; Ornith. Union. Economic values of common Illinois birds; tropic-bird of the Bermuda Islands; reactions of Arthropods to monochromatic lights of equal intensities; the Dick-cissel of the Illinois-prairies; feeding habits and chemical sense of Neries virens; land and orchard birds of Illinois; black-crowned night heron; heath hen of Martha's Vineyard; diseases of the ruffed grouse; life history of the nighthawk.
- Gross, Prof. E(dward) R(obert)**, College Farm, New Brunswick, N. J. *Agricultural engineering*. Nebraska, Aug. 26, 83. B.S, Nebraska, 13; B.Ed, Nebr. Nor. Col, 13. Teacher, secondary schools, Nebr, 11-14; in charge farm mech, Colo. Agr. Col, 14-18; exten. specialist *agr. eng*, Miss. Agr. and Mech. Col, 18-19, *prof*, 19-22; *Rutgers*, 22- Agr. Eng.
- Gross, Prof. E(rwin) G(eorge)**, 226 Laurence St, New Haven, Conn. *Pharmacology, Toxicology*. Merrimac, Wis, May 12, 92. B.S, Wisconsin, 17, M.S, 19, Ph.D, 21. Asst. agr. chem, Wisconsin, 17-19, instr, 19-20; *pharmacol. and toxicol*, *Yale Med. Sch*, 21-24, *asst. prof*, 24- Soc. Biol. Chem; Soc. Exp. Biol; Chem. Soc. Biochemistry.
- Gross, Dr. Louis**, Mt. Sinai Hospital, New York, N. Y. *Pathology*. Montreal, Que, Can, May 5, 95. M.D, C.M, McGill, 16, Douglas fellow, 16-21; Beit fellow, Univ. Col, London, 21-23. Assoc. bacter, Columbia, 24; director lab, Brownsville and East N. Y. Hosp, 24-25; assoc. pathologist, *Mt. Sinai Hosp*, 25-26, *acting director lab*, 26- Soc. Exp. Biol; Soc. Bact; N. Y. Path. Soc; Path. Soc. Gt. Britain and Ireland; London Physiol. Soc; Int. Ass. Med. Mus. Blood supply to the heart, kidneys and other organs; vascular reconstruction; motor functions of the intestinal tract; effects of vitamin deficiencies; rheumatic fever.
- Gross, Prof. Paul (Magnus)**, 1001 Trinity Ave, Durham, N. C. *Chemistry*. New York, N. Y, Sept. 15, 95. B.S, Cpl. City of N. Y, 16; A.M, Columbia, 17, Ph.D, 19. Instr, Col. City of N. Y, 16-17; asst. prof. *chem*, Trinity (N. C), 19-20, *prof. and head dept*, 20-24, *Duke*, 24- Summer, instr, Columbia, 19; director research, Liggett and Myers Tobacco Co, N. C, 20-26. A.A; Chem. Soc. (pres, N. C. sect, 21); Eng. Educ. Theory of solutions; conductivity of non-aqueous solutions; quantitative analysis; distillation apparatus.
- Grossenbacher, J(ohn) G(asser)**, Apopka, Fla. *Botany, Plant pathology*. Berne, Switzerland, April 11, 75. A.B, Missouri, 06. Asst. bot, Missouri, 05-06; teaching fellow, Harvard, 06-07; asst. botanist, N. Y. Exp. Sta, Geneva, 07-09, assoc. botanist, 09-12; pathologist, U. S. Dept. Agr, 12-15; *grove expert, pres. and manager, Fla. Insecticide Co*, 26- Ed, 'Citrus Leaf.' Mycosphaerella wilt of melons; crown-rot; arsenical poisoning; winter injury; currant-blight fungus; relation of climate to fruit-tree diseases.
- Grossman, Marcus A(urelius)**, Central Alloy Steel Corporation, Canton, Ohio. *Metallography*. Youngstown, Ohio, Sept. 15, 90. B.S, Mass. Inst. Tech, 11. Mass. Inst. Tech, 11-12; Pittsburgh Testing Lab, 12-15; Vanadium Corp. of Amer, 15-17, 19-20; Elec. Alloy Steel Co, 20-22; Atlas Steel Corp, 22-24; *Central Alloy Steel Corp*, 24- Bur. Standards, 17-19. Electrochem. Soc; Soc. Steel Treat; British Iron and Steel Inst. High speed steels; alloy steels; stainless steels.
- Grosvenor, Gilbert H(ovey)**, 1328 18th St, Washington, D. C. *Geography*. Constantinople, Turkey, Oct. 28, 75. A.B, Amherst, 97, A.M, 01, Litt.D, 26; LL.D, Georgetown, 21. Instr. math. and modern languages, Englewood Acad, N. J, 97-99; asst. ed, 'Nat. Geog. Magazine,' 99-00, managing and assoc. ed, 00-03, *ed*, 03- Nat. Geog. Soc. (director, 99-20, pres, 20-). Commercial, political, physical and historical geography.
- Grosvenor, Dr. W(illiam) M(ason)**, 50 E. 41st St, New York, N. Y. *Chemical engineering*. St. Louis, Mo, Oct. 5, 73. B.S, Brooklyn Polytech, 93; Hopkins, 94-95; Ph.D, Pennsylvania, 98. Chemist, Castner Elec. Alkali Plant, 96; designing engineer and asst. treas, Ampere Electrochem. Co, 99; asst. supt, Gen. Chem. Co, 00-02, asst. manager, investigation dept, 03-04; supt, Contact Process Co, 05-06; treas, Geo. F. Wescott Co, 06-07; *consulting chem. engineer*, 07- Chem. Soc; Soc. Chem. Indust; Electrochem. Soc; Chem. Eng; Inst. Chem; N. Y. Chemists Club. Development; bank investigation; litigation.
- Grote, Dr. I(rvine) W(alter)**, Parke, Davis and Co, Detroit, Mich. *Chemistry*. Chattanooga, Tenn, July 25, 99. B.S, Chattanooga, 22; A.M, Columbia, 23; Ph.D, Cincinnati, 25. Research biochemist, Wm. S. Merrill Co, Cincinnati, 25-26; head dept. chem, Winthrop, 26-27; *research chemist, Parke, Davis and Co*, 27- A.A; Chem. Soc; S. C. Acad. Sandmeyer's reaction; blood pressors.

- Grout, Dr. A(bel) J(oel)**, Curtis High School, New Brighton, Staten Island, N. Y. *Botany*. Newfane, Vt, March 24, 67. Ph.B, Vermont, 90; Ph.D, Columbia, 97. Instr. science, State Nor. Sch, Johnson, Vt, 93-95; Plymouth, N. H, 97-99; Boys' High Sch, Brooklyn, N. Y, 99-08; first asst. biol, *Curtis High Sch*, 08- Curator bot. dept, Museum of Brooklyn Inst, 99-03. Ed, 'Bryologist.' A.A.; Bot. Soc. Taxonomy of mosses; moss peristomes; adaptations of moss peristomes for spore distribution; ecology of mosses; photography of mosses.
- Grout, Dr. Frank F(itch)**, 504 University Ave, S. E, Minneapolis, Minn. **Geology*. Rockford, Ill, Jan. 24, 80. B.S, Minnesota, 04, M.S, 08; Ph.D, Yale, 17. Asst. chemist, W. Va. Geol. Surv, 04-06; asst. chemist and geologist, Ill. Geol. Surv, 06; instr. miner, Oklahoma, 06-07; *Minnesota*, 07-14, *prof. geol. and miner*, 14- Asst. geologist, U. S. Geol. Surv, 14-18, geologist, 18-25; summer field geologist, Wis. Geol. Surv, Colo. Geol. Surv. and Minn. Geol. and Nat. Hist. Surv; special expert, U. S. Shipping Board, 18-19. Rep. Geol. Soc, div. geol, Nat. Research Council. A.A.; Geol. Soc; Soc. Econ. Geol; Min. and Metal. Eng; Chem. Soc. Petrology; petrography; plasticity of clay; composition and classification of coal; the minerals of copper-bearing rocks of Minnesota; the clays, iron ores and building stone of Minnesota; Duluth gabbro; Vermillion granite; Canadian shield; petrology of igneous and metamorphic rocks; world mineral strategy.
- Grove, Prof. Charles C(layton)**, 143 Milburn Ave, Baldwin, L. I, N. Y. *Mathematics*. Hanover, Pa, Dec. 19, 75. A.B, Pennsylvania Col, 00, A.M, 03; Ph.D, Hopkins, 06. Instr. math, Pa. State, 05; Baltimore Polytech, 05-06; asst. prof, Hamilton, 06-07; prof. math. and astron, Roanoke, 07-09; instr. math, Columbia, 09-10, asst. prof, 10-19; *instr. Brooklyn Polytech. and exten. dept, Col. City of N. Y*, 25- A.A; Math. Soc; Math. Ass; Circolo Mat. di Palermo. The syzygetic pencil and its Hesse group; the complete Pappus hexagon; business mathematics; mathematics of statistics; statistical cost analysis; life tables; mathematical research in public health.
- Grove, Prof. Vernon G(uy)**, 212 W. Grand River Ave, East Lansing, Mich. *Mathematics*. Mentone, Ind, Dec. 15, 90. A.B, Olivet, 16; A.M, Kentucky, 18; Ph.D, Chicago, 25. Teaching fellow, Kentucky, 16-18; instr. math, Cornell, 19-20; asst. prof, *Mich. State Col*, 20-25, *assoc. prof*, 25- Math. Soc; Math. Ass. Projective differential geometry of nets of curves, congruences and surfaces.
- Grover, Prof. F(rederick) O(rville)**, Oberlin College, Oberlin, Ohio. *Botany*. Bangor, Maine, July 31, 68. A.B, Dartmouth, 90, A.M, 93; A.B, Harvard, 95, Morgan fellow, 95-96, A.M, 96. Instr. math, St. James Mil. Acad, Macon, Mo, 90-92; Greek and math, West. Mil. Acad, Upper Alton, Ill, 92-94; asst. bot, Harvard, 95-96, Radcliffe, 95-97; assoc. prof, *Oberlin*, 98-00, *prof*, 00- Trustee, Oberlin Kindergarten Training Sch, 11- A.A; Soc. Nat; Bot. Soc; Genetic Ass; Sullivant Moss Soc; fel. Am. Geog. Soc; New Eng. Bot. Club; fel. Ohio Acad. (v. pres, 12, 14, pres, 16).
- Grover, Dr. Frederick W(arren)**, Union College, Schenectady, N. Y. *Physics*. Lynn, Mass, Sept. 3, 76. B.S, Mass. Inst. Tech, 99; M.S, Wesleyan, 01; Ph.D, George Washington, 07; Munich, 08. Asst. physics, Wesleyan, 99-01; instr. elec. eng, Lafayette, 01-02; lab. asst, Bur. Standards, 02-04, asst. physicist, 04-07, 08-11, assoc. physicist, 11; prof. physics, Colby, 11-20; asst. prof. *elec. eng, Union*, 20-22, *assoc. prof*, 22- Asst, Wesleyan, 00-01; Bur. Standards, 17-18, consulting radio expert, 18-; summer, volunteer observer, Harvard Col. Observatory, 99. A.A; Physical Soc; assoc. Elec. Eng; Radio Eng. Measurement of inductance and capacity; absolute electrical measurements; calculation, inductance and capacity; principles underlying radio communication.
- Grover, N(athan) C(lifford)**, 1442 Belmont St, Washington, D. C. *Civil engineering*. Bethel, Maine, Jan. 31, 68. B.C.E, Maine, 90, C.E, 97; B.S, Mass. Inst. Tech, 96. Instr. civil eng, Maine, 91-94, asst. prof, 94-95, assoc. prof, 95-97, prof, 97-03; engineer, U. S. Geol. Surv, 03-07; hydro-construction and irrig. engineer, J. G. White and Co, 07-11; chief engineer land classification board, U. S. Geol. Surv, 11-13, *chief hydraulic engineer in charge water resources branch*, 13- Civil Eng; Wash. Acad; Wash. Soc. Eng. River discharge.
- Groves, Prof. J(ames) F(rederick)**, Ripon, Wis. *Botany*. McLeansboro, Ill, 79. Ph.D, Chicago, 15. *Prof. bot*, Wyoming, 15-18; *Ripon*, 18- Summers, pathologist, bur. plant indust, U. S. Dept. Agr, 17-19. A.A; Bot. Soc; Phytopath. Soc. Plant physiology, ecology and pathology.
- Groves, J(ohn) Stuart**, E. I. du Pont de Nemours and Co, Wilmington, Del. *Chemistry*. Smyrna, Del, July 16, 81. A.B. Research chemist, exp. sta, E. I. du Pont de Nemours and Co, 04-10; research chemist and supt, Georgetown Alcohol Plant, 10-15; gen. supt, Hopewell plant, *E. I. du Pont de Nemours and Co*, 15-19, *special asst, dye div*, 19- A.A; Chem. Eng; Chem. Soc. Explosives; nitrocellulose; purification of crude fiber; ethyl alcohol from saw dust.
- Grubb, Prof. A(ubrey) C(hester)**, 814 Tenth St, Saskatoon, Sask, Can. *Physical chemistry*. Ackley, Iowa, July 30, 84. A.B, Iowa Teachers Col, 17; M.S, Purdue, 19; Hoskins fellow, Chicago, 19-21, Ph.D, 21. Teacher, high sch, Iowa, 12-16; instr, Purdue, 17-19; asst, Chicago, 19-21; *prof. chem, Saskatchewan*, 21- Summers, lecturer, Iowa State Teachers' Col, 22-24. Chem. Soc. Quantitative analysis; activation of hydrogen by electrolysis and by action of a metal and acid; activation of gases and organic vapors in corona discharge; activation and over voltage; effect of acids and salts on the baking qualities of flour.
- Grubbs, Dr. S(amuel) B(ates)**, U. S. Public Health Service, Washington, D. C. *Medicine*. Indianapolis, Ind, Feb. 11, 71. A.B, Michigan, 93; M.D, Columbia, 96. *Commissioned officer, U. S. Pub. Health Service*, 97-, *asst. surgeon gen*, 26- Consulting physician, Presb. Hosp,

- San Juan, P. R., 10-12; director, Anti-tuber. Ass, San Juan, 11-12; lecturer, Louisville, 15, Harvard, 16. Delegate, Office Int. d'Hygiène Pub, 08; Int. Cong. Applied Chem, Paris, 00. A.A.; Am. Med. Ass; Pub. Health Ass. Preventive medicine; maritime quarantine; health work organization.
- Gruber, Prof. Charles M(eri) M**, Washington University School of Medicine, St. Louis, Mo. *Pharmacology*. Hope, Kans, March 11, 87. A.B, Kansas, 11, fellow, 11-12, A.M, 12; Ph.D, Harvard, 14; M.D, Washington (St. Louis), 21. Teaching fellow, Harvard, 12-14; instr. physiol, Pennsylvania, 14-15; prof. physiol. and pharmacol, Albany Med. Col, 15-17; asst. prof, Colorado, 17-18, prof, 18-20; assoc. physiol. sch. med, *Washington (St. Louis)*, 20-21, *assoc. prof. pharmacol*, 21- Soc. Pharmacol; Physiol. Soc; fel. Am. Med. Ass; Soc. Exp. Biol; Ass. Study Int. Secretions. Endocrine organs; muscular fatigue; blood pressure; pharmacology of benzyl esters.
- Gruenberg, Dr. Benj(amin) C(harles)**, 370 Seventh Ave, New York, N. Y. *Biology*. Russia, Aug. 15, 75. B.S, Minnesota, 96; N. Y. Univ, 01-02; N. Y. Bot. Garden, 02-09; A.M, Columbia, 04, Ph.D, 11. Polariscopist, U. S. Lab, New York, 98-02; instr. biol, DeWitt Clinton High Sch, 02-10; Commercial High Sch, Brooklyn, 10-14; Julia Richman High Sch, 14-20; educ. director, U. S. Pub. Health Service, 20-22; *managing director, Am. Ass. for Med. Progress*, 25- Lecturer and coordinator, Dept. Educ, New York; director and instr, Rand Sch. Social Science; supervisor summer play schools, Fed. for Child Study; labor adjuster, garment industry. A.A. Chemistry of bastard log-wood; compensatory motions and semi-circular canals; mycorrhiza; education; sex education; science education.
- Gruener, Prof. Hippolyte**, 2324 Coventry Road, Cleveland, Ohio. *Chemistry*. New Haven, Conn, Feb. 23, 69. A.B, Yale, 91, Ph.D, 93; Munich, 94-95. Instr. *chem*, Adelbert Col, *Western Reserve*, 95-03, asst. prof, 03-07, assoc. prof, col. for women, 98-07, *prof*, 07- A.A; Chem. Soc; Pub. Health Ass; Hist. Sci. Soc; Chem. Gesell. Analytical methods, especially iodometric; vapor pressure of sulphur; water filtration and softening.
- Grulee, Dr. Clifford G(roselle)**, 310 S. Michigan Ave, Chicago, Ill. *Pediatrics*. Newport, Ky, Jan. 3, 80. A.B, Miami, 99, A.M, 01, LL.D, 19; M.D, Northwestern, 03. Asst. prof. *pediat*, *Rush Med. Col*, 14-19, *clin. prof. and chairman dept*, 19- Attending pediatrician, Home for Destitute Crippled Children; Presb. Hosp; past chief *pediat*. staff, Cook Co. Hosp; attending and consulting pediatrician, Provident Hosp. Ed-in-chief, 'Am. Jour. Diseases of Children.' A.A; Am. Med. Ass; Therapeut. Soc; Soc. Internal Med; *Pediat. Soc*; Cent. States *Pediat. Soc*. (sec'y, 16). Salt metabolism of spasmophilia.
- Gruner, Prof. John W(alter)**, 977 14th Ave, S. E, Minneapolis, Minn. *Economic geology, Mineralogy*. Neurode, Germany, July 12, 90. A.B, New Mexico, 17; M.S, Minnesota, 19, Ph.D, 22. Instr, New Mexico, 17-18; asst. prof, sch. mines, Oregon Col, 19-20; instr, *Minnesota*, 20-23, *asst. prof*, 23- Geologist, Minn. Geol. Surv, 19- Geol. Soc. Archean and Huronian algae and bacteria; iron formations and iron ores; relations of magnetite and hematite.
- Grunsky, Dr. C(arl) E(wald)**, 57 Post St, San Francisco, Calif. *Civil engineering*. San Joaquin Co, Calif, April 4, 55. C.E, Polytech, Stuttgart, 77, Ing.D, 10; D.Eng, Rensselaer, 24. Asst. state engineer, Calif, 78-88; Exam. Commission Rivers and Harbors, 89-90; Sewerage Board, San Francisco, 92-93; consulting engineer to commissioner of pub. works, Calif, 94; city engineer, San Francisco, 00-04; Panama Canal Commission, 04-05; consulting engineer, U. S. Reclamation Service and adviser to Sec'y of Interior, 05-07; *consulting engineer*, 88-00, 08- A.A. (exec. committee, Pacific div, 16-25, pres, div, 24); Civil Eng. (pres, 24). Irrigation; drainage; flood control; hydroelectric power; water supply; valuation; public utility rate fixing.
- Gruse, Dr. W(illiam) A(rthur)**, Mellon Institute, Pittsburgh, Pa. *Petroleum chemistry*. Wheeling, W. Va, March 11, 92. A.B, Hopkins, 13; A.M, Wisconsin, 15, fellow, 15-16, Ph.D, 16. Instr. *chem*, N. Y. Univ, 16-17; asst. prof, Syracuse, 17; indust. fellow, *Mellon Inst*, 19-23, *senior fellow*, 23-; *asst. prof*, *Pittsburgh*, 22- Lieut, C.W.S, 17-18. A.A; Chem. Soc. (sec'y, petrol. div, 21-24); Automotive Eng. Petroleum technology; mechanism; organic reactions; motor fuels; lubricants.
- Gubelmann, Dr. Ivan**, 1202 Fairview Ave, S. Milwaukee, Wis. *Chemistry*. Meilen, Switzerland, July 7, 86. Diploma, Fed. Tech, Zurich, 09, D.Sc, 12. Instr, Fed. Tech, Zurich, 09-12; research chemist, Monsanto Chem. Works, Mo, 12-16; chief chemist, *The Newport Co*, Wis, 16-19, chem. director, 19-24, *vice-pres*, 24- Chem. Soc. Dyestuffs; intermediates.
- Guberlet, Dr. John E(arl)**, University of Washington, Seattle, Wash. *Parasitology*. Courtland, Nebr, March 18, 87. A.B, Bethany (Kans), 09; Colorado, 09-10; A.M, Illinois, 11, fellow, 13-14, Ph.D, 14. Asst. zool, Colorado, 09-10; Illinois, 10-13; instr, Oregon, 14-15; prof. biol, Carroll, 15-18; parasitologist, Okla. Exp. Sta, 18-23; *assoc. prof. zool*, *Washington (Seattle)*, 23- A.A; Soc. Parasitol; Soc. Zool; Micros. Soc; Entom. Soc; Soc. Trop. Med; West. Soc. Nat; Ill. Acad. Osteology of Loricati; cestodes of poultry; parasites of poultry and sheep; fish diseases and parasites.
- Gucker, Dr. Frank T(homson), Jr**, Harvard University, Cambridge, Mass. *Physical chemistry*. Philadelphia, Pa, April 8, 00. A.B, Haverford, 20, A.M, 21; Ph.D, Harvard, 25. Teaching fellow, Haverford, 20-21; Austin teaching fellow, *Harvard*, 21-22, Harris research fellow, 23-24, *research asst. to Prof. T. W. Richards*, 24-25, 27- Nat. Research Council fellow, Calif. Inst, 25-27. Chem. Soc; Soc. de Chim. physique. Thermochemistry; specific heat and heats of dilution and of neutralization.
- Gudeman, Dr. Edward**, 703 Postal Telegraph Building, Chicago, Ill. *Chemistry*. New York,

- N. Y., Jan. 25, 65. Ph.B., Columbia, 87, fellow, 89-90, Ph.D., 90; Berlin, 87-88; Göttingen, 88-89. In charge dept. chem. and dyeing, Pa. Museum and Sch. Indust. Art, 90-91; professional chemist, 91-00; *consulting chem. engineer and sci. expert*, 00- A.A.; Chem. Soc.; Soc. Chem. Indust.; Chem. Eng.; Electrochem. Soc. Chemical technology; food products; economics.
- Gudger, Dr. E(ugene) W(illis)**, American Museum of Natural History, New York, N. Y. **Ichthyology*. Waynesville, N. C., Aug. 10, 66. B.S., Nashville, 92, M.S., 93; Ph.D., Hopkins, 05. Instr., high sch., Ark., 95-01; prof. biol., N. C. Col. for Women, 05-20; *assoc. ichthyol.*, *Am. Museum Nat. Hist.*, 21- Summers, research, U. S. Fisheries Lab., Beaufort, N. C., 02-11; marine lab., Carnegie Institution, Tortugas, 12-15. Assoc. ed., 'Bibliography of Fishes,' *Am. Museum Nat. Hist.*, 17-19, ed., 19-23, bibliographer *ichthyol.*, 25- A.A.; Soc. Nat.; Soc. Ichthyol. and Herp.; Soc. Zool.; Hist. Sci. Soc.; fel. N. Y. Zool. Soc.; fel. N. Y. Acad.; N. C. Acad. (sec'y., 07-18, pres., 18); cor. mem. Salmon and Trout Ass. Gt. Britain. Life histories, habits and embryology of fishes; rains of fishes; unusual methods of fishing practised by primitive people.
- Guenther, Prof. A(ugust) E(rnest)**, University of Nebraska College of Medicine, Omaha, Nebr. *Physiology*, *Pharmacology*. Sandusky, Ohio, Jan. 20, 74. B.S., Michigan, 98; fellow, Hopkins, 03-04, Ph.D., 05. Asst. *physiol.*, Michigan, 97-01; *prof.*, *Nebraska*, 05-13, *col. med.*, 13- A.A.; Physiol. Soc.; Soc. Exp. Biol.; Chem. Soc. Physiology of muscle.
- Guernsey, Dr. E(rnest) W(illiam)**, 4113 Ridgewood Ave., Baltimore, Md. *Chemistry*. Vincennes, Ind., May 1, 96. B.S., Illinois, 18; M.S., American Univ., 22; Ph.D., George Washington, 24. Research chemist, Brown Co., N. H., 19; asst. and assoc. chem. eng., fixed nitrogen research lab., U. S. Dept. Agr., 19-26; *research chemist*, *Consol. Gas, Electric Light and Power Co. of Baltimore*, 26- Lecturer, American Univ., 25- C.W.S., U.S.A., 18-19. Chem. Soc. Fixation of nitrogen by the cyanide process; agriculturally available phosphate.
- Guernsey, Dr. Martha**, University of Michigan, Ann Arbor, Mich. *Psychology*. Montpelier, Idaho, Feb. 22, 99. A.B., Michigan, 20, A.M., 21, Ph.D., 22. Asst. *psychol.*, *Michigan*, 18-21, teaching and research asst., 21-23, *instr.*, 23- Social sci. research fellow, 27-28. A.A.; Psychol. Ass.; Eugenics Soc. Psychology of sound; genetic psychology.
- Guernsey, Samuel James**, Peabody Museum, Cambridge, Mass. *Anthropology*. Dover, Maine, 71. Edison Elec. Co., 03-11; asst. curator, *Peabody Museum*, 11-21, *asst. director*, 21- Anthropol. Ass. Archeology of the southwestern United States; basket makers, post basket makers and other early cultures of the Southwest.
- Guess, Prof. Geo(rge) A(rthur)**, University of Toronto, Toronto, Ont., Can. *Metallurgy*, *Engineering*. Hartington, Ont., 73. M.A., Queen's (Can.), 94. Chief chemist, Cananea Consol. Copper Co., Mex., 05-07; smelter supt., Tenn. Copper Co., 07-11; metal supt., Cerro de Pasco Copper Co., 11-12; *prof. metal. eng.*, *Toronto*, 12- Min. and Metal. Eng.; Electrochem. Soc.; Can. Inst. Min. and Metal. The metallurgy of copper.
- Guest, Dr. Herbert H(artley)**, Glastonbury, Conn. *Chemistry*. Yonkers, N. Y., June 9, 84. Ph.B., Yale, 08, Ph.D., 12. Asst. chem., Yale, 09-10, 11-12; asst. protein research, Conn. Exp. Sta., 10-11; chemist, *J. B. Williams Co.*, 12-18, *chief chemist*, 18- A.A.; Chem. Soc.; Oil Chem. Soc. Organic chemistry; higher acetylenes and derivatives; fatty acids; synthetic perfumes.
- Guild, Prof. F(rank) N(elson)**, University of Arizona, Tucson, Ariz. *Mineralogy*. Jaffrey, N. H., Dec. 28, 70. B.S., Vermont, 94, M.S., 03; Ph.D., Stanford, 17. Instr. physics and French, Chicago Manual Training Sch., 94-95; *prof. chem. and geol.*, Mont. Col., 95-97; chem. and miner., *Arizona*, 97-23, *miner. and head dept. geol. and miner.*, 23- U. S. Assay Commission, 01; assoc. mem., Naval Consulting Board. A.A.; Miner. Soc.; Chem. Soc. Optical mineralogy; crystal measurements; polished surfaces of ores.
- Guild, Dr. Stacy R(ufus)**, 562 S. Seventh St., Ann Arbor, Mich. *Anatomy*. Sterling, Kans., Aug. 22, 90. A.B., Washburn, 10; A.M., Michigan, 14, Ph.D., 18. Asst. histol., *Michigan*, 12-13, instr., 13-18, asst. prof. *anat.*, 18-23, *assoc. prof.*, 23- Visiting lecturer, sch. med., Hopkins, 26-27. A.A.; Ass. Anat. Embryology; nervus terminalis of Mammalia; side processes of sensory ganglia cells; morphology and auditory function of internal ear; prevention of deafness in war; circulation of endolymph.
- Gulick, Dr. Addison**, University of Missouri, Columbia, Mo. *Physiology*, *Biochemistry*. Osaka, Japan, April 2, 82. A.B., Oberlin, 04; A.M., Harvard, 05; Ph.D., Würzburg, 10; fellow, Toronto, 10-11. Instr. *physiol.*, Minnesota, 11-12; *Missouri*, 12-13, asst. prof., 13-18, *assoc. prof.*, 18-21, *prof.*, 21- Soc. Nat.; Soc. Zool.; Physiol. Soc. Fossil land shells of Bermuda; spermatogenesis of nematodes; carbohydrate luxur consumption; normal and abnormal basal metabolism in rats.
- Gullum, Prof. F(rank) B(arnhart)**, Ohio University, Athens, Ohio. *Chemistry*. Hamden, Ohio, May 18, 85. B.S., Ohio, 07; M.S., Ohio State, 23. Chemist, Rock Island Ry., 08-09; instr. chem., high schools, Ohio, 09-18; asst. prof., *Ohio*, 18-23, *assoc. prof.*, 24- A.A. Hydrolysis of fatty esters by lipase of castor bean; estimation and recovery of bromine from salt brine.
- Gummer, Prof. C(uthbert) F(rancis)**, Queen's University, Kingston, Ont., Can. *Mathematics*. Salisbury, Eng., Jan. 5, 83. B.A., Oxford, 04, M.A., 08; Ph.D., Chicago, 24. Asst. master, Denstone Col. (Eng.), 06-08; *prof. math.*, Bishop's Col., 08-11; asst. prof., *Queen's (Can.)*, 11-20, *assoc. prof.*, 20-22, *prof.*, 22- Assoc. ed., 'Am. Math. Monthly,' 20-25, ed., questions and discussion dept., 22-25. Math. Soc.; Math. Ass.

- (trustee, 21-25); Royal Astron. Soc. Can. Algebraic equations; location of roots.
- Gundersen, Dr. Alfred**, Brooklyn Botanic Garden, Brooklyn, N. Y. *Botany*. Kragerö, Norway, July 1, 77. A.B., Stanford, 97; A.M., Harvard, 07; Docteur de l'Univ, Paris, 10. Teacher, secondary schools, 98-03; asst. Arnold Arboretum, 10-13; asst. curator, *Brooklyn Bot. Garden*, 14-24, *curator plants*, 24- A.A.; Bot. Soc; Torrey Bot. Club. Classification of dicotyledons; history of botany; Frankeniaceae.
- Gundersen, Dr. C(arl)**, Stillwater, Okla. *Mathematics*. Kragerö, Norway, Jan. 10, 64. A.B., Stanford, 97; A.M., Columbia, 99, fellow, 99-00, hon. fellow, 00-01, Ph.D., 02. Prof. *math*, La Grange, 02-04; instr. Mich. State Col., 04-08, asst. prof., 08-09; *prof*, *Okla. Agr. and Mech. Col.*, 09- Math. Soc; Math. Ass. The content or measure of assemblages of points.
- Gunn, Dr. Francis D(owden)**, 25 Galloway St, Buffalo, N. Y. *Medicine*. Lexington, Ky, July 20, 99. A.B., Cornell, 21; M.D., Northwestern, 24. *Nat. Research Council fellow*, 25- General and experimental pathology; bacteriology; serology.
- Gunn, Dr. Ross**, Naval Research Laboratory, Washington, D. C. *Physics*. Cleveland, Ohio, May 12, 97. B.S., Michigan, 20, M.S., 21; Ph.D., Yale, 26. Special instr. war courses, Michigan, 17-18; radio research engineer, Glenn L. Martin Co, 19; *Air Service*, 22-23, *consulting engineer*, 24-; instr. physics, Michigan, 20-22; Yale, 23-27; *physicist*, *U. S. Navy*, 27- Electrical measurements; high frequency electricity applied to aircraft; aircraft instruments; radio.
- Gunn, Selskar M(ichael)**, Rockefeller Foundation, 61 Broadway, New York, N. Y. *Sanitary science*. London, Eng, May 25, 83. B.S., Mass. Inst. Tech, 05; C.P.H., Harvard-Tech. Sch. of Pub. Health, 17. Bacteriologist, Boston Biochem. Lab, 05-06; first asst. bacteriologist, State Board Health, Iowa, 06-08; health officer, Orange, N. J., 08-10; instr. sanit. biol, Mass. Inst. Tech, 10-11, asst. prof. sanit. biol. and pub. health, 11-13, assoc. prof., 14-17; assoc. director, Commission for Prev. Tuber, France, 17-20; adviser, pub. health administration, ministry health, Czecho-Slovakia, 20-22; director, Paris office, Int. Health Board, *Rockefeller Foundation*, 22-27, *v. pres*, 27- Lecturer, Iowa, 06-08; Tufts, 12-14; asst. prof., Simmons, 12-14; sanit. expert, Bur. Econ. and Efficiency, Milwaukee, 11; director div. hygiene, Mass. Health Dept, 15-16. Managing ed, 'Am. Jour. Pub. Health,' 12-13, ed, 14-17. State Board Labor and Industries, Mass, 14-15. Officier, Légion d'honneur, 25. A.A; Pub. Health Ass. (sec'y, 12-17); Tuber. Ass; Child Health. Ass. Public health methods used by health departments; municipal sanitation.
- Gunter, Herman**, Tallahassee, Fla. *Geology*. Brooklyn, N. Y., July 2, 85. B.S., Florida. Asst, Fla. Geol. Surv, 07-19; *state geologist*, Fla, 19- A.A; Geol. Soc; Ass. Petrol. Geol. Florida underground waters; mineral and natural resources and economic geology of Florida.
- Gunther, Major Charles O(tto)**, Stevens Institute of Technology, Hoboken, N. J. *Mathematics*. New York, N. Y., May 21, 79. M.E., Stevens, 00. Instr. math, *Stevens*, 00-02, asst. prof., 02-04, math. and mech., 04-08, *prof. math. and head dept*, 08-; *consulting engineer*. Ordnance dept, U.S.A., 18-19, major, ordnance reserve. A.A; Civil Eng; Mech. Eng; Army Ordnance Ass; Soc. astron. de France; Circolo Mat. di Palermo. Integration by trigonometric and imaginary substitution; exterior ballistics; heat transfer.
- Gunthorp, Dr. Horace**, Mills College, Oakland, Calif. *Zoology*. Holbeach, Eng, Aug. 28, 81. Ph.B., Hamline, 05; A.B., Stanford, 09; A.M., Kansas, 12, Ph.D., 23; fellow, Minnesota, 17-18. Prof. biol, Southwestern (Kans), 09-11; instr. zool, Kansas, 11-12; *prof. biol*, Monmouth, 12-16; *zool*, Washburn, 18-20; asst. prof., Washington (Seattle), 20-24; *prof*, *Mills*, 24-, *director sch. science*, 27- Kans. State Biol. Surv, 10. A.A; Soc. Zool; assoc. Ornith. Union; Cooper Ornith. Club. Myriapoda.
- Gunton, Prof. J(ohn) A(berdeen)**, University of Western Ontario, London, Ont, Can. *Chemistry*. Simcoe, Ont, Sept. 11, 94. B.A., McMaster, 16, M.A., 17; Ph.D., Illinois, 21. Asst. McMaster, 16; public analyst, Inland Revenue Lab, Ottawa, Can, 17; instr. med. dept, Louisville, 17-18; asst. *chem*, Illinois, 18-21; *prof*, Transylvania, 21-23; *Western Ontario*, 23- Summers, chemist, Can. Explosives, Ltd, 17; food and drug chemist, Exp. Sta, Kentucky, 22. A.A; Chem. Soc. (chairman, Lexington sect, 23); Soc. Chem. Indust; London Chem. Ass. (chairman, 27); Ky. Acad. (v. pres, 23); fel. Can. Inst. Chem. Anthraquinone drug plants; glucosides.
- Gurd, Dr. Fraser B(aillie)**, 80 The Boulevard, Westmount, Que, Can. *Surgery*. Montreal, Que, Jan. 7, 83. B.A., McGill, 04, M.D., 06. Instr. path. and bacter, Tulane, 09-11; *lecturer surg. and applied immunol*, *McGill*, 11- Surgeon-in-chief, west. pavilion, Montreal Gen. Hosp, assoc. surgeon, main pavilion. Major, C.A.M.C; hon. capt, R.A.M.C. Fel. Col. Surg. Immunology; wound treatment.
- Gurley, W(illiam) F(rank) E(ugene Reed)**, 6151 University Ave, Chicago, Ill. *Paleontology*. Oswego, N. Y., June 5, 54. Cornell, 73-75. State geologist, Ill, 93-97; *curator paleont*, *Chicago*, 00- A.A; Paleont. Soc; Geol. Soc; Ill. Acad; cor. mem. Austrian Imp. Geol. Soc. Paleozoic paleontology.
- Gushee, Miss Vera M(arie)**, 62 West St, Northampton, Mass. *Astronomy*. Cincinnati, N. Y., Feb. 7, 94. A.B., Smith, 16; M.S., Chicago, 17. Computer, Yerkes Observatory, 16-17; demonstrator, asst. and instr. *astron*, Smith, 17-24; Northwestern, 24-25; Ohio State, 25; *asst. prof*, *Smith*, 25- Asst. solar eclipse exped. to Matheson, Colo, 18. Summer, asst, 'Nautical Almanac' Office, 18. Astron. Soc; Ass. Variable Star Observers.
- Güssow, H(ans) T(heodor)**, Central Experimental Farm, Ottawa, Ont, Can. *Botany*. Breslau, Germany, Aug. 24, 79. Royal Bot. Gardens, Bres-

- lau, 94-96; Leipzig, 98-99; Berlin, 99-00. Asst. to consulting botanist, Royal Agr. Soc. England, 03-09; *Dominion botanist, Cent. Exp. Farm, Ottawa*, 09- A.A.; Phytopath. Soc. (assoc. ed, 'Phytopath,' 16); British Soc. Econ. Biol.; Royal Micros. Soc.; fel. London Linnean Soc.; hon. mem. Royal Hort. Soc. (mem. sci. committee); Verein für angewandte Bot.; Soc. mycol. de France; Soc. de Path. veg. et d'Entom. agr. Mycology; phytopathology.
- Gustafson, Prof. A(xel) F(erdinand)**, Cornell University, Ithaca, N. Y. *Agronomy*. Joy, Ill, Nov. 24, 80. B.S., Illinois, 17, M.S., 12; Ph.D., Cornell, 20. Asst. soil physics, Illinois, and Exp. Sta., 07-10, instr. 10-11, assoc. 11-15, asst. prof., 15-20; *soils*, N. Y. State Col. Agr. Cornell, 20-22, *prof.*, 22- Soc. Agron. Soils; soils survey.
- Gustafson, Prof. F(elix) G(ustav)**, 1606 Pontiac Road, Ann Arbor, Mich. *Botany*. Forsby, Finland, Jan. 8, 89. A.B., Wisconsin, 15; A.M., Harvard, 19, Ph.D., 21. Botanist, supply dept., Woods Hole, 15-20; instr. *bot.*, Michigan, 20-25, *asst. prof.*, 25- A.A.; Bot. Soc.; Mich. Acad. Respiration in fungi; hydrogen-ion concentrations in plants; growth in fruits.
- Gustavson, Prof. R(euben) G(ilbert)**, 2324 S. Clayton St., Denver, Colo. *Chemistry*. Denver, April 6, 92. A.B., Denver, 16; Ph.D., Chicago, 25. Instr. *chem.*, Colo. Agr. Col., 17-19, assoc. prof., 19-20; asst. prof., Denver, 20-21, *assoc. prof.*, 21- Chem. Soc.; Svensk Kemist Samfundet. Volumetric determination of cobalt in presence of nickel; successive electrometric titration of iron, uranium and vanadium; the true dry substance in beet sugar molasses; growth-promoting substances of the ovary and placenta.
- Guthe, Dr. Carl E(uigen)**, 1930 Cambridge Road, Ann Arbor, Mich. *Anthropology*. Kearney, Nebr., June 1, 93. B.S., Michigan, 14; A.M., Harvard, 15, Ph.D., 17. Austin teaching fellow anthrop., Harvard, 15-17; assoc. director, Andover-Pecos exped., dept. archeol., Phillips Acad., 17-20; research assoc., Carnegie Inst., 21-22; *assoc. director anthrop. museum, Michigan*, 22- Anthropol. Ass. (councilor); Maya Soc. (sec'y, 22); N. Mex. Archeol. Soc. Maya, Southwestern and Philippine archeology.
- Guthrie, Prof. C(harles) C(laude)**, University of Pittsburgh, Pittsburgh, Pa. **Physiology*. Gilmore, Mo., May 13, 80. B.S., Woodlawn Inst., 97; M.D., Missouri, 01, fellow, 01-02; Ph.D., Chicago, 07. Demonstrator physiol., Western Reserve, 02-03; instr., Chicago, 03-06; *prof. physiol. and pharmacol.*, Washington (St. Louis), 06-09; *Pittsburgh*, 09- Committee for investigations of the physiology of shock. Physiol. committee, Nat. Research Council, 16-18. Major, M.O.R.C. Physiol. Soc.; Soc. Exp. Biol.; Soc. Pharmacol.; Soc. Biol. Research. Blood reactions and alterations; resuscitation; phenomena attending and following cerebral and other anemias; survival of isolated tissues; engrafted tissues; suture of blood-vessels; organ transplantation with anastomosis of blood vessels; pharmacology of magnesium salts and digitalis; reactions of skeletal and heart muscle; experimental and clinical shock; influenza; respiration; alteration of thyroid circulation in goiter.
- Guthrie, Dr. David Vance**, Louisiana State University, Baton Rouge, La. *Physics*. Staunton, Va., Oct. 15, 84. A.B., Washington and Lee, 03, A.M., 04; Ph.D., Hopkins, 08. Research asst., Yerkes Observatory, 08; instr. physics, Virginia, 08-10, adjunct prof., 10-11; *prof. physics and astron.*, Louisiana, 11- A.A. Spectroscopy.
- Guthrie, Prof. Edward Sewall**, Ithaca, N. Y. *Dairying*. Coin, Iowa, Dec. 27, 80. B.S.A., 05; M.S.A., 10; Ph.D., Cornell, 13. Instr. dairying, Ohio State, 05-08; *dairy indust.*, Cornell, 08-13, *prof.*, 13- Dairy Sci. Ass. Rancidity and metallic flavor in butter; relationship of body to the flavor of butter; economic aspects of creamery organization.
- Guthrie, Dr. E(dwin) R(ay)**, 3617 47th St., N. E., Seattle, Wash. *Psychology*. Lincoln, Nebr., Jan. 9, 86. A.B., Nebraska, 07, A.M., 10; Ph.D., Pennsylvania, 12, fellow, 12-14. Instr. *psychol.*, Washington (Seattle), 14-19, *asst. prof.*, 19- Philos. Ass. General and social psychology.
- Guthrie, John D(ennett)**, U. S. Forest Service, Portland, Oregon. *Forestry*. Charlotte Court House, Va., July 15, 78. Ph.B., Union, 02; M.F., Yale, 06. Investigation, U. S. Forest Service, 02-04, boundaries, 04-08, *forest supervisor*, West, 08-17, Northwest, 20-, *asst. district forester in charge public relations, Portland office*, 22- C.Eng., U.S.A., 17-19, major, O.R.C. Charles Lathrop Pack prize, Soc. Foresters. Chevalier, Mérite Agricole; Order St. Anne, Russia. A.A.; Soc. Foresters; Forestry Ass.; fel. Am. Geog. Soc.; Mil. Eng. (pres, Portland post).
- Guthrie, Prof. J(oseph) E(dward)**, 319 Lynn Ave., Ames, Iowa. *Entomology, Herpetology*. York, N. Y., Sept. 24, 71. B.S., Minnesota, 00, M.S., 01. Asst. *zool.*, Iowa Col., 01-02, instr., 02-04, asst. prof., 05-14, assoc. prof., 14-17, *prof.*, 17- Soc. Ichthyol. and Herp.; Wilson Ornith. Soc.; Iowa Ornith. Union; fel. Iowa Acad. Collembola of Minnesota; snakes of Iowa.
- Guthrie, Prof. Mary J(ane)**, University of Missouri, Columbia, Mo. *Zoology*. New Bloomfield, Mo., Dec. 13, 95. A.B., Missouri, 16, A.M., 18; fellow, Bryn Mawr, 21-22, Ph.D., 22. Demonstrator biol., Bryn Mawr, 18-20, instr., 20-21; asst. prof. *zool.*, Missouri, 22-26, *assoc. prof.*, 27- A.A.; Soc. Zool. Mesenchyme formation in Toxopneustes; cytoplasmic inclusions in ovarian and developing eggs.
- Guy, J(ames) Samuel**, Emory University, Ga. *Chemistry*. Chester, S. C., April 1, 84. B.S., Davidson Col., 05, M.S., 06; fellow, Hopkins, 10, Ph.D., 11. Asst., Hopkins, 11-13; *head dept. chem.*, Agnes Scott Col., 13-16; Arkansas, 16-19; *Emory*, 19- Chem. Soc. Physical chemistry; dissociation in glycerol solutions; absorption spectra at high dilutions; high pressures and high temperatures; the use of the radio micrometer in making quantitative measurements in absorption values of solutions.

Guyer, Prof. Michael F(rederic), University of Wisconsin, Madison, Wis. **Zoology*. Plattsburg, Mo, Nov. 17, 74. Missouri, 90-92, LL.D, 24; B.S, Chicago, 94, fellow, 97-00, Ph.D, 00; A.M, Nebraska, 96; Paris and Naples, 08-09; Smithsonian table, Naples Zool. Sta, 09. Asst. zool, Nebraska, 95-96; teacher, high sch, Nebr, 96-97; head dept. biol, Cincinnati, 00-11; *prof. zool, Wisconsin*, 11- Wis. Board Examiners in Basic Sciences. A.A; Soc. Nat; Ass. Anat; Soc. Zool. (pres, 23); Micros. Soc. (pres, 16, 17); Soc. Exp. Biol; Wis. Acad; Phila. Acad. Cytology; embryology; experimental evolution; genetics.

Guyton, Dr. T(homas) L(ee), Department of Agriculture, Harrisburg, Pa. *Entomology*. Winterset, Ohio, July 22, 84. B.S.A, Ohio State, 13, M.S, 16, fellow, Ph.D, 23. Asst. entomologist, Ohio Exp. Sta, 17-18; sci. asst, *Pa. Dept. Agr*, 18-22, entomologist, 22-24, *chief entomologist*, 24- A.A; Entom. Soc; Ass. Econ. Entom; Pa. Acad. (sec'y, 25-). Economic entomology.

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Haanel, Dr. Eugene (Emil Felix Richard), 236 First Ave, Ottawa, Ont, Can. *Physics, Mineralogy*. Breslau, Germany, May 24, 41. Gymnasium, Breslau, 58; A.M, Ohio (Athens), 72; Ph.D, Breslau, 73. Prof. science, Adrian, 66; nat. science, Albion, 68-72; physics and miner, director, Faraday Hall, and dean dept. science, Victoria (Can), 72-89; prof. physics, Syracuse, 89-01; supt. mines, Dom. of Can, 01-08, director, Dept. Mines, 08-20; *retired*. Chairman commission to investigate electrothermic processes in Europe. Physical Soc; Chem. Eng. (v. pres); Electrochem. Soc; Faraday Soc. (v. pres); Can. Min. Inst; Royal Soc. Can; Can. Peat Soc. (first pres). Blow-pipe analysis and reagents; magnetic ore deposits; the smelting of iron ores by the electrothermic processes; electric furnaces.

Haas, Dr. A(lbert) R(ichard) C(arl), Citrus Experiment Station, Riverside, Calif. *Plant physiology*. Scranton, Pa, May 29, 88. B.S, Pa. State, 13, M.S, 14; A.M, Harvard, 16, Ph.D, 17; Chicago, 13, 14; Woods Hole, 16, 17. Asst. bot, Pa. State, 13-14, instr, 14-15; Sheldon traveling fellow, California, 17-18; instr. agr. bacter. and soils, Wisconsin, 19; *asst. prof. and asst. plant physiologist*, Citrus Exp. Sta, 19- Respiration and photosynthesis; hydrogen-ion concentration and plant metabolism; nutrition of citrus and walnut trees.

Haas, Prof. W(illiam) H(erman), Northwestern University, Evanston, Ill. *Geology, Geography*. Bellevue, Ohio, June 20, 72. A.B, Chicago, 03, Ph.D, 21. *Prof. geol. and geog, Northwestern*, 14- Geology and geography of Mesa Verde; influence of glaciation in Ohio; geography of Brazil; the American and the South American Indian; the cliff dweller and his habitat; formation of clay balls.

Haasis, Ferdinand W(ead), Johns Hopkins University, Baltimore, Md. *Plant physiology*. Brooklyn, N. Y, Jan. 25, 89. B.S, Rutgers, 11; M.F, Yale, 13. Tech. asst, forestry dept, Consolidation Coal Co, Ky, 15-17; forest asst.

and examiner, Fort Valley Exp. Sta, Ariz, 19-21; forest examiner and asst. silviculturist, Appalachian Forest Exp. Sta, 21-26; *asst. plant physiol, Hopkins*, 26- Foreman nursery, Northeast. Forestry Co, Conn, 14, 15; field asst, Portland State Forest, 15; summers, asst, N. J. Exp. Sta, 10; forestry branch, N. Y. Conservation Commission, 12; forest asst, U. S. Forest Service, Idaho, 14. Med. dept, U.S.A, 17, Inf, 17-19. A.A; Soc. Foresters (sec'y, S. Appalachian sect, 26); Ecol. Soc. Frost heaving of pine seedlings; pine seedling root development; growth of forest plantations; effect of drought on Appalachian forest trees; forest nursery practice; dying of pines about ant hills; results of thinning in hardwood forests; hardwood reproduction after cutting; forest photography.

Haber, Dr. J(ulia) M(oesel), 227 W. Beaver Ave, State College, Pa. *Botany*. Buffalo, N. Y, May 6, 88. A.B, Cornell, 16, A.M, 18, Ph.D, 24. Teacher, pub. sch, N. Y, 07-13; instr. zool, Cornell, 14-17; assoc. prof. biol, Elmira, 17-20; prof, Meredith, 20-22; instr. bot, Cornell, 22-24; *asst. prof. zool, Pa. State*, 24- Summer, instr, Cornell, 17. A.A; Bot. Soc. Morphology; anatomy of plants, chiefly Euphorbiaceae.

Haber, Prof. Vernon R(aymond), Pennsylvania State College, State College, Pa. *Entomology*. Rossburg, Ohio, Dec. 10, 87. B.S, Ohio State, 14, A.M, 16; Ph.D, Cornell, 24. Asst. zool. and entom, Ohio State, 10-16; biol, Cornell, 16-18; research asst. entom. and animal biol, Minnesota, 18-20; asst. state entomologist, N. C, 20-22; instr. exten. entom, Cornell, 23-24; *asst. prof. zool. and entom, Pa. State*, 24-26, *assoc. prof*, 26- Deputy state nursery inspector, Minn, 18-20; summers, asst, lake lab, Ohio State, 15, instr, Cornell, 23. A.A; Ass. Econ. Entom; Soc. Parasitol. Blood of insects; biology of cockroaches; food of the Carolina tree-frog; *Hyla cinerea* Schneid.

Haberman, Dr. J(ules) Victor, 60 W. 85th St, New York, N. Y. *Neurology, Psychopathology*. New York, April 11, 83. A.B, Columbia, 02, M.D, 05; M.S.D, Berlin, 08. Asst. physician, Königlich. Charité, Berlin, 06-08; instr. neurol, Columbia, 08-14, psychotherapy, 13-18; *consultant neuro-psychol, U. S. Employees' Compensation Commission*, 20-; attending neurologist, Sydenham Hosp, 27- Asst, Vanderbilt Clinic, 08-14, visiting physician, 12-18. Capt, M.C, 18-19. Neurol. Soc; Psychol. Ass; Psychiat. Ass; Am. Med. Ass; Eugenics Research Ass; Nat. Ass. for Study of Exceptional Children; N. Y. Acad. Med. Psychotherapy; examination of mind; nervous and mental diseases.

Hackett, Dr. L(ewis) W(endell), International Health Division, 61 Broadway, New York, N. Y. *Medicine*. Benicia, Calif, Dec. 14, 84. A.B, Harvard, M.D, 12, D.P.H, 13. Instr, Harvard Med. Sch, 13-14; director, *Int. Health Division, Rockefeller Foundation*, Panama, 14-15, Brazil, 16-23, Italy, 24, assoc. regional director, 24-27, *asst. director*; 27- Director sanitary surv, British Honduras, 15. A.A; Am. Med. Ass; Soc. Trop. Med; Pub. Health Ass; Soc. Parasitol; Nat. Acad. Med. Brazil; Soc. de Path.

- exot. Public health; anaphylaxis; air filtration; parasitology; malaria.
- Hackh, Prof. Ingo W(aldegar) D(agobert)**, 7 Aztec St, San Francisco, Calif. *Chemistry*. Stuttgart, Germany, March 25, 90. Ph.G, Brunswick, 09; A.B, California, 17. Chemist, E. DeHaen, Seelze, Germany, 10-11; Abbott Alkaloidal Co, 12-13; Von Ruck Research Lab, 13-15; asst. chem, California, 15-18; *prof. biochem, Col. Physicians and Surg, San Francisco*, 18-24, *chem*, 24- A.A; Chem. Soc. Physical and organic chemistry; periodic system of the elements; system of structure symbols.
- Hadden, D(avid) E(dward)**, Alta, Iowa. *Astronomy*. Ireland, Oct. 22, 66. Wesley Col, Ireland, 86-87; B.S, Morningside, 04; registered pharmacist, Iowa. Solar eclipse exped, Wadesboro, N. C, 00; Colo, 18. Astron. Soc; fel. Iowa Acad; Royal Astron. Soc. Can; Soc. Belge d'Astron. Meteorology; the sun.
- Haden, Dr. Russell L(andram)**, 802-813 Medical Arts Building, Kansas City, Mo. *Medicine*. Palmyra, Va, May 22, 88. A.B, Virginia, 10, A.M, 11; M.D, Hopkins, 15. Res. house officer, Hopkins Hosp, 15-16; director lab, Henry Ford Hosp, 16-18, 19-21; assoc. prof. med, Kansas, 21-23, *prof. exp. med*, 23- Bronze medal, Am. Med. Ass. Asst. chief med. service, Base Hosp, Camp Lee, 18-19. Am. Med. Ass; Soc. Clin. Invest; Ass. Path. and Bact; Clin. and Climat. Ass. Intestinal obstruction; diseases of the blood; focal infection.
- Hadley, C(harles) H(arvey)**, Pennsylvania Department of Agriculture, Harrisburg, Pa. *Entomology*. Block Island, R. I, Aug. 5, 89. B.S, New Hampshire, 12. Asst. entomologist, New Hampshire and Exp. Sta, 12-15; investigator entom, Cornell Exp. Sta, 15-16; exten. entomologist, Pa. State, 16-18, asst. prof. econ. entom, 18-19; plant quarantine inspector, Fed. Hort. Board, 19, entomologist, bur. entom, U. S. Dept. Agr, 19-23; *director bur. plant indust, Pa. Dept. Agr*, 23- A.A; Entom. Soc; Ass. Econ. Entom; Wash. Entom. Soc; Pa. Acad. Economic entomology.
- Hadley, Prof. F(rederick) B(rown)**, University of Wisconsin, Madison, Wis. *Veterinary science*. Burlington, Vt, Jan. 31, 80. D.V.M, Ohio State, 07; Chicago, 10. Instr. anat, Wash. Col, 07-08, asst. prof. anat. and surg, 08-09; vet. anat, Ohio State, 09-10; *vet. science, Wisconsin*, 10-11, assoc. prof, 11-17, *prof*, 17- Vet. Med. Ass; Soc. Bact; Soc. Parasitol. Veterinary pathology and therapeutics.
- Hadley, Prof. Laurence**, 121 Lutz Ave, Lafayette, Ind. *Mathematics*. Danville, Ind, March 19, 76. B.S, Earlham, 02; A.M, Michigan, 07, Ph.D, 15. Instr. *math*, Earlham, 02-12, asst. prof, 12-15, prof, 15-18; assoc. prof, *Purdue*, 18-24, *prof*, 24- Math. Ass.
- Hadley, Dr. Philip B(ardwell)**, University of Michigan, Ann Arbor, Mich. *Biology*. Shelburne Falls, Mass, Jan. 10, 81. Ph.B, Brown, 03, Ph.D, 08. Prof. *bacter*, R. I. Col, and chief div. biol, Exp. Sta, 08-20; *asst. prof*, Michigan, 20- Biologist, R. I. Fish Commission; bacteriologist, Providence. A.A; Soc. Nat; Soc. Exp. Biol; Soc. Bact; Mich. Acad. Bacteriology; protozoology; animal behavior; biology of *Eimeria avium*; paratyphoid infections in birds; avian trichomoniasis; immunization in avian diseases; inheritance in poultry and rabbits; bacteriophage; bacterial variation.
- Hadley, Dean S(tephen) M(arshall)**, Penn College, Oskaloosa, Iowa. *Astronomy*. West Newton, Ind, 60. Ph.B, Penn (Iowa), 84; A.M, Harvard, 93; Ph.D, Wisconsin, 04. Prin, acad, Friendsville, Tenn, 84-85; Le Grand, Iowa, 85-87; *prof. math. and astron, Penn (Iowa)*, 87-, *dean*, 09- A.A; Math. Ass. Relative masses of binary stars.
- Haecker, Prof. T(heophilus) L(evi)**, University Farm, St. Paul, Minn. *Animal nutrition*. Valley City, Ohio, May 4, 46. Wisconsin, 63-64, 67-68, 91. Exec. clerk to governor, Wis, 74-91; instr. dairying, *Minnesota*, 91-94, prof. dairy husbandry, 94-07, dairy husbandry and animal nutrition, in charge lab, 07-10, *dairy and animal husbandry*, 10-18, *emer. prof*, 18- Lecturer, Cornell. A.A; Soc. Animal Production; Soc. Agron. Milk and meat production; food of maintenance; feeding standards.
- Haenseler, Dr. C(onrad) M(artin)**, Agricultural Experiment Station, New Brunswick, N. J. *Plant pathology*. Chattanooga, Tenn, Dec. 26, 88. B.S.A, Tennessee, 14, M.S.A, 16; Ph.D, Rutgers, 21. Instr. bot, Rutgers, 21-22, 24-26, *asst. prof. plant path. and mycol*, 26-; *asst. plant pathologist, N. J. Exp. Sta*, 22- Bot. Soc; Phytopath. Soc. Plant diseases; spray injury.
- Haeseler, P(aul) C(arl)**, Metal and Thermit Corporation, South San Francisco, Calif. *Chemistry*. Hamburg, Germany, Dec. 8, 85. Chicago, 06-11; Wisconsin, 09; Columbia, 11-19. Instr. inorg. and qualitative anal, Columbia, 11-19; *chief chemist, Metal and Thermit Corp*, 19- Chem. Soc; Electrochem. Soc; Inst. Metals. Inorganic electrochemistry; metallurgy of non-ferrous metals.
- Hagan, Prof. Harold R(aymond)**, University of Utah, Salt Lake City, Utah. *Zoology*. Chicago, Ill, May 20, 86. B.S, Utah Col, 14; M.S, Harvard, 17. Instr. zool. and entom, Utah Col, 14-17, asst. prof. and assoc. entomologist, Exp. Sta, 17-20; *assoc. prof. zool. and head dept, Utah*, 20- State crops and pests inspector, 19-21. A.A; Entom. Soc; Ass. Econ. Entom; Utah Acad. Entomology; embryology of insects; grain insects; fruit tree leaf roller.
- Hagan, Prof. William A(rthur)**, 334 Columbia St, Ithaca, N. Y. *Animal pathology, Bacteriology*. Fort Scott, Kans, Oct. 14, 93. D.V.M, Kansas Col, 15; M.S, Cornell, 17. Instr. path, Kansas Col, 15-16; vet. obstet, N. Y. State Vet. Col, Cornell, 16-17, *bacter*, 17-18, asst. prof. and prof, 18- Asst. animal path. div, Rockefeller Inst, 20-21, fellow, 21-22; European fellow, Int. Educ. Board, 25-26. A.A; Vet. Med. Ass; Soc. Bact; Ass. Path. and Bact; Soc. Exp. Biol. Animal diseases.
- Hagar, Stansbury**, 662 E. 21st St, Brooklyn, N. Y. *Anthropology*. San Francisco, Calif, Dec. 9, 69. A.B, Yale, 92; LL.B, N. Y. Law

- Sch, 97. Sec'y, dept. ethiol, Brooklyn Inst, 94-17, pres, 17- Sec'y, council, dept. educ, Brooklyn Inst, 24- Int. Cong. Americanists, 02, 08-10. A.A. (councilor); Anthropol. Ass. (councilor); fel. Ethnol. Soc. (past treas); Folk-Lore Soc. (v. pres, 00, 09); Inst. Social Sci; N. Y. Explorers Club (acting sec'y, 18-19). The zodiac in pre-Columbian America.
- Hageman, Dr. Aaron Martin**, 33 Glenwood Ave, Bloomfield, N. J. *Chemistry*. Bound Brook, N. J, Aug. 17, 90. B.S, Rutgers, 12, M.S, 13; fellow, Wisconsin, 16-18, Ph.D, 18. Asst. chem, Rutgers, 13-16; chief chemist in charge anal. chem, chem. research, glass and metal, *Westinghouse Lamp Co*, 18-26, manager eng. dept, 26- Chem. Soc; Electrochem. Soc. Inorganic chemistry; metallurgy; chemistry and metallurgy of molybdenum and tungsten.
- Hagen, Rev. John G(eorge), S. J.**, Specola Vaticana, Rome, Italy. **Mathematics, Astronomy*. Bregenz, Austria, March 6, 47. Münster, 70-71, hon. Theol.D; Bonn, 71-72, hon. Ph.D; Ditton Hall, Eng, 75-80. Prof. math, Prairie du Chien, Wis, 80-88; director observatory, Georgetown, 88-06; *Vatican Observatory, Rome*, 06- Math. Soc; Astron. Soc; Wash. Acad; for. assoc. Royal Astron. Soc; Pontificia Accad. Rom. dei Nuovi Lincei; Accad. dei Lincei; Astron. Gesell; Math. Verein; Leopold Carol. Acad; Soc. Sci. de Bruxelles; Soc. Astron. Ital. Synopsis of higher mathematics; Leonardi Euleri opera collecta; the variable stars; atlas of the variable stars; variable stars and star colors; nebulae; cosmic clouds; rotation of the earth.
- Hagenow, Prof. Charles F(rederick)**, Washington University, St. Louis, Mo. *Physics*. Altona, Germany, Feb. 3, 74. B.S, Nebraska, 00, A.M, 06; Ph.D, Chicago, 19. Instr. math, Nebraska, 04-06; Armour, 06-09, physics, 09-13; Chicago, 18-19; asst. prof, Washington (St. Louis), 19-24, assoc. prof, 24- A.A; Physical Soc. Electro-optics; double electric refraction; thermionic and photo-electric phenomena at lowest attainable pressures; ionization and spectroscopy.
- Hager, Dorsey, L. C.** Smith Building, Seattle, Wash. *Geology*. St. Paul, Minn, June, 87. Washington (St. Louis), 06-09; Columbia, 09-10. Kern Trading and Oil Co, 10-13; consulting and field geologist, 13-19; consultant and chief geologist, Nat. Exploration Co. and Union Oil Co. of Del, 19-21; v. pres, Sunburst Oil and Gas Co, 22-24; consulting geologist, *Continental Royalty Co*; manager, *Hager Syndicate*; Garber-Hager Syndicate. Soc. Econ. Geol; Min. and Metal. Eng. Petroleum geology; technology; operating.
- Haggard, Prof. Howard W(ilcox)**, Yale University, New Haven, Conn. *Physiology*. LaPorte, Ind, July 19, 91. Ph.B, Yale, 14, M.D, 17. Physiologist, U. S. Bur. Mines, 17; instr. physiol, *Sheffield Sci. Sch*, Yale, 18-23, asst. prof. applied physiol, 23- Consulting physiologist, U. S. Bur. Mines, 18-23. Ed. staff, 'Jour. Personnel Research.' Capt, C.W.S, 17-19. Third Resuscitation Committee, 22. Physiol. Soc; Soc. Biol. Chem; Anesthesia Research Ass. Industrial hygiene; hemato respiratory physiology; toxicology of noxious gases; physiology of anesthetics; the rate of circulation; resuscitation from carbon monoxide poisoning; mechanics of muscular action.
- Haggerty, Prof. M(elvin) E(verett)**, University of Minnesota, Minneapolis, Minn. *Psychology, Education*. Bunker Hill, Ind, Jan. 17, 75. A.B, Indiana, 02, A.M, 07; A.M, Harvard, 09, Ph.D, 10. Asst. prof. psychol, Indiana, 09-11, assoc. prof. and later prof, 11-15; educ. psychol, *Minnesota*, 15-, dean col. educ. and director psychol. educ. clinic, 20- Asst, Harvard, 09-10; lecturer, Columbia, 17. Director div. tests and measurements, Va. Educ. Commission, 19; N. C. Sch. Surv, 20; N. Y. State Sch. Surv, 21. Trustee, St. Catherine's Col. A.A. (v. pres, Q, 26); Psychol. Ass; Ass. Clin. Psychol; Educ. Research Ass. (pres, 20); Nat. Soc. Study Educ. Animal psychology; educational psychology; psychology of individual differences; learning and behavior problems.
- Hague, Prof. Florence S(ander)**, Sweet Briar, Va. *Zoology*. Lee's Summit, Mo, June, 89. A.B, Kansas, 11, A.M, 14; Ph.D, Illinois, 21. Asst. zool, Kansas Col, 14-16; instr, Wellesley, 16-17; asst, Illinois, 17-21; instr. zool. and physiol, Oregon Col, 21-24, asst. prof, 24-26; *biol*, Sweet Briar, 26- A.A; Soc. Zool; Micros. Soc; Cooper Ornith. Club. Oligochaeta.
- Hahn, C(larence) W(ilson)**, 89 Murray Lane, Flushing, N. Y. *Biology*. Plainville, Ohio, Aug. 19, 77. B.S, Cincinnati, 99; M.S, Trinity (Conn), 01; A.M, Harvard, 03. Instr. *biol*, Cincinnati, 99-00; nat. hist, Trinity (Conn), 00-01; teacher, high sch, N. Y., 03-04; *biol*, *High Sch. of Commerce, New York*, 04-, chairman dept, 22- A.A; Soc. Nat. Regeneration; reptilian embryology; biological technique; the nucleus of *Haemogregarina stepanovi* of the turtle; trypanosomes and haemogregarines of the frog; Myxosporidia of fish.
- Hahn, Prof. Dorothy A(nna)**, Mt. Holyoke College, South Hadley, Mass. *Chemistry*. Philadelphia, Pa, April 9, 76. A.B, Bryn Mawr, 99, fellow, 07-08; Leipzig, 06-07; fellow, Yale, 15-16, Ph.D, 16. Prof. chem, Pa. Col. for Women, 99-06; instr, *Mt. Holyoke*, 08-14, assoc. prof, 14-16, prof, 16- Chem. Soc. Grignard addition to unsaturated ketones; isomerism of derivatives of cyclopropane; hydantoins; isosulpho-cyanids; chemical solubilities; isomerization in the hydantoin series.
- Hahn, Dr. Frederick Charles**, 2226 W. 17th St, Wilmington, Del. *Chemistry*. Springfield, Ill, Oct. 27, 93. B.S, Illinois, 16; M.S, Michigan, 17; Ph.D, Hopkins, 23. Research, Nat. Aniline and Chem. Co, 18-21; *E. I. du Pont de Nemours and Co*, 23- C.W.S, 17-18. Chem. Soc. Organic and cellulose chemistry.
- Haigh, Prof. Frank L(oyal)**, 833 Washington St, Walla Walla, Wash. *Chemistry*. Green Lake, Wis, Nov. 25, 85. A.B, Ripon Col, 08; Loomis fellow, Yale, 11-12, Ph.D, 12. Instr. chem, Sheffield Sci. Sch, Yale, 12-15; prof. and head dept, *Whitman*, 16- Chem. Soc. Physical and inorganic chemistry.
- Haigh, Dr. L(eonard) D(ixon)**, 1617 Cauthorn Ave, Columbia, Mo. *Chemistry*. Yorkville, Ill,

- Nov. 24, 75. B.S., Michigan, 00, M.S., 03; Ph.D., 11. Commercial chemist, 03-07; *asst. prof. agr. chem., Missouri*, 07- Chem. Soc. Chemistry of beef animals.
- Haines, Prof. A(rthur) L(ee)**, 224 Cherry St., Vermillion, S. Dak. *Chemistry*. Wyoming, Iowa, June 25, 74. B.S., Upper Iowa, 96; A.M., South Dakota, 05; Wisconsin. Asst. chem., *South Dakota*, 04-05, chem. and physics, 05-06, instr. chem., 06-13, asst. prof., 13-19, *assoc. prof.*, 19-, in charge dept., 18-19. Chem. Soc.; S. Dak. Acad. (sec'y-treas). Dehydration of alcohol by calcium carbid; sanitary water analysis; sulphuric acid derivatives of benzene.
- Haines, Dr. Edward C(admus)**, Parlin, N. J. *Organic chemistry*. Centerton, N. J., May 25, 00. B.S., A.M., Haverford, 21; Ph.D., Mass. Inst. Tech., 24. Asst., Mass. Inst. Tech., 24; *research chemist, E. I. du Pont de Nemours and Co.*, 24- Chem. Soc. The influence of the solvent on the rate of reaction between benzoyl chloride and ethyl alcohol.
- Haines, George**, U. S. Department of Agriculture, Washington, D. C. *Animal husbandry*. Millbrook, N. Y., Aug. 1, 97. B.S., Cornell, 17, M.S., 18, 18-22; Maryland, 24-26. Asst. and instr. animal husbandry, Cornell, 17-22; *assoc. animal husbandman and animal husbandman, office exp. stations, U. S. Dept. Agr.*, 22- A.A.; Soc. Animal Production; Genetic Ass. Animal genetics.
- Haines, Dr. Thomas H(arvey)**, 471 Park Ave., New York, N. Y. *Psychology, Psychiatry*. Moorestown, N. J., Nov. 4, 71. A.B., Haverford, 96; Ph.D., Harvard, 01; M.D., Ohio State, 12. Prof. psychol., Ohio State, 01-15, mental and nervous diseases, 15-21; field consultant, Nat. Committee Mental Hygiene, 18-22, director div. mental deficiency, 22-26. Asst. and clerk, Burgholzi, Zurich, 13; Nat. Hosp. Paralyzed and Epileptic, London; first asst. physician, Boston Psychopathic Hosp., 13-14; prof., Smith, 14; clin. director, Ohio Bur. Juvenile Research, 14-17. Psychol. examiner, U.S.A., 17-18. A.A.; Psychol. Ass.; Psychiat. Ass.; Psychopath. Ass.; Ass. Study Feeble-minded; fel. Am. Med. Ass.; Eugenics Research Ass. Mental measurements; alertness tests; special tests for the blind; esthetic reactions; tactual space-perception; crime and mental deficiency; defects in personality formation.
- Hainsworth, Dr. W(illiam) R(ichard)**, 523 Norton St., New Haven, Conn. *Physical chemistry*. Seattle, Wash., Feb. 22, 96. B.S., Washington (Seattle); M.S., Calif. Inst.; du Pont fellow, Mass. Inst. Tech., Ph.D. In charge research, Nat. Automatic Refrigerator Co., 22-24; supt., Puget Sound Gas Co., 24-25; *refrig. engineer in charge research, Nat. Refrigerator Co.*, 25- Chief chemist, U. S. Civil Service Commission, Ala., 18. Chem. Soc. High pressure; photoelectric effects; absorption refrigeration; phototelegraphy process.
- Hake, Prof. H(arry) G(ray)**, Washington University, St. Louis, Mo. *Electrical engineering*. Barry, Ill., Feb. 1, 83. B.S., Illinois, 07, M.S., 10, E.E., 13. Instr. *elec. eng.*, Illinois, 07-13; *asst. prof., Washington (St. Louis)*, 13-18, *assoc. prof.*, 18-26, *prof.*, 26- Elec. Eng.; Illum. Eng. Soc. Illumination.
- Hake, J(oseph) W(illiam)**, Northwest Missouri State Teachers College, Maryville, Mo. *Physics*. Hoyleton, Ill., Oct. 7, 82. B.S., Cent. Wesleyan, 07; A.B., Illinois, 09; A.M., Northwestern, 13. Acting prof. *physics*, Wheaton (Ill.), 09-10; asst., Northwestern, 10-13; instr., West Virginia, 13; asst. prof., Carleton Col.; *prof., Mo. State Teachers Col., Maryville*, 24- Physical Soc. Astrophysics.
- Halberstadt, Baird**, Ridgecrest, 18th St. and Third Ave., Pottsville, Pa. *Geology*. Pottsville, Jan. 26, 60. Pennsylvania, 82. Aid, Pa. Geol. Surv., 81-85, asst. geologist, 90-92; special agent, eleventh census, 89-91; consulting mineralogist and geologist, Pa. Board Agr., 08-19; federal fuel administrator, 17-19; supervising coal inspector, 18-19; *consulting engineer and geologist*. A.A.; Geol. Soc.; Appalachian Eng. Ass. (v. pres); Soc. d'Ethnog. Geology and microscopy of coal; anthracite and bituminous coal fields of Pennsylvania.
- Hale, Prof. C(larence) F(rederick)**, State College for Teachers, Albany, N. Y. *Physics, Chemistry*. S. Manchester, Conn., 77. B.S., Wesleyan, 03, M.S., 07; Ph.D., Cornell, 09. Asst., Wesleyan, 05-07, instr., 07-08; research *assoc.*, Gen. Elec. Co., 09-11; *prof. physics, N. Y. State Col. Teachers*, 11- A.A.; Physical Soc. Liquefaction of gases; hydrazin; small gas pressure; spectrum of hydrazin and ammonia.
- Hale, Dr. Frank E(ugene)**, Mt. Prospect Laboratory, 421 Flatbush Ave., Brooklyn, N. Y. *Chemistry, Bacteriology*. Brooklyn, Oct. 19, 75. A.B., Yale, 00, Silliman fellow, 00-02, Ph.D., 02. Asst. chem., Yale, 00-02; anal. chem., Columbia, 02-03; chemist, *dept. water, gas and elec., New York*, 03-06, in charge Mt. Prospect lab., 06-13, *director laboratories*, 13- Chem. Soc.; Water Works Ass.; Munic. Eng.; Pub. Health Ass.; New Eng. Water Works Ass.; N. Y. Chemists Club. Use of tartar emetic as a standard; starch in iodometric analysis; hydrolysis of starch; structure of the starch molecule and iodids; analysis of coal, water and sewage; sewage disposal; water purification; water-borne diseases; limnology.
- Hale, Dr. George C(lyde)**, 30 Princeton Ave., Dover, N. J. *Chemistry*. Sullivan Co., Ind., Sept. 29, 91. A.B., A.M., Indiana, 15, Ph.D., 25. Instr. chem., Indiana, 15-17; research chemist, Picatinny Arsenal, 17-19; chief tech. div. ordnance dept., Germany, 20-21; *chief chemist, Picatinny Arsenal*, 21- Chem. Soc. Organic chemistry; explosives.
- Hale, Dr. George Ellery**, Mt. Wilson Observatory, Pasadena, Calif. *Astrophysics*. Chicago, Ill., June 29, 68. B.S., Mass. Inst. Tech., 90; Berlin, 93-94; hon. Ph.D., 10; hon. Sc.D., Pittsburgh, 97; LL.D., Beloit, 04, California, 12; Princeton, 17; Sc.D., Yale, 05, Manchester, 07, Oxford, 09, Cambridge, 11, Chicago, 16, Columbia, 17, Harvard, 21. Director, Kenwood Observatory, 90-96; *assoc. prof. astrophysics, Chicago*, 92-97, *prof.*, 97-05, *non-res. prof.*, 05-, director, Yerkes Observatory, 95-05; *Mt. Wilson Obser-*

- vatory, *Carnegie Institution*, 04-23, *hon. director*, 23- Co-editor, 'Astron. and Astrophys.', 92-95; 'Astrophys. Jour.', 95- Hon. chairman, Nat. Research Council; mem, Pasadena City Planning Commission; trustee, Calif. Inst; Huntington Library and Art Gallery; Pasadena Art Inst. Janssen medal, Paris Acad., 94; Rumford medal, Am. Acad, 02; Draper medal, Nat. Acad, 04; gold medal, Royal Astron. Soc, 04; Silva medal, Soc. Astron. de Mex, 08; Bruce medal, Pacific Astron. Soc, 16; Janssen medal, Soc. astron. de France, 17; Galileo medal, Florence, 20; Actonian prize, Royal Institution, 21; Cresson medal, Franklin Inst, 26; Arthur Noble medal for civic service, Pasadena, 27; Franklin medal, Franklin Inst, 27. Commander, Order Leopold II, 20; commander, Order of the Crown, Italy, 20. Geophys. Union. Nat. Acad. (for. sec'y, 10-21, counselor, 27-); A.A.; Astron. Soc; Physical Soc; hon. mem. Optical Soc; Am. Acad; Philos. Soc. (v. pres, 17-21); Meteor. Soc; Pacific Astron. Soc; hon. mem. N. Y. Acad; Wash. Acad; hon. fel. Royal Astron. Soc. Can; cor. mem. British Ass; for. assoc. Royal Astron. Soc; for. mem. Royal Soc; hon. fel. London Physical Soc; hon. mem. Royal Inst; hon. mem. Cambridge Philos. Soc; Edinburgh Royal Soc; Royal Irish Acad; for. cor. Bur. des Longitudes de France; Soc. de Physique; for. assoc. Paris Acad; assoc. Belgian Acad; Soc. de Physique et d'Histoire Nat, Genève; for. mem. Italian Astron. Soc; Soc. Ital. di Spectroscopists; hon. mem. Acad. Gioenia, Catania; for. mem. Soc. Sci. Ital; Accad. dei Lincei; for. mem. Royal Acad. Sci. Turin; Soc. Holland. des Sciences; Amsterdam Acad; for. hon. mem. Vienna Acad; hon. mem. Moscow Imp. Soc. Nat; cor. mem. Russian Acad. Sci; Russian Astron. Soc; for. mem. Royal Swedish Acad. Sci; hon. mem. Christiania Sci. Soc; hon. mem. l'Inst. Sci, Lesshaft. Spectroscopy; solar and stellar physics.
- Hale, Prof. Harrison**, Fayetteville, Ark. *Chemistry*. Columbus, Miss, Dec. 27, 79. A.B, Emory, 99; M.S, Chicago, 02; Harrison fellow, Pennsylvania, 06-08, Ph.D, 08. Asst. prin, pub. schools, Ga, 99-01; instr. *chem*, Drury, 02-03, asst. prof, 03-05, prof, 05-18; *prof. and head dept*, Arkansas, 18- City chemist, Springfield, Mo, 11-14; consulting chemist, Springfield City Water Co, 11-18; Fort Smith Water Dept, Ark, 23. A.A; Chem. Soc. (councilor, Ark. sect). Boiler waters in Oklahoma; an electrolytic method for the analysis of zinc ores; reduction of zinc ores; active chlorin as milk preservative; chlorin as a preventive of influenza; city water supplies of Arkansas.
- Hale, J(oseph) D(aniels)**, 700 University St, Montreal, Que, Can. *Botany*. Boston, Mass, 98. A.B, Harvard, 19, A.M, 21. Austin teaching fellow, Harvard, 19-20; *chief div. timber physics*, Forest Products Laboratories, Can, 21- A.A; Bot. Soc. Anatomy; morphology; physical properties, anatomy and commercial utilization of wood.
- Hale, Dr. William J(ay)**, Dow Chemical Co, Midland, Mich. **Chemistry*. Ada, Ohio, Jan. 5, 76. A.B, A.M, Miami, 97; A.B, Harvard, 98, A.M, 99, Ph.D, 02, fellow, Berlin and Göttingen, 02-03. Instr. *chem*, Michigan, 04-08, asst. prof, 08-15, assoc. prof, 15-19; *director org. chem. research*, Dow Chem. Co, 19- Chairman div. chem. and chem. technol, Nat. Research Council, 25-27. A.A; Chem. Soc; fel. London Chem. Soc; Soc. chim. de France; Soc. suisse de Chim; Chem. Gesell. Organic chemistry; dehydromucic acid; biphenyl derivatives; β -dioxims; isoxazoles; furfurol derivatives; pyrimidins; cyclopentadienes; condensations among aldehydes and ketones; dehydroacetic acid; four membered cyclic ureas, or uretidones; nitropyrrole derivatives; the calculations of general chemistry; synthetic organic chemicals.
- Hale, Prof. (William) Worth**, Harvard Medical School, Boston, Mass. *Pharmacology*. Inavale, Nebr, Sept. 9, 76. M.D, Michigan, 04, A.B, 08. Asst. surgeon, Granite Mining Hosp, Mont, 04-05; asst. pharmacol, Michigan, 05-08; asst. pharmacologist, U. S. Pub. Health Service, 08-13; asst. prof. *pharmacol*, Harvard Med. Sch, 13-18, *assoc. prof. and asst. dean*, 18- Physiol. Soc; Pharmacol. Soc.
- Haley, Dr. D(ennis) E(dward)**, 600 Allen St, State College, Pa. *Chemistry*. Wilmington, Ohio, July 22, 85. B.S, Ohio State, 13, Ph.D, 22; M.S, Pa. State, 16. Asst. instr, asst. prof, assoc. prof. and *prof. agr. chem*, Pa. State, 14- Agricultural and bio chemistry; tobacco; soil potassium; castor-bean lipase.
- Haley, Prof. Francis R(aymond)**, Wolfville, N. S, Can. *Physics*. Yarmouth, N. S, Aug. 24, 62. B.A, Acadia, 84, M.A, 91, hon. D.Sc, 25; A.B, Harvard, 86; Edinburgh, 91; Leipzig, 91-92. *Prof. physics*, Acadia, 92-, dean faculty applied science, 09-17. Board governors, N. S. Tech. Col, 09-17; examiner, high sch. and teachers' certificates, N. S. Physical Soc; N. S. Inst.
- Hall, Prof. Ada (Roberta)**, Lindenwood College, St. Charles, Mo. *Ecology*. Georgiana, Fla, Nov, 90. A.B, Oregon, 17, A.M, 19; fellow, Illinois, 19-21, Ph.D, 21. Asst. zool, Oregon, 16-19; instr. *biol*, Whitman, 21-24; *prof*, Shorter, 24-26; *Lindenwood*, 26- Asst. Puget Sound Biol. Sta, 22. A.A; Ecol. Soc. Experimental zoology.
- Hall, Dr. A(saph)**, Naval Observatory, Washington, D. C. *Astronomy*. Cambridge, Mass, Oct. 6, 59. George Washington, 76-78; A.B, Harvard, 82; Ph.D, Yale, 89. Asst, Naval Observatory, 82-85; Yale Observatory, 85-89; asst. astronomer, Naval Observatory, 82-92; prof. astron, Michigan, 92-05; asst, Naval Observatory, 05-08, *prof. math*, U. S. Navy, 08- Prof, George Washington, 08-20. A.A; (sec'y, A, 95, gen. sec'y, 97, v. pres, 00); Astron. Soc; Wash. Acad; Astron. Gesell. Mass of Saturn; orbit of Neptune's satellite; orbits of comets; determination of star places with meridian circles; equatorial observations; determination of orbits of satellites.
- Hall, Prof. Edwin H(erbert)**, 39 Garden St, Cambridge, Mass. **Physics*. Gorham, Maine, Nov. 7, 55. A.B, Bowdoin, 75, LL.D, 05; Ph.D, Hopkins, 80. Asst. *physics*, Hopkins, 80-81; instr, Harvard, 81-88, asst. prof, 88-95, prof, 95-14, Rumford prof, 14-21, *emer. prof*, 21- Fourth Solvay Conf, Brussels, 24. Nat. Acad; A.A. (v. pres, 04); Physical Soc. (councilor,

- 03-06); Am. Acad; cor. mem. British Ass; for. mem. Soc. Holland. des Sciences. Hall effect in various metals; changes of temperature in walls of steam-engine cylinder; thermal conductivity of nickel and iron; deflection of falling bodies; Thomson effect in soft iron; theory of thermoelectric action; thermoelectric heterogeneity in various metals; air resistance to falling inch-spheres; electromagnetic and thermomagnetic effects in soft iron; theory of thermoelectric action and of thermal conduction in metals; relations of the four 'transverse' effects of the magnetic field; the application of dual conduction theory in discussion of the Volta effect and electron emission from metals.
- Hall, Dr. Elliot S(nell)**, 127 Forrest Ave, Jamestown, N. Y. *Chemistry*. Kiantone, N. Y., Oct. 21, 73. A.B. Amherst, 96; fellow, Hopkins, 03-04, Ph.D, 04. Asst. chem, Cornell, 00-01; research asst, Chicago, 04-06; acting asst. prof. chem, Washington (Seattle), 06-07; assoc. prof, Amherst, 07-12. Chem. Soc. Inorganic chemistry.
- Hall, Dr. Elmer E(dgar)**, 1501 Le Roy Ave, Berkeley, Calif. *Physios*. McGregor, Iowa, Aug. 21, 70. B.S. Southern California, 93; M.S. California, 96, Whiting fellow, 01-02; Ph.D, Cornell, 02. V. prin. and head science dept, high sch, Calif, 96-99; asst. *physics*, California, 99-01, instr, 02-06, asst. prof, 06-10, assoc. prof, 10-19, *prof*, 19- A.A; Physical Soc. Penetration in total reflection; vibrations in buildings due to street traffic, running machinery and wind gusts; heat conductivity; refraction of water and alcohol as a function of the temperature.
- Hall, Dr. F(lemmon) P(orter)**, 888 Massachusetts Ave, Cambridge, Mass. *Physical chemistry*. Nashville, Tenn, Aug. 22, 97. B.E. Vanderbilt, 18; M.S. Mass. Inst. Tech, 21, Dalton fellow, 24-25, Ph.D, 25. Asst. chemist, Bur. Standards, 19-20, assoc. chemist, 21-23; *instr*, Mass. Inst. Tech, 24- Ceramic Soc. Physical properties of clays; equilibrium in palladium; hydrogen system.
- Hall, Prof. F(rank) Gregory**, Duke University, Durham, N. C. *Zoology*. Milton, Wis, Feb. 12, 96. A.B. Milton, 17; A.M. Wisconsin, 21, Ph.D, 23. *Prof. biol*, Milton, 23-24; *zool*, Duke, 26- Special investigator, U. S. Bur. Fisheries. Wis. State Board Examiners. A.A; Soc. Zool; Soc. Mammal; Ecol. Soc. Physiology of the cold-blooded vertebrates; the physiological effect of light.
- Hall, Dr. George M(artin)**, 1317 White Ave, Knoxville, Tenn. *Geology*. Baltimore, Md, Sept. 13, 91. A.B. Hopkins, 15, Ph.D, 23. *Asst. geologist*, Md. *Geol. Surv*, 15-; U. S. *Geol. Surv*, 21-; *instr. geol*, Hopkins, 23-26; *assoc. prof*, Tennessee, 26- Second lieut, Sig.C, 18-20. A.A; Geol. Soc; Min. and Metal. Eng. Ground water in Montana, Virginia and Pennsylvania; paragenesis of the Bolivian silver tin ores; Maryland fireclays.
- Hall, Dr. Harriet Parsons (Mrs. Henry Twitchell)**, 316 Glenside Road, South Orange, N. J. *Astronomy*. Troy, Pa, Dec. 17, 92. A.B. Vassar, 15, fellow, at Chicago, 15-16, 19-21; M.S. Chicago, 16, Ph.D, 21. Asst. astron, Vassar, 16-18, instr, 18-19; Smith, 21-22, asst. prof, 22-23. Astron. Soc. Photographic photometry; proper motions of stars.
- Hall, Dr. H(arvey) M(onroe)**, University of California, Berkeley, Calif. **Botany*. Lee Co, Ill, March 29, 74. B.S. California, 01, M.S, 02, Ph.D, 06. Herbarium asst, California, 01-02, asst. bot. and asst. botanist, Exp. Sta, 02-03, instr, 03-08, asst. prof, 08-19; *investigator ecol. research*, Carnegie Institution, 19- Hon. curator herbarium, California. Bot. Soc; Ecol. Soc; Am. Acad; fel. Calif. Acad; cor. mem. Soc. Bot. de Genève. Experimental taxonomy and ecology; variation; geographic distribution.
- Hall, H(ubert) H(arry)**, 225 Bush St, San Francisco, Calif. *Engineering*. Chicago, Ill, July 4, 83. A.B. Stanford. Instr, Stanford, 05-07; prin. asst. engineer, Yukon Gold Co, 07-10; *chief engineer*, pipe line dept, Standard Oil Co, 10-21; *Standard Oil Co. of Calif*, 21- Civil Eng. Oil engineering.
- Hall, Prof. Ivan C(lifford)**, University of Colorado School of Medicine, Denver, Colo. *Bacteriology*. Allegan, Mich, Aug. 7, 85. Pd.B. Colo. State Nor. Sch, Greeley, 06; A.B. Colo. Col, 08; M.S. California, 11; Logan fellow, Chicago, 19-20, Ph.D, 21. Bacteriologist, Cutter Laboratories, Calif, 11-15; asst. *bacter*, California, 13, asst. prof, 15-18, assoc. prof, 18-24; prof, Cornell, 24-25; *prof. and head dept, sch. med, Colorado*, 25- Ricketts prize, Chicago, 20. Bacteriologist, Red Cross Lab. Car, 18. A.A; Soc. Bact. (director, local branches, 22-, councilor, 23-); Soc. Exp. Biol; West. Soc. Nat; Calif. Acad. Anaerobic bacteria; bacteriostatic action of gentian violet; lymphangitis in horses; wound infections; tetanus; botulism; pyorrhea; dental calculus; bacteria of the gastro-intestinal tract.
- Hall, Prof. James A(lexander)**, Brown University, Providence, R. I. *Mechanical engineering*. Berlin, Vt, July 26, 88. A.B. Brown, 08, Sc.B, 10. Asst. *mech. eng*, Brown, 10-12, instr, 12-14; engineer, Link-Belt Co, Philadelphia, 14-15; asst. prof, Brown, 15-21, assoc, 21-25, *prof*, 25- Consulting engineer, machine development, Brown and Sharpe Mfg. Co, 22- Lecturer, Harvard, 19-20. Mech. Eng. (chairman, research committee, cutting and forming of metals, 25-, chairman, committee local sections, 25-26); Soc. Prom. Eng. Educ; Taylor Soc; Providence Eng. Soc. (pres, 22-23). Metal cutting; machine tool problems; dynamics effects in high speed machinery.
- Hall, Prof. J(oseph) Lowe**, Kansas State Agricultural College, Manhattan, Kans. *Chemistry*. Sullivan, Ill, Jan. 3, 93. B.S. Illinois, 19, M.S, 21, Ph.D, 22. *Asst. prof. physical chem*, Kansas Col, 22- Transference in solution of mixed electrolytes; reactions of aromatic arsines; surface effects of neuropotent substances.
- Hall, Dr. Lawrence P(ercival)**, 71 Grozier Road, Cambridge, Mass. *Chemistry*. Montclair, N. J, July 10, 97. A.B. Harvard, 19, A.M, 21, du Pont fellow, 23-24, Ph.D, 25. Instr. chem, Middlebury, 19-20; asst, Harvard, 21-22, instr,

- 22-23, 24-25; *asst. to director, Wolcott Gibbs Mem. Lab, Harvard, 25-* Chem. Soc. Electrochemistry; atomic weights; specific heats.
- Hall, Prof. Lyman B(eecher)**, Haverford College, Haverford, Pa. **Chemistry*. New Bedford, Mass, Jan. 16, 52. A.B, Amherst, 73; Ph.D, Göttingen, 75; fellow, Hopkins, 76-79. *Asst. chem*, Hopkins, 79-80; *prof, Haverford*, 80-17, *emer. prof*, 17- Special agent, tenth census, 80. A.A; Chem. Soc; Philos. Soc. Orlonitro-salicylic acid; oxidation of sulphamids; litmus.
- Hall, Mrs. Mary B(owers)**, 37 E. Church St, Bethlehem, Pa. *Zoology*. Saco, Maine, Oct. 2, 71. B.L, Smith, 95; A.M, Radcliffe, 98; Ph.D, Pennsylvania, 99. Demonstrator zool. and bot, Smith, 98-99; *instr. zool*, Wellesley, 99-08. Boston Soc. Nat. Hist. The cranial nerves of *Spelerpes bilineatus*; histogenesis and histolysis of the intestinal epithelium of *Bufo lentiginosus*.
- Hall, Dr. Maurice C(rowther)**, U. S. Department of Agriculture, Washington, D. C. *Parasitology*. Golden, Colo, July 15, 81. B.S, Colo. Col, 05, Sc.D, 25; A.M, Nebraska, 06; Ph.D, George Washington, 15, D.V.M, 16. *Instr*, high sch, Colo, 06-07; *junior zoologist*, U. S. Dept. Agr, 07-11, *asst. zoologist*, 11-16; *parasitologist*, research lab, Parke, Davis and Co, 16-18; *senior zoologist, bur. animal indust*, U. S. Dept. Agr, 19-, *chief zool. div*, 25- *Prof*, vet. col, George Washington, 13-16; *special lecturer*, Detroit Col. Med, 17-18; *zoologist*, U. S. Insecticide and Fungicide Board, 15-16. Ed. board, 'Jour. Parasitol'; *sect. ed*, Nematomorpha, 'Biol. Abstracts.' *Lieut*, V.C, 18-19. *Delegate*, Pan-Am. Sci. Cong, 15-16. A.A; Soc. Parasitol. (councilor, 25); Soc. Zool; Entom. Soc; Ass. Econ. Entom; Vet. Med. Ass; U. S. Live Stock Sanit. Ass; Soc. Trop. Med; Wash. Helminth. Soc. (sec'y, 10-16, 19-22, *pres*, 22); Wash. Entom. Soc; Wash. Acad. (v. *pres*, 25); Reale Accad. Agr. Torino. Parasites of carnivores; nematodes of rodents; anthelmintic medication; *Chenopodium*; carbon tetrachloride; tetrachlorethylene; specific treatment for parasitic diseases.
- Hall, Dr. Norris F(olger)**, Harvard University, Cambridge, Mass. *Chemistry*. Philadelphia, Pa, July 7, 91. A.B, A.M, Haverford, 13; A.M, Harvard, 15, Ph.D, 17. *Teaching fellow chem*, Harvard, 14-15; *asst. bur. chem*, U. S. Dept. Agr, 17; *junior chem. engineer*, U. S. Bur. Mines, 17; *instr. chem, Harvard*, 19- *Lieut. and capt*, C.W.S, 18-19. Chem. Soc. Isotopes; dissociation constants of bases.
- Hall, Dr. R(alph) E(dwin)**, Hall Laboratories, Inc, Pittsburgh, Pa. *Physical chemistry*. Charlestown, Ohio, 85. A.B, Ohio Wesleyan, 07; A.M, Ohio State, 11; fellow, Chicago, 14-16, Ph.D, 16. *Instr. chem*, Ohio State, 09-11; *assoc*, Chicago, 14-16; *asst. prof*, Iowa Col, 16-17; *physical chemist*, geophys. lab, Carnegie Inst, 17-20; *Koppers Co*, 20-22; U. S. Bur. Mines, 22-26; *director, Hall Laboratories, Inc*, 26- *Capt*, C.W.S, 18. Chem. Soc. Cryohydric measurements of dilute solutions; solubility relations under pressure; activated carbon; boiler water conditioning.
- Hall, R(ichard) P**, New York University, New York, N. Y. *Biology*. Arkansas, 00. A.B, Henderson-Brown, 19; A.M, California, 22, Ph.D, 24. *Instr. biol*, Emory, 20-21; *teaching fellow zool*, California, 21-24; *instr. biol*, Rice Inst, 24-26; *asst. prof*, N. Y. Univ, 26- A.A; Soc. Zool; Micros. Soc; Soc. Parasitol. Protozoology; cytology of flagellates.
- Hall, Dr. Robert A(nderson)**, 225 74th St, Brooklyn, N. Y. *Chemistry*. Rowan Co, N. C, March 2, 86. A.B, Chicago, 05, Ph.D, 07. *Assoc. prof. chem*, North Carolina, 10-12; *biochem. and pharmacol*, Minnesota, 13-17; *chemist*, Standard Aniline Products Co, 16-19; *Colgate and Co*, 19- *Lieut*, Inf, 17-19. Chem. Soc; Soc. Biol. Chem; N. Y. Chemists Club. Biochemistry; pharmacology; citrates; methylene di-salicylic acid and derivatives.
- Hall, Dr. Robert W(illiam)**, Lehigh University, Bethlehem, Pa. *Zoology*. Cincinnati, Ohio, Aug. 17, 72. Ph.B, Yale, 95; A.B, Harvard, 97, A.M, 98, Ph.D, 01. *Asst. zool*, Harvard, 96-99; Yale, 99-01, *instr*, 01-02; *biol, Lehigh*, 02-04, *asst. prof*, 04-09, *prof. and head dept*, 09- *Instr*, Woods Hole, 99-03. A.A; Pa. Forestry Ass. Vertebrate embryology.
- Hall, Dr. Roscoe W(illis)**, St. Elizabeth's Hospital, Washington, D. C. *Psychiatry*. Millers-town, Pa, Feb. 22, 88. Ph.B, Dickinson, 08; M.D, Hopkins, 12. *Asst. and instr. psychiatrist*, Hopkins, and *res. psychiatrist*, Hopkins Hosp, 15-17; *senior asst. physician, Govt. Hosp. for Insane, Washington*, 19-; *assoc. prof. psychiatrist, George Washington*. Psychopath. Ass. Psychopathology.
- Hall, Dr. T(homas) P(roctor)**, 2475 W. Third Ave, Vancouver, B. C, Can. *Mathematics, Physics*. Hornby, Ont, Oct. 7, 58. B.A, Toronto, 82, fellow, 83-84; Clark, 90-93, Ph.D, 93; A.M, Ph.D, Ill. Wesleyan, 88; M.D, Nat. Med. Univ, 02. *Science master*, Woodstock (Can), 85-90; *prof. nat. science*, Tabor Col, 93-96; *physics*, Kansas City, 97-01; *ed*, 'Am. X-ray Jour', 02-05. A.A; Iowa Acad. (*pres*, 96); B. C. Acad. (*pres*, 12-14); British Ass. The relation of tone quality to the form of sound waves; hyper-space; vector algebra; the vortex theory of electricity and magnetism.
- Hall, Dr. William B(onnell)**, 716 Peltus St, Selma, Ala. *Physiology*. Lowndes Co, Ala, Jan. 3, 66. C.E, A.M, Univ. of the South, 85; M.D, Virginia, 90. *Asst. teacher*, pub. sch, Tenn, 86-89; *asst. physician*, Ala. Insane Hosp, Tuscaloosa, 91-93; *prof. mat. med. and physiol*, Univ. of the South, 93-07, v. *chancellor*, 09-14; *physician and planter*, 14- *Mayor*, Selma, Ala, 20-24. A.A. Biology.
- Hall, Prof. W(illiam) S(haffer)**, Lafayette College, Easton, Pa. *Mathematics*. Chester, Pa, June 24, 61. C.E, Lafayette, 84, E.M, 86, M.S, 87, Sc.D, 21. *Instr. mining eng, Lafayette*, 84-92, *asst. prof*, 92-96, *prof. and head dept*, 96-15, *math*, 15-, *clerk faculty*, 09- A.A; Math. Ass; Mech. Eng. Mensuration; differential and integral calculus; descriptive geometry; mine surveying.

- Hall, William T(homas)**, Massachusetts Institute of Technology, Cambridge, Mass. **Chemistry*. New Bedford, Mass, Aug. 4, 74. B.S, Mass. Inst. Tech, 95. Asst. anal. chem, Mass. Inst. Tech, 98-00, instr, 00-11, asst. prof, 11-18, assoc. prof, 19- Asst. ed, 'Chem. Abstracts.' A.A; Chem. Soc. Analytical chemistry.
- Hall, Prof. Winfield S(cott)**, Berwyn, Ill. **Physiology*. Batavia, Ill, Jan. 5, 61. B.S, Northwestern, 87, M.D, 88, M.S, 89; M.D, Leipzig, 94, Ph.D, 95. Instr. biol. and head dept, Haverford, 89-93; prof. *physiol*, Northwestern, 95-19, emer. prof, 19-; director bur. social hygiene, Presb. Board Christian Educ, 19- Lecturer, Mercy Hosp. Sch. for Nurses; Wesley Hosp. Sch. for Nurses; Y. M. C. A. Col, Chicago. A.A; *Physiol. Soc*; Am. Med. Ass. (chairman, sect. path. and *physiol*, 05); Soc. Exp. Biol; fel. Am. Acad. Med. (pres, 05); Am. Med. Soc. for Study of Alcohol and other Narcotics (pres, 02-10); fel. Chicago Acad. *Physiology*; changes in the properties of the human body; absorption of carniferrin; retention of iron in the animal organism; regeneration of the blood; the evaluation of anthropometric data; the chest pantograph; mathematical relations of certain chest measurements; metabolism; nutrition; dietetics; influences of diet upon the chyle; influences of alcohol upon metabolism; internal secretions and the endocrine organs, testes and ovaries; adolescence; virility; senility; rejuvenescence; eugenics.
- Halleck, Prof. Reuben Post**, 1154 S. Third Ave, Louisville, Ky. *Psychology*. Rocky Point, L. I, N. Y, Feb. 8, 59. A.B, Yale, 81, A.M, 96; LL.D, Kentucky, 12. Instr. *psychol*, Male High Sch, Louisville, 83-96, prin. and instr. *psychol*, 96-12. Examiner, Louisville Nor. Sch, 84-95; trustee, Am. Printing House for Blind, 18-A.A; Soc. Sci. Educ; Nat. Soc. Study Educ. (pres, 06-08); Eugenics Soc; S. Soc. Philos. and Psychol. Pedagogical applications of physiological psychology; neural bases of ethics.
- Hallock, Dr. A(lbert) P**, 19 Radford Place, Yonkers, N. Y. *Chemistry*. Peekskill, N. Y, May 16, 55. Ph.B, Columbia, 80, Ph.D, 83. Chemist, Consolidated Gas Co, 80-87; Carl H. Schultz Mineral Water Establishment, 87-11; Beechnut Packing Co, 17-20. A.A; Chem. Soc. (treas, 07); Soc. Chem. Indust; N. Y. Chemists Club; Chem. Verein.
- Hallock, Dr. Frank Kirkwood**, Cromwell Hall, Cromwell, Conn. *Medicine*. Oyster Bay, L. I, N. Y, Aug. 18, 60. A.B, Wesleyan, 82, A.M, 85; M.D, Columbia, 85. *Med. director*, Cromwell Hall, 98- Director and neurologist, Middlesex Hosp, Middletown, Conn; trustee, Wesleyan. A.A; Am. Med. Ass; Neur. Ass; Ass. Research Nervous and Mental Diseases; N. Y. Neur. Soc; N. Y. Acad. Med; Boston Soc. Psychiat. and Neur. (pres, 23); Conn. Med. Ass. (pres, 11). Neurology; psychotherapy.
- Hallowell, Dr. A(lfred) Irving**, University of Pennsylvania, Philadelphia, Pa. *Anthropology*. Philadelphia, 92. B.S, Pennsylvania, 14, A.M, 20, Harrison fellow, 22-23, Ph.D, 24. *Instr. anthrop*, Pennsylvania, 28- Field research, Museum of Am. Indian, Labrador Peninsula, 23-25; summer, Am. Sch. for Prehist. Research, Europe, 25. *Anthrop. Ass.* (sec'y, 27-); Folk-Lore Soc; Linguist. Soc; Phila. Anthrop. Soc. (pres, 25). American Indian ethnology and linguistics.
- Halma, Dr. Frederick Ferdinand**, Citrus Experiment Station, Riverside, Calif. *Plant physiology*. Vienna, Austria, Jan. 31, 87. B.S, Florida, 15; Ph.D, California, 25. Asst. state nursery inspector, Fla. State Plant Board, 15; asst. horticulturist, Fla. Exp. Sta, 15-17; asst. plant *physiol*, Citrus Exp. Sta, California, 18-21, research assoc, 21- Collaborator, 'Bot. Abstracts.' A.A; West. Soc. Nat. Physiological correlation, regeneration and polarity in citrus stems.
- Halperin, Prof. H(illel)**, Agricultural and Mechanical College of Texas, College Station, Texas. *Mathematics*. Russia. E.E, Liège, 08; A.M, Columbia, 15; Chicago. Instr. math. and physics, Vanderbilt, 15-17; asst. prof. math, Arkansas, 17-20; assoc. prof, Agr. and Mech. Col. Texas, 20-25, prof, 25- Math. Soc; Math. Ass.
- Halpin, Prof. James G(arfield)**, 2500 University Ave, Madison, Wis. *Animal husbandry*. N. Y, Oct. 18, 82. B.S.A, Cornell, 05. Instr, R. I. Col, 05-06; asst. prof, Mich. State Col, 06-09; prof. poultry husbandry, Wisconsin, 09- Influence of inbreeding; nutrition.
- Halsey, Dr. J(ohn) T(aylor)**, 1406 Seventh St, New Orleans, La. *Pharmacology, Therapeutics*. Elizabeth, N. J, Nov. 8, 70. Princeton, 87-88; M.D, Columbia, 93; St. Luke's Hosp, 93-95; Freiburg, 95-96; Strassburg, 96-98; Marburg, 98-00. Asst, pharmacol. lab, Marburg, 98-99; demonstrator pharmacol, med. faculty, McGill, 00-01, lecturer, 01-03, asst. prof. pharmacol. and therapist, 03-04; prof. nat. med. and therapist, Tulane, 04- Ass. Study Int. Secretions. Metabolism; renal physiology; chemistry of toxins, agglutinins; clinical and laboratory actions of drugs; electrocardiography; anesthetics.
- Halsey, Dr. Robert H(urting)**, 17 E. 89th St, New York, N. Y. *Medicine*. Astoria, L. I, N. Y, June 15, 73. A.B, Columbia, 96, A.M, M.D, 00. Adjunct prof. med, N. Y. Post-Grad. med. sch, 06-17, prof, 17- A.A; Am. Med. Ass; Soc. Exp. Biol; Heart Ass; N. Y. Acad. Med; N. Y. Tuber. Ass; N. Y. Acad.
- Halverson, Prof. H(enry) M(arc)**, 125 Canner St, New Haven, Conn. *Psychology*. Stevens Point, Wis, Aug. 4, 85. Ph.B, Wisconsin, 15; A.M, Iowa, 18; Ph.D, Clark, 22. Research asst. *psychol*, Iowa, 17-20; Clark, 20-22; prof, Maine, 22-26; Yale, 26- Psychol. Ass. Localization of sound; tonal volume and intensity; upper toned limits.
- Halverson, J(ohn) O(liver)**, State Department of Agriculture, Raleigh, N. C. *Animal husbandry*. Linden, Minn, Jan. 17, 80. A.B, Minnesota, 06, B.S, 07; Ph.D, Jefferson Med. Col, 16; Chicago; Yale. Asst. chemist, dairy investigations, Missouri, 08-09; deputy commissioner, and chemist, dairy, food and drug inspection, Mo, 09-12; assoc. nutrition, Ohio Exp. Sta, 17-19; in charge nutrition investigations, N. C.

- Exp. Sta.*, 20— A.A.; Chem. Soc.; Soc. Animal Production. Calcium in the blood; calcium in metabolism of cattle and swine; soft pork.
- Halvorsen, A(rthur) L(udwick)**, 174 Water St, Perth Amboy, N. J. *Chemistry*. Sandehrerred, Norway, Oct. 6, 88. Grad. Christiania Tech. Sch., 09. Research chemist with Dr. Emil Collett, Oslo, 09; asst. works manager and research chemist, Roessler and Hasslacher Chem. Co., 11–21; *research and consulting chemist*, 21–Norwegian Legation, Havana, Cuba, 10. A.A.; Chem. Soc.; Min. and Metal. Eng.; Norwegian Polytek Forsch. Cyanid hydro-metallurgy; stable hydrogen peroxide; nitrogen fixation by carbid.
- Ham, Prof. Frank W(illard)**, 708 S. Grand Ave, Bozeman, Mont. *Physics*. Newark, N. J., Sept. 11, 75. B.S., Mont. Col., 03, M.S., 05; Chicago, 08, 11, 14, 17. Asst. chemist, Mont. Exp. Sta., 05–07, instr. *physics*, Mont. Col., 07–09, asst. prof., 09–11, *prof.*, 11— Fel. Physical Soc.
- Ham, Dr. L(loyd) B(linn)**, New York University, Washington Square, New York, N. Y. *Physics*. Cedar Grove, Maine, Oct. 2, 91. A.B., Bates, 14; A.M., Illinois, 20, Ph.D., 24. Head dept. science, high sch., Maine, 14–18; asst. *physics*, Illinois, 20–24; *instr.*, N. Y. Univ., 24–C.W.S., U.S.A., 18–19. Physical Soc. Protective qualities and characteristics of electro-deposited metals; applications of the Rayleigh double resonator; atomic structure; measurements of sound energy.
- Hamaker, Prof. J(ohn) I(rvin)**, Randolph-Macon Woman's College, Lynchburg, Va. *Zoology*. Elizabethtown, Pa., Nov. 29, 69. A.B., Kansas, 93; A.B., Harvard, 94, A.M., 95, Ph.D., 97. Asst. zool., Radcliffe, 94–95, Harvard, 95–97; *prof. biol.*, Trinity (N. C.), 97–04; *Randolph-Macon Woman's Col.*, 04— A.A.; Soc. Zool. The nervous system; actinians of Beaufort, North Carolina; education.
- Hamann, Dr. C(arl) A(ugust)**, 416 Osborn Building, Cleveland, Ohio. *Anatomy*. Davenport, Iowa, Jan. 26, 68. M.D., Pennsylvania, 90. Asst. demonstrator anat., Pennsylvania, 91–93; *prof.*, Western Reserve, 93–11, *applied anat. and clin. surg. and dean sch. med.*, 11— A.A.; Soc. Nat.; Ass. Anat.; Ass. Path. and Bact.; fel. Surg. Ass.; Am. Med. Ass.; Cleveland Acad. Med. Human anatomy.
- Hambleton, J(ames) I(saac)**, U. S. Department of Agriculture, Washington, D. C. *Entomology*. Chile, South America, Jan. 1, 95. B.S., Ohio State, 17; Wisconsin, 19. Instr. entom., Wisconsin, 17–21; *asst. beekeeping, bur. entom.*, U. S. Dept. Agr., 21— A.A.; Ass. Econ. Entom. (chairman, apiculture sect., 26). Bee behavior.
- Hamburger, Dr. Walter W(ile)**, 104 S. Michigan Ave, Chicago, Ill. *Medicine*. Chicago, Sept. 10, 81. B.S., Chicago, 03, M.S., 04, M.D., Rush Med. Col., 06. *Asst. clin. prof. med.*, Rush Med. Col., Chicago, 14— Assoc. attending physician, Michael Reese Hosp., 12–25, attending physician, 25—; Cook Co. Hosp., 13–26. Major, M.C., 17–19. Am. Physicians; Soc. Clin. Invest. Internal medicine.
- Hamer, Dr. Richard**, 1318 Wightman St, Squirrel Hill, Pittsburgh, Pa. *Physics*. Manchester, Eng., July 11, 88. B.A., Saskatchewan, 13, M.A., 16; Toronto, 17; A.M., Chicago, 19; Whiting fellow, California, 20–22, Ph.D., 22. Prin. Univ. Prep. Col., Sask., 13–16; asst. and demonstrator physics, Toronto, 16–17; research chemist, Gutta-Percha and Rubber Co., Toronto, 18; asst. prof. physics and head dept., min. and metal. div., Carnegie Inst. Tech., 18–20; research engineer, research dept., Westinghouse Elec. and Mfg. Co., 20; instr. *physics*, Wisconsin, 22–24; *asst. prof.*, Pittsburgh, 24— Manager, Teachers' Bur., Sask., 12–16. Ed., science sect., 'New Century Book of Facts,' 25–26. A.A.; Physical Soc.; Optical Soc.; Pa. Acad. (chairman, physical science sect., 25, exec. committee, 26—); Pittsburgh Physical Soc. Low voltage arcs; magnetism; X-rays; photo-electric effect; critical potentials; thermionic emission; gravitational constant; colloids; earth currents; orbit theory; extreme ultra-violet radiations; cosmic radiations; origin of volcanoes; transmutation of elements; radioactivity.
- Hamerschlag, Dr. Arthur Arton**, Research Corporation, 25 W. 43d St, New York, N. Y., or 511 Wood St, Pittsburgh, Pa. *Education*. Nebraska, Nov. 22, 72. Sc.D., Lehigh, 07; Pittsburgh, 07; LL.D., Trinity (Conn.), 12; Allegheny, 15. Engineer, 88–92; supt., St. George's Evening Trade Sch., 92–03; *pres.*, Carnegie Inst. Tech., 03–22; *Research Corp.*, 22— Consulting engineer, N. Y. Trade Sch. and Boys' Prep. Trade Sch., 92–04. Pres., City Planning Commission, Pittsburgh, 14–15; Schenley Mem. Commission. Educ. jury awards, Panama-Pacific Expos., 15. Chief indust. research, office of chief-of-staff, U. S. War Dept., 17–18. A.A.; Eng. Educ. Industrial processes; economics; financing of manufacturing; hydro-electric, mineral and timber resources. [Died July 20, 27.]
- Hamill, Dr. Samuel McC(lintock)**, 1822 Spruce St, Philadelphia, Pa. *Medicine*. Oak Hall, Pa., Nov. 3, 64. Princeton, 86; M.D., Pennsylvania, 88. Demonstrator physical diagnosis, Pennsylvania, 92–94, instr. med., 94–01; *prof.* diseases of children, Phila. Polyclinic, 01–19; *grad. sch. med.*, Pennsylvania, 19–20; *visiting pediatrician*, Presb. Hosp., 07— Past visiting pediatrician, St. Christopher's Hosp. and Phila. Polyclinic. Trustee, Lawrenceville Sch., 20–27. Gen. med. board and chairman nat. child welfare committee, Council Nat. Defense; director child welfare, Pa., 17–18. Delegate, Med. Conf., Red Cross societies, France. Am. Med. Ass. (chairman, sect. diseases of children, 11); *Pediat. Soc.* (pres., 13); Child Health Ass. (exec. committee, 23—); Ass. Study Infant Mortality (pres., 15); Pa. Med. Soc. (chairman, sect. pediat); Phila. Child Health Soc. (pres., 24); Phila. *Pediat. Soc.* (pres., 01–03); Phila. Col. Physicians; Phila. Path. Societies; Phila. Neur. Soc. Pediatrics.
- Hamilton, Prof. Alice**, Harvard School of Public Health, Boston, Mass. *Industrial toxicology*. New York, N. Y., Feb. 27, 69. M.D., Michigan, 93, A.M., 10; Leipzig, 95; Munich and Frankfurt, 96; Hopkins, 97; Chicago, 99–01; Pasteur

- Inst. Paris, 02. Prof. path, Woman's Med. Col, Chicago, 97-01; asst. pathologist, McCormick Inst. for Infectious Diseases, 02-09; *special investigator occupational poisons*, U. S. Bur. Labor Statistics, 11-; asst. prof. *indust. med.*, Harvard Med. Sch., 19- Lecturer, Chicago, 16-; Cutter lecturer, Harvard, 19. Ill. Commission to Investigate Diseases of Occupation, 08-09, director, 09-10; mem, Governor's Commission on Health Insurance, Ill; League of Nations Health Committee, 24- Ass. Path. and Bact; Am. Med. Ass; Pub. Health Ass; Chicago Path. Soc. (pres, 11). Bacteriology; immunology; industrial poisoning in the manufacture of explosives and dyes; lead and mercury poisoning.
- Hamilton, Prof. Arthur Stephen**, Yeates Building, Minneapolis, Minn. *Neurology*. Wyoming, Iowa, Nov. 28, 72. B.S. Iowa, 94; M.D. Pennsylvania, 97. *Prof. nervous and mental diseases*, Minnesota, 05-, *chief div.*, 12- Neur. Ass; Psychiat. Ass; Psychopath. Ass. Clinical neurology; neuropathology.
- Hamilton, Prof. Cliff S(truthers)**, 3405 N St, Lincoln, Nebr. *Chemistry*. Blair, Nebr, Nov. 23, 91. B.S. Monmouth; Ph.D. Northwestern, 22; Minnesota. Instr. and asst. prof. chem, Ohio Wesleyan, 17-19; research chemist pharmacol, Wisconsin, 22-23; *assoc. prof. chem.*, Nebraska, 23- Chem. Soc. Organic chemistry; organic compounds containing arsenic and antimony; drugs.
- Hamilton, Prof. Clyde C(arney)**, Rutgers University, New Brunswick, N. J. *Entomology*. Salina, Kans, June 24, 90. B.S. Kansas Col, 13; M.S. Illinois, 16. Asst. entom, Illinois, 15-16; Cornell, 16-18; bur. entom, U. S. Dept. Agr, 18-19; exten. entomologist, Missouri, 19-20; *assoc. entomologist*, Maryland, 20-25; *Rutgers*, 25- Entom. Soc; Ass. Econ. Entom. Economic entomology; taxonomy and morphology of Coleopterous larvae.
- Hamilton, E(dward) H(enry)**, 515 Victoria Ave, Westmount, Que, Can. *Metallurgy*. Montreal. B.S. McGill, 84. Chemist, Standard Oil Co, 91-93; Pueblo Smelting and Ref. Co, 93-06, asst. supt. and metallurgist, 96-00; supt, U. S. Zinc Co, 00-02; asst. manager and metallurgist, Washoe Smeltery, 02-05; gen. supt, Ariz. Smelting Co, 05-07; metallurgist, various companies, 07-15; consulting metallurgist and manager of smelteries, Consol. Mining and Smelting Co, 16, supt. electrolytic zinc plant, 17-18; supt, Midvale smeltery, U. S. Smelting Ref. and Mining Co, 18-24. Summers, explorations, Can. Geol. Surv. and McGill Observatory, 84-91. A.A; Chem. Soc; Min. Eng; Soc. Chem. Indust; Electrochem. Soc; Can. Inst. Min. and Metal; Inst. Metals, London; Royal Soc. Arts, London. Copper smelting and lead; production of zinc by electrolysis; electrolytic refining of lead, silver, gold, cadmium and arsenic.
- Hamilton, Edward P(ierce)**, 43 Randolph Ave, Milton, Mass. *Hydraulics*. Newtonville, Mass, Feb. 25, 97. A.B., Harvard, 18. *Asst. engineer, The Proprietors of the Locks and Canals, Lowell, Mass.*, 20- James Laurie prize, jointly with A. T. Safford, Soc. Civil Eng, 22; Frontinus prize, Boston Soc. Civil Eng, 26. Capt, F.A.R. Civil Eng; Boston Soc. Civil Eng. General hydraulics; water wheel draft tubes; history of technical and mechanical progress.
- Hamilton, Prof. F(rancis) M(arion)**, 455 Park Ave, Leonia, N. J. *Psychology*. Markle, Ind, Jan. 21, 67. A.B., Indiana, 97, A.M., 01; fellow, Chicago, 04-05; Ph.D., Columbia, 07. Teacher, prin. and supt, pub. schools, Ind, 88-95; instr. Latin and math, North Manchester Col, 90-91; asst. psychol, Indiana, 97-98; asst. educ. director, Cent. Y. M. C. A. Col, Chicago, 98-99; instr. psychol. and pedag. and director psychol. lab, Ohio State, 99-01; prof. psychol. and pedag, Wis. State Nor. Sch., Platteville, 01-03; asst. psychol, Columbia, 05-06; *prof.*, N. Y. *Training Sch. for Teachers*, 06-11, *head dept.*, 11- A.A; Psychol. Ass. Perceptual factors in reading; educational tests.
- Hamilton, G(eorge) H(all)**, Hamilton Observatory, Mandeville, Jamaica, B. W. I. *Astronomy*. London, Eng, Jan. 31, 84. B.A., Cambridge, 07, M.A., 11. Vol. worker, Observatory, Oxford, 08-10; prof. astron, physics and French, Bellevue, 10-14; astronomer, Lowell Observatory, 17-22; Jamaica branch, Harvard Observatory, 22-24; *Hamilton Observatory, Jamaica*, 24- A.A; Astron. Soc; fel. Royal Astron. Soc; Soc. astron. de France. Planetary astronomy; Mars; Jupiter and Jupiter's satellites.
- Hamilton, Dr. G(ilbert) V(an Tassel)**, 47 E. 61st St, New York, N. Y. *Psychiatry*. Frazeyburg, Ohio, Jan. 15, 77. A.B., Ohio Wesleyan, 98; M.D., Jefferson Med. Col, 01; Harvard, 05-08. Res. physician, Jewish Hosp, Phila., 01; Pa. State Hosp, Warren, 02-05; McLean Hosp, 05-07; research, Stanley McCormick grant, 08-17; lecturer psychol, Calif. State Nor. Sch., Santa Barbara, 15-17, 23; psychopathologist, Santa Barbara Clinic, 22-24; *director div. psychobiol. research, Bur. Social Hygiene, Inc.*, 24- Visiting psychopathologist, Miradero Sanitarium, 10-17. Assoc. ed, 'Jour. Comp. Psychol.' Capt, A.S., 17-18. Psychiat. Ass; Am. Med. Ass; Psychopath. Ass; Psychol. Ass. Comparative psychology; marriage.
- Hamilton, Herbert C(lifton)**, Parke, Davis and Co, Detroit, Mich. *Pharmaceutical chemistry, Pharmacology*. Sandy Lake, Pa, Nov. 21, 68. M.Ch.E., Minnesota, 97. Chemist, steel works, 97-99; *research chemist and pharmacologist, Parke, Davis and Co*, 99- Chem. Soc; Pharmaceut. Ass; Pub. Health Ass. Disinfectants; digitalis; homeostatic agents; insecticides; *Cannabis sativa*; pituitary extracts; ergot.
- Hamilton, Prof. John Orr**, 6 Park Road, Manhattan, Kans. *Physics*. Princeton, Ind, Sept. 4, 67. Monmouth, 83-87; B.S., Chicago, 01. Prin. high sch, Ill, 96-99; asst. prof. *physics*, Kansas Col, 01-08, *prof.*, 08- Physical Soc; Eng. Educ; Kans. Acad. Sulphated storage cells; weather; the light of the fire-fly; the effect of different light rays on plant growth; ultra-violet light.
- Hamilton, Prof. L(eicester) F(orsyth)**, 39 Lockeland Ave, Arlington, Mass. *Analytical chemistry*. Medford, Mass, Feb. 23, 93. B.S., Mass. Inst. Tech, 14. Instr. *anal. chem.*, Mass. Inst. Tech, 15-19, asst. prof, 19-25, *assoc. prof.*, 25-

- Chem. Soc. (sec'y, northeast. sect, 20-22). Calculations in analytical chemistry; application of precision of measurement to quantitative analysis.
- Hamilton, Prof. W(illiam) F(erguson)**, 228 E. Oak St, Louisville, Ky. *Physiology*. Tombstone, Ariz, March 8, 93. A.B, Pomona, 17; Ph.D, California, 21. Assoc. zool, California, 19-20; instr, Texas, 20-21; *physiol*, Yale, 21-23; asst. prof, Louisville, 23-26, *assoc. prof*, 26- A.A; *Physiol. Soc*; *Optical Soc*; Ky. Acad. Morphology and taxonomy of annelids; animal behavior; physiological optics; physiology of echinoderms; physiology of circulation; heat regulation and water exchange.
- Hamlin, John C(alhoun)**, 712 Elizabeth St, Fresno, Calif. *Entomology*. Anderson, S. C, Sept. 25, 96. B.S, Clemson, 16; M.S, Ohio State, 18. Plant quarantine inspector, fed. hort. board, U. S. Dept. Agr, 18-19; entomologist and biologist, Australian Commonwealth Prickly Pear Board, U. S, 20-23, officer in charge Prickly Pear Investigations, Australia, Mexico and U. S, 23-24; *assoc. entomologist, bur. entom, U. S. Dept. Agr*, 24- A.A; *Entom. Soc*; *Ass. Econ. Entom*; *Pacific Coast Entom. Soc.* Prickly pears of Australia; cactus insects of the United States; Heteroptera; dried-fruit insects; insect revival after fumigation.
- Hamlin, Dr. M(arston) L(ovell)**, Beechnut Packing Co, 57 43d St, Brooklyn, N. Y. *Chemistry*. New York, N. Y, Feb. 8, 87. A.B, Amherst, 08; A.M, Columbia, 09, fellow, 11-12, Ph.D, 12; Strassburg, 09-10. Research chemist, Harriman Lab, Roosevelt Hosp, 12-13; research and operating chemist, Gen. Bakelite Co, 13-15; chief chemist, plant D, Butterworth-Judson Corp, 15-18; research chemist, Nat. Aniline and Chem. Co, 19-21; chief chemist, Sugola Co, N. J, 21; research fellow, Trinity (N. C), 21-24, asst. prof. chem, 22-24; *research chemist, Beechnut Packing Co*, 24- A.A; *Chem. Soc.* Industrial chemistry; lipolytic enzymes; hydrolysis of esters; explosives and dye intermediates; tobacco; foods; tropical gums and resins.
- Hamman, Prof. Louis**, 9 E. Chase St, Baltimore, Md. *Medicine*. Baltimore, Dec. 21, 77. A.B, Rock Hill, 96; M.D, Hopkins, 01. Asst, instr, *assoc. med. and assoc. prof. clin. med, Hopkins*, 03-, acting head dept, 18-19. Physician in charge, Phipps Dispensary, 05-15; asst. visiting physician, Hopkins Hosp. Am. Med. Ass; Am. Physicians; Soc. Clin. Invest. Internal medicine.
- Hammer, Prof. Bernard W(ernick)**, Iowa State College, Ames, Iowa. *Bacteriology*. Hillsboro, Wis, Oct. 7, 86. B.S.A, Wisconsin, 08; Ph.D, Chicago, 20. Asst. agr. bacter, Wisconsin, 08-09, bacteriologist, hygiene lab, 09-11; *prof. dairy bacter, Iowa Col, and chief dairy bacter, Exp. Sta*, 11- Soc. Bact; Pub. Health Ass; Dairy Sci. Ass. Chemistry; dairy bacteriology; classification of organisms found in dairy products.
- Hammer, William J(oseph)**, 103 Waverly Place, New York, N. Y. *Physics, Electrical engineering*. Cressona, Pa, Feb. 26, 58. High sch;
- European universities. Asst. to Edward Weston, 78-79; to Thos. A. Edison, 79-81; chief engineer, Edison Lamp Co, 80-81; English Edison Co, 81-82; German Edison Co, 83-84; asst. to pres, Parent-Edison Elec. Light Co, 84-85; chief inspector cent. stations, Edison Elec. Light Co, 84-86; gen. manager, Boston Edison Co, 86-87; personal rep, Thos. A. Edison, Paris Expos, 89; *consulting engineer*, 90- Sec'y and trustee, Sprague Elec. Ry. Co, 85. Franklin Inst. Elec. Expos, 84; consulting engineer, Cincinnati Centennial Expos, 88; chairman jury on telegraphy, telephony and wireless, La. Purchase Expos, 04. Pres, Nat. Conf. Standard Elec. Rules, 96-06. Sec'y and expert, aeronautics committee, Hudson-Fulton Celebration, 09. John Scott medal, 02; Elliot Cresson medal, 06; silver medals, Int. Elec. Expos, 82, 92; grand prize, La. Purchase Expos, 04; Cross, Légion d'honneur, 25. Delegate, Inst. Elec. Eng. Cong, Paris, 00. Major, Gen. Staff, 18-19. A.A; fel. Physical Soc; fel. Elec. Eng. (past v. pres); Aeronaut. Soc. (v. pres); Mil. Eng; N. Y. Elec. Soc. (v. pres). Radium; radiant phenomena; colored phosphorescent materials; fluorescence; ultra-violet light; X-rays; cathode rays; selenium and its properties; television; incandescent lighting; aeronautics.
- Hammett, Dr. F(rederick) S(imonds)**, Wistar Institute, Philadelphia, Pa. *Physiological chemistry*. Boston, Mass, Nov. 18, 85. A.B, Tufts, 08; M.S, R. I. Col, 11; A.M, Harvard, 14, Ph.D, 15. Asst. chemist, R. I. Exp. Sta, 09-12; teaching fellow biochem, Harvard Med. Sch, 13-15, asst. anat, 14-15; prof. physiol. and biochem, Southern California, 15-17; instr. anat, Harvard Med. Sch, 17-18; fellow *biochem, Wistar Inst*, 19-22, *asst. prof*, 22- A.A; Soc. Biol. Chem; Soc. Physiol; Soc. Exp. Biol; Soc. Zool; Ass. Study Int. Secretions. Physiology and chemistry of growth; endocrines; creatinine formation.
- Hammett, Prof. L(ouis) P(lack)**, Columbia University, New York, N. Y. *Chemistry*. Wilmington, Del, April 7, 94. A.B, Harvard, 16; Polytech. Sch, Zurich, 16-17; Ph.D, Columbia, 23. Instr. chem, Columbia, 20-24, *asst. prof*, 24- Chemist, A.S, 17-19. Chem. Soc; Electrochem. Soc. Oxidation-reduction reactions; electrode properties.
- Hammond, A(lonzo) J(ohn)**, 707 Michigan Ave, Evanston, Ill. *Engineering*. Thorntown, Ind, April 23, 69. B.S, Rose, 89, M.S, C.E; Mass. Inst. Tech. Asst. engineer, Vandalia Ry, 98-01; city engineer, Ind, 01-10; consulting engineer, Ill, 10; chief engineer, Bur. Pub. Efficiency, Chicago, 11; engineer, bridges and harbor, 12-13; asst. chief engineer, Union Sta. Co, 14-22; *chief engineer*, James O. Heyworth, Inc, 23-26; *Mellon-Stuart Co*, 26- Board managers, Rose. Civil Eng. (director, 26-, pres, Ill. sect); West. Soc. Eng. (director); Ind. Eng. Soc. (pres). Water supply; power; pavements.
- Hammond, Prof. Edward S**, 9 Thompson St, Brunswick, Maine. *Mathematics*. New Britain, Conn, April 21, 93. A.B, Yale, 13, A.M, 15; Ph.D, Princeton, 20. Instr. math, Princeton, 18-21; asst. prof, Bowdoin, 21-25, *prof*,

- 25- Math. Soc; Math. Ass. Differential geometry; periodic conjugate nets of curves.
- Hammond, Prof. H(arry) P(arker)**, 1011 Ocean Ave, Brooklyn, N. Y. *Civil engineering*. Asbury Park, N. J. Dec. 21, 84. B.S, Pennsylvania, 09, C.E, 25. Instr. civil eng, Pennsylvania, 09-11; Lehigh, 11-12; asst. prof. sanit. and hydraulic eng, Brooklyn Polytech, 12-17, prof, 17- Civil Eng; Eng. Educ. (assoc. director investigation eng. educ, 24-). Engineering education.
- Hammond, J(ohn) C(hurchill)**, U. S. Naval Observatory, Washington, D. C. *Astronomy*. Livingston Co, Mich, June 3, 71. B.S, Michigan, 94; M.S, Chicago, 96. Asst, 'Nautical Almanac' Office, 98-00; computer, U. S. Naval Observatory, 00-03, asst. astronomer, 03-17, astronomer, 17- In charge U. S. Naval Observatory solar eclipse exped, 18. Astron. Soc; Wash. Philos. Soc. Comets, asteroids and satellites; positions of fundamental stars.
- Hammond, John Hays**, 120 Broadway, New York, N. Y. *Mining engineering*. San Francisco, Calif, March 31, 55. Ph.B, Yale, 76, hon. A.M, 98; Royal Sch. of Mines, Freiberg; D.E, Stevens; LL.D, St. John's (Md); Yale, 25; hon. M.E, Colo. Sch. Mines. Special expert, U. S. Geol. Surv, 80; *mining engineer*. Visitor, eng. sch, Harvard. Nat. Conservation Committee, 08-; chairman, U. S. Coal Commission, 22-23; Int. Cong. Applied Chem, London, 09. A.A; Min. Eng; Archeol. Inst; Am. Acad; London Inst. Min. and Metal; Royal Scottish Geog. Soc. Mining.
- Hammond, Dr. L(ester) D(avisson)**, U. S. Bureau of Standards, Washington, D. C. *Chemistry*. Petersburg, Ind, June 23, 83. A.B, Indiana, 07; A.M, Wisconsin, 10, Ph.D, 16. Acting asst. prof. chem, Mo. Sch. Mines, 16-17; instr. org. chem, Kansas Col, 17-18; asst. prof. chem, Armour, 18-19; *assoc. chemist*, Bur. Standards, 19- Chem. Soc. Electrochemistry; electro-deposition of nickel.
- Hammond, Prof. Philo F(ay)**, 619 Clark St, Laramie, Wyo. *Physics*. Cresco, Iowa, Jan. 7, 76. M.Di, Iowa Teachers Col, 02; Michigan; A.B, Washington (Seattle), 07; Chicago; Ph.D, Stanford, 16. Asst. physics, Washington (Seattle), 07-09; teacher, high sch, Wash, 09-13; asst. physics, Stanford, 13-16; acting head dept, Alberta, 16-19; prof, N. Dak. Col, 19-20; assoc. prof, Wyoming, 20-21, prof, 21-A.A; Physical Soc. The effect of ions upon electrode potential in an electrolytic solution; Volta effect.
- Hamor, W(illiam) A(llen)**, Mellon Institute, Pittsburgh, Pa. *Industrial chemistry*. DuBois, Pa, March 27, 87. Pittsburgh, 04-07, A.M, 13. Research chemist, Col. City of N. Y., 07-14; asst. to director, Mellon Inst, 14-16, asst. director, 16- Prof, Pittsburgh, 15-18. Shale-oil expert, Can. Dept. Mines, 08. Ed. staff, 'Science-Hist. of Universe,' 09-10; 'Jour. Indust. Eng. Chem,' 12-14. Major, C.W.S, 17-18; asst. chief, tech. div, U.S.A, 18. V. chairman, div. research exten, Nat. Research Council, 21-24. Org. committee, Eighth Int. Cong. Applied Chem, 12. Chem. Soc; Electrochem. Soc; Inst. Metals; Soc. Test. Mat; Pittsburgh Eng. Ass; N. Y. Chemists Club; fel. London Chem. Soc. Chemical economics; economic utilization of fuels; anesthetics; shale oil and petroleum; industrial research methodology.
- Hampton, H(arold) C(lark)**, Hawkesbury, Ont, Can. *Chemistry*. Richmond, Ind, Nov. 9, 89. Whittier, 15-18; California, 19; A.B, A.M, Stanford, 20; Wisconsin, 21-26, Ph.D, 27. Teaching asst, Stanford, 19-20; prof. physiol. chem, N. Dak. Col, 20-21; instr. bot, Wisconsin, 21-27; *wood technologist*, Riordan Pulp Corp, 27- Chemist, C.W.S, 18. A.A. Plant physiology; wood technology.
- Hanawalt, Prof. Francis W(ayland)**, 826 N. Steele St, Tacoma, Wash. *Mathematics, Astronomy*. Monticello, Ind, Feb. 22, 59. A.B, De Pauw, 84, A.M, 02; Chicago, 97, 99; Cornell, 01; Chamberlin Observatory, 03; Columbia, 16. Prof. math. and astron, Mt. Morris, 84-93; instr. math, De Pauw, 93-98; *prof. math. and astron*, Iowa Wesleyan, 98-03; Albion, 03-07; *Puget Sound*, 08- Math. Soc; Math. Ass; Pacific Astron. Soc.
- Hance, Dr. Francis E(vaul)**, Hawaiian Sugar Planters' Association, Honolulu, Hawaii. *Inorganic chemistry*. Philadelphia, Pa, Oct. 4, 93. Ch.B, Cornell, 21, Ph.D, 24. Heckscher research investigations chem, with Prof. L. M. Dennis, Cornell, 20-24; research soil tech, N. Y. State Col. Agr, Cornell, 24-26; *assoc. chemist*, Exp. Sta, Hawaiian Sugar Planters' Ass, 26- Chem. Soc. Physical chemistry; soil technology.
- Hance, Prof. J(ames) H(arold)**, College Station, Texas. *Geology*. Chicago, Ill, Aug. 14, 80. B.S, Northwestern, 01; Washington (Seattle), 08, M.E, 10; Ph.D, Chicago, 18. Junior, asst. and assoc. geologist, U. S. Geol. Surv, 10-15; asst. geol, Chicago, 14-15; asst. prof, Iowa, 15-18; geologist, Roxana Petrol. Co, 18-19; valuation engineer, oil sect, internal revenue bur, U. S. Treas. Dept, 19; acting prof. in charge dept. geol, Denison, 19-20; asst. chief, State Geol. Surv, Ill, 20-25; *head dept. geol, Agr. and Mech. Col. Texas*, 25- Mineral examiner, U. S. Gen. Land Office, 17. A.A; Geol. Soc; Min. and Metal. Eng; Ass. Petrol. Geol. Metallurgy; valuation of mineral properties.
- Hance, Dr. Robert T(heodore)**, University of Pittsburgh, Pittsburgh, Pa. *Zoology*. Cincinnati, Ohio, Jan. 10, 92. A.B, Cincinnati, 13, A.M, 14; Harrison fellow, Pennsylvania, 14-16, Ph.D, 17. Asst. zool, Cincinnati, 13-14; Pennsylvania, 16-18, instr, 20-21; prof, N. Dak. Col, 21-23; Nat. Research Council fellow, 23-25; assoc, Rockefeller Inst, 25-27; *prof. zool. and in charge dept*, Pittsburgh, 27- Chairman zool, A.E.F. Univ. Beaune, and lieut. Sanit.C, 19. A.A; Soc. Zool; Micros. Soc. Mammalian and plant cytology; somatic chromosomes; Paramoecium.
- Hancock, Prof. Harris**, University of Cincinnati, Cincinnati, Ohio. *Mathematics*. Ellerslie, Va, May 14, 67. Virginia, 86; A.B, Hopkins, 88; Cambridge, 91; Ph.D, Berlin, 94; Sc.D, Paris, 01. Asst. math, Chicago, 92-93, 94-95, assoc,

- 95-97, instr, 97-00; *prof*, Cincinnati, 00- A.A. (v. pres, chairman, A, 23); Math. Ass; Math. Soc; fel. Ass. Prof. (treas, 18-22); London Math. Soc; Math. Verein; Soc. math. de France; Circolo Mat. di Palermo. Kronecker's modular systems; Abelian integrals; elliptic functions and integrals; calculus of variations; maxima and minima; minimal surfaces; algebraic numbers; geometry of numbers.
- Hand, Prof. William F(lowers)**, Mississippi Agricultural and Mechanical College, Agricultural College, Miss. *Chemistry*. Shubuta, Miss, Dec. 1, 73. B.S, Miss. Agr. and Mech. Col, 93, M.S, 95; Ph.D, Columbia, 03. Asst. chemist, Miss. Agr. and Mech. Col, 93-99, *prof. chem. and state chemist*, 99- A.A; Chem. Soc; Agr. Chem. (v. pres, 20, pres, 21). Organic chemistry; synthesis in the quinazalin group including ketodihydroquinazolins and diquinazoyls.
- Handy, Dr. E(dward) S(mith) C(raighill)**, Bishop Museum, Honolulu, Hawaii. *Anthropology*. Roanoke, Va, Sept. 22, 92. A.B, Harvard, 15, A.M, 16, Ph.D, 20. Austin teaching fellow anthrop, Harvard, 19-20; *ethnologist*, Bishop Museum, 20- Lecturer, Hawaii, 22, 25. Leader, Marquesan party, Dominick exped, Bishop Museum, 20-21; ethnol. exped, Society Islands, 23. Anthropol. Ass. Polynesian ethnology.
- Handy, James Otis**, 5723 Woodmont, Pittsburgh, Pa. *Chemistry, Metallurgy*. Barnstable, Mass, Jan. 2, 69. Mass. Inst. Tech, 84-86. Asst. chemist, U. P. Ry, 86-87; B. and O. Ry, 88; *chief chemist*, Pittsburgh Testing Lab, 89-, *director chem. and metal. investigations*, 20- Commission on filtration of water supplies of Pittsburgh and Allegheny, 95. Chem. Soc. (councilor, chairman, Pittsburgh sect, 22); Soc. Chem. Indust; West. Pa. Eng. Soc. (pres, 12). Chemical analysis; phosphorus in steel; magnesia in compounds; water softening; metallurgy of copper, cobalt and vanadium; oil and grease refining processes; red lead production; aluminothermic processes; glass defect elimination.
- Hanford, Dr. G(eorge) A(rthur)**, P. O. Box 55, Syracuse, N. Y. *Physiological chemistry*. Syracuse, Oct. 14, 75. A.B, Yale, 98, Ph.D, 02. Asst. physiol. chem, Yale, 99-02; lecturer, col. med, Syracuse, 02-03, director dept. chem, 03-06, *prof. chem. and physiol. chem*, 06-07; *manager*, Hanford Mfg. Co, Syracuse, 07- Physiological rôle and toxicology of caesium compounds.
- Hanke, Prof. Martin (Charles) E(dward)**, 8424 Rhodes Ave, Chicago, Ill. *Physiological chemistry*. June 25, 98. B.S, Chicago, 18, Ph.D, 21. Nat. Research Council fellow org. chem, 21-22; *instr. physiol. chem*, Chicago, 22-25, *asst. prof*, 25- A.A; Chem. Soc; Soc. Biol. Chem. Organic arsenic and mercury compounds; chemistry of the gastric hydrochloric acid mechanism; application of oxidation-reduction potentials in the study of oxidases.
- Hanke, Dr. Milton Theo(dore)**, University of Chicago, Chicago, Ill. *Chemistry*. Chicago, April 23, 93. B.S, Chicago, 14, Ph.D, 17. Asst. prof. physiol. chem, N. Dak. Col, 16-17; *research chemist*, Sprague Mem. Inst, Chicago, 18- Chem. Soc; Soc. Biol. Chem. Biochemistry; bacteriology; oxidation of maltose; proteinogenous amines; electrical constitution of organic compounds.
- Hankinson, T(homas) L(eroy)**, State Normal College, Ypsilanti, Mich. *Ichthyology, Ecology*. Valparaiso, Ind, April 12, 76. B.S, Mich. State Col, 98, Cornell, 00. Prof. zool. and physiol, East. Ill. State Nor. Sch, 02-19; ichthyologist, Roosevelt Wild Life Exp. Sta, Syracuse, 19-21; *prof. zool*, Mich. State Nor. Col, 21- Summers, investigator, Mich. Biol. and Geol. Surv, 06, 13, 15-19; N. Y. Col. Forestry, 15-19; North Dakota, 22; Mich. Dept. Conservation, 23-25. A.A; Ecol. Soc. (v. pres, 19); Fisheries Soc; Soc. Ichthyol. and Herp; Soc. Mammal; Micros. Soc. (treas, 10-15, v. pres, 16); Wilson Ornith. Club (sec'y, 15, pres, 22-24); Ill. Acad. (treas, 17-19); Mich. Acad. Ornithology; aquatic biology; habits and life histories of fish.
- Hanna, Dr. G. Dallas**, California Academy of Sciences, San Francisco, Calif. *Paleontology, Zoology*. Carlisle, Ark, April 24, 87. A.B, Kansas, 11, A.M, 13; Ph.D, George Washington, 18. Asst. Bur. Fisheries, 11-19; *curator paleont*, Calif. Acad. Sciences, 19- Consulting paleontologist, Pacific and Associated Oil Companies, 23-; field worker, Alaska, 11-19; exped, Guadalupe Island, 22, Revillagigedo and Tres Marias Islands, 25. A.A; Ass. Petrol. Geol; Cooper Ornith. Club; West. Soc. Nat; Le Conte Geol. Soc; Calif. Acad. Geology; microscopy; conchology; recent and fossil mollusks and micro-organisms; Alaska fur-seal herd.
- Hanna, Dr. Marcus A(ibert)**, P. O. Drawer C, Houston, Texas. *Geology*. Neosho Co, Kans, Feb. 24, 98. A.B, Kansas, 20; Ph.D, California, 26. Teaching fellow, California, 20-22; *instr. geol. and paleont*, Washington (Seattle), 22-24; *geologist*, Gulf Production Co, Texas, 24- Field asst, U. S. Biol. Surv, Mont, 16-19; Calif. Acad, 20. Ass. Petrol. Geol. (sec'y and treas, paleont. div, 26-); Soc. Econ. Paleont. and Min. (sec'y and treas, 27-). Paleontology.
- Hanna, Prof. Ulysses S(herman)**, 828 Atwater Ave, Bloomington, Ind. *Mathematics*. Selma, Ind, Jan. 16, 65. A.B, Indiana, 95, A.M, 98; Harrison fellow, Pennsylvania, 99-01, Ph.D, 05. Instr. math, high sch, 90-94; *Indiana*, 95-99, asst. prof, 99-09, assoc. prof, 09-22, *prof*, 22- A.A; Math. Soc; Eng. Educ; Ind. Acad; Soc. astron. de France; Math. Verein; Circolo Mat. di Palermo. The bitangentials of the quintic, sextic, septic and octic.
- Hansen, Prof. Albert A(ugust)**, Agricultural Experiment Station, Purdue University, Lafayette, Ind. *Botany*. Copenhagen, Denmark, April 3, 91. B.S, Pa. State, 13, M.S, 16; Chicago, 15-16. Instr. bot, Pa. State, 13-17; sci. asst, bur. plant indust, U. S. Dept. Agr, 17-19, agronomist in charge weed investigations, 19-21; *assoc. botanist*, Exp. Sta, Purdue, 21- Lecturer, Farmer's Inst, Ill, 24, Ind, 22-26. Flower Preservation Soc. (pres, 18); fel.

Ind. Acad. Weed eradication; poisonous plants; conservation of native flora.

Hansen, C(harles) A(ndrew), General Electric Company, Schenectady, N. Y. *Electrochemistry*. Racine, Wis, Feb. 23, 82. B.S, Wisconsin, 05. Research lab, *Gen. Elec. Co*, 05-16, power and mining dept, 16-20, *manager's office*, 20- *Electrochem. Soc*; Min. and Metal. Eng. Electric furnaces; electrolytic zinc and copper; foundry materials.

Hansen, Dr. Lorenz (Peter), University of West Virginia, Morgantown, W. Va. *Organic chemistry*. Suderende, Germany, Nov. 29, 93. B.S, Whitman, 21; Ph.D, Yale, 25. Instr, high sch, Wash, 21-22; chem, Williams, 25-27; *asst. research chemist, West Virginia, and Exp. Sta*, 27- *Chem. Soc.* Acenaphthene derivatives.

Hansen, Prof. Niels E(bbesen), Brookings, S. Dak. *Horticulture*. Ribe, Denmark, Jan. 4, 66. B.S, Iowa Col, 87, M.S, 95; Sc.D, South Dakota, 17. Practical hort, Iowa, 87-91; *asst. prof. hort*, Iowa Col, 91-95; *prof*, S. Dak. Col, 95- *Explorer*, U. S. Dept. Agr, Asia, east. Europe and north. Africa, 97-98, 06, 08-09; for S. Dak, Siberia, 13, North China, 24. Int. jury hort, World's Fair, St. Louis, 04. George Robert White gold medal, Mass. Hort. Soc, 17. U. S. delegate, Int. Conf. Genetics, London, 06. A.A. (sec'y, plant sect); *Soc. Hort. Sci*; S. Dak. State Hort. Soc. (sec'y); Royal Hort. Soc. Genetics; breeding fruits and roses for cold resistance; importing and breeding hardy alfalfa; agricultural exploration in Russia, Transcaucasia, Siberia, China and Turkestan; imported Siberian fat-rumped tailless sheep.

Hansen, Paul, 6 N. Michigan Ave, Chicago, Ill. *Civil engineering*. Arlington, Va, Aug. 9, 79. B.S, Mass. Inst. Tech, 03. *Asst. engineer*, Mass. State Board Health, 03-04; *engineer*, City of Columbus, 04-05; Ohio State Board Health, 05-10; Ill. State Water Surv, 10-15; Ill. State Dept. Health, 15-20; *mem. firm, Pearse, Greeley and Hansen*, 20- *C.Eng.*, U.S.A, 17-19. Civil Eng; fel. Pub. Health Ass. Sanitary engineering; public health; stream sanitation; sewage treatment; water resources; typhoid fever.

Hansen, Dr. Waldemar C(onrad), Portland Cement Association, U. S. Bureau of Standards, Washington, D. C. *Chemistry*. Whitewood, S. Dak, Feb. 9, 96. B.S, Mont. Col, 17; Ph.D, Columbia, 22. *Asst. chem*, Iowa, 19-20; Columbia, 20-22; *research chemist*, Midwest Refining Co, Wyo, 23-24; *Portland Cement Ass*, 24- *C.W.S.*, U.S.A, 17-19. A.A; *Chem. Soc.* Hydration of sodium pyrophosphate; constitution and phase equilibria of Portland cement.

Hanson, C(arl) F(alster), 191 Warburton Ave, Yonkers, N. Y. *Electrical engineering, Physics*. Arkansas City, Kans, June 28, 84. B.S, Kansas, 12, M.S, 13. Instr, Kansas, 11-13; *asst. physicist*, Bur. Standards, 13-18; *elec. engineer*, Habirshaw Elec. Cable Co, 18-25, Habirshaw Cable and Wire Corp, 25-27; *R. T. Vanderbilt Co*, 27- *Lecturer*, George Washington, 17-18. Elec. Eng; Physical Soc; Wash. Philos. Soc. The composite structure of im-

pregnated paper insulation and its electrical properties; high voltage impregnated paper cables.

Hanson, Dr. Ernest R(oy), 230 Grove St, Bloomfield, N. J. *Chemistry*. Moorhead, Minn, Oct. 30, 00. B.S, Fargo, 21; M.S, Northwestern, 23, research fellow, Pub. Health Inst, 22-24, Bakelite research fellow, 24-25, Ph.D, 25. *Asst.*, Northwestern, 21-22; *research engineer, Halowax Corp*, 25- *Organic mercury compounds of phenols and anilines and their reactions*.

Hanson, Prof. Frank Blair, Washington University, St. Louis, Mo. *Zoology*. Bloomington, Ill, July 15, 86. A.B, George Washington, 13; fellow, Illinois, 14-15, A.M, 15; traveling fellow, American Univ, 15-16, Ph.D, 19. Instr. *zool*, Washington (St. Louis), 16-18, *asst. prof*, 18-20, *assoc. prof*, 20-24, *prof*, 24- A.A; *Soc. Zool*; *Soc. Mammal*; *Ass. Anat*; St. Louis Acad. Vertebrate morphology; genetics; origin and development of the shoulder girdle and sternum; inbreeding; effects of alcohol fumes on the albino rat; sex ratio.

Hanson, Dr. George, 96 Broadway Ave, Ottawa, Ont, Can. *Geology*. St. Thomas, N. Dak, Nov. 26, 91. B.A, Manitoba, 14, M.A, 15; A.M, Harvard, 16; Ph.D, Mass. Inst. Tech, 20. *Asst. geologist*, Can. Geol. Surv, 20-23, *assoc. geologist*, 23- *Can. Inst. Min. and Metal.* (exec. committee, West. div, 23). Economic and structural geology.

Hanson, Dr. Herbert C(hristian), Colorado Agricultural College, Ft. Collins, Colo. *Botany*. Faribault, Minn, April 19, 90. A.B, Minnesota, 14; A.M, Nebraska, 16, Ph.D, 25. Instr. *biol*, Colorado, 19-21; *asst. prof. bot*, Arizona, 21-23; instr, Nebraska, 23-26; *assoc. prof*, Colo. Agr. Col, 26- *Investigator*, Carnegie Institution, 23- A.A; *Bot. Soc*; *Ecol. Soc.* Ecology; grazing; vegetation of northeast Arizona; root systems of crop, grasses and garden plants; growth in trees; plant competition.

Hanson, H(erman) H(erbert), Dover, Del. *Chemistry*. Strafford, N. H, April 6, 76. B.S, Pa. State, 02; M.S, Maine, 06. *Asst. chemist*, Maine Exp. Sta, 02-07, *assoc. chemist*, 07-16, *chemist*, 16-19; *asst. chemist*, W. Va. Exp. Sta, 19-20; *state chemist, Del*, 20- *Food Administration*, 17-18. Capt, Sanit.C, 18-19. A.A; *Chem. Soc*; *Agr. Chem*; *Ass. Feed Control Officials* (pres, 23). Analysis and microscopy of foods, drugs and agricultural products.

Hanson, Dr. Robert S(tewart), Drexel Institute, Philadelphia, Pa. *Organic chemistry*. Stow, Ohio, May 31, 99. A.B, Ohio State, 21, M.S, 22, Ph.D, 24. *Asst.*, Ohio, 21-24; *instr. chem*, Drexel, 24- *Chem. Soc.* Metallic halides in organic catalysis.

Hanzlik, Prof. P(aul) J(ohn), Stanford University School of Medicine, San Francisco, Calif. *Pharmacology*. Shueyville, Iowa, July 24, 85. Ph.G, Iowa, 02, Ph.C, 08; A.B, Illinois, 08, A.M, 11; M.D, Western Reserve, 12; Vienna, 13-14. *Demonstrator pharmacol*, Western Reserve, 12-13, instr, 13-15, *assoc*, 15-17, *asst. prof*, 17-20, *assoc. prof*, 20-21; *prof*, sch. med, Stanford, 21- *Pharmacologist*, U. S. Bur.

- Mines, 18; Capt, M.C, 18, major, M.R.C, 19-A.A; Soc. Pharmacol; Physiol. Soc; Soc. Exp. Biol; Soc. Biol. Chem; Am. Med. Ass. (chairman, sect. pharmacol. and therapeut, 23); Ass. Med. Progress; Calif. Acad. Med. Gastro-intestinal absorption of drugs; clinical actions of veratrum, chelidonium, methoename, salicylates and cinchophen; fish poisoning; hemostatics; skin-irritant war gases; anaphylactoid phenomena; experimental edema; lead poisoning; intravenous therapy; liver permeability; reactions of crop muscles; digitalis assay.
- Harcourt, Prof. R(obert)**, Ontario Agricultural College, Guelph, Ont, Can. *Chemistry*, Ont, 66. B.S.A, Toronto, 93. Asst. chemist, *Ont. Agr. Col.*, 93-01, *prof. chem.*, 01-, *director baking sch.* A.A; Chem. Soc; Soc. Chem. Indust; Agr. Chem; fel. Can. Inst. Chem. (pres, 25). Chemistry of foods, including wheat, flour and breakfast foods; insecticides and fungicides; incubation of eggs; lime and sulphur washes; the dairy industry; soils and fertilizers.
- Hardenburg, Prof. E(arle) V(olcart)**, State College of Agriculture, Ithaca, N. Y. *Agronomy, Horticulture*, Brocton, N. Y, Nov. 30, 89. B.S, Cornell, 12, M.S.A, 15, Ph.D; 19. Instr. *farm crops*, N. Y. *State Col. Agr.*, Cornell, 12-18, asst. prof, 19-26, *prof.*, 26- Asst. horticulturist, U. S. Dept. Agr, 26-27. Potato Ass. (pres, 20); N. Y. Potato Ass. (sec'y, 15-20). Potato and field bean production and marketing; vegetable gardening; truck crops; canning crops.
- Harder, Dr. E(dmund) C(ecil)**, Harrison Building, Philadelphia, Pa. *Geology*. New Holstein, Wis, Sept. 22, 82. A.B, Wisconsin, 05, A.M, 07, Ph.D, 15. Field asst, U. S. Geol. Surv, 05-06; mining geologist, 07; junior geologist, U. S. Geol. Surv, 08-09, asst. geologist, 09-14, geologist, 14-20; *geologist and mining engineer, Rep. Mining and Mfg. Co. and other mining companies*, 20- Manager, S. Am. mining, Brazilian Iron and Steel Co, 10-13. A.A; Geol. Soc; Min. and Metal. Eng; Soc. Econ. Geol; Am. Geog. Soc; Wash. Acad; Wash. Geol. Soc. Economic geology; iron manganese and chrome ores; bauxite; magnesite; ore deposition; rock decay; soil bacteriology.
- Harder, Dr. Oscar E(dward)**, University of Minnesota, Minneapolis, Minn. *Chemistry, Metallography*. Franklin Co, Ark, Feb. 3, 83. A.B, Oklahoma, 10, A.M, 11; Ph.D, Illinois, 15. Instr. chem, Oklahoma, 10-11; food analyst, Kans. State Board Health, 11-13; research chemist, committee C 9, Soc. Test. Mat. and Portland Cement Ass, 15-18; N. K. Fairbanks Co, 18; fellow, Mellon Inst, 18-19; assoc. prof. *metall.*, Minnesota, 19-23, *prof.*, 23- A.A; Chem. Soc. (pres, Minn. sect, 24); Min. and Metal. Eng; Soc. Test. Mat; Soc. Steel Treat. (pres, Northwest, chap, 21); Eng. Educ. Alloys of chromium, copper and nickel; organic impurities in sand used for concrete; uranium; dental alloys; metallography of iron and steel.
- Hardesty, Prof. Irving**, Tulane University, New Orleans, La. **Neurology*. Beaufort, N. C, Oct. 8, 66. A.B, Wake Forest, 92, Sc.D, 18; Ph.D, Chicago, 99. Prin, Wakefield Acad, N. C, 92-93; asst. biol, Missouri, 95-96; neur, Chicago, 98-00; instr. *anat.*, California, 00-03, asst. prof, 03-07, assoc. prof, 07-09; *prof.*, *Tulane*, 09- A.A; Ass. Anat; New Orleans Acad. (pres, 23-25). Development and architecture of the nervous system and organs of the special senses, human and comparative.
- Hardin, Dr. Willett L(epley)**, Mt. Washington, Los Angeles, Calif. **Chemistry, Physics, Mineralogy*. Lima, Ohio, Dec. 8, 68. B.S, Buchtel, 93; Ph.D, Pennsylvania, 96, fellow, 96-99. Instr. chem. and physics, Buchtel, 93-94; lecturer physical chem, Pennsylvania, 96-00, instr. physical and tech. chem, 99-00; gen. manager, Symmes Valley Coal Co, 03-07; asst. sec'y and treas, Mex. Nat. Gas Co, 08-11; *consulting chemist*, 11- Chairman jury awards, sect. chem. apparatus, Nat. Export Expos, 99. A.A; Chem. Soc; Min. Eng. The liquefaction of gases; atomic masses of silver, mercury, cadmium, tungsten and palladium; derivatives of palladium with organic bases.
- Harding, Prof. A(rthur) M(cCracken)**, University of Arkansas, Fayetteville, Ark. *Mathematics*. Pine Bluff, Ark, Sept. 3, 84. A.B, Arkansas, 04; A.M, Chicago, 13, Ph.D, 16. Adjunct prof. math, *Arkansas*, 05-09, assoc. prof, 09-16, *prof. math. and astron.*, 16-, univ. examiner, 16-19, *director gen. exten.*, 19- A.A; Math. Soc; Math. Ass; Astron. Soc. Projective differential geometry.
- Harding, Prof. C(harles) Francis**, 503 University St, W. Lafayette, Ind. *Electrical engineering*. Fitchburg, Mass, Sept. 11, 81. B.S, Worcester, 02, E.E, 10; Cornell, 05-06; Dartmouth, 08. Testing dept, Gen. Elec. Co, 02; elec. engineer, Worcester, Providence and Fort Wayne, 03-05; asst. prof. elec. eng, Cornell, 05-06; asst. elec. eng, Stone and Webster, Boston, 07-08; *head prof. elec. eng. and director elec. lab, Purdue*, 08- Fel. Elec. Eng; Eng. Educ; Nat. Elec. Light Ass; Ind. Acad; Ind. Eng. Soc. (past pres). Leakage losses in dielectrics at high voltages; photometric and spectrophotometric analyses of locomotive headlights; electrical fixation of nitrogen; central station rates and valuations.
- Harding, E(dwin) R(eginald)**, Mellon Institute, Pittsburgh, Pa. *Industrial chemistry*. Gypsum, Kans, Feb. 5, 89. A.B, Stanford, 13, A.M, 14. Chemist, Armour and Co, 14; Sperry Flour Co, Calif, 14-15; research chemist, dept. agr. investigation, Am. Smelting and Ref. Co, 15-17, acting chief chemist, 17; research chemist, Monsanto Chem. Works, Mo, 18-19, asst. chief chemist, 19-20, supervising chemist, 20-21; *indust. fellow, Mellon Inst.*, 22- Chem. Soc. Bacteriology; medicinal and dye intermediates; problems of food manufacture; vitamins; smelter smoke damage.
- Harding, Dr. H(arry) A(lexis)**, P. O. Box 834, Detroit, Mich. *Bacteriology*. Oconomowoc, Wis, Nov. 28, 71. B.S, Wisconsin, 96, fellow, 97-08, M.S, 98; Germany, 98; Ph.D, Cornell, 10. Bacteriologist, N. Y. Exp. Sta, Geneva, 99-13; prof. dairy bacter, Illinois, 13-22; *chief dairy research div, Mathews Industries, Inc.*, 22- A.A; Soc. Bact; Dairy Sci. Ass;

- fel. Pub. Health Ass; Royal Inst. Pub. Health. Dairy bacteriology; bacterial plant diseases; causes of cheese ripening; soft rot in plants; fixation of nitrogen; city milk supplies.
- Harding, T. Swann, U. S.** Department of Agriculture, Washington, D. C. *Chemistry*. Wyoming, Del, May 14, 90. B.S., Maryland. Research chemist, Digestive Ferments Co, 18-22; *asst. chemist*, bur. chem, U. S. Dept. Agr, 10-18, *bur. dairy industry*, 22- Preparation of rare sugars; amino acids and dipeptide glutathione of blood as precursors of milk protein.
- Harding, Prof. V(ictor) J(ohn)**, University of Toronto, Toronto, Ont, Can. *Biochemistry*. Bury, Eng, Oct. 23, 85. B.Sc, Victoria (Eng), 06, Beyer fellow, 07, M.Sc, 07, D.Sc, 12. Demonstrator chem, Victoria (Eng), 08-10; McGill, 10-11, lecturer biol. and physiol. chem, 11-13, *asst. prof*, 13-17, *assoc. prof*, 17-20; *prof. path. chem*, Toronto, 20- Soc. Biol. Chem; fel. Royal Soc. Can; fel. London Chem. Soc; *assoc. Inst. Chem. Gt. Britain and Ireland*. Terpenes; substitution in aromatic compounds; ninhydrin reaction; synthesis of purines; creatine metabolism; nausea, toxemias and metabolism of pregnancy; diet in pre-eclampsia; blood, uric acid and diet.
- Hardman, Albert F(oster)**, Kelly Springfield Tire Co, Cumberland, Md. *Chemistry*. Janelew, W. Va, 93. A.B, West Virginia, 17; M.S, Chicago, 19. Instr, Kentucky, 17-18, fellow chem, 19-20; *research chemist*, Kelly Springfield Tire Co, 20- C.W.S, U.S.A, 18. Chem. Soc. Rubber chemistry.
- Hardwick, Dr. Rose S(tandish)**, 161 S. Huntington Ave, Boston, Mass. *Psychology*. Weymouth, Mass, June 11, 68. A.B, Smith, 90, A.M, 09; Ph.D, Radcliffe, 24. *Asst. psychol*, Psychopathic Hosp, Boston, 13-14; *instr*, Am. Sch. for Physical Educ, 15-18; *educ*, Boston Sch. Physical Educ, 14-21; *staff psychologist*, N. E. Home for Little Wanderers, 15-; *head psychologist*, Habit Clinics, Boston, 26- *Lecturer*, sch. domestic science, Y. W. C. A, Boston, 15-18. Psychol. Ass. Tests; visual defects.
- Hardy, Prof. Arthur C(obb)**, Massachusetts Institute of Technology, Cambridge, Mass. *Physics*. Worcester, Mass, Dec. 2, 95. A.B, California, 17, A.M, 19. *Asst. physics*, Mass. Inst. Tech, 17-18, *instr*, 19-20; *physicist*, Eastman Kodak Co, 20-22; *asst. prof. physics*, Mass. Inst. Tech, 22- U.S.A, 18. A.A; Physical Soc; Optical Soc; Royal Photog. Soc. Optics; photography.
- Hardy, Dr. Arthur Sherburne**, Woodstock, Conn. *Mathematics*. Andover, Mass, Aug. 13, 47. Grad, U. S. Mil. Acad, 69; Ecole des Ponts et Chaussées, 73-74; hon. A.M, Iowa; Ph.D, Dartmouth. Prof. civil eng, Grinnell, 71-73; Dartmouth, 74-78, math, 78-93; ed, 'Cosmopolitan', 93-95; U. S. minister resident and consul gen, Teheran, Persia, 97-99; envoy extraordinary and minister plenipotentiary of the U. S. Greece, Roumania and Servia, 99-01; Switzerland, 01-03; Spain, 03-05. Quaternions; calculus; topographical surveying; imaginary quantities; analytic geometry.
- Hardy, Dr. James G(raham)**, Williamstown, Mass. *Mathematics*. Easton, Pa, March 13, 74. A.B, Lafayette, 94, A.M, 97; fellow, Hopkins, 97-98, Ph.D, 98. Instr. and assoc. prof. math, Williams, 98-13, *prof*, 13- Math. Soc; Math. Ass. Darboux lines on surfaces; curves of triple curvature; curves in a space of n-dimensions; applications of the theory of limits.
- Hare, Dr. Earle R(ussell)**, 730 La Salle Building, Minneapolis, Minn. *Anatomy*. Summerfield, Ohio, May 26, 72. A.B, Iowa Wesleyan, 94; M.D, Minnesota, 00. Prosector anat, Minnesota, 00-05, demonstrator, 05-08, *instr*, 08-10, *surg*, 10-17. Ass. Anat; Am. Med. Ass; fel. Col. Surg.
- Hare, Dr. H(obart) A(mory)**, 1801 Spruce St, Philadelphia, Pa. **Therapeutics*. Philadelphia, Sept. 20, 62. M.D, Pennsylvania, 84, B.S, 85, LL.D, 21; M.D, Jefferson Med. Col, 93. Clin. prof. diseases of children, Pennsylvania, 90-91; *prof. therapeut. and diagnosis*, Jefferson Med. Col, 91- Fiske Fund, R. I. Med. Soc, 85, 86; Fothergillian medal, London Med. Soc, 88; prize, Acad. Royale de Méd. de Belgique, 89; Cartwright prize, 89; Boylston prize, 91. Soc. Nat. Am. Physicians; Physiol. Soc; Phila. Col. Physicians (pres). Experimental therapeutics; clinical medicine.
- Hare, Prof. E(aleigh) F(rederick)**, Las Cruces, N. Mex. *Chemistry*. Opelike, Ala. B.S, Ala. Polytech, 92, M.S, 93; Ph.D, Columbia, 11. Asst. chem, Ala. Polytech, 92-93; N. Mex. Col, 93-05, head dept. chem, 05-15; *field agent*, bur. crop estimates, U. S. Dept. Agr, 16- Agricultural and physiological chemistry.
- Hares, C(harles) J(oseph)**, 305 Franklin St, Denver, Colo. *Geology*. Marcellus, N. Y, May 6, 81. B.S, Syracuse, 07, M.S, 08; fellow, Chicago, 08-10. Junior geologist, U. S. Geol. Surv, 10-13, *assoc. geologist*, 13-16, paleontologist, 16-17; *chief geologist*, Ohio Oil Co, 17- A.A; Geol. Soc; Min. Eng; Min. Cong; Petrol. Inst; Wash. Geol. Soc. Stratigraphy; mid-Tertiary glaciation; coal; oil.
- Harger, Dr. Rolla N(eil)**, Indiana University School of Medicine, Indianapolis, Ind. *Chemistry*. Decatur Co, Kans, Jan. 14, 90. A.B, Washburn, 15; A.M, Kansas, 17; Ph.D, Yale, 22. Lab. instr. chem, Washburn, 13-15; *instr*, Kansas, 15-17; *asst. biochemist*, soil fertility, bur. plant indust, U. S. Dept. Agr, 17-20; Nat. Research Council fellow, Yale, 20-22; *asst. prof. biochem. sch. med*, Indiana, 22- A.A; Chem. Soc; Ind. Acad. Metol; cyanamide; organic oxidations.
- Hargitt, Dr. George T(homas)**, Syracuse University, Syracuse, N. Y. **Zoology*. Fairfield, Ind, Feb. 13, 81. Ph.B, Syracuse, 02; fellow, Nebraska, 02-03, A.M, 03; Ph.D, Harvard, 09; Adam T. Bruce fellow, Hopkins, 09-10. Asst. zool, Syracuse, 03; teacher, high schools, N. Y, 04-07; *asst. and Austin teaching fellow zool*, Harvard, 07-09; *instr*, Northwestern, 10-13; *assoc. prof*, Syracuse, 13-20, *prof*, 20- Prof, Wistar Inst, 23-25. A.A. (sec'y, sect. F, 24-); Soc. Zool; Genetic Ass; Ass. Anat. Regeneration in Hydromedusae; germ cells of coel-

- terates, amphibia and mammals; cytology of diverse strains of *Paramecium*; growth of *Paramecium* in pure cultures of bacteria.
- Hargitt, Prof. T(homas) F(rederick)**, 207 West Kelsey Ave, Bloomington, Ill. *Physics*. Shelby Co, Ind, Sept. 30, 81. Grad, Ind. State Nor. Sch, Terre Haute, 15; A.B, Indiana, 20, A.M, 21, Ph.D, 24. Prof. *physics*, Kans. Wesleyan, 21-22; acting instr, Indiana, 23-24; *prof*, Ill. Wesleyan, 24- A.A; Physical Soc; Ind. Acad. Condensing action of conical horns when used as sound receivers; the Hall effect in bismuth sputtered films.
- Haring, Prof. Alexander**, 2489 Sedgwick Ave, New York, N. Y. *Engineering*. Troy, N. Y, Aug. 19, 71. C.E, Rensselaer, 95; LL.B, N. Y. Univ, 09, LL.M, 10, J.D, 11. *Prof. bridge and railway eng*, N. Y. Univ, 05- Civil Eng. Bridge and railway engineering.
- Haring, Prof. C(larence) M(elvin)**, University of California, Berkeley, Calif. *Veterinary science*. Freeville, N. Y, June 1, 78. D.V.M, Cornell, 04. Asst. vet. anat, Cornell, 03-04; instr. vet. science and bacter, *California*, 04-06, asst. prof. *vet. science*, 06-12, *prof*, 13-, director, Exp. Sta, 20-24. Lecturer, San Francisco Vet. Col, 07-08. Capt, V.C, 18-19. A.A; Vet. Med. Ass. (sec'y, 15). Animal diseases.
- Haring, H(orace) E(gbert)**, Bureau of Standards, Washington, D. C. *Electrochemistry*. Delanco, N. J, Aug. 30, 95. B.S, Franklin and Marshall, 16; A.M, Princeton, 17. Asst. chemist, ordnance dept, U.S.A, 17-19; *Bur. Standards*, 19-20, *assoc. chemist*, 20- Chem. Soc; Electrochem. Soc. Electro-deposition; electrode potentials; chromium plating.
- Haring, Prof. Malcolm M(orrison)**, University of Maryland, College Park, Md. *Chemistry*. Delanco, N. J, May 4, 94. A.B, Franklin and Marshall, 15; A.M, Princeton, 16; Ph.D, Columbia, 24. Asst. instr, Princeton, 16-17; *prof*. chem. and head dept, Lebanon, 19-21; asst, Columbia, 21-23; asst. prof. *physical chem*, *Maryland*, 23-25, *assoc. prof*, 25- Cooperating expert, Int. Critical Tables. Asst. chemist, ordnance dept, U.S.A, 17-19. Chem. Soc. Physical and inorganic chemistry; separation of the isotopes of mercury by electrolysis; electrode potentials.
- Harkins, Prof. W(illiam) D(raper)**, University of Chicago, Chicago, Ill. *Chemistry*. Titusville, Pa, Dec. 28, 73. A.B, Stanford, 00, Ph.D, 08; Chicago, 00, 04; Karlsruhe, 09-10. Asst. *chem*, Stanford, 98-00, instr, 00; *prof*, Montana, 00-12; instr, *Chicago*, 12-14, *assoc. prof*, 14-17, *prof*, 17- Research assoc, Mass. Inst. Tech, 10; special agent, smelter smoke investigations, U. S. Dept. Justice, 10-12; lecturer, Mellon Inst, 15-17, Illinois, 18-19; consulting chemist, U. S. Bur. Mines, 20-21; consulting engineer, A.S, 24- Pres, Missoula Board Health, Mont, 07-12; Chicago Commission on Ventilation, 15- Nat. Acad; A.A. (v. pres, 20); Chem. Soc; Philos. Soc. Chronic poisoning of herbivorous animals by arsenic; excess-potential and the Marsh test; solubility of triionic salts in solutions of other salts with common and with non-common ions; structure, evolution and stability of atoms; surface energy and entropy; over-voltage; solubility; spectrum of the isotopes of lead; separation of chlorine, mercury and zinc into isotopes; polymolecular and monomolecular films; radioactivity of potassium and rubidium; atomic weight of chlorine in the meteorites and in rocks; emulsions; photography of the building and disintegration of atoms.
- Harlan, Dr. Harry V(aughn)**, U. S. Department of Agriculture, Washington, D. C. *Agriculture*. London Mills, Ill, Feb. 19, 82. B.S, Kansas Col, 04, M.S, 09; Sc.D, Minnesota, 14. Instr. agr, Philippine Islands, 05-08; *barley investigations*, *bur. plant indust*, U. S. Dept. Agr, 09- Agr. reconnaissance, Titicaca Plateau, 13-14; crop surv, Cent. Europe and Balkans, 19; cereal collector, Africa, India and Spain, 23-24. Soc. Agron; Wash. Acad; Wash. Bot. Soc. Breeding, classification and growth of barley.
- Harley, Prof. Harrison L(eRoy)**, 31 Pleasant St, Brookline, Mass. *Psychology*. Kenilworth, Pa, Jan. 25, 87. B.S, Pennsylvania, 11; Ph.D, Harvard, 21. Asst. psychol, Pennsylvania, 11-14; instr, Pa. State, 14-15; state psychologist, Lincoln State Sch. and Colony, Ill, 15-17, div. criminol, 17-20; *assoc. prof. psychol*, *Simmons (Mass)*, 20- A.A; assoc. Psychol. Ass; Inst. Criminal Law and Criminol. Applied psychology.
- Harman, Dr. Mary T(heresa)**, Kansas State Agricultural College, Manhattan, Kans. *Zoology*. Odon, Ind, Aug. 21, 78. A.B, Indiana, 07, A.M, 09, Ph.D, 12. Instr. *zool*, Pa. State, 07-10; teaching fellow, Indiana, 10-12; instr, *Kansas Col*, 12-14, asst. prof, 14-17, *assoc. prof*, 17-21, *prof*, 21- Summers, teaching fellow, biol. sta, Indiana, 05, instr, 06-09, 11-13; in charge invert. embryol, Puget Sound Biol. Lab, 25-27. A.A; Soc. Zool; Micros. Soc. Regeneration and cytology; embryology; teratology.
- Harmon, Dr. G(aius) E(lijah)**, Western Reserve University, Cleveland, Ohio. *Public health*. Wilmington, Mass, June 13, 87. M.B, Boston, 08, M.D, 09; C.P.H, Harvard, 14; Mass. Inst. Tech, 12-13; Univ. Col, London, 25-26. Instr. *hygiene and bact. sch. med*, *Western Reserve*, 14-16, senior instr, 16-18, asst. prof, 18-24, *assoc. prof*, 24-, acting head dept, 17-19, 22-23. Registrar vital statistics, Div. Health, Cleveland, 16-18. A.A; fel. Pub. Health Ass; Am. Med. Ass; Statist. Ass; Cleveland Acad. Med. Epidemiology; medical statistics.
- Harmon, H(erbert) W(illiam)**, 418 Poplar St, Grove City, Pa. *Physics*. Near Geneva, N. Y, Dec. 15, 71. B.L, Hobart, 93, M.L, 97; B.S, Cornell, 95. Dept. science, St. Johns Mil. Acad, Wis, 95-98; Southwest. State Nor. Sch, Pa, 98-06; *prof. and head dept. physics*, *Grove City*, 06- Radio div, Bur. Standards, 18. A.A; Cent. Ass. Sci. and Math. Teachers. Radio telephone.
- Harmon, Prof. Paul M(ontgomery)**, Indiana University, Bloomington, Ind. *Physiology*. Elwood, Ind, July 20, 92. A.B, A.M, Ph.D.

Assoc. prof. physiol., Indiana. Certain phases of physiology of muscle.

Harned, Prof. Herbert Spencer, University of Pennsylvania, Philadelphia, Pa. **Physical chemistry*. Camden, N. J., Dec. 2, 88. A.B., Pennsylvania, 09, B.S., 10, fellow, 12-13, Ph.D., 13. Instr. *physical chem., Pennsylvania*, 13-17, asst. prof., 17-26, *prof.*, 26- Cooperating expert, Int. Critical Tables. Capt. C.W.S., 18-19. Chem. Soc. Chlorids of columbium; conductance titrations; electrometric analysis; adsorption of gases on charcoal; homogeneous reaction velocities and catalysis; thermodynamics of electrolytic solutions; neutral salt effects in concentrated aqueous solutions; dissociation of water in salt solutions.

Harned, Prof. R(obey) W(entworth), Mississippi Agricultural and Mechanical College, Agricultural College, Miss. *Entomology*. Charles Co, Md., July 16, 84. B.S.A., Ohio State, 06; Cornell, 08, 14; Chicago, 26. Asst. biologist, *Miss. Agr. and Mech. Col. and Exp. Sta.*, 06-08, *prof. zool. and entom.* and *entomologist*, 08- Entomologist, sec'y and exec. officer, Miss. State Plant Board, 18- Chairman, So. Plant Board, 26-28. A.A.; Entom. Soc.; Ass. Econ. Entom. (3d v. pres, 22, 4th v. pres, 24, pres, 27); Ecol. Soc.; Soc. Parasitol. Economic entomology; insect biologies; insects of Mississippi; insect pests.

Harper, Dr. D(aniel) Roberts, 3d, General Electric Co, Schenectady, N. Y. *Physics*. Ridley Park, Pa., June 17, 85. B.S., Pennsylvania, 05, Hector Tyndale fellow, 07-08, Ph.D., 10. Instr. physics, Pennsylvania, 04-09; asst. physicist and physicist, Bur. Standards, 09-25; *gen. eng. lab., Gen. Elec. Co.*, 25-; *assoc. prof. physics, Union*, 25- A.A.; fel. Physical Soc.; Soc. Automotive Eng.; Soc. Refrigerating Eng.; Wash. Acad.; Wash. Philos. Soc.; Soc. de Physique. Thermometry and heat measurements; internal combustion engines.

Harper, Prof. E(ugene) H(oward), Bedford, Va. *Zoology*. Port Byron, Ill., July 7, 67. A.B., Oberlin, 90; A.M., Harvard, 95; Ph.D., Chicago, 02. Instr. nat. science, Fargo, 96-99; biol. Alma, 02-04; zool., Northwestern, 04-09, asst. prof., 09-14; assoc. prof. biol., Agr. and Mech. Col. Texas, 22-26. Soc. Zool. Fertilization and development of the pigeon's egg; regulation in Stylaria; behavior of Perichaeta, Corethra and Paramecium; percheron coat color.

Harper, Dr. Francis, 234 Berkeley St., Boston, Mass. *Vertebrate zoology*. Southbridge, Mass., Nov. 17, 86. A.B., Cornell, 14, Ph.D., 25. Sci. asst., U. S. Fisheries Lab., Beaufort, N. C., 13; asst. zool., Cornell, 13-14; asst. nat. science, Brooklyn Museum, 15; special agent fisheries investigations, N. Y. State Conservation Commission, 16; asst. biologist, U. S. Biol. Surv., 16-17, 19-21; curator, Cornell, 21-22, instr. zool., 22-25; *sec'y.* and *curator 'mammals and fishes, Boston Soc. Nat. Hist.*, 25- Zoologist, Can. Geol. Surv. exped., Great Slave Lake, 14. Lieut. Sanit. C., 18-19. Soc. Mammal; Soc. Ichthyol. and Herp.; Ornith. Union; Ecol. Soc.; Nuttall Ornith. Club; Wash. Biol. Soc.; N. Y. Linnean Soc. (sec'y, 10-12). Limicolae; Pele-

canoididae; conservation of swamp lands; vertebrate fauna of North America.

Harper, Dr. Henry Winston, 2216 Rio Grande St., Austin, Texas. **Chemistry*. Boonville, Mo., Sept. 20, 59. Mound City Col., Boonville, 72-74; Ph.G., Phila. Col. Pharmacy, 81; M.D., Virginia, 92, 94; Europe, 97; LL.D., Baylor, 14. Mfg. chemist and perfumer, Ft. Worth, Texas, 81-84; chemist and metallurgist, Colo. and Refugio Mining and Smelting Co., 84-85; Compañía La Imogena, 86; chemist and pathologist to Drs. Beall and Adams, Ft. Worth, Texas, 87-90; adjunct prof. chem., Texas, 94-97, assoc. prof. in charge sch. chem. and director chem. lab., 97-03, *prof. chem.*, 03-, *dean grad. sch.*, 13- Chemist, Miner. Surv., Texas, 01-06. Fifth, Seventh and Eighth Int. Congresses Applied Chem. Naval consulting board, south. div., S.A.T.C., 17-18. A.A.; Chem. Soc.; Electrochem. Soc.; Soc. Chem. Indust.; Am. Med. Ass.; fel. Texas Acad. (pres, 00, v. pres, 01); fel. London Chem. Soc.; Chem. Gesell. Pharmacology; geology; pathology; chemistry of fatigue; chemistry of asphalt; amethystine blue; water analysis; analyses of several artesian waters; municipal water supply of El Paso, Texas; the waxes in the candallilla plant; bituminous coal distillation; hydrolysis of sawdust; bromids and iodids from deep wells of Texas; chemistry of the pollen of the mountain cedar.

Harper, Dr. Horace J(ames), Oklahoma Agricultural and Mechanical College, Stillwater, Okla. *Soils*. Vinton, Iowa, Feb. 14, 96. B.S., Iowa Col., 18, M.S., 20; Ph.D., Wisconsin, 23. Assoc. prof. soils, Iowa Col., 23-25; *prof., Okla. Agr. and Mech. Col.*, 25- A.A.; Soc. Agron.; Chem. Soc. Soil chemistry.

Harper, Prof. M(erritt) W(esley), Cornell University, Ithaca, N. Y. *Animal husbandry*. Grove City, Ohio, Oct. 24, 77. B.S., Ohio State, 01; M.S., Illinois, 02. Asst. forage crop investigations, U. S. Dept. Agr., 02-05; asst. *animal husbandry*, Missouri, 03-05; *Cornell*, 05-06, instr., 06-07, asst. prof., 07-11, *prof.*, 11- A.A. Forage crops for fattening cattle; genetics; animal breeding; breeding, feeding, training and breaking of horses.

Harper, Prof. R(obert) A(Immer), Columbia University, New York, N. Y. **Botany*. Leclaire, Iowa, Jan. 21, 62. A.B., Oberlin, 86, A.M., 91; Hopkins, 88-89; Ph.D., Bonn, 96. Prof. Greek and Latin, Gates, 86-88; instr. science, Lake Forest Acad., 89-91; prof. bot. and geol., Lake Forest, 91-98; *bot.*, Wisconsin, 98-11; *Torrey prof., Columbia*, 11- Nat. Acad.; A.A. (v. pres, 10); Soc. Nat. (pres, cent. branch, 07-09); Bot. Soc. (pres, 16); Phytopath. Soc.; Ecol. Soc.; Philos. Soc.; Am. Acad. Physiology of lower plants; cytology of the fungi; fertilization in mildews; cell and nuclear division in slime molds; morphogenesis in the algae.

Harper, Dr. Roland M(cMillan), University, Ala., or Tallahassee, Fla. *Geography, Ecology, Demography*. Farmington, Maine, Aug. 11, 78. B.E., Georgia, 97; Ph.D., Columbia, 05. Forestry collector, Ga. Geol. Surv., 03-04; botanist and geographer, Ala. Geol. Surv., 05-06, 11-13, 19-20, 21-23; Fla. Geol. Surv., 08-

- 10, 14-15, 20-21, 23-26. In charge state census, Fla, 25; asst. office farm management, U. S. Dept. Agr, 17-19. A.A.; Ass. Geog.; Ecol. Soc.; Soc. Foresters; New Eng. Bot. Club; Torrey Bot. Club. Taxonomy; native weeds; vegetation; distribution and ecology of plants of the southern and eastern states; soils; statistics of agriculture; illiteracy in the south; classification of occupations; population; rural standards of living; measures of civilization.
- Harper, W(illiam) E(dmund)**, Dominion Astrophysical Observatory, Victoria, B. C., Can. *Astrophysics*. Bruce Co, Ont, March 20, 78. B.A, Toronto, 06, M.A, 07. Observer, Dominion Observatory, 06-14, astronomer, 14-19; research astronomer, *Dominion Astrophys. Observatory*, 19-23, *asst. director*, 23- Medal, Royal Astron. Soc. Can. Fel. Royal Astron. Soc. Can; fel. Royal Soc. Can. Stellar radial velocities; orbits of spectroscopic binaries; spectroscopic parallaxes.
- Harrah, Prof. E(zra) C(larence)**, University of Wyoming, Laramie, Wyo. *Zoology*. Douglass, Kans, March 9, 89. A.B, Southwestern (Kans), 13; A.M, Illinois, 19, fellow, 20-21, Ph.D, 21. Instr, high sch, 13-17; research asst. *zool*, Illinois, 17-20, instr, 21-22; *assoc. prof. and asst. parasitologist, Wyoming*, 22- Summer, asst. instr, Illinois, 21. Parasitology; North American Monostomes; parasites of migratory birds; circulation in the earthworm.
- Harriman, N(orman) F(ollett)**, U. S. Bureau of Standards, Washington, D. C. *Chemical engineering*. Cameron, Mo, Jan. 12, 78. Chief chemist and engineer of tests, U. P. Ry. Co, 02-21; *senior engineer-physicist, Bur. Standards*, 21- Fed. Purchasing Board, Bur. Budget, v. chairman, Fed. Specifications Board. Soc. Test. Mat; Mech. Eng. Testing materials; purchasing; purchase standards.
- Harrington, Daniel**, 3153 19th St, N. W, Washington, D. C. *Mining engineering*. Denver, Colo, April 26, 78. E.M, Colo. Sch. Mines, 00. Mine engineer and chief engineer, Utah Fuel Co, 00-17; gen. supt, The Big Horn Collieries Co, Wyo, 09-14; mining engineer, U. S. Bur. Mines, 14-24; consulting engineer, Salt Lake City, 24-26; *chief engineer safety div, U. S. Bur. Mines*, 26- Min. and Metal. Eng; Coal Min. Inst; Rocky Mt. Coal Min. Inst. Mine safety and health, including ventilation, silicosis, fires, explosions.
- Harrington, Dr. Elmer A(dna)**, U. S. Bureau of Standards, Washington, D. C. *Physics*. Winchendon, Mass, Oct. 7, 84. A.B, Clark, 05, A.M, 06, Ph.D, 15. Asst. physics, Clark, 05-07; instr, Williams, 09-12; Smith, 12-14; acting prof, North Carolina, 15-16; instr, Michigan, 16-17; asst. prof, Clark, 19-20; prof, Mass. Col, 20-24; research, Harvard, 24-25; *assoc. physicist pyrometry, Bur. Standards*, 25- Lieut, U.S.N, 17-19. A.A; Physical Soc; Optical Soc; Physik. Gesell. Sound; the vibrations of a tuning-fork; dielectric constants of water solutions; exterior and interior ballistics; damping coefficient of quartz; X-ray analysis of cement; melting point of platinum.
- Harrington, Dr. E(rtle) L(eslie)**, University of Saskatchewan, Saskatoon, Sask, Can. *Physics*. Bucklin, Mo, March 7, 87. B.S, Missouri, 10, A.B, 11; A.M, Harvard, 15; Ph.D, Chicago, 16. Supt, schools, 10-11; head dept. physics, Mo. State Teachers Col, 11-17; instr. physics, Chicago, 18; research physicist, Westinghouse Lamp Co, 18-20; *prof. physics, Saskatchewan*, 20- A.A; Physical Soc; Mo. Sci. and Math. Soc. (pres, 14). Coefficient of viscosity of the air; coefficient of slip; diffusion pumps and aspirators; the motion of curling stones.
- Harrington, Geo(rge) T(raver)**, 237 W. 70th St, New York, N. Y. *Botany*. Randolph Center, Vt, Oct. 18, 85. B.S, Vermont, 09; B.S, George Washington, 12; Wisconsin; Chicago. Sci. asst, seed lab, U. S. Dept. Agr, 09-20, manager estate and grounds, 20-22; *teacher, high schools, New York*, 22- Teacher, George Washington, 12-19; Boyce Thompson Inst, 24, 25. A.A; N. Y. Ass. Biol. Teachers. Physiology and germination of seeds.
- Harrington, Prof. J(ames) B(ishop)**, University of Saskatchewan, Saskatoon, Sask, Can. *Plant breeding*. Chicago, Ill, Jan. 22, 94. B.S.A, Saskatchewan, 20; M.S, Minnesota, 22, Shewlin fellow, 23-24, Ph.D, 24. Instr. and lecturer, *Saskatchewan*, 20-22, asst. plant breeding, 22-23, *asst. prof. field husbandry*, 24- A.A; Soc. Agron; Can. Soc. Tech. Agr; West. Can. Soc. Agron. Cereal crops; inheritance of resistance to black stem rust of wheat; variability in plot results; growing cereals by artificial light in the greenhouse; natural crossing in cereals.
- Harrington, M(ark) R(aymond)**, Heye Foundation, Broadway at 155th St, New York, N. Y. *Anthropology*. Ann Arbor, Mich, July 6, 82. Michigan; B.S, Columbia, 07, A.M, 08. Asst. anthrop, Am. Museum Nat. Hist, 99-02; field ethnologist, Heye Museum, 08-10; asst. curator in charge Am. sect, Pa. Museum, 11-14; *archeologist and ethnologist, Museum of the Am. Indian, Heye Foundation*, 15-17, 19- Summers, field archeologist, Peabody Museum, Harvard, 03-06; in charge expeditions, U. S, Can, N. Mex. and W. I. Mem. Advisory Committee, Heye Foundation, 25- Ethnol. Soc; Anthropol. Ass; Folk-Lore Soc; Explorers Club; Westchester Co. Historical Soc; Paris Soc. des Américanistes; Sociedad Poey and Acad. de Hist. de la Habana. Ethnography of Sauk-and-Fox Indians and of Lenape Indians; archeology of Cuba, New York State, Tennessee, Arkansas, the Ozark region and Nevada.
- Harris, Dr. A(ram) W(inegardner)**, 150 Fifth Ave, New York, N. Y. *Agriculture*. Philadelphia, Pa, Nov. 7, 58. A.B, Wesleyan, 80, A.M, 83; Sc.D, Bowdoin, 94; LL.D, New Brunswick, 00, Maine, 01, Wesleyan, 04. Tutor math. and registrar, Wesleyan, 81-84, instr. hist, 84-88; asst. director office exp. stations, U. S. Dept. Agr, 88-91, director, 91-93; pres, Maine, 93-01; director, Tome Inst, 01-06; pres, Northwestern, 06-16; cor. sec'y, *Board Educ, M. E. Church*, 16-24, *sec'y*, 24- A.A.
- Harris, Dr. Clarence P(eavy)**, 165 W. 91st St, New York, N. Y. *Chemistry*. Danbury, Conn,

- Sept. 18, 91. Chemist, Columbia, 14, A.M. 15, Ph.D. 17. Research chemist, E. I. du Pont de Nemours and Co, 18-19; chief chemist, Tower Mfg. Co, 19-22; *consulting chemist*; *tech. director, Universal Trade Press Syndicate*. A.A.; Chem. Soc; N. Y. Chemists Club. Synthetic organic chemistry; terpenes; intermediates; dyes; lacquers.
- Harris, Dr. D(owney) L(amar)**, Metropolitan Building, St. Louis, Mo. *Pathology*. Franklin, Ky, April 26, 75. M.D. Michigan, 99. Pathologist, St. Louis City Hosp. and city bacteriologist, St. Louis, 06-13; prof. hygiene and prev. med, St. Louis, 13-16; *pathologist, St. Anthony Hosp, U. S. Veterans Hosp. No. 92, Jewish Hosp, St. Louis*. Major, M.C, 18-19. Ass. Path. and Bact; Soc. Bact; fel. Pub. Health Ass. Rabies.
- Harris, Dr. Elwin E(lmer)**, University of North Dakota, Grand Forks, N. Dak. *Chemistry*. Wauzeka, Wis, Nov. 11, 97. B.S. Hamline, 21; M.S. Minnesota, 22, Ph.D. 26. Instr. Hamline, 21-23; instr. chem, *North Dakota, and acting head div. org. and physiol. chem*, 23-25, *asst. prof*, 25- Chem. Soc; Physiol. Soc; N. Dak. Acad. Organic and physiological chemistry; condensation of halogen substituted aldehydes with phenolic ethers; action of sodium substituted diphenyl trihalogen ethanes; the effect of substituent groups on the pH of methyl orange and methyl red type indicators.
- Harris, Forest K(laire)**, 3618 Connecticut Ave, Washington, D. C. *Physics*. Ind, 02. A.B. Oklahoma, 21, M.S. 23. Research asst, Munsell Color Co, 23-24; *junior physicist, Bur. Standards*, 25- Assoc. Optical Soc. Colorimetry; spectrophotometry.
- Harris, Pres. F(ranklin) S(tewart)**, Brigham Young University, Provo, Utah. *Agronomy*. Benjamin, Utah, Aug. 29, 84. B.S. Brigham Young, 07; Ph.D. Cornell, 11. Instr. science, Juarez Acad, Mex, 04-05; *asst. agr. chem*, Brigham Young, 06-07; *asst. chemist, Utah Exp. Sta*, 07-08; *asst. soils*, Cornell, 09-10, *instr*, 10-11; *prof. agron*, Utah Col. and *agronomist*, Exp. Sta, 11-21, *director*, 16-21; *pres*, Brigham Young, 21- *Director sch. agr. eng*, Utah Col, 12-16. Chairman sect. agr. eng, Int. Dry Farming Cong, 12-14. A.A.; Soc. Agron. (pres, Cornell sect, 10-11, v. pres, 19, pres, 20); Soc. Agr. Eng. (councilor, 15); Farm Econ. Ass; Ass. Sugar Beet Agr; fel. Utah Acad. (pres, 16). Irrigation; dry farming; sugar beets; soils.
- Harris, Bear Admiral F(rederic) R(obert)**, 551 Fifth Ave, New York, N. Y. *Civil engineering*. New York, April 10, 75. M.E. Stevens, Hon. D.E. 21. Chief civil engineers and bur. yards and docks, U.S.N., 15-17; gen. manager, Emergency Fleet Corp, U. S. Shipping Board, 17-18; pub. works officer, Fourth Naval Dist, 21-23; Third Naval Dist, 23-27; *consulting engineer*, 27- Aldred lecturer, Hopkins, 19. Asst. ed, 'Am. Civil Engineers Pocket-book.' D.S. Cross, U.S.N. Civil Eng; Naval Archit. River and harbor works; foundations; graving and floating docks.
- Harris, Prof. G(ilbert) D(ennison)**, Cornell University, Ithaca, N. Y. **Paleontology, Stratigraphy*. Ellicott, N. Y., Oct. 2, 64. Ph.B. Cornell, 86, 86-87. Asst. Ark. Geol. Surv, 87-88; U. S. Geol. Surv, 88-92; Texas Geol. Surv, 92-93; *asst. prof. paleont*, Cornell, 94-97, *paleont. and stratig*, 97-09, *prof*, 09- State geologist, La, 98-09. Ed. and publisher, 'Bulletins Am. Paleont'; 'Paleont. Americana.' A.A.; Paleont. Soc; Geol. Soc; Soc. géol. de France. Paleontology and stratigraphy of the Gulf and Caribbean Neozoics.
- Harris, Prof. Gorham W(aller)**, 47 Churchill St, Newtonville, Mass. *Chemistry*. Providence, R. I., Jan. 7, 85. A.B. Harvard, 07, A.M. 09, Ph.D. 15. Asst. and teaching fellow chem, Harvard, 08-10; *instr, Simmons (Mass)*, 10-13, *asst. prof*, 14-24, *assoc. prof*, 24- Visiting lecturer, Radcliffe, 24-26; summers, Harvard, 19, 25, 26. A.A.; Chem. Soc. Floating equilibrium.
- Harris, Harry**, Drawer 123, Eagle Rock, Calif. *Ornithology*. Moberly, Mo, April 17, 78. Michigan; Washington (St. Louis). Commercial artist, 99-02; cashier, Kansas City Post Office, 02-21. Ornith. Union; Cooper Ornith. Club; Wilson Ornith. Club; St. Louis Acad. Birds of the Kansas City region.
- Harris, Isaac F(aust)**, Tuckahoe, N. Y. *Chemistry*. Chapel Hill, N. C. B.S. North Carolina, 00, M.S. 02; Ph.D. Yale, 15. Chemist, Conn. Exp. Sta. and Carnegie research student, 01-07; *director, Lederle Antitoxin Lab*, 07-12; Arlington Research Laboratories, 12-15; dept. biochem, E. R. Squibb and Sons, 16-19; *Harris Laboratories*, 20- Chem. Soc; Soc. Exp. Biol; Pub. Health Ass; N. Y. Acad. Med. Physiological chemistry; vegetable proteids and their decomposition products; blood serum immunity; vitamins.
- Harris, Dr. J(ames) Arthur**, 1415 Chelmsford St, St. Paul, Minn. **Botany, Zoology*. Plantsville, Ohio, Sept. 29, 80. A.B. Kansas, 01, A.M. 02; Ph.D. Washington (St. Louis), 03. Asst. bot, Mo. Bot. Garden, 01-03; *instr*, Washington (St. Louis), 03-07; *librarian*, Mo. Bot. Garden, 04-07; *bot. investigator*, sta. for exp. evolution, Carnegie Inst, 07-24; *head dept. bot*, Minnesota, 24- Summers, instr, Kansas, 00-02. A.A.; Soc. Nat. (treas, 15-20); Soc. Exp. Biol; Bot. Soc; Econ. Soc; Statist. Ass; Meteor. Soc. Plant and animal ecology and geographical distribution; experimental evolution; biometry.
- Harris, Dr. J(ames) E(lmer)**, Bell Telephone Laboratories, 463 West St, New York, N. Y. *Chemistry*. Larned, Kans, Nov. 5, 82. A.B. Michigan, 08, M.S. 09, Ph.D. 11. Instr. high sch, Mich, 04-07; *asst. physics*, Michigan, 08-11, *instr. chem*, 11-17; *research chemist*, West. Elec. Co, 17-25, *Bell Telephone Laboratories*, 25- Summers, research chemist, Mich. Exp. Sta, 10-14. Chem. Soc. Physical and soil chemistry; elastic properties of bismuth wires; lime-sulphur compounds; adsorption in soils and kaolin; soil acidity; selective adsorption in suspension colloids; thermionics; rare earth metals.
- Harris, Dr. Louis**, Massachusetts Institute of Technology, Cambridge, Mass. *Physical chem-*

- istry.* New London, Conn, July 6, 97. B.S., Mass. Inst. Tech, 20, M.S, 21, Ph.D, 25. Asst. chem, *Mass. Inst. Tech.*, 22-23, *research assoc. physical chem.*, 24- Chem. Soc. Combustion; X-ray intensities; heats of neutralization; specific heats at low temperatures.
- Harris, Dr. M(alcolm) L(aSalle)**, 25 E. Washington St, Chicago, Ill. *Surgery.* Port Byron, Ill, June 27, 62. M.D, Rush Med. Col, 82. *Prof. surg.*, *Chicago Polyclinic*, 88-; *pres. and chief staff*, *Alexian Brothers Hosp*, 06- Surgeon, Passavant Hosp, 10-; past surgeon, St. Luke's and Children's Mem. Hospitals; chief surg. staff, Cook Co. Hosp, 07-12. Surg. Soc; Soc. Clin. Surg; Am. Med. Ass. (trustee, 03-18, chairman, judicial council, 18-); West. Surg. Ass. (pres, 06); Ill. Med. Soc. (pres, 02); Chicago Surg. Soc. (pres, 06); Chicago Med. Soc. (pres, 26-); Chicago Path. Soc. (past pres); Int. Surg. Soc. Local anesthesia.
- Harris, Dr. Norman MacL(eod)**, Department of Health of Canada, Ottawa, Ont, Can. *Bacteriology.* Montreal, Que, Feb. 3, 70. M.B, Toronto, 94. Demonstrator bacter, Toronto, 96-97; asst. path, Hopkins, 97-98, bacter, 98-99, instr, 99-00, assoc, 00-03; instr, Chicago, 03-07, asst. prof, 07-19. Div. sanit. officer, C.E.F, 16-19. A.A; Ass. Path. and Bact; Soc. Bact. (sec'y and treas, 08, pres, 25); Pub. Health Ass. Typhoid fever; gonorrheal infections; B. mortiferus; milk sickness.
- Harris, Dr. Reginald G(ordon)**, Biological Laboratory, Cold Spring Harbor, L. I, N. Y. *Biology.* Medford, Mass, July 18, 98. A.M, Brown, 18, Ph.D, 24; Am. Field Service fellow, France, 21-23. Instr, Brown, 20-21; *director biol. lab.*, *Cold Spring Harbor*, 23- Cornell entom. exped, S. Amer, 19-20; second Marsh-Darien exped, 25. A.A; Soc. Zool; Entom. Soc; Eugenics Research Ass. Genetics; anthropology; eugenics; experimental embryology.
- Harris, Prof. Roscoe E(verett)**, Lake Forest College, Lake Forest, Ill. *Physics.* Oakridge, Mo, Feb. 8, 96. B.S, Southeast. Mo. Teachers Col, 17; M.S, Chicago, 21, Ph.D, 23. Asst. prof, Vermont, 23-25; *prof. physics*, *Lake Forest*, 25- Summer, prof, William and Mary, 24. A.A; Physical Soc. Spectroscopy; radioactivity.
- Harris, Prof. W(alter) B(utler)**, Greenholm, Princeton, N. J. *Civil engineering.* Princeton, July 13, 65. C.E, Col. of New Jersey, 86. Asst. engineer, Cent. R. of N. J, 89; instr. civil eng, *Princeton*, *prof. geod.*, 98- Township engineer; pres, Board Health; borough engineer. Protection of New Jersey shore.
- Harris, Prof. W(illiam) H(erbert)**, P. O. Station 20, New Orleans, La. *Pathology.* Chillicothe, Ohio, Oct. 6, 85. A.B, Loyola, 02; M.D, Tulane, 07. *Asst. prof. path. sch. med.*, *Tulane*, 15-, *prof. post-grad. med. dept.*, 17- Acting asst. surgeon, U. S. Pub. Health Service, 09. Ass. Path. and Bact; Soc. Exp. Path; Soc. Exp. Biol; Soc. Bact; Am. Med. Ass. Pellagra; leprosy; experimental emphysema; influenza; experimental periarteritis nodosa in the rabbit; etiology of dengue fever.
- Harrison, Dr. B(ruce) M(agill)**, University of Southern California, Los Angeles, Calif. *Zoology.* Ottawa, Kans, March 29, 81. B.S, Ottawa (Kans), 05; M.S, Illinois, 08; Chicago; Woods Hole; Ph.D, Iowa, 24. Asst. *zool.*, Illinois, 08; instr, Iowa Col, 10-12, asst. prof, 12-24; *assoc. prof.*, *Southern California*, 25- Summers, asst. state entomologist, Iowa, 17-19, exten. entomologist, 22, 24. A.A; Iowa Acad. Analysis and apparatus of muscle contraction; embryonic reconstruction.
- Harrison, Prof. F(rancis) C(harles)**, McGill University, Montreal, Que, Can. *Bacteriology.* London, 89; B.S.A, Toronto, 92; Cornell, 92; Wisconsin, 93; Bern, 99-00; Copenhagen, 00; D.Sc, McGill, 07. Prof. bacter, Ont. Agr. Col, 96-05; Macdonald Col, 05-26, prin, 08-26; *prof. bacter.*, *McGill*, 26- Soc. Bact. (pres, 21); Pub. Health Ass; fel. Royal Soc. Can. (pres, sect. V, 19, 23). Agricultural, dairy and food bacteriology.
- Harrison, Prof. G(eorge) R(ussell)**, Stanford University, Calif. *Physics.* San Diego, Calif, July 14, 98. A.B, Stanford, 19, A.M, 20, Ph.D, 22. Instr. *physics*, Stanford, 19-23; Nat. Research Council fellow, Harvard, 23-25; asst. prof, *Stanford*, 25-27, *assoc. prof.*, 27- Summer, assoc. physicist, Bur. Standards, 21. Physical Soc; Optical Soc. Photographic photometry; spectroscopy; atomic structure.
- Harrison, Prof. Julia Peachy**, Wilson College, Chambersburg, Pa. *Chemistry.* Richmond, Va, April 30, 86. A.B, Richmond, 07, B.S, 08, A.M, 09; Ph.D, Hopkins, 12, Carnegie fellow, 12-13; fellow, Bryn Mawr, 13-14. Reader chem, Bryn Mawr, 14-15; head dept. chem, Sweet Briar, 15-16; Agnes Scott Col, 16-18; asst. prof. chem, Carnegie Inst. Tech, 18-20; *head dept.*, Skidmore, 20-23; *Wilson Col*, 23- A.A; Chem. Soc. Physical and organic chemistry.
- Harrison, Dr. M(arion) M(yrl)**, Miller Rubber Co, Akron, Ohio. *Chemistry.* Owensboro, Ky, March 27, 90. B.S, Kentucky, 12; A.M, Clark, 13, Ph.D, 14. Director research, *Miller Rubber Co*, 15-18, *chief chemist*, 19- Capt, C.W.S, 18. Chem. Soc; Soc. Test. Mat. Physico-organic chemistry; chemical dynamics; rubber.
- Harrison, Dr. R(oss) G(ranville)**, Osborn Zoological Laboratory, New Haven, Conn. **Zoology, Anatomy.* Germantown, Pa, Jan. 13, 70. A.B, Hopkins, 89, Ph.D, 94; M.D, Bonn, 99; hon. A.M, Yale, 07; hon. Sc.D, Cincinnati, 20. Lecturer morphol, Bryn Mawr, 94-95; instr. anat, Hopkins, 96-97, assoc, 97-99, assoc. prof, 99-07; *prof. comp. anat.*, *Yale*, 07- Managing ed, 'Jour. Exp. Zool'; co-editor, 'Jour. Morphol,' 07-10. Trustee, Woods Hole, 08-; advisory board, Wistar Inst. Archduke Rainer medal, Austrian Zool. and Bot. Soc, 14; John Scott medal and premium, Phila, 25. Nat. Acad; A.A; Soc. Nat. (sec'y, 01-03, pres, 13); Ass. Anat. (pres, 12); Soc. Zool. (exec. committee, 02, 10-13, 25-, pres, 24); Soc. Exp. Biol; Physiol. Soc; Am. Med. Ass; assoc. Neur. Ass; Philos. Soc; Am. Acad; cor. mem. Phila. Acad; Anat. Gesell; hon. mem. Royal Acad. Med. Turin; for. mem. Royal Physiog. Soc. Lund. Development of fins of fishes; the histogenesis

- of the peripheral nervous system; transplantation in amphibian larvae; development of the lateral line in Amphibia; relation of the nervous system to muscle differentiation in the embryo; development and regeneration of peripheral nerves; cultivation of tissues outside the organism; organic symmetry.
- Harrod, Prof. J(esse) Ray(mond)**, 213 E. University Ave, Ada, Ohio. *Organic chemistry*. Harrod, Ohio, June 1, 85. B.S., Ohio Northern, 18, 19; M.S., Ohio State, 25. Head dept. science, high sch., Ohio, 18-21; asst. prof. chem., Ohio Northern, 21-25, prof., 25- Chem. Soc. Disinfectants; qualitative analysis.
- Harrop, Dr. Geo(rge) A(rgale)**, Johns Hopkins University, Baltimore, Md. *Internal medicine*. Peru, Ill, Nov. 5, 90. A.B., Harvard, 12; M.D., Hopkins, 16. Asst. and instr. med., Hopkins, 16-19; asst. physiol., Copenhagen, 19-20; instr. and assoc. med., Columbia, 21-23; assoc. prof., Peking Union Med. Col., 23-24; Hopkins, 24- Royal Soc. expd., Peruvian Andes, 21. Soc. Exp. Biol.; Soc. Clin. Invest.; Soc. Biol. Chem. Physiology; diseases of metabolism.
- Harrow, Dr. B(enjamin)**, 437 W. 59th St, New York, N. Y. *Biochemistry*. London, Eng, Aug. 25, 88. B.S., Columbia, 11, A.M., 12, Ph.D., 13. Asst. org. chem., Clark, 11; biochem., Columbia, 12-13; asst. prof., Fordham, 13-14; assoc., Columbia, 14- A.A.; Chem. Soc.; fel. Inst. Chem.; Soc. Exp. Biol.; Harvey Soc.; Soc. Biol. Chem.; N. Y. Acad. Plant pigments; urine and blood analysis; dental chemistry; vitamins; oxidases; intermediate metabolism.
- Harshbarger, Prof. W(illiam) A(sbury)**, 1401 College Ave, Topeka, Kans. *Mathematics, Botany, Entomology*. Brandonville, W. Va., Sept. 1, 62. B.S., Washburn, 93, Sc.D., 19; Chicago, 95-96. Instr. bot., Washburn, 93-94, prof. math., 95-, director dept. science, 15- Summer, instr., Kansas, 09. Math. Soc.; Math. Ass. (pres, Kans. sect., 19); Kans. Acad. (v. pres. and pres). Genetics; mathematical pedagogy.
- Harshberger, Prof. John W(illiam)**, University of Pennsylvania, Philadelphia, Pa. **Botany*. Philadelphia, Jan. 1, 69. B.S., Pennsylvania, 92, Ph.D., 93. Instr. bot. and zool., Pennsylvania, 92-07, asst. prof. bot., 07-10, prof., 11- Teacher, Rittenhouse Acad., 92-95; lecturer, Am. Soc. of Univ. Extension, 96; prof. in charge nature study, Pocono Pines Summer Sch., 03-08; in charge bot., biol. lab., Cold Spring Harbor, 13- Ed. bot., 'Funk and Wagnall's College Standard Dict.', 22. Int. Commission on Phytogeog., 10. A.A.; Soc. Nat.; Bot. Soc.; Ecol. Soc. (v. pres, 17, pres, 26); Am. Geog. Soc.; Forestry Ass.; Philos. Soc.; Pa. Bot. Soc. (pres); Pa. Forestry Ass.; Phila. Acad. (recorder, bot. sect.); Phila. Geog. Soc.; Phila. Bot. Club; Soc. pro Flora Fennica; Svenska Linné Sällsk. Plant pathology; mycology; maize; clovers; ethnobotany; ecology of New Jersey strand flora, Valley of Mexico, southeastern Pennsylvania, Mt. Katahdin (Maine) and the mountains of North Carolina; vegetation of North America; pine barrens of New Jersey.
- Hart, Prof. Edward**, Easton, Pa. **Chemistry*. Doylestown, Pa., Nov. 18, 54. B.S., Lafayette, 73, LL.D., 24; fellow, Hopkins, 76-77, Ph.D., 78. Asst. chem., Lafayette, 74-75, tutor, 75-76, adjunct prof., 77-82, prof., 82-84, emer. prof., 24-, dean, Pardee Sci. Dept., 09-24; consulting chemist. Ed., 'Jour. Anal. Chem.', 87-93. John Scott medal and premium. A.A. (secy, C, 89, v. pres, 93); Chem. Soc. (ed., 'Jour.', 92-01); Electrochem. Soc.; Chem. Eng.; Min. Eng.; Ceramic Soc.; Franklin Inst.; Chem. Gesell. Volumetric analysis; manufacturing chemistry; manufacture of nitric and hydrochloric acids; the nitrosulphobenzoic acids; alloys of glinium; electric combustion.
- Hart, Prof. Edwin Bret**, University of Wisconsin, Madison, Wis. **Chemistry*. Sandusky, Ohio, Dec. 25, 74. B.S., Michigan, 97; Marburg and Heidelberg, 00-01. Asst. chemist, N. Y. Agr. Exp. Sta., Geneva, 97-02, assoc. chemist, 02-06; prof. agr. chem., Wisconsin, and chemist, Exp. Sta., 06- A.A.; Chem. Soc.; Soc. Biol. Chem. Animal nutrition; protein decomposition products; dairy chemistry; plant and animal chemistry; chemistry of cheese ripening; organic nutrients from various plant sources; organic phosphorus compounds of plants.
- Hart, Prof. George H.**, University of California, Davis, Calif. *Veterinary science, Animal husbandry*. Philadelphia, Pa., Oct. 10, 83. D.V.M., Pennsylvania, 03; M.D., George Washington, 08. Asst. bacter. and path. bur. animal indust., U. S. Dept. Agr., 03-08, field worker, 08-10; city veterinarian, Los Angeles, Calif., 10-17; assoc. prof. vet. science, California, 17-24, prof., 24-26, animal husbandry, 26- A.A.; Vet. Med. Ass.; Live Stock Sanit. Ass.; Soc. Animal Production. Animal pathology, bacteriology and immunology; animal nutrition.
- Hart, Prof. J(ames) N(orris)**, Orono, Maine. *Mathematics, Astronomy*. Willimantic, Maine, May 22, 61. B.C.E., Maine, 85, C.E., 90, hon. Sc.D., 08; M.S., Chicago, 97. Instr. math. and drawing, Maine, 87-90, prof. math. and astron., 91-, dean, 03- A.A.; Math. Ass.; Astron. Soc.
- Hart, Prof. N(elson) C(ollins)**, University of Western Ontario, London, Ont., Can. *Botany*. Victoria Co., Ont., June 11, 88. B.A., Toronto, 15, fellow, 15-16, M.A., 16. Instr. bot., Toronto, 16-17; bacteriologist, British Acetones, Ltd., 17-18; instr. bot., Western Ontario, 20-21, asst. prof., 22-23, prof., 24- A.A.; Bot. Soc.; Ecol. Soc.; British Ass. Morphology and anatomy of plants; plant ecology.
- Hart, Prof. T(heodore) Stuart**, 410 Park Ave, New York, N. Y. *Medicine*. Farmington, Conn., Feb. 25, 69. A.B., Yale, 91, A.M., 93; M.D., Columbia, 95. Instr. clin. med., Columbia, 03-09, assoc., 09-13, asst. prof., 13- Visiting physician, Seton Hosp., N. Y. City, 01-11; Presb. Hosp., 11- Briddon medal, 04. Cardiovascular consultant, U.S.A. Aviation Exam. Board, 17-18. A.A.; Am. Physicians; Am. Med. Ass.; Soc. Clin. Invest.; Heart Ass. (chairman, exec. committee); Harvey Soc. Disorders of the cardiovascular system; abnormalities of metabolism.
- Hart, Prof. William L(eroy)**, University of Minnesota, Minneapolis, Minn. *Mathematics*. Chicago, Ill., Oct. 12, 92. A.B., Chicago, 13, Ph.D., 16. Instr. math., Harvard, 16-17; asst.

- prof, *Minnesota*, 19-20, assoc. prof, 20-25, *prof*, 25- Math. Ass; Math. Soc. Theory of functions of infinitely many variables.
- Harter, Dr. L(eonard) L(ee)**, U. S. Department of Agriculture, Washington, D. C. *Plant pathology*. Moulton, Iowa, Feb. 2, 75. A.B, Nebraska, 03, A.M, 05; Ph.D, George Washington, 17. Sci. asst, *U. S. Dept. Agr.*, 04-06, asst. physiologist, 06-08, asst. pathologist, 08-12, *pathologist*, 12- A.A; Soc. Plant Physiol; Phytopath. Soc. (ed, 22); Bot. Soc; Wash. Bot. Soc; Wash. Acad. Life history, storage rot, physiology and enzymes of fungi; diseases of vegetable crops.
- Hartley, Dr. Carl**, U. S. Department of Agriculture, Washington, D. C. *Botany*. Lincoln, Nebr, April 7, 87. A.B, Nebraska, 07, A.M, 09; Ph.D, California, 20. Asst. plant path, W. Va. Exp. Sta, 07; plant ecol, Minn. Geol. and Nat. Hist. Surv, 08; sci. asst, bur. plant indust, U. S. Dept. Agr, 09-10, asst. pathologist, 11-14, *pathologist*, 14-19; Inst. voor Plantenziekten, Java, 19-22; *bur. plant indust*, *U. S. Dept. Agr*, 22- A.A; Phytopath. Soc; Soc. Foresters; Eugenics Research Ass; Wash. Bot. Soc. Diseases of forest trees; seedbed disinfection; quantitative methods in plant pathology.
- Hartley, C(harles) P(ickney)**, 3420 Center St, N. W, Washington, D. C. *Agriculture*. Osgood, Ind, July 7, 70. B.S, Kansas Col, 92, M.S, 99. Asst. hort, Kansas Col, 97-99; asst. physiologist, *U. S. Dept. Agr*, 99-06, *physiologist in charge corn investigations*, 06- A.A; Wash. Bot. Soc. Plant breeding and physiology; premature pollination; corn breeding and culture; crop rotation; methods of corn improvement, of corn breeding and of increasing the acre yield.
- Hartley, Ralph V(inton) L(yon)**, 332 Melrose Place, South Orange, N. J. *Electrical engineering*. Spruce, Nev, Nov. 30, 88. A.B, Utah, 09; B.A, Oxford, 12, B.Sc, 13. Instr. physics, Nevada, 09-10; *research engineer*, West. Elec. Co, 13-25, *Bell Telephone Laboratories*, 25-Elec. Eng; Physical Soc; Radio Eng. Telephone and telegraph transmission.
- Hartman, Dr. Carl G**, Carnegie Institution, Johns Hopkins University, Baltimore, Md. **Embryology, Physiology*. June 3, 79. A.B, A.M, Texas, 04, Ph.D, 15. Co. supt. pub. instruction, Austin, Texas, 04-09; prof. biol, Sam Houston State Teachers Col, 09-12; instr. and assoc. prof. zool, Texas, 12-25; *research assoc*, dept. *embryol*, *Carnegie Inst, Hopkins*, 25- Fellow, Wistar Inst, 17-18. A.A; Physiol. Soc; Ass. Anat; Soc. Exp. Biol; Soc. Zool. Habits of solitary wasps; embryology of the opossum; physiology of reproduction.
- Hartman, Dr. Ernest**, University of Illinois, Urbana, Ill. *Parasitology*. B.S, Kansas Col, 22, M.S, 24; Sc.D, Hopkins, 26. Asst, Kansas Col, 22-24; special research asst, Int. Health Board, Rockefeller Foundation, 24-26; *instr. zool*, *Illinois*, 26- A.A; Soc. Parasitol; Micros. Soc; Soc. Zool. Protozoology; helminthology.
- Hartman, Prof. Frank A(lexander)**, 24 High St, Buffalo, N. Y. *Physiology*. Gibbon, Nebr, Dec. 4, 83. A.B, Kansas, 05, A.M, 09; Ph.D, Washington (Seattle), 14. Instr. and head dept. biol, high schools, Ill, Kans. and Wash, 06-14; Austin teaching fellow *physiol*, Harvard Med. Sch, 14-15; lecturer, Toronto, 15-18, asst. prof, 18-19; *prof*, *Buffalo*, 19- A.A; Physiol. Soc; Soc. Exp. Biol. Endocrinology.
- Hartman, Prof. Henry**, Oregon Agricultural College, Corvallis, Oregon. *Horticulture*. Marion, Kans, 89. B.S, Wash. Col, 17; M.S, Iowa Col, 22. Asst. prof. exten. pomol, Iowa Col, 17-18; instr. hort, *Oregon Col*, 19-20, asst. prof. *pomol*, 20-22, *assoc. prof*, 22- Soc. Hort. Sci. Harvesting, storage and processing of fruits.
- Hartman, Dr. L(eon) W(ilson)**, 215 Maple St, Reno, Nev. *Physics*. Downsville, N. Y, June 18, 76. B.S, Cornell, 98, A.M, 99; Frazer fellow, Pennsylvania, 02-03, Ph.D, 03, Tyndale fellow, Göttingen, 03-04. Asst. *physics*, Cornell, 00-01; prof, Kansas Col, 01-02; instr, Cornell, 04-05; asst. prof, Utah, 05-06, *assoc. prof*, 06-09; *prof*, *Nevada*, 09- A.A; Physical Soc; Illum. Eng. Soc; Utah Acad. Pyrometry; spectrophotometric studies on Nernst lamp glowers; acetylene; radiation from black bodies; visibility in the blue end of the spectrum.
- Hartmann, Dean F(rancis) M**, Cooper Union, New York, N. Y. *Physics, Electrical engineering*. Cohecton, N. Y, Aug. 31, 70. B.S, Cooper Union, 95, E.E, 03. Instr. physics and elec. eng, *Cooper Union*, 01-05, asst. prof, 05-08, prof. elec. and mech. eng, 08-21, *dean sch. eng. and prof. elec. eng*, 21- A.A; Physical Soc; fel. Elec. Eng; Mech. Eng; Eng. Educ; Math. Soc. Reduction of time constant in magnetic tests; transformer iron; power; heat and thermodynamics; alternating currents and transmission.
- Hartmann, Dr. M(iner) L(ouis)**, the Celite Co, Lompoc, Calif. *Physical chemistry*. Hutchinson, Kans, July 14, 89. B.S, Arizona, 11; Ph.D, Harvard, 15. Asst. instr. chem, Illinois, 11-12; Austin teaching fellow, Harvard, 12-14; instr. physical chem, Missouri, 14-15; prof. chem, S. Dak. Sch. Mines, 15-18; director research, Carborundum Co, 18-26; *tech. director*, *Celite Co*, 26- Chem. Soc; Electrochem. Soc; Ceramic Soc; British Ceramic Soc. Theoretical electrochemistry; chemistry and metallurgy of tungsten; atomic weights; electric furnaces; refractories; abrasives; heat insulation; filter aids; diatomaceous earth products.
- Hartnagel, C(hris) A(ndrew)**, State Museum, Albany, N. Y. *Geology*. Newark, N. Y, Sept. 5, 74. B.S, Union, 98; Ph.B, N. Y. State Nor. Col, 00; fellow, Columbia, 04-05, A.M, 05. N. Y. Geol. Surv, 01-02; teacher, high schools, N. Y, 02-04; asst. econ. geol, *N. Y. Geol. Surv*, 05-08, geol, 08-20, *asst. state geologist*, 20- Curator, N. Y. State Museum. A.A; Paleont. Soc; Geol. Soc. Economic geology; stratigraphy; the Silurian; Clinton iron ores; geology of western New York; Pleistocene mammals.
- Hartness, James**, Springfield, Vt. *Metal working*. Schenectady, N. Y, Sept. 3, 61. M.E, Vermont, 10; A.M, Yale, 14; LL.D, Norwich,

- 21, Vermont, 21. *Pres. Jones and Lamson Machine Co.*, 02- Governor, Vt, 21-23. John Scott medal, Phila, 21; Edward Longstreth medal, Franklin Inst, 21. A.A. (sec'y, D); Mech. Eng; Astron. Soc; British Inst. Mech. Eng. Machine building; the flat turret lathe.
- Harts, Gen. W(illiam) W(right)**, U.S.A., War Department, Washington, D. C. *Civil and military engineering*. Springfield, Ill, Aug. 29, 66. Grad, U. S. Mil. Acad, 89; Eng. Sch. of Application, 92; Army War Col, 12, 22; A.M., Princeton, 13; Naval War Col, 13; Field Artil. Sch, 24. *Gen. officer, U.S.A.*, 18- Rowland prize, Soc. Civil Eng; Telford medal, London Inst. Civil Eng. Commandeur, Légion d'honneur; Commander, Ordre de Léopold; K.C.M.G., Eng; Commander, Ordre de Danilo II; Ordre de la Couronne, Roumania. Hon. mem. Am. Inst. Archit. Waterway engineering; building and park construction; coast defense.
- Hartshorn, Elden B(ennett)**, 11 Balch St, Hanover, N. H. *Organic chemistry*. Emmetsburg, Iowa, July 30, 89. B.S., Dartmouth, 12; Shevlin fellow, Minnesota, 19-20, Ph.D, 22. Instr. *chem.*, Dartmouth, 13-23, *asst. prof.*, 23- Lieut, C.W.S., 18- Chem. Soc. Amine oxides; thioureas; mustard oils.
- Hartshorne, Dr. Richard**, University of Minnesota, Minneapolis, Minn. *Geography*. Kittanning, Pa, Dec. 12, 99. B.S., Princeton, 20; Ph.D., Chicago, 24. Investigator, Chicago River Bridge Surv, 23-24; *instr. geog.*, Minnesota, 24- Summer, instr, Iowa Teachers Col, 23, Pa. State, 26. Economic geography.
- Hartson, Prof. L(ouis) D(untun)**, Oberlin College, Oberlin, Ohio. *Psychology*. Anamosa, Iowa, Nov. 24, 85. Ph.B., Grinnell, 08; Pd.M., N. Y. Univ, 09; Columbia, 09-10, 13, 18; Ph.D., Clark, 11; Lyon, 19. Instr. psychol. and educ, Grinnell, 11-13, *asst. prof.*, 13-17, *assoc. prof.*, 17-23; *asst. prof. psychol.*, Oberlin, 23-25, *assoc. prof.*, 25- Psychol. Ass. Social and personnel psychology.
- Hartsough, Ralph C(layton)**, 3425 Maple Ave, Berwyn, Ill. *Physics*. Orleans, Nebr, 87. B.S., 13, A.M., 14, J.M.A., 18; Columbia, 24-25. Prof. physics, Tsing Hua Col, Peking, China, 15-17; Ill. Wesleyan, 20-24; instr, Columbia, 24-25; *research engineer*, West. Elec. Co, Chicago, 25- Commissioned aviator and instr. flying, 19; summer, lecturer, Illinois, 22. A.A.; Physical Soc; Ill. Acad. (chairman, physics sect, 22). Contact rectification; lunar disturbance of gravity; duplex McLeod gauge; gravitational disturbances with a quartz fiber balance.
- Hartwell, Dr. Burt L(aws)**, Kingston, R. I. *Chemistry, Plant physiology*. Littleton, Mass, Dec. 18, 65. B.S., Boston, 89; B.S., Mass. Col, 89, M.S., 00; Ph.D., Pennsylvania, 03. Asst. chemist, Mass. Exp. Sta, 89-91; first asst. chemist, *R. I. Exp. Sta.*, 91-03, *assoc. chemist*, 03-07, chemist, 07-23, *director*, 12-, *agronomist*, 13-, *prof. agr. chem.*, *R. I. Col.*, 08-A.A.; Soc. Agron; Agr. Chem. Separation of rare elements by organic bases; effect of sodium on plant growth; poultry and plant nutrition; crop-rotation; soil acidity; optimum nutrient requirements of crops; fertilizer materials and soil amendments.
- Hartwell, Dr. John A(ugustus)**, 27 E. 63d St, New York, N. Y. *Medicine*. Sussex, N. J, Sept. 27, 69. Ph.B., Yale, 89, M.D., 92. Demonstrator anat. and asst. prof. physiol, *med. col.*, Cornell, 98-09, *clin. prof. and assoc. prof. surg.*, 09-; *director*, Cornell div, Bellevue Hosp. Consulting surgeon, Lincoln Hosp, 97-; mem, Lawrence and United Hospitals. Fel. Surg. Ass; Col. Surg; Soc. Clin. Surg; Soc. Exp. Biol; N. Y. Acad. Med.
- Hartzell, Dr. Albert**, Boyce Thompson Institute, Yonkers, N. Y. *Entomology*. Easton, Pa, Sept. 2, 91. B.S., Cornell, 16, M.S., 17; fellow, Iowa Col, 17; fellow, Ohio State, 22-23, Ph.D, 23. Asst. entom, Iowa Col, 17, instr, 18-22; fellow, Crop Protection Inst, 23-24; *entomologist*, Boyce Thompson Inst, 24- A.A.; Entom. Soc; Ass. Econ. Entom; Ecol. Soc; N. Y. Entom. Soc; fel. Iowa Acad; Ohio Acad. Life history and control of the potato leafhopper; Cicadellidae; sulfur as an insecticide; insect transmission of plant diseases.
- Hartzell, F(rederick) Z(eller)**, New York Agricultural Experiment Station, Geneva, N. Y. *Entomology*. Easton, Pa, Dec. 11, 79. A.B., Lafayette, 05; A.M., Cornell, 09. Field asst, div. zool, Pa. Dept. Agr, 06-08; asst. entomologist, *N. Y. Exp. Sta.*, Geneva, 09-12, *assoc. entomologist*, 12- A.A.; Entom. Soc; Ass. Econ. Entom; Ecol. Soc; Chem. Soc. Economic entomology; insect control; grape, pear and apple insects; variation and growth in insects; ecology as related to insects; biometrical methods and entomology.
- Hartzell, Dr. J(oseph) Culver**, Blue Ash, Ohio. *Chemistry, Metallurgy*. New Orleans, La, Sept. 10, 70. B.S., Chattanooga, 92, M.S., 95; Harvard, 96; Hopkins, 96-98; Yale, 98-99, M.S., 99; M.D., Columbia, 01; Munich, 03, Ph.D, 04; Pisa, 03-04. Prof. geol, Ill. Wesleyan, 99-04; geol. and chem, Pacific (Calif), 04-10; consulting engineer, 10-13; Ill. Malleable Iron Co, 13-14; research, 14-18; chief chemist, Cincinnati Milling Machine Co, 18-20; metallurgist, Dalton Adding Machine Co, 20; Victor Safe and Lock Co, 20-21; Hall's Safe Co, 21-22; *pres. and gen. manager*, Ohio Lesgas Corp, 21- A.A.; Chem. Soc; Soc. Steel Treat. (chairman, exec. committee, Cincinnati chap, 22-25); Cincinnati Eng. Club. Fossilization; upper Devonian of Europe and North America; the geochemistry of the waters of Santa Clara Valley, Calif; metallography; heat treatment and composition of high-speed steels.
- Harvey, Dr. Adelbert W(illiam)**, 755 Brookline Boulevard, Pittsburgh, Pa. *Pharmaceutical chemistry*. Central Square, N. Y, March 8, 94. B.S., Syracuse, 17; M.S., Pittsburgh, 19, Ph.D, 22. Instr. chem, Pittsburgh, 17-22; *indust. fellow*, Mellon Inst, 22- Chem. Soc. Phthalein and fluorescein dyes; sulphonation of aromatic hydrocarbons.
- Harvey, Dr. Basil C(oleman) H(yatt)**, University of Chicago, Chicago, Ill. *Anatomy*. Watford, Ont, Can, Jan. 16, 75. B.A., Toronto, 94, M.B., 98; licentiate, N. S. Nor. Col, 95. Asst.

anat., Toronto, 95-97; *Chicago*, 01-02, assoc, 02-04, instr, 04-08, asst. prof, 08-11, assoc. prof, 11-17, *prof.*, 17-, *dean* col. science, 21-24, *med. students*, 23- Officer, M.C., 17-19. A.A.; Ass. Anat. Gastric mucosa; hypophysis.

Harvey, Prof. E(dmund) Newton, Princeton University, Princeton, N. J. **Physiology, Biochemistry*. Germantown, Pa., Nov. 25, 87. B.S., Pennsylvania, 09; Ph.D., Columbia, 11. Instr. *physiol.*, Princeton, 11-16, asst. prof, 16-20, *prof.*, 20- Carnegie Institution exped, Great Barrier Reef, 13-14. Chairman committee on chemiluminescence, Nat. Research Council. A.A.; Soc. Nat; Physiol. Soc; Soc. Exp. Biol; Soc. Biol. Chem; Soc. Zool. Light production by animals; permeability of cells; oxidation; rate of nerve impulse.

Harvey, Mrs. E(dmund) Newton (Dr. Ethel Browne), Princeton, N. J. *Biology*. Baltimore, Md, Dec. 14, 85. A.B., Goucher, 06, fellow, 06-07; A.M., Columbia, 07, Ph.D, 13; fellow by courtesy, California, 14-15; Sarah Berliner fellow, 14-15. Instr. science, Bennett Sch, N. Y., 08-11; asst. biol., Princeton, 12-13; instr., Wellesley, 13-14; asst. histol, med. col, Cornell, 15-16. Soc. Nat. Experimental zoology; cytology.

Harvey, Prof. E(dward) Maris, Oregon Agricultural College, Corvallis, Oregon. *Plant physiology*. Galena, Kans, March 20, 88. A.B., Friends, 10; Ph.D., Chicago, 14. Acting prof. biol, William and Mary, 11-12; sci. asst, bur. plant indust, U. S. Dept. Agr, 14-18; *prof. hort. research*, Oregon Col, 19- Summer, research asst, desert lab, Carnegie Inst, 12. A.A.; Bot. Soc; Ecol. Soc; Chem. Soc. Horticulture; plant ecology and nutrition; physiological chemistry; transpiration; metabolism; nitrate-carbohydrate ratio in fruit trees.

Harvey, Dr. Ellery H(ale), 618 W. Chicago Ave, Chicago, Ill. *Chemistry*. Lewisburg, Pa, Jan. 13, 95. Ph.C, Medico-Chirurg. Col, 16; Ph.M, Phila. Col. Pharmacy, 21; A.B., Bucknell, 23, A.M., 24; Ph.D., Wisconsin, 26; Temple; Pennsylvania. Chemist, Cooper's Creek Chem. Co, 16-17; research chemist, Van Camp Packing Co, 17-18; chief chemist, Perkins Glue Co, 18-23; research chemist, Swift and Co, 26-27; *chief chemist*, Montgomery Ward and Co, 27- A.A.; Chem. Soc; Pharmaceut. Ass; Soc. Test. Mat; N. Y. Chemists Club. Starch; foods; agar; glue; oils; sulfur monochloride; vitamins; ultraviolet radiations; meat.

Harvey, Dr. Frederic A(ddison), U. S. Refractories Corp, Syracuse, N. Y. *Physics*. Kellogg, Iowa, June 3, 82. B.S., Grinnell, 04; Whiting fellow, California, 08-09, Ph.D, 09. Instr. physics, Grinnell, 09-10; Syracuse, 10-11, asst. prof, 11-14, assoc. prof, 14-16; *physicist*, Solvay Co, 12-20; *U. S. Refractories Corp*, 21- Electrochem. Soc; Ceramic Soc. (chairman, refractories div, 23); Soc. Test. Mat. (sec'y, committee C8, 21-). Atmospheric radioactivity; electrical conductivity of solutions; pyrometry; refractories.

Harvey, Prof. Nathan A(lbert), 1029 Washtenaw Ave, Ypsilanti, Mich. *Psychology, Pedagogy*.

Toledo, Ill, 60. Illinois, 90; A.B., Ill. Wesleyan, 96, Ph.D, 00. Teacher, high sch, Mo, 90-96; head dept. science, Wis. State Nor. Sch, 96-00; v. prin, Chicago Nor. Sch, 00-04; *prof. pedag.*, Mich. State Nor. Col, 04- A.A.; Psychol. Ass; Mich. Acad. Principles of teaching; elementary psychology; feelings; imaginary playmates; zoology; fresh water sponges; individual differences.

Harvey, Dr. R(odney) B(eecher), University of Minnesota, Minneapolis, Minn. *Plant physiology*. Monroeville, Ind, May 26, 90. Ph.C, Purdue, 12; B.S., Michigan, 15; Ph.D, Chicago, 18. Asst. botanist, Eli Lilly and Co, 12-13; asst. bot., Michigan, 15; microanalyst, bur. plant indust, U. S. Dept. Agr, 15-19, physiologist, 19-20; asst. prof. *plant physiol.*, Minnesota and Exp. Sta, 20-23, *assoc. prof. and head sect. plant physiol.*, 23- A.A.; Soc. Plant Physiol. (sec'y, 23-25); Phytopath. Soc; Bot. Soc; Ecol. Soc; Chem. Soc; Wash. Bot. Soc; Wash. Acad. Absorption of electrolytes; enzymes of respiration; reactions of protoplasm to low temperature.

Harvey, Dr. Samuel Clark, Yale University, New Haven, Conn. *Surgery*. Washington, Conn, Feb. 12, 86. Ph.B., Yale, 07, M.D, 11; Alonzo Clark fellow, Columbia, 12-13. Instr. path, Columbia, 12-13; asst. physician, Loomis Sanatorium, 13-14; house officer, Peter Bent Brigham Hosp, 14-15, Arthur Tracy Cabot fellow in charge lab. surg. research, Harvard, 15-16, asst. res. surgeon, Peter Bent Brigham Hosp, 16-17; instr. *surg.*, Yale, 19-20, asst. prof, 20-21, assoc. prof, 21-24, *prof.*, 24- Surgeon, New Haven Hosp, 19-24, surgeon-in-chief, hosp. and dispensary, 24- Lieut. capt. and major, M.C., 17-19. A.A. Experimental surgery.

Harwood, Margaret, Maria Mitchell Observatory, Nantucket, Mass. *Astronomy*. Littleton, Mass, March 19, 85. A.B., Radcliffe, 07; A.M., California, 16. Computer, Harvard Col. Observatory, 07-12; research fellow, Nantucket Maria Mitchell Ass, 12-16, *director observatory*, 16- Asst, Mt. Wilson Observatory, 23-24. Commission 16, Int. Astron. Union. Astron. Soc; Ass. Variable Star Observers; Royal Astron. Soc. Faint equatorial stars; variable stars; variability of asteroids, especially Eros.

Hasche, Dr. (Rudolph) Leonard, 260 W. Jersey St, Elizabeth, N. J. *Chemistry*. Doon, Iowa, June 20, 96. B.S., Tarkio Col, 18; M.S., Washington and Jefferson, 19; Chicago, 21; Ph.D., Hopkins, 24. Instr. chem, Carnegie Inst. Tech, 19-23; Nat. Research Council fellow chem, California, 24-25; fellow, Int. Educ. Board, Berlin and Vienna, 25-26; *research chemist*, Am. Smelting and Ref. Co, 26- Summers, chemist, Pittsburgh Testing Lab, 22, 23. C.W.S., U.S.A., 18. Chem. Soc. Saponification; oxides of nitrogen; chemical luminescence; radium.

Haseman, Prof. Charles, University of Nevada, Reno, Nev. *Mathematics*. Linton, Ind, Sept. 27, 80. A.B., Indiana, 03, A.M., 06; Ph.D., Göttingen, 07. Asst. *math.*, Indiana, 05-06, instr, 07-08, asst. prof, 08-09; assoc. prof, Nevada, 09-10, *prof.*, 10- A.A.; Math. Soc; Math. Ass. Integral equations and the theory of functions; applications of integral equations.

- Haseman, Prof. L(eonard)**, University of Missouri, Columbia, Mo. *Entomology*. Linton, Ind, March 26, 84. A.B, Indiana, 05; A.M, 07; Ph.D, Cornell, 10. Asst. entom. and zool, Florida, 05-06; entom, Missouri, 06-08; insect morphol, Cornell, 08-10; instr. entom, Missouri, 10-12, asst. prof, 12-16, assoc. prof, 16-18, *prof*, 18- State entomologist, Mo, 25- A.A; Entom. Soc; Ass. Econ. Entom. Economic and systematic entomology.
- Haseman, Dr. W(illiam) P(eter)**, 1531 W. 32d St, Oklahoma City, Okla. *Physics*. Linton, Ind, May 4, 78. A.B, Indiana, 03, A.M, 04; fellow, Pennsylvania, 05-07, Ph.D, 07. Instr. physics, Indiana, 04-05, asst. prof, 07-09; prof, Oklahoma, 09-19; *chief research dept, Marland Oil Co, 25-* Director, Okla. State Bur. Standards, 15-18. Physical Soc.
- Haskell, Dr. Charles C(heves)**, Medical College of Virginia, Richmond, Va. *Pharmacology*. Columbia, S. C, March 29, 80. A.B, Virginia, 05; M.D, Harvard, 08. *Prof. physiol. and pharmacol, Med. Col. of Va. Digitalis; caffeine; mercuric chloride; alcohol.*
- Haskell, Prof. E(ugene) E(lwin)**, Hamburg, N. Y. *Civil engineering*. Holland, N. Y, May 10, 55. B.C.E, Cornell, 79, C.E, 90. Mississippi River Surv, 80-85; U. S. Coast and Geod. Surv, 85-93; prin. asst. engineer, U. S. Lake Surv, 93-06; *prof. exp. hydraul, Cornell, 06-21, emer. prof, 21-* Dean col. civil eng, Cornell, 06-21. A.A; Civil Eng; Detroit Eng. Soc.
- Haskell, Prof. M(ellen) W(oodman)**, P. O. Box 3, Berkeley, Calif. **Mathematics*. Salem, Mass, March 17, 63. A.B, Harvard, 83, A.M, 85; Ph.D, Göttingen, 89. Instr. math, Michigan, 89-90; asst. prof, California, 90-94, assoc. prof, 94-06, *prof, 06-* Exchange prof, Columbia, 16. A.A; Math. Soc; British Ass; Math. Verein; Circolo Mat. di Palermo. Modern analytic geometry; singularities of plane curves; groups of collineations; application of group theory to geometry.
- Haskell, Dr. R(oyal) J(oyslin)**, U. S. Department of Agriculture, Washington, D. C. *Plant pathology*. Rochester, Mass, Jan. 27, 90. B.S, Dartmouth, 12; Ph.D, Cornell, 17. Asst. plant path, Cornell, 12-13, instr, 13-17; path. inspector, *bur. plant indust, U. S. Dept. Agr, 17-18*, asst. plant pathologist, 18-24, *assoc. plant pathologist, 24-* A.A; Phytopath. Soc. (sec'y-treas, 23-); Wash. Bot. Soc. Potato tuber rots in New York; seed treatment of oats; U. S. plant disease survey.
- Haskell, Sidney B(urritt)**, Agricultural Experiment Station, Amherst, Mass. *Agronomy*. Fargo, N. Dak, May 24, 81. B.S, Mass. Col, 04; Leipzig, 07-08. Asst. agriculturist, Hatch Exp. Sta, Mass. Col, 04-06, *prof. agron. and head dept, 09-16*; asst. agronomist, business manager and gen. director soil improvement committee, Nat. Fertilizer Ass, 16-20; *director, Mass. Exp. Sta, 20-* Div. states relations, Nat. Research Council. A.A; Soc. Agron. (pres, 23); Econ. Ass. Soil fertility; conditions influencing fertilizer use.
- Haskins, Dr. Howard D(avis)**, University of Oregon Medical School, Portland, Oregon. *Physiological chemistry*. Springfield, Mass, April 25, 71. A.B, Michigan, 92; M.D, Western Reserve, 95. Asst. prof. org. chem. and biochem, sch. med, Western Reserve, 07-11, assoc. prof, 11-15; *prof. biochem, med. sch, Oregon, 15-* Physiol. Soc; Soc. Biol. Chem; Chem. Soc; Am. Med. Ass. The chemistry of methods for estimating carbamates and urea; metabolism; solvent power of urine; hydrogen-ion concentration of urine and blood; the alkali reserve, hemoglobin, glucose and uric acid of blood; the glucose and lactose of urine.
- Haslam, Prof. R(obert) T(homas)**, 34 Palfrey Road, Belmont, Mass. **Chemical engineering*. North Adams, Mass, April 3, 88. B.S, Mass. Inst. Tech, 11. Asst. quant. analysis, Mass. Inst. Tech, 11-12; Nat. Carbon Co, Ohio, 12-18, asst. and supt, 18-20; *prof. chem. eng, Mass. Inst. Tech, and director sch. chem. eng. practice, 20-*, *director research lab. applied chem, 23-* Chem. Soc. (chairman, gas and fuel sect, 24); Chem. Eng. (v. pres); Soc. Chem. Indust; Soc. Test. Mat; Mech. Eng. (exec. committee fuels sect); Gas Ass; Pulp and Paper Manufacturers; British Chem. Soc; British Soc. Chem. Indust. Gas and fuel engineering; combustion of fuels.
- Hass, Dr. Henry B(ohn)**, 824 Peoples Bank Building, Charleston, W. Va. *Organic chemistry*. Huntington, Ohio. A.B, Ohio Wesleyan, 21; A.M, Ohio State, 23, Ph.D, 25. Asst. chem, Ohio State, 21-25; *research director, Gasoline Recovery Corp, 25-* Carbohydrates; chemistry of natural gasoline; solid adsorbents.
- Hasselbring, Dr. Heinrich**, U. S. Department of Agriculture, Washington, D. C. *Botany*. Flint, Mich, Jan. 12, 75. B.S, Cornell, 99; Ph.D, Chicago, 05. Asst. bot, Cornell, 99-01; first asst. hort, N. Y. Exp. Sta, 01-02; plant pathologist, Illinois, 02-03; asst. bot, Chicago, 03-07; *chief botanist, Cuban Exp. Sta, Santiago de las Vegas, 07-09*; *plant physiologist, bur. plant indust, U. S. Dept. Agr, 09-* Plant pathology and physiology.
- Hassin, Prof. George B(oris)**, 31 N. State St, Chicago, Ill. *Neuropathology*. Elisabethgrad, Russia, Aug. 19, 73. M.D, Univ. Kazan, Russia, 97. Assoc. prof. neur. col. med, Illinois, 20-26, *prof, 26-* Attending neurologist, Cook Co. Hosp, 13-; histologist, Ill. State Psychopathic Inst, 20- Neur. Ass; Am. Med. Ass; Chicago Neur. Soc. (v. pres, 21, pres, 22); Ass. Research Nervous and Mental Diseases; Cent. Neuropsychiat. Ass. Nervous and mental diseases.
- Hassler, Dr. J(asper) O(le)**, 425 Lahoma Ave, Norman, Okla. *Mathematics*. Harviell, Mo, May 14, 84. A.B, William Jewell, 07; M.S, Chicago, 13, Ph.D, 15. Instr. math, high sch, Ariz, 07-11; Kansas, 11-12; Ill, 12-17; Crane Junior Col, 17-20; assoc. prof, Oklahoma, 20-23, *prof, 23-* A.A; Math. Soc; Circolo Mat. di Palermo. Projective differential geometry; the teaching of mathematics.
- Hastings, Dr. A(lbert) Baird**, University of Chicago, Chicago, Ill. *Chemistry*. Dayton, Ky, Nov. 20, 95. B.S, Michigan, 17; Ph.D, Colum-

- bia, 21.—Chemist, U. S. Pub. Health Service, 17–21; asst, Rockefeller Inst, 21–22, assoc, 22–26; *prof. physiol. chem, Chicago, 26*—Lecturer, Southern California, 24. A.A.; Chem. Soc.; Soc. Biol. Chem.; Soc. Exp. Biol.; Harvey Soc.; Physical Soc. Physiology of fatigue; acid-base equilibria.
- Hastings, Prof. C(harles) S(heldon)**, 248 Bradley St, New Haven, Conn. **Physics*.—Clinton, N. Y., Nov. 27, 48. Ph.B., Yale, 70, Ph.D., 73. Instr. *physics*, Yale, 71–73; assoc. prof, Hopkins; *prof. and emer. prof, Yale, 84*—Medalist, Franklin Inst, 26. Officier de l'Instruction Pub, 89. Nat. Acad; A.A.; Physical Soc; Philos. Soc; cor. mem. Soc. degli Spectroscop. Ital. Physical optics.
- Hastings, Prof. E(dwin) G(eorge)**, 2111 Van Hise Ave, Madison, Wis. *Agricultural bacteriology*. Austinburg, Ohio, Aug. 11, 72. B.S., Ohio State, 98; M.S., Wisconsin, 99. Instr. *bacter, Wisconsin, 02–05*, asst. prof, 05–09, assoc. prof, 09–13, *prof. agr. bacter. and bacteriologist, Exp. Sta, 13*—Wis. Live Stock Sanit. Board. A.A.; Soc. Bact. (pres, 23); Dairy Sci. Ass; Pub. Health Ass; Int. Live Stock Sanit. Ass. Dairy bacteriology.
- Hastings, George T(racy)**, 2587 Sedgwick Ave, New York, N. Y. *Botany*. Bath, N. Y., Oct. 10, 75. B.S., Cornell, 98; A.M., Columbia, 21. *Ed, 'Torreya,' 21*—Torreya Bot. Club.
- Hastings, Dr. T(homas) W(ood)**, Kinderhook, N. Y. *Internal medicine*. St. Louis, Mo, Sept. 29, 73. A.B., Hopkins, 94, M.D., 98. House officer, Hopkins Hosp, 98–99; surgeon, Hosp. Ship, 'Maine,' 99–01; instr. clin. path, Cornell, 01–06, *prof, 06–18; retired*. Substitute clin. pathologist, Presb. Hosp, 02–04; asst. visiting physician, Cornell Med. Col. Dispensary, 01–07; Bellevue Hosp, 08–21; consulting staff, Nassau Co. and St. Bartholomew's Hospitals. Major, M.R.C., 17–18. A.A.; Am. Med. Ass; Ass. Path. and Bact; N. Y. Acad. Med. Clinical laboratory methods; non-parasitic elephantiasis; albuminuria; syphilis; the cerebro-spinal fluid; tuberculin therapy in orthopedic surgery; malignant endocarditis; hemoglobinometers; the opsonic index; infections of respiratory tract; complement fixation for Streptococcus and Gonococcus in arthritis; Bacillus coli communis; the acne bacillus.
- Haswell, John R(obert)**, 409 S. Atherton St, State College, Pa. *Agricultural engineering*. Baltimore, Md, Aug. 6, 86. C.E., Cornell, 09. Asst. drainage engineer, U. S. Dept. Agr, 10–20, senior drainage engineer, 16; *in charge agr. eng. exten, Pa. State, 20*—Junior topographer, U. S. Geol. Surv, 09. Capt, C.Eng, O.R.C., 17–18. Agr. Eng; Civil Eng. Drainage properties of soils; flow through farm septic tanks.
- Hatai, Dr. Shinkishi**, Wistar Institute of Anatomy, Philadelphia, Pa. *Neurology*. Kominato, Japan, March 3, 77. Grad, Tohokugakuin, Sendai, Japan; Ph.D., Chicago, 02. Asst. biol, First High Sch, Tokyo, Japan, 98–99; instr, Cincinnati, 00–01; asst. *neur*, Chicago, 02–06; assoc, *Wistar Inst*, 06–10, instr, 10–14, asst.
- prof, 14–19, prof, 20*—Ass. Anat; Physiol. Soc; Soc. Biol. Chem. Physiology of the nervous system; the endocrine organs.
- Hatch, Dr. Melville H(arrison)**, University of Washington, Seattle, Wash. *Zoology, Entomology*. Detroit, Mich, Nov. 25, 98. A.B., Michigan, 19, A.M., 21, Ph.D., 25. Asst, Michigan, 17–18, 19–22, 23–24; instr. zool, Syracuse, 22–23; assoc. prof. biol, James Millikin, 24–25; instr. zool, Michigan, 25–26; animal biol, Minnesota, 26–27; *assoc. prof. zool, Washington (Seattle), 27*—Coleoptera surv, Mich. State Dept. Conservation, Beaver Island. A.A.; Entom. Soc; Hist. Sci. Soc; Wash. Entom. Soc; Mich. Acad; Entom. Soc. London; Soc. entom. de France. Phylogeny, comparative morphology and classification of Coleoptera; Gyrinidae; ecology of carrion beetles.
- Hatcher, Dr. Rob(er)t A(nthony)**, 414 E. 26th St, New York, N. Y. *Pharmacology*. New Madrid, Mo, Feb. 6, 68. Ph.G., Phila. Col. Pharmacy, 89; M.D., Tulane, 98. Prof. mat. med, Cleveland Sch. Pharmacy, 99–04; instr. pharmacol, sch. med, Western Reserve, 00–04; *med. col, Cornell, 04–06*, asst. prof, 06–08, *prof. pharmacol. and mat. med, 08*—A.A.; Soc. Pharmacol; Pharmaceut. Ass; Physiol. Soc; Soc. Exp. Biol; Am. Med. Ass; Soc. Biol. Chem; Harvey Soc. Strychnine; quinine; emetics; digitalis.
- Hatcher, Prof. William H(ooker)**, McGill University, Montreal, Que, Can. *Chemistry*. Western Bay, Newfoundland, April 23, 93. B.A., McGill, 16, M.Sc., 17, Hon. Advisory Council of Can. fellow, 17–19, Ph.D., 21. *Asst. prof. chem, McGill, 21*—Lecturer, Alberta. Chem. Soc. Compounds of phenol and pyridine; hydrogen peroxide; comparative oxidation.
- Hatfield, Dr. William D(urrell)**, Decatur, Ill. *Chemistry*. Jacksonville, Ill, July 7, 92. B.S., Ill. Col, 14; M.S., Illinois, 16, Ph.D., 18. Asst. chemist and bacteriologist, Ill. State Water Surv, 15–18; asst. prof. org. and physical chem, Mont. Col, 19–20; supt. filtration, Highland Park, Mich, 20–24; *supt-chemist, sewage disposal plant, Decatur, 24*—Second lieut, U.S.A., 18–19. Chem. Soc; Soc. Bact; Water Works Ass; Ill. Soc. Eng. Sanitary chemistry and bacteriology; water; sewage; activated sludge; pH values in water purification; soluble aluminum in filtered waters; treatment of starch wastes.
- Hathaway, Prof. Arthur S(tafford)**, Boerne, Texas. **Mathematics, Physics*. Keeler, Mich, Sept. 15, 55. B.S., Cornell, 79; Hopkins, 80–84, fellow, 82–84. Instr, high sch, Md, 79–80; Cornell, 85–89, asst. prof, 89–91; *prof, Rose, 91–20*. Summer, prof, Chicago, 99. Reporter and ed, 'Lord Kelvin's Baltimore Lectures,' Nat. Conf. Electricians, 84. Trustee, schools, Terre Haute, Ind, 10–14. A.A.; Math. Soc; Math. Ass. Theory of numbers; quaternions; mathematical physics; motion of three bodies; continuous transformations in quaternions; early history of the calculus.
- Hathaway, Prof. Edward S(turtevant)**, Tulane University, New Orleans, La. *Ecology*. Mary-

- ville, Tenn, Oct. 17, 86. A.B, Cincinnati, 09; A.M, Wisconsin, 21, fellow, 22-23, Ph.D, 25. Prof. biol, Tusculum, 11-22; instr. *zool*, Wisconsin, 23-25; assoc. prof, *Tulane*, 25-27, *prof*, 27- A.A; Ecol. Soc. Temperature acclimatization of fishes and amphibians.
- Hathaway, J(oseph) C(harles)**, University of Minnesota, Minneapolis, Minn. *Physiological chemistry*. Northfield, Minn, Oct. 8, 00. B.S, Minnesota, 23, M.B, 25, M.D, 26. Research chemist, Mayo Foundation, Minn, 20-22; *research asst. and instr*, *Minnesota*, 23- Internal medicine; the relation between iodine starvation and simple goiter; the prevention of simple goiter.
- Hatt, Robert T(orrens)**, New York University, New York, N. Y. *Mammalogy*. Lafayette, Ind, July 17, 02. B.S, Michigan, 23; A.M, Columbia, 25. *Instr. biol*, *N. Y. Univ*, 23- Expeditions, Pacific Coast and southwest. states. Soc. Mammal; Ecol. Soc; Mich. Acad. Ecology and anatomy of vertebrates; life histories of mammals.
- Hatt, Prof. W(illiam) K(endrick)**, Lafayette, Ind. *Civil engineering*. B.A, New Brunswick, 87, M.A, 98, Ph.D, 01; C.E, Cornell, 91. Prof. civil eng, New Brunswick, 91-92; instr, Cornell, 92-93; assoc. prof, *Purdue*, 93-95, applied mech, 96-01, *prof*, 01-06, *civil eng*, 06- Town engineer, W. Lafayette, Ind, 94-95; res. engineer, Columbia City, Ind, 98; with road material lab, U. S. Dept. Agr, 02-03, engineer in charge timber tests, U. S. Forest Service, 03-06; chief engineer, Ind. Flood Commission, 14-15; state engineer, Dept. Conservation, Ind, 22-; committee on building codes, Dept. Commerce, 22-; consulting engineer, Ind. World War Mem, 25. Director, Advisory Board Highway Research, Nat. Research Council, 23-24. Fuertes gold medal, Cornell, 03. Civil Eng; Soc. Test. Mat; Eng. Educ; Ry. Eng; Concrete Inst. (pres, 17-19); Ind. Eng. Soc. (pres, 07); Int. Ass. Test. Mat. Engineering; structural materials.
- Hauber, Dr. U(lrich) A(lbert)**, St. Ambrose College, Davenport, Iowa. *Biology*. Wilburgstetten, Germany, June 28, 85. A.B, St. Ambrose Col, 05; A.M, Catholic Univ, 18; Ph.D, Iowa, 24. Instr, *high sch*, *St. Ambrose Col*, 08-17, *prof. biol*, 18- A.A; Genetic Ass; fel. Iowa Acad. Zoology; inheritance of variable characters in wasps.
- Hauge, Sigfred M(elanchton)**, Purdue University, Lafayette, Ind. *Animal nutrition*. Estherville, Iowa, May 3, 95. A.B, St. Olaf, 18; M.S, Minnesota, 21, Ph.D, 26. Asst. agr. biochem, Minnesota, 21-22, instr, 22-23; asst. animal nutrition, Exp. Sta, *Purdue*, 23-25, *research assoc. biochem*, 25- A.A; Chem. Soc. Biochemistry.
- Haught, Prof. B(enjamin) F(ranklin)**, 1124 W. Central, Albuquerque, N. Mex. *Psychology*. Atwood, W. Va, Jan. 22, 81. A.B, West Virginia, 11; A.M, Columbia, 14; Ph.D, Peabody Col, 21. Teacher, prin. and supt, pub. schools, W. Va; *prof. psychol* and educ, W. Va. Wesleyan Col, 15-18; Trinity, 19-20; La. State Nor. Col, 20-21; *psychol*, *New Mexico*, 21- Summers, instr, Louisiana, 20, Peabody Col, 25. A.A; Psychol. Ass; S. Soc. Philos. and Psychol. Experimental and intelligence tests; higher learning processes; statistics.
- Haughwout, Frank G(oddard)**, Bureau of Science, Manila, P. I. *Protozoology*. New York, N. Y, Oct. 22, 77. Columbia, 08-13. Assoc. prof. med. zool, Philippines, 14-15, prof. and chief dept, 15-17, prof. protozool. and parasitol, and chief dept. parasitol, 17-20; *protozoologist and head sect. parasitol*, *Bur. Science*, P. I, 19- Consulting protozoologist and head dept. parasitol, Philippine Gen. Hosp, 15-20; leprosy committee, Philippine Health Service, 20-21; entomologist, U.S.A. Med. Museum, 25. Co-editor, 'Philippine Jour. Sci,' 18- Soc. Parasitol; Soc. Trop. Med; N. Y. Acad; Manila Med. Soc. (ed, 'Proc,' 17-18); Far East Ass. Trop. Med. Cellular pathology of dysentery and inflammatory processes in the colon; animal parasites; helminths in the intestinal tract.
- Haupt, Dr. A(rthur) W(ing)**, University of California at Los Angeles, Los Angeles, Calif. *Botany*. Milwaukee, Wis, Aug. 9, 94. B.S, Chicago, 16, fellow, 18-19, Ph.D, 19. Instr, high schools, Ill, 16-18; sci. asst, U. S. Dept. Agr, 18-19; prof. biol, Carthage Col, 19-20; St. Lawrence, 20-23; instr. *bot*, *California at Los Angeles*, 24-27, *asst. prof*, 27- A.A; Bot. Soc; Ill. Acad. Morphology and cytology of hepaticae and cyanophyceae.
- Haupt, Dr. Lewis M(uhlenberg)**, Cynwyd, Pa. *Civil engineering*, *Physical geography*. Gettysburg, Pa, March 21, 44. Harvard, 63; grad, U. S. Mil. Acad, 67; hon. M.S, Pennsylvania, 83; Sc.D, Muhlenberg, 05; LL.D, Pa. Col, 15. Rodman, Troy and Greenfield Ry. and Hoosac Tunnel, 58-63; U. S. engineer, Lake Surv, 67; in charge Fifth Mil. District, Texas, 69; asst. engineer, Fairmount Park, Phila, 69; first asst. examiner, U. S. Patent Office, 72; instr. math. and civil eng, Pennsylvania, 72-75, prof. civil eng, 75-92; asst, U. S. Lighthouse Service, 74; U. S. Coast and Geod. Surv, Pa, 75-80; *consulting engineer*, 92-; *pres*, *Reaction Jetty Co*, 02- Director, Ches. and Del. Canal; consulting engineer, Ohio and Lake Erie Ship Canal. Sec'y, bur. awards, Centennial Expos, 76; asst. judge, dept. transport, Paris Expos, 89. Delegate and commissioner from Pa, Nicaragua Canal Convention, New Orleans, 92; Nicaragua Canal Commission, 97; Isthmian Canal Commission, 99-02; *pres*, Cauca-Colombia Ry. Arbitration Commission, 97. Magellanic premium, 87; medal and diploma, Nat. Export Expos, 99; gold medal, Paris Expos, 00; Elliott Cresson medal and diploma, Franklin Inst, 01; gold medal, La. Purchase Expos, 04. A.A; Civil Eng; Min. Eng; Philos. Soc; Civil Service Ass; Franklin Inst; Phila. Geog. Soc; Phila. Eng. Club (pres). Physical laws of bar formation and current and wave action; designs for automatic bar removal; reclamation; conservation of public utilities; water ways; reaction jetty; reclamation of alluvial coasts.
- Hausman, Dr. L(eon) A(ugustus)**, Rutgers University, New Brunswick, N. J. *Zoology*. New Haven, Conn, Nov. 9, 88. A.B, Cornell, 14,

- A.M., 16, Ph.D., 18. Asst. instr. geol., Cornell, 14-16, biol., 16; *asst. prof. zool., Rutgers and N. J. Col. for Women.* Protozoology; structure of mammalian hairs; ornithology.
- Hausmann, Prof. Erich**, Polytechnic Institute, Brooklyn, N. Y. *Physics, Electrical engineering.* Solingen, Germany, Feb. 27, 86. E.E., Brooklyn Polytech, 08; M.S., N. Y. Univ., 10, Sc.D., 11. Instr. physics and elec. eng., *Brooklyn Polytech*, 08-12, *asst. prof.*, 12-15, *assoc. prof.*, 15-18, *prof. physics and elec. communication*, 18-23. Sec'y faculty, Brooklyn Polytech, 17-23. A.A.; fel. Elec. Eng.; Physical Soc.; N. Y. Elec. Soc. (pres, 24); Brooklyn Inst. (pres, dept. elec, 21-). Electrical communication, machinery, transmission and traction; wave propagation along conductors.
- Havard, Col. Valery**, U.S.A., Fairfield, Conn. *Medicine.* Compiègne, France, Feb. 18, 46. Grad. Inst. Beauvais, France, 65; M.S., Manhattan, 69; M.D., N. Y. Univ., 69. Entered M.C., U.S.A., 74; chief surgeon, military forces, Cuba, 98-01, 06; med. mil. attaché, Russian Army, Manchuria, 04-05; chief surgeon, Dept. of the East, 05-06; pres, Army Med. Sch., and in charge library and museum, 06-10, retired, 10; restored to active duty, in charge reorganization of med. dept. of Army and Navy, Havana, Cuba, 17-22. Cuban Order of Mil. Merit. Ass. Mil. Surg. (pres, 07). Military hygiene; medical and economic botany.
- Havenhill, Prof. L. D.**, 1539 Vermont St., Lawrence, Kans. *Pharmaceutical chemistry.* Newark, Ill., April 5, 70. Ph.C., Michigan, 93, Ph.M., 94; B.S., Kansas, 03. Asst. prof. pharmacy, *Kansas*, 99-08, *prof. pharmaceut. chem.*, 08-25, acting dean, 25-26, *dean*, 26- Tenth decennial committee revision U. S. Pharmacopeia. Chem. Soc. (v. pres, Kansas City sect, 11-13, pres, 14); Pharmaceut. Ass. (v. pres, 13, 14); Kans. Acad. (v. pres, 16-17, pres, 18, treas, 20-); hon. mem. Kans. Pharmaceut. Ass. Pharmacy; standardization for official drugs.
- Havighurst, Dr. R(obert) J(ames)**, Harvard University, Cambridge, Mass. *Physics.* De Pere, Wis., June 5, 00. A.B., Ohio Wesleyan, 21; A.M., Ohio State, 22, fellow, 23-24, Ph.D., 24. Nat. Research Council fellow physics, Harvard, 24-26. Physical Soc.; Chem. Soc. Solid solutions; X-ray crystal analysis.
- Hawes, Austin F.**, Box 2115, Hartford, Conn. *Forestry.* Danvers, Mass., March 17, 79. A.B., Tufts, 01; M.F., Yale, 03. Asst., U. S. Forest Service, 03-04; state forester, Conn., 04-09; *prof. forestry*, Vermont, and state forester, 09-17; exten. specialist forestry, U. S. Forest Service, 17-20; forester, Nat. Ass. Wood Turners, 20-21; *state forester, Conn.*, 21- Asst., Fuel Ad., 18. Soc. Foresters (treas, 18-20). Silviculture; forest mensuration; forestry in New England.
- Hawk, Prof. Grover C.**, Penn College, Oskaloosa, Iowa. *Zoology.* Martinsburg, Iowa, Nov. 24, 85. B.S., Penn (Iowa), 09; M.S., Chicago, 19. Prin., Vermilion Acad., Ill., 09-10; instr., Penn Acad., Iowa, 10-11; *prof. biol.*, Friends, 11-13; Penn (Iowa), 13-18; instr., Iowa, 19-20; *prof. zool., Penn (Iowa)*, 20- A.A.; Soc. Mammal; Ecol. Soc.; Iowa Acad. Respiration of dragonfly larvae.
- Hawk, Dr. P(hilip) B(ovier)**, Food Research Laboratories, 1440 Broadway, New York, N. Y. **Physiological chemistry.* East Branch, N. Y., July 18, 74. B.S., Wesleyan, 98, M.S., 00; Yale, 01; Ph.D., Columbia, 03. Asst. physiol. chem., Columbia, 01-03; demonstrator, sch. med., Pennsylvania, 03-07; *prof.*, Illinois, 07-12; physiol. chem. and toxicol., Jefferson Med. Col., 12-22; director, *Food Research Laboratories, New York*, 22-26, *pres*, 26- Summer, *prof.*, California, 24. Asst. ed., 'Jour. Metabolic Research'; 'Jour. Dental Research'; 'Chem. Abstracts.' Am. committee, Int. Cong. Alimentary Hygiene, Brussels, 10; committee, physiol. chem., Ninth Int. Cong. Applied Chem., New York, 12. A.A.; Chem. Soc. (chairman, Ill. sect, 12). Physiol. Soc.; Soc. Biol. Chem.; Am. Med. Ass.; Soc. Exp. Biol.; Philos. Soc.; Columbian Biochem. Ass. (hon. pres); Ass. Wesleyan Chemists (pres). Metabolism; food and nutrition; yeast; gelatin; baking powder; milk; margarin; cereals; honey; fats; cod-liver oil.
- Hawkes, Dr. H(erbert) E(dwinn)**, Columbia University, New York, N. Y. **Mathematics.* Templeton, Mass., Dec. 6, 72. A.B., Yale, 96, Ph.D., 00; Göttingen, 01-02. Asst. *prof. math.*, Yale, 98-10; *prof.*, Columbia, 10-, *dean col.*, 18- Math. Soc. Hypercomplex numbers.
- Hawkesworth, Rev. Alan S(pencer)**, 2112 O St., N. W., Washington, D. C. *Mathematics.* New Orleans, La., Aug. 10, 67. Church Missionary Col., London; ordained, 92. English chaplain, São Paulo and Santos, Brazil, 90-94; rector, Georgetown, St. Vincent, B. W. I., 94; Episcopal 'Church of the Messiah,' Pittsburgh, 05-17; mathematician, staff of chief of naval ordnance, U.S.N., 17-20, Naval Proving Grounds, 20-22. Int. Cong. Math., Rome, 08. A.A.; Math. Soc.; Wash. Soc. Eng.; Wash. Philos. Soc.; life fel. Royal Soc. Arts; Circolo Mat. di Palermo. Exterior and interior ballistics and ordnance; geometrical conics; conicoids; higher plane curves; Assyrian and Babylonian cuneiform; philosophy.
- Hawkins, Dr. A(lfred) C(ary)**, Rutgers University, New Brunswick, N. J. *Geology.* Sewaren, N. J., June 15, 87. B.S., Columbia, 09; A.M., Princeton, 12; Ph.D., Brown, 16. Asst. geol., Princeton, 10-12; instr., Brown, 12-16; oil geologist, 16-18; crystallographer, E. I. du Pont de Nemours and Co., 18-21; with Ward's Nat. Science Estab., 21-23; instr. *geol.*, Rochester, 23-26; *acting assoc. prof.*, Rutgers, 27- A.A.; Miner. Soc.; Meteor. Soc.; Chem. Soc.; N. Y. Miner. Soc.; Phila. Miner. Soc.; Rochester Acad. Mineralogy; crystallography.
- Hawkins, Dr. J(ames) A(lexander)**, Rockefeller Institute, 66th St. and Ave. A, New York, N. Y. *Biophysics, Physical chemistry.* Springfield, Mass., Aug. 21, 95. A.B., Amherst, 17; Ph.D., Edinburgh, 22. Asst., Illinois, 19-20; *Rockefeller Inst.*, 22-26, *assoc.*, 26- The hydrogen-ion concentration of whole blood; acid-base equilibrium of the blood of small animals; skin

reactions to radiant heat and soft X-rays; normal and malignant cells; the formation of quaternary ammonium salts.

- Hawkins, Dr. Lon A(drian)**, U. S. Department of Agriculture, Washington, D. C. *Botany*. La Motte, Iowa, May 30, 80. B.S. Morning-side, 06; fellow, Ohio State, 06-07; Ph.D. Hopkins, 13. Asst. biol. Morningside, 04-06; sci. asst. *bur. plant indust.*, U. S. Dept. Agr., 07-14, plant physiologist, 14-22, *physiologist*, 22-AA; Wash. Acad. Plant pathology and physiology; the physiology of fungi and of fruit and vegetable storage.
- Hawkins, Prof. R(alph) S(ams)**, University of Arizona, Tucson, Ariz. *Agronomy*. Marysville, Kans, April 16, 88. B.S. Kansas Col, 14; M.S. Arizona, 22. Farmer, Kans, 14-17; agr. agent, Nemaha Co, Kans, 18; asst. prof. *agron.*, Arizona, and asst. agronomist, *Exp. Sta.*, 19-23, *assoc. prof. and agronomist*, 23-AA; Soc. Agron. Inoculation of legumes; effect of hydrocyanic acid on plant growth; deleterious effect of sorghums on soil and crops; cotton shedding.
- Hawley, Dr. Edith**, 3701 Massachusetts Ave, Washington, D. C. *Food economics*. Percival, Iowa, Jan. 14, 85. Tabor Col, 04-06; Calif. State Nor. Sch., Santa Barbara, 14-15; B.S. Columbia, 19, A.M., 20; fellow, Stanford, 22-23, Ph.D., 24. Teacher, schools, Iowa, Okla, Mo, Wash. and Calif., 07-14, 15-17; research, Ass. Improving Conditions of the Poor, at Columbia, 19-22; research asst. Food Research Inst., Stanford, 23-24; *specialist, bur. home econ.*, U. S. Dept. Agr., 24- Calcium and phosphorus metabolism in childhood; an index number based on eleven foods; food habits in the United States.
- Hawley, Dr. I(ra) M(yron)**, 473 Fourth Ave, Salt Lake City, Utah. *Entomology*. Canandaigua, N. Y., June 7, 84. A.B. Michigan, 09; Ph.D. Cornell, 16. Instr. biol. Bradley Polytech, 11-12; asst. Cornell, 12-16, investigator entom., 16-21; head dept. zool. and entom., Utah Col, and *entomologist*, *Exp. Sta.*, 21-26, *bur. entom.*, U. S. Dept. Agr., 26- Acting dean, Utah Col, 23-24. A.A.; Ass. Econ. Entom. Economic entomology; insects injurious to hops, beans, sugar beets and fruits; cereal and forage insects; alfalfa weevil.
- Hawley, John B(lackstock)**, 403 Cotton Exchange Building, Fort Worth, Texas. *Engineering*. Red Wing, Minn., May 27, 66. B.S. Minnesota, 87; M.S. Texas Christian, 26. *Consulting hydraulic and sanit. engineer*, 88- Hon. officer d'Acad. France, 19. A.A.; Civil Eng. (director, 15-18); Concrete Inst; Meteor. Soc. Microscopic life in Texas waters.
- Hawley, Dr. L(ee) F(red)**, Forest Products Laboratory, Madison, Wis. *Chemistry*. Steam-burg, N. Y., Feb. 12, 82. A.B. Cornell, 03, A.M., 05, Ph.D., 07. Asst. chem. Cornell, 02-04, instr., 04-07; *chemist*, U. S. Forest Service, 07-13; forest products dept., A. D. Little, Inc., 13-15; *Forest Products Lab.*, 16- Chem. Soc. (sec'y, cellulose div, 22-); Soc. Foresters. Thallium; white lead; wood distillation and extraction; wood chemistry.
- Hawley, Prof. R(alph) C(hipman)**, 360 Prospect St, New Haven, Conn. *Forestry*. Atlanta, Ga., March 5, 80. A.B. Amherst, 01; M.F. Yale, 04. Forest asst., U. S. Forest Service, 04-05; asst. state forester, Mass., 05-06; instr. asst. prof. and *prof. forestry*, Yale, 06- Forester, New Haven Water Co, 07- Soc. Foresters. Silviculture; pine plantations in New England.
- Haworth, Prof. E(rasmus)**, 1503 Massachusetts St, Lawrence, Kans. **Geology, Mineralogy*. Warren Co, Iowa, April 17, 55. B.S. Kansas, 81, M.S., 84; A.M. Ph.D. Hopkins, 88. *Prof. nat. science*, Penn (Iowa), 83-92; *geol. and miner.*, Kansas, 92- State geologist, Kans. Geol. Surv., 95-16; with U. S. Geol. Surv., 88, 96, 03, 04; Mo. Geol. Surv., 89-92; Kans. State Irrig. Board, 95-96. Geol. Soc; Kans. Acad. (pres, 08). Irrigation and water supplies; Kansas geology; oil and gas geology of mid-continental field.
- Hay, Dr. Donald L(eith)**, Mason, Slichter and Hay, Madison, Wis. *Physics*. Milwaukee, Wis., Aug. 18, 93. B.S. Wisconsin, 17, M.S., 20, Ph.D., 22. Research asst. physics, Wisconsin, 19-22; *research engineer*, Burgess Laboratories, Madison, 23-24; Mason, Slichter and Hay, 24- Research engineer, U.S.N. Exp. Sta., Conn., 17-19. Physical Soc. Acoustics.
- Hay, Dr. O(liver) P(erry)**, 1211 Harvard St, N. W, Washington, D. C. **Paleontology*. Jefferson Co, Ind., May 22, 46. A.B. Eureka, 70, A.M., 73; Sheffield Sci. Sch., Yale, 76, 77; Ph.D., Indiana, 84; Chicago, 93-95. Prof. nat. science, Eureka, 70-73; zool. and geol., Butler, 83-92; asst. curator, Field Museum Nat. Hist., 95-97; research work, U. S. Nat. Museum, 97-00; asst. and assoc. curator, dept. vert. paleont., Am. Museum Nat. Hist., 00-07; collaborator, Carnegie Inst., 02-06, research assoc., 12-16, assoc., 17-26. Asst. Ark. Geol. Surv., 84-88; Ind. Geol. Surv., 91-94. Assoc. ed., 'Am. Geol.', 02-05. Delegate, Int. Zool. Cong., Berne, 04. A.A.; Paleont. Soc. (sec'y, 04); Geol. Soc; Am. Geog. Soc; Wash. Geol. Soc; Wash. Biol. Soc; Wash. Acad; Ind. Acad. (pres, 91). Living and fossil vertebrates; Pleistocene paleontology and geology; early man in America.
- Hay, Prof. W(illiam) P(erry)**, Kensington, Md. *Zoology*. Eureka, Ill., Dec. 8, 72. B.S. Butler, 91, M.S., 92. Instr. and head dept. biol. high schools, Washington, D. C., 92-00; prof. nat. hist. Howard, 00-08; head dept. *biol. and chem.*, high schools, Washington, D. C., 08- Asst. George Washington; lecturer, Georgetown. A.A.; Fisheries Soc; Wash. Acad. (v. pres, 16); Wash. Biol. Soc. (v. pres, 07-, pres, 16); Wash. Entom. Soc; Wash. Biol. Field Club (pres, 03). Life histories and relations of North American Crustacea; Astacidae of North America.
- Hayden, Prof. Ada**, Iowa State College, Ames, Iowa. *Botany*. Ames, Aug. 14, 84. B.S. Iowa Col, 08, Ph.D., 18; fellow, Washington (St. Louis), 09-10, M.S., 10; Colorado, 13; Chicago, 16. Asst. *bot.*, Iowa Col, 07-08, instr., 10-18, *asst. prof.*, 18- Summer, in charge bot. Colo. Agr. Col, 21. A.A.; Bot. Soc; Ecol. Soc; Iowa Acad. Ecology; taxonomy; morphology; algae; vascular plants; weeds.

Hayden, Arthur G(underson), 9 Florida Ave, Bronxville, N. Y. *Engineering*. Akron, Ohio, Oct. 10, 78. A.B, Ripon Col, 98; B.S, Mass. Inst. Tech, 01. Draftsman and checker, Am. Bridge Co. and McClintic-Marshall Construction Co, Pa, 01-04; *designing engineer*, N. Y. State Barge Canal Office, Albany, N. Y, 04-19; Bronx Parkway Commission, Bronxville, 19-26; *Westchester County Park Commission*, 26- Civil Eng. Civil engineering; indeterminate rigid frame bridges for short spans.

Hayden, Prof. C(harles) E(rnest), 110 Irving Place, Ithaca, N. Y. *Physiology*. Syracuse, Ohio, April 9, 81. A.B, Ohio, 10; D.V.M, Cornell, 14. Asst. biol, Ohio, 08-09; *vet. physiol*, Cornell, 09-10, instr, 10-14, *asst. prof*, 14- Vet. Med. Ass; Soc. Exp. Biol. Comparative physiology; diastase in the saliva of the dog and cat; orokinase and salivary digestion in the horse; urine of the dairy cow; normal blood of the domesticated animals; blood, urine and tissue juice in azoturia; blood and urine in milk fever.

Hayden, Prof. Horace Edwin, Jr, University of Richmond, Richmond, Va. *Zoology*. Wilkes-Barre, Pa, Jan. 6, 84. A.B, Princeton, 05; A.M, Virginia, 07, 08-10; fellow, Vanderbilt, 07-08. Asst. geol, Vanderbilt, 07-08; master, Jefferson Sch, Charlottesville, Va, 09-10; instr. *biol*, Agr. and Mech. Col. Texas, 10-12, asst. prof, 12-17, assoc. prof, 17-18; instr, N. Y. Univ, 18; acting prof, William and Mary, 18-19; *prof*, Richmond, 19- A.A; Micros. Soc; Soc. Parasitol; Va. Acad. Aquatic oligochaetes; parasitology.

Hayden, Prof. Margaret A(lger), Wellesley College, Wellesley, Mass. *Zoology*. Ausable Chasm, N. Y, Sept. 2, 84. A.B, Goucher, 07; A.M, Columbia, 17, Ph.D, 24. Instr. science and math, Littleton Col, 07-08; biol, high sch, Md, 08-12; Carnegie Inst. Tech, 12-16; *zool*, Wellesley, 18-21, 22-25, *asst. prof*, 25- A.A; Soc. Zool. Cytology.

Hayes, Dr. Albert O(rion), Rutgers University, New Brunswick, N. J. *Geology*. Granby, Que, Can, March 16, 82. B.Sc, McGill, 08, M.Sc, 10; Ph.D, Princeton, 14. In charge geol. investigation, Wabana iron ore deposits, Newfoundland, for Princeton, 11-12; junior geologist, Can. Geol. Surv, 13-17, assoc. geologist, 17-20; geologist, Whitehall Petrol. Corp, 20-22; Standard Oil Co. of N. J, 22-25; Can. Geol. Surv, 25-26; *prof. geol*, Lafayette, 26-27; *Rutgers*, 27- A.A; fel. Geol. Soc; Ass. Petrol. Geol; Min. and Metal. Eng; Can. Inst. Mil. and Metal. Eng. Iron ore, manganese, salt, coal and petroleum deposits.

Hayes, Prof. Anson, Iowa State College, Ames, Iowa. *Physical chemistry*. Sigourney, Iowa, Jan. 31, 82. B.S, Drake, 08; M.S, Iowa Col, 17; Ph.D, Chicago, 21. Instr, high schools, Iowa, S. Dak. and Ill, 09-15; asst. chem, Iowa Col, 15-17, instr, 18, asst. prof, 18-19, assoc. prof, 19-23, *prof. physical chem*, 23- A.A; Chem. Soc; Soc. Steel Treat; Iowa Acad. Stability of iron carbide in ferrous alloys; investigation of graphitizing properties of iron

carbon alloys; isotopes; uranium metal; corrosion of iron and steel.

Hayes, Prof. E(dward) C(ary), 808 W. Oregon St, Urbana, Ill. *Sociology*. Lewiston, Maine, Feb. 10, 68. A.B, Bates, 87, A.M, 90; Berlin, 90-91; Ph.D, Chicago, 02; LL.D, Grinnell, 20. Prof. econ. and sociol, Miami, 02-07; *prof. sociol. and head dept*, Illinois, 07- Sec'y, sect. social psychol, World's Cong. Science, La. Purchase Expos, 04; past pres, Ill. Conf. Charities and Corrections; Ill. Board Commissioners for Pub. Welfare; Nat. Committee for Social Studies; Nat. Council for Social Studies; v. pres, First Inst. Int. di Sociol, Rome. A.A; hon. mem. Sociol. Soc. (past pres); hon. mem. Inst. Int. de Sociol. Paris (past v. pres); hon. cor. mem. Gesell. für Sociol. Psychology of customs and institutions; evolution of conscience codes.

Hayes, Prof. E(llen), Wellesley, Mass. *Astronomy*. Granville, Ohio, Sept. 23, 51. A.B, Oberlin, 78. Teacher math, Wellesley, 79-83, assoc. prof, 83-88, prof, 88-97, applied math, 97-04, astron, 04-16; *retired*, 16. A.A; Hist. Sci. Soc. Definitive orbit of minor planet, No. 267; calculus with applications; scientific method.

Hayes, Dr. F(red) M(ontreville), University Farm, Davis, Calif. *Veterinary science*. Barnesville, Kans, July 30, 85. D.V.M, Kansas Col, 08. Asst. vet. med, Kansas Col, 08-10, bacter, 10-11; instr. *vet. science*, California, 11-13, asst. prof, 13-19, *assoc. prof*, 19- A.A; Vet. Med. Ass; Soc. Bact; Calif. Vet. Med. Ass. (pres, 19). Hog cholera; bovine and porcine infectious abortion; botulism.

Hayes, Dr. Hammond Vinton, 160 State St, Boston, Mass. *Physics*. Madison, Wis, Aug. 28, 60. A.B, Harvard, 83, A.M, Ph.D, 85; Mass. Inst. Tech, 84-85. Elec. engineer, Am. Bell Telephone Co, 85-02; chief engineer, Am. Tel. and Tel. Co, 04-07, consulting engineer, 07-24; *pres*, *Submarine Signal Corps*, 25- Elec. Eng; Am. Acad.

Hayes, Dr. H(arvey) C(ornelius), Naval Research Laboratory, Bellevue, Anacostia, D. C. *Physics*. North Fenton, N. Y, Nov. 2, 77. A.B, Harvard, 07, A.M, 08, Ph.D, 11. Asst. physics, Harvard, 08-11, instr, 11-13; prof, Swarthmore, 13-18; research, anti-submarine devices, U.S.N. Exp. Sta, New London, Conn, 18-19, physicist, U.S.N., 19-20, sound aide, 21-23, *physicist*, 23- Summers, instr, Harvard, 08-13. Geophys. Union. Physical Soc; Wash. Acad; Wash. Philos. Soc. Cooling curves; the magnetic susceptibility of water; a rateflow meter; sap flow and sap pressure; detection of submarines; the hydrophone and navigation; depth sounding by acoustical methods; the sonic depth-finder.

Hayes, Prof. H(erbert) K(endall), University Farm, St. Paul, Minn. *Genetics*. North Granby, Conn, March 11, 84. B.S, Mass. Col, 08; M.S, Harvard, 11, Sc.D, 21. Special agent tobacco investigation, U. S. Dept. Agr, 08-09; asst. agronomist, Conn. Exp. Sta, 09-11, plant breeder, 11-14; assoc. prof. *plant breeding*, Minnesota, 15-18, *prof*, 19- Collaborator, office

- cereal investigations, bur. plant indust, U. S. Dept. Agr, 16- A.A.; Soc. Nat; Soc. Agron; Bot. Soc. Plant genetics; disease resistance.
- Hayes, Dr. Mary H(olmes) S(tevens)**, Vocational Service for Juniors, 122 E. 25th St, New York, N. Y. *Psychology*. Rochester, N. Y, Feb. 11, 84. A.B., Wisconsin, 04; Ph.D., Chicago, 10. Psychologist, Juvenile Psychopathic Inst, Chicago, 10-11; assoc. psychologist, Lab. of Social Hygiene, 15-18; indust. consultant, Scott Co, 20-22; U. S. Children's Bur, 22-23; *director, Vocational Service for Juniors*, 24- Army Med. Sch. and Surgeon General's Office, 19. A.A.; Psychol. Ass. Neurology; cutaneous after-sensation; corpus striatum of embryonic rat; mental tests applied to criminal women; industrial personnel; vocational information.
- Hayes, Prof. Murray O(swald)**, Brigham Young University, Provo, Utah. *Geology*. Pleasant Grove, Utah, June 24, 89. A.B., Brigham Young, 14; M.S., George Washington, 20, Ph.D., 23. Asst. prof. *geol.*, Brigham Young, 22-25, *assoc. prof.*, 25- Paleont. Soc; fel. Utah Acad. The structure, Paleozoic paleontology and stratigraphy of the Wasatch Mountains.
- Hayes, Prof. S(amuel) P(erkins)**, South Hadley, Mass. *Psychology*. Baldwinville, N. Y, Dec. 17, 74. A.B., Amherst, 96; B.D., Union Theol. Sem, 02; A.M., Columbia, 02; fellow, Clark, 02-03; Cornell, 05-06, Ph.D., 06. Assoc. prof. *psychol.*, Mt. Holyoke, 06-09, *prof.*, 09- Director psychol. research, Pa. Inst. Instruction of Blind, 16-; Perkins Inst. Instruction of Blind, 19- Psychol. Ass. Edwardian revivals; affective qualities; color blindness; psychology and pedagogy of the blind.
- Hayes, Stephen Q(uentin)**, 410 East End Ave, Pittsburgh, Pa. *Electrical engineering*. Washington, D. C, Dec. 17, 73. A.B., Georgetown, 92; E.E., Hopkins, 94. Elec. engineer, Westinghouse Elec. and Mfg. Co, 94-27. C.Eng., U.S.A., 19. Int. Elec. Cong, St. Louis, 04, Turin, 11, Rio de Janeiro, 22. Elec. Eng. Station design; power transmission.
- Hayes, Prof. W(illiam) P(atrick)**, University of Illinois, Urbana, Ill. *Entomology*. Leadville, Colo. B.S., Kansas Col, 13, M.S., 18; Ph.D., Cornell, 23. Asst. Kans. Exp. Sta, 14-18, *asst. prof. entom.*, Kansas Col. and Exp. Sta, 18-24; *Illinois*, 24- Instr., Cornell, 22-23. Entom. Soc; Ass. Econ. Entom; Micros. Soc; Kans. Acad. (v. pres, 21). Life histories of insects injurious to staple crops; insect morphology.
- Hayhurst, Prof. E(mery) R(oe)**, Ohio State University, Columbus, Ohio. *Hygiene, Public health*. St. Louis, Mo, June 28, 80. A.B., Illinois, 03, A.M., 05, M.D., 08; Ph.D., Chicago, 16. Instr. physiol., Illinois, 03-08; intern, Cook Co. Hosp, 08-10; asst. prof. clin. diagnosis and chair of nervous anat., Illinois, 10-13; director occupational disease clinic, Rush Med. Col, and fellow, Sprague Mem. Inst, Chicago, 11-13; asst. prof. hygiene and director dispensaries, *Ohio State*, 16-20, *prof. hygiene and head dept. pub. health*, 20-; *director and later consultant indust. hygiene, Ohio State Dept. Health*, 15- Health officer, Maywood, Ill, 10-13; pathologist, univ. hosp, Chicago, 10-13; chief occupational disease surv., Ohio, 13-15; summers, asst. prof. and univ. health officer, Chicago, 16-17. Univ. Ill. physiol. exped, Pike's Peak, 03. Surgeon, U. S. Pub. Health Service Res, 19-24. Int. Committee on Occupational Diseases, League of Nations. A.A.; Pub. Health Ass. (exec. board, ed. board, sec'y indust. hygiene); Am. Med. Ass.; Ohio Acad; Royal Inst. Pub. Health. Muscle fatigue; hematology; osteitis deformans; occupational diseases; public health; industrial, school and housing hygiene; geo-chemistry of goiter; carbon monoxide poisoning; industrial toxicology.
- Haynes, Miss C(aroline) C(oventry)**, Highlands, N. J. *Botany*. New York, N. Y, April 13, 58. Student, N. Y. Bot. Garden, 02-07, 09-10. Bot. Soc; Torrey Bot. Club; Sullivant Moss Soc. Taxonomy of some of the Hepaticae; Hepaticae of the United States, Canada and Arctic America.
- Haynes, Prof. E(li) S(tuart)**, University of Missouri, Columbia, Mo. *Astronomy*. Trenton, Mo, July 12, 80. A.B., Missouri, 05, A.M., 07; fellow, California, 11-12, Ph.D., 13. Asst. math., Missouri, 05-06, Gould asst. Laws Observatory, 06-07, asst. astron., 07-08, instr., 08-11, in charge, 09-11; instr. *astron.*, California, 12-13; Kellogg fellow, Lick Observatory, 13-14; assoc. prof., Beloit, 14-15, *prof.*, 15-23; *Missouri*, 23- A.A.; Astron. Soc; Math. Soc; Soc. astron. de France. Stellar photometry and spectroscopy; orbits of comets and asteroids.
- Haynes, Dr. Irving S(amuel)**, 107 W. 85th St, New York, N. Y. *Surgery*. Saranac, N. Y, Aug. 29, 61. Ph.B., Wesleyan, 85; M.D., N. Y. Univ, 87. Intern, Bellevue Hosp, 87-88; demonstrator anat., N. Y. Univ, 89-94, adjunct prof., 94-98; *visiting surgeon, Harlem and Red Cross Hospitals*, 95-; *prof. applied anat., med. col., Cornell*, 98- Asst. attending surgeon, Chambers St. Hosp, 88-90; N. Y. Orthop. Hosp, 91-99. Am. Med. Ass; Ass. Anat; N. Y. Surg. Soc; N. Y. Acad. Med. Anatomy.
- Haynes, Rowland**, University of Chicago, Chicago, Ill. *Psychology*. A.B., Williams, 02; A.M., Clark, 05. Asst. prof. psychol., Minnesota, 11; field sec'y, Am. Playground and Recreation Ass, 11-16; director, N. Y. War Camp Community Service, 16-20; recreation council, Cleveland, 20-22, Welfare Federation, 22-26; *sec'y, Chicago*, 26- Psychol. Ass. Playground activities; recreation surveys.
- Haynes, Dr. Winthrop P(errin)**, 82 Ave. des Champs Elysées, Paris, France. *Geology*. Hyde Park, Mass, Sept. 6, 87. A.B., Harvard, 10, A.M., 12, Ph.D., 14. Asst. geol., Harvard, 08-16, instr., Radcliffe, 11-14; Wellesley, 14-16; asst. prof., Kansas, 16-18, assoc. prof., 19-20; geologist and chief of party, *Standard Oil Co. of N. J.*, Mex, 20-21, *chief geologist, Europe*, 22- Shaler mem. exped. to S. Amer, 08; instr. in charge, Harvard Summer Sch. geol. expeditions, Mont, 13, N. B. and Que, 14, Colo, 16. Second lieut., A.S., 18-19. Fel. Geol. Soc; Soc. Econ. Geol; Paleont. Soc; fel. Am. Geog. Soc; Ass. Petrol. Geol; Min. and Metal. Eng. Structural, stratigraphic and economic geology.

- Hays, Prof. Frank (Alfred)**, Oneacre, Amherst, Mass. *Poultry husbandry*. Beaver, Okla., Jan. 29, 88. B.S., Okla. Agr. and Mech. Col., 08; A.M., Nebraska, 12; Ph.D., Iowa Col., 17. Prof. biol., Lenox, 12-15; animal husbandry, Delaware, 17-19; Wyoming, 19-22; *research prof. poultry investigations*, Mass. *Exp. Sta.*, 22-A.A.; Poultry Sci. Ass.; Soc. Animal Production; Soc. Zool. Animal nutrition, genetics and breeding.
- Haythorn, Dr. Samuel R(eese)**, Singer Research Laboratory, Pittsburgh, Pa. *Pathology*. Danville, Ill., Sept. 10, 80. M.D., Michigan, 04; fellow, Pittsburgh, 12-13. Asst. path. and gynec., Michigan, 04-06; pathologist, Mass. State Hosp., 06-08; intern and asst., Boston City Hosp., 08-09; asst. path., Harvard Med. Sch., 09-10; instr. path., Pittsburgh, 10-11, asst. prof., 11-13; pathologist, Allegheny Gen. Hosp., 13-15; *director, Singer Research Lab.*, 15-21, 23-; *prof. path. and bacter.* and *director hygiene, sch. med.*, Pittsburgh, 21-26, *prev. med.*, 26- Advisory Board, Pa. State Dept. Health. A.A.; Col. Physicians; Ass. Path. and Bact.; Soc. Exp. Path.; Soc. Exp. Biol.; Am. Med. Ass.; Pittsburgh Acad. Med.; Int. Ass. Med. Mus. Bacteriology; histological effects of smoke; tuberculosis; trinitrotoluene poisoning; preventive medicine.
- Hayward, Prof. Carle R(eed)**, Massachusetts Institute of Technology, Cambridge, Mass. *Metalurgy*. Yankton, S. Dak., Oct. 27, 80. B.S., Mass. Inst. Tech., 04. Instr. science, Bellows Acad., Fairfax, Vt., 04-06; mining eng. and metal, Mass. *Inst. Tech.*, 06-10, asst. prof., 10-20, *assoc. prof. metal*, 20- Min. and Metal. Eng. (chairman, Boston sect., 25); Min. Eng. Non-ferrous metallurgy.
- Hayward, Dean Harry**, Devon, Pa. *Agriculture*. Lewistown, N. Y., May 19, 69. B.S.A., Cornell, 94, M.S.A., 01. Asst. instr. and asst. prof. dairy husbandry, Pa. State, 94-02; prof. animal and dairy husbandry, New Hampshire, 02-03; asst. chief dairy div., U. S. Dept. Agr., 03; organizer and director dept. agr., Mt. Hermon Sch., 03-06; *director, Del. Exp. Sta.*, 06-, *dean dept. agr., Delaware*, 10-, *director agr. exten. service*, 14- Head agr. div. and bur. sci. research, N. W. Ayer and Son. Director col. agr., A.E.F. Univ. Beaune, 19. A.A. Animal husbandry.
- Haywood, Dr. John K(erfoot)**, U. S. Department of Agriculture, Washington, D. C. *Chemistry*. Raleigh, N. C., Dec. 19, 74. B.S., Cornell, 96; M.D., George Washington, 07. Asst. chemist, Cornell Exp. Sta., 95-96, asst. instr. chem., Cornell, 96-97; asst. chemist, *bur. chem.*, U. S. Dept. Agr., 97-, *chief miscellaneous div. and chairman insecticide and fungicide board.* Agr. Chem. (past v. pres. and pres); Ass. Med. Control Officials (past pres, v. pres, exec. committee). Insecticides; fungicides; cattle foods; grains; waters; boiling point curves; rates of reaction.
- Hazard, Daniel L(yman)**, U. S. Coast and Geodetic Survey, Washington, D. C. *Terrestrial magnetism*. Narragansett Pier, R. I., Aug. 26, 65. A.B., Harvard, 85. Computer, Mass. Topog. Surv. Commission, 89-92; *U. S. Coast and Geod. Surv.*, 92-, *asst. chief div. terrestrial magnetism and seismol.*, 18- See'y sect. seismol., Geophys. Union. A.A.; Seismol. Soc.; Am. Geog. Soc.; Wash. Soc. Eng.; Wash. Philos. Soc. (pres, 24); Wash. Acad. (v. pres, 24).
- Hazeltine, Prof. L(ouis) A(llen)**, 1024 Hudson St., Hoboken, N. J. *Electrical engineering*. Morristown, N. J., Aug. 7, 86. M.E., Stevens, 06. Tester, Gen. Elec. Co., 06-07; asst. elec. eng., Stevens, 07-08, instr., 08-13, asst. prof., 13-17, prof., 17-25; *research engineer*. Consulting engineer, Navy Yard, 18-19. A.A.; fel. Elec. Eng.; fel. Radio Eng. (manager, 23-27); Physical Soc.; Eng. Educ.; N. Y. Elec. Soc. Electron tubes and circuit; neutrodyne radio receiver.
- Hazen, Allen**, 25 W. 43d St., New York, N. Y. *Civil engineering*. Hartford, Vt., Aug. 28, 69. Sc.D., New Hampshire, 77; Dartmouth, 17; Mass. Inst. Tech. In charge, Exp. Sta., Mass. State Board Health, 88-93; *practising civil engineer*, Boston, 94-97; *New York*, 97- Rowland prize, Civil Eng., 00; Norman medal, 14. Am. Water Works Ass.; Civil Eng.; Chem. Soc.; Pub. Health Ass.; New Eng. Water Works Ass.; New Eng. Soc. Eng. Public water supplies.
- Hazen, Leslie Eugene**, Oklahoma Agricultural and Mechanical College, Stillwater, Okla. *Agricultural engineering*. Centralia, Kans., Nov. 8, 84. B.S., 06, M.E., 16. Field agent, dry land agr., 06-08; instr. and asst. prof. farm mech., Cornell, 13-17; *prof. agr. eng.*, Rutgers, 18; *Okla. Agr. and Mech. Col.*, 19- Fireproof materials for farm use; farmstead design, planning and development.
- Hazen, Prof. Tracy E(lliott)**, Barnard College, Columbia University, New York, N. Y. *Botany*. Jericho Center, Vt., July 4, 74. A.B., Vermont, 97; A.M., Columbia, 99, Ph.D., 00. Director, Fairbanks Museum Nat. Science, St. Johnsbury, Vt., 01-02; asst. bot., *Columbia*, 02-03, tutor, 03-07, instr., 07-10, *asst. prof.*, 10- Instr., Woods Hole, 24, 26. A.A.; Bot. Soc.; Torrey Bot. Club (assoc. ed., 07-12, ed., 24-); New Eng. Bot. Club; Vt. Bot. Club; Conn. Bot. Soc. Morphology and phylogeny of algae, chiefly Chlorophyceae; floral biology.
- Hazlett, Prof. Olive C(lio)**, University of Illinois, Urbana, Ill. **Mathematics*. Cincinnati, Ohio, Oct. 27, 90. A.B., Radcliffe, 12; M.S., Chicago, 13, Ph.D., 15. Assoc. *math.*, Bryn Mawr, 16-18; asst. prof., Mt. Holyoke, 18-24, assoc. prof., 24-25; *asst. prof., Illinois*, 25-A.A.; Math. Soc. (assoc. ed., 'Trans,' 22-, councilor, 26-); Math. Soc.; London Math. Soc.; Math. Verein; Circolo Mat. di Palermo. Linear algebras; modular invariants.
- Head, Dr. Geo(rge) Douglas**, Donaldson Building, Minneapolis, Minn. *Medicine*. Elgin, Minn., Sept. 10, 70. B.S., Minnesota, 92, M.D., 96; Hopkins, 98-00; Vienna, 03; Edinburgh, 09. Asst. med., *Minnesota*, 97, instr. clin. med. and micros, 98-02, prof., 02-09, *assoc. prof. med.*, 09- A.A.; Am. Med. Ass.; Minn. Acad. Med.

- (pres, 16). Diagnostic value of tuberculin; relation of experimental eosinophilia to protein sensitization.
- Headden, Prof. W(illiam) M P(arker)**, Fort Collins, Colo. *Chemistry*. Red Bank, N. J., Sept. 21, 50. A.B., Dickinson, 72, A.M., 75; Ph.D., Giessen, 74; Sc.D., Colorado, 19. Asst. chem. lab., Pennsylvania, 74-76; prof. chem., Maryland, 80-84; Denver, 84-89; S. Dak. Sch. Mines, 89-91, dean, 92-93; *prof. chem., Colo. Agr. Col.*, 93-94. Colo. Sci. Soc. Mineralogy; analytical and agricultural chemistry; radiation; mineral waters; digestion; formation of nitrates in soils and on rocks; luminescence in calcites.
- Headlee, Prof. T(homas) J**, New Jersey Experiment Station, New Brunswick, N. J. *Entomology*. Headlee, Ind., Feb. 13, 77. A.B., Indiana, 03, A.M., 04; Ph.D., Cornell, 06. Teacher, grade and high schools, 95-02; asst. entomologist, N. H. Exp. Sta., 06-07, assoc. entomologist, 07; prof. entom. and zool., Kansas Col., and entomologist, Exp. Sta., 07-12; *prof. entom., Rutgers, entomologist, N. J. Exp. Sta., and state entomologist, N. J. Dept. Agr.*, 12- Summer, instr., Ind. Biol. Sta., 05. Ass. Econ. Entom. rep., Nat. Research Council, 24-26; pres., East. Plant Board, 25-27. A.A. (councilor, 20-24); Entom. Soc.; Ass. Econ. Entom.; hon. mem. N. J. Hort. Soc. Insect control; insecticides; insect physiology.
- Headley, F(rank) B(urdette)**, 639 Gordon Ave., Reno, Nev. *Agriculture*. Hector, Minn., July 17, 78. Route statistician, Minnesota, 04-05; supt., San Antonio Exp. Farm, U. S. Dept. Agr., 06-07, sci. asst., 08-09; supt., Newlands Exp. Farm, Nev., 09-25; *chief dept. farm development, Nevada*, 25- A.A.; Soc. Agron.; West. Soc. Soil Sci. Effect on plant growth of sodium salts in soil; quality of irrigation water in relation to land reclamation.
- Heagey, Dr. Francis Wenger**, 1326 Medical Arts Building, Omaha, Nebr. *Medicine*. Bareville, Pa., June 20, 84. A.B., Princeton, 08; M.D., Columbia, 12. Instr. anat., Columbia, 15; *asst. prof., Creighton*, 16-19, *med.*, 19- Attending physician, St. Joseph Hosp.; Douglas Co. Hosp. Am. Med. Ass.; fel. Col. Physicians. Anatomy of the central nervous system; epidemic encephalitis.
- Heald, Prof. F(rederick) D(eForest)**, Washington State College, Pullman, Wash. **Botany*. Midland City, Mich., July 23, 72. B.S., Wisconsin, 94, fellow, 94-96, M.S., 96; Ph.D., Leipzig, 97. Prof. biol., Parsons, 97-03; adjunct prof. plant physiol., Nebraska, 03-05, assoc. prof. bot., sch. agr., 05-06, prof. agr. bot., 06-08; bot., Texas, 08-12; pathologist, Chestnut Tree Blight Commission, and agent forest path., 12-24; *prof. plant path., Wash. Col.*, 15-, pathologist, Exp. Sta., 15-17, *head dept.*, 18- Summer, instr., Wisconsin, 94; collaborator, bur. plant indust., U. S. Dept. Agr., 05-08, expert, 09, collaborator, 15-; state botanist and assoc. chief, Nebr. State Insect Pest and Plant Disease Bur., 07-08. Assoc. ed., 'Phytopath.', 11-17, 19-21. A.A.; Soc. Nat.; Bot. Soc.; Forestry Ass.; Phytopath. Soc. (pres, Pacific div, 19); Soc. Bact.; Potato Ass.; Micros. Soc. (pres, 12); Northwest Sci. Ass. (sec'y, 23, sec'y-treas, 25); Wash. State Hort. Soc. Plant pathology; black rot of apples due to *Sclerotinia fructigena*; diseases of cottonwood due to *Elfvigia megaloma*; ergot and ergotism; phylogeny of bacteria; cedar rust fungus; bud rot of carnations; mold of maple syrup; *Diplodia zeae*; *Urnula geaster*; whitening of the mountain cedar; plant disease survey of Austin-San Antonio area; dissemination of fungi causing diseases; chestnut tree, tomato and apple blights; bunt, or stinking smut of wheat; oat smut; potato diseases; silver leaf of fruit trees; winter injury; storage rot of apples.
- Heald, K(enneth) C(onrad)**, 100 Gladstone Road, Pittsburgh, Pa. **Geology*. Bennington, N. H., March 14, 88. B.S., Colorado Col., 12; Yale, 13-15. U. S. Geol. Surv., 09-21, chief oil and gas sect., 21-24; assoc. prof. geol., Yale, 24-25; *staff geologist, Gulf Companies, Pittsburgh*, 25- Lecturer, Chicago, 22, Hopkins, 23. Yale Peruvian exped., 12. Exec. committee, div. geol. and geog., Nat. Research Council, 24- Capt., C.Eng., 19. Geol. Soc.; Ass. Petrol. Geol. (rep., Nat. Research Council, 22-25); Soc. Econ. Geol.; Min. and Metal. Eng.; Wash. Geol. Soc. Petroleum geology.
- Healy, Dr. Daniel J(oseph)**, Agricultural Experiment Station, Lexington, Ky. *Bacteriology*. Toronto, Ont., Can., March 26, 73. Toronto, 86-89; M.D., C.M., McGill, 96. Health officer, Lexington, Ky., 00-01; anatomist, office surgeon gen., U.S.A., 04-07; supt., Ky. Institution Feeble-minded Children, 09-10; *prof. bacter., Kentucky*, 10-19, *agr. bacter.*, 19-, *research bacteriologist, Exp. Sta.*, 10- Soc. Bact.; Ky. Med. Ass.; Ky. Audubon Soc. (pres, 19-); Ky. Acad. Physiology; diseases of animals.
- Healy, Dr. William**, 40 Court St., Boston, Mass. *Medicine, Psychology*. Buckinghamshire, England, Jan. 20, 69. A.B., Harvard, 99; M.D., Rush Med. Col., 00; Vienna, Berlin, London, 06-07. Physician, Wis. State Hosp., 00-01; instr. gynec., Northwestern, 01-03; instr. and assoc. prof. nervous and mental diseases, Chicago Polyclinic, 03-16; *director, Judge Baker Foundation*, 17- Director, Juvenile Psychopathic Inst., Chicago, 09-17; summers, instr., Harvard, 12-14; lecturer, Harvard, 22-; Boston, 21-; Chicago, 23; Chicago Sch. Civics. Chicago Vice Commission; chairman trustees, Boston Psychopathic Hosp. Psychol. Ass.; Neur. Ass.; Psychiat. Ass.; Psychopath. Ass.; Am. Med. Ass.; Orthopsychiat. Ass. (pres, 24-26); Boston Soc. Psychiat. and Neur. (pres, 25). Mental tests; social offenders; causation of delinquency; psychology of testimony; educational and personality problems.
- Heaps, Dr. C(laude) W(illiam)**, Rice Institute, Houston, Texas. *Physics*. Kewanee, Ill., Oct. 4, 87. B.S., Northwestern, 09; Ph.D., Princeton, 12. Instr. physics, Missouri, 12-14; *Rice Inst.*, 14-17, *asst. prof.*, 17- A.A.; Physical Soc. Resistance of metals and crystals in magnetic fields; magnetostriction; conductivity of flames.
- Hearle, E(ric)**, Dominion Entomological Laboratory, Indian Head, Sask., Can. *Entomology*. Missouri, United Provinces, India, July 21, 93.

B.S., Toronto, 17; M.Sc., Edmonton, 26. Lab. asst. and asst. lecturer biol., Ont. Agr. Col., 17-19; *asst. entomologist, entom. lab., Dominion Entom. Branch, 20-* Dominion Research Council student to study Fraser Valley, B. C., mosquito pest. Can. Soc. Tech. Agr.; Ont. Entom. Soc.; B. C. Entom. Soc. Systematic study and control of mosquitoes; mosquitoes of lower Fraser Valley and of Banff, Alberta.

Heath, Prof. Eugene Schofield, Scottdale, Ga. *Botany*. Richmond Dale, Ohio, Feb. 8, 80. A.B., Ohio Wesleyan, 06; fellow, Nebraska, 10, 11-12; A.M., 12; California; Northwestern; Chicago. Asst. prof. bot., Nebr. State Nor. Sch., Peru, 10-11; assoc. prof., Pomona, 12-14; head dept. biol., high sch. and junior col., Calif., 14-16; asst. bot., California, 16-18; asst. prof. biol., Oglethorpe, 19-22; instr. bot., Northwestern, 22-24; acting assoc. prof., Agnes Scott Col., 25. Lecturer, Col. Holy Names, 17. A.A.; Bot. Soc.; Soc. Plant Physiol.; Paleont. Soc.; Calif. Bot. Soc. (first v. pres, 17); Ga. Acad. Paleobotany; plant physiology; economic botany; horticulture; flora of Stone Mountain.

Heath, Dr. Fred H(arvey), University of Florida, Gainesville, Fla. *Chemistry*. Warner, N. H., Feb. 25, 83. B.S., New Hampshire, 05; Ph.D., Yale, 09. Asst. chem., Yale, 06-09; instr. theoret. chem., Mass. Inst. Tech., 09-10; gen. and anal. chem., Case, 10-11; anal. and physical chem., Wesleyan, 11-12; gen. and anal. chem., North Dakota, 12-14, asst. prof., 14-16; *chem., Washington (Seattle), 16-23; Florida, 23-25, prof., 25-* Summers, chemist, N. Dak. Biol. Sta., 14-16. Chem. Soc. (pres, Puget Sound sect., 19, sec'y, Fla. sect., 24-26). Analytical and physical chemistry; secret and spy inks; selenium mustard gas; phosphorescent materials; determination of hydrogen sulphide in waters.

Heath, Prof. Harold, Pacific Grove, Calif. **Zoology*. Vevay, Ind., June 5, 68. A.B., Ohio Wesleyan, 93; Harrison fellow, Pennsylvania, 96-98, A.M., Ph.D., 98; Sc.D., Ohio Wesleyan, 19. Instr., Ohio Wesleyan, 90-93; prof. biol., Pacific, 93-94; instr. *invert. zool., Stanford, 94-96, asst. prof., 98-01, assoc. prof., 01-09, prof., 09-* Teacher, Hopkins, Seaside Lab., 95-00. Acting naturalist, 'Albatross,' U. S. Fish Commission, Alaska salmon investigations, 03, Calif. coast, 04, Japan, 06. A.A.; Soc. Zool.; Calif. Acad. Anatomy and embryology of mollusks; anatomy and embryology and later development of the chitons of the west coast of North America; anatomy of some Pacific pteropods; Solenogasters; cephalopods of Hawaii, Alaska and the California coast; the Amphineura of Alaska and the California coast.

Heath, Prof. Harry C(olson), Westminster College, Fulton, Mo. *Plant physiology*. Dec. 11, 77. B.S., Cornell (Iowa), 03; B.S., Chicago, 08, M.S., 22. Instr. *biol., high sch., Texas, 07-20; prof., Westminster (Mo), 20-* A.A.; Soc. Plant Physiol. Potash shale as a source of potassium for growing plants.

Hebard, Morgan, Philadelphia Academy of Natural Sciences, Philadelphia, Pa. *Entomology*.

Cleveland, Ohio, Feb. 23, 87. A.B., Yale, 10. *Independent research worker, Phila. Acad. Nat. Sciences, 02-* Fel. Entom. Soc.; Entom. Soc. (cor. sec'y, 16-24, treas., 24); hon. mem. Soc. entom. de France; Soc. Nat. Sci. Colombia. Orthoptera.

Hebb, Prof. T(homas) C(arlyle), 1246 12th Ave., Vancouver, B. C., Can. *Physics*. Bridgewater, N. S., Dec. 22, 78. B.A., Dalhousie, 00, M.A., 01, B.Sc., 02; Ph.D., Chicago, 04. Acting head dept. physics, Dalhousie, 04-05; instr. high sch., Mo., 05-06; research work, Westinghouse Elec. and Mfg. Co. and Am. Tel. and Tel. Co., 06-07; prof. physics and chem., North. State Nor. Sch., Mich., 07-16; asst. prof. *physics, British Columbia, 16-18, assoc. prof. and acting head dept., 18-20, prof. and head dept., 20-* A.A.; Physical Soc. Freezing point depressions; velocity of sound; specific heats; ionization potentials; low voltage arcs.

Hebbert, Dr. C(larence) M(ark), American Telephone and Telegraph Company, 195 Broadway, New York, N. Y. *Engineering*. Kenoma, Mo., Nov. 6, 90. B.S., Otterbein, 11; M.S., Illinois, 14, Ph.D., 17. Instr. aeronaut, sch. mil. aeronaut, Illinois, 17-18; math, Illinois, 19-20; *engineer, Am. Tel. and Tel. Co., 20-* Math. Soc. Higher plane curves; cross-induction; railway interference.

Hebden, John C(alder), 52 E. 41st St., New York, N. Y. *Chemistry*. Colgate, Wis., Dec. 22, 62. A.B., Brown, 85, 01-03. Chemist and dyer, Nat. and Providence Worsted Mills and Silver Spring Bleachery, 85-87; res. agent, Wm. J. Matheson and Co. and Cassella Color Co., 87-04; technician, A. Klipstein and Co., 04-09; v. pres, F. E. Atteaux and Co., 09-10; Franklin Process Co., 10-13; Fed. Dyestuffs and Chem. Co., 15-17; *consulting chemist and chem. engineer; v. pres, Hebden Sugar Process Corp; pres. and gen. manager, Dyeing Process Corp.* Chem. Soc.; Chem. Eng.; Soc. Chem. Indust.; Soc. de Chim. indust. Organic chemistry; dyes and intermediates; bleaching; dyeing and printing machinery; textiles; decolorizing and degumming raw sugar juices.

Hecht, Prof. Selig, Columbia University, New York, N. Y. *Physiology, Zoology*. Austria, Feb. 8, 92. B.S., Col. City of N. Y., 13; Ph.D., Harvard, 17. Pharmacologist, bur. chem., U. S. Dept. Agr., 13-14; asst. prof. physiol., col. med., Creighton, 17-21; Nat. Research Council fellow physical chem., 21-26; *assoc. prof. biophys, Columbia, 26-* Summers, sci. asst., Bur. Fisheries, 12-14. A.A.; Physiol. Soc.; Soc. Zool.; Optical Soc.; Chem. Soc. Form and growth; the photosensory process; vision.

Heck, N(icholas) H(unter), U. S. Coast and Geodetic Survey, Washington, D. C. *Terrestrial magnetism, Seismology*. Heckton Mills, Pa., Sept. 1, 82. A.B., Lehigh, 03, C.E., 04. Junior officer, U. S. Coast and Geod. Surv., 04-06, in charge wire drag parties, 06-17, *chief div. terrestrial magnetism and seismol., 19-U.S.N., 17-19.* Geophys. Union (chairman, sect. oceanog.). A.A. (sec'y, sect. M., 24-); Civil Eng.; Wash. Geol. Soc.; Wash. Philos. Soc.; Wash. Acad. Oceanography; hydrography;

- acoustics; development of wire drag for location of pinnacle rocks; velocity of sound in sea water; radio acoustic method of vessel location; magnetic compass compensation.
- Heck, Prof. Robert C (ulbertson) H (ays)**, Rutgers University, New Brunswick, N. J. *Mechanical engineering*. Heckton Mills, Pa, Oct. 30, 70. M.E., Lehigh, 93. Instr. mech. eng., Lehigh, 93-03, asst. prof., 03-07, *prof. exp. eng.*, 07-08; *mech. eng., Rutgers, 08-* Mech. Eng.; Eng. Educ. Applied thermodynamics; mechanics of machinery; the properties of steam; the steam engine and other steam motors.
- Heckel, Dr. Edward B (althasar)**, 719 Jenkins Building, Pittsburgh, Pa. *Ophthalmology*. Pittsburgh, Jan. 30, 65. A.B., Allegheny, 87, A.M., 89; M.D., N. Y. Univ., 90. Instr. ophthal., Pittsburgh, 92-12; *practising ophthalmologist*. Trustee, Allegheny. A.A.; Ophthal. Soc.; Acad. Ophthal. and Oto-Laryngol.; Am. Med. Ass. (chairman, board trustees); Col. Surg.; Pittsburgh Acad. Med. (pres, 98).
- Heckel, Dr. Hermann (Conrad Nies)**, Mellon Institute, Pittsburgh, Pa. *Organic chemistry*. Wheeling, W. Va., Dec. 23, 99. B.S., 21, M.S., 22, Ph.D., 24. *Indust. fellow, Mellon Inst., 24-* Chem. Soc. Organic synthesis.
- Hecker, Dr. Charles (Henry)**, 205 S. Union St., Kennett Square, Pa. *Chemistry*. Cincinnati, Ohio, May 15, 86. Ch.E., Cincinnati, 09, A.M., 11, Ph.D., 13. Asst. chem., Cincinnati, 08-13; instr., Illinois, 13-16; asst. prof. chem. eng., Wisconsin, 16-17; *prof.*, Florida, 17-18; research engineer, Westinghouse Elec. and Mfg. Co., 18-25; *sec'y and works manager, The Phenolite Co., 25-* A.A.; Chem. Soc.; Electrochem. Soc. Chemical engineering; derivatives of hydroxylamin; catalysis; oils and fats; electrochemical synthesis; electrical insulating materials; synthetic resins.
- Heckman, Prof. Samuel B.**, College of the City of New York, New York, N. Y. *Education*. Union, Ohio, May 27, 70. Ph.B., Earlham, 93; A.B., Harvard, 94; A.M., Pennsylvania, 05, Ph.D., 06. Prof. Eng. lit. and modern languages, Juniata, 95-97; instr. modern languages, Cheltenham Mil. Acad., Pa., 98-00; asst. commissioner educ., P. R., 00-02; *prof. psychol.*, Temple, 04-06; instr. asst. prof. and *assoc. prof. educ.*, Col. City of N. Y., 08-, *director educ. clinic*, 13- A.A.; Psychol. Ass.; Nat. Soc. Study Educ.; Ass. Clin. Psychol.; Eugenics Research Ass.; Acad. Polit. Sci.; N. Y. Ass. Consulting Psychol.; N. Y. Soc. Exp. Study Educ. Mental and educational measurements; educational and vocational guidance.
- Hector, Prof. L (uther) G (rant)**, University of Buffalo, Buffalo, N. Y. *Physics*. Clarendon, Pa., Dec. 15, 94. A.B., Oberlin, 20; A.M., Columbia, 22, Tyndall fellow, 23-24, Ph.D., 24. Private research asst., Columbia, 20-22; instr. *physics*, Oberlin, 22-23; *asst. prof.*, Buffalo, 24- A.A.; Physical Soc.; Radio Eng. Magnetic measurements of gases.
- Hedblom, Dr. Carl A (rthur)**, 742 Buena Ave., Chicago, Ill. *Surgery*. Dayton, Iowa, March 5, 79. A.B., Colo. Col., 07, A.M., 08, hon. Sc.D., 21; M.D., Harvard, 11; Ph.D., Minnesota, 20. Prof. surg., Harvard Med. Schools, China, 13-16; surgeon, Mayo Clinic, 16-24; asst. prof. surg., Minnesota, 21-24; *prof. and head dept.*, Wisconsin, 24-25; *Illinois, 26-* Ass. Thoracic Surg. (pres, 23); Soc. Clin. Surg.; Am. Med. Ass.; Tuber. Ass.; West. Surg. Ass.; Chicago Inst. Med.; Chicago Internal Med. Soc.; Chicago Surg. Soc.
- Hedenburg, Dr. Oscar F (red)**, Mellon Institute, Pittsburgh, Pa. *Chemistry*. Webster, Mass., May 6, 83. A.B., Wesleyan, 09, A.M., 11; Ph.D., Chicago, 15. Instr. chem., Chicago, 13-16; *indust. fellow, Mellon Inst., 16-* Chem. Soc. Organic chemistry; monobasic acids of sugar; insecticides; fungicides.
- Hedgcock, Dr. Geo (rge) G (rant)**, U. S. Department of Agriculture, Washington, D. C. *Phytopathology*. Augusta, Ill., Oct. 5, 63. B.S., Nebraska, 99, fellow, A.M., 01; Ph.D., Washington (St. Louis), 06. Prin. pub. schools, Nebr., 91-95; asst. bot., Nebraska, 99; sci. aid, *bur. plant indust., U. S. Dept. Agr.*, 01, asst. path., 02-08, *pathologist*, 08- A.A.; Phytopath. Soc.; Bot. Soc.; Wash. Bot. Soc. Physiological water in the soil and in plants; Thorea; apparatus for phytopathological work; Phoma and Phyllosticta on the sugar beet; Colletotrichum on agaves; Sclerotinia on cauliflower; crown gall; stem tumors on apple and quince; wood-staining fungi; mistletoe and fungous diseases of forest trees and shrubs.
- Hedges, Dr. C (harles) C (leveland)**, College Station, Texas. *Chemistry*. Walton, Ky., Sept. 22, 84. B.S., Kentucky, 06; A.B., Cornell, 08, Ph.D., 12. Asst. instr. chem., Cornell, 06-08, instr., 08-12; *assoc. prof., Agr. and Mech. Col. Texas*, 12-13, *head dept. chem. and chem. eng.*, 13-, *v. dean sch. eng.*, 26- Chem. Soc. Agricultural chemistry; inorganic chemistry; elementary qualitative analysis; chemical engineering; insecticides.
- Hedges, Miss Florence**, U. S. Department of Agriculture, Washington, D. C. *Plant pathology*. Lansing, Mich., Aug. 24, 78. A.B., Michigan, 01. Asst. bot., Michigan, 01-02; asst. expert, *lab. plant path., bur. plant indust., U. S. Dept. Agr.*, 02, sci. asst., 03-09, *asst. pathologist*, 09- A.A.; Phytopath. Soc.; Wash. Bot. Soc. (treas, 25); Wash. Acad. Bacteriology; bacterial diseases of plants; diseases of citrus trees; bacterial diseases of leguminous plants.
- Hedrick, Dr. E (arle) R (aymond)**, University of California at Los Angeles, Los Angeles, Calif. **Mathematics*. Union City, Ind., Sept. 27, 76. A.B., Michigan, 96; Shattuck scholar, Harvard, 97-98, A.M., 98, Morgan fellow, 98-99, Parker fellow, 99-01; Ph.D., Göttingen, 01; Paris, 01. Instr. *math.*, high sch., Wis., 96-97; Sheffield Sci. Sch., Yale, 01-03; *prof.*, Missouri, 03-24; *California at Los Angeles*, 24- Ed. math. books, Eng. textbooks, with D. C. Jackson. Div. physical scienc., Nat. Research Council, 21-24. A.A.; Math. Soc. (v. pres, 16, ed-in-chief, 'Bul.' 21-); Math. Ass. (pres, 16); Elec. Eng.; Mech. Eng.; Eng. Educ.; Math. Verein; Soc. math. de France; Circolo Mat. di

- Palermo. < Differential equations; calculus of variations; derivatives over assemblages; functions of real variables.
- Hedrick, Prof. U(lysses) P(rentiss)**, Geneva, N. Y. *Horticulture*. Cedar Rapids, Iowa, Jan. 15, 70. B.S., Mich. State Col., 93, M.S., 95; Sc.D., Hobart, 13. Asst. hort., Mich. State Col., 93-95; horticulturist and botanist, Oregon Col., 95-97; Utah Col., 97-99; *horticulturist*, Mich. State Col., 99-05; N. Y. *Exp. Sta.*, Geneva, 05-A.A.; Soc. Hort. Sci.; Pomol. Soc. Pomology; tree and small fruit breeding.
- Hefferan, Dr. Mary**, 442 Fountain St., Grand Rapids, Mich. *Bacteriology*. Eastmanville, Mich., June 24, 73. A.B., Wellesley, 96, A.M., 98; fellow, Chicago, 99-02, Ph.D., 03. Curator bacter. museum, Chicago, 03-04, asst. and curator, 04-10. Variation; zoological grafting; red chromogenic organisms; agglutinative relations in a group of non-pathogenic organisms; B. bulgaricus; an unusual bacterial grouping; Anopheles in Michigan.
- Hegner, Dr. Robert (William)**, 218 Hawthorn Road, Roland Park, Md. **Zoology*. Decorah, Iowa, Feb. 15, 80. B.S., Chicago, 03, M.S., 04; Ph.D., Wisconsin, 08. Asst. zool., Chicago, 05-07; prof. biol., Wis. State Nor. Sch., River Falls, 07; asst. zool., Wisconsin, 07-08; instr., Michigan, 08-10, asst. prof., 10-18; assoc., *Hopkins*, 18-19, assoc. prof. in charge dept. med. zool., 20-22, *prof. protozool.*, 22- Exchange prof., London Sch. Hygiene and Trop. Med., 26. Sci. surveys, Mex., 03, Porto Rico and Venezuela, 21. Hopkins delegate, Royal Inst. Pub. Health, Brussels, 20. A.A.; Soc. Nat.; Soc. Zool.; Soc. Parasitol.; Soc. Trop. Med. The germ cell cycle in insects; cytoplasmic localization in insect eggs; genetics of Protozoa; parasitic Protozoa.
- Heidbreder, Dr. Edna (Frances)**, 315 11th Ave., S. E., Minneapolis, Minn. *Psychology*. Quincy, Ill., May 1, 90. A.B., Knox, 11; A.M., Wisconsin, 18; Ph.D., Columbia, 24. Instr. *psychol.*, *Minnesota*, 23-26, *asst. prof.*, 26- Thinking; personality; morphologic index.
- Heidelberger, Dr. Michael**, Mt. Sinai Hospital, New York, N. Y. *Chemistry*. New York, April 29, 88. B.S., Columbia, 08, A.M., 09, Ph.D., 11; Eidgen. Tech. Hochschule, Zurich, 11-12. Fellow, Rockefeller Inst., 12-13, asst. chem., 13-17, assoc., 17-23, assoc. mem., 23-27; *chemist*, *Mt. Sinai Hosp.*, 27- Asst. Stevens, supplementary term, 09; summers, Columbia, 09, 11. Chem. Soc. Organic chemistry; sodium-uranium compounds; volumetric determination of cerium; phthalones; cyclooctatetraene; chemotherapy; alkaloids; oxyhemoglobin; specific substances of bacterial origin.
- Heilbrunn, Dr. L(ewis) V(ictor)**, University of Michigan, Ann Arbor, Mich. **Zoology, Physiology*. Brooklyn, N. Y., Jan. 24, 92. A.B., Cornell, 11, fellow, 12-13; Ph.D., Chicago, 14. Asst. zool., Chicago, 13-14, assoc., 14-16; instr. histol., col. med., Illinois, 16-17; instr. *zool.*, *Michigan*, 19-21, *asst. prof.*, 21- Lieut. A.S., 17-19. A.A.; Soc. Nat.; Soc. Zool.; Soc. Exp. Biol. Artificial parthenogenesis; mitosis; anesthesia; colloid chemistry of protoplasm.
- Heilman, Prof. J(acob) D(aniel)**, State Teachers College, Greeley, Colo. *Psychology*. Lehigh Co., Pa., Sept. 6, 75. A.B., Muhlenberg, 03; fellow, Pennsylvania, 06, Ph.D., 08. Asst. psychol. clinic, and lecturer child study, Pennsylvania, 07; asst. prof. *educ. psychol.*, *Colo. State Teachers Col.*, 08-10, *prof.*, 10- Psychol. Ass.; Educ. Research Ass. Educational psychology; personnel; native capacity.
- Heilman, R(ussell) H(oward)**, Mellon Institute, Pittsburgh, Pa. *Physics*. Ford City, Pa., Nov. 30, 93. B.S., Pittsburgh, 20, E.E., 23. *Senior indust. fellow*, *Mellon Inst.*, 19- Junior prize, Mech. Eng., 22, 24. Mech. Eng.; Elec. Eng.; Heat. and Vent. Eng. Heat transmission and insulation.
- Heimlich, Prof. L(ouis) F(rederick)**, 302 E. Jefferson St., Valparaiso, Ind. *Botany*. Reynolds, Ind., April 13, 90. B.S., Purdue, 14, M.S., 16; fellow, Wisconsin, 24-25, Ph.D., 26. Asst. biol., Purdue, 14-17, instr. *bot.*, 17-22, asst. prof., 22-26; *prof. and head dept.*, *Valparaiso*, 26- Summers, Purdue, 21-23. A.A.; Bot. Soc.; Ind. Acad. (membership committee, 24). Plants of White County, Indiana; peloria in Linaria and other plants; morphology and cytology of cucumbers; key to genera of trees, shrubs and woody vines of Indiana.
- Hein, Prof. Illo**, Pennsylvania State Forestry College, Mont Alto, Pa. *Botany*. New York, N. Y. B.S., Rutgers, 22; A.M., Columbia, 23, Ph.D., 27. *Prof. biol.*, *Pa. State Forestry Col.*, 23- A.A.; Bot. Soc.; Torrey Bot. Club; Pa. Bot. Soc.; Pa. Acad. Variegated plants; cytology; mycology; mildews; Coprophilous fungi.
- Heindlhofer, Dr. Kálmán**, 95 Woodruff Ave., Brooklyn, N. Y. *Engineering, Physics*. Pécs, Hungary, 83. M.E., E.E., Polytech. Sch., Zurich, 06; hon. M.S., Carnegie Institution, 19; Ph.D., Pennsylvania, 24. *Consulting engineer*, *S. K. F. Industries, Inc.* Physical Soc.; Soc. Test. Mat. (management committee); Soc. Steel Treat. Absolute measurement of sound; theory of quenching of steel; X-ray of crystal structure of hard steel and of austinite structure in ball steel; endurance tests data and their interpretation; efficiency tests on rear axle worm drives; ball-bearing rings.
- Heinemann, Dr. P(aul) G(ustav)**, 5707 Kenwood Ave., Chicago, Ill. *Bacteriology*. Manchester, England. B.S., Chicago, 04, Ph.D., 07. Asst. bacter., Chicago, 06-07, 08-09; asst. and business manager, serum div., McCormick Inst., Chicago, 07-17; director lab., U. S. Standard Products Co., 17-22; *Cook Laboratories, Inc.*, 22- A.A.; Soc. Bact.; Pub. Health Ass. Milk; substitute for potato as a culture medium; Bacillus bulgaricus; concentration of antitoxins; Rocky Mountain spotted fever; Oppler bacillus.
- Heinicke, Dr. A(rthur) J(ohn)**, Cornell University, Ithaca, N. Y. *Pomology*. St. Louis, Mo., Oct. 23, 92. B.S.A., Missouri, 13, A.M., 14; Ph.D., Cornell, 16. Instr. *pomol.*, *Cornell*, 14-17, asst. prof., 17-20, *prof.*, 20- A.A.; Soc. Hort. Sci. (v. pres, 25). Rest period sap and freezing of tissue in plants; abscission of

flowers and young fruits in apple; nutrition and influence of sod and of soil nitrates on fruit trees.

Heinrich, Carl, U. S. National Museum, Washington, D. C. *Entomology*. Newark, N. Y., April 7, 80. Chicago, 99-01. *Entomologist, bur. entom.*, U. S. Dept. Agr., 13- Wash. Entom. Soc; Wash. Biol. Soc. Lepidoptera.

Heise, George W(illiam), National Carbon Co, Cleveland, Ohio. *Physical chemistry*. Milwaukee, Wis, June 27, 88. B.S, Wisconsin, 09, M.S, 12, fellow, 12-13. Asst. and instr. chem, Grinnell, 09-10; De Paul, 10-11; Wisconsin, 11-13; physical chemist and chief sect, Bur. Science, P. I., 13-17; *research chemist*, Nat. Carbon Co, 19- Capt, Q.M.C. and C.W.S, 17-19. Chem. Soc; Soc. Chem. Indust; Electrochem. Soc. Electrochemistry; photochemistry; water supply; radioactivity.

Heiser, Dr. Victor G(eorge), 61 Broadway, New York, N. Y. *Sanitation*. Pa, 73. M.D, Jefferson Med. Col, 97, Sc.D, 11; Naples Zool. Sta. U. S. Pub. Health Service, 98-15; chief quarantine officer and director health, P. I., 03-15; *director for the East, Int. Health Board, Rockefeller Foundation*, 15- Special investigator plague, Egypt and Europe, 99; immigration, Can, 01; govt. representative, various int. med. congresses. A.A; Am. Med. Ass; Pub. Health Ass; Soc. Trop. Med; Ass. Mil. Surg; Philos. Ass; Far East. Ass. Trop. Med; P. I. Med. Ass. (pres, 05). Cholera; leprosy.

Heising, Raymond A, Bell Telephone Laboratories, Inc, 463 West St, New York, N. Y. *Physics*. E.E, North Dakota, 12; M.S, Wisconsin, 14. *Research physicist*, West. Elec. Co, 14-25, *Bell Telephone Laboratories*, 25- A.A; Elec. Eng; Physical Soc; Radio Eng. Radio communication; audion oscillators.

Heisler, Dr. John Clement, 3829 Walnut St, Philadelphia, Pa. *Anatomy, Embryology*. Jersey Shore, Pa, Feb. 27, 62. Ph.G, Phila. Col. Pharmacy, 83; M.D, Pennsylvania, 87. *Prosecutor anat*, Pennsylvania, 89-97; *prof, Medico-Chirurg*. Col. Phila., 97-16; *Pennsylvania*, 16- Instr, Phila. Polyclinic; asst. demonstrator and curator, Wistar and Horner Museum, Pennsylvania, different periods, 89-97. Ass. Anat; Am. Med. Ass; Phila. Col. Physicians. Relational anatomy; dissections; embryology.

Hektoen, Dr. L(udvig), 637 S. Wood St, Chicago, Ill. **Pathology*. Westby, Wis, July 2, 63. A.B, Luther, 83, A.M, 96; M.D, Chicago, 87; Berlin, Prague and Upsala, 94-96; M.D, Rush Med. Col, 96; hon. M.D, Christiania, 11; Sc.D, Michigan, 13, Wisconsin, 16; LL.D, Cincinnati, 20. *Prof. path, Rush Med. Col, Chicago*, 98-, *head dept. path, Chicago*, 01-; *director, McCormick Inst. for Infectious Diseases*, 01- *Pathologist*, Cook Co. Hosp, 89-03; coroner's physician, Cook Co, Ill, 90-94; lecturer, Rush Med. Col, 90-92; prof, Col. Physicians and Surg, Chicago, 92-94; Rush Med. Col, 95-98; director, John Crerar Library, 23-; trustee, Sprague Mem. Inst, 23- Ed, 'Jour. of Infectious Diseases,' 04-; 'Archives of Path,' 25. Ill. Commission to Investigate Diseases of Occupation, 08- Chair-

man med. div, Nat. Research Council, 24, 26. Nat. Acad; A.A. (v. pres, 07); Ass. Path. and Bact. (pres, 02); emer. mem. Am. Physicians; Am. Med. Ass; Chicago Med. Soc. (pres, 20); Chicago Path. Soc. (pres, 98-02); Chicago Inst. Med; hon. mem. Phila. Path. Soc; for. mem. Norwegian Med. Soc; for. mem. Swedish Med. Soc. Pathological anatomy and bacteriology; immunology.

Heldt, Dr. Tho(ma)s J(ohannes), Henry Ford Hospital, Detroit, Mich. *Neurology, Psychiatry*. Buckeye, Iowa, Aug. 8, 83. A.B, Missouri, 10, A.M, 12; M.D, Hopkins, 16. Asst. anat, Missouri, 10-13, instr, 13-14; asst, Psychiat. Inst, New York, 16-17; clin. director hosp, U. S. Pub. Health Service, 19-22, psychiatrist in charge clinic, Nat. Committee Mental Hygiene, 22-23; *physician in charge div. neuropsychiat*, Henry Ford Hosp, 23- Greene's west. salmon exped, Bur. Fisheries, 11. Major, M.C, 17-19. A.A; Psychiat. Ass; Am. Med. Ass; Ass. Research Nervous and Mental Diseases; Ass. Anat; Ass. Study Int. Secretions; Cent. Psychiat. Ass; Detroit Soc. Neur. and Psychol. (pres, 25). Neurocytology; neuropsychiatry; psychoneurosis; behavior.

Helff, Dr. O(tto) M(aximilian), University of Iowa, Iowa City, Iowa. *Zoology*. West Hoboken, N. J, Dec. 4, 97. B.S, New Hampshire, 21; M.S, Chicago, 21; Ph.D, Yale, 25. Asst. prof. bacter. Agr. and Mech. Col. Texas, 21-22; asst. zool, Yale, 22-25; instr, Cincinnati, 25-26; *assoc, Iowa*, 26- A.A; Soc. Bact; Soc. Zool; Ass. Study Int. Secretions. Endocrinology; physiology.

Heller, Dr. A(mos) A(rthur), Chico, Calif. *Botany*. Danville, Pa, March 21, 67. A.B, Franklin and Marshall, 92, A.M, 97, Sc.D, 11. Field agent, U. S. Dept. Agr, 92; instr. bot, Minnesota, 96-98; in charge Vanderbilt exped. of N. Y. Bot. Garden, Porto Rico, 98-99; asst. botanist, Nev. Exp. Sta. and instr. bot, Nevada, 08-10, asst. prof, 10-13; *teacher, Chico High Sch*, 17- Systematic botany, especially the genus *Lupinus*.

Heller, Prof. V(ictor) G, 214 West St, Stillwater, Okla. *Physiological chemistry*. El Paso, Ill, Nov. 26, 86. B.S, Lake Forest, 09; Chicago; fellow, Iowa Col, 18-24, Ph.D, 24. Prof. physiol. chem, Okla. Agr. and Mech. Col, 24-25, *head dept. agr. chem. research*, 25- Chem. Soc. Vitamin content of proteins of foods; nutritive tests of sorghums; chemical properties of the Kaffirs.

Helm, Prof. O(harles) A(iton), 1517 Rosemary Lane, Columbia, Mo. *Agronomy*. Sheldon, Mo, Feb. 4, 89. B.S, Missouri, 13; A.M, Nebraska, 16. Asst. exp. agron, Nebraska, 13-16; *assoc. prof. field crops, Missouri*, 16- Soc. Agron. Seed size and sprout value; grasses of the Ozark uplands of Missouri.

Helm, Dr. Emerson B(ennette), 843 E. Boulevard, Cleveland, Ohio. *Chemistry*. Cleveland, Sept. 29, 93. B.S, Florida, 15; Ph.D, Hopkins, 18. Chemist, Gabauer Chem. Co, 18-24; *mfg. chemist, Emerson B. Helm Chem. Co*, 24- C.W.S, U.S.A, 18. Physical and organic chemistry.

Helmholz, Prof. H(enry) F(rederic), Mayo Clinic, Rochester, Minn. *Pediatrics*. Chicago, Ill, Aug. 24, 82. B.S. Wisconsin, 02; M.D. Hopkins, 06, fellow, 06-07. Asst. prof. med. Rush Med. Col., 11-19; mem. Sprague Mem. Inst. Chicago, 14-20; *prof. pediat. Minnesota*, 20- Ed. 'Am. Jour. Diseases of Children,' 19-24. *Pediat. Soc*; *Physiol. Soc*; *Soc. Pharmacol*; *Ass. Path. and Bact.* Duodenal ulcer; pyelitis.

Helmick, Dr. Homer H(enry), 224 Alexander Boulevard, Elmhurst, Ill. *Physical chemistry*. Defiance, Ohio, April 4, 90. A.B. Defiance, 09, A.M. 10; Ph.D. Chicago, 18. Assoc. prof. chem. Wheaton, 11-12, prof. 12-15; asst. Chicago, 15-18; research chemist, Radium Co. Colo, 20-23; *prof. Elmhurst Col*, 23- Second lieut. Sanit. C, 18-19. Chem. Soc; Ill. Acad. Radioactivity; determination of thorium; radioactive constants of actinium.

Helmick, Prof. P(aul) S(treepier), Drake University, Des Moines, Iowa. *Physics*. Davenport, Iowa, Dec. 11, 93. A.B. Iowa, 15, M.S. 16, Ph.D. 20. Instr. *physics*, Iowa, 19-21; Nat. Research Council fellow, Princeton, 21-23; *prof. and head dept. Drake*, 23- A.A.; *Physical Soc*; *Optical Soc*; Iowa Acad. (sec'y, 24-). The physics of the photographic plate; the minimum energy for photo image.

Helser, Prof. M(aurice) D(avid), Iowa State College, Ames, Iowa. *Animal husbandry*. Thornville, Ohio, March 29, 90. B.S.A. Ohio State, 14; M.S. Iowa Col. 16. Instr. *animal husbandry*, State Agr. Sch. Ark, 14-15; teaching scholar, *Iowa Col*, 15-16, instr. 16-19, asst. prof. 19-20, assoc. prof. 20-21, *prof. and chief meat investigation, Exp. Sta.*, 21- Judging team, Int. Livestock Expos, 13. Farm meats.

Helyar, F(rank) G(eorge), Rutgers University, New Brunswick, N. J. *Animal husbandry*. Boston, Mass, Feb. 6, 83. B.S. Vermont, 05. Dept. feeds and feeding, Mass. Exp. Sta., 05-06; director dept. agr. Mt. Hermon Boys Sch., 06-10; director, N. Y. State Sch. Agr. Morrisville, 10-17; *director agr. short courses, Rutgers*, 17-, *prof. animal husbandry*, 19- Soc. Animal Production. Swine nutrition.

Hemenway, Prof. Ansel F(rancis), University of Arizona, Tucson, Ariz. *Botany*. Eugene, Oregon, Oct. 13, 78. A.B. Oregon, 02, A.M. 04; A.M. Harvard, 09; Ph.D. Chicago, 12. Prin. schools, Wash., 05-08; Austin teaching fellow, Harvard, 09-11; prof. biol. Transylvania, 12-23; assoc. prof. biol. *Arizona*, 23-27, *prof. bot.* 27- Summers, instr. Oregon, 10-12, asst. pathologist, U. S. Dept. Agr., 20-23. A.A.; Bot. Soc; Phytopath. Soc. Morphology; phloem of dicotyledons; xylem response to frost injury in fruit trees; plant anatomy.

Hemingway, Dr. E(arle) Heaton, Hopewell, Va. *Chemical engineering*. North Haven, Conn, June 20, 93. Ph.B. Yale, 13, Ph.D. 16. Research chemist, Calco Chem. Co, 16-17; research engineer, Watertown Arsenal, 19-20; *with Tubize Artificial Silk Co*, 21- Lieut. U.S.A., 17-19.

Hemler, Dr. W(illiam) F(rancis), 1330 E. Capitol St, Washington, D. C. *Röntgenology*.

Port Carbon, Pa, June 4, 78. M.D. Georgetown, 04. Med. intern, Govt. Hosp. for Insane, 04-05; med. inspector, D. C. health dept, 05-06; physician to the poor, D. C., 06-10, 12-16; genito-urinary surg, Wash. Asylum Hosp, 10-13; assoc. prof. anat. *Georgetown*, 16-19, prof. histol. and embryol., 19-21, assoc. prof. *röntgenol.*, 21-26, *prof.* 26- Attending röntgenologist, Gallinger Hosp, 19-; Georgetown Hosp, 21- Ass. Anat; D. C. Med. Soc. The proper grounding of röntgen ray apparatus, and complete insulation of persons in presence of high tension voltages.

Hemmeter, Prof. John C(onrad), 739 University Parkway, Baltimore, Md. *Physiology, Medicine*. Baltimore, April 25, 63. Baltimore City Col, 83; M.D. Maryland, 84, hon. Sc.D; Ph.D. Hopkins, 90; LL.D. St. John's (Md), 05. Physician in charge, Bay View Hosp, Baltimore, 86-88; *prof. physiol. sch. med. Maryland*, 91-09, *clin. med.*, 03- Smithsonian fellow, Int. Biol. Inst. Naples, 13-; Cong. Internal Med, Germany. Regent, Maryland. A.A.; Hist. Sci. Soc; Royal Soc. Arts; *Physiol. Gesell.*; hon. mem. German Soc. Hist. Med. Sci; Leop-Carol. Akad, Halle; hon. mem. Soc. d'Histoire int; Royal Imp. Soc. Austrian Physicians. Physiology and pathology of the digestive organs; physiological foundations of piano technique; history of physiology and medicine; diseases of the intestines.

Hempelmann, Dr. Theodore C(arl), 6363 Waterman Ave, St. Louis, Mo. *Pediatrics*. St. Louis, Mo, 85. M.D. Washington (St. Louis), 08. Asst. prof. *clin. pediat. Washington (St. Louis)*. Staff, St. Louis Children's, Barnes, St. Luke's, Maternity and City Hospitals, Shriners' Hosp. for Crippled Children, Hosp. for Infectious Diseases. *Pediat. Soc*; Am. Med. Ass; Child Hygiene Ass; Cent. States *Pediat. Ass.* Diseases of children.

Hendel, Dr. James M, Hunter College, New York, N. Y. *Physical chemistry*. Reading, Pa, Jan. 24, 93. Litt.B. Princeton, 14; Ph.D. Columbia, 22. Instr. *chem. Hunter*, 21-24, *asst. prof.* 24- A.A.; Chem. Soc. Inorganic analytical chemistry.

Henderson, Prof. Archibald, Chapel Hill, N. C. *Mathematics*. Salisbury, N. C, June 17, 77. A.B. North Carolina, 98, A.M. 99, Ph.D. 01; Chicago, 01, fellow, 02-03, Ph.D. 15; Paris, 11; hon. D.C.L. Univ. of South, 17; LL.D. Tulane, 20; Cambridge and Berlin, 10-11, 23-24. Instr. math, *North Carolina*, 98-02, assoc. prof. 02-08, prof. pure math, 08-20, *head dept. math.*, 20- Holt math. medal. Math. Soc; Math. Ass; N. C. Acad. (pres, 23); Elisha Mitchell Sci. Soc. (pres, 08); Circolo Mat. di Palermo. The cubic surface; modern geometry; the theory of relativity.

Henderson, Dr. C(harles) Hanford, Cosmos Club, Washington, D. C. *Education, Geology*. Philadelphia, Pa, Dec. 30, 61. B.S. Pennsylvania, 82; Ph.D. Zurich, 92. Science master, high schools, Pa, 86-96; lecturer educ, Harvard, 97-98; director high sch. dept, Pratt Inst, 98-00; head master, Marienfeld Open-air Sch, N. C, 14-18. Lecturer, Franklin Inst; councilor, Choate

- Sch, Conn. A.A. Education and the larger life; elements of physics.
- Henderson, Cha(rle)s W(illiam)**, 1808 Gaylord St, Denver, Colo. *Mining engineering*. Valley City, N. Dak, Sept. 10, 85. A.B, Stanford, 10. Asst. statistician, U. S. Geol. Surv, San Francisco, Calif, 07-08; *statistician in charge, Denver office mineral resources*, 08-, *mineral geographer in charge*, 21-; *engineer in charge, Denver office, U. S. Bur. Mines*, 25- Min. and Metal. Eng; Ass. Petrol. Geol; Colo. Sci. Soc. (treas, 20-25, sec'y, 25-). Mining in Colorado; gold, silver, copper, lead and zinc resources in South Dakota, Colorado, New Mexico and Texas.
- Henderson, Prof. Ernest N(orton)**, 179 St. James Place, Brooklyn, N. Y. *Psychology*. La Salle Co, Ill, Dec. 17, 69. Ph.B, California, 90, A.B, 93, A.M, 94; Ph.D, Columbia, 03. Teaching fellow philos, California, 92-95; prin, high sch, Calif, 95-97; instr. psychol, Calif. State Nor. Sch, Chico, 97-01; assoc. prof. pedag, *Adelphi*, 02-03, *prof. educ. and psychol*, 03-09, *philos, educ. and psychol*, 09- Summers, instr, Columbia, 06-09, 11-18, Ohio State, 21-25. Psychol. Ass; Philos. Ass; Soc. Col. Teachers Educ. Memory for connected trains of thought; principles of education.
- Henderson, Prof. G(eorge) H(ugh)**, Dalhousie University, Halifax, N. S, Can. *Physics*. St. Augustine, Fla, Dec. 8, 92. B.A, B.S, Dalhousie, 14, M.A, 16; Can. Advisory Council Sci. and Indust. Research fellow; 1851 Exhib. scholar, 19-22; Ph.D, Cambridge, 22. Asst. prof. physics, Saskatchewan, 22-24; *prof. math. physics, King's Col. (Can)*, 24- Radioactivity; thermal conductivity.
- Henderson, J(udson) P(ulford)**, Dominion Observatory, Ottawa, Ont, Can. *Astrophysics*. Toronto, Ont, March 2, 91. B.A, Toronto, 14, M.A, 15, fellow, 16-19. Asst. astron, Toronto, 14-15; *asst. astronomer, Dominion Observatory*, 19- Asst. tech. instr. radio, Toronto. A.A; Astron. Soc; Radio Eng; Royal Astron. Soc. Can; Can. Inst. Astronomy; radiotelegraphy; time and longitude by radio; short wave telegraphy.
- Henderson, Prof. Junius**, University of Colorado, Boulder, Colo. *Paleontology, Conchology*. Marshalltown, Iowa, April 30, 65. A.B, Colorado, 08. *Curator, museum, Colorado*, 03-, *prof. nat. hist*, 09- A.A; Paleont. Soc; Ass. Petrol. Geol; Geol. Soc; Ornith. Union; Wilson Ornith. Club; Soc. Mammal; Soc. Ichthyol. and Herp; Ass. Mus; Wash. Biol. Soc; London Malacol. Soc. Invertebrate paleontology; ornithology.
- Henderson, Prof. L(awrence) J(oseph)**, 4 Willard St, Cambridge, Mass. **Chemistry, Physiology*. Lynn, Mass, June 3, 78. A.B, Harvard, 98, M.D, 02; Strassburg, 02-04. Lecturer *biochem, Harvard*, 04-05, instr, 05-10, asst. prof, 10-19, *prof*, 19- Exchange prof, Paris, 21. Nat. Acad; A.A; Soc. Nat; Chem. Soc; Physiol. Soc; Soc. Biol. Chem; Hist. Sci. Soc. (pres, 24-26); Philos. Soc; Am. Acad; Paris Acad. de Méd. Biochemistry; physical chemistry; the physico-chemical structure and organization of the body.
- Henderson, Dr. L(awrence) M(elvin)**, Atlantic Refining Co, Philadelphia, Pa. *Physical chemistry*. Northwood, Iowa, July 24, 89. A.B, St. Olaf, 10, A.M, 11; Ph.D, Chicago, 16. Instr, Minnesota, 16-17, asst. prof, 19-24; *research dept, Atlantic Ref. Co*, 25- Lieut. and div. gas officer, U.S.A, 17-18. A.A; Chem. Soc. Radioactivity; ratio of mesothorium one to thorium in thorium minerals; fractional precipitation of barium and radium as chromates; petroleum; gasoline.
- Henderson, Prof. Lena B(ondurant)**, Rockford College, Rockford, Ill. *Botany*. New Orleans, La, Dec. 28, 80. B.S, Tennessee, 08; M.S, Cornell, 23; fellow, Cold Spring Harbor. Teacher, high sch, Tenn, 08-12; instr. bot, Tennessee, 12-20, *asst. prof*, 20-22; biol, Randolph-Macon Woman's Col, 23-25; *bot, Rockford*, 25- Summers, instr, Summer Sch. of South; Va. State Teachers Col, Fredericksburg. A.A; Bot. Soc; Ecol. Soc. Taxonomy; floral anatomy of several species of Plantago; effect of tides on pollination and rate of growth in Plantago.
- Henderson, Dr. Margaret Wasson**, 1931 Pittville Ave, Philadelphia, Pa. *Botany*. Philadelphia, Sept. 29, 91. B.S, Pennsylvania, 12, A.M, 13, Ph.D, 19. Research asst, Carnegie Inst, 13-15; curator herbarium, dept. bot, Pennsylvania, 16-22; *teacher science, William Penn High Sch*, 22- Morphology; relationship of ericaceous saprophytes to typical Ericaceae.
- Henderson, R(obert)**, 393 Seventh Ave, New York, N. Y. *Actuarial science*. Russell, Ont, Can, May 24, 71. B.A, Toronto, 91, fel, 91-92. Asst. actuary, *Equitable Life Assurance Co*, 03-11, *actuary*, 11-, v. pres, 20- Willard Gibbs lecturer, Math. Soc, 25. Fel. Actuarial Soc. (sec'y, 12-16, v. pres, 16-18, 20-22, pres, 22-24); Casualty, Actuarial and Statist. Soc; Statist. Ass; Math. Ass; Math. Soc; fel. Inst. Actuaries, Great Britain. Mathematics; interpolation; graduation of tables.
- Henderson, Dr. Velyien E(wart)**, University of Toronto, Toronto, Ont, Can. *Pharmacology, Physiology*. Cobourg, Can, 77. B.A, Toronto, 99, M.B, M.A, 02. Demonstrator physiol, Pennsylvania, 02-03; *Toronto*, 04-07, lecturer *pharmacy and pharmacol*, 07-12, *prof*, 12- Major, C.E.F, 16-19. Soc. Pharmacol; Physiol. Soc; London Physiol. Soc. Pathology of tabes; physiology of the kidney.
- Henderson, Prof. William D**, University of Michigan, Ann Arbor, Mich. *Physics*. Ingersoll, Can, Nov. 27, 66. A.B, Michigan, 03, A.M, 04, Ph.D, 06. Instr. physics, *Michigan*, 03-05, asst. prof, 06-09, assoc. prof, 09-19, *director exten*, 19- Assoc. mem. Physical Soc. Electrochemistry; concentration cells; thermoelectromotive force of silver and of cadmium amalgams; heat of dilution of zinc amalgams; engineering physics.
- Henderson, Prof. W(illiam) E(dwards)**, Ohio State University, Columbus, Ohio. *Chemistry*. Wilkinsburg, Pa, Jan. 29, 70. A.B, Wooster, 91, A.M, 94, Sc.D, 25; fellow, Hopkins, 96-97, Ph.D, 97. Prof. nat. science, Emporia,

- 91-93; chem, Ohio, 97-99; asst. prof, *Ohio State*, 99-01, assoc. prof, 01-08, *prof. inorg. and physical chem*, 08-, dean col. arts and sciences, 21-27. A.A. (sec'y, council, 15, gen. sec'y, 16); Chem. Soc. (sec'y, inorg. and physical chem. sect, 17, chairman, 18). Chlorids of p-nitroorthosulphobenzoic acid; decomposition of diazo-compounds with sulphur dioxide; action of anhydrous aluminum chlorid on unsaturated compounds; hydrolysis of ethyl acetate by neutral salt solutions; action of sulphurous acid on sulphids of iron, zinc and manganese; a lead standard cell; thionic acids and their salts.
- Henderson, Dr. William F(ranklin)**, Visking Corporation, Chicago, Ill. *Chemistry*. Decatur, Ill, July 10, 92. A.B, James Millikin, 14; M.S, Pittsburgh, 21, Ph.D, 22. Instr. chem, James Millikin, 14-20; indust. fellow, Mellon Inst, 20-26; *chief chemist, Visking Corp, Chicago*, 26- Summer, instr, Illinois, 15. Chem. Soc; Micros. Soc. (treas, 19-25). Alkyl cyanoacetic acid; chemistry of cotton linters; cellulose; viscose.
- Henderson, Pres. W(illiam) W(illiams)**, Utah Agricultural College, Logan, Utah. *Zoology*. Clarkston, Utah. A.B, Brigham Young, 03; A.M, Cornell, 05; Ph.D, California, 24. Prof. zool, Brigham Young, 05-10; pres, Weber Col, 10-14; prof. zool. and entom, Utah Col, 17-20; pres, Brigham Young, 20-26; *prof. and head dept. zool. and entom, Utah Col*, 26- Utah Crops and Pests Commission, 17-21. Taxonomy of western Orthoptera.
- Henderson, Dr. Yandell**, Yale University, New Haven, Conn. **Physiology*. Louisville, Ky, April 23, 73. A.B, Yale, 95, Ph.D, 98; Marburg and Munich, 99-00. Asst. physiol. chem, Yale, 98-99, instr. physiol, 00-02, asst. prof, 02-11, *prof*, 11-21, *applied physiol*, 21- Consulting physiologist, Bur. Mines, 13-25, in charge physiol. div, war gas investigations, 17-19; chairman med. research board, A.S; consulting physiologist, C.W.S., 25- A.A; Nat. Acad; Physiol. Soc; Soc. Biol. Chem; Soc. Pharmacol; Am. Med. Ass. (sec'y, sect. path. and physiol, 10, chairman, 11); Soc. Anesthetists; hon. mem. Coal Mining Soc; British Physiol. Soc; British Biochem. Ass; hon. mem. Vienna Ass. Physicians. Physiology of the circulation; biochemistry of respiration; pharmacology of gases.
- Hendren, Prof. L(inville) L(aurentine)**, Athens, Ga. *Physics*. Carey, N. C, March 3, 79. A.B, Trinity (N. C), 00, A.M, 01; Ph.D, Columbia, 05. Asst. physics, Columbia, 02-05; adjunct prof. *applied math*, Trinity (N. C), 05-08; *prof*, Georgia, 08- A.A; Physical Soc; Ga. Acad. (pres, 25). Atomic structure.
- Hendrick, Dr. Ellwood**, 139 E. 40th St, New York, N. Y. **Chemistry*. Albany, N. Y, Dec. 19, 61. Zurich, 78-81; hon. Sc.D, Franklin and Marshall, 21. Supt, Albany Aniline and Chem. Works, 81-84; business, 84-15; staff, Arthur D. Little, Inc, 17-23; consulting ed, 'Chem. and Metal. Eng,' 18-23; *curator, Chandler Chem. Museum, Columbia*, 24- Chem. Soc. (councilor, 18-24); Soc. Chem. Indust. (exec. committee, N. Y. sect, 19-21, 26-27); N. Y. Chemists Club (pres, 18-20); Soc. Chim. indust. (councilor, 19, 21, pres, Am. sect, 23). Popular chemistry.
- Hendricks, Prof. B(ernard) Clifford**, 3415 T St, Lincoln, Nebr. *Physical chemistry*. Jasper, Mo, Jan. 26, 83. B.E, Peru Teachers' Col, 10; B.S, Nebraska, 11, Ph.D, 23; M.S, Chicago, 14. Teacher, prin. and supt, pub. schools, 01-08; Peru Teachers' Col, 08-18; *assoc. prof, Nebraska*, 18- Summer, instr, Govt. Radio Sch, 18. Contributing ed, 'Jour. Chem. Educ.' Chem. Soc. (pres, Nebr. chap, 23). Diffusion of hydrogen through hot metals; adiabatic calorimetry of heats of slow reactions.
- Hendrickson, Prof. A(rthur) H(oward)**, University Farm, Davis, Calif. *Horticulture*. Grand Rapids, Mich, Feb. 2, 90. B.S, Mich. State Col, 13; M.S, Cornell, 19; Ph.D, Stanford, 26. Asst. pomol, California, 13-15, instr, 15-17, asst. prof, 17-24, *assoc. pomologist*, 24- Exchange prof, Cornell, 18-19. Soc. Hort. Sci. Pomology; pollination; pruning; irrigation.
- Hendrickson, B(extram) H(igbie)**, U. S. Department of Agriculture, Washington, D. C. *Soils*. New York, N. Y, July 16, 92. B.S, Cornell, 15. *Scientist, bur. soils, U. S. Dept. Agr*, 16- C. Eng, U.S.A., 17-19, capt, O.R.C. Ass. Soil Surv. Workers. Soil acidity in relation to soil type groups; soil alkali in the Lower Rio Grande Valley of Texas; soil acidity in the Coastal Plain.
- Hendrix, Prof. B(yron) M(urray)**, University of Texas School of Medicine, Galveston, Texas. *Physiological chemistry*. Preble Co, Ohio, May 16, 86. B.S, Ohio State, 09; Ph.D, Yale, 15. Asst. agr. chem, Ohio State, 09-10; asst. chemist, bur. chem, U. S. Dept. Agr, 10-13; instr. physiol. chem, Pennsylvania, 15-19, asst. prof, 19-22; *prof. biol. chem, sch. med, Texas*, 22- A.A; Soc. Biol. Chem; Soc. Exp. Biol; Chem. Soc. Influence of urine formation upon the acid-base balance in the animal body.
- Henke, Dr. C(lyde) O(verbeck)**, 805 Madison Ave, S. Milwaukee, Wis. *Physical chemistry*. Stendal, Ind, Aug. 30, 98. A.B, Indiana, 19, A.M, 20, Ph.D, 22. Chemist, E. I. du Pont de Nemours and Co, 18; *asst. prof. chem, Indiana*, 23-; *chemist, Newport Co*, 25- Chem. Soc; Electrochem. Soc. Catalysis and electro-chemistry.
- Henmon, Prof. V(ivian) A(llen) C(harles)**, Yale University, New Haven, Conn. *Psychology, Education*. Centralia, Wis, Nov. 27, 77. A.B, Bethany (Kans), 95, A.M, 99; fellow, Columbia, 04-05, Ph.D, 05. Prin. schools, Mo, 95-97; asst, Bethany (Kans), 98, instr. pedag, 98-00, prof. pedag. and psychol, 00-05; lecturer psychol, Columbia, 05-07; prof. psychol. and educ, Colorado, 07-10; assoc. prof. educ, Wisconsin, 10-12, *prof*, 12-25, director sch. educ, 16-26; *educ. psychol, Yale*, 26- Acting dean col. lib. arts, Colorado, 09-10; adviser educ. psychol, Modern Language Study, 25- Capt, A.S, Sig. R.C, 17-19, major, 19- A.A. (v. pres, L, 19); Psychol. Ass; Educ. Research Ass; Soc. Col. Teachers Educ. (pres, 26). Psychology of learning; reaction time; the time of perception as a measure of differences in sen-

sation; sex differences in color-perception; relation of the time of judgment to its accuracy; standard tests in foreign languages; tests of aptitude for aviation.

Hennen, Ray V. Morgantown, W. Va. *Geology*. St. Cloud, W. Va., June 18, 75. A.B., West Virginia, 00, B.S., C.E., 01. Engineer, Carter Oil Co., 01-02; engineer and chief clerk, W. Va. Geol. Surv., 02-07, asst. geologist, 07-18; consulting geologist, 18-19; *chief geologist, Transcontinental Oil Co.*, 19- Chief geologist, Standard Oil Co. petrol. exped., S. Amer., 13. A.A.; Geol. Soc.; Ass. Petrol. Geol.; Petrol. Inst.; Min. and Metal. Eng.; W. Va. Coal Min. Inst. Oil and gas geology; geology of West Virginia.

Hennings, Prof. A(lbert) E(dward), University of British Columbia, Vancouver, B. C., Can. *Physics*. Barrington, Ill., Oct. 31, 81. A.B., A.M., Lake Forest, 04; Ph.D., Chicago, 14. Instr. science, high sch., Mich., 04-05; math, Whitman, 05-06; *physics*, high sch., Ill., 07-12; asst. prof., Saskatchewan, 13-17, prof., 17-18; *asst. prof.*, Chicago, 18-19; *British Columbia*, 19- A.A.; Physical Soc. Contact E.M.F. and photoelectric properties of metallic surfaces; determination of 'H' for ordinary metals; temperature coefficient of contact E.M.F.; X-ray spectra and crystal structure.

Henrici, Prof. Arthur T(rautwein), 130 Arthur Ave., S. E., Minneapolis, Minn. *Bacteriology*. Economy, Pa., March 31, 89. M.D., Pittsburgh, 11. Pathologist, St. Francis Hosp., Pittsburgh, 12-13; instr. path. and bacter., *Minnesota*, 13-16, asst. prof. *bacter. and immunol.*, 16-20, assoc. prof., 20-25, *prof.*, 25- Research asst., Nat. Dental Ass., 14-17. Capt., M.C., 17-19. Soc. Bact.; Ass. Path. and Bact.; Soc. Exp. Biol.; Int. Ass. Med. Mus. Dental diseases; Streptococci; focal infections; fungous parasites of man; morphology, growth and senescence of bacteria.

Henroteau, Dr. F(rancois) C(harles), Dominion Observatory, Ottawa, Ont., Can. *Astronomy*. Ans., Belgium, Feb. 23, 89. Sc.D., Brussels, 11; fellow, Lick Observatory; Princeton. Asst. astronomer, Royal Observatory, Belgium, 11; prof. math., Belgium, 12-14; astronomer, Stonyhurst Observatory, England, 14-16; Detroit Observatory, 16-17; Lick Observatory, 17-18; Allegheny Observatory, 18-19; *in charge div. astrophysics, Dominion Observatory*, 19- Int. Astron. Union. A.A.; Astron. Soc.; Math. Soc.; fel. Royal Astron. Soc.; Royal Astron. Soc. Can.; Astron. Gesell.; Soc. astron. de France; Soc. Belge d'Astron.; Soc. d'Astron. d'Anvers; Soc. math. de Belg.; hon. mem. Inst. de Coimbra, Portugal. Astrophysics; stellar spectroscopy; photoelectric photometry; mathematics.

Henry, A(lfred) J(udson), 1322 Columbia Road, Washington, D. C. *Meteorology*. New Bethlehem, Pa., Sept. 1, 58. George Washington, 85-86, 97-98. *U. S. Weather Bur.*, 78-96, chief div. meteor. records, 96-00, prof. meteor., 00-17, *senior meteorologist*, 17- Sec'y sect. meteor., Geophys. Union. A.A.; Ass. Geog.; Wash. Acad. Weather forecasting; hydrology; climatology of the United States.

Henry, A(rthur) M(alcolm), U. S. Bureau of Chemistry, 134 S. Second St., Philadelphia, Pa. *Plant pathology, Chemistry*. Columbia Co., Fla., Feb. 17, 88. B.S., Florida, 06; B.F., Biltmore Forest Sch., 13; Wash. Col., 14. Asst. state chemist, Fla., 07-13; worker, citrus canker eradication, Fla. State Plant Board, 14-16, district inspector, 16, asst. state chemist, 16-23; *asst. chemist, bur. chem., U. S. Dept. Agr., Phila.*, 23- A.A.; Chem. Soc.; Pharmaceut. Ass. Ripening of oranges.

Henry, Prof. A(rthur) V(an), 696 Peachtree St., Atlanta, Ga. *Ceramics*. Columbus, Ohio, June 2, 92. Cer.E., Ohio State, 14, M.S., 21, Ph.D., 23; fellow, U. S. Bur. Mines, 21-23. Ceramic engineer, Pittsburgh Testing Lab., 14-17; *prof. ceramics, Ga. Tech.*, 23- Capt., C.A.C., 17-20. Ceramic Soc. Refractories; porcelain; clay refining; Georgia kaolin; microscopic study of stresses in glazes.

Henry, Dr. A(rthur) W(ellesley), University Farm, St. Paul, Minn. *Plant pathology*. Fredericton, N. B., Can. B.S.A., Saskatchewan, 17, M.S.A., 20, traveling scholar, 20-22; Ph.D., Minnesota, 23. Instr. agron., Saskatchewan, 17-20; *plant path., Minnesota*, 23-24, *asst. prof.*, 24-, *asst. plant pathologist, Exp. Sta.*, 23- Field asst., U. S. Dept. Agr., 21, agent, 23- Assoc. ed., 'Phytopath.', 25- A.A.; Phytopath. Soc. Cereal rusts; root rots of wheat; diseases of flax and sunflowers.

Henry, Prof. G(eorge) F(rederick), 3701 W. 30th St., Tacoma, Wash. *Physical chemistry*. Ainsworth, Iowa, Nov. 20, 70. B.S., Wash. Col., 03; M.S., Northwestern, 15; Chicago, 15-16. Teacher, high sch., Idaho, 03-06; prof. chem. and head dept. science, Reid Christian Col., India, 06-14, v. pres., 12-14; *prof. physics and chem., Mt. Union*, 15-16; Fargo, 16-21, asst. dean, 19-21; *chem., Puget Sound*, 21-, *dean*, 22- A.A.; Chem. Soc.; Northwest Sci. Ass.; Wash. State Ass. Chem. Teachers. Electrical conductivity in non-aqueous solutions.

Henry, Prof. T(heodore) S(pafford), Western State Normal School, Kalamazoo, Mich. *Psychology*. West Jersey, Ill., May 9, 78. A.B., Hedding, 03; A.M., Illinois, 16, Ph.D., 17. Teacher, pub. schools, Ill., 03-15; *prof. psychol., West. State Nor. Sch.*, 17- A.A.; Psychol. Ass.; Mich. Acad. Psychology of gifted children.

Henry, Prof. W(illiam) A(rnon), 3688 Indiana St., San Diego, Calif. *Agriculture*. Norwalk, Ohio, June 16, 50. Ohio Wesleyan, 68-69; B.Agr., Cornell, 80; hon. D.Agr., Illinois, 04; Sc.D., Vermont, 04; Mich. State Col., 07. Prof. bot. and agr., *Wisconsin*, 80-82, *agr.*, 83-07, director, Exp. Sta., 87-07, dean col. agr., 92-07, *emer. prof.*, 07- Lecturer, California, 02. Assoc. ed., 'Hoard's Dairyman.' Animal nutrition; rational feeding of live stock.

Hensel, Prof. F(rederick) W(illiam), Agricultural and Mechanical College of Texas, College Station, Texas. *Horticulture*. San Antonio, Texas, July 10, 84. B.S., Agr. and Mech. Col. Texas, 07; Iowa Col., 12; M.S., Cornell, 15. *Prof. hort., Agr. and Mech. Col. Texas*, 14-

- Henshaw, Fred F(orbes)**, 606 Post Office Building, Portland, Oregon. *Hydraulics*. West Brookfield, Mass, May 21, 84. B.S, Mass. Col, 04. Draftsman, Brown Hoisting Machinery Co, 05; hydrographic aid, *water resources branch*, U. S. *Geol. Surv.*, 05-06, junior engineer, 06-07, asst. engineer, 07-10, *district engineer*, Oregon, 10- Civil Eng. Stream gaging; water resources of Seward Peninsula, Alaska; surface water of the Columbia River basin; water power of the Cascade Range and of the Deschutes River.
- Henshaw, Henry W(etherbee)**, The Ontario, Washington, D. C. *Biology*. Cambridge, Mass, March 3, 50. Cambridge pub. schools. Wheeler Govt. Surv, 72-80; Bur. Am. Ethnol, Smithsonian Inst, 80-93; ed, 'Am. Anthropologist,' 89-93; biol. surv, U. S. Dept. Agr, 05-10, chief, 10-16. A.A; fel. Ornith. Union (v. pres, 14); Wash. Biol. Soc; Wash. Anthropol. Soc. Biology; ornithology; anthropology.
- Henshaw, Samuel**, 8 Fayerweather St, Cambridge, Mass. *Zoology*. Hon. A.M, Harvard, 03. Asst. entom. and librarian, *museum comp. zool.*, Harvard, curator, 04-12, *director*, 12- Soc. Nat; Soc. Zool; Entom. Soc; Am. Acad. Entomology.
- Henton, Prof. Hugh M(organ)**, 307 Montgomery Ave, Pullman, Wash. *Metallurgy*. Hot Springs, S. Dak, Feb. 20, 84. B.S, S. Dak. Sch. Mines, 13, Met.E, 22. Sampler and assayer, St. Paul Mont. Mining Co, 13-14; instr. metal. and metallography, Case, 15-21; *asst. prof. metal. and mining*, Washington Col, 22- Min. and Metal. Eng; Chem. Soc; Northwest Sci. Ass. Microscopy of metals, alloys and minerals; titanium; chemistry; heat treatment of steel and other alloys; magnesite and dolomite.
- Henwood, Prof. Abraham**, 306 Kent Road, Cynwyd, Pa. *Physical chemistry*. Philadelphia, Pa, Dec. 7, 71. B.S, Pennsylvania, 01, M.S, 16; hon. Sc.D, Muhlenberg, 17. Instr. chem, Drexel Inst, 92-05, prof, 05-18; research chemist, Hercules Powder Co, 18; *in charge dept. chem.*, Haverford, 18-19; *Cent. High Sch.*, 19-; *prof. chem.*, Hahnemann Med. Col, 19- Lecturer, Y. M. C. A, Phila, 15. A.A; Chem. Soc. (chairman, Phila. sect, 17). Aqueous solutions; alkaline hydroxid in soap test for hardness; niter cake in production of phosphates from apatite; oxidation of ammonia to nitric acid; production of H₂S.
- Henze, Prof. Henry R(udolf)**, College of Pharmacy, University of Texas, Galveston, Texas. *Pharmaceutical chemistry*. New Haven, Conn, Jan. 11, 96. Ph.B, Yale, 18, Nat. Aniline and Chem. Co. fellow, 20-21, Ph.D, 21. Adjunct prof. chem, col. pharmacy, Texas, 21-22, assoc. prof, 22-24, *prof.*, 24-, *head dept.*, 21- A.A; Pharmaceut. Ass; Chem. Soc; fel. Inst. Chem; Texas Pharmaceut. Ass. Indigoid dyes; hydantoin.
- Hepburn, Dr. Joseph Samuel**, Hahnemann Medical College, Philadelphia, Pa. *Chemistry*. Philadelphia, Aug. 25, 85. A.B, Cent. High Sch. Phila, 03, A.M, 08; B.S, M.S, Pennsylvania, 07, 14-20; Temple, 09-12; fellow, Columbia, 12-13, Ph.D, 13; *Medico-Chirurg. Col.* Phila, 11-12. Sci. asst, U. S. Dept. Agr, 07-08, asst. chemist, 09-12, 13-20; instr. chem, *Hahnemann Med. Col.*, 20-22, lecturer, 22-25, *assoc. prof.*, 25-; *chemist*, *Hering lab.*, 20- Ed. committee, 'Biochem. Bul,' 12-; abstractor, 'Chem. Abstracts,' 15- Longstreth medal, Franklin Inst, 11, Certificate of Merit, 21. Third Int. Cong. Refrigeration; Conf. Biol. Chem. Chem. Soc. (councilor, 25); Agr. Chem; Franklin Inst. (sec'y, sect. physics and chem, 09-23); Soc. Biol. Chem; hon. assoc. Inst. Homeop; Phila. Acad; Phila. Physiol. Soc; Columbia Biochem. Ass. (hon. v. pres, 17). Biochemistry; plant physiology; determination of nitrogen; fats and oils; dental caries; enzymes; cold storage; nutrition; drug proving; insectivorous plants.
- Hering, Prof. D(aniel) W(ebster)**, 2208 Andrews Ave, New York, N. Y. **Physics, Mechanics*. Smithburg, Md, March 23, 50. Ph.B, Yale, 72, C.E, 78; fellow, Hopkins, 76-78; hon. Ph.D, Western Maryland, 95; LL.D, Pittsburgh, 07, N. Y. Univ, 16. Asst. engineer, Reading and Lehigh R. R, 73-74; Baltimore and Cumberland Valley R. R, 78-80; prof. math, Western Maryland, 80-84; *physics*, Pittsburgh, 84-85; N. Y. Univ, 85-16, dean grad. faculty, 02-16, *emer. prof.*, 16- A.A; Physical Soc; fel. N. Y. Acad. (v. pres, 08, 09); Brooklyn Inst. (pres, dept. physics). Church acoustics; X-rays; compressed air; scientific vagaries.
- Herms, Prof. W(illiam) B(rodbeck)**, University of California, Berkeley, Calif. *Entomology, Parasitology*. Portsmouth, Ohio, Sept. 22, 76. B.S, Baldwin-Wallace, 02; Western Reserve, 05; A.M, Ohio State, 06; Austin fellow, Harvard, 07-08. Prof. commerce and prin. sch. commerce, Baldwin-Wallace, 02-05, instr. biol, 04-05; teaching fellow, Ohio State, 05-06; acting head dept. zool, Ohio Wesleyan, 06-07; asst. prof. entom, California, 08-12, *parasitol.*, 12-15, *assoc. prof.*, 15-20, *prof. and head div. entom. and parasitol.*, 20- Consulting entomologist, Calif. State Board Health. Delegate, Int. Hygiene Exhibit, Dresden, 11; Pan-Pacific Food Conservation Conf, Honolulu, 24; Nat. Malaria Commission. Capt. and major, Sanit. C, 18, lieut. col, Sanit.R.C, 24- Delegate, Ohio Wesleyan, Seventh Int. Zool. Cong, Boston, 07. A.A; Entom. Soc; Ass. Econ. Entom; Ecol. Soc; Soc. Parasitol; Ohio Acad; Calif. Acad. Parasitology; ecology; rural sanitation; medical entomology; malaria-mosquito survey of California; mosquito and fly control; pajahuellotick; spinose ear tick; photic reactions of insects.
- Herold, Dr. Stanley O(arrollton)**, Stanford University, Calif. *Geology*. San Jose, Calif, Oct. 5, 83. A.B, Stanford, 09, Ph.D, 26. Field geologist, oil and gas companies, 12-23; *private research*, 23- Lecturer, Stanford, 26. Analytical principles of the production of oil, gas and water from wells.
- Heron, Prof. W(illiam) T(homas)**, University of Minnesota, Minneapolis, Minn. *Psychology*. Chicago, Ill, Jan. 3, 97. A.B, Kansas, 20, A.M, 21; Ph.D, Chicago, 24. Asst. psychol, Chicago,

22-23; *asst. prof. philos. and psychol.*, Kansas, 23-26; *Minnesota*, 26- Summer, instr., Texas, 23. Psychol. Ass. Human and animal learning.

Heroy, William B(ayard), 19 Wayne Ave, White Plains, N. Y. *Geology*. New York, N. Y., Oct. 9, 83. Ph.B., Syracuse, 09. U. S. Geol. Surv., 08-10, *asst. geologist*, 10-12, *geologist and chief sect.*, Land Classification Board, 12-18, *chief div. power resources*, 18-19; *assoc. ed.*, 'Elec. World,' 19; *geologist*, *Sinclair Consol. Oil Corp.*, 19-23, *exec. geologist*, 23- *Advisory engineer*, bur. conservation, U. S. Fuel Ad., 18-19. Ass. Petrol. Geol.; Min. and Metal. Eng.; Min. and Metal. Soc.; Wash. Geol. Soc. Classification of public lands with reference to use of water resources; conservation and use of fuels for energy supply; geology and development of petroleum.

Herre, Albert William Christian Theodore, Bureau of Science, Manila, P. I. *Biology*. Toledo, Ohio, Sept. 16, 68. A.B., Stanford, 04, A.M., 05, Ph.D., 09. Asst. supt., schools, Ill., 90-00; *asst. Bur. Fisheries*, 03-04; *instr.*, high sch., Calif., 04-10; *prof.*, Nevada, 10; *v. prin.*, high sch., Calif., 10-12; *prof. geog.*, State Nor. Sch., Bellingham, 15-17, *biol.*, 17-19, *director sch. hygiene*, 19-20; *chief dept. fisheries*, *Bur. Science, Manila*, 20- A.A.; Ecol. Soc.; Sullivant Moss Soc.; Wash. Acad.; Calif. Acad. Ichthyology; lichens; ecology; geography; ethnology.

Herreshoff, John B(rown) Francis, Majestic Hotel, 72d St. and West End Ave, New York, N. Y. **Chemistry*. Bristol, R. I., Feb. 7, 50. A.M., Brown, 90. Prof. anal. chem., Brown, 69-72; *supt.*, Laurel Hill Chem. Works, 76; *v. pres.*, *Nichols Copper Co.* Chem. Soc.; Soc. Chem. Indust.; Mech. Eng. Industrial chemistry; improved process for manufacturing sulphuric acid.

Herrick, Prof. Charles Judson, University of Chicago, Chicago, Ill. **Comparative neurology*. Minneapolis, Minn., Oct. 6, 68. Denison, 86-89, M.S., 95; B.S., Cincinnati, 91, Sc.D., 26; Ph.D., Columbia, 00. Instr. nat. science, Granville Acad., 91-92; *prof.*, Ottawa (Kans.), 92-93; *zool.*, Denison, 98-07; *neur.*, *Chicago*, 07- *Managing ed.*, 'Jour. Comp. Neur.', 94- *Assoc. comp. neur.*, Path. Inst., N. Y. State Lunacy Commission, 97-01; *Brain Commission*, Int. Ass. Academies. Major and in charge path., Army Med. Museum, Sanit.C., 18-19. Nat. Acad.; A.A. (sec'y, F, 03-07, v. pres., 08); *hon. mem. Neur. Ass.*; Soc. Nat.; Ass. Anat.; Soc. Zool. (sec'y-treas., 07); *Physiol. Soc.*; *for. cor. Acad. Royale de Méd. de Belg.*; *hon. mem. Soc. Cient. Ant. Alz.* Nerve components of vertebrates; anatomy of the brain of fishes and amphibians; evolution of the cerebral cortex.

Herrick, Prof. Francis H(obart), Western Reserve University, Cleveland, Ohio. **Zoology*. Woodstock, Vt., Nov. 19, 58. A.B., Dartmouth, 81; Ph.D., Hopkins, 88; *hon. Sc.D.*, Pittsburgh, 96. Instr. *biol.*, *Western Reserve*, 88-91, *prof.*, 91- *Trustee*, Cleveland Museum Nat. Hist., 20- A.A.; Soc. Nat.; Soc. Zool. (v. pres., 07); *Ornith. Union*; *Fisheries Soc.*; *Wilson Ornith. Club*; Ohio Acad.; Boston Soc. Nat. Hist. Development and morphology of Crustacea; habits

and instincts of wild birds; origin and development of instincts.

Herrick, Prof. Glenn W(ashington), Cornell University, Ithaca, N. Y. *Entomology*. Otto, N. Y., Jan. 5, 70. B.S.A., Cornell, 96; Harvard, 97. Teacher, pub. schools, 88-90; *instr.*, Nat. Science Camp, Canandaigua, N. Y., 95-96; *prof. biol.*, Miss. Agr. and Mech. Col., 97-08; *entom.*, Agr. and Mech. Col. Texas, 08-09; *asst. prof. econ. entom.*, Cornell, 09-12, *prof.*, 12-, *entomologist*, *Exp. Sta.*, 09- A.A.; fel. Entom. Soc.; Ass. Econ. Entom.; Ecol. Soc.; Wash. Biol. Soc. Economic entomology; life histories of the mosquitoes of Mississippi; malaria; external parasites of domestic fowls; larch case-bearer; insect pests of pecans; fruit tree leaf roller; red clover and apple pests; Thysanoptera; injurious insects.

Herrick, Dr. James B(ryan), 242 E. Walton Place, Chicago, Ill. *Medicine*. Oak Park, Ill., Aug. 11, 61. A.B., Michigan, 82, *hon. A.M.*, 07; M.D., Rush Med. Col., 88. Intern., Cook Co. Hosp., 88-89; *instr. med.*, *Rush Med. Col., Chicago*, 90-94, *adjunct prof.*, 94-00, *prof.*, 00- *Attending physician*, Presb. Hosp., Chicago, 98- V. pres., McCormick Inst; sec'y board trustees, Lewis Inst. Am. Med. Ass.; Am. Physicians; Chicago Internal Med. Soc. (first pres., 15); Chicago Inst. Med. (pres., 25). Internal medicine; diseases of heart and blood vessels.

Herrick, Dr. Joseph C(awdell), College of Mount St. Vincent, New York, N. Y. *Physiology*. Shelbyville, Ill., May 6, 74. A.B., Virginia, 96; fellow, Hopkins, 99-00, Ph.D., 00. Asst. biol., Virginia, 96-97; *prof. biol. and exp. psychol.*, St. Joseph's Sem., Yonkers, 00-18; *ethics*, *Col. Mt. St. Vincent*, 25- *Anthrop. Ass.* Nervous conductivity; mechanism of the odontophoral apparatus in *Sycotypus canaliculatus*.

Herrick, Dr. William W(orthington), 49 E. 53d St., New York, N. Y. *Medicine*. Sherman, Conn., Feb. 19, 79. A.B., Yale, 02, M.D., 05. Assoc. prof. med., Columbia; *asst. physician*, Roosevelt Hosp; *attending physician*, Sloane Hosp; *consulting physician*, Beekman St., Nassau, Stamford, Babies' and Nursery and Child's Hospitals; *practising physician*; *prof. clin. med.*, *Columbia*, 27- A.A.; Am. Med. Ass.; N. Y. Acad. Med. Internal medicine.

Herring, Dr. John P(eabody), Teachers College, Columbia University, New York, N. Y. *Psychology*, *Educational statistics*. Haverhill, Mass., June 30, 82. A.B., Brown, 04; B.D., Union Theol. Sem., 07; Ph.D., Columbia, 24. Director bur. educ. research, State Nor. Sch., Pa; research, State Dept. Institutions and Agencies, 23-25; *assoc.*, *Teachers Col., Columbia*, 25- *Summers*, California, 23, 24; *asst. prof.*, Ohio State, 27. A.A.; Psychol. Ass. Mental tests; feeling; emotion.

Herrmann, Dr. George R., Tulane University, New Orleans, La. *Internal medicine*. Fort Wayne, Ind., Nov. 20, 94. B.S., Michigan, 16, M.S., M.D., 18, Ph.D., 22. House officer, Peter Bent Brigham Hosp., 18-19; *asst. res.* and *chief res. physician*, Robert Abbott Barnes Hosp., and *asst. med.*, Washington (St. Louis), 19-21;

- instr. and asst. prof, Michigan, 21-25; *asst. prof, Tulane, 25-* Assoc. ed, 'Jour. Lab. and Clin. Med'; abstract ed, 'Am. Heart Jour.' Cong. Int. Med; Am. Med. Ass; Col. Physicians; Soc. Clin. Invest; Soc. Exp. Path; Soc. Exp. Biol. Med. Electrocardiography; clinical and experimental cardiac pathology and physiology; cardiac hypertrophy; valve lesions; rhythm disturbances; conduction changes; functional state and treatment.
- Herrmann, Richard**, Dubuque, Iowa. *Geology, Anthropology*. Chemnitz, Germany, March 10, 49. Pub. schools and private study. *Civil engineer*. Iowa Inst. Sci. and Art (sec'y); Herrmann Museum Nat. Hist. (founder). Mound-builders of the Mississippi Valley; paleontology; ethnology of the North American Indian.
- Hersam, Prof. E(rnest) A.**, Massachusetts Institute of Technology, Cambridge, Mass. *Chemistry, Metallurgy*. Stoneham, Mass, March 9, 68. B.S, Mass. Inst. Tech, 91. Asst. chem, Mass. Inst. Tech, 91-92; *metal*, California, 92-94, instr, 94-96, asst. prof, 96-02, assoc. prof, 02-23; *prof, Mass. Inst. Tech, 23-* A.A; Min. Eng; Min. and Metal. Eng; Soc. Chem. Indust; Min. and Metal. Soc; Franklin Inst.
- Herschel, Winslow H(obart)**, U. S. Bureau of Standards, Washington, D. C. *Physics*. Boston, Mass, Aug. 28, 73. A.B, Harvard, 96. Hydraul. engineer, 96-05; mech. engineer, 05-10; asst. prof. mech. eng, Maine, 11-12, assoc. prof, 12-13; asst. physicist, *Bur. Standards*, 13-18, *assoc. physicist*, 18- Chem. Soc; Soc. Test. Mat. Lubricants; the measurement of consistency.
- Hersey, F(rank) Seymour**, Old Bay Road, Easton, Mass. *Ornithology*. Taunton, Mass, May 26, 84. Ornith. Union; Cooper Ornith. Club; Nuttall Ornith. Club.
- Hersey, Mayo D(yer)**, U. S. Bureau of Mines, Pittsburgh, Pa. *Physics*. Pawtuxet, R. I, Aug. 30, 86. A.B, Colorado Col, 07; B.S, Mass. Inst. Tech, 10; A.M, Olivet, 10; Whiting fellow, Harvard, 15-16. Asst. physics, Mass. Inst. Tech, 09-10; asst. physicist, *Bur. Standards*, 10-16, assoc. physicist, 17-18, chief aeronaut. instruments sect, 17-20, physicist, 18-20; assoc. prof. physics, Mass. Inst. Tech, 20-22; *physicist in charge physical lab, U. S. Bur. Mines, Pittsburgh, 22-* Rep, *Bur. Standards*, Europe, 13, 18. Fel. Physical Soc; Mech. Eng; Wash. Acad. Aeronautic instruments; lubrication; accuracy of measurements; viscosity; elasticity; mining physics.
- Hersh, Dr. A(mos) H(enry)**, 10940 Euclid Ave, Cleveland, Ohio. *Zoology*. Lancaster, Pa, Nov. 2, 91. A.B, Franklin and Marshall, 14, A.M, 15; fellow, Illinois, 19-22, Ph.D, 22. Asst. biol, Princeton, 15-16; instr. zool, Kansas Col, 16-18; biol, Marquette, 18-19; zool, Michigan, 22-23; *biol, Western Reserve, 23-25, asst. prof, 25-* A.A; Soc. Zool; Eugenics Soc. Mendelian dominance; the manner of action of the heredity factors; temperature and development; genetics; embryology.
- Hershey, Prof. J(ohn) Willard**, 315 Carrie St, McPherson, Kans. *Chemistry*. Gettysburg, Pa, Feb. 6, 76. B.S, Gettysburg, 07, M.S, 10; Harvard, 07-08; Hopkins, 10-11; Ph.D, Chicago, 24. *Prof. chem*, Bridgewater, 08-09; Defiance, 11-15, 16-18; *McPherson, 18-* A.A; Chem. Soc. The effects of pure-oxygen upon animal life; water animals.
- Hershey, O(scar) H.**, Crocker Building, San Francisco, Calif. *Geology*. Blue Rock, Pa, March 27, 74. High sch. Field asst, U. S. Geol. Surv, 04; *examining mines, western U. S. and in B. C, 05-*; *mem. firm, Burch, Hershey and White*. A.A; Geol. Soc. Glacial geology and physiography of northwest Illinois; stratigraphy and glacial geology of the Klamath region; economic geology.
- Herskovits, Dr. Melville J(ean)**, Columbia University, New York, N. Y. *Anthropology*. Bellefontaine, Ohio, Sept. 10, 95. Ph.B, Chicago, 20; A.M, Columbia, 21, Ph.D, 23. Nat. Research Council fellow biol, *Columbia, 23-26, lecturer anthrop, 24-* Lecturer, Howard, 25. *Anthrop. Ass; Ethnol. Soc; Statist. Ass. African ethnology; physical anthropology of the Negro*.
- Hertig, Dr. Marshall**, University of Minnesota, Minneapolis, Minn. *Entomology*. Minneapolis, June 10, 93. B.S, Minnesota, 16, Ph.D, 21. Exten. entomologist, U. S. Dept. Agr. and Minn, 18-20; *instr. animal biol, Minnesota, 21-* Entomologist, China Med. Board, Peking Union Med. Col, 24-27. A.A; Entom. Soc. Intracellular symbionts of insects; insect histopathology; kala-azar transmission.
- Hertlein, L(eo) G(eorge)**, California Academy of Sciences, Golden Gate Park, San Francisco, Calif. *Geology*. Pratt, Kans, Feb. 9, 98. A.B, Oregon, 22; A.M, Stanford, 23, graduate work, 24-25. Paleontologist, Associated Oil Co, Calif, 25; geologist, Henry L. Doherty and Co, Mexican Govt. Concessions, 26; *paleontologist, Calif. Acad. Sci, 25-* Geol. and Min. Soc; Am. Univ; Calif. Acad; S. Calif. Acad. Paleontology.
- Herty, Dr. Cha(rlie)s H(olmes)**, 85 Beaver St, New York, N. Y. **Chemistry, Forestry*. Milledgeville, Ga, Dec. 4, 67. Ph.B, Georgia, 86; Ph.D, Hopkins, 90; Berlin, 99; Zurich, 00; hon. Sc.D, Colgate; hon. D.Chem, Pittsburgh. Asst. chemist, Ga. State Exp. Sta, 90-91; instr. chem, Georgia, 91-94, adjunct prof, 94-02; collaborator, bur. forestry, U. S. Dept. Agr, 01-02, expert, 02-04; Chattanooga Pottery Co, 04-05; prof. chem, North Carolina, 05-16, dean sch. applied science, 08-11; ed, 'Jour. Indust. and Eng. Chem,' 16-21; pres, Synthetic Org. Chem. Manufacturers Ass. of U. S., 21-26; *adviser, Chem. Foundation, Inc, 26-* Physical director, Georgia, 93-99. A.A. (sec'y, C, 08); Chem. Soc. (councilor, pres, 15, 16); Inst. Chem; Chem. Eng; Soc. Chem. Indust; Electrochem. Soc; Eng. Educ; Forestry Ass; Soc. Foresters; Philos. Soc; Franklin Inst; London Chem. Soc; Soc. de Chim. indust; Soc. chim. de France. Double and mixed double halids; constitution of inorganic compounds by physico-chemical methods; a new method of turpentine orcharding; the determination of oil in cotton-seed products; oleo-resins.
- Herty, C(harles) H(olmes), Jr**, U. S. Bureau of Mines, Pittsburgh, Pa. *Metallurgy*. Athens,

- Ga, Oct. 6, 96. B.S., North Carolina, 18; M.S., Mass. Inst. Tech, 21, Sc.D., 24. Research assoc., Mass. Inst. Tech, 22-24; Bethlehem Steel Co., N. Y., 21-22, 24-26; *physical chemist*, U. S. Bur. Mines, Pittsburgh, 26- Chem. Soc; Min. and Metal. Eng. Open hearth steel processing.
- Hertzler, Dr. Arthur E(manuel)**, Halstead, Kans. *Pathology*. West Point, Iowa, July 26, 70. B.S., Southwest Kansas, 90; M.D., Northwestern, 94; Berlin, 99-02; Ph.D., Iowa Wesleyan, 02; LL.D., Washburn, 25. Prof. gen. and surg. path., Univ. Med. Col., Kansas City, 02-09; assoc. prof. *surg.*, Kansas, 09-19, *prof.*, 19- A.A.; Ass. Anat.; Micros. Soc; Am. Med. Ass; Ass. Obstet, Gynec. and Abdominal Surg; Am. Acad. Med; West. Surg. Ass. Anatomy and pathology of the peritoneum; etiology of epithelioma; pathology of the endocrine system.
- Hertzman, Dr. A(lick) B(rynhjolf)**, 1014 Cornell Place, Ann Arbor, Mich. *Physiology*. Baltimore, Md, June 22, 98. A.B., Gustavus Adolphus, 19; Ph.D., Wisconsin, 24. Asst. Wisconsin, 20-21; *instr. physiol.*, Michigan, 24- Physiol. Soc. Autolysis; respiration; reaction of body fluids.
- Hervey, Rev. A(lpheus) B(aker)**, Hamilton, Bermuda. *Botany*. Triangle, N. Y., March 31, 39. Grad. theol. dept, St. Lawrence, 61, hon. A.M., St. Lawrence, 78, hon. Ph.D., 87; hon. A.M., Tufts, 83. Pastor, Universalist Church, Malone, N. Y., 61-62; Afton, N. Y., 62-64; Southbridge, Mass., 64-66; Peabody, Mass., 66-72; Troy, N. Y., 72-79; Taunton, Mass., 79-88; pres, St. Lawrence, 88-94; pastor, Universalist Church, Bath, Maine, 96-09. Lecturer and trustee, St. Lawrence; trustee, various pub. institutions. A.A. (chairman, sub. sect); Troy Sci. Soc. (past pres). Cryptogamic botany; marine algae; vegetable histology.
- Herzfeld, Prof. Karl F(erdinand)**, Johns Hopkins University, Baltimore, Md. **Physics*. Vienna, Austria, Feb. 24, 92. Ph.D., Vienna, 14; Zurich, Göttingen. Privat-docent, Munich, 20-23, *prof. physics*, 23-26; *Hopkins*, 26- Speyer guest-prof., Hopkins, 26. Thermodynamics; kinetical theory of heat; physical chemistry; properties of crystals; electrons in metals; absorption and dispersion of light.
- Hesler, Prof. L(exemuel) R(ay)**, University of Tennessee, Knoxville, Tenn. *Plant pathology*. Veedersburg, Ind, Feb. 20, 88. A.B., Wabash, 11; fellow, Cornell, 11-12, Ph.D., 14. Asst. bot., Wabash, 09-10; *instr. plant path.*, Cornell, 12-14, asst. prof., 14-19; *prof. bot.*, Tennessee, 19- Ed., 'Phytopathology.' A.A.; Bot. Soc; Phytopath. Soc. Fruit diseases; fungi.
- Hess, Dr. Alfred F(abian)**, 16 W. 86th St, New York, N. Y. *Medicine*. New York, Oct. 19, 75. A.B., Harvard, 97; M.D., Columbia, 01. *Clin. prof. pediat.*, Univ. and Bellevue Hosp. Med. Col., 15- A.A.; Am. Physicians; Soc. Biol. Chem; Ass. Path. and Bact; Soc. Clin. Invest; Soc. Exp. Biol; Pediat. Soc. Tuberculosis; scurvy; rickets.
- Hess, Dr. C(harles) L(eonard)**, Davidson Building, Bay City, Mich. *Physiology*, *Pharmacology*. St. Peter, Minn, April 11, 87. B.S., Chicago, 10, M.S., 11; M.D., Northwestern, 14. Asst. pharmacol., Northwestern, 11-12, *instr.*, 12-14, anat., 14-15; house physician, Cook Co. Hosp., 15-16; asst. bacter., Mayo Foundation, Minnesota, 16-17, fellow surg., 17-18. Physiol. Soc; Am. Med. Ass. Blood lipase and diastase; blood sugar; glycolysis in blood and other tissues; isocalycanthin; hexamethylenamin; electrical wiring for laboratories; pain conduction in the spinal cord.
- Hess, Frank L**, 1221 Newton St, Brookland, Washington, D. C. *Geology*. Streator, Ill, Sept. 4, 71. A.B., Stanford, 03. Asst. assaying, Stanford, 01-03; field asst., U. S. Geol. Surv., 01-04, geol. aid., 04-06, asst. geologist, 06-11, geologist, 11-25, *engineer in charge div. mineral tech.*, U. S. Bur. Mines, 25-, *chief engineer, div. minerals and metals*, 26-; *custodian rare metals and rare earths*, U. S. Nat. Museum, 18- Exped., Bolivia, 19-20. Committee on determination geol. age, Nat. Research Council. A.A.; Chem. Soc; Geol. Soc; Soc. Econ. Geol; Miner. Soc; Min. and Metal. Eng; Wash. Geol. Soc; Wash. Acad. Gold and rare metal deposits; magnesite; gypsum; graphite.
- Hess, Prof. Geo(rge) W(ellman)**, 8009 Berney Ave, Birmingham, Ala. *Mathematics*, *Astronomy*. Waterford, Mich, Sept. 16, 78. A.B., Kalamazoo, 06; Illinois, 09-10; A.M., Kansas, 11; Ph.D., Michigan, 16. Prof. *math.*, Shurtleff, 13-19; Bethany (W. Va.), 19-20; *instr.*, Carnegie Inst., 20-22, *prof.*, 22-23; Union (Tenn.), 24-26; *assoc. prof.*, Howard (Ala.), 26- A.A.; Math. Soc; Math. Ass; Ala. Acad; Soc. astron. de France. Computation of orbits.
- Hess, Prof. Julius H(ays)**, 5717 Blackstone Ave, Chicago, Ill. *Pediatrics*. Ottawa, Ill, Jan. 26, 76. M.D., Northwestern, 99. *Instr. pediat.*, Northwestern, 08-13; asst. prof., *col. med.*, Illinois, 13-14, *assoc. prof.*, 14-15, *prof. and head div.*, 15- Chief pediat. staff, Cook Co. Hosp; attending pediatrician, Michael Reese and Englewood Hospitals; governing board, Munic. Contagious Hosp., Chicago; advisory board, children's bur., U. S. Dept. Labor. Pediat. Soc; Am. Med. Ass; Am. Teachers Diseases of Children (pres, 24); Cent. States Pediat. Soc; Chicago Pediat. Soc. (pres, 21); Inst. Med. Chicago (board governors, 24-). Caloric needs of premature infants; proprietary vitamin products; diagnosis of the age of a fetus; congenital heart lesions; transplantation of the thyroid gland; the blood plasma in rickets and tetany; premature and congenitally diseased infants.
- Hess, Dr. R(aymond) W**, National Aniline and Chemical Co, Buffalo, N. Y. *Chemistry*. Iowa, Sept. 21, 89. A.B., Morningside, 12; A.M., Illinois, 14, Ph.D., 16. Asst. chem., Illinois, 12-16; research chemist, Sherwin-Williams Co, 16-18; *Nat. Aniline and Chem. Co.*, 18-23, *head chem. develop. sect.*, 23- Summers, manufacturer org. chemicals, Illinois, 14, 15. Chem. Soc; Buffalo Eng. Soc. Organic chemistry; substitution in paraffin monobasic acids; correlation of ionization with structure; dyestuffs; intermediates.
- Hess, Prof. Victor F(rancis)**, 72 Brockmannsgasse, Graz, Austria. *Physics*. Waldstein, Austria,

- June 24, 83. Ph.D, Graz, 06. Privat-docent physics, Vienna, 10; asst, Inst. Radiol, 10-20; assoc. prof, Graz, 20-21; director research dept, U. S. Radium Corp, 21-23; *prof. physics, Graz, 25-* Consulting physicist, U. S. Bur. Mines, 22-23. Swedish Vasa Cross. A.A; fel. Physical Soc; Soc. Suisse de Nat. Hist. Radioactivity; atmospheric electricity; optics; geophysics.
- Hess, Prof. Walter N(orton)**, Greencastle, Ind. *Zoology*. Great Valley, N. Y, May 1, 90. A.B, Oberlin, 13; A.M, Cornell, 16, Ph.D, 19. Instr. zool, Pa. State, 13-15; asst. entom, Cornell, 15-17; *prof. biol, De Pauw, 17-* Johnston scholar, Hopkins, 23-24. Bacteriologist, U.S.A, 18. A.A; Soc. Zool; Entom. Soc; Soc. Parasitol; fel. Ind. Acad. (sec'y, 20-24). Chordotonal organs of Cerambycidae; kidney of the male stickleback; Lampyridae; light reactions, nervous system and photoreceptors of the earthworm.
- Hesse, Dr. Bernhard C(onrad)**, 61 Broadway, New York, N. Y. **Chemistry*. E. Saginaw, Mich, Oct. 3, 69. Ph.C, Michigan, 89, B.S, 93; fellow, Chicago, 93-96, Ph.D, 96. Asst. chem, Michigan, 90-93; research chemist, Badische Anilin u. Soda Fabrik, Ludwigshafen-on-Rhine, 96-06; consulting chemist, 06-16; consulting mem, Gen. Chem. Co, 16-23; *Allied Chem. and Dye Corp, 23-* Sec'y, Eighth Int. Cong. Applied Chem, Washington and New York, 12. Chem. Soc. (chairman, N. Y. sect, 13). Industrial chemistry; chemical statistics, patents and economics; certified food colors; liquid chlorin; coal-tar dyes.
- Hesselberg, Dr. Cora**, 427 Frisco Building, Joplin, Mo. *Bacteriology*. Orel, Russia, March 9, 84. M.D, Berne. Asst. city pathologist, St. Louis, 12-15; Iowa state bacteriologist for Dubuque, 19-22; *pathologist, St. John's Hosp, Joplin, 22-* Ass. Path. and Bact. Thyroid gland; transplantation of tissue.
- Hessert, Prof. William**, 547 Fullerton Ave, Chicago, Ill. *Surgery*. Chicago, 71. M.D, Northwestern, 92. *Prof. surg, Chicago Policlinic and Hosp*. Surgeon, Alexian Brothers Hosp; Grant Hosp. Col. Surg; Am. Med. Ass.
- Hessler, Dr. John C(harles)**, Knox College, Galesburg, Ill. *Chemistry*. Syracuse, N. Y, Nov. 27, 69. A.B, Chicago, 96, Ph.D, 99. Instr. chem, high schools, Ill, 90-99; Chicago, 99-07; prof, James Millikin, 07-20, dean, 17-20; asst. director, Mellon Inst, 20-26; *prof, Knox Col, 26-* A.A; Chem. Soc; Ill. Acad. (treas, 07-14, pres, 17). Alkyl and phenyl malonic nitriles; alkylation of cyanacetic ether; Conrad-Limpach reaction.
- Hetherington, Dr. D(uncan) C(harteris)**, Johns Hopkins University, Baltimore, Md. *Medicine*. Denver, Colo, Aug. 8, 95. A.B, Colorado Col, 19; A.M, Illinois, 20, Ph.D, 22; M.D, Hopkins, 26. *Sch. med, Hopkins*. Soc. Parasitol. Parasitology.
- Hettwer, Dr. J(oseph) P(aul)**, 437 40th St, Milwaukee, Wis. *Physiology, Psychology*. Milwaukee, Aug. 18, 95. A.B, Marquette, 15; A.M, Catholic Univ, 16; A.M, Harvard, 17, Ph.D, 21. Sears traveling fellow, Harvard, 21-22; *asst. prof. physiol, sch. med, Marquette, 23-* A.A. Physiological psychology; absorption of undigested protein; conditioned reflexes in man; electromyography of voluntary movements.
- Heuer, Prof. George Julius**, University of Cincinnati, Cincinnati, Ohio. *Surgery*. Madison, Wis, Feb. 6, 82. B.S, Wisconsin, 03; M.D, Hopkins, 07. House officer, Hopkins Hosp, 07-08, asst. res. surgeon, 08-11, res. surgeon, 11-14, assoc. prof. surg, 14-22; *prof, col. med, Cincinnati, 22-* Surg. Ass; fel. Col. Surg; Am. Med. Ass; Soc. Clin. Surg; Soc. Thoracic Surg; Neur. Surg. Soc; S. Surg. Ass.
- Heukelekian, H(ovhannes)**, Agricultural Experiment Station, New Brunswick, N. J. *Bacteriology*. Constantinople, Turkey, 99. B.S, Robert Col, Constantinople, 19; B.S, Iowa Col, 22; M.S, Rutgers, 24, Ph.D, 25. Asst. soil bacter, N. J. *Exp. Sta., 22-25, research bacteriologist, sewage substation, 25-* Soc. Bact; Int. Soc. Soil Sci. Cellulose decomposition in soil; the rôle of bacteria in sewage disposal.
- Heuse, Prof. E(dward) O(tto)**, 3421 University Boulevard, Dallas, Texas. *Chemistry*. Madison, Ind, March, 79. B.S, Hanover, 00, hon. A.M, 06; M.S, Illinois, 07, fellow, 12-14, Ph.D, 14. Asst. chem, Illinois, 03-07; prof, Upper Iowa, 08-12; instr, Illinois, 14-15; prof, Monmouth, 15-18; *head dept, South. Methodist, 18-* Chem. Soc. Physical and inorganic chemistry.
- Heuser, Dr. Chester H(enry)**, Carnegie Institution of Washington, Baltimore, Md. *Anatomy*. Fort Scott, Kans, Aug. 20, 85. A.B, Kansas, 08, A.M, 10; Ph.D, Harvard, 13. Teaching fellow zool, Kansas, 08-09, instr, 09-10; Austin teaching fellow histol. and embryol, Harvard Med. Sch, 10-13; fellow anat, Wistar Inst, 13-19; assoc, Hopkins, 19-21; *research assoc, dept. embryol, Carnegie Inst, 21-* Asst. prof, Kansas, 12. A.A; Soc. Nat; Ass. Anat. Embryology; cerebral ventricles; mammalian embryonic stomach; digestive system of opossum embryos; bronchial vessels of the pig; implantation and early development of the pig.
- Heuser, Prof. Gustave Frederick**, Ithaca, N. Y. *Animal husbandry*. Buffalo, N. Y, July 6, 93. B.S, Cornell, 15, M.S.A, 16, Ph.D, 18. Instr. poultry husbandry, Cornell, 16-18, asst. prof, 18-22, *prof, 22-* Poultry husbandry and nutrition.
- Hewes, Charles K**, 2525 E. 37th St, Los Angeles, Calif. *Chemistry*. Quincy, Ill, June 3, 89. B.S, Illinois, 12, M.S, 14. Research chemist, Mex. Petrol. Corp, 14-16; *chief chemist, Gen. Petrol. Corp, 16-* Chem. Soc; Soc. Test. Mat. Organic chemistry; petroleum technology.
- Hewes, Dr. L(aurence) I(sley)**, U. S. Bureau of Public Roads, San Francisco, Calif. *Mathematics, Civil engineering*. Dover, N. H, Sept. 28, 76. B.S, Dartmouth, 98; Ph.D, Yale, 01. Mass. Highway Commission, 97-99; asst. engineer, Elec. Ry. Essex Co, Mass, 99; inspector macadam road construction, Brookline, Mass, 00; prof. math, R. I. Col, 01-05; instr, Yale, 05-09; prof, Whitman, 10-11; *U. S. Bur. Pub. Roads, 11-*, *deputy chief engineer*. Civil Eng; Math. Soc. Nomography; highways.

- Hewett, Donnel Foster**, U. S. Geological Survey, Washington, D. C. **Geology*. Irwin, Pa, June 24, 81. Met.E, Lehigh, 02; Ph.D, Yale, 24. Instr. metal. and miner, Lehigh, 02-03; mining engineer, Pittsburgh, 03-09; junior geologist, U. S. *Geol. Surv.*, 11-13, assoc. geologist, 13-18, *geologist*, 18- A.A.; Geol. Soc; Min. and Metal. Eng; Min. Soc; Chem. Soc; Wash. Acad. Economic geology; metalliferous deposits; stratigraphy.
- Hewett, Dr. Edgar L(ee)**, School of American Research, Santa Fe, N. Mex. *Archeology*. Warren Co, Ill, Nov. 23, 65. Tarkio; Colo. State Nor. Sch; D.Sociol, Geneva, 08; LL.D, Arizona. Teacher and supt, schools, Mo. and Colo; prof. hist. and lit, Tarkio; supt, training dept, Colo. State Nor. Sch, 94-98; pres, Nor. Univ, N. Mex, 98-03; *prof. anthrop*, State Teachers Col, Calif, 21-27; *anthrop. and archeol*, New Mexico, 27- Director, Am. archeol, Archeol. Inst, 06-; Sch. Am. Research, 07-; N. Mex. Museum, 09-; San Diego Museum, 16-; assoc. ed, 'Art and Archeol,' 17-; 'Am. Jour. Archeol,' 23- Director exhibits arts and sciences, Panama-Calif. Expos, 12-16; chairman, N. Mex. Board Hist. Service, 17-20; director, State Child Welfare Service, N. Mex, 17-20. A.A. (pres, southwest. div, 20); Archeol. Inst. (pres, San Diego Soc, 16, sec'y, west. societies, 19-); Am. Fed. Art (v. pres, 19-); Int. Cong. Americanists. Anthropology; American archeology and ethnology.
- Hewitt, Dr. Charles E(lbert)**, 26 Jackson Place, Washington, D. C. *Electrical engineering*. Lebanon, N. H, Nov. 8, 69. B.S, New Hampshire, 93, Sc.D, 20; M.M.E, Cornell, 95. Engineer and designer, Hyer Sheehan Elec. Motor Co, N. Y, 95-97; partner, Sheehan and Hewitt, 97-99; Hewitt and Warden, 99; pres, C. E. Hewitt Eng. Co, 99-08; prof. elec. eng. and dean eng, New Hampshire, 08-20; director, Univ. of New Hampshire Training Detachment, War Dept, 18-19; educ. consultant, Gen. Staff, War Dept, 20-21, advisory board, 21-25; *asst. to director*, Am. Council Educ, 25- A.A.; Elec. Eng; Eng. Educ; Atlantic Waterways Ass.
- Hewitt, Dr. E(arl) A(lbon)**, University Farm, St. Paul, Minn. *Veterinary medicine*. Bronson, Mich, Sept. 29, 91. A.B, Des Moines, 14; B.S, Iowa Col, 15, fellow, 15-18, D.V.M, 18. Instr. anat. and histol, Iowa Col, 18-19; *vet. med*, Minnesota, 19-23, *asst. prof*, 23- Vet. Med. Ass. Comparative physiology; normal variations in temperature of cattle; hippuric acid elimination in cattle.
- Hewlett, Dr. C(larence) W(ilson)**, General Electric Co, Schenectady, N. Y. **Physics*. Louisville, N. C, July 29, 86. B.E, N. C. Col, 06; A.M, Hopkins, 11, Ph.D, 12. Magnetic observer, dept. terrestrial magnetism, Carnegie Institution, 12-13, asst. physicist, 13-14; instr. physics, Hopkins, 14-15, Johnston scholar, 15-16; prof, N. C. Col. for Women, 16-19; asst. prof, Iowa, 19-22; *physicist*, research laboratories, Gen. Elec. Co, 22- Carnegie Inst. solar eclipse exped, Ala, 18. Physical Soc. Complex sound waves; atmospheric electricity; radioactivity; high frequency sound waves; X-rays; loud speakers.
- Hewson, Dr. Addinell**, 257 S. 16th St, Philadelphia, Pa. *Anatomy, Surgery*. Philadelphia, Sept. 2, 55. A.B, Pennsylvania, 76, A.M, 79; M.D, Jefferson Med. Col, 79. Junior asst, surg. clinic, Jefferson Med. Col, 79-85, asst. demonstrator anat, 79-86, prosector, 86-89, chief asst, surg. clinic, 89-95, demonstrator anat, 89-02, asst. prof, 02-06; *prof, grad. sch. med*, Pennsylvania, 97- Dispensary surgeon, St. Mary's Hosp, 79-88; Episcopal Hosp, 88-05; surgeon, Memorial Hosp, 95. Col. Surg; Am. Acad. Surg; Am. Med. Ass; Path. and Obstet. Societies.
- Heyl, Dr. Paul R(enno)**, Bureau of Standards, Washington, D. C. **Physics*. Philadelphia, Pa, June 30, 72. B.S, Pennsylvania, 94, Tyndale fellow, 94-96, Harrison fellow, 97-98, Ph.D, 99. Instr, Clinton Liberal Inst, Fort Plain, N. Y, 96-97; high schools, Pa, 98-10; *physicist*, Commercial Research Co, 10-20; *Bur. Standards*, 20- Boyden premium, Franklin Inst, 07. A.A; Physical Soc. Gravitational anisotropy in crystals; redetermination of the constant of gravitation.
- Heylar, Prof. J(ohn) P(utman)**, Massachusetts Agricultural College, Amherst, Mass. *Botany*. Claremont, N. H, May 3, 86. B.S, Vermont, 09, M.S, 12. Instr. bot, Vermont, 09-12; Rutgers, 12-15, asst. prof, 15-18, assoc. prof, 18-20, N. J. state seed analyst, Exp. Sta, 12-20, consulting state seed analyst, 20-21; commercial work, 20-23; co. agr. agent, Vt, 23-25; *exten. prof. agron*, Mass. Col, 25- Summers, instr, Vermont, 09-12; sch. gardening, Rutgers, 13-16. A.A; Bot. Soc; Phytopath. Soc; Ass. Seed Anal. (sec'y-treas, 14-20). Seeds; seed fungi.
- Heymans, Prof. Paul**, Massachusetts Institute of Technology, Cambridge, Mass. *Physics*. Ghent, Belgium, March 12, 95. D.Eng.Sc, Ghent, 20; Paris; London, 20-21; C.R.B. fellow, Mass. Inst. Tech, 21-22, Sc.D, 22. Research dept, Usines de Keukelaere, Belgium, 20-21; research assoc. physics, Mass. Inst. Tech, 21-23, *asst. prof. theoret. physics*, 23- Baron Janssen prize, Belgium Royal Acad, 21. Chevalier de l'Ordre de la Couronne, Belgium, 25. A.A; fel. Physical Soc; assoc. Mech. Eng; fel. Am. Acad; Soc. Belge des Ing. et Ind. Theoretical physics; double refraction due to stress; methods of measurement of very short intervals of time; elasticity; photoelasticity.
- Hibbard, Prof. Benjamin H(orace)**, University of Wisconsin, Madison, Wis. *Agricultural economics*. Bremer Co, Iowa, Jan. 9, 70. B.S, Iowa Col, 98; Ph.D, Wisconsin, 02. Instr. econ. and in charge dept, Iowa Col, 02-04, *prof*, 04-13; *agr. econ*, Wisconsin, 13- Agent, Census Bur. Farm Econ. Ass; Econ. Ass; Polit. Sci. Ass; Acad. Polit. Sci. Marketing farm products; history of public land policies.
- Hibbard, Henry D(eming)**, 144 E. Seventh St, Plainfield, N. J. *Metallurgy*. Boston, Mass, July 30, 56. B.S, Mass. Inst. Tech, 77. Pres, Hibbard Process Corp. Min. and Metal. Eng. (publication committee, chairman, committee, steel manufacture). Solid non-metallic impuri-

ties in steel; alloy steels; rimming steels; defects in steel; wrought iron.

Hibbard, Prof. H(erbert) Wade, 1307 Wilson Ave, Columbia, Mo. *Mechanical engineering*. Moulmein, India, Sept. 10, 63. A.B., Brown, 86, A.M., 99; M.E., Cornell, 91. R. I. Locomotive Works, 86-89; Pa. Ry, 91-94; chief mech. engineer, Lehigh Valley Ry, 94-95; asst. prof. machine design, Minnesota, 95-98; prof. ry. mech. eng. and prin. grad. sch. mech. eng., Cornell, 98-09; *prof. mech. eng., Missouri*, 09-Summers, expert, N. Y. State Civil Service Commission, 04, 05, 08, N. Y. Cent. Ry, 08; consulting engineer, Waterbury Tool Co, 09. Council Nat. Defense, 17; Int. Jury Awards, San Francisco Expos, 15. Mech. Eng; Eng. Educ; Ry. Master Mechanics Ass; Master Car Builders Ass. Power plants; locomotives; cars; shop machinery; stationary boilers; aerial propellers; testing and experimental investigations.

Hibbard, Dr. Hope, 1307 Wilson Ave, Columbia, Mo. *Zoology*. Altoona, Pa, Dec. 18, 93. A.B., Missouri, 16, A.M., 18. Ph.D., Bryn Mawr, 21. Sarah Berliner fellow, Ass. Univ. Women, 25-26. Demonstrator biol., Bryn Mawr, 19-20; assoc. prof., Elmira, 21-25; *preparateur comp. anat., tech. lab., Paris*, 26- A.A.; Ass. Anat. of Europe. Cytology.

Hibbard, Prof. P(aul) L(ewellyn), University of California, Berkeley, Calif. *Chemistry*. Port Huron, Mich, July 20, 66. B.S., Nebraska, 92. Sugar, starch and glucose factories, and anal. laboratories, 92-07; asst. prof. plant nutrition, *California*, 08-25, *assoc. chemist*, 25- A.A.; Chem. Soc. Agricultural chemistry; soil fertility; alkali soils.

Hibbard, Raymond R., 68 Moselle St, Buffalo, N. Y. *Geology, Paleontology*. Buffalo, June 22, 95. Self-educated. Collector paleont. material for E. M. Kinle, Can. Geol. Surv; paleont. work for Dr. R. S. Bassler, U. S. Nat. Mus. Paleont. Soc. A new conodont fauna from the Rhinestreet shales of western New York; bryozoan faunas.

Hibbard, Dr. R(ufus) P(ercival), Michigan State College, East Lansing, Mich. *Plant physiology*. New Haven, Conn, April 2, 75. A.B., Williams, 99; Harvard, 01; Chicago, 02; Woods Hole, 03, 04, 06; fellow, Michigan, 04-06, Ph.D., 06. Teacher, Kiskiminitas Springs Acad, Saltsburg, Pa, 00-01; Blair Acad, Blairstown, N. J, 02-04; asst. bur. plant indust., U. S. Dept. Agr, 06-08; bacteriologist and plant pathologist, Miss. Exp. Sta, 08-11; research asst. *plant physiol., Mich. State Col*, 11-13, *research assoc. and assoc. prof. bot.*, 13- Asst., Woods Hole, 03, 04. A.A.; Bot. Soc; Genetic Ass; Soc. Plant Physiol. (v. pres, 24, pres, 25). Phytochemistry; plant nutrition; physiological balance in soil solution; concentration of electrolytes; toxicity of distilled water; influence of tension on the formation of mechanical tissue in plants; cotton diseases; toxic principle in cottonseed meal.

Hibben, Dr. J(ames) H., 23 Jefferson Road, Princeton, N. J. *Physical chemistry*. Indianapolis, Ind, May 14, 96. B.S., Illinois, 20, M.S., 22; fellow, Paris, 22-23, Sc.D., 24; Int. Board

Educ. fellow, Sorbonne, 24. Asst. chem., Illinois, 21-22; research staff, exp. sta., E. I. du Pont de Nemours and Co, 25; *Nat. Research Council fellow, Princeton*, 25- Chem. Soc; Soc. de Physique; Soc. chim. de France. Electrometric derivatives of hydroxylamine; action of light on the oxidation by iodine of organic compounds; radiation and photochemistry.

Hibbert, Dr. Harold, McGill University, Montreal, Que, Can. **Chemistry*. Manchester, England, Aug. 27, 77. B.S., Victoria (Eng), 97, M.S., 00, D.Sc., 11; fellow, Inst. Chem. London, 04; Ph.D., Leipzig, 06. Instr. chem., Wales, 99-04; Tufts, 06-08; Imp. Col. Sci., London, 08-09; research chemist, E. I. du Pont de Nemours and Co, 10-14; fellow, Mellon Inst, 14-16; consulting and research chemist, 16-19; asst. prof. chem., Yale, 19-21, assoc. prof., 21-25; *prof. indust. and cellulose chem., McGill*, 25- Advisory chemist, British War Mission, Washington, 18. A.A.; Chem. Soc. (chairman, New Haven sect, 20, cellulose sect, 20-22); N. Y. Chemists Club; Textile Inst. Eng; London Soc. Chem. Indust; Chem. Gesell. Tautomerism; explosives; acetylene derivatives; pharmaceutical products; cellulose; artificial silk; aliphatic chemistry.

Hickernell, Dr. Louis M(ax), 213 Westminster Ave, Syracuse, N. Y. *Zoology, Hygiene*. Saegerstown, Pa, March 5, 87. A.B., Allegheny, 10; A.M., Princeton, 14, Ph.D., 17; M.D., Syracuse, 26. Instr. zool., *Syracuse*, 14-17, asst. prof., 17-20, assoc. prof., 20-21, histol. and embryol., col. med., 21-26, *prof. hygiene*, 27- A.A.; Soc. Zool. Desiccation among rotifers; digestive system of Hemiptera; cytology.

Hickerson, Prof. T(homas) F(elix), University of North Carolina, Chapel Hill, N. C. *Civil engineering*. Ronda, N. C, April 30, 82. A.B., North Carolina, 04, A.M., 07; B.S., Mass. Inst. Tech, 09; Columbia, 12. Teacher, Bingham Mil. Sch., N. C, 04-05; instr. math, *North Carolina*, 05-09, assoc. prof. *civil eng.*, 10-20, *prof.*, 20- Acting head dept., North Carolina, 20-21. Summers, highway engineer, Crest-of-the-Blue-Ridge Highway, 11-13; N. C. State Highway Commission, 15-19; town engineer, Chapel Hill, 19- Investment calculations; highway engineering; culverts and bridges; the Abney hand level; domestic water supplies and waterwheel pump; highway curves and earthwork.

Hickman, Dr. Clarence N., 125 22d St, Jackson Heights, Long Island, N. Y. *Physics*. Lizton, Ind. A.B., Winona, 14; A.M., Clark, 18, Ph.D., 22. Instr. high sch., Ind, 14-17; *research physicist* with Dr. R. C. Goddard, 17-18; Bur. Standards, 18-19, 20-22; asst. to Dr. Webster, Clark, 19-20; Navy Dept, 23-24; *Am. Piano Co*, 24- Summers, instr., Winona, 14, 15-16. Physical Soc; Nat. Geog. Soc. Inductance and capacitance; ballistics; sound; mechanics.

Hickman, Dr. K(enneth) C(laude) D(evereux), Kodak Park, Rochester, N. Y. *Chemistry*. Wanstead, Eng, Feb. 4, 96. B.Sc., Royal Col. Sci., 19, D.I.C., 21, Ph.D., 25. Photog. and indust. research, London, 19-21; lecturer, Royal Col. Sci., 21-25; *research chemist, Eastman Kodak Co*, 25- Chem. Warfare Dept, Eng,

- 17-19. Soc. Motion Picture Eng; fel. Royal Photog. Soc; Royal Col. Sci; fel. London Chem. Soc; assoc. Inst. Chem. London. Photographic chemistry and invention; washing photographic materials.
- Hicks, Edwin F(rancis)**, 4837 Fairmount Ave, Philadelphia, Pa. *Chemistry*. New York, N. Y., Jan. 19, 72. Columbia, 89-92; B.S., Mass. Inst. Tech, 92-94. Anal. and consulting chemist, 95-00; chemist, United Coke and Gas Co, 00-02; Asbestolith Co, 02-04; chem. engineer, 04-07; chief chemist, Victor Talking Machine Co, 07-21; *consulting chemist*, 21- A.A.; Chem. Soc. (councilor, 14-26); Electrochem. Soc; Soc. Test. Mat; Soc. Chem. Indust. Resins; varnish; oils; waxes.
- Hicks, Dr. J(ohn) F(rederick) G(ross)**, 972 Belmont St, Portland, Oregon. *Chemistry*. Philadelphia, Pa, Aug. 31, 84. B.S., Pennsylvania, 06; M.S., Illinois, 16, Ph.D., 18. Instr. chem, Medico-Chirurg. Col. Phila, 06-07; Villa Nova, 07-08, assoc. prof, 08-09, prof, 09-10; asst. chemist, Barrett Co, 10-12; chief chemist, Modoc Co, 12-14; assoc. prof. chem, Okla. Agr. and Mech. Col, 14-15; asst, Illinois, 15-18; asst. prof, Oregon Col, 18-19, prof, 19-21; visiting lecturer, Stanford, 21-22; assoc. prof, Nevada, 22-24; *research chemist*, *Portland Gas and Coke Co*, 24- Chem. Soc. Alloys of less common metals; isolation of rare earth metals; electrolysis of fused salts; reactions in non-aqueous solutions; liquid motor fuels; by-products of oil-gas production; liquid purification of city gas.
- Hicks, Dr. W(illiam) B(rooks)**, Solvay Process Co, Syracuse, N. Y. *Chemistry*. Pittsburgh, Texas, Sept. 12, 82. A.B., Texas, 06, fellow, 06-07, A.M., 08; fellow, Pennsylvania, 09-11, Ph.D., 11. Tutor chem, Texas, 07-08; head dept. science, high sch, Texas, 08-09; asst. chemist, bur. chem, U. S. Dept. Agr, 11-12; U. S. Geol. Surv, 12-17, assoc. chemist, 17-20; *in charge anal. research*, *Solvay Process Co*, 20- Chem. Soc. Mineralogy; potassium; muds; action of salt solution on clay filters.
- Hickson, Dr. W(illiam) J(ames)**, Psychopathic Laboratory, Municipal Court, Chicago, Ill. *Psychology*. New York, N. Y., Jan. 21, 74. M.D., Pennsylvania, 00; A.B., Duquesne, 03; A.M., Pittsburgh, 06; J.D., Northwestern, 23. Instr. anat, Pittsburgh, 04-06, chief neur. and psychiat. clinic, 06-09; asst. psychiat, Zurich, 10-11; neur. dept, Berlin, 12; director, Med. Research Training Sch, Vineland, N. J, 13; *director psychopath. lab*, *Chicago, Ill*, 14- Acting chairman, crime prevention and legislation, Eugenics Committee. A.A.; Am. Med. Ass; Zurich Psychoanal. Verein. Abnormal psychology; anthropometric intelligence correlations.
- Hidnert, Peter**, U. S. Bureau of Standards, Washington, D. C. *Physics*. New York, N. Y., June 16, 91. Col. City of N. Y, 10; A.B., George Washington, 18, M.S., 19; Columbia, 23; Bur. Standards, 20, 23-25. Lab. asst, *Bur. Standards*, 16-18, asst. physicist, 18-21, *assoc. physicist*, 21- Physical Soc. Linear thermal expansion of solids; instruments and methods used in expansion measurements.
- Higbie, Prof. H(enry) Harold**, University of Michigan, Ann Arbor, Mich. *Electrical engineering*. New York, N. Y., 82. E.E., Columbia, 04. Asst. mech. eng, Columbia, 04-05; instr. mech. and elec. eng, Michigan, 05-07, elec. eng, 07-09, asst. prof, 09-11; head elec. dept, Wentworth Inst, Boston, 11-13; *prof. elec. eng*, *Michigan*, 13- Elec. Eng. (past chairman, Detroit-Ann Arbor sect); Eng. Educ; Illum. Eng. Soc. (chairman, committee on nat. lighting, 24-, Mich. sect, 25, pres, 26). Illumination; engineering education.
- Higgins, Dr. B(ascombe) B(ritt)**, Experiment, Ga. *Botany*, *Plant pathology*. Higgins, N. C., Feb. 7, 87. B.S., N. C. State, 09, M.S., 10; Ph.D., Cornell, 13. Asst. bot, N. C. State, 09-10; Cornell, 10-13; *botanist*, *Ga. Exp. Sta*, 13- Assoc. ed, 'Phytopathology,' 25- U.S.A., 17-19. A.A.; Bot. Soc; Phytopath. Soc. Cow pea wilt; Cylindrosporium on stone fruits; morphology of Ascomycetes; plant diseases.
- Higgins, Elmer**, U. S. Bureau of Fisheries, Washington, D. C. *Zoology*. Cedar Rapids, Iowa, Aug. 27, 92. A.B., Southern California, 16, A.M., 23. Instr. zool, Southern California, 16-17; teacher, high sch, Calif, 17-18; asst, Calif. Fish and Game Commission, State Fisheries Lab, 18-23; asst, Bur. Fisheries, 24; director, Key West Biol. Sta, 25; *in charge div. sci. inquiry*, *Bur. Fisheries*, 26- Lecturer, Marine Biol. Sta, Southern California, 22-23. A.A.; Pacific Fisheries Soc. Life histories of the mullet and California sardine; fluctuations in sardine fisheries; biology of marine fish.
- Higgins, Dr. G(eorge) M(arsh)**, Mayo Clinic, Rochester, Minn. *Biology*. Elk Grove, Ill, Dec. 19, 90. B.S., Knox, 14; A.M., Illinois, 16, fellow, 18-19, Ph.D., 19. Instr. zool, Illinois, 19-21; asst. prof, Knox Col, 21-24; *first asst. exp. surg. and path*, *Mayo Foundation*, *Minnesota*, 24- Lieut, U.S.A., 18-19. A.A.; Soc. Zool; Ass. Anat. Experimental biology; liver and gall bladder function.
- Higgins, Dr. Harold L(eonard)**, Cincinnati General Hospital, Cincinnati, Ohio. *Physiology*. Gloucester, Mass, March 26, 87. A.B., Harvard, 07; M.D., Hopkins, 19. Instr. chem, Swarthmore, 07-08; physiologist, nutrition lab, Carnegie Inst, 08-15; asst. *pediat*, Hopkins, 15-20; asst. prof, *Cincinnati*, 20-23, *assoc. prof*, 23- A.A.; Physiol. Soc; Am. Med. Ass; Chem. Soc. Nutrition; effects of drugs and high percentages of oxygen on respiration and gaseous metabolism; determination of CO₂ in air; acidosis.
- Higgins, J(ames) Edgar**, College of Agriculture, University of the Philippines, Los Baños, P. I. *Horticulture*. Wolfville, N. S. Can, June 14, 73. B.A., Acadia, 95; diploma, N. S. Sch. Hort, 95; M.S.A., Cornell, 98. In charge dept. agr. and nature study, Honolulu Nor. Sch, 98-00; supervisor agr, pub. schools, Honolulu, 00-03; horticulturist, Hawaii Exp. Sta, 03-13; prof. hort, Porto Rico, 13-14; horticulturist, Hawaii Exp. Sta, 14-20; *prof. in charge dept. agron. and hort. col. agr*, *Philippines*, 20- Prepared

- Hawaii agr. exhibit, La. Purchase Expos, 04. A.A.; Soc. Hort. Sci.; Pomol. Soc. Tropical horticulture.
- Highsmith, Prof. J(ames) A(lbert)**, North Carolina College for Women, Greensboro, N. C. *Psychology*. Sampson Co, N. C. A.B, North Carolina, 10, A.M, 15; Ph.D, Peabody Col, 23. Prin, high sch, N. C, 11-15; assoc. educ, N. C. *Col. for Women*, 16-22, *prof. psychol*, 23- S. Soc. Philos. and Psychol. (sec'y-treas, 25-). Measurement of intelligence; prognostic value of general ability tests among college students; coefficients of correlation as affected by homogeneity of data.
- Hightower, Prof. Ruby Usher**, Shorter College, Rome, Ga. *Mathematics*. Near Covington, Ga, 82. A.B, Shorter Col; Chicago; London; A.M, Georgia, 19; hon. fellow, Missouri, 24-25. *Prof. math*, Alabama Nor. Col; Hardin Col; *Shorter Col*, 19- Math. Soc; Math. Ass. Theory of numbers.
- Higley, Dr. George O(swin)**, 244 N. Washington St, Delaware, Ohio. *Chemistry*. Near Columbus, Ohio, Aug. 19, 58. B.S, Michigan, 91, M.S, 93, Ph.D, 05. Instr. gen. chem, Michigan, 91-05; *prof. chem*, *Ohio Wesleyan*, 05- A.A; Chem. Soc. The action of metals on nitric acid; the halides of chromium; a new chemograph; the excretion of carbon dioxide; bread, beer and milk as foods; action of sodium acetone on ethyl chlorocarbonate; well water; urine analysis; an adjustable atomic model; carbondioxide in the working atmosphere.
- Higley, Prof. L(ouis) Allen**, 516 E. Willow Ave, Wheaton, Ill. *Chemistry*. Wilmet, Ohio, Sept. 28, 71. A.B, Ohio Northern, 96, A.M, 99; Ph.D, Chicago, 07; Sc.D, Ohio Northern, 27. Chief chemist, The Kinnebecott Co, Ill, 08-09; consulting geologist, Guadalajara, Mex, 09-11; *prof. chem*, Westminster (Mo), 11-15; N. Mex. Agr. Col, 15-21; state chemist, N. Mex, 17-21; *prof. chem. and dean men*, *Wheaton Col*, 25- Consulting geologist, N. Mex. and Ill, 21- A.A; fel. Am. Geog. Soc; fel. Ill. Acad; N. Mex. Ass. Sci. Chemistry; geology.
- Hildebrand, Dr. Joel H(enry)**, University of California, Berkeley, Calif. **Chemistry*. Camden, N. J, Nov. 16, 81. B.S, Pennsylvania, 03, Ph.D, 06; Berlin, 06-07. Asst. chem, Pennsylvania, 04-05, instr, 07-13; asst. prof, *California*, 13-17, assoc. prof, 17-18, *prof*, 18- Consulting chemist, U. S. Bur. Mines, 24- Capt, Ordnance R.C, 17, major and lieut. col, C.W.S, 18, director lab, A.E.F, commandant, Exp. Field and A.E.F. Gas Sch. D.S. medal. A.A. (v. pres, Pacific div, 24-); Chem. Soc. (chairman, Calif. sect, 15-17); Physical Soc. Physical chemistry; electro-analysis; spectra; hydrogen electrode; vapor pressures of metals and amalgams; revision of Trouton's rule; sea-water bitter; dissociation of alcohol; compounds of fluorin; theory of solubility; helium for prevention of caisson disease; emulsions; theory of stability of compounds.
- Hildebrand, Samuel F(rederick)**, U. S. Bureau of Fisheries, Biological Station, Beaufort, N. C. *Zoology*. Stendal, Ind, Aug. 15, 83. A.B, Ind.
- State Nor. Sch, 10; Indiana; D.P.H, Georgia, 25. Asst. zool, Field Museum Nat. Hist, 08-10; sci. asst, Bur. Fisheries, 10-14; director, U. S. Fisheries Lab, Beaufort, N. C, 14-18; U. S. Biol. Sta, Key West, Fla, 18-19; asst. in commissioner's office, Bur. Fisheries, 19-24; *director*, *U. S. Fisheries Lab, Beaufort, N. C*, 24- Smithsonian biol. surv. of Canal Zone. A.A; Fisheries Soc; Ecol. Soc; N. C. Acad. Systematic ichthyology; life histories and habits of fishes; fishes in relation to mosquito control.
- Hildebrandt, Dr. F(rank) M(errill)**, 504 E. 39th St, Baltimore, Md. *Plant physiology*, *Biochemistry*. Baltimore, Dec. 26, 88. A.B, Hopkins, 13, Ph.D, 17. Asst, Utah Forest Service Exp. Sta, 16-17; chemist, bur. plant indust, U. S. Dept. Agr, 17; fellow, Mellon Inst, 19-22; *research chemist*, Ward Baking Co, 22-25; *U. S. Indust. Alcohol Co*, 25- Lieut. and capt, Sanit.C, 17-19. A.A; Chem. Soc. Plant growth and climatic conditions; nutrition of yeast; fermentation.
- Hildebrandt, Prof. T(heophil) H(enry)**, University of Michigan, Ann Arbor, Mich. **Mathematics*. Canal Dover, Ohio, July 24, 88. A.B, Illinois, 05; M.S, Chicago, 06, Ph.D, 10. Asst. math, Chicago, 08-09; instr, *Michigan*, 09-14, asst. prof, 14-20, assoc. prof, 20-23, *prof*, 23- A.A; Math. Soc. (v. pres, 24-26). Functional calculus.
- Hilditch, Dr. Warren W(itherell)**, Hamot Hospital, Erie, Pa. *Biochemistry*. Thompsonville, Conn, Oct. 5, 83. Ph.B, Yale, 05, Ph.D, 09; med. sch, Hopkins, 05-07. Assoc. prof. physiol. chem, col. med, Syracuse, 09-11; in charge clin. laboratories, New York, and Newark, N. J, 11-15; pathologist, Mem. Hosp, Orange, N. J, and director, Graves Lab, 15-20; *pathologist*, *Hamot Hosp*, 20- A.A; Chem. Soc; Pub. Health Ass. Glycosuria; carbohydrate metabolism in relation to complete removal of thyroids and partial parathyroidectomy; influence of alcohol upon metabolism; acidosis; toxicity of organic acids.
- Hildreth, Dr. Gertrude H(owell)**, 452 Riverside Drive, New York, N. Y. *Psychology*. Terre Haute, Ind, Oct. 11, 98. A.B, Northwestern Col, 20; A.M, Illinois, 21; Ph.D, Columbia, 25. Psychologist, pub. schools, Okla, 21-23; asst. educ. psychol, *Columbia*, 24, *psychologist*, *Lincoln Sch, Teachers Col*, 25- Educational psychology.
- Hill, Dr. Albert F(rederick)**, Yale University, New Haven, Conn. *Botany*. Dresden, Germany, Sept. 4, 89. A.B, Dartmouth, 10; A.M, Harvard, 11; Ph.D, Yale, 21. Asst. bot, Harvard, 11-13; *asst. curator bot. collections*, *Yale*, 14-, instr. bot, 18-27, *asst. prof*, 27- A.A; Bot. Soc; Ecol. Soc; New Eng. Bot. Club. Systematic and geographic botany; ecology.
- Hill, Prof. Arthur E(dward)**, 66 Clinton Place, The Bronx, New York, N. Y. **Chemistry*. Newark, N. J, March 20, 80. B.S, N. Y. Univ, 01, M.S, 03; Ph.D, Freiburg, 03. Instr, high sch, N. J, 03-04; chem, *N. Y. Univ*, 04-05, asst. prof, 05-07, assoc. prof, 07-12, sec'y, sch.

- applied science, 06-20, director chem. lab, 12-13, *prof. chem.*, 12- Prof. N. J. Col. Pharmacy, 06-19. C.W.S., 18-19. A.A.; Chem. Soc. (councilor, N. Y. sect, 18, chairman, div. physical and inorg. chem, 24, assoc. ed, 'Jour,' 23-); N. Y. Chemists Club; Chem. Gesell. Aromatic aldehydes; sulphinic acids; modification of Volhard's method; analysis of sulphocyanates; determination of barium; solubility relations; adsorption; analytical standards; distribution law; mutual solubility of liquids; phase rule study of three-component systems.
- Hill, Prof. Arthur J(oseph)**, Yale University, New Haven, Conn. *Organic chemistry*. Meriden, Conn, April 21, 88. Ph.B, Yale, 10, Ph.D, 13. Asst. instr. *org. chem.*, *Sheffield Sci. Sch.*, Yale, 10-13, instr, 13-17, asst. prof, 17-22, assoc. prof, 22-25, *prof.*, 25- C.W.S., U.S.A., 18. Committee on hypnotics and chairman subcommittee local anesthesia, Nat. Research Council. A.A.; Chem. Soc. (chairman, New Haven sect, 25); Inst. Chem. Synthetic organic chemistry; biochemistry and medicinal products; dye intermediates.
- Hill, Dr. Bruce V(ickory)**, Phillips University, Enid, Okla. *Physics*. Kellogg, Iowa, Oct. 19, 72. Ph.B, Grinnell, 96; A.M, Nebraska, 98; Ph.D, Berlin, 02. Instr. physics, California, 03-05; acting prof. physics and elec. eng, Kansas, 05-07; physicist, Chicago Telephone Co, 07-26; contracting engineer, 24-26; *prof. math.*, *Phillips*, 26- Physical Soc; West. Soc. Eng. Applied electricity; accidental double refraction in colloids; calorimetric properties of the ferromagnetic metals; magnetic and thermal behavior of alloys; alternating current measurements; time limit of sound discrimination; armor.
- Hill, Dr. Charles**, 7251 Oglesby Ave, Chicago, Ill. *Histology*, *Embryology*. Leland, Ill, June 27, 62. Grad. Mt. Morris, 84; B.S, Michigan, 91, M.S, 92, Ph.D, Northwestern, 99, M.D, 02. Prof. zool, Washington (Seattle), 92-98; asst. prof. histol. and embryol, Northwestern, 98-08; pres, Chicago Med. Sch, 16-24; *practising physician and surgeon*, 24- Acting prof, Northwestern, 02-03. Chicago Med. Ass. Embryology; histology and organography; epiphyses; development of vertebrate head.
- Hill, Cha(rlie)s C(hase)**, U. S. Entomological Laboratory, Carlisle, Pa. *Entomology*. Melrose, Mass, July 13, 90. Harvard; B.Sc, Mass. Col. Sci. asst, Cereal and Forage Crop Lab, Nashville, 14-17; *in charge cereal and forage crop lab*, *Carlisle*, for U. S. Dept. Agr, 25- Entom. Soc; Ass. Econ. Entom; Wash. Entom. Soc; Soc. entom. de France. Biology of parasitic hymenoptera and *Plathypena scabra*; ecology of the Hessian fly.
- Hill, Dr. Charles W(arren)**, 355 E. Broadway, Fulton, N. Y. *Chemistry*. Clarion, Iowa, April 6, 84. A.B, Minnesota, 05; A.M, Wisconsin, 07, Ph.D, 10. Asst. chem, Wisconsin, 06-08, instr, 08-10; asst. director research lab, Nat. Carbon Co, 10-13; Cleveland Research Lab, 13-15; asst. prof. chem, Syracuse, 15-16; research chemist, Westinghouse Elec. and Mfg. Co, 16-20; gen. works manager, Atlantic Terra Cotta Co, 20-26; *manager*, *Peter Cailler Kohler Swiss Chocolate Co*, 26- Chem. Soc. Non-ferrous foundry chemistry and metallurgy; rare earths; carbon manufacture; industrial laboratory organization; factory control; terra cotta.
- Hill, Pres. David Spence**, University of New Mexico, Albuquerque, N. Mex. *Psychology*, *Education*. Nashville, Tenn, Dec. 14, 73. A.B, Randolph-Macon, 97; Harvard, 97; Washington (St. Louis), 01; fellow, Clark, 05-07, Ph.D, 07; LL.D, Kentucky, 16, Arizona, 20. Instr. acad, 97-04, and night schools, 04; prof. hist. and philos. of edue, Peabody Col. Teachers, 07, psychol. and edue, 07-11; Tulane, 11-13; director, Bur. Educ. Research, New Orleans, 13-16; acting prof. edue, Wisconsin, 16-17; Illinois, 17-19; *pres*, *New Mexico*, 19- Summers, prof, Montana, 13, Cornell, 14, California, 16, Wisconsin, 17. Psychol. Corp. A.A; Psychol. Ass; Ass. Clin. Psychol; Ass. Clin. Criminol; S. Soc. Philos. and Psychol. (pres, 15); N. Mex. Ass. for Sci. (pres, 24); N. Mex. Archeol. Soc. Measurements in elementary education; individual differences; retinal stimuli; delinquency; industry and education; vocational education.
- Hill, Prof. D(avid) U(pton)**, Acadia University, Wolfville, N. S. Can. *Chemistry*. St. Stephen, N. B, Feb. 24, 87. B.A, New Brunswick, 08; A.M, Yale, 11, Ph.D, 13. Asst. *chem.*, Yale, 11-13, instr, 13-17; *prof.*, *Acadia*, 17- Chem. Soc; Can. Inst. Chem. (sec'y-treas, maritime sect, 22-). Diffusion theory of reaction velocity.
- Hill, Dr. Eben C(layton)**, Johns Hopkins School of Medicine, Baltimore, Md. *Röntgenology*. Baltimore, Oct. 9, 82. A.B, Hopkins, 03, M.D, 07; Freiburg, 04, 06; grad. Army Med. Sch, 09. Asst. anat, Hopkins, 07-08; lieut, M.C, 09-12, capt, 13; röntgenologist-pathologist, Vassar Hosp, 13-15, röntgenologist, Vassar Hosp. and Dispensary, Poughkeepsie, N. Y, 14-21; *instr.*, *assoc.* and *lecturer* *röntgenol. anat.*, *sch. med.*, *Hopkins*, 21- Röntgenologist, Med. Advisory Board, U.S.A., 17-19. A.A; fel. Am. Med. Ass; fel. Col. Physicians; fel. Col. Surg; Röntgen Ray Soc; Ass. Anat; Radiol. Soc; Soc. Exp. Biol; Md. Med. and Chirurg. Faculty; N. Y. Acad. Med. Röntgenological anatomy; research circulation.
- Hill, Prof. Edwin A(lleston)**, 2246 Cathedral Ave, Washington, D. C. *Chemistry*, *Civil engineering*. New York, N. Y, Jan. 18, 50. A.B, Yale, 75, A.M, 02; law sch, Columbia, 76; M.S, George Washington, 01, Ph.D, 03. Lawyer, ry. manager and civil engineer, 17 years; *asst. examiner*, *U. S. Patent Office*, 00-; *instr. chem.*, *George Washington*, 01-05, *asst. prof.*, 05- Private sec'y to three Commissioners of Patents; asst. receiver, asst. attorney, asst. supt, etc, in ry. service. A.A; Chem. Soc; assoc. Civil Eng; West. Soc. Civil Eng; Ill. and Conn. Engineers Societies; Wash. Micros. Soc; Postal Micros. Club. Engineering; stereo-chemistry; physical chemistry.

Hill, Prof. G(eorge) Albert, 4 Gordon Place, Middletown, Conn. *Chemistry*. Worcester, Mass., March 22, 92. B.S., Worcester, 13; A.M., Harvard, 14, Ph.D., 17. Instr. *chem.*, Harvard, 17-19; assoc. prof, *Wesleyan*, 19-24, *prof.*, 24- Chem. Soc. (chairman, Conn. Valley sect, 22-24). Organic chemistry; ketones; natural coloring matters.

Hill, George Andrews, U. S. Naval Observatory, Washington, D. C. *Astronomy*. Elizabeth, N. J., April 11, 58. George Washington, 87. Computer, *U. S. Naval Observatory*, 89-93, asst. astronomer, 93-20, *astronomer*, 20- U. S. eclipse exped, 00, Spain, 05. Astron. Soc. Variation of latitude; constants of nutation and aberration; star positions; longitude by wireless time signals; proper motion of stars; prime vertical transit observations of declinations of standard and other stars. [*Died Aug.*, 27.]

Hill, Dr. Geo(rge) R(ichard), Jr., 1430 Yale Ave, Salt Lake City, Utah. *Plant physiology*. Ogden, Utah, April 10, 84. B.S., Brigham Young, 07; B.S., Utah Col., 08; Ph.D., Cornell, 12. Asst. plant physiol., Cornell, 10-11, instr., 11-12; research asst., Mo. Bot. Garden, 12-13; botanist and plant pathologist, Utah Col. and Exp. Sta., 13-25, dean sch. agr., 16-25; *director dept. agr. research, Am. Smelting and Ref. Co.*, 25-A.A.; Bot. Soc.; Phytopath. Soc.; Soc. Plant Physiol. Plant pathology; effects of smelter gases and fumes; smelter by-products.

Hill, H(enry) H(arris), Box 117, Blacksburg, Va. *Chemistry*. Scottsville, Va., May 31, 80. B.S., Va. Polytech, 04; M.S., 09. Asst. chemist, Miss. Agr. and Mech. Col., 05-06; *Va. Exp. Sta.*, 07-13, *assoc. chemist*, 13- A.A.; Chem. Soc.; Agr. Chem.; Va. Acad. Soils; fixation phosphoric acid; nitrification; green manures; fermentation.

Hill, Dr. H(ibbert) W(inslow), University of British Columbia, Vancouver, B. C., Can. *Bacteriology, Public Health*. St. John, N. B., Sept. 16, 71. M.B., Toronto, 93, M.D., 99, D.P.H., 11, L.M.C.C., 15; Hopkins, 95. Demonstrator bacter. and path., Toronto, 95; bacteriologist, Louisville, Brooklyn and Boston, 96-05; instr. bacter., Harvard, 03-05; asst. prof., Minnesota, and asst. director and epidemiologist, Minn. State Board Health, 05-12; director, Inst. Pub. Health and chief div. epidemiol., London, Can., 12-18; exec. sec'y, Minn. Pub. Health Ass., 18-20; prof. pub. health, Western, 12-18, dean, 16-18, 20-25; *director*, Inst. Pub. Health, London, Can., 20-25; *Vancouver Gen. Hosp. Laboratories and prof. bacter. nursing and health, British Columbia*, 25- Asst. and inspector, Board Health, Pa. and New York, 98, 96-98. Managing and assoc. ed., 'Am. Jour. Pub. Hygiene,' 00-04; ed., 'Minn. Health Jour,' 16-20. Examiner, Med. Council, Can., 16, mem., 20-25; committee on tuber, Can. Nat. Research Council, 25- Capt., C.E.F., 16-18. A.A.; Soc. Nat.; Ass. Path. and Bact.; Soc. Bact.; Pub. Health Ass. (chairman, lab. sect, 07); Tuber. Ass.; Am. Med. Ass.; Boston Soc. Med. Sci.; Can. Med. Soc. (chairman, committee pub. health, 25); Toronto Path. Soc. (sec'y, 93). Morphology; technique; epidemiology of typhoid and poliomyelitis; porous petri dishes; pressure

filter for sera and hanging block; sanitation for nurses; hygiene.

Hill, Hubert, 312 First St, Morgantown, W. Va. *Chemistry*. Raleigh, N. C., Oct. 29, 83. B.S., North Carolina, 07, M.S., 08; Hopkins, 15-16. Instr. chem., N. C. State, 08-10; asst. feed chemist, N. C. State Dept. Agr., 10-11; instr. *chem.*, *West Virginia*, 11-15, asst. prof., 16-19, *assoc. prof.*, 19- Chem. Soc.

Hill, James M(adison), U. S. Bureau of Mines, Custom House, San Francisco, Calif. *Geology*. Chicago, Ill., Feb. 14, 84. B.S., Chicago, 06. U. S. Geol. Surv., 07-25; *U. S. Bur. Mines*, 25- Geol. Soc.; Soc. Econ. Geol.; Min. and Metal. Eng.; Wash. Acad. Economic geology; platinum; bauxite and aluminum; magnesite; California and Oregon.

Hill, Dean J(ohn) A(rthur), 264 N. Ninth St, Laramie, Wyo. *Animal husbandry*. Carrollton, Ohio, June 10, 80. B.S., Wyoming, 07. *Wool specialist*, *Wyo. Exp. Sta.*, 07-, *prof. textile indust.*, *Wyoming*, 10-, *director*, *Exp. Sta. and dean col. agr.*, 22- Wyo. State Board Agr., 23- Capt., U.S.A., 17-18. Soc. Animal Production. Wool fibers; effect of atmospheric moisture upon the weight of wool; effect of alkali, weathering and cross breeding upon wool; mass selection for improving wool production.

Hill, Prof. J(ohn) Ben(jamin), State College, Pa. *Botany, Genetics*. Lebanon, Ill., Dec. 12, 79. B.S.A., Missouri, 08; A.B., Cornell, 09; Ph.D., Chicago, 13. Asst. bot., Cornell, 07-09; instr., *Pa. State*, 09-11, asst. prof., 13-15, *assoc. prof.*, 15-20, *prof.*, 20- Second lieut., Inf., 18. A.A.; Bot. Soc. Morphology and genetics; plant anatomy; anatomy of Lycopodium; morphology of hybrid embryos; microtechnic; species hybrids of Digitalis.

Hill, Prof. John E(dward), Providence, R. I. *Civil engineering*. New York, N. Y., Nov. 9, 64. B.S., Rutgers, 84, M.S., 87, C.E., 92, hon. Sc.D., 05; M.C.E., Cornell, 95. Instr. *civil eng.*, Cornell, 90-94; instr., *assoc. prof. and prof.*, *Brown*, 94- A.A.; Civil Eng. Shades, shadows and perspective; sanitation.

Hill, John W(illmuth), Brotherhood Building, Cincinnati, Ohio. *Hydraulic and sanitary engineering*. Covington, Ky., Oct. 10, 48. Cincinnati pub. schools. Engineer, public water supplies; chief engineer, bur. filtration, Dept. Pub. Works, Phila., 01-05; Cincinnati Water Works, 06-07. Ohio State Board Health, 10-15. Gold medal, Cincinnati Indust. Expos, 74. Civil Eng.; Pub. Health Ass.; Water Works Ass.; New Eng. Water Works Ass.; Franklin Inst. Works for public water supply; economy in steam engines, boilers and fuels; value of water works properties and public utilities; filtration; analytical data pertaining to domestic water supplies.

Hill, Dr. J(oseph) B(ennett), 3415 Race St, Philadelphia, Pa. *Chemistry*. Philadelphia, Oct. 3, 91. B.S., Pennsylvania, 13, Ph.D., 16. Lab. manager chem. dept, Barrett Co., 16-24; *chief research chemist, Atlantic Ref. Co.*, 24- Chemist, Nat. Ass. Dyers and Cleaners, 22-23. Chem. Soc. (chairman, Phila. sect, 26); Chem. Eng;

Automotive Eng. Petroleum; dry cleaning; coal tar compounds; tungsten.

Hill, Miss Laura E(lizabeth), Vassar College, Poughkeepsie, N. Y. *Astronomy*. Philadelphia, Pa, Sept. 3, 93. A.B., Northwestern, 17, A.M., 22. Teacher, high sch., S. Dak., Ill. and N. J., 17-20; asst. astron., Northwestern, 20-23, instr., 23-24; *Vassar*, 24- Astron. Soc. Stellar parallax.

Hill, Prof. R(euben) L(orenzo), 645 N. Eighth East St, Logan, Utah. *Chemistry*. Ogden, Utah, March 24, 88. B.S., Utah Col., 12; Ph.D., Cornell, 15. Instr. biol. chem., Cornell, 15-16; biochemist, bur. chem., U. S. Dept. Agr., 16; Md. Exp. Sta., 16-18; *prof. chem., Utah Col. and in charge nutrition investigations, Exp. Sta.*, 19- Nutrition officer, U.S.A., 18-19. Soc. Biol. Chem. Mammary development; milk secretion; metabolism; human nutrition.

Hill, Robert Thomas, University of California at Los Angeles, Los Angeles, Calif, or Jefferson Hotel, Dallas, Texas. **Geology, Geography, Archeology*. Nashville, Tenn, Aug. 11, 58. B.S., Cornell, 86; LL.D., Baylor, 20. Asst. paleontologist, U. S. Geol. Surv., 86-88, asst. geologist, 88-89; geologist, Ark. Geol. Surv., 89; prof. geol., Texas, 89-91; geologist, U. S. Geol. Surv., 89-94, senior geologist, 25-26; *retired*. Lecturer, Michigan, 02. With Prof. A. Agassiz, West Indian exploration, 95; U. S. investigations, underground waters, 92. Assoc. ed., 'Am. Geologist,' 90- A.A.; Geol. Soc.; Ass. Geog.; Ass. Petrol. Geol.; Am. Geog. Soc.; Seismol. Soc.; Min. Eng.; Wash. Geol. Soc.; Wash. Biol. Soc.; Wash. Philos. Soc.; Texas Acad.; Texas Hist. Soc.; South. Hist. Soc.; Southwest. Geol. Soc. Geography; sociology; archeology; the basic geology, paleontology, physiography, commercial and social geography of the southwestern United States and Spanish America, with reference to continental evolution; geology of the Mexican Plateau, including southwestern United States; The Windward Islands, The Texas region and southern California.

Hill, Dr. Samuel S(mith), Wernersville State Hospital, Wernersville, Pa. *Neurology*. Mercer Co, Pa, May 9, 68. M.D., Pittsburgh, 94. First asst. physician, *State Asylum for Insane, Wernersville*, 94-97, *physician-in-chief and supt.*, 97- A.A.; Psychiat. Ass.; Am. Med. Ass. Mental and nervous diseases.

Hill, Dr. Thomas M., E. I. du Pont de Nemours and Company, Parlin, N. J. *Chemistry*. Statesville, N. C, Aug. 26, 96. B.S., Davidson, 15; A.M., Princeton, 20; Ph.D., Columbia, 25. Asst. Baldwin's Lab., Phila., 15; with state chemist, Raleigh, N. C, 16; teacher, Ga. Tech.; lecturer, Columbia, 22-25; *E. I. du Pont de Nemours and Co*, 25- U.S.A., 17-19.

Hill, Dean W(illiam) K(uhns), Carthage College, Carthage, Ill. *Chemistry*. Leechburg, Pa, Dec. 11, 57. A.B., Pennsylvania Col., 79, A.M., 82, hon. Sc.D., 10. *Prof. sci., Carthage Col.*, 84-93, *chem.*, 00-, *dean*. A.A.; Chem. Soc.

Hille, Prof. (Carl) Einar, 174 Prospect Ave, Princeton, N. J. **Mathematics*. New York, N.

Y, June 28, 94. Candidate Ph., Stockholm, 13, M.Ph., 14; Licentiate Ph., 16, Ph.D., 18; Harvard, 20-21. Docent, Stockholm, 19; Benjamin Peirce instr. *math.*, Harvard, 21-22; *Princeton*, 22-23, *asst. prof.*, 23- Ed. board, 'Annals of Math,' 25- Mittag-Leffler prize, 19. Math. Soc. (assoc. ed., 'Trans,' 23-); Math. Ass.; London Math. Soc.; Circolo Mat. di Palermo. Functions defined by linear differential equations of the second order.

Hillebrand, W(illiam) A(rthur), Ohio Insulator Co, Barberton, Ohio. *Electrical engineering*. Perrysburg, Ohio, Oct. 9, 82. A.B., Cornell, 05. West. Elec. Co., 06-07; instr. elec. eng., Stanford, 07-10, asst. prof., 10-11; prof., Oregon Col., 11-14; elec. distribution dept, Pacific Gas and Elec. Co., 14-18; Fed. Telegraph Co, Calif., 18-19; *elec. engineer, Ohio Brass Co. and Ohio Insulator Co*, 19- Elec. Eng. Unbalancing and the capacity of polyphase motors and in polyphase transformer connections; watt hour demand meters; high voltage insulators and electric transmission lines.

Hilliard, Prof. C(urtis) M(orrison), Simmons College, Boston, Mass. *Bacteriology*. Dorchester, Mass, Aug. 5, 87. A.B., Dartmouth, 09; Mass. Inst. Tech., 10. Instr. biol., Col. City of N. Y., 10-12; asst. prof. sanit. science, Purdue, 12-14; *prof. biol., Simmons (Mass)*, 14- A.A.; Soc. Bact.; fel. Pub. Health Ass.; Mass. Ass. Boards of Health. Streptococci; water supply and purification.

Hillman, V(ictor) E., Crompton and Knowles Loom Works, 93 Grand Ave, Worcester, Mass. *Chemistry, Metallurgy*. Oak Park, March 21, 90. Notre Dame. U. S. Steel Corp, Ind., 11-13; Savage Arms Corp, N. Y., 13-17; *Crompton and Knowles Loom Works*, 17- Lecturer, Holy Cross Col. Chem. Soc.; Min. and Metal. Eng.; Soc. Steel Treat.; Foundrymen's Ass.

Hills, Dean J(oseph) L(awrence), University of Vermont, Burlington, Vt. *Agricultural chemistry, Agronomy*. Boston, Mass, March 2, 61. B.S., Mass. Col. and Boston, 81; hon. Sc.D., Rutgers, 03. Asst. chem., Mass. Exp. Sta., 81-84; N. J. Exp. Sta., 84-85; chemist, Phosphate Mining Co, S. C., 85-88; *Vt. Exp. Sta.*, 88-98, *director*, 93-; *prof. agr. chem., Vermont*, 93-07, *agron.*, 07-, *dean col. agr.*, 98- Vt. State Board Agr. and Cattle Commission, 92-00; sec'y, State Board Agr. and Forestry, 09-17. A.A.; Ass. Land Grant Col. (sec'y-treas., 04-). Agricultural chemistry; dairying.

Hills, Dr. T(homas) L(awrence), Western Michigan Clinical Laboratory, Grand Rapids, Mich. *Bacteriology*. Burlington, Vt, Aug. 13, 90. Ph.B., Vermont, 13; M.S., Wisconsin, 14, Ph.D., 17. Asst. bacteriologist, Pa. State, 14-15; bacteriologist, Idaho Exp. Sta., 17-18; *director, West. Mich. Clin. Lab, Grand Rapids, Mich.*, 19- Lieut. Sanit.C., 18-19. A.A.; Soc. Bact. Influence of Protozoa and nitrates on soil bacteria.

Hills, Prof. T(homas) M(cDougall), Vassar College, Poughkeepsie, N. Y. *Geology*. Allegheny, Pa, Feb. 19, 81. Ph.B., Wooster, 02. *Prof. geol.*, Toledo, 09-10; asst. prof., Ohio State, 10-20; *prof., Vassar*, 20- Summer, asst., Chi-

- cago, 06; in charge dept. observation, sch. mil. aeronaut, Ohio State, 17-18. A.A.; Geol. Soc.; Am. Geog. Soc.; Ohio Acad. (v. pres, 16). Geology of Muskingum County, Ohio; glacial geology of Bitterroot mountains, Montana.
- Hillyer, Dr. H(omer) W(intthrop)**, Farmington, Conn. **Chemistry*. Waupun, Wis, Jan. 26, 59. Ripon Col, 78-79; B.S., Wisconsin, 82; Ph.D., Hopkins, 85. Asst. and instr. chem. and asst. prof. org. chem, Wisconsin; research dept, Gen. Chem. Co, 07-17; Nat. Aniline and Chem. Co, 17-25. Chem. Soc. Derivatives of phenyl ether; phenoxozone compounds; aluminum alcohols; theory of the action of soap; electrolytic iodoform; dye-stuff intermediates; azochrom dyes.
- Hilman, Dr. G(eorge) Carroll**, Gulf Refining Company, Port Arthur, Texas. *Organic chemistry*. Doyline, La, June 18, 88. Fellow, Louisiana, 20-21, B.S., 21; fellow, Iowa, 21-22, M.S., 22, fellow, 24-25, Ph.D., 25; fellow, Colo. Sch. Mines, 23-24. Instr. chem, Wash. State, 22-23; *chemist, research dept, Gulf Ref. Co, 25-* New derivatives of vanillin and some of their reactions.
- Hilpert, Dr. Willis S(tose)**, 9 S. Clinton St, Chicago, Ill. *Chemistry*. Chicago, 81. B.S., Chicago, 03, fellow, 04-06, Ph.D., 06. Color chemist, Sherwin-Williams Co, 06-08; chemist, Am. Med. Ass, 08-16; *director lab. operations, Miner Laboratories, 16-* A.A.; Chem. Soc; Pharmaceut. Ass. Industrial chemistry.
- Hiltner, R(obert) S(ilver)**, Dried Fruit Association of California, 1 Drumm St, San Francisco, Calif. *Chemistry*. Lincoln, Nebr, June 12, 73. B.S., Nebraska, 94, fellow, 94-96, A.M., 96. Asst. chemist, Nebr. Exp. Sta, 96-98; instr. chem, Nebraska, 98-03; chemist, Treasury Dept, 03-06; chemist and examiner of drugs, U. S. Customs Service, Chicago, 06-07; chemist, U. S. Food and Drug Inspection Lab, Denver, Colo, 07-10, chief, 10-20; director, Colo. inspection service, Nat. Canners Ass, 20-24; *technologist, Dried Fruit Ass, Calif, 24-* Summer, chemist, Am. Beet Sugar Co, Calif, 02. Chem. Soc. (sec'y and treas, Nebr. sect, 00, Colo. sect, 20); Agr. Chem. Mineral, technical, food and drug chemistry.
- Hilton, Dr. William A(twood)**, Pomona College, Claremont, Calif. *Zoology*. Vannetten, N. Y, June 27, 78. B.S., Cornell, 99, fellow, 00-01, Ph.D., 02. Asst. zool, Cornell, 02; instr, Pomona, 05-06, asst. prof, 06-07, assoc. prof, 07-08; instr. histol, Cornell, 08-11; histol. and embryol, Minnesota, 11-12; *prof. zool, Pomona, 12-* Exchange prof, Cornell, 22-23. A.A.; Soc. Zool; Ass. Anat; Micros. Soc; Entom. Soc. Central nervous system; the human face; animal distribution.
- Himmel, Prof. W(alter) J(oseph)**, 1611 James St, St. Paul, Minn. *Botany*. Radcliffe, Iowa, April 20, 89. M.S., Iowa, 22, Ph.D., 24. *Assoc. prof. biol, Macalester, 24-* Bot. Soc; Soc. Plant Physiol; Wilson Ornith. Club. Plant physiology.
- Himwich, Dr. Harold E(dwain)**, Yale University, New Haven, Conn. *Physiology*. New York, N. Y, June 5, 94. B.C., Col. City of N. Y, 15; M.D., Cornell, 19. Intern, Bellevue Hosp, New York, 20-22, resident, 22-23; research fellow, Russell Sage Inst. Path, 23; traveling fellow med, Cornell, 23-24; asst. *physiol*, sch. pub. health, Harvard, 24-25; instr, *sch. med, Yale, 25-26, asst. prof, 26-* Physiol. Soc. Metabolism; respiration.
- Hinds, Henry**, Pantepec Oil Company, 250 Park Ave, New York, N. Y. *Geology*. Helena, Mont, Oct. 12, 83. A.B., North Dakota, 06; Rhodes scholar, Oxford, 04-07, B.A., 06; fellow, Chicago, 07-08. Asst, N. Dak. Geol. Surv, 03; demonstrator, Oxford, 06-07; asst. geologist, Iowa Geol. Surv, 07; junior geologist, U. S. Geol. Surv, 07-10, assoc. geologist, 10-12, paleontologist, 12-13, *geologist, 14-19; Sinclair Oil and Ref. Co, 18-20; Pantepec Oil Company, 21-* In charge geol. work, petrol. sect, Fuel Ad, and Capital Issues Committee, 18. Geol. Soc; Ass. Petrol. Geol. Coal deposits of North Dakota, Montana, Iowa, Missouri and Virginia; geology of areas in Kansas, Missouri, Illinois and Virginia; petroleum geology of mid-continent fields' and of Central America, Colombia and Venezuela.
- Hinds, Julian, J. G.** White Engineering Corporation, Aguascalientes, Ags, Mexico. *Engineering*. Warrenton, Ala, Dec. 22, 81. C.E., Texas, 08. Rodman and block signal repairman, South. Pacific Ry, Texas, 06; asst. instr. drawing, Texas, 06-08, instr. civil eng, drawing and in charge first year drawing and surv, 08-09; transitman, Gulf, Texas and West. Ry, Texas, 09; designer bridges, Chicago, Milwaukee and St. Paul Ry, 09-10; surveyman and junior engineer, U. S. Reclamation Service, 10-12, junior engineer, Denver, 15-26, engineer, chief draftsman and asst. to designing engineer, 26-27; *res. engineer, J. G. White Engineering Corp, 27-* Civil Eng. Hydraulics.
- Hinds, Prof. Norman E. A.**, Faculty Club, Berkeley, Calif. *Geology*. Denver, Colo, July 5, 94. A.M., Harvard, 20, Sheldon traveling fellow, Hawaii, 21-22; Bishop Museum fellow, Yale, to Hawaii, 22-23; Ph.D., Harvard, 24. Asst. *geol*, Harvard, 19-20, instr, 20-23; *asst. prof, California, 23-* Colorado Geol. Surv, 14-16; research assoc, Bishop Museum, 21-23. General geology and petrography.
- Hinds, Dr. W(arren) E(lmer)**, Louisiana State University, Baton Rouge, La. *Entomology*. Townsend, Mass, Sept. 20, 76. B.S., Boston, 99; B.S., Mass. Col, 99, Ph.D., 02. Expert asst, bur. entom, U. S. Dept. Agr, 01, special field agent, 02-07; prof. entom, Ala. Polytech. and entomologist, Exp. Sta, 07-24; *entomologist exten. service, Louisiana, and Exp. Sta, 24-* Summer, lecturer, Maryland, 01; mission, cotton pest problems, Peru, 26. A.A.; fel. Entom. Soc; Ass. Econ. Entom. (v. pres, 19); Ass. Cotton States Entom. (pres, 12-26); Wash. Entom. Soc. The Thysanoptera of North America; the Mexican cotton boll weevil in Texas; control of insects attacking stored corn; fumigation.
- Hine, Prof. Ja(me)s S(tewart)**, Ohio State University, Columbus, Ohio. *Zoology*. Wauseon, Ohio, June 13, 66. B.S., Ohio State, 93. Instr.

- entom, *Ohio State*, 94-96, asst. prof, 96-02, *assoc. prof. zool. and entom*, 02- Ed, 'Ohio Jour. Science.' A.A.; *assoc. Ornith. Union*; *Entom. Soc.*; *Ass. Econ. Entom.*; *Wash. Entom. Soc.*; *Ohio Acad. Panorpidae of North America*; *Diptera*; *North American Tabanidae*.
- Hineline, Dr. Gertrude W(hite)**, 1316 Riverside Drive, New York, N. Y. *Biology*. Menomonic, Wis. A.B, Milwaukee-Downer, 13; A.M, Wisconsin, 14, Ph.D, 18. Asst, Wisconsin, 14-18; *instr. biol.* Carnegie Inst. Tech, 18-25; *N. Y. Univ.*, 25- A.A.; *Soc. Zool.* Animal behavior; association and color discrimination in mud minnows and sticklebacks; color reactions of shrimp and squid larvae.
- Hines, Prof. H(arry) M(atloch)**, 1134 College St, Iowa City, Iowa. *Physiology*. Spencer, Iowa, Feb. 16, 93. A.B, Iowa, 16, M.S, 17, Ph.D, 22. *Instr. physiol.* Iowa, 19-22, *asst. prof.*, 22- Muscle extractives; carbohydrate metabolism; bacterial toxins.
- Hines, Dr. Marion**, Johns Hopkins University Medical Department, Baltimore, Md. *Anatomy*. Carthage, Mo, June 11, 89. A.B, 13; Ph.D, Chicago, 17. Asst. *anat.* Chicago, 15-17, *assoc.*, 17-18, *instr.*, 18-24, *asst. prof.*, 24-25; *assoc. prof. med. dept.* Hopkins, 25- Ass. *Anat.* Growth of the telencephalon in man.
- Hines, Prof. Murray Arnold**, 1416 Hinman Ave, Evanston, Ill. *Chemistry*. North Adams, Mass, Aug. 5, 76. A.B, St. Lawrence, 99, A.M, 01; A.B, Harvard, 01, A.M, 03, Ph.D, 06. Asst. chem. and Austin teaching fellow, Harvard, 02-06; chemist, Mallinckrodt Chem. Works, St. Louis, 06-07; *asst. prof. chem.* Northwestern, 07-16, *assoc. prof.*, 16-19, *prof.*, 19- A.A.; *Chem. Soc.* Specific gravities of cadmium chlorid and cadmium bromid; atomic weights of cadmium, manganese and chromium.
- Hinman, Prof. Jack J(ones), Jr**, State University of Iowa, Iowa City, Iowa. *Chemistry*, *Chemical engineering*. Indianapolis, Ind, Oct. 14, 88. Purdue, 07-09; A.B, Butler, 11, M.S, 15; Iowa; Rennes, 19. Asst. chem. and chemist, Indiana, 06-14; water bacteriologist and chemist, *Iowa State Board Health*, 15-18, *chief water lab. div.*, 21-; *instr.* water and sewage examination, Iowa, 14-18, *asst. prof.* epidemiol. and water bacteriologist, 18-21, *assoc. prof. sanitation*, 21- Advisory committee water standards, U. S. Pub. Health Service, 22. Lieut. and capt, Sanit.C, U.S.A, 18-19. A.A.; *Chem. Soc.*; *Chem. Eng.*; Water Works Ass. (trustee, 18-21, sec'y, Iowa sect, 15-, chairman, committee standard methods of water analysis, 17-, chairman, sect. chem. and bact, 20, sec'y, 21-22, 24); *Pub. Health Ass.*; *Ind. Acad.*; *Iowa Acad.*; *Iowa Eng. Soc.* (pres, 25). Sanitary biology; formaldehyde; milk; water purification and examination; waste disposal; swimming pools.
- Hinrichs, Prof. F(rederic) W(illiam), Jr**, 1071 Garfield Ave, Pasadena, Calif. *Mechanics*. Brooklyn, N. Y, Nov. 3, 78. A.B, Columbia, 02; grad, U. S. Mil. Acad, 02. Lieut. and capt, ordnance dept, 02-10; *asst. prof.* applied mech, Rochester, 10-14, *prof.*, 14-19; *asst. prof.* mech, Calif. Inst, 20-21, *assoc. prof.*, 21-23, *prof. and dean upper classmen*, 23- Summer, California, 23. Capt, maj. and lieut. col, ordnance dept, 17-19. A.A.; *Soc. Test. Mat.*; *Soc. Mil. Eng.*; *Eng. Educ.* Strength of materials; testing materials.
- Hinrichs, Dr. Marie A**, 1824 Blue Island Ave, Chicago, Ill. *Physiology*. Chicago, Sept. 22, 92. A.B, Lake Forest, 17; Ph.D, Chicago, 23. *Instr. zool.* Vassar, 20-21; *research asst.* Nela Research Lab, 22-24; *Nat. Research Council fellow*, Chicago, 24-26, *research assoc. physiol.*, 26- Woods Hole. A.A.; *Soc. Zool.* General physiology; modification of embryonic development; physiological action of alkaloids and light of different wave lengths.
- Hinsdale, Dr. Guy**, Hot Springs, Va. *Medicine*, *Climatology*. Brooklyn, N. Y, Oct. 26, 58. A.B, Amherst, 78, A.M, 81; M.D, Pennsylvania, 81. Lecturer climat, Pennsylvania, 96-00; *Medico-Chirurg.* Col. Phila, 05-16. Alvarenga prize, Phila. Col. Physicians, 95; Boylston prize, Harvard, 98; Hodgkins prize, Smithsonian Inst, 14. Climat. Ass. (pres, 19); *Neur. Ass.*; *Phila. Col. Physicians* (curator, 84-01); *Int. Soc. Med. Hydrol.* (Am. rep). *Climatology*; *neurology*; *hydrotherapy*; *balneology*.
- Hinsdale, Dr. W(ilbert) B**, University of Michigan, Ann Arbor, Mich. *Archeology*. Wadsworth, Ohio, May 25, 51. B.S, Hiram, 75, M.S, 78, A.M, 98; M.D, Cleveland, 87. *Prof. med.* and dean homeop. med. sch, *Michigan*, 96-23, *emer. prof. internal med. and custodian archeol. museum*, 23- Pres, Mich. State Board in charge State Tuberculosis Sanatorium. A.A.; *Anthrop.* Ass; *Inst. Homeop.* (pres, 13); *Am. Med. Ass.*; *Mich. Archeol. Ass.*; *Mich. Acad. Archeology of the Great Lakes region*; *medicine*; *sanitation*; *anthropology*.
- Hinton, Dr. William A(ugustus)**, 240 Longwood Ave, Boston, Mass. *Pathology*, *Bacteriology*. Chicago, Ill, Dec. 15, 83. B.S, Harvard, 05, M.D, 12. *Instr. prev. med. hygiene, immunol. and bacter.* Harvard Med. Sch. Asst. director biol. lab, Mass. State Dept. Health; pathologist, Boston Dispensary. A.A.; *Am. Med. Ass.* Serology of syphilis and gonococcus infections in relation to public health.
- Hintze, Prof. F(erdinand) F(riis)**, 580 Corona St, Denver, Colo. *Geology*, *Paleontology*. Big Cottonwood, Utah, Dec. 8, 81. A.B, Utah, 08, A.M, 11; Ph.D, Columbia, 13. Asst. chem, Utah, 06-08; *prof. physical sciences*, Weber Acad, Ogden, Utah, 08-09; *asst. geol.* Utah, 09-10, *instr. miner. and geol.*, 10-11; *paleont.* Columbia, 11-13; *asst. prof. geol.* Lehigh, 13-18; *chief geologist*, Producers and Refiners Corp, 18-23; *consulting geologist*, Denver, 23- Summer, geologist, Wyo. State Geol. Surv, 14. *Geol. Soc.*; *Rocky Mt. Ass. Petrol. Geol.* (v. pres, 21); *N. Y. Acad.* Stratigraphy; *physiography*; *economic geology*; *paleontology*.
- Hipple, J(ohn) M(erton)**, Westinghouse Electrical and Manufacturing Co, Pittsburgh, Pa. *Electrical engineering*. Jefferson, Ohio, Oct. 22, 76. M.E, Ohio State, 98. Designing engineer, *Westinghouse Elec. and Mfg. Co*, 99-11, *div.*

engineer, 11-20, *manager motor eng. dept.*, 20-
Elec. Eng. Motor engineering.

Hire, Prof. Cha(rle)s, Normal Station, Murray, Ky. *Physics*. Columbia City, Ind, Dec. 1, 87. A.B, Indiana, 15, A.M, 17. Asst. physics, Indiana, 15-17, instr, 19-23, asst. prof, 23-25; *head dept. physics, State Nor. Sch, Murray, Ky*, 25- Lieut. and capt, U.S.A, 17-19. A.A; Physical Soc; Ind. Acad. Brownian movement; interfacial surface tension; maximum capillary elevations.

Hirn, W(illiam) C(ullen), Lansing, Mich. *Sanitary engineering*. Spencerville, Ohio, Aug. 22, 82. C.E, Tri-State Col; Michigan, 15-17. Asst. and consulting engineer, 07-10; asst. city engineer, Ga, 11-12; asst. engineer and supt. construction, H. S. Jandon Eng. Co, 12-13; city engineer, Pa, 13-15; asst. eng, Michigan, 15-17; county supt. highways, Pa. Highway Dept, 17-18; *asst. engineer, Mich. State Dept. Health*, 18- Assoc. mem. Civil Eng; fel. Pub. Health Ass; Mich. Eng. Soc. Water purification.

Hirsch, Dr. E(dwin) F(rederick), 9728 Vanderpool Ave, Chicago, Ill. *Pathology*. Milwaukee, Wis, Aug. 18, 86. A.B, Northwestern, 10; A.M, Illinois, 11; Ph.D, Chicago, 14, M.D, Rush Med. Col, 16. Instr. path, Chicago, 14-17; *director lab, St. Luke's Hosp*, 19-; *asst. prof. path, Rush Med. Col, Chicago*, 21- M.C, U.S.A, 17-19. Ass. Path. and Bact; Soc. Clin. Invest. Bacteriology.

Hirsch, Dr. Nathaniel D. Mttron, Harvard University, Cambridge, Mass. *Psychology*. Nashville, Tenn, Oct. 13, 96. A.B, Harvard, 17, Ph.D, 24; A.M, Columbia, 20. Asst. psychol, Harvard, 24, *National Research Council fellow*, 24- A.A; Eugenics Soc. Intelligence testing; experimental study of East Kentucky mountaineers; cephalic index of American-born children of three foreign groups.

Hirschfelder, Dr. A(rthur) D(ouglass), University of Minnesota, Minneapolis, Minn. *Pharmacology*. San Francisco, Calif, Sept. 29, 79. B.S, California, 97; M.D, Hopkins, 03. Res. house officer, Hopkins Hosp, 03-04; asst. med, Cooper Med. Col, 04-05; voluntary asst. med, Hopkins, 05-06, instr, 06-08, assoc, Hopkins, and asst, Hopkins Hosp, 08-13; *prof. and director pharmacol, Minnesota*, 13- A.A; Soc. Pharmacol. (councilor, 15); Soc. Exp. Biol; Soc. Clin. Invest; Am. Med. Ass. (chairman, sect. pharmacol. and therapeut, 17); Chem. Soc. (chairman, Minn. sect, 17). Internal medicine; diseases of the heart; action of digitalis quinidin, and acids; experimental pneumonia; lead poisoning; edema; prevention of louse infection; local anesthetics; antiseptics; mosquito repellants; antagonism of calcium and magnesium; mechanism of edema formation.

Hirschkind, Dr. Wilhelm, Great Western Electro-Chemical Co, Pittsburg, Calif. *Chemistry*. Baersdorf, Bavaria, Germany, Aug. 14, 86. Munich, 04-06; Royal Inst. Tech, Berlin, 06-07; D.Ing, Inst. Tech, Karlsruhe, 09. Chemist and asst. supt, Chromate and Alizarin Factory, Germany, 09-12; instr. chem, Illinois, 12-13;

chemist, J. M. Waterman Chem. Co, 13-15; Nat. Soda Products Co, 16-17; research chemist, Great West. Electro-Chem. Co, 17-18; chief chemist, Calif. Alkali Co, 18-22; research chemist and *chief chemist, Great West. Electro-Chem. Co*, 22- Eighth Int. Cong. Applied Chem, 12. A.A; Chem. Soc; Chem. Verein. Physical and industrial chemistry; gas equilibria; salt solutions; natural salt brines; alkali manufacture.

Hirshberg, Dr. Leonard K(eene), 347 W. 55th St, New York, N. Y. *Zoology, Psychology, Pathology*. Baltimore, Md, Jan. 9, 77. A.B, Hopkins, 98, M.D, 14; Vienna, 03; hon. A.M, Loyola, 12; Berlin. Instr. bacter, Col. Physicians and Surg, Baltimore, 04-08, assoc. neuropath, 06-08; extern dermat, Hopkins Hosp, 08-10; *research worker exp. psychol, zool. and philos*, 12-; *physician-in-chief, Nat. Health Service*, 26- Chief ed. staff, Health Service Publishing Co, Inc, 26- Ass. Clin. Research (pres, 13); Physico-Chem. Soc. Experimental psychology and medicine; bacteriology; zoology; animal behavior.

Hirshfeld, C(larence) F(loyd), Detroit Edison Co, 2000 Second Ave, Detroit, Mich. *Engineering*. San Francisco, Calif, Jan. 30, 81. B.S, California, 02; M.E, Cornell, 05. Instr. exp. eng, Cornell, 03-05, asst. prof. power eng, 05-09, prof, 09-13; *chief research dept, Detroit Edison Co*, 13-18, 19- Consulting engineer, 00- Major and lieut. col, U.S.A, 18-19. Mech. Eng; Soc. Test. Mat; Elec. Eng; Nat. Elec. Light Ass; Electrochem. Soc. Power plant and power distribution engineering.

Hirst, C(harles) T(arry), Utah Agricultural College, Logan, Utah. *Chemistry*. Paradise, Utah, Sept. 25, 74. B.S, Utah Col, 10, M.S, 14; California, 18-19. Instr, *Utah Col*, 10-15, asst. prof. chem, 15-24, *assoc. prof*, 24- Soil and plant chemistry.

Hisaw, Prof. Frederick L(ee), University of Wisconsin, Madison, Wis. *Zoology*. Newtonia, Mo, Aug. 23, 91. A.B, Missouri, 14, B.S, 15, A.M, 16; Ph.D, Wisconsin, 24. Assoc. prof. *zool*, Mississippi, 16-17; *asst. prof*, Kansas Col, 19-24; *Wisconsin*, 24- Lieut, Inf, 17-19. A.A; Soc. Zool; Soc. Mammal; Ecol. Soc; Micros. Soc. Ecology; vertebrate embryology; physiology of reproduction.

Hiscook, Prof. I(ra) V(aughan), 333 Cedar St, New Haven, Conn. *Public health*. May 7, 92. A.B, Wesleyan, 14, A.M, 16; C.P.H, Yale, 21. Bacteriologist, Conn. State Dept. Health, 14-17; director, City Pub. Health Lab, Columbia, S. C, 19-20; instr. *pub. health, sch. med, Yale*, 20-22, *asst. prof*, 22- Summer, lecturer, Columbia, 24; asst. med. inspector, Citizens Mil. Training Camp, 25, 26. Ed. asst, 'Nation's Health,' 24-25. Bacteriologist, Am. Red Cross, 17-18, Sanit.C, U.S.A, 18-19, capt, Sanit.R.C. Fel. Pub. Health Ass. (asst. committee, municipal health dept. practice, 21-23, 25); Soc. Bact; Am. Heart Ass; Social Hygiene Ass; Dairy Sci. Ass; Mil. Surg; New Eng. Pub. Health Inst. (faculty, and chairman, sect. sanitation and sanitary eng, 24); Conn. Pub. Health Ass; Int. Ass. Dairy Milk Inspectors (v. pres. and chair-

man, committee food value, milk and milk products, 23-27). Bacteriology; epidemiology; vital statistics; public health administration.

Hitch, Dr. A(rthur) R(omaine), P. O. Box 525, Wilmington, Del. *Chemistry*. Vienna, Md, Aug. 8, 84. A.B., Washington (Md), 08, M.S., 11; Ph.D., Cornell, 13. Instr. sch., N. Y., 08-10; asst. instr. chem., Cornell, 10-13; research chemist, Solvay Process Co, 13-14; acting director dept. chem., Rice Inst., 14-17; chief chemist, factory S, Nat. Carbon Co, 17-18; chief chemist, Ashland Iron and Mining Co, 18-19; *research chemist, E. I. du Pont de Nemours and Co.*, 19- Chem. Soc.; Chem. Eng.; Electrochem. Soc. Inorganic and physical chemistry; dyestuffs; thermal decomposition of trinitrids.

Hitch, Dr. E(mmet) F(rancis), E. I. du Pont de Nemours and Co, Wilmington, Del. *Chemistry*. Vienna, Md, Sept. 3, 82. A.B., Washington (Md), 04; A.M., 07; Ph.D., Cornell, 12. Instr. chem., Washington (Md), 04-06; sch., N. Y., 06-08; org. chem., Cornell, 08-13; asst. prof. org. and sanit. chem., Pittsburgh, 13-14; *chief chemist, West. Cartridge Co*, 14-18; *E. I. du Pont de Nemours and Co*, 18- Lecturer, univ. exten., Pittsburgh, 13-14. Chem. Soc.; Chem. Eng. Explosives; dyestuffs; color and chemical composition; tetrachlorofluorescein; preparation of acetamid; identification of dyes.

Hitchcock, Prof. A(lbert) S(pear), U. S. Department of Agriculture, Washington, D. C. **Botany, Agrostology*. Owosso, Mich, Sept. 4, 65. B.S.A., Iowa Col, 84, M.S., 86, Sc.D., 20. Asst. chem., Iowa Col, 85; instr., Iowa, 86-89; bot. asst., Mo. Bot. Garden, 89-91; prof. bot., Kansas Col, 92-01; asst. agrostologist, *U. S. Dept. Agr.*, 01-05, syst. agrostologist, 05-23, *senior botanist in charge syst. agrost.*, 24- Custodian sect. grasses, U. S. Nat. Herbarium. Nat. Research Council, 19. A.A. (sec'y, G, 01); Bot. Soc. (pres, 14); Wash. Acad.; Wash. Bot. Soc. (pres, 16); Wash. Biol. Soc. (pres, 23); Wash. Biol. Field Club; Kans. Acad. Taxonomy of grasses.

Hitchcock, Dr. David I(ngersoll), Bryn Mawr College, Bryn Mawr, Pa. *Biochemistry*. Detroit, Mich, 93. A.B., Dartmouth, 15; A.M., Columbia, 19, Ph.D., 22. Instr. chem., Dartmouth, 15-17; asst., Columbia, 19-21; fellow, asst. and assoc. gen. physiol., Rockefeller Inst., 21-26; *assoc. prof. physiol. and biochem.*, Bryn Mawr, 26- A.A.; Chem. Soc. Enzyme action; physical chemistry of proteins; colloidal behavior.

Hitchcock, Prof. E(mbury) A(sbury), 348 W. Eighth Ave., Columbus, Ohio. *Mechanical engineering*. Henrietta, N. Y., June 26, 66. M.E., Cornell, 90. Designer, Corliss Steam Engine Co, Providence, R. I., 90-93; asst. exp. eng., Ohio State, 91-93, asst. prof., 93-96, assoc. prof., 96-97, prof., 97-13; engineer, E. W. Clark and Co. Management Corp., 13-19; v. pres., Bailey Meter Co, 19-20; *dean col. eng.*, Ohio State, 20- Mech. Eng.; assoc. Naval Eng. Hydroelectric engineering; boiler and locomotive tests; the economical use of fuels; natural gas supply for Columbus.

Hitchcock, Prof. Frank L(auren), Massachusetts Institute of Technology, Cambridge, Mass. *Mathematics*. New York, N. Y., March 6, 75. A.B., Harvard, 96, Ph.D., 10; Paris, 97-03; Cincinnati, 06-07. Prof. chem., Fargo, 03-06; asst. prof., Kenyon, 07-09; instr. *math.*, Mass. Inst. Tech., 10-17, asst. prof., 17-23, *assoc. prof.*, 23- Am. Acad. Mathematical chemistry; quaternions and vector analysis.

Hitchcock, Dr. F(red) A(ndrews), 1524 Wesley Ave., Columbus, Ohio. *Physiology*. Akron, Ohio, Oct. 30, 89. Ph.B., Akron, 12; Chicago, 16; Cambridge, 19; M.S., Ohio State, 23, Ph.D., 26. Instr. high sch., Ohio, 15-16; West. Mil. Acad., Ill., 16-17, 19-23; *physiol.*, Ohio State, 23- Second lieut., U.S.A., 17-19. A.A.; Ohio Acad. Growth, vigor and nitrogen metabolism of the white rat; metabolic rate in man.

Hitchcock, Prof. Geo(rge) G(ale), Claremont, Calif. *Physics, Physical chemistry*. Galesburg, Ill., April 24, 61. A.B., Nebraska, 83; Hopkins, 84-85; Cornell, 12-13. Prof. nat. science, Pierre, 85-91; chem., Wash. Col., 91-93; physics and chem., Pomona, 93-06, *physics*, 06- Phys. cal Soc.; Illum. Eng. Soc.

Hitchcock, Prof. L(eon) W(hitney), University of New Hampshire, Durham, N. H. *Electrical engineering*. West Medway, Mass, June 21, 86. B.S., Worcester, 08. Design and elec. testing, D. and W. Fuse Co, 08-09; inspector lines and bonding, Boston and North. St. Ry. Co, 09-10; instr., asst. prof., assoc. prof. and *prof. elec. eng.*, New Hampshire, 10- Dept. univ. exten., State House, Boston, Mass, 16-17. Head instr., electricians div., U.S.A. Training Detachment, New Hampshire, 18. Assoc. Elec. Eng.; New Hampshire Acad.

Hitchcock, Prof. Raymond R(oyce), University of North Dakota, Grand Forks, N. Dak. *Mathematics*. Lake Mills, Wis, May 2, 80. A.B., Wisconsin, 07; A.M., Northwestern, 10. Instr. *math.*, Wisconsin, 07; Northwestern, 07-10; North Dakota, 10-12, asst. prof., 12-14, assoc. prof. and *head dept.*, 14-15, *prof.*, 15- Asst., Columbia, 21-22. Math. Soc.; Math. Ass. Theory of functions; Mersenne's numbers; Riemann surfaces.

Hitchens, Dr. A(rthur) Parker, Office of the Governor General, Malacanan, Manila, P. I. *Public health*. Delmar, Del, Sept. 14, 77. Temple Col; M.D., Medico-Chirurg. Col. Phila., 98; Army Med. Sch., 22-24. Instr. path. and bacter., Medico-Chirurg. Col. Phila., 00-01; bacteriologist, Antitoxin Lab, Glenolden, 01-18, director, 06-18; research in tuber, hygienic lab, U. S. Pub. Health Service, 20; asst. prof. bacter., Army Med. Sch., 20-25; *tech. adviser pub. health to Gov. Gen., Philippine Islands*, 25- U.S.A. Med. Dept. Research Board, Manila, 24- Ed., 'Abstracts Bacter,' 16-25. Chairman, Philippine Leprosy Research Board; Advisory Committee for Malarial Control, P. I.; mem. Gov. Gen. Housing Commission for City of Manila, 27- Major, M.C., 18-19, lieut. col., M.R.C., 19-20, major, M.C., 20- Soc. Bact. (sec'y-treas, 13-22, v. pres, 23, pres, 24); Ass. Path. and Bact.; Am. Med. Ass.; Pub. Health Ass. (chairman, lab.

- sect, 24); Phila. Col. Physicians; Phila. Clin. Soc. (pres, 05); Philippine Anti-Tuber. Soc. (advisory committee). Bacterial toxins and antisera; immunology; malaria; dengue; tuberculosis.
- Hite, Miss Bertha C(ourtright)**, Branch Seed Laboratory, Corvallis, Oregon. *Botany*. Lancaster, Ohio, July 23, 80. A.B., Ohio State, 04. Teacher, high sch, Ohio, 04-07; sci. asst. and asst. botanist, bur. plant indust, U. S. Dept. Agr, 08- A.A.; Phytopath. Soc; Eugenics Soc. Germination of seeds.
- Hitzrot, Dr. Ja(me)s Morley**, 126 E. 37th St, New York, N. Y. *Surgery*. McKeesport, Pa, Feb. 22, 75. A.B., Princeton, 97; M.D., Hopkins, 01. Instr. surg, med. col, Cornell, 05; asst. surgeon, Bellevue Hosp; *prof. clin. surg, med. col, Cornell*. Assoc. surgeon, New York Hosp, 08. A.A.; Am. Med. Ass; N. Y. Acad. Med; N. Y. Surg. Soc. Surgery of spleen, lungs, bones and joints.
- Hixon, Prof. R(alph) M(alcolm)**, Iowa State College, Ames, Iowa. *Phyto-chemistry*. Crown Point, Ind, May 7, 95. B.S., Iowa Col, 17; Am-Scandinavian Foundation fellow, Sweden, 19-21; Germany, 21; Ph.D., Wisconsin, 22. Instr. chem, Maine, 18-19; *asst. prof, Iowa Col, 23-* Sergt, C.W.S., 17-18. Chem. Soc; Soc. Plant Physiol. Nutrition of plants; chemistry of the carbohydrates; organic chemistry of compounds found in plant tissue.
- Hixson, Prof. Arthur W(arren)**, Columbia University, New York, N. Y. *Chemical engineering*. Mifflinbury, Pa, July 7, 80. A.B., Kansas, 07, M.S., 15; Ph.D., Columbia, 18. Chemist and metallurgist, Detroit Copper Mining Co, 06-07; chemist, Ill. Exp. Sta, 08; *assoc. prof. indust. chem. and metal, Iowa, 09-17; chem. eng, Columbia, 19-* Chem. engineer, ordnance dept, U.S.A., 18-19. Chem. Soc; Chem. Eng; N. Y. Chemists Club; Soc. Chem. Indust. Gt. Britain. Coal; asphalt; oil; carvacrol; chemical plant design and operation; chemical process development; chemical products by fermentation; yeast.
- Hjort, Dr. Axel M(agnus)**, Dartmouth Medical School, Hanover, N. H. *Pharmacology*. Chicago, Ill, Nov. 28, 89. A.B., Illinois, 14, M.S., 15; Ph.D., Yale, 18, M.D., 21. Asst. chem, Illinois, 14-15; instr. pharmacol, Yale, 17-21; house officer, Peter Bent Brigham Hosp, 21-22; research biochemist, Parke, Davis and Co, Detroit, 23-26; *prof. pharmacol, med. sch, Dartmouth, 26-* Soc. Biol. Chem. Organic chemistry; biochemistry.
- Hoad, Prof. W(illiam) C(hristian)**, 1028 Martin Place, Ann Arbor, Mich. *Sanitary engineering*. Leecompton, Kans, Jan. 11, 74. Lane, 90-94; B.S., Kansas, 98. Asst. prof, assoc. prof. and *prof. civil eng, Kansas, 00-12; municipal and sanit. eng, Michigan, 12-* Engineer, Kans. State Board Health, 07-12. A.A.; Civil Eng; Pub. Health Ass; Water Works Ass; New Eng. Water Works Ass. Stream pollution; administration of streams; sewage disposal; city water supply.
- Hoadley, Prof. Geo(rge) A(rthur)**, Walnut Lane, Swarthmore, Pa. *Physics*. Sheffield, Mass, Dec. 2, 48. A.B., C.E., Union, 74, A.M., 77, Sc.D., 07. Prin. acad, N. Y., 74-79; union sch, N. Y., 79-83; pub. schools, Mass, 83-88; *prof. physics, Swarthmore, 88-14, emer. prof, 14-* Mem. jury awards, elec. sect, Phila. Export Expos, 00. A.A.; Physical Soc; Elec. Eng. (chairman, Phila. sect, 09); Illum. Eng. Soc. (pres, 19); Franklin Inst. (sec'y, committee on science and the arts); Phila. Physics Club (pres, 10). Practical measurements in magnetism and electricity; essentials of physics.
- Hoadley, Dr. Leigh**, Harvard University, Cambridge, Mass. *Zoology*. Northampton, Mass, Aug. 14, 95. A.B., Michigan, 21; Ph.D., Chicago, 23. Asst. zool., Michigan, 16-17, 19-21; Chicago, 21-23; Nat. Research Council fellow, 23-25, foreign fellow, 25-26; *asst. prof, Brown, 26-27; Harvard, 27-* Summer, instr, St. Xavier Col, 23. Asst. path. lab, Evacuation Hosp. No. 1, U.S.A., 18. A.A.; Soc. Zool. Fertilization; experimental embryology; neurobiotaxis; localization.
- Hoagland, Prof. Dennis Rob(ert)**, University of California, Berkeley, Calif. *Chemistry*. Golden, Colo, April 2, 84. A.B., Stanford, 07; A.M., Wisconsin, 13. Instr. agr. chem, California, 07-10; chemist, U. S. Dept. Agr, 10-13; *asst. prof. agr. chem, California, 13-20, assoc. prof. plant nutrition, 20-*, chemist, *Exp. Sta, 25-* A.A.; Chem. Soc; Soc. Plant Physiol; Bot. Soc; West. Soc. Soil Sci. (pres, 24); Int. Soc. Soil Sci. Agricultural and soil chemistry; plant nutrition.
- Hoagland, Ralph**, U. S. Department of Agriculture, Washington, D. C. *Chemistry*. Long Lake, Minn, Sept. 22, 80. B.Agr., Minnesota, 04. Asst. chemist, Minn. Dairy and Food Dept, 04-06; chemist in charge meat inspection lab, U. S. Dept. Agr, Chicago, 06-09; *prof. agr. chem. and soils, Minnesota, and chemist, Exp. Sta, 09-13; chemist, bur. animal indust, U. S. Dept. Agr, 13-* Agr. Chem. Biochemistry; vitamins; proteins.
- Hoar, Prof. C(are) S(herman)**, Williams College, Williamstown, Mass. *Botany*. West Acton, Mass, Feb. 7, 89. B.S., Dartmouth, 11; A.M., Harvard, 13-15, Ph.D., 17. Austin teaching fellow bacter, Harvard, 13-15; instr. bot, Kansas Col, 15-16; instr. bot. and *biol, Williams, 16-20, asst. prof, 20-* Summer, instr, Woods Hole, 17. U.S.A., 17-18, second lieut, Sanit.C, 18-19. A.A.; Bot. Soc. Evolutionary plant morphology and cytology.
- Hoar, Roger Sherman**, 1265 Fairview Ave, South Milwaukee, Wis. *Military engineering*. Walham, Mass, April 8, 87. A.B., Harvard, 09, LL.B., 11, A.M., 21. State senator, Mass, 11; asst. attorney-gen, 14-15; senior instr. advanced orientation, Coast Artil. Sch, 18-19; senior instr. math. and ballistics, Ordnance Sch. Application, 19-20; *with Bucyrus Co, 21-* Math. Soc; Math. Ass. Ballistics; the three point problem; the polaris attachment for north determination; coordinate systems; calculus of operations.
- Hobart, Henry M(etcalf)**, 10 Ballston Road, Schenectady, N. Y. *Electrical engineering*.

- Boston, Mass. Nov. 29, 68. B.S. Mass. Inst. Tech. 89. Gen. Elec. Co. 89-94; Thomson-Houston Co. London, 94-99; Union Elec. Co. Berlin, 00-03; *consulting engineer*, London, 03-11; *Gen. Elec. Co.*, 11- Lecturer, Univ. Col. London; Faraday House; Northampton Inst.; James Forrest lecturer, British Inst. Civil Eng. 15. Eng. div. Nat. Research Council; main committee, Eng. Standards Committee; U. S. Nat. Committee, Int. Electrochem. Commission. Fel. Elec. Eng. (v. pres, chairman tech. committee, mem. standards committee); Mech. Eng; British Inst. Elec. Eng; British Inst. Mech. Eng; British Inst. Civil Eng. Electric trains; motors; continuous current dynamos; generators; static transformers; electric propulsion of ships.
- Hobbie, Prof. John R(emington)**, Skidmore College, Saratoga Springs, N. Y. *Physics*. New York, N. Y. Sept. 12, 85. B.S. Harvard, 12, A.M. 14; Ph.D. Columbia, 22. Instr. physics, N. Y. Univ. 14-18, asst. prof. 18-22; *prof. physics and math*, Skidmore, 22- Physical Soc. Magnetostriction.
- Hobbs, Prof. A(llan) W(ilson)**, University of North Carolina, Chapel Hill, N. C. *Mathematics*. Guilford College, N. C. 85. A.B. Guilford Col. 07; Ph.D. Hopkins, 17. Instr. math, Guilford Col. 09-11, 13-15; *North Carolina*, 17-19, asst. prof. 19-20, assoc. prof. 20-21, *applied math*, 21-24, *prof.*, 24- Math. Soc; Math. Ass. Applied mathematics; projectiles; empirical formulas and cremona transformations.
- Hobbs, Dr. G(lenn) M(oody)**, W. M. Welch Manufacturing Co, 1515 Sedgwick St, Chicago, Ill. *Physics*. Yorkville, Ill. Aug. 17, 70. B.L. Illinois, 92; Ph.D. Chicago, 05. Asst. lab. Illinois, 92; Chicago, 92-94, tutor physics, 94-96, asst. 97-98, assoc. 98-01, instr. 01-09; sec'y and educ. director, Am. Sch. Correspondence, 09-20; manager tech. laboratories, Sears, Roebuck and Co. 20-23; *head sci. dept.*, W. M. Welch Mfg. Co. 23- A.A.
- Hobbs, Prof. W(illiam) H(erbert)**, University of Michigan, Ann Arbor, Mich. **Geology*. Worcester, Mass. July 2, 64. B.S. Worcester, 83; fellow, Hopkins, 87-88, A.M. Ph.D. 88; Heidelberg, 89. Instr. miner. and petrol, Wisconsin, 89-91, asst. prof. 91-00, *prof. miner. and petrol*, 00-06; *geol.*, Michigan, 06- Asst. geologist, U. S. Geol. Surv. 96-06. Assoc. ed. 'Jour. Geol.', 09- Chevalier, Légion d'honneur. A.A. (sec'y, E. 93); Geol. Soc. (v. pres, 22); Ass. Geog. (v. pres, 17); Philos. Soc; Wis. Acad. (sec'y, 92-94); Mich. Acad. (v. pres, 08, pres, 17). Structural and dynamical geology; glaciology; seismology; meteorology; mountain arcs; the earth's fracture systems.
- Hochwalt, Carroll A(lonzo)**, 127 N. Ludlow St, Dayton, Ohio. *Chemistry*. Dayton, April 29, 99. Ch.E. Dayton, 20. *Research chemist*, Gen. Motors Research Corp. 20-25; Ethyl Gasoline Corp. 25-26; *Thomas and Hochwalt Laboratories*, 26- Chem. Soc. Organic compounds of lead; cracking of petroleum.
- Hocker, Dr. Carl De Witt**, Bell Telephone Laboratories, Inc, 463 West St, New York, N. Y. *Chemistry*. Rockville, Ind. Oct. 4, 90. A.B. Wabash, 12; Ph.D. Michigan, 15. *Research chemist*, West. Elec. Co. 15-25, *Bell Telephone Laboratories*, 25- Chem. Soc; Electrochem. Soc; Soc. Test. Mat. Organic and physical chemistry; telephone engineering; corrosion; metal finishes; insulation.
- Hockey, J(ohn) Fred(erick)**, Kentville, N. S. Can. *Plant pathology*. Millgrove, Ont. Nov. 18, 95. B.S.A. McGill, 21. Junior and asst. plant pathologist, *lab. plant path.*, Dominion Dept. Agr. 21-23, *plant pathologist in charge*, 23- A.A.; Phytopath. Soc; Can. Soc. Tech. Agr; British Soc. Econ. Biol; Soc. de Path. veg. et d'Entom. agr. Snapdragon rust; mosaie, leaf curl and blue stem of raspberry; apple scab.
- Hodgdon, Dr. Daniel Russell**, 507 W. 113th St, New York, N. Y. *Chemistry*. Winthrop, Maine, April 13, 85. A.B. Bates, 08; Maine, 09; Columbia, 10-12, 26-27; LL.D. Valparaiso, 20; LL.B. N. Y. Law Sch. 25; J.D. N. Y. Univ. 26. Prin. Corinna Union Acad. 06-09; v. prin. State Nor. Sch. 09-10; head dept. science, prep. dept. Rutgers, 10-11; high sch. N. J. 11-13; N. J. State Nor. Sch. Newark, 13-18; pres. Newark Tech. Col. 18-19; Hahnemann Med. Col. 19; Valparaiso, 20; *Columbus Sch. New Rochelle*, N. Y. Lecturer, N. Y. Univ; Newark Inst. 16, 19, 25; consultant, Widney Co. and Am. Steel and Wire Co. Ill. General science; the effect of malnutrition upon school standing and mental ability among school children; the chemistry of food and nutrition.
- Hodge, Prof. C(lifton) (Fremont)**, Sebring, Fla. **Biology, Neurology*. Janesville, Wis. Oct. 16, 59. A.B. Ripon Col. 82; fellow, Hopkins, 88-89, Ph.D. 89; fellow, Clark, 89-91. Asst. neur. Clark, 89-91; instr. biol. Wisconsin, 91-92; asst. prof. physiol. and neur. Clark, 92-06, prof. 06-13, biol. 02-13; civic biol. Oregon, 13-19; exten. prof. biol. Florida, 19-20; *retired*, 20. A.A.; Soc. Nat; Soc. Exp. Biol; Ass. Anat; Physiol. Soc; assoc. Ornith. Union; Forestry Ass; Nature Study Soc. (v. pres, 08, pres, 09); Mass. Forestry Ass; Mass. Audubon Soc. Nature study and life; civic biology; physiology of nerve cells; fatigue; changes due to old age; physiological action of alcohol; daily life and rhythms of rest and activity in animals; dynamics of a series of animal species; domestication of ruffed grouse and bobwhite; investigations to save the passenger pigeon from extermination.
- Hodge, Prof. Edwin T(homas)**, University of Oregon, Eugene, Oregon. *Geology*. Atlanta, Ill. July 12, 87. N. Amer. Nor. Col. 07; A.B. Minnesota, 13, A.M. 14; Ph.D. Columbia, 16. Geol. aid, U. S. Geol. Surv. Mont. 12; geologist, Wis. Geol. Surv. and asst. Minnesota, 13; first asst. geologist, Pa. Geol. Surv. 14-15; geologist, Govt. Porto Rico, 15-16; traveling fellow, Columbia, 16-17; in charge dept. geol. British Columbia, 17-20; *prof. econ. geol.*, Oregon, 20- Consulting geologist, Porto Rico, Can. and U. S. 16-; geologist, Board Appraisal and Apportionment, New York, 16-17. Organizer, Int. Mining Convention, 18; pres. British Columbia Chamber Mines, 19. A.A.; Ass. Petrol. Geol; N. Y. Acad; Can. Inst. Min.

Eng. (exec. sec'y, west. gen. meeting, 16). Economic geology; minerals of British Columbia; mine waters; classification of igneous and sedimentary rocks; geology of the Three Sisters region; origin of the Cascade Range; general geology of Porto Rico and Oregon.

Hodge, Prof. Frederick H(umbert), 820 N. Main St, W. Lafayette, Ind. *Mathematics*. O'Fallon, Ill, Dec. 10, 70. A.B, Boston, 94; Chicago, 96-97, fellow, 07-08; Clark, 97-98, fellow, 98-99, 01-03, hon. fellow, 03-04; A.M, Boston, 99. Prof. *math*, J. B. Stetson, 95-96; Bethel, 99-01; instr, Clark, 02-05, asst. prof, 05-08; prof, Parsons, 08-10; Franklin, 10-19; instr, *Purdue*, 19-21, *asst. prof*, 21- A.A; Math. Soc; Math. Ass. (chairman, Ind. sect, 24-26). Constructions leading to conics; generalization of the witch and cissoid.

Hodge, F(rederick) W(ebb), Museum of the American Indian, Broadway at 155th St, New York, N. Y. **Anthropology*. Plymouth, Eng, Oct. 28, 64. George Washington, 85-86. Law and publishing office, 79-84; stenographer, U. S. Geol. Surv, 84-86; sec'y, Hemenway archeol. exped, 86-89; ethnologist, ed. and librarian, Bur. Am. Ethnol, 89-01; asst. in charge office and acting curator, Int. Exchanges, Smithsonian Inst, 01-05; *ethnologist*, Bur. Am. Ethnol, 05-10, in charge, 10-18; *Mus. Am. Indian*, *Heye Foundation*, 18- Conductor archeol. excavations, N. Mex, 17-21, 23. Ed, 'Am. Anthropologist', 98-17; Curtis' 'The North American Indian.' Nat. Research Council, 21-22, 27- A.A; Anthropol. Ass. (ed, 99-14, pres, 16); Ethnol. Soc; Archeol. Inst; Folk-Lore Soc; Am. Geog. Soc; Antiqu. Soc; Anthropol. Inst. Gt. Britain and Ireland; mem. titulaire Soc. des Américanistes de Paris. Ethnology and archeology of the Pueblo tribes of New Mexico; ethnological and historical annotation of early Spanish accounts of southwestern tribes; handbook of American Indians; bibliography of the Pueblo Indians; annotator of Fray Alonso Benavides' 'Memorial on New Mexico, 1630.'

Hodge, Prof. Percy, Stevens Institute of Technology, Hoboken, N. J. *Metallography*. Hudson, Ohio, Sept. 30, 70. A.B, 92; B.S, 94; Ph.D, Cornell, 08. Instr. *physics*, Cornell, 05-10; asst. prof, Columbia, 10-11; *head dept*, *Stevens*, 11- A.A; Physical Soc; Optical Soc. Photo-electric effect; physical metallography.

Hodges, Dr. J(ames) Hallett, University of Michigan, Ann Arbor, Mich. *Physical chemistry*. Mansfield, Mass, Aug. 13, 92. A.B, Harvard, 14, A.M, 15, Ph.D, 17. Instr. *gen. and physical chem*, Michigan, 19-26, *asst. prof*, 26- A.A; Chem. Soc. Compressibility of solids and liquids; atomic weight of zinc; photochemistry.

Hodgkins, Dean H(oward) L(incoln), George Washington University, Washington, D. C. *Mathematics*, *Physics*. Elgin, Ill, Jan. 23, 62. A.M, George Washington, 83, Ph.D, 92, Sc.D, 21. Tutor *math*, *George Washington*, 83, adjunct prof, 84-87, prof, 87-03, dean sci. sch, 97-03, head prof. *physics*, 03-09, *prof. math*, 09-, *dean col. eng*, 05-22, *dept. arts and sciences*, 13-,

pres. pro tem, 21-23, *dean univ*, 23- Special computer, 'Nautical Almanac' Office, 82-92. A.A; Math. Ass; Math. Soc. (trustee, 23); Physical Soc; Eng. Educ; Forestry Ass; Wash. Acad; Wash. Eng. Soc; Wash. Philos. Soc. Optics; differential equations.

Hodgkiss, Prof. H(arold) E(dward), Pennsylvania State College, State College, Pa. *Entomology*. Cambridge, Mass, April 8, 79. B.S, Mass. Col. and Boston, 02; Mass. Col, 02-04. Asst. entomologist, N. Y. Exp. Sta, 04-07; field entomologist, Illinois, 07-08; asst. entomologist, N. Y. Exp. Sta, 08-19; *prof. entom. exten*, *head dept. entom. and entomologist, div. agr. exten*, Pa. State, 19- A.A; Entom. Soc; Ass. Econ. Entom. Economic entomology; Eriophyidae.

Hodgman, Charles D(avid), Case School of Applied Science, Cleveland, Ohio. *Physics*. Hollis, N. H, Sept. 22, 81. B.S, Dartmouth, 05; M.S, Case, 20. Asst. *physics*, Dartmouth, 05-06; instr, Case, 06-19, asst. prof, 19-21, *assoc. prof*, 21- A.A; Physical Soc; Optical Soc. Three-color photography; the making and testing of color filters.

Hodgson, C(arey) V(andervort), U. S. Coast and Geodetic Survey, Washington, D. C. *Geodesy*. Wilmington, Ohio, July 11, 80. B.S, Haverford, 03. *Hydrog. and geod. engineer*, U. S. Coast and Geod. Surv, 04-, *asst. chief div. geod*, 20- Capt. and major, C.Eng, 17-19. Am. Geog. Soc; Civil Eng; Wash. Acad. Geodetic astronomy and surveying.

Hodgson, Ernest A(tkinson), Dominion Observatory, Ottawa, Ont, Can. *Seismology*. Utica, N. Y, 86. B.A, Toronto, 12, fellow, 12-14, M.A, 13. *Seismologist*, *Dom. Observatory*, 14- Sec'y, Can. Nat. Committee and pres, Can. sect. seismol, Int. Union Geod. and Geophys. A.A; Seismol. Soc; Royal Astron. Soc. Can. (sec'y, Ottawa Centre, 16). Effect of cooling on concrete instrument piers; microseisms; seismicity of Canada.

Hodgson, Millard B(enjamin), Eastman Kodak Co, Rochester, N. Y. *Physics*. Washington, D. C, July 1, 88. Asst. Carnegie Institution, 08-10; Bur. Standards, 10-13; *physicist*, *Eastman Kodak Co*, 13- Physical Soc; Optical Soc. Photography; röntgenology; fluorescence; latent image theory.

Hodgson, Prof. Robert W(illard), University of California, Berkeley, Calif. *Horticulture*. Dallas, Texas, April 3, 93. B.S, California, 16, M.S, 17. Asst. bot, *California*, 16, 17, instr. *citriculture*, 17-19, farm adviser, Los Angeles Co, 19-24, *assoc. prof. subtropical hort*, 24- Hon. mem. Calif. Avocado Ass; Claremont Pomol. Club. Plant physiology; subtropical horticulture; citrus fruits.

Hodson, Floyd, Cornell University, Ithaca, N. Y, or Standard Oil Co. of Venezuela, Maracaibo, Venezuela. *Paleontology*, *Stratigraphy*. New-castle, Ind, Dec. 29, 93. A.B, Indiana, 20; A.M, Cornell, 22, Ph.D, 26. Geol. aid, Ky. Surv, 21; *paleontologist*, *Standard Oil Co. of Venezuela*, 22- A.A; Ass. Petrol. Geol; Soc. géol. de France. Tertiary Mollusca and Foraminifera

- in Venezuela; Trinidad rudistids; fire clays; Venezuelan sedimentary petrography.
- Hoel, Dr. A(rchie) B(ernhard)**, 4035 Taylor Ave, Drexel Hill, Philadelphia, Pa. *Chemistry*. Menomonee, Wis, Jan. 30, 92. Wisconsin, 11-12; A.B., Montana, 16; Ph.D., Cornell, 21. Heckscher research asst, Cornell, 21-22; *research chemist, Atlantic Ref. Co, Phila*, 22- Chem. Soc. Hydronitric acid and the trinitrides; storage batteries; petroleum.
- Hoen, Albert B(erthold)**, 100 Ridgewood Road, Baltimore, Md. *Geology, Geography*. Baltimore, Feb. 4, 64. A.B., A.M., Loyola (Md); Hopkins. *In charge tech. work, map editing, A. Hoen and Co. Advisory board, U. S. Board Surveys and Maps*. A.A.; fel. Am. Geog. Soc; Soil Surv. Ass. Nomenclature; lithographic limestone in Iowa.
- Hoersch, Dr. V(ictor) A(ugust)**, University of Illinois, Urbana, Ill. *Physics*. Davenport, Iowa, March 9, 93. A.B., Iowa, 15, M.S., 16, Ph.D., 22. Instr. physics, Iowa, 19-20; Oklahoma, 20-21, asst. prof, 22-23; *instr. math, Illinois*, 23- A.A.; Math. Soc; Physical Soc. Non-radial vibrations in a conical horn; theory of the optimum angle in a receiving conical horn.
- van der Hoeven, B(ernard) J(acob) C(ornelis)**, 93 Ravine Ave, Yonkers, N. Y. *Chemistry*. Hasselt, Netherlands. Ch.E., Delft, 22. Asst, Delft, 22-23; research chemist, Lehn and Fink, Inc, 23; *asst, Rockefeller Inst*, 23- Chem. Soc; Netherlands Chem. Soc. Isolation of vitamin B.
- Hoffer, Prof. George N(issley)**, Purdue Agricultural Experiment Station, Lafayette, Ind. *Plant pathology*. Hummelstown, Pa, Nov. 20, 87. A.B., Lebanon, 09, Sc.D., 18; M.S., Purdue, 11. Asst. gen. biol, Purdue, 09-11, instr. bot, 11-14, asst. prof, 14-16, assoc. prof, 16-17; *agent and pathologist in charge corn disease investigations, bur. plant indust, U. S. Dept. Agr*, 17-; *assoc. botanist, Purdue Exp. Sta.* A.A.; Soc. Plant Physiol; Phytopath. Soc.
- Hoffman, Dr. Alfred**, 200 Abingdon Road, Kew Gardens, L. I, N. Y. *Chemistry*. New York, N. Y., Nov. 1, 81. A.B., Columbia, 03, A.M., 04; Ph.D., Berlin, 07. Asst. org. chem, Columbia, 07-10; *treas, Hoffman and Knopff Chem. Co*, 10-19; *Alco Deo Co*, 11-; *private research*, 19- Chem. Soc; Chem. Gesell. Ketone condensations.
- Hoffman, Dr. Frederick L(udwig)**, 570 Worcester St, Wellesley Hills, Mass. *Statistics*. Varel, Germany, May 2, 65. Pub. and private schools, Germany; LL.D., Tulane, 11. Statist. asst, *Prudential Ins. Co*, 94-00, *statistician*, 00-, *third v. pres*, 18- Lecturer, Harvard, Yale, Columbia, California, Pennsylvania and Stanford. Advisory committee, Nat. Research Council. Explorations, S. Amer, Cent. Amer. and Mex. Gold medals, Int. Cong. Tuber, St. Louis and San Francisco and Int. Expos, 04-25. Chairman div. statistics, labor div, Nat. Council Defense; v. pres, Indust. Hygiene sect, Ghent Congress, Royal Inst. Pub. Health. A.A.; Statist. Ass; fel. Pub. Health Ass; Meteor. Soc; Seismol. Soc; Ass. Cancer Control (trustee, exec. committee); Safety Inst. (trustee); fel. Royal
- Statist. Soc. Life insurance history, theory and practice; medicine; anthropology; economics; public health; mortality; industrial accidents; lead poisoning; occupational diseases; tuberculosis; cancer; leprosy; malaria; army anthropometry; aviation hazards; earthquake and tornado hazards.
- Hoffman, Prof. George Peter, J. C. Penney-Gwinn** Institute, Green Cove Springs, Fla. *Horticulture*. Columbia, S. C, Feb. 23, 90. Clemson, 15; M.S., Cornell, 25. Asst. horticulturist, S. C. Exp. Sta, 16, exten, 17; exten. horticulturist, 18-23; assoc. prof. hort, Clemson, 23-26; *head dept, J. C. Penney-Gwinn Inst*, 26- Truck crop specialist, U. S. Dept. Agr, 18; acting prof, Clemson, 19-20. Soc. Hort. Sci. Storage of southern sweet potatoes; fruits; vegetables.
- Hoffman, Prof. James D(avid)**, Purdue University, Lafayette, Ind. *Mechanical engineering*. Auburn, Ind, Jan. 23, 68. B.M.E., Purdue, 90, M.E., 93. Instr. practical meech, Purdue, 90-00, asst. prof, 00-03, machine design, 03-04, assoc. prof. eng. design, 04-08, prof, 08-11; prof. meech. eng. and practical meech, Nebraska, 11-17; *head dept. practical meech, Purdue*, 17- Mech. Eng; Heat. and Vent. Eng. (past pres); Eng. Educ. Heating; ventilation; machine design.
- Hoffman, Samuel V(erplanck)**, 258 Broadway, New York, N. Y. *Astrophysics*. Brooklyn, N. Y., May 12, 66. M.E., Stevens, 88; fellow, Hopkins, 93. *V. pres, E. A. Hoffman Estate, Inc*, 12- A.A.; Astron. Soc; Physical Soc; N. Y. Hist. Soc. (chairman, exec. committee); fel. Royal Astron. Soc. Astrolabes.
- Hoffman, Prof. W(alter) F(red)**, Cloquet, Minn. *Agricultural biochemistry*. Harvard, Nebr, July 9, 97. A.B., Nebr. Wesleyan, 19; M.S., Minnesota, 21, Ph.D., 24. Asst. agr. biochem, Minnesota, 19-21, instr, 21-24, asst. prof, 24-26, asst. biochemist, 21-26; *tech. director, Northwest Paper Co*, 26- A.A.; Chem. Soc. Proteins; colloids; physico-chemical properties of plant saps.
- Hoffman, Prof. W(illiam) A(lbert)**, School of Tropical Medicine, San Juan, P. R. *Parasitology*. Long Branch, N. J, April 18, 94. B.S., Cornell, 17; Sc.D., Hopkins, 24. Teaching fellow entom. and zool, Iowa Col, 17-18; sci. asst, bur. entom, U. S. Dept. Agr, 18-20; asst. state entomologist, N. Y., 20-21; asst. med. entom, Hopkins, 21-24; med. entomologist, Haiti Surv, Int. Health Board, 24-25; *asst. prof. parasitol, Sch. Trop. Med*, 25- A.A.; Soc. Parasitol; Entom. Soc; Ass. Econ. Entom; Wash. Entom. Soc. Ecology and taxonomy of Anopheles and Ceratopogoninae; biology of Halcitini.
- Hoffman, Dr. William S(amuel)**, 3917 Forest Park Ave, Baltimore, Md. *Physiological chemistry*. Baltimore, July 5, 99. A.B., Hopkins, 18, Ph.D., 22. Asst. *physiol. chem, sch. med, Hopkins*, 22-25, *instr*, 25- Organic phosphates of blood.
- Hoffmann, Dr. Geo(rge) L**, 216 Jenkins Arcade, Pittsburgh, Pa. *Bacteriology, Biochemistry*. Logansport, Ind, Nov. 1, 87. B.S., Purdue, 11; Ph.D., Bern, 15. Instr. biol, Purdue, 12;

- research bacteriologist, Parke, Davis and Co, 12-13; asst. Inst. Investigation Infectious Diseases, Bern, 14-15; chief bacteriologist, West. Pa. Hosp., 17-23; *director laboratories, Allegheny Co. Hosp. and consulting bacteriologist, private clin. lab.*, 23- A.A.; Soc. Bact.; Soc. Parasitol.; Chem. Soc.; Soc. Exp. Biol.; Ind. Acad. Serology; chemotherapy of trypanosomiasis; Spirochaeta hyos; hay-fever; bronchial asthma.
- Hoffmann, Ralph**, Santa Barbara, Calif. *Ornithology, Botany*. Stockbridge, Mass, Nov. 30, 70. A.B., Harvard, 90. Teacher, Browne and Nichols Sch., Mass, 91-10; headmaster, country day schools, Mo, 10-19; *director, Santa Barbara Museum Nat. Hist.*, 23- Ornith. Union; New Eng. Bot. Club; Cooper Ornith. Club. Birds of the Pacific states, New England and New York; flora of Santa Barbara County, California.
- Hoffmann, Prof. William E(dwin)**, Lingnan University, Honglok, Canton, China. *Entomology*. Caldwell, Kans, May 4, 96. A.B., Kansas, 18; A.M., Minnesota, 24. Fellow entom., Kansas, 18, research and field asst., 19, asst. curator entom. collections, 20; instr. entom. and econ. entom., Minnesota, 21-24; assoc. prof. *biol. and head dept., Lingnan (China)*, 24-25, *prof.*, 25-, *director museum*, 26- Entom. Surv., Kansas; Minnesota Pacific exped., Hawaiian Islands, 24; delegate, First Pan-Pacific Food Conservation Conf., Honolulu, 24; Third Pan-Pacific Science Cong., 26. Ed., 'Lingnaam Agr. Rev' (China), 25- A.A.; Entom. Soc.; Ass. Econ. Entom.; Ecol. Soc.; Soc. Parasitol.; Kans. Acad.; China Med. Ass.; China Soc. Sci.; China Soc. Sci. and Arts; hon. mem. British Aquarists Ass. Economic entomology; aquatic Hemiptera; biology and ecology of insects.
- Hoffmeister, Dr. John Edward**, 11 Russell St., Rochester, N. Y. *Geology, Paleontology*. Baltimore, Md, Feb. 1, 99. A.B., 20, Ph.D., 23. Prof. biol., Baltimore Col. Dent. Surg., 22-23; *asst. prof. geol., Rochester*, 23- Junior geologist, U. S. Geol. Surv., 23- Paleont. Soc.; Wash. Geol. Soc. Corals.
- Hoffstadt, Prof. Rachel E(milie)**, University of Washington, Seattle, Wash. *Botany, Bacteriology*. Madison, Ind, June 14, 86. B.S., Hanover, 04; M.S., Chicago, 12, fellow, 14-15, Ph.D., 15; fellow, Hopkins, 22-23, Sc.D., 23. Teacher, high schools, Ind, 08-11; head dept. biol., Marshall Col, 11-13; dept. bot., Milwaukee-Downer, 15-23; *asst. prof. bacter., Washington (Seattle)*, 23- Bacteriologist, Camp Sevier, S. C, 19- A.A.; Bot. Soc.; Soc. Bact. Vascular anatomy of seed plants; bacteriology of meat; relation of calcium deficient diet to change in intestinal flora in white rats; plant morphology.
- Hoffmann, Dr. J(ulius) V(alentine)**, Mont Alto, Pa. *Forestry*. Janesville, Minn, Feb. 20, 82. B.S.F., Minnesota, 11, M.F., 12, Ph.D., 14. Instr. forestry and bot., Minnesota, 11-12; pathologist, bur. plant indust., U. S. Dept. Agr, 12; sci. asst., Priest River Forest Exp. Sta., U. S. Forest Service, 12-13, director, Wind River Forest Exp. Sta., 13-24; *asst. director, Pa. State Forest Sch.*, 24- Lecturer, Minnesota, 15. A.A.; Soc. Foresters; Forestry Ass.; Bot. Soc.; Ecol. Soc.; Phytopath. Soc.; Am. Geog. Soc. Silviculture; forest management; forest ecology and pathology; forest influences; regeneration of forests; meteorological factors and forest fires.
- Hogan, Prof. Albert G(arland)**, University of Missouri, Columbia, Mo. *Animal nutrition*. Maryville, Mo, Dec. 31, 84. A.B., Missouri, 07, B.S.A., 09, A.M., 12; Ph.D., Yale, 14. Instr. chem., Mo. State Nor. Sch., Maryville, 09-11; asst. physiol. chem., Sheffield Sci. Sch., Yale, 13-14; asst. prof. animal nutrition, Kansas Col, 14-17, assoc. prof., 19; *prof. biochem.*, Alabama, 19-20; *animal husbandry, Missouri*, 20-, *chairman dept. agr. chem.*, 23- A.A.; Chem. Soc.; Soc. Biol. Chem. Vitamins; comparative nutritional value of proteins; growth and reproduction as affected by nutrition.
- Hogan, John V(incent) L(awless)**, 41 Park Row, New York, N. Y. *Electrical engineering*. Philadelphia, Pa, Feb. 14, 90. Sheffield Sci. Sch., Yale, 08-10. Telegraph supt. and consulting engineer, Nat. Elec. Signaling Co, 10-14, chief research engineer, 14-18; manager, Int. Radio Telegraph Co, 18-21; *consulting engineer*, 21- Pan-Am. Sci. Cong; Hoover Radio Conferences. A.A.; Elec. Eng.; fel. Radio Eng. (v. pres, 16-19, chairman, standards committee, 16-19, pres, 20); hon. mem. Radio Club. Applied physics; radio telegraphy and telephony; electromagnetic waves; signal-receiving methods.
- Hogben, T(homas) Lancelot**, McGill University, Montreal, Que., Can. *Zoology, Physiology*. Portsmouth, Eng, Dec. 9, 95. M.A., Cambridge, 15; D.Sc., London, 20. Lecturer zool., Imp. Col. Sci., London, 19-22; asst. director animal breeding, research dept., Edinburgh, 22-23, lecturer exp. physiol., 23-25; *asst. prof. zool., McGill*, 25- Mackinnon investigator, Royal Soc., 23. Assoc. ed., 'British Jour. Exp. Biol.', 23- British Soc. Exp. Biol. (see'y). Relation of the pituitary gland to color response; comparative biochemistry of the pituitary; invertebrate muscle; haemocyanin.
- Hoge, Wendell P(hillips)**, Mt. Wilson Observatory, Pasadena, Calif. *Astronomy*. Belmont Co, Ohio, July 9, 67. Pub. sch. Employee, Santa Fe Ry. Co, 87-12; asst. observer, Mt. Wilson Observatory, 12-24, *lab. asst. and computer*, 24- Astron. Soc.; Pacific Astron. Soc.; fel. Royal Astron. Soc. Stellar spectroscopy and photometry; stellar parallaxes; meteorology; nebulae; star clusters; variable stars; standard of wave lengths.
- Hogness, Prof. T(horfin) R(usten)**, 1405 Spring Way, Berkeley, Calif. *Physical chemistry*. Minneapolis, Minn, Dec. 9, 94. B.S., Minnesota, 18, Ch.E., 19; Ph.D., California, 21. Instr. chem., California, 21-25, *asst. prof.*, 25- Chem. Soc.; Physical Soc. Ionization of gases by electron impact.
- Hogrefe, Louis (T. W.)**, 5403 Illinois Ave, N. W., Washington, D. C. *Chemistry*. Copenhagen, Denmark, Aug. 3, 66. Copenhagen, 85; Ph.C., Michigan, 97, B.S., 02. Director chem. dept., Patton Paint Co, 08-10; expert chem., U. S. Dept. Agr, 11; chemist, J. L. Hopkins Co, 12-17; *exam. corps, U. S. Patent Office*, 18- Mem.

- bar, U. S. Supreme Court. A.A. Technical and pharmaceutical chemistry; rubber; cements; paints; alkaloids; leather; fuels; motor fuels.
- Hogstad, Prof. A(nton), Jr**, 1921 Alfred Ave, St. Louis, Mo. *Pharmacy*. Neenah, Wis, Feb. 21, 93. Ph.C, Phila. Col. Pharmacy, 14; B.S, S. Dak. Col, 19, M.S, 21, D. F. Jones fellow, Minnesota, 25-26. Instr. bot. and pharmacognosy, Phila. Col. Pharmacy, 14-16; head hay fever dept, H. K. Mulford Co, Pa, 16-17; instr. pharmacy, S. Dak. Col, 17-18, asst. prof, 18-20, assoc. prof, 20-26; *prof. pharmacog. and mat. med. col. pharmacy, St. Louis, 26-* Collaborator, 'Botanical Abstracts.' Director medicinal plant garden, Mo. Bot. Garden. Auxiliary mem, U. S. Pharmacopœial Revision Committee. Pharmaceut. Ass; S. Dak. Acad. Chenopodium ambrosioides anthelminticum; alkaloids of Solanaceae; chemical morphological study of Cicandra physaloides.
- Hogue, Dr. M(ary) J(ane)**, University of Pennsylvania, Philadelphia, Pa. *Zoology*. West Chester, Pa, Oct. 12, 83. A.B, Goucher, 05; Bryn Mawr, 05-07; Ph.D, Würzburg, 09; Columbia, 10-11. Demonstrator, Bryn Mawr, 06-07; prof. science, Pa. Col. for Women, 09-10; instr, Miss Chapin's Sch, New York, 10-11; zool, Mt. Holyoke, 11-14; Wellesley, 14-18; collaborator, Carnegie Institution, 19; fellow protozool, sch. hygiene and pub. health, Hopkins, 19-21, instr. bacter, sch. med, 21-22; assoc. prof. and prof, N. C. Col. for Women, 22-24; *instr. histol, sch. med, Pennsylvania, 24-* Alumnae trustee, Goucher, 16-19. Lab. worker, base hosp, Ft. Sill, 18-19. A.A; Soc. Zool; Ass. Anat; Soc. Bact; Soc. Trop. Med; Phila. Physiol. Soc. Experimental embryology; protozoology.
- Hoke, Dr. K(emer) J**, College of William and Mary, Williamsburg, Va. *School administration*. Emmitsburg, Md, Nov. 19, 78. A.B, Mt. St. Mary's, 04; diploma, Virginia, 07; A.M, Columbia, 11, Ph.D, 16. Teacher, prin. and supervisor instruction, schools, Va, 04-06, 07-12; asst. supt. and supt, Va. and Minn, 13-20; *dean col. and prof. educ, William and Mary, 20-* Summers, instr, Iowa Col, 13, 14, 15. Mem, Mosely educ. commission for inspection of schools, Europe, 07. A.A; Nat. Soc. Study Educ; Educ. Research Ass; Va. Acad. School administration; educational measurements.
- Holaday, Horace A(sa)**, E. R. Squibb and Sons, New Brunswick, N. J. *Biochemistry, Pharmacology*. Denver, Colo, Feb. 26, 89. A.B, Colorado, 11, Chicago, 15-16; Columbia, 11, 19. Asst. chem, Idaho, 10-12, instr, 12-15, asst. prof, 15-18; prof. physiol. chem. and head div. food and physiol. chem, N. Dak. Col, 19-20; *director biochem. research, E. R. Squibb and Sons, 20-* A.A; Chem. Soc. Nutrition; brain lipins; euglobulin and pseudoglobulins; blood chemistry of terminal hemorrhage; allergens; posterior pituitary; thyroxin; insulin; stability of vitamins, hormones, antitoxins and galenicals; myrtillin; quantitative relation between dosage and physiological effect.
- Holbert, Dr. James R(ansom)**, Bloomington, Ill. *Agronomy*. Muncie, Ind, July 18, 90. B.S.A, Purdue, 15, M.S.A, 18; Ph.D, Illinois, 26. Agronomist, Funk Brothers Seed Co, 15-18; pathologist, *office cereal investigations, bur. plant indust, U. S. Dept. Agr, 18-22, agronomist, 23-* Soc. Agron; Bot. Soc; Phytopath. Soc; Genetic Ass. Corn root stalk and ear rot diseases; physiology of disease resistant and susceptible inbred strains of corn and their recombinations.
- Holbrook, Prof. E(lmer) A(llen)**, Pennsylvania State College, State College, Pa. *Mining engineering*. Fitchburg, Mass, June 23, 81. B.S, Mass. Inst. Tech, 04; E.M, Illinois, 16. Prof. mining and metal, N. S. Tech. Col, 10-12; asst. prof. mining, Illinois, 12-15, prof, 15-17; mining engineer and metallurgist, U. S. Bur. Mines, 17-18; supt, Pittsburgh Exp. Sta, 19, asst. director, 20-22; *dean sch. mines and metal, Pa. State, 22-*, acting dean grad. sch, 25- Eng. Educ. Preparation of minerals and coal.
- Holbrook, F(ay) S(tanley)**, U. S. Bureau of Standards, Washington, D. C. *Physics*. Albany, N. Y, Jan. 8, 87. LL.B, Georgetown, 15, LL.M, 16; Cornell, 07. Asst. physicist, *Bur. Standards, 09-13*, assoc. physicist, 14-15, inspector weights and measures, 15-23, chief inspector, 23-25, *senior scientist, 25-*, co-chief div. weights and measures, 21- Sec'y, Nat. Conference Weights and Measures, 22- Standardization of weights and measures; specifications and tolerances; methods of test.
- Holdaway, Prof. C(harles) W(illiam)**, Blacksburg, Va. *Dairy husbandry*. Masterton, N. Z, May 24, 80. B.S, Va. Polytech, 12, M.S, 15. Asst. *dairy husbandry, Va. Polytech, 03-07*, instr, 07-14, assoc. prof, 14-18, *prof, 18-* A.A; Dairy Sci. Ass. Animal nutrition; genetics; dairy manufacturing.
- Holden, Prof. Charles A(rthur)**, Hanover, N. H. *Civil engineering*. Hudson, Mass, July 14, 72. B.S, Dartmouth, 95, C.E, 01; Harvard, 98. Engineer, Middletown and Portland Bridge Co, and Boston and Albany Ry, 95-98; instr. civil eng, Worcester, 98-00; math, Dartmouth, 01-04, asst. prof, 04-06; instr. civil eng, Thayer Sch. Civil Eng, 00-04, asst. prof, 04-05, assoc. prof, 05-08, prof, 08-25, acting director, 18-19, director, 19-25; *prof. civil eng, Dartmouth, 25-* Instr, Wisconsin, 01; engineer for N. H, in N. H-Vt. boundary litigation, 17-; supervisor mil. training, Dartmouth, 18. N. H. Commission Conservation Water Power. Civil Eng; Eng. Educ.
- Holden, Edwin C(hapin)**, Garrett Building, Baltimore, Md. *Mining, Metallurgy*. New York, N. Y, Nov. 8, 72. B.S, Col. City of N. Y, 93; E.M, Columbia, 96. *Manager mines and consulting engineer, 96-*; prof. mining and metal, Wisconsin, 08-16; manager, Davison Sulphur and Phosphate Co, 15-19; *consulting engineer, Silica Gel Corp, 23-* Min. and Metal. Eng; Min. and Metal. Soc; Min. Eng. Mine valuation and management.
- Holden, Prof. R(oy) J(ay)**, Blacksburg, Va. *Geology*. Sheboygan Falls, Wis, Oct. 21, 70. B.S, Wisconsin, 00, Ph.D, 15. Teacher, schools,

- Wis, 92-02; assoc. geol. *Va. Polytech*, 05-07, assoc. prof. *geol. and miner*, 07-08, *prof*, 08- Commercial geologist; asst. geologist, *Va. Geol. Surv*, 05-07. A.A.; *Geol. Soc.*; *Ass. Petrol. Geol.*; *Min. Eng.* Cytology; mineralogy; origin and alteration of iron ore; association and significance of minerals.
- Holder, Prof. F(rancis) J(erome)**, Mercer University, Macon, Ga. *Mathematics*. Santa Fe, Fla, Aug. 11, 76. B.S, Lebanon, 96; B.B.S, Massey's Business Col, 00; A.M, Yale, 05, Ph.D, 08. Prin, high sch, Fla, 96-00; manager, King's Business Col, N. C, 01-03; prin, sch. commerce, Wyoming, 08-09; *prof. math*, Colby, 09-11; Akron, 11-12; Pittsburgh, 12-18; *prof*, Mercer, and *dean sch. commerce*, 18- A.A; *Math. Soc.*; *Math. Ass.*; *Eng. Educ.* Multiple infinite series in M-way space.
- Hole, Prof. Allen D(avid)**, Earlham College, Richmond, Ind. *Geology*. Bridgeport, Ind, Aug. 6, 66. B.S, Earlham, 97, A.M, 01; Ph.D, Chicago, 10. *Prof. geol*, Earlham, 00-, v. pres, 19-24, *curator*, Moore Museum, 05- Asst, U. S. Geol. Surv, 06-16; asst, Ind. Geol. Surv, 11-18. Ind. Acad. Glacial and economic geology; glacial geology of the Engineer Mountain and of the Telluride quadrangle, Colorado; trilobites of western Illinois; moulding sands of Indiana; soil survey.
- Holgate, Prof. Thomas F(ranklin)**, 617 Library Place, Evanston, Ill. **Mathematics*. Hastings Co, Ont, Can, April 8, 59. B.A, Toronto, 84, M.A, 89; fellow, Clark, 90-93, Ph.D, 93; LL.D, Illinois, 05; Queen's (Can), 19. Master math, Albert, 84-90; instr, Northwestern, 93-94, *prof*, applied math, 94-05, *math*, 05-, dean col, 02-19, acting pres, 04-06, 16-19. A.A; *Math. Soc.* (sec'y, Chicago sect, 97-07); *Math. Ass.*; *Math. Verein*. Ruled surfaces of the fourth order; loci of common points of tangents forming a circuit with circles of a co-axial system; construction of conics through given elements in part imaginary; geometry.
- Holl, Dr. Carl W(aldo)**, Manchester College, North Manchester, Ind. *Chemistry*. North Canton, Ohio, Nov. 16, 92. A.B, Manchester, 16; M.S, Ohio State, 21, du Pont fellow, 22-23, Ph.D, 23. Prin, high sch, Ind, 16-18; *dept. chem*, Blue Ridge Col, 19-20; Ohio State, 20-22; *head*, Manchester, 23- Chemist, U.S.A, 18-19. *Chem. Soc.* Oxidation of sugars and alcohols in neutral and alkaline solutions.
- Holl, Prof. D(io) L(ewis)**, Iowa State College, Ames, Iowa. *Mathematics*. North Canton, Ohio, Jan. 7, 95. A.B, Manchester, 17; A.M, Ohio State, 20; fellow, Chicago, 22-23, Ph.D, 25. Instr. *math*, Ohio State, 20-22; *asst. prof*, Ohio Wesleyan, 23-25; *Iowa Col*, 25- U.S.A, 18-19. A.A; *Math. Soc.* Applied mathematics; elasticity; hydrodynamics; viscous fluid motion in an eccentric annulus.
- Holland, Dr. Dorothy F(itzGerald)**, 244 W. 74th St, New York, N. Y. *Bacteriology*, *Public health*. Newburgh, N. Y, May 29, 97. A.B, Mt. Holyoke, 18; C.P.H, Yale, 20, Ph.D, 22. Research asst, sch. med, Yale, 18-22; *asst. prof. physiol. and hygiene*, Vassar, 22-24; *staff* *assoc. Am. Child Health Ass*, 25- *Pub. Health Ass.*; *Statist. Ass.* Statistics.
- Holland, Dr. Edward Bertram**, Massachusetts Experiment Station, Amherst, Mass. *Chemistry*. Amherst, Jan. 13, 72. B.S, Boston, 92; B.S, Mass. Col, 92, M.S, 98, Ph.D, 15. Asst. gen. and anal. chem, *Mass. Exp. Sta*, 92-93, chem. and feeding dept, 93-94, asst. chemist, feeding experiments, 94-95, dept. foods and feeding, 95-99, first chemist, 99-08, assoc. chemist, research div, dept. *plant and animal chem*, 08-11, in charge div, 11-20, *research prof*, 20- *Chem. Soc.*; *Agr. Chem.* Agricultural chemistry; oils and fats; insecticides; fungicides.
- Holland, Maurice**, National Research Council, 29 W. 39th St, New York, N. Y. *Engineering*. Wickford, R. I, April 4, 91. Lowell Inst; Mass. Inst. Tech, 16; Pennsylvania; Harvard. Chief indust. eng. branch, A.S, 21-23; *director div. eng. and indust. research*, Nat. Research Council, 23- Advisory committee, Daniel Guggenheim Sch. Aeronaut. Am. Eng. Council Committee on Commercial Aviation. Delegate, Nat. Research Council, World Power Conf, London; third Pan-Pacific Sci. Cong, Tokyo, 26; First Sci. Management Cong, Prague. A.A; Acad. Polit. Sci. National and industrial organization of research in Europe, the United States and the Far East.
- Holland, Dr. W(illiam) J(acob)**, Carnegie Museum, Pittsburgh, Pa. **Zoology*, *Paleontology*, *Museum administration*. Bethany, Jamaica, W. I, Aug. 16, 48. Grad, Moravian Col. and Theol. Sem, Bethlehem, Pa, 67; A.B, Amherst, 69, D.D, 88; med. student under preceptor, 69-71; Princeton Theol. Sem, 74; hon. Ph.D, Washington and Jefferson, 86, Sc.D, 02; LL.D, Dickinson, 96, N. Y. Univ, 97, St. Andrew's, 05, Bethany (W. Va), 06. Prin, high sch, Mass, 69-71; pastor, 74-91; *prof. Latin*, Pa. Col. for Women, 77-79; chancellor, Pittsburgh, 91-01, *prof. polit. econ. and int. law*, 92-97, lecturer zool, 95-99; director, *Carnegie Museum*, Pittsburgh, 98-22, *emer. director*, 22- Director, Sch. Design for Women, Pittsburgh, 83-; naturalist, U. S. eclipse exped, Japan, 87, Africa, 89; trustee, Pa. Col. for Women, 74-05; West. Theol. Sem, 77-, v. pres, 80-96; trustee, Pittsburgh, 88-; Washington and Jefferson, 89-91; Carnegie Library, Pittsburgh, 89-90; Carnegie Inst, 96-01; Carnegie Corp, N. Y, 22- V. pres, Carnegie Hero Fund, 05-22, pres, 22-; mem, Pa. Col. and Univ. Council, 95-01. Officier, Légion d'honneur, 08; Knight, III Kl, Royal Order of the Crown, Prussia, 08; Offizier, Franz Josef Ordens, 09; commander, Order of the Crown, Italy, 10; Knight, II Kl, Order of St. Stanislaus, Russia, 11; commander, Order of Alfonso XII, Spain, 13; Order of the Crown, Belgium, 19. A.A; fel. Entom. Soc; Ass. Econ. Entom; Geol. Soc; Anthrop. Ass; Paleont. Soc; Ass. Mus. (v. pres, 06, pres, 09); Wash. Acad; Phila. Acad; Wash. Entom. Soc; cor. mem. N. Y. Entom. Soc; W. Pa. Entom. Soc. (pres); Cambridge Entom. Club (pres, 89); Col. Ass. Middle States and Md. (pres, 96); Pa. Hist. Soc; Moravian Hist. Soc; hon. mem. La Plata Acad; London Zool. Soc; fel. London

- Entom. Soc; fel. Royal Soc. Edinburgh; Soc. entom. de France; Entom. Gesell. Iris; hon. mem. Entom. Soc. Brazil; hon. mem. Madrid Soc. Nat; hon. mem. Royal Acad. Bologna; hon. mem. Swedish Soc. Anthropol. and Geog. Entomology; ornithology; history; archeology; avifauna of East Africa; Lepidoptera of North and South America, tropical West Africa and Malaysia; Tertiary fauna of western states; Jurassic dinosaurs.
- Holland, Dr. W(illiam) W(est)**, Standard Oil Co. of Indiana, Wood River, Ill. *Chemistry*. Eastville, Va, Sept. 18, 81. Virginia, 00-04; Chicago, 05; A.B., Central, 06; Ph.D., Hopkins, 07, fellow by courtesy, 07-08. Carnegie research asst. chem., Hopkins, 07-08, asst. to Prof. H. N. Morse, 08-10, research assoc., 10-16; chief chemist, *Standard Oil Co. of Ind.*, 16-18, asst. supt. refinery, 18-23, supt., 23- A.A.; Chem. Soc. Osmotic pressure of cane sugar solutions.
- Hollander, Dr. Franklin**, Yale Medical School, 333 Cedar St., New Haven, Conn. *Biochemistry*. New York, N. Y., 99. B.S., Columbia, 19, Ph.D., 23. Asst. instr. chem., Columbia, 19-22; *Nat. Research Council fellow med.*, Yale, 25- Research, sch. med., Hopkins. A.A.; Chem. Soc. Enzyme action; mechanism of gastric secretion.
- Hollcroft, Prof. Temple R(ice)**, Aurora-on-Cayuga, N. Y. *Mathematics*. Alton, Ind., April 8, 89. B.S., Hanover, 12, A.B., 14; A.M., Kentucky, 15; fellow, Wisconsin, 15-16; Cornell, 16-17, Ph.D., 17. Instr. math., Kentucky, 13-15; Columbia, 17-18; prof., Wells, 18- Instr., F. A. Cent. Officers Training Sch., U.S.A., 18. A.A.; Math. Soc; Math. Ass. Algebraic geometry.
- Holler, Dr. H(omer) D(enison)**, 5334 Belt Road, Washington, D. C. *Chemistry, Physics*. Newark, Ohio, Nov. 25, 89. B.S., Denison, 11; A.M., Ohio State, 12, Ph.D., 17. Asst. chemist, Bur. Standards, 15-18, assoc. chemist, 18-19; physical chemist, E. I. du Pont de Nemours and Co., 19-20; instr. physics, Columbia, 20-21; asst. prof., Brooklyn Polytech, 21-23; chemist, Bur. Standards, 23-25; physicist, Phillips Petrol. Co., 25-27; *research assoc.*, Bur. Standards, 27- Chem. Soc; Electrochem. Soc; Elec. Eng. Electrodeposition of metals; electroanalysis; primary and storage batteries; standard cells; alternating current rectifiers; electrolytic polarization; oscillographic measurements; corrosion; seismographs.
- Hollick, Dr. C(harles) Arthur**, N. Y. Botanical Garden, Bronx Park, New York, N. Y. **Geology, Paleobotany*. New Brighton, N. Y., Feb. 6, 57. Ph.B., Columbia, 79; Ph.D., George Washington, 97. Private asst. to Prof. J. S. Newberry, dept. geol., Columbia, 81-91, asst. geol., Columbia, 91-92, tutor, 93-00; curator dept. fossil bot., N. Y. Bot. Garden, 01-14, hon. curator, 14-19, paleobotanist, 20-; geologist, U. S. Geol. Surv., 10- U. S. Geol. Surv. and N. Y., N. J., Md. and La. State Geol. Surveys, 81-; Board Health, New Brighton, 86-92; pres., Boulevard Commission, Port Richmond, N. Y., 96; v. pres., Park Commission, Richmond Co., N. Y., 97-00, pres., 01-04; mem., Board Educ., New York, 07-10. A.A. (sec'y, E, 99); Geol. Soc; Bot. Soc. (treas., 96-16); Paleont. Soc. (v. pres., 11); Ass. Mus.; Wild Flower Preservation Soc; Wash. Geol. Soc; fel. N. Y. Acad; Torrey Bot. Club (sec'y, 83-88); Staten Isl. Inst. Arts and Sci. (sec'y, 81-17, trustee, 05-14). Ecology; Miocene and Pleistocene floras of Maryland; Cretaceous flora of New Jersey, Staten Island, Long Island, Block Island and Martha's Vineyard; Miocene flora of New Jersey; fossil floras of the West Indies and Brazil; tertiary flora of British Columbia.
- Hollingworth, Dr. H(arry) L(evi)**, Columbia University, New York, N. Y. **Psychology*. De Witt, Nebr., May 26, 80. A.B., Nebraska, 06; Ph.D., Columbia, 09. Teacher, high schools, Nebr., 99-03; asst. psychol., Nebraska, 04-06; prin., high sch., Nebr., 06-07; asst. psychol., Columbia, 07-09, tutor, 09-10, instr., 10-14, asst. prof., 15-17, assoc. prof., 18-21, prof., 22- Psychol. Ass. Psychology of movement; pharmacopsychology; vocational and business psychology; judgment and thought processes; functional neuroses; mental measurement and growth.
- Hollingworth, Prof. Leta S(tetter)**, 90 Morning-side Drive, New York, N. Y. *Psychology*. Chadron, Nebr., May 25, 86. A.B., Nebraska, 06; A.M., Columbia, 13, Ph.D., 16. Teacher, high schools, Nebr., 06-09; psychologist, Clinic for Atypical Children, New York, 13-16; psychopathic service, Bellevue Hosp., 16; instr. educ. psychol., *Teachers Col., Columbia*, 16-19, asst. prof. educ., 19-22, assoc. prof., 22- Psychol. Ass. Clinical and educational psychology; mental and motor abilities of women; frequency of inferior grades of intelligence as related to sex; gifted children.
- Hollingworth, Prof. Marion**, Ohio State University, Columbus, Ohio. *Chemistry*. Near Jamestown, Ohio, Oct. 7, 77. B.S., Wilmington, 06; A.B., Ohio State, 08, A.M., 17, Ph.D., 19. Teacher, rural schools, 95-01; draftsman, Sherwin-Williams Paint Co., 06-07; prof. chem., Wilmington, 08-14; asst., *Ohio State*, 14-18, instr., 18-19, prof. anal. chem., 19- A.A.; Chem. Soc. Precision methods in analytical chemistry.
- Hollis, Dr. Ira N(elson)**, Worcester, Mass. *Marine engineering*. Mooresville, Ind., March 7, 56. Grad., U. S. Naval Acad., 78; hon. A.M., Harvard; L.H.D., Union, 99; Sc.D., Pittsburgh, 12. Asst. engineer, U.S.N., 80-89, past asst. engineer, 89-93; prof. eng., Harvard, 93-13; pres., Worcester Polytech, 13-25. A.A.; Naval Eng; Naval Archit. and Marine Eng; Mech. Eng; Eng. Educ; Am. Acad; Boston Soc. Civil Eng. Naval history; engineering.
- Hollister, Prof. S(herman) P(reston)**, Connecticut Agricultural College, Storrs, Conn. *Horticulture*. Medina, Ohio, Feb. 11, 84. Grad., Conn. Col., 05; B.S.A., Cornell, 09. Asst. hort., Conn. Col., 05-07; horticulturist, Hampton Inst., 09-11; instr. hort., Conn. Col., 11-17, exten. horticulturist, 16-19, asst. prof. pomol., 17-22, prof. hort., 22- Soc. Hort. Sci; Pomol. Soc; Conn. Pomol. Soc. Variation in length of apple stems.
- Hollnagel, Dr. H(erbert) P(ercival)**, 22 Hampden St., Swampscott, Mass. *Physics*. Dubuque,

- Iowa, July 10, 82. B.S., Mass. Inst. Tech, 06, M.S., 09; Ph.D., Berlin, 10. Asst. physics, Mass. Inst. Tech, 06-08, instr, 11-16, asst. prof, 16-19; in charge dept. physics, Thomson lab, Gen. Elec. Co, Lynn, Mass, 20- A.A.; Physical Soc; Optical Soc; Elec. Eng; Soc. Steel Treat. (hardness testing committee). Radiation; extreme infra red spectrum; the energy distribution and wave length of the residual rays; absorption of organic compounds for waves of great length; the unknown region of the electro-magnetic spectrum; hardness tests and numbers; stress-strain curve and physical properties related to hardness; hardness and sieve analysis.
- Holloway, T(homas) E(dmunds)**, Sugar Cane Insect Laboratory, 8203 Oak St, New Orleans, La. *Entomology*. Parsons, Kans, Aug. 20, 86. B.S., Agr. and Mech. Col. Texas, 08. Asst. boll weevil investigations, *bur. entom, U. S. Dept. Agr.*, 09-11, in charge lab. sugar cane insect investigations, 11- A.A.; Entom. Soc; Ass. Econ. Entom; Wash. Entom. Soc; New Orleans Acad. Sugar cane insects; sugar cane moth borer.
- Holm, Dr.*George E(lmer)**, U. S. Department of Agriculture, Washington, D. C. *Biochemistry*. Cokato, Minn, Jan. 20, 91. B.S., Carleton Col, 14; M.S., Minnesota, 16, Ph.D., 19. Prin, high sch, Minn, 14-15; instr, Minnesota, 19, asst. prof, 19-20; *biochemist, bur. dairying, U. S. Dept. Agr.*, 20- Chem. Soc; Soc. Exp. Biol; Soc. Bact; Wash. Acad. Protein chemistry; chemistry of fat deterioration.
- Holm, Dr. (Herman) Theo(dor)**, Clinton, Md. **Botany*. Copenhagen, Denmark, Feb. 3, 54. Grad, Copenhagen, 80; Ph.D., 02. Naturalist, Danish North Pole exped, 82-83; Danish exped, Greenland, 84-86; asst. botanist, U. S. Nat. Museum, 88-93; U. S. Dept. Agr, 93-96. Danish, Swedish, French and Canadian scientific societies. Anatomy and morphology of phanerogams.
- Holm, Dr. M(arinus) L(arsen)**, 303 Tussing Building, Lansing, Mich. *Medicine*. Hobro, Denmark, Dec. 8, 78. Ph.G, Ph.C, Northwestern, 02, M.D., 07. Instr. pharmacy, Northwestern, 03, asst. chem, med. dept, 04-06; chemist, Dept. Health, Chicago, 06-07; state bacteriologist, Mich, 07-15; *director, Lansing Clin. Lab*, 15- Board Educ. and Board Health, Lansing; staff, Ingham Co. Tuber. Sanitarium; pathologist, Lansing City Hosp. Lieut. col, M.C, 17-19. A.A.; Am. Med. Ass; Soc. Bact; Pub. Health Ass; Chem. Soc; Pharmaceut. Ass. Preventive medicine; clinical pathology; formaldehyde fumigation; air infection; water purification; milk analysis and sanitation; diphtheria; tuberculosis; meningococcus pneumonia.
- Holman, Dr. Emile**, Stanford Hospital, San Francisco, Calif. *Medicine*. Moberly, Mo, Aug. 12, 90. A.B., Stanford, 11; B.A., Oxford, 16; M.D., Hopkins, 18. Instr. surg, Hopkins, 20-23; Austin teaching fellow, Harvard, 23-24; asst. prof. *surg.*, Western Reserve, 24-25; *assoc. prof, sch. med, Stanford*, 25-26, *prof*, 26- Fel. Am. Med. Ass; fel. Col. Surg; Calif. Acad. Med. Arterio-venous aneurism; patent ductus arteriosus; intracardiac fistula; intestinal anastomosis; skin grafting; hernia; lung abscess.
- Holman, H(erbert) P(aul)**, U. S. Department of Agriculture, Washington, D. C. *Chemistry*. Vincennes, Ind, June 14, 82. A.B., Indiana, 03. Asst. chemist, La Clede Gas Light Co, St. Louis, Mo, 04; St. Louis Smelting and Refining Co, 05-06; chemist, St. Louis Sampling and Testing Works, 06-08; asst, *assoc. and chemist, bur. chem, U. S. Dept. Agr.*, 08- Chem. Soc; Ass. Official Agr. Chemists. Waterproofing; preservative treatments for fabrics.
- Holman, Prof. Richard M(orris)**, University of California, Berkeley, Calif. *Plant physiology*. Pittsburgh, Pa, Jan. 9, 86. A.B., Stanford, 07; Leipzig, 12-14; Ph.D., California, 15. Instr. *bot*, Philippine Nor. Sch, 09-10; Philippines, 10-12; Michigan, 15-17; prof, Wabash, 17-20; asst. prof, *California*, 20-26, *assoc. prof*, 26- A.A.; Bot. Soc. Root curvatures; reproduction in fresh water algae; longevity and germination of pollen and other spores.
- Holman, Prof. Will(iam) F(rank)**, University of Minnesota, Minneapolis, Minn. *Engineering*. Friend, Nebr, March 6, 83. B.S., Nebraska, 04, A.M., 06; Ph.D., Göttingen, 08. Instr. physics, Worcester, 08-09; *Minnesota*, 09-11, *assoc. prof. and prof. math. and mech*, 11- A.A.; Eng. Educ. Photoelectric effect; piézo electricity.
- Holman, Prof. W(illiam) L(udlow)**, University of Toronto, Toronto, Ont, Can. *Bacteriology*. Summerside, P. E. I, May 17, 79. B.A., McGill, 03, M.D., C.M., 07. Anesthetist, Royal Victoria Hosp, Montreal, 07-08, asst. path. and bacter, 08-09; research worker, Hopkins, 09-10; hygiene inst, Breslau, 10-11; instr. *bacter*, Pittsburgh, 11-12, asst. prof, 12-16, *assoc. prof*, 16-18, *prof*, 18-20; asst. prof, Stanford, 20-21, *assoc. prof*, 21-23; Hopkins, 23-24; *Toronto*, 24- Asst, Walton Goelet Research Lab, Paris, 16-17. A.A.; Soc. Bact; Ass. Path. and Bact; Soc. Exp. Biol; Pub. Health Ass; Cong. Int. Med. Anaerobic bacteria; bacteriology of soot; spontaneous infection in guinea pigs; Streptococci; bacteriological media; anthrax; minute anaerobes in the mouth; filtration methods; bacterial synergism.
- Holmes, Prof. Arthur**, University of Pennsylvania, Philadelphia, Pa. *Psychology, Philosophy*. Cincinnati, Ohio, May 5, 72. A.B., Hiram, 99; fellow, Pennsylvania, 99-04, A.M., 03, Ph.D., 08. Instr. psychol, Pennsylvania, 08-10, asst. prof, 10-12; dean gen. faculty, Pa. State, 12-18; pres, Drake, 18-22; *prof. psychol, Pennsylvania*, 22- Psychol. Ass. German idealism; psychology of religion.
- Holmes, Dr. Arthur D(unham)**, 5 Butler Road, Stoneham, Mass. *Chemistry*. Walpole, N. H, July 19, 84. B.S., Dartmouth, 06; Ph.D., Hopkins, 11. Asst. chem, Dartmouth, 05-06; instr, Maine, 06-07; Mass. Col, 07-08; asst, Hopkins, 09-11; instr, Ga. Tech, 11; research chemist, U. S. Dept. Agr, 11-18; E. I. du Pont de Nemours and Co, 18-21; *director research, E. L. Patch Co*, 21- Summer, chemist, Spanish-Am. Iron Co, Moa, Cuba, 10. Assoc. ed. nutrition, 'Jour. Oil and Fat Industries.' A.A;

- Chem. Soc. (exec. committee, northeast. sect.); Pharmaceut. Ass.; N. H. Acad. Nutrition; digestibility of oils and fats; vitamin potency of cod liver oils; nutritional diseases; ultra-violet light therapy.
- Holmes, Prof. C(larence) L(eroy)**, Iowa State College, Ames, Iowa. *Agricultural economics*. Lansing, Iowa, Jan. 22, 79. A.B., Michigan, 07; Ph.D., Wisconsin, 20. Asst. agr. econ., U. S. Dept. Agr., 17-19; asst. prof., Minnesota, 19-21; assoc. prof. and asst. chief, *Iowa Col.*, 21-23, *prof. and chief*, 23- Farm Econ. Ass. (v. pres, 26); Econ. Ass.; Acad. Polit. Sci. Production; wages of farm labor in Minnesota; tenancy in Iowa.
- Holmes, Dr. E(dward) O(tis)**, Boston University, Boston, Mass. *Physical chemistry*. July 16, 92. A.B., Harvard, 14, A.M., 16; Ph.D., Hopkins, 20. Research chemist, E. I. du Pont de Nemours and Co, 17-18; *instr. chem.*, Boston, 20- A.A.; Chem. Soc. Photo-chemistry; electro-chemistry.
- Holmes, Fletcher B(each)**, P. O. Box 525, Wilmington, Del. *Chemistry*. Melrose, Mass., Jan. 13, 77. A.B., Harvard, 02. Asst. director east. lab, E. I. du Pont de Nemours and Co, 04-17, *director*, Jackson Lab, 17- Chem. Soc.; Soc. Chem. Indust.; Chem. Eng.; Electrochem. Soc.; British Soc. Dyers and Colorists. High explosives; dyes and intermediates.
- Holmes, Dr. Francis O(liver)**, Boyce Thompson Institute, Yonkers, N. Y. *Protozoology*. Cambridge, Mass., Nov. 26, 99. B.S., Mass. Inst. Tech., 21; Sc.D., Hopkins, 25. *Protozoologist*, Boyce Thompson Inst., 23- Phytopath. Soc. Endamoebae; plant-inhabiting herpetomonad flagellates; insect Protozoa.
- Holmes, Prof. Harry N(icholls)**, Oberlin College, Oberlin, Ohio. **Chemistry*. Fay, Pa., July 10, 79. B.S., Westminster (Pa.), 99, M.S., 07; Ph.D., Hopkins, 07. Asst. chem., Hopkins, 06-07; prof., Earlham, 07-14; *prof. and head dept.*, Oberlin, 14- Chairman committee on colloid chem., Nat. Research Council, 18-25, mem. div. chem., 22- A.A.; Chem. Soc. (sec'y, div. physical and inorg. chem., 19, chairman, 21, chairman, Cleveland sect., 24, councilor-at-large, 24-). Soaps; general and colloid chemistry.
- Holmes, Dr. James Eugene Levering**, 25 Hoffman St., Maplewood, N. J. *Chemistry*. A.B., Hopkins, 12, Ph.D., 15. Research chemist, Gibbs Preserving Co, 15; E. I. du Pont de Nemours and Co, 15-21; *factory manager*, Dehls and Stein, Newark, 21- Chem. Soc. Pyroxylin plastic; smokeless powder; celluloid; ether and alcohol recovery; syrups; extracts; disinfectants.
- Holmes, Dr. M(ajor) E(dward)**, Rolla, Mo. *Inorganic chemistry*. La Grange, Ky., Jan. 8, 82. A.B., Indiana, 08; A.M., Cornell, 10, Ph.D., 18. Research and development engineer, Nat. Carbon Co, 10-18; chem. director, Nat. Lime Ass., 18-24; *director dept. ceramic eng.*, Mo. Sch. Mines, 24-; *director clay testing and research lab.*, Mo. Refractory Ass., 24- Chem. Soc.; Soc. Chem. Indust.; Ceramic Soc.; Chem. Eng. Compounds of hydrogen and nitrogen; lime; gypsum; basic refractories; primary batteries.
- Holmes, Prof. R(alph) M(aynard)**, University of Vermont, Burlington, Vt. *Physics*. Ellsworth, Maine, June 11, 87. A.B., Maine, 11; A.M., Wesleyan, 13; Ph.D., Cornell, 23. Asst. *physics*, Wesleyan, 11-13; instr., Maine, 13-15, asst. prof., 15-17; instr., Cornell, 19-25; *assoc. prof.*, Vermont, 25- Aerologist, Sig.C, 17-19; lieutenant commander, U.S.N.R., 25- Physical Soc. Thermoelectric properties of thin films; effect of occluded hydrogen on thermoelectric power; effect of light on thermoelectric power of selenium; electrical properties of single crystals of selenium.
- Holmes, Prof. S(amuel) J(ackson)**, University of California, Berkeley, Calif. **Zoology, Genetics*. Henry, Ill., March 7, 68. B.S., California, 93, M.S., 94; Ph.D., Chicago, 97. Teacher, high sch., Calif., 98-99; instr. *zool.*, Michigan, 99-05; asst. prof., Wisconsin, 05-11; assoc. prof., California, 11-16, *prof.*, 16- Instr., Woods Hole. A.A.; Soc. Nat.; Soc. Exp. Biol.; Soc. Zool.; Genetic Ass.; Eugenics Research Ass.; Eugenics Soc.; Ecol. Soc.; Am. Acad.; Psychol. Ass.; Acad. Polit. Sci.; West. Soc. Nat.; Calif. Acad.; Wis. Acad. Comparative psychology; Crustacea; embryology of Mollusca; animal behavior; heredity; evolution; eugenics.
- Holmes, Walter C(hapin)**, 1707 Euclid St., Washington, D. C. *Chemistry*. Plymouth, Mass., Sept. 18, 84. A.B., Harvard, 06. Tech. lab, E. I. du Pont de Nemours and Co, 20-22; *color lab, bur. chem.*, U. S. Dept. Agr., 22- Cooperating expert, absorption spectra of dyes, Int. Critical Tables. Dyes; biological stains; spectrophotometry.
- Holmes, Dr. W(illiam) H(enry)**, Cosmos Club, Washington, D. C. **Anthropology*. Harrison Co., Ohio, Dec. 1, 46. A.B., McNeely Nor. Col., Ohio, 70; Sc.D., George Washington, 18. Instr. physical geog. and nat. hist., McNeely Nor. Col., 71; asst., U. S. Geol. Surv. of Territories, 72, asst. geologist, 74-79; U. S. Geol. Surv., 80-88; archeologist, Bur. Am. Ethnol., 88-94; curator dept. anthrop., Field Columbian Museum, 94-97; prof. anthropic geol., Chicago, 94-97; head curator dept. anthrop., U. S. Nat. Museum, 97-02; chief, Bur. Am. Ethnol., 02-10; hon. curator div. prehist. archeol., U. S. Nat. Museum, 03-10, head curator anthrop., 10-20; curator, *Nat. Gallery Art*, 08-20, *director*, 20- In charge govt. exhibits, Centennial Expos, 76; Columbian, 93; Omaha, 98; Pan-Am, 00; Charleston, 01; La. Purchase, 04. Loubat prize, 98. V. pres, Int. Cong. Americanists, 04-; U. S. delegate, Pan-Am. Sci. Cong., Santiago, Chile, 08-09. Nat. Acad.; A.A. (sec'y, H, 91, v. pres, 92, 09); Anthropol. Ass. (v. pres, 02-09, pres, 09); Philos. Soc.; Wash. Acad. (v. pres, 00-02); Wash. Anthropol. Soc. (pres, 00-02, v. pres, 07). Geology; archeology; ethnology; art.
- Holmes, Dr. Willis B(oit)**, 1337 Buckland Ave., Fremont, Ohio. *Chemistry*. Cambridge, Mass., Sept. 27, 73. A.B., Harvard, 96, A.M., 97; Ph.D., Hopkins, 99. Asst. chem., Harvard, 96-97; instr., Mass. Inst. Tech., 00; asst. instr., Chicago, 00-03, assoc. instr., 03-07; assoc., Illi-

- nois, 07-10; supt. chemist, Am. Laboratories, 10; v. pres. and supt. chemist, *The W. V-B. Ames Co.* Cooperating expert, Int. Critical Tables. A.A.; Chem. Soc. Dental cements.
- Holmquist, Dr. A(lbert) M(artinus)**, St. Olaf College, Northfield, Minn. *Ecology*. Faribault, Minn, 91. A.B, St. Olaf, 14; M.S, Chicago, 17, fellow, 23-24, Ph.D, 25. Prin, high sch, N. Dak, 14-16; instr. zool, St. Olaf, 17-18, 20-23; asst, Chicago, 24-25, Nat. Research Council fellow, 25-26; *St. Olaf*, 26- A.A; Soc. Zool; Ecol. Soc. Hibernation of Arthropods.
- Holroyd, Prof. Roland**, 1311 Orthodox St, Philadelphia, Pa. *Botany*. Manchester, Eng, May 9, 96. B.S, Pennsylvania, 18, A.M, 20, Ph.D, 23. Asst. bot, *Pennsylvania*, 16-18, instr, 19-; senior prof. biol, *La Salle*, 20- A.A; Bot. Soc; Pa. Bot. Soc. Morphology and physiology of axis in Cucurbitaceae and Lobeliaceae.
- Holsopple, Dr. J(ames) Q(uinter)**, Western Reserve University, Cleveland, Ohio. *Psychology*. Parkerford, Pa, 00. A.B, Juniata, 20; A.M, Hopkins, 23, Ph.D, 24. Asst, Hopkins, 22-24, Nat. Research Council fellow, and fellow by courtesy, 24-25; instr. psychol, Yale, 25-26; asst. prof, *Western Reserve*, 26- Psychol. Ass; S. Soc. Philos. and Psychol. Orientation and equilibrium; nystagmus; motor coordination; emotional expression and communication; statistical method.
- Holt, Prof. Caroline (Maude)**, 101 St. Paul St, Brookline, Mass. *Anatomy*. Hartland, Vt, May 29, 78. A.B, Wellesley, 03; Harvard, 06-07; A.M, Columbia, 08; Pepper fellow, Pennsylvania, 12-14, Ph.D, 15. Asst. zool, Wellesley, 03-07, instr, 08-12; biol, *Simmons (Mass)*, 14-17, asst. prof, 17- A.A; Ass. Anat. Cytology; neurology.
- Holt, Dr. Edwin B(issell)**, Glenmere, Knox Co, Maine. **Psychology*. Winchester, Mass, Aug. 21, 73. A.B, Harvard, 96, Ph.D, 01; A.M, Columbia, 00. Instr. psychol, Harvard, 01-05, asst. prof, 05-18; prof, Princeton, 26-27. Phototactic response; visual anesthesia; recurrent vision.
- Holt, Dr. William L(eland)**, City Hall, Hot Springs, Ark. *Medical sociology, Epidemiology*. Colorado Springs, Colo, Dec. 20, 78. A.B, Harvard, 01, M.D, 05; Freiburg and Heidelberg, 06-07; Freiburg, 10-13; C.P.H, Harvard Med. Sch. and Mass. Inst. Tech, 14. Austin teaching fellow, Harvard, 05-06; asst. bacteriologist, Fla. State Board Health, 14-15; health officer, South Orange, N. J, 15-17; instr. hygiene, Western Reserve, 17-18; health officer, Beloit, Wis, 18-19; dept. health, Los Angeles Co, 19-20; prof. hygiene and univ. physician, Tennessee, 20-22; epidemiologist, Ark. State Board Health, 22-24; city health officer, Little Rock, Ark, 24-26; *Hot Springs*, 26- A.A; Am. Med. Ass; Pub. Health Ass. Venereal peril; bacteria of milk; vital statistics; short methods of correcting death rate.
- Holtz, Frederick L(eopold)**, 52 Spencer Ave, Lynbrook, L. I, N. Y. *Botany, Nature study*. Minneapolis, Minn, Sept. 4, 70. B.S, Minnesota, 92, A.M, 02. Instr, high sch, Minn, 92-94; Nor. Sch, Mankato, Minn, 94-06; head dept. nature study and geog, *Maxwell Training Sch. for Teachers*, 06-12, model sch, 13- A.A; Nature Study Soc. (chairman, N. Y. sect); N. Y. Biol. Teachers Ass. Botany; Pelvetia; geography.
- Holway, Prof. R(uliff) S(tephen)**, University of California, Berkeley, Calif. *Physiography*. Hesper, Iowa, May 8, 57. A.B, Stanford, 03; M.S, California, 04. *Prof. physiog*, State Nor. Sch, San Jose, Calif, 88-02; *California*, 03- Ass. Geog; Seismol. Soc; Royal Geog. Soc. London. Physiography of California; stream and ocean terraces as a guide to recent earth movements in California.
- Holzinger, Prof. John M(ichael)**, 716 W. Sixth St, Winona, Minn. *Botany*. Hachtel, Germany, May 14, 53. A.B, Olivet, 79, M.S, 87; B.D, Yale, 82. Instr. nat. hist, *Winona Nor. Sch*, Minn, 82-90, 93- Asst, dept. bot, U. S. Dept. Agr, 90-93; biologist, nat. hist. surv, Minn, 97-05; state expeditions, Cook Co, 97, upper Minnesota River, 01, Lake Superior, 02. A.A. Mosses of western North America.
- Holzinger, Prof. K(arl) J(ohn)**, 5747 Dorchester Ave, Chicago, Ill. *Education, Psychology*. Washington, D. C, Aug. 9, 92. A.B, Minnesota, 15, A.M, 17; Ph.D, Chicago, 22. Instr. math, Kansas, 15-16; Minnesota, 16-17; educ, *Chicago*, 20-23, asst. prof, 23-25, assoc. prof, 25-, asst. dean col. educ, 21- Statist. Ass. Educational and psychological statistics; theories of intelligence; psychological tests; correlation of mental and physical traits; the relative influence of heredity and environment; statistical tables; tracts for computers.
- Homberger, Dr. Alfred William**, University of Louisville, Louisville, Ky. *Chemistry*. Prairie du Sac, Wis, May 18, 87. A.B, Wisconsin, 05; fellow, Illinois, 07-08, A.M, 08, research fellow, 09-10, Ph.D, 10; Göttingen, 08-09; Columbia, 19. Instr. chem, Rose, 05-07; prof, Illinois Col, 10-11; Ill. Wesleyan, 11-18; *Louisville*, 18- Chemist, Laclede Gas Co; Oliver Min. Co. A.A; Chem. Soc; Ky. Acad; Eng. Educ; fel. Royal Soc. Arts; Chem. Gesell. Quantitative estimation of tellurium; molecular rearrangement; turbidity in beverages containing maltose or glucose; quantitative determination of morphine; oil shales; milk as a food; nutritional relations.
- Honaman, R(ichard) Karl**, American Telephone and Telegraph Co, New York, N. Y. *Electrical engineering*. Lancaster, Pa, Sept. 17, 90. B.S, Franklin and Marshall, 12, M.S, 16. Instr. physics, Franklin and Marshall, 16-17; asst. physicist, Bur. Standards, 17-18, assoc. physicist, 18-19; development and research dept, *Am. Tel. and Tel. Co*, 19- Asst. prof, George Washington, 18-19. A.A; Physical Soc; Elec. Eng; Radio Eng; Franklin Inst; Wash. Philos. Soc. Electro-physics; alternating current circuits; insulating materials; gas engine ignition.
- Honan, Dr. Edward M(ark)**, Bell Telephone Laboratories, Inc, 463 West St, New York, N. Y. *Chemistry*. Lebanon, Ind, Sept. 11, 91. A.B, Wabash, 13; Ph.D, Michigan, 17. *Research*

- chemist, Procter and Gamble Co, 19; West. Elec. Co, 19-25, *Bell Telephone Laboratories*, 25- Summer, chemist, Dow Chem. Co, 17. Ordinance dept, U.S.A., 18-19. Chem. Soc; Electrochem. Soc. Inorganic and organic chemistry.
- Honess, Prof. Arthur P(haraoh)**, 210 S. Allen St, State College, Pa. *Mineralogy, Geology*. Berea, Ohio, Aug. 10, 87. A.B. Oberlin, 14; A.M. Princeton, 16, Sc.D., 24. Asst. miner, Princeton, 14-17; instr. *Pa. State*, 17-19, asst. prof., 19-24, *assoc. prof. miner. and petrol*, 24- A.A.; fel. Miner. Soc. The corrosion figures of crystals; petrography of the Peridotite Dike, Pennsylvania; the nature, origin and interpretation of the etch figures of crystals.
- Honess, Dr. Charles W(illiam)**, Tulsa, Okla. *Geology, Paleontology*. Berea, Ohio, June 28, 85. A.B. Oberlin, 12; A.M. Cornell, 15; fellow, Columbia, 13-14, Ph.D., 24. Asst. geol. Missouri, 15-16; *field geologist*, Okla. Geol. Surv., 16-23; Empire Gas and Fuel Co, 23-27; *Gypsy Oil Co*, 27- Summers, field geologist, Wis. Geol. Surv., 14-16. A.A.; Ass. Petrol. Geol. Areal and structural geology of the Ouachita Mountains; paleontology of the Paleozoic sediments of the Ouachita Mountains.
- Honey, Edwin E(arl)**, Cornell University, Ithaca, N. Y. *Plant pathology, Mycology*. May 2, 91. B.S. Cornell, 16; M.S. Illinois, 22. Asst. plant path, Cornell, 16-17; bot. Illinois, 19-20; instr. *plant path*, Cornell, 20-25; Wash. Col., 25-26; *asst. exten. prof.*, N. Y. State Dept. Agr. Cornell, 26- Indust. fellow, Genesee Co. Fruit Growers' Ass., 17; summers, hop expert, Cooperstown Hop Growers' Ass. and Cornell, 15, inspector, white pine blister rust surv., bur. plant indust., U. S. Dept. Agr., barberry eradication campaign, 19, 22, asst. plant pathologist, Harrisburg, Pa., 20. U.S.A., 17-19. A.A.; Bot. Soc; Phytopath. Soc; Ill. Acad. Discomycetes.
- Hood, Prof. G(eorge) Raymond**, Fairbanks, Alaska. *Chemistry*. Dingmans Ferry, Pa, June 7, 00. B.S. Lafayette, 23, du Pont research fellow, 23-24, M.S., 24. *Prof. chem.*, Alaska Agr. Col. and Sch. Mines, 24- Chem. Soc. Plasticity and fluidity.
- Hood, Prof. G(eorge) W(illiam)**, 4003 Forest Lawn Boulevard, Omaha, Nebr. *Horticulture*. Lancaster, Ohio, July 30, 86. B.S. Ohio State, 10, M.S., 14. Instr. hort, Ohio State, 07-09; asst, U. S. Dept. Agr., 10-11; instr. hort, Mich. State Col., 11-13; *assoc. prof.*, Nebraska, 13-23, *supt.*, Forest Lawn, 23- A.A.; Soc. Hort. Sci; Mich. Acad; Ohio Acad; Nebr. Acad; Nebr. Hort. Soc. Inheritance; hybridization; pomology.
- Hood, H(arrison) P(orter)**, 83 E. Fourth St, Corning, N. Y. *Chemistry*. Manhattan, Kans., Jan. 6, 96. B.Chem. Cornell, 18. Chemist, Brown Co, N. H., 19-20; asst. chief chemist, Island Oil Ref. Corp, N. Y., 20; *research chemist*, Corning Glass Works, 20- A.A.; Chem. Soc; Electrochem. Soc. Superpalite; glass and refractory development.
- Hood, Prof. J(oseph) Douglas**, 192 N. Goodman St, Rochester, N. Y. *Entomology*. Laramie, Wyo., Nov. 29, 89. A.B. Illinois, 10; A.M. George Washington, 13. Asst. state entomologist, Ill., 10-12; expert Coleoptera, biol. surv., U. S. Dept. Agr., 12-20; instr. *biol.*, Rochester, 22-25, *asst. prof.*, 25- Entom. Soc; Wash. Entom. Soc; Wash. Biol. Soc. Thysanoptera of the world; Orthoptera of Illinois; entomology of western New York.
- Hood, O(zi) P(orter)**, 1831 Irving St, Washington, D. C. *Mechanical engineering*. Lowell, Mass., June 14, 65. Worcester, 82-83; B.S. Rose, 85, M.S., 95, M.E., 98. Prof. mech. eng., Kansas Col., 86-98; mech. and elec. eng., Mich. Col. Mines, 98-11; chief mech. engineer, U. S. Bur. Mines, 11-26, *chief tech. div.*, 26- Consulting engineer. A.A.; Mech. Eng; Min. Eng; Eng. Educ. Fuels and mining machinery.
- Hoogewerff, Rear Admiral J(ohn) A(drian)**, U.S.N. (retired), c/o Navy Department, Washington, D. C. *Astronomy*. Howard Co, Md., Nov. 27, 60. Grad. U. S. Naval Acad., 81. Asst. to Prof. Asaph Hall, Sr., U. S. Naval Observatory, 83-85, in charge magnetic observations, 89-92, *supt.*, 14-17, 19-21. A.A. Magnetism of the earth.
- Hooker, A(lbert) H(untington)**, Hooker Electrochemical Co, Niagara Falls, N. Y. *Chemistry*. Rochester, N. Y., Nov. 25, 65. Rochester, hon. M.S., 20; Mass. Inst. Tech. Chemist, Dighton Color Works, 89-90; Cary-Ogden Co, 90-91; Opaque Shade Cloth Co, 92-93; chief chemist, Heath and Milligan Mfg. Co, 94-06; works manager, Hooker Electrochem. Co, 06-11, *tech. director*, 11- Chairman, N. Y. State board for licensing professional engineers. A.A.; Chem. Soc; Chem. Eng. (director); Electrochem. Soc. (director); Soc. Chem. Indust; Soc. Test. Mat; N. Y. Chemists Club; Buffalo Eng. Soc; Faraday Soc; Soc. de Chim. indust. Chemical technology; paints and pigments; chlorin and electrolytic alkali manufacture.
- Hooker, Dr. Davenport**, University of Pittsburgh, Pittsburgh, Pa. *Embryology*. Brooklyn, N. Y., May 13, 87. A.B. Yale, 08, fellow, 08-09, A.M., 09, Ph.D., 12; Bonn, 11-12; Naples Zool. Sta., 12. Instr. anat, Yale, 09-14; asst. prof. histol, Pittsburgh, 14-15; *anat.*, Yale, 15-19; *prof.*, Pittsburgh, 19- A.A.; Ass. Anat. (exec. committee, 21-25); Soc. Zool; Soc. Nat; Soc. Exp. Biol; Physiol. Soc; assoc. fel. Am. Med. Ass; Anthropol. Ass; Eugenics Research Ass; assoc. Phila. Acad. Microscopic anatomy; nerve growth and regeneration; muscle development in absence of nerves; pigment cells; internal secretion; hermaphroditism; spinal cord regeneration.
- Hooker, Dr. D(onald) R(ussell)**, 19 W. Chase St, Baltimore, Md. **Physiology*. New Haven, Conn., Sept. 7, 76. A.B. Yale, 99, M.S., 01; M.D., Hopkins, 05. Asst. physiol, Hopkins, 06-07, instr., 07-08, *assoc.*, 08-10, *assoc. prof.*, 10-21. Managing ed, 'Am. Jour. Physiol'; 'Physiol. Rev.' A.A.; Physiol. Soc; Soc. Pharmacol.
- Hooker, Prof. H(enrietta) E(dgecomb)**, South Hadley, Mass. *Botany*. Gardiner, Maine, Dec. 12, 51. Mt. Holyoke; Ph.D., Syracuse, 89; Woods Hole; Mass. Inst. Tech; Berlin. Teacher, pub. schools, 69-70; Acad. W. Charleston, Vt., 70-71; *prof. bot.*, Mt. Holyoke, 73-08,

- emer. prof.*, 08— A.A.; Torrey Bot. Club; Int. Ass. Bot. Botany; historical sketches of Mt. Holyoke College; morphology and embryology of Cuscuta.
- Hooker, Prof. Henry D(aggett)**, University of Missouri, Columbia, Mo. *Botany*. Brooklyn, N. Y., Jan. 25, 92. A.B., Yale, 12, fellow, 12-15, A.M., 13, Ph.D., 15; Strassburg, 12-13. Asst. bot., Yale, 14-15, instr., 15-18; asst. physiologist, U. S. Bur. Mines, 17-18; asst. prof. hort., Missouri, 19-20, *assoc. prof.*, 20— Div. biol. and agr., Nat. Research Council. Lieut., C.W.S., 18. A.A.; Bot. Soc.; Chem. Soc. (sec'y, Missouri sect., 20-22, councilor, 23, chairman, 24-26); Soc. Hort. Sci. Plant movements; reactions to light; winter hardness; chemical composition of fruit plants; nitrogen fertilizers; copper fungicides; nutrition; growth; rest period; fruit bud formation.
- Hooker, Dr. M(arian) O(sgood)**, University of Cincinnati, Cincinnati, Ohio. *Experimental medicine*. San Francisco, Calif., July, 75. M.D., California, 10. Intern, Univ. Hosp., California, 10-11, asst. med. examiner, infirmary, 12-13; *assoc. in research, physiol. lab., col. med., Cincinnati*, 15-18, 25— Lecturer, Cincinnati Gen. Hosp. Training Sch. for Nurses, 16-18. Assoc. ed., 'Lancet-Clinic,' 16-18. A.A.; Am. Med. Ass. Water absorption by nerve tissue; physical chemistry of emulsions; fats and fatty degeneration; soaps; electrical properties of mutually soluble systems.
- Hooker, Dr. Samuel C(ox)**, 82 Remsen St., Brooklyn, N. Y. *Chemistry*. Brencley, Eng., April, 64. Nor. Sch. Science and Royal Sch. Mines, London, 81-84; Ph.D., Munich, 85. Chemist and tech. expert, Franklin Sugar Ref. Co., Phila., 85-92; Am. Sugar Ref. Co., N. J., and allied companies, 92-15; *research org. chemist*, 15— Chemist, Platinotype Co., London, 83. Jury awards, Nat. Export Expos., 99. Chem. Soc.; Electrochem. Soc.; Soc. Chem. Indust.; Franklin Inst.; London Chem. Soc.; Soc. chim. de France; Chem. Gesell. Organic chemistry; lapachol and its derivatives; conversion of ortho- into para- and para- into ortho-quinone derivatives; manufacture and refining of sugar; lomatol; hydroxynaphtha quinone.
- Hooker, Prof. Sanford B(urton)**, 80 E. Concord St., Boston 18, Mass. *Immunology*. Peacham, Vt., April 23, 88. A.B., Dartmouth, 09; Ch.B., Boston, 12, M.D., 13; A.M., California, 16. Asst. prof. *immunol.*, Boston, 21-23, *assoc. prof.*, 24— Research assoc., Evans Mem. Hosp., Boston, 14— A.A.; Ass. Immunol.; Soc. Bact.; Soc. Exp. Biol.; Pub. Health Ass. Antigenic properties of *Bacillus typhosus*; human erythrocytes; streptococcus viridans; diphtheria immunization; human hypersensitiveness; heterophil antigen.
- Hooker, Dr. W(illiam) A(nson)**, U. S. Department of Agriculture, Washington, D. C. *Agriculture*. Westhampton, Mass., Aug. 13, 77. B.S., Mass. Col. and Boston, 99; D.V.M., George Washington, 13; LL.B., National Univ., 20, LL.M., M.P.L., 21. Special field agent, bur. entom., U. S. Dept. Agr., 04-08, *zool. entom. and vet. ed.*, 'Exp. Sta. Record,' 08— Contributor on entom. and vet. med., 'Am. Year Book'; 'Int. Enc'; 'Int. Year Book.' A.A.; Ass. Econ. Entom.; Soc. Parasitol.; Wash. Entom. Soc. Economic entomology; Thysanoptera; biology of the Ixodoidea; animal pathology.
- Hool, Prof. G(eorge) A(lbert)**, University of Wisconsin, Madison, Wis. *Engineering*. Lawrence, Mass., Nov. 28, 83. B.S., Mass. Inst. Tech., 05. N. Y. Central Ry., 05-06; asst. engineer, State Eng. Dept., N. Y., 06-07; *prof. civil eng.*, Oklahoma, 07-09; *structural eng.*, Wisconsin, and *consulting engineer*, 09— Concrete Inst. Reinforced concrete construction; foundations; abutments; footings; structural members and connections; stresses in framed structures; steel and timber structures.
- Hooper, Dr. Charles Warren**, 644 Pacific St., Brooklyn, N. Y. *Medicine*. Great Bend, Kans., 90. A.B., Kansas, 11; M.D., Hopkins, 14. Asst. prof. research med., Hooper Foundation for Med. Research, California, 14-18; path. physiologist, hygienic lab., U. S. Pub. Health Service, 18-21, past asst. surgeon, Reserve U. S. Pub. Health Service, 19-23; *director exp. med.*, H. A. Metz Lab., Inc., 23— Am. Med. Ass.; Physiol. Soc.; Soc. Exp. Biol. Local anesthetics; salvarsan and allied drugs.
- Hooper, Dr. Everett (Dennison)**, Warren Chambers, Boston, Mass. *Chemistry*. Riversdale, Mass., Sept. 16, 68. A.M., Tufts, 88; M.D., Boston, 91; Ph.D., Harvard, 05. *Prof. chem.*, Col. Physicians and Surg., Boston, 93— Instr., tech. dept., Tufts, 97; asst. surgeon, U.S.A., 98; Mass. Board Health. A.A.; Chem. Soc. Clinical technique; albumen compounds.
- Hooper, Prof. (John) Julian**, University of Kentucky, Lexington, Ky. *Animal husbandry*. Colorado, Texas, March 16, 83. B.S.Agr., Agr. and Mech. Col. Texas, 01; M.S.Agr., Iowa Col., 07; Europe, 12. Asst. prof. agr., Kentucky, 07-09, prof. animal husbandry and husbandman, *Exp. Sta.*, 09-18, *dairy husbandry and in charge dairy investigations*, 18— Director breeding bur., Ky. State Racing Commission, 14-18. Dairy ed., 'Inland Farmer,' 09-13. A.A.; Soc. Animal Production; Dairy Sci. Ass. (chairman, production sect., 24); Ky. Acad. Animal feeding and breeding; growth of thoroughbreds; inheritance of Jersey coat colors; estimating milk production; Jack stock in Kentucky; inheritance of milk production; stock judging.
- Hooper, Prof. W(illiam) J(ames)**, 212 Kellogg Apartments, Battle Creek, Mich. *Physics*. Iron Mountain, Mich., July 25, 95. A.B., California, 22, A.M., 23, Ph.D., 25; Chicago, 23. Teaching fellow physics, California, 22-23, research asst., 23-25; *prof. physics and math.*, Battle Creek Col., 25— A.A.; Physical Soc. Critical ionization potentials by positive ion impact.
- Hooton, Dr. E(arnest) A(lbert)**, Peabody Museum, Cambridge, Mass. **Anthropology*. Clemansville, Wis., Nov. 20, 87. A.B., Lawrence, 07; A.M., Wisconsin, 08, Ph.D., 11; Rhodes scholar, Oxford, 10-13, B.Litt., 13. Instr. 'anthrop., Harvard,' 13-21, asst. prof., 21—, *curator somatol.*, Peabody Museum, 13— Ed,

- 'Harvard African Studies.' Div. anthrop. and psychol. Nat. Research Council, 23-25. A.A. (sec'y, sect. H, 20-22, v. pres, 23-24); Anthropol. Ass; Folk-Lore Soc; hon. mem. Am. Acad. Dental Sci; Royal Anthropol. Inst; Galton Soc; cor. mem. Soc. d'Anthrop. de Paris; Paris Soc. des Américanistes. Physical anthropology; African ethnology and archeology.
- Hoots, Dr. H(arold) W(illiam)**, U. S. Geological Survey, Washington, D. C. *Geology*. Winfield, Kans, Feb. 8, 99. Kans. Col, 17-19; B.S., Oklahoma, 21; Kansas, 22-23; fellow, Stanford, 23-25, Ph.D, 25. Junior geologist, U. S. *Geol. Surv.*, 21-24, *asst. geologist*, 24- Asst., Kansas, 22-23. Assoc. Ass. Petrol. Geol; Wash. Geol. Soc. Geology of western United States, especially California.
- Hoover, Prof. Borden P(arker)**, 614 Kirtland St, Pittsburgh, Pa. *Mathematics*. Ottawa, Kans, Feb. 5, 97. A.B., Baker, 18; A.M., Colorado, 22; Ph.D, Illinois, 25. Asst. prof. *math*, Baker, 19-22; asst. Illinois, 22-25; *asst. prof.*, Carnegie Inst. Tech, 25- Difference equations.
- Hoover, Dr. C(harles) F(ranklin)**, Western Reserve University, Cleveland, Ohio. *Medicine*. Miamisburg, Ohio, Aug. 2, 65. A.B., Harvard, 87, M.D, 92. *Prof. med.*, Western Reserve, 07- Chief dept. med., Lakeside Hosp, Cleveland. Am. Med. Ass; Am. Physicians. Internal medicine; physical diagnosis; cardio-respiratory, neurological and hepatic diseases.
- Hoover, Prof. C(harles) R(uglas)**, 10 Wesleyan Place, Middletown, Conn. *Chemistry*. Oskaloosa, Iowa, Sept. 30, 85. Ph.B, Penn (Iowa), 06; B.S., Haverford, 07, A.M, 08; Carnegie fellow, Harvard, 12-13, Ph.D, 15. *Prof. chem*, Penn (Iowa), 09-10; assoc. prof., Syracuse, 13-15; *Wesleyan*, 15-18, *prof.*, 18-, v. pres, 26- Chemist and consulting chemist, C.W.S., 17-19. A.A.; Chem. Soc. (councilor, 19-, pres, Conn. Valley sect); New Eng. Ass. Chem. Teachers (chairman, west. div, 23-). Atomic weights; gas analysis; tobacco smoke; catalysis.
- Hoover, Secretary Herbert (Clark)**, U. S. Department of Commerce, Washington, D. C. *Mining engineering*. West Branch, Iowa, Aug. 10, 74. A.B., Stanford, 95; LL.D., Harvard, Princeton, Brown, Pennsylvania, Oberlin, Yale, Alabama, Brussels. Consulting and managing engineer, mining, metal. and ry. operations, U. S., Mex, China, Australia, Africa and India, 95-13; chairman, Commission for Relief in Belgium, 14-19; *director gen.*, European Relief, 19; *Am. Relief Administration*, 19-; *sec'y commerce*, U. S., 21- U. S. food administrator, 17-19; pres, Eng. Council, 20. Hon. mem. Min. and Metal. Eng. (pres, 20); hon. mem. Min. Eng; hon. mem. Mech. Eng; hon. mem. Civil Eng. Economics in mining; principles of mining.
- Hoover, Dr. O(ra) L.** Psychopathic Hospital, Iowa City, Iowa. *Chemistry*. Garrett, Ind, Aug. 11, 91. A.B., 16, A.M, 19, du Pont fellow, 20-21, Ph.D, 21. Teacher science, Manchester, 16-17; instr., Ohio State, 17-20; *research chemist*, Psychopathic Hosp, Iowa City, 21- A.A.; Chem. Soc. Organic and biological chemistry; oxidation of acetol; causative factors in the precipitation of colloidal gold in Lange's test.
- Hoover, Theodore J(esse)**, 37 Salvatierra, Stanford University, Calif. *Mining, Metallurgy*. West Branch, Iowa, Jan. 28, 71. A.B., Stanford, 01. Consulting engineer; manager and director numerous concerns; *prof. mining and metal*, Stanford, 19-, *dean sch. eng.*, 25- A.A.; Min. Eng; Min. and Metal. Soc; Cooper Ornith. Club; N. Y. Eng. Club; fel. Royal Zool. Soc; London Inst. Min. and Metal. Concentrating ores by flotation.
- Hopewell-Smith, Prof. A(rthur)**, University of Pennsylvania, Philadelphia, Pa. *Anatomy*. Boston, Eng, May, 65. L.R.C.P., London, 91; Sc.D., Pennsylvania, 19. *Prof. comp. odontol.*, *dental histol. and path*, Pennsylvania, 14- Tomes prize, Royal Col. Surg. Ass. Anat; Royal Col. Surg; hon. mem. Soc. odont. de France. Comparative odontology, histology and pathology of the mouth; dental anatomy and microscopy.
- Hopfield, Dr. J(ohn) J(oseph)**, University of California, Berkeley, Calif. *Physics*. Ploek, Poland, July 8, 91. A.B., Syracuse, 17, fellow, 17-18; Whiting fellow, California, 20-21, Ph.D, 23. Instr. *physics*, Syracuse, 18-20; asst. *California*, 21-23, instr., 23-25, *asst. prof.*, 25- Physical Soc. Absorption spectra of indicators; extreme ultraviolet spectra of oxygen, sulphur and nitrogen; determination of the resonance and ionizing potentials of oxygen, sulphur and nitrogen.
- Hopkins, Dr. A(ndrew) D(elmar)**, Mineral Wells, Kanawha Farms, W. Va. *Entomology*. Jackson Co, W. Va., Aug. 20, 57. Hon. Ph.D, West Virginia, 93. Special agent entom., W. Va. Exp. Sta, 90-91, entomologist, 91-02, v. director, 97-02; prof. econ. entom., West Virginia, 96-02; special agent, expert and entomologist in charge forest insect investigations, bur. entom., U. S. Dept. Agr, 02-23, *senior entomologist in charge bioclimatic research*, Mineral Wells, 23- Lecturer, Yale, 02- A.A.; Entom. Soc. (v. pres, 08); Ass. Econ. Entom. (v. pres, 01, pres, 02); Soc. Mammal; Meteor. Soc; Wash. Acad. (v. pres, 07, 20); Wash. Entom. Soc. (v. pres, 05, pres, 07); Wash. Biol. Soc. (v. pres, 15, pres, 20); Wash. Bot. Soc; hon. mem. Ass. Econ. Biol. England. The bioclimatic law; science of bioclimatics.
- Hopkins, Prof. Arthur John**, Amherst, Mass. *Chemistry*. Bridgewater, Mass, Sept. 20, 64. A.B., Amherst, 85; fellow, Hopkins, 92, Ph.D, 93. Teacher, pub. schools, Mass, 85-88; science, Peekskill Mil. Acad., N. Y., 88-90; prof. *chem.*, Westminster (Pa), 92-94; asst. prof., Amherst, 94-95, assoc. prof., 95-07, *prof.*, 07- A.A.; Chem. Soc. Bronzing methods in alchemistic Leyden papyri; a dissolver; a chemical balance; control of size of crystals; action of manganese dioxid on potassium permanganate; valence, position-number and specific gravity; arrangement of the periodic table; history of alchemy; preparation of standard solution by direct dilution; thermostat for a laboratory;

- instrument for calibration; amorphous arsenic; ammonia in water analysis.
- Hopkins, Prof. B. Smith**, 706 W. California St, Urbana, Ill. **Chemistry*. Owosso, Mich, Sept. 1, 73. A.B, Albion, 96, A.M, 97; Ph.D, Hopkins, 06. Prof. *chem*, Nebr. Wesleyan, 06-09; Carroll, 09-12; instr, *Illinois*, 12-14, assoc, 14-17, asst. prof, 17-19, assoc. prof, 20-23, *prof*, 23- A.A; Chem. Soc. (sec'y, div. chem. educ, 23-); Electrochem. Soc; Ill. Acad. Osmotic pressure; rare earths; atomic weights of yttrium, erbium, dysprosium and holmium; beryllium; selenium; tellurium; luminescence; illinium.
- Hopkins, Edwin F(raser)**, Cornell University, Ithaca, N. Y. *Plant physiology*. Buffalo, N. Y, Nov. 30, 91. B.S, Cornell, 15, Ph.D, 20; Wisconsin, 17. Asst. agr. chem, Cornell, 14-15, instr. plant path, 15-18; assoc. pathologist, Ala. Exp. Sta, 19-20; plant pathologist and asst. prof. bot, Missouri, 20-22; physiologist in charge, Marble Lab, Canton, Pa, 22-23; Nat. Research Council fellow biol, 23-25; *asst. prof. bot*, Cornell, 25- A.A; Bot. Soc; Phytopath. Soc. Metabolism; hydrogen-ion concentration; plant growth.
- Hopkins, E(lizabeth) F(rances)**, Agricultural Experiment Station, Geneva, N. Y. *Botany*. Canandaigua, N. Y, Dec. 20, 95. A.B, Vassar, 19; Mass. Col. *Seed analyst*, N. Y. *Exp. Sta*, Geneva, 20- Fed. seed lab, Washington, D. C; seed investigation, Europe, 25. N. Am. Official Seed Analysts. Seed investigations; germination.
- Hopkins, Dr. G(rant) S(herman)**, Ithaca, N. Y. *Anatomy*. Westfield, N. Y. B.S, Cornell, 89, Sc.D, 93, D.V.M, 00. Instr. histol. and embryol, Cornell, 89-96, asst. prof. anat. methods and comp. vet. anat, 96-03, *prof. vet. anat*, 03- A.A; Ass. Anat; N. Y. State Vet. Med. Soc. Comparative and veterinary anatomy.
- Hopkins, Dr. H(arris) H(azen)**, 442 S. Second Ave, New Brunswick, N. J. *Chemistry*. Kalamazoo, Mich, Oct. 27, 97. B.S, Kalamazoo, 19, M.S, 20; Yale, 20-22; Michigan, 22, 23; Ph.D, Chicago, 24. Lecture asst, Kalamazoo, 18-19; asst, Yale, 20-22; *research chemist, tech. research laboratories, Johnson and Johnson Co*, 24- Summers, anal. chemist, Upjohn Co, 18, chemist, 20. Chem. Soc. Ragweed pollen proteins; bromo-methyl-ptthalimide as a reagent for alcohols; optically active acid chlorides.
- Hopkins, Dr. Hoyt S(tilson)**, New York University College of Dentistry, 209 E. 23d St, New York, N. Y. *Biology*. Port Byron, Ill, Feb. 14, 93. A.B, Oberlin, 14, A.M, 15; Ph.D, Hopkins, 20. Asst. zool, Hopkins, 15-17, *physiol*, sch. med, 20-21; *asst. prof*, col. med, Baylor, 21-23; Iowa Col, 23-25; *col. dent*, N. Y. *Univ*, 25- Woods Hole. A.A; Soc. Zool. Experimental zoology; division and conjugation in Protozoa; properties of protoplasm; tissue respiration.
- Hopkins, Dr. J(oseph) Gardner**, 40 E. 83d St, New York, N. Y. *Bacteriology*. Brooklyn, N. Y, June 30, 82. A.B, Columbia, 02; M.D, Hopkins, 07. Asst. prof. bacter, Columbia, 15-17, *prof. dermat*, 26- Ass. Path. and Bact; Soc. Exp. Biol. Dermatology; syphilis.
- Hopkins, Dr. Nevil Monroe**, 37 W. 44th St, New York, N. Y. *Chemistry, Physics*. Portland, Maine, Sept. 15, 73. B.S, George Washington, 99, M.S, 00, Ph.D, 02; Harvard, 01. Asst. *chem*, George Washington, 99-00, instr. and *asst. prof*, 00-; *mem. firm*, Monroe, Hall and Hopkins; *consulting engineer*. Elec. course, Gen. Elec. Co; elec. engineer in charge power plant consolidation, U. S. Navy Yards and Naval Stations; in charge div. elec. and mech. science, Inst. Indust. Research; v. pres. and consulting engineer, Elec. Tachometer Corp; consulting engineer, Union Carbide and Carbon Corp. Ed. rep, 'Elec. Eng.' Expert aid, gun div, ordnance dept, U.S.A. John Scott medal, Franklin Inst, 00. A.A; Chem. Soc; Elec. Eng; Electrochem. Soc; Chem. Eng; Mech. Eng. Electrochemistry; precision measurements of speed through electrical agencies; dynamometer for internal combustion engines based on thermoelectric phenomena; equipments for new inventions and processes.
- Hopkins, Dr. Oliver B(aker)**, 56 Church St, Toronto, Ont, Can. *Geology*. Penn Laird, Va, Dec. 4, 86. A.B, Hopkins, 09, Ph.D, 12. Junior geologist, U. S. Geol. Surv, 11-12; asst. state geologist, Ga, 12-14; asst. geologist, U. S. Geol. Surv, 14-20, geologist, 20; *chief geologist, Imp. Oil, Ltd*, 20- A.A; Geol. Soc; Ass. Petrol. Geol; Wash. Acad; Can. Min. Inst. Mineralogy. Physical chemistry; coal flora of Maryland; asbestos, tale, soapstone and slate deposits of Georgia; coal deposits of Wyoming and Colorado; oil and gas of the Gulf coastal plain, Canada, Peru and Colombia.
- Hopkins, Prof. T(homas) C(ramer)**, Syracuse University, Syracuse, N. Y. *Geology*. Center Co, Pa, May 4, 61. B.S, De Pauw, 87; A.M, Stanford, 92; Ph.D, Chicago, 00; Sc.D, Colgate, 24. Asst. *prof. geol*, Pa. State, 93-96; *prof*, Syracuse, 00- Asst. geologist, Ark. Geol. Surv, 89-92; Ind. Geol. Surv, 95, 96, 01. A.A; Geol. Soc; Wash. Acad; Rochester Acad. Building stones, clays and iron ores.
- Hopper, Prof. H(erbert) A(ndrew)**, Cornell University, Ithaca, N. Y. *Animal husbandry*. Ithaca, June 10, 79. B.S.A, Cornell, 03; M.S, Illinois, 07. Instr. dairy husbandry, Illinois, 03-07; director dairy exten, Purdue, 07-08; asst. prof. dairy husbandry, California, 08-11; *prof. animal husbandry, Cornell*, 13- Dairying.
- Hopper, W(alter) E(verett)**, Bethany Oil and Gas Co, Shreveport, La. *Geology*. Newark, N. J, Sept. 20, 86. A.B, Cornell, 08, A.M, 10. Asst. instr. geol, Cornell, 08; asst. geologist, La. Geol. Surv, 08-09; field asst, U. S. Geol. Surv, 09; instr. geol, Cornell, 10; Wisconsin, 10-12; Mich. Col. Mines, 12-14, asst. prof, 14-18; geologist, Brazos River Oil Corp, 19-20, gen. manager, 20-22; *consulting geologist*, 22-; *geologist*, Bethany Oil and Gas Co, 24-26, *manager*, 26- Geologist, Mich. Geol. Surv, 14-18. Asst. ed, 'Mining and Sci. Press,' 14-15. A.A; Min. Eng; Ass. Petrol. Geol; Shreveport Geol. Soc. (pres, 24). Economic geology; petroleum; natural gas.
- Hopping, Dr. Aleita**, 437 W. 59th St, New York, N. Y. *Physiology*. Tottenville, N. Y, July

- 17, 90. A.B., Hunter, 12; Ph.D., Columbia, 23. Research asst. plant physiol., Hopkins, 13-15; *instr. and assoc. physiol. col. physicians and surg., Columbia, 23*— Seasonal variations in the gases and sugar of the blood and the nitrogen distribution in the blood of the alligator; regulation of the heart rate under various respiratory conditions.
- Hopping, Ralph**, Box 308, Vernon, B. C., Can. *Entomology*. New York, N. Y., April 8, 68. California. U. S. Forest Service, 07-19; *Dominion forest entomologist for B. C., Dominion Entom. Branch, 19*— Soc. Foresters; Pacific Coast Entom. Soc.; Calif. Acad. Coleoptera; systematic entomology; insects in relation to forestry.
- Hore, Reginald E(dwin)**, 263 Adelaide St. W., Toronto, Ont., Can. *Geology*. Hamilton, Ont., Sept. 29, 81. B.A., Toronto, 05. Instr. petrog., Michigan, 07-08; lecturer geol. Sch. Mining, Kingston, Ont., 08-09; instr. petrog., Mich. Col. Mines, 09-13; ed., *'Can. Min. Jour.'*, 13-19, consulting ed., 19-25, ed., 25-; *consulting geologist, 19*— Can. Min. Inst. Economic geology; Precambrian ore deposits of Ontario, Quebec and Michigan.
- Horlacher, Prof. W(alter) R(awlins)**, Agricultural and Mechanical College of Texas, College Station, Texas. *Genetics*. Frankfort, Ind., Aug. 4, 97. B.S., Kansas Col., 20, M.S., 22. Instr. animal husbandry, Kansas Col., 22-23; *assoc. prof. genetics, Agr. and Mech. Col. Texas, 23*— Genetic Ass.; Soc. Animal Production. Animal genetics and nutrition.
- Hormell, Prof. William G(arfield)**, Ohio Wesleyan University, Delaware, Ohio. *Physics*. Oakland, Ohio, July 19, 61. B.S., Ohio Nor. Sch., 80; A.B., Ohio Wesleyan, 89, B.S., 90, Ph.D., 94; A.M., Harvard, 92, 92-93, 00-01. Teacher, pub. sch., 80-83; instr. math. and physics, Ohio Wesleyan, 89-91; asst. *physics*, Harvard, 92-93; *prof., Ohio Wesleyan, 94*—, dean men, 09-26. A.A.; Eng. Educ. Dielectric constant of paraffins for short electric waves.
- Horn, Dr. David Wilbur**, Bryn Mawr, Pa. *Chemistry*. Carlisle, Pa., May 7, 77. A.B., Dickinson, 97, A.M., 98; Ph.D., Hopkins, 00. Asst. chem., Hopkins, 00-01; assoc., Bryn Mawr, 01-04, assoc. prof., 04-07; *consulting chemist; lecturer hygiene, Hahnemann Med. Col., 11*—, head sch. science, 16-21; *prof. inorg. and physical chem., Wagner Inst., 12*—; *physics and physical chem., Phila. Col. Pharmacy, 21*— A.A.; Chem. Soc. (v. chairman, Phila. sect., 03, chairman, 04, 05, counselor, 08); Phila. Acad.; Del. Co. Inst. Sci.; Royal Soc. Arts. Boric acid; osmotic membranes by electrolysis; calorimetry; copper ammonia compounds; transition temperatures; solubility curve of borax; terminal fumigation; surface tension.
- Hornaday, Dr. William T(emple)**, Stamford, Conn. **Zoology, Zoological park administration*. Plainfield, Ind., Dec. 1, 54. Iowa Col., 74, hon. Ph.M., 21; hon. Sc.D., Pittsburgh, 06; hon. A.M., Yale, 17. Collecting naturalist, Ward's Nat. Sci. Establishment, 75-79; chief taxidermist, U. S. Nat. Museum, 82-90; supt., Nat. Zool. Park, 89-90; director, N. Y. Zool. Park, 96-26. Trustee, Permanent Wild Life Protection Fund, 13— Gold medals, Camp-Fire Club, Royal Soc. Protection Birds, England, Royal Zool. Soc., Antwerp, N. Y. Zool. Soc.; grand medal of hon., Soc. d'Aclimat. de France; grand medal of the govt. of Republic of France; Cross of the Order of the Crown, Belgium, 19. Am. Bison Soc. (pres., 07-10); patron and fel. N. Y. Zool. Soc.; hon. mem. Phila. Zool. Soc.; for. mem. London Zool. Soc.; for. mem. Dublin Zool. Soc.; hon. mem. Soc. Preserv. Fauna British Empire; hon. mem. Shikar Club; hon. mem. Australian Ornith. Union. Designing, constructing and managing zoological parks; protection of wild life of the world; quadrupeds of North America; the American bison; mountain sheep of North America; destruction of bird life; acclimatization of mammals in North America; minds and manners of wild animals.
- Hornbeck, Prof. J(ohn) W(esley)**, Kalamazoo College, Kalamazoo, Mich. *Physics*. Exeter, Ill., May 21, 81. B.S., Ill. Wesleyan, 06; A.M., Illinois, 09, Ph.D., 13. Prin. schools, Ill., 04-05; instr. math., Park Col. Acad., 06-08; asst. *physics*, Illinois, 09-10; Cornell, 10-11; instr., Illinois, 11-13; asst. prof., Carleton, 13-17, *prof., 17-25; Kalamazoo, 25*— Research, Cornell, 23-24. A.A.; Physical Soc. Thermal and electrical conductivities of the alkali metals; photoelectric effect of potassium at low temperatures.
- Horne, Dr. W(illiam) D(odge)**, 101 W. 21st St., New York, N. Y. *Chemistry*. Williamsburg, N. Y., Jan. 25, 65. Ph.B., Columbia, 86, Ph.D., 94. *Chemist, sugar refining companies, 86*—; *chem. engineer, Hershey Chocolate Co. Instr., Columbia, 87; Rutgers, 89; consulting chemist and bacteriologist, companies and boards. Assoc. ed., 'Jour. Indust. and Eng. Chem., 08*— Silver medal, Ass. chim. de Sucre et de Dist. de France. Pres., sugar sect., Eighth Int. Cong. Applied Chem., 12. Chem. Soc.; Soc. Chem. Indust.; Ass. chim. de Sucre et de Dist. de France. Sugar manufacturing and refining.
- Horne, Prof. W(illiam) T(itus)**, University of California, Berkeley, Calif. *Plant pathology*. Kankakee, Ill., Nov. 8, 76. B.S., Nebraska, 98; fellow, Columbia, 03-04. Instr. bot., Nebr. Wesleyan, 98-00; Nebraska, 99-00; asst. pathologist, Estacion Cent. Agron. Cuba, 04-07, chief plant path., 07-09; asst. prof. *plant path., California, 09-14, assoc. prof., 14*— A.A.; Phytopath. Soc. (past sec'y, Pacific div); Soc. Bact.; Genetic Ass.; Torrey Bot. Club. Vegetable pathology; diseases of tropical plants; olive knot; root rot of trees; Avocado diseases.
- Horsch, Dr. W(illiam) G(renville)**, 1521 Hiland Ave., Coraopolis, Pa. *Physical chemistry*. Newburyport, Mass., April 28, 90. B.S., Mass. Inst. Tech., 13; M.S., California, 16, Ph.D., 17. Asst. and teaching fellow chem., California, 15-17; electrochemist, U. S. Bur. Mines, 18; research assoc. applied chem., Mass. Inst. Tech., 19-22; research chemist, Guggenheim Bros., 22-24; *chief chemist, The Vulcan Detinning Co., Pittsburgh, 24*— Chem. Soc.; Electrochem. Soc. Electrode potentials; inorganic electrolysis; catalysis and gas reactions; metallurgy of tin and zinc.

- Horsford, Miss Cornelia (Conway Felton)**, Sylvester Manor, Shelter Island, N. Y. *Archeology*. Cambridge, Mass, Sept. 25, 61. Private schools. Irish Texts Soc; Icelandic Antiq. Soc; Prince Hist. Soc; London Viking Club (hon. v. pres). Norse archeology; horticulture; colonial history of the United States.
- Horsley, Dr. J(ohn) Shelton**, 617 W. Grace St, Richmond, Va. *Surgery*. Livingston, Va, Nov. 24, 70. M.D, Virginia, 92. Prof. surg, Virginia, 03-13; *surgeon in charge*, *St. Elizabeth's Hosp*, 12- Gold medal, S. Med. Ass, 16. A.A; Surg. Ass; Am. Med. Ass; S. Surg. Ass; S. Med. Ass. (pres); Richmond Acad. Med. and Surg. (pres, 13); Med. Soc. Va. (pres); Va. Acad. (pres). Reversed circulation of the blood; surgery of the stomach and intestines.
- Horton, Dr. Goldie Printis**, 504 W. 32d St, Austin, Texas. *Mathematics*. Athens, Texas, Sept. 4, 87. A.B, Texas, 08; fellow, Smith, 09-10, A.M, 10; fellow, Bryn Mawr, 12-13; Ph.D, Texas, 16. Teacher, high sch, 08-09, 10-12; tutor *pure math*, Texas, 13-17, instr, 17-26, *adjunct prof*, 26- Math. Soc; Math. Ass. Analysis.
- Horton, J(ohn) R(aymond)**, 126 S. Minneapolis Ave, Wichita, Kans. *Entomology*. Ogden, Utah. B.S, Utah Col. Asst. entomologist, Utah Exp. Sta, 06-09; agent and expert fruit insect investigations, *bur. entom.*, U. S. Dept. Agr, 09-10, sci. asst. in charge laboratories, Lindsay, Calif, and New Orleans, La, 10-17, *assoc. entomologist cereal and forage insect investigations and in charge lab*, Wichita, 17- A.A; Entom. Soc; Ass. Econ. Entom; Wash. Entom. Soc; Kans. Acad. Citrus and fig insects; insects affecting wheat and corn.
- Horton, Prof. Paul M(acHeehan)**, Louisiana State University, Baton Rouge, La. *Industrial chemistry*. Jackson, Ohio, July 28, 95. B.Ch.E, Ohio State, 18; M.S, Louisiana, 23; fellow, Ph.D, Columbia, 24. Plant chemist, Minn. Match Co, 19-20; *prof. chem. eng*, Louisiana, 25- C.W.S, U.S.A, 18. Chem. Soc. Chemical engineering; decolorizing carbons; adsorptive charcoals; technology of sugars.
- Horton, Robert E(imer)**, Voorheesville, N. Y. *Civil engineering*. Parma, Mich, May 18, 75. B.S, Albion, 97. Dist. engineer, U. S. Geol. Surv, 00-05; res. engineer, N. Y. State Barge Canal, 06-11; *hydraulic expert*, N. Y. State Dept. Pub. Works, 11- Lecturer, Michigan, 14; Eng. Board Review, Sanit. Dist, Chicago. Civil Eng; Meteor. Soc. (councilor); Water Works Ass; Am. Geog. Soc; New Eng. Water Works Ass; British Inst. Civil Eng; Royal Meteor. Soc. Hydrology; meteorology; rainfall; evaporation; stream drainage basins; underground waters; floods.
- Horwood, Prof. Murray P(hilip)**, Massachusetts Institute of Technology, Cambridge, Mass. *Public health*. New York, N. Y, Dec. 31, 92. B.S, Col. City of N. Y, 13; M.S, Mass. Inst. Tech, 16, Ph.D, 21. Chemist and bacteriologist, Brooklyn Sewage Exp. Sta, 13-15; instr. *biol. and pub. health*, Mass. Inst. Tech, 16-23, *asst. prof*, 23- Instr, Wellesley, 17-18; sch. med, Boston, 19-21; med. sch, Tufts, 21-23. Ed. asst, 'Jour. Pub. Health,' 17-23. Director, Pub. Health Surv, Okla, 18-20; summer, Glen Ridge, 16; New Eng. Surveys, Am. Child Health Ass, 24; director, Pub. Health Surv, Lafayette and Tippecanoe Counties, Ind, 21; Tuber. Surv, Phila, 22, Boston, 25. A.A; Pub. Health Ass; Soc. Bact; Boston Soc. Bact. Public health surveys; sewage disposal.
- Hosford, Prof. H(enry) H(allock)**, 3275 Stockholm Road, Cleveland, Ohio. *Chemistry*. Hudson, Ohio, July 12, 59. A.B, Western Reserve, 80, A.M, 83; Ph.D, Hopkins, 11. *Prof. Latin*, Doane, 87-89, *chem*, 92-18; *Western Reserve*, 18- Chem. Soc; Nebr. Acad. Physical chemistry; conductivity of solutions.
- Hoskin, Arthur J(oseph)**, Purdue University, Lafayette, Ind. *Mining engineering*. Shopiere, Wis, Jan. 4, 69. B.S, Wisconsin, 90, M.E, 05. Mining engineer, assayer and ore broker, 90-96; asst. prof. and prof. mining eng, Colo. Sch. Mines, 05-11; consulting mining engineer, Colo, 13-21; research asst. prof. mining eng, Illinois, 21-22; research assoc. prof, 22-26; *power-brake investigations*, Am. Ry. Ass. at Purdue, 26- Acting head mining dept, Illinois, 23-24; Colo. Geol. Surv, 10-11. Ed, 'Min. and Metal Jour,' 08; west. ed, 'Mines and Minerals,' 12-13; Colo. correspondent, 'Eng. and Min. Jour'; managing ed, 'Mining American,' 15-16. Min. and Metal. Eng; Colo. Sci. Soc. Technical problems in Illinois coal mining.
- Hoskins, Prof. J(ohn) Hobart**, University of Cincinnati, Cincinnati, Ohio. *Botany*. Carmel, Ind, Jan. 17, 96. B.S, Earlham, 19; M.S, Chicago, 20, fellow, 22-24, Ph.D, 24. Prof. biol, Whittier, 20-22; Nat. Research Council fellow, Europe, 24-25; asst. prof. *bot*, Cincinnati, 25-26; *assoc. prof*, Notre Dame, 26-27; *Cincinnati*, 27- Summers, prof, Earlham, 24, Notre Dame, 25, instr, Puget Sound Biol. Sta, 22. A.A; Ohio Acad. Paleobotany; American carboniferous petrifications.
- Hoskins, Prof. L(eander) M(iller)**, 1240 Waverley St, Palo Alto, Calif. *Applied mathematics*. Wis, May 10, 60. B.S, Wisconsin, 93, M.S, 85, C.E, 87, Sc.D, 18. Instr. civil eng, Wisconsin, 85-89, asst. prof, 89-91, prof. mech, 91-92; *applied math*, Stanford, 92-25, *emer. prof*, 25- A.A; Math. Soc. (councilor, 13-16); Eng. Educ. Applied mechanics; hydraulics; geophysics.
- Hoskins, Dr. Margaret M(orris)**, New York University College of Dentistry, 209 E. 23d St, New York, N. Y. *Microscopic anatomy*. Williamstown, Mass, Dec. 19, 86. A.B, Bryn Mawr, 08; Ph.D, Yale, 16. Instr. histol, Univ. and Bellevue Hosp. Med. Col, 17-18; Minnesota, 20; assoc. prof. histol. and embryol, Med. Col. of Va, 20-21; prof. micros. anat, med. dept, Arkansas, 21-25; asst. prof. *anat. col. dent*, N. Y. Univ, 25-27, *assoc. prof*, 27- Ass. Anat; Ass. Study Int. Secretions. Thyroid and parathyroid.
- Hoskins, Prof. R(oy) G(raham)**, Harvard University, Cambridge, Mass. *Physiology*. Nevinville, Iowa, July 3, 80. A.B, Kansas, 05, A.M, 06; Ph.D, Harvard, 10; M.D, Hopkins.

20. Teaching fellow zool, Kansas, 06; *physiol*, Harvard, 08-10; prof. and head dept, Starling-Ohio Med. Col, 10-13; assoc. prof, Northwestern, 13-16, prof. and head dept, 16-18; assoc, Hopkins, 20-21; prof. and head dept, Ohio State, 20-27; *research assoc*, Harvard, 27-Ed, 'Endocrinology,' 17- Capt. and major, Sanit.C, 17-19, chief sect. food and nutrition, 18. A.A. (mem, exec. committee, 21-); *Physiol. Soc*; *Soc. Pharmacol*; *Soc. Exp. Biol*; *Am. Med. Ass.* (chairman, sect. path. and *physiol*, 26-); *Ass. Study Int. Secretions* (pres, 26). *Physiology and pharmacology of internal secretions*.
- Hoskins, William**, 111 W. Monroe St, Chicago, Ill. **Chemistry*. Covington, Ky, 63. Chicago High Sch; private instruction. *Proprietor, Mariner and Hoskins, Chicago, 80-* Nat. Research Council; assoc. mem. Naval Consulting Board. A.A; *Chem. Soc.* (past mem, board editors, director); *Electrochem. Soc*; *Min. and Metal. Eng*; *Micros. Soc*; *West. Soc. Eng*; *Franklin Inst*; *Ill. Acad*; *Chicago Acad. Phosphorescence*; general industrial chemistry.
- Hoskins, Prof. W(illiam) M(urice)**, University of Nevada, Reno, Nev. *Chemistry*. Adin, Calif, April 2, 96. A.B, California, 19, fellow, 21-22, Ph.D, 22. *Instr. chem, Nevada, 22-23*, asst. prof, 23-24, *assoc. prof*, 24- A.A; *Chem. Soc.* Adsorption of gases by metallic catalysts; coprecipitation of radium and barium sulfates; unsaturated fatty acids in the animal body.
- Hosmer, Geo(rge) L(eonard)**, Massachusetts Institute of Technology, Cambridge, Mass. *Geodesy*. Lynn, Mass, Dec. 31, 74. Mass. Inst. Tech. *Instr. civil eng, Mass. Inst. Tech*, 97-07, asst. prof, 07-13, assoc. prof, 13-23, *prof*, 23- Astron. exped, Georgia, 00, Sumatra, 01, Labrador, 05. A.A; *Am. Geog. Soc*; *Seismol. Soc*; *Civil Eng*; *Eng. Educ*; *Boston Soc. Civil Eng.* Astronomy; surveying; navigation.
- Hosmer, Prof. Ralph S(heldon)**, New York State College of Agriculture, Ithaca, N. Y. *Forestry*. Deerfield, Mass, March 4, 74. B.S.A, Harvard, 94; M.F, Yale, 02. Asst, div. soils, U. S. Dept. Agr, 96-98, field asst, bur. forestry, 98-03, collaborator, 03-14; supt. *forestry*, Hawaii, 03-14; *prof. and head dept*, N. Y. State Col. Agr, Cornell, 14- Board regents, College of Hawaii, 07-14; chairman, Conservation Commission of Hawaii, 08-14; delegate, Conf. of Governors, Washington, 08; Northeastern Forest Research Council, 24-; sec'y forestry sect, Int. Cong. Plant Science, 26. A.A; *Forestry Ass*; *Soc. Foresters* (chairman, N. Y. sect, 20, pres, 23); *Ecol. Soc*; *N. Y. Forestry Ass.* (exec. committee, 15-). Forest history; forest policy.
- Hosmer, Sidney**, Edison Electric Illuminating Co, 39 Boylston St, Boston, Mass. *Electrical engineering*. London, Eng, July 13, 71. A.B, Yale, 92. Elec. engineer, Boston Elec. Light Co, 94-01; supt. installation, *Edison Elec. Illuminating Co*, 01-26, v. pres, 26- Elec. Eng; Mech. Eng.
- Hostetter, J(ohn) C(lyde)**, Rhode Island Division, Corning Glass Works, Central Falls, R. I. *Physical chemistry*. Williamsport, Pa, Feb. 18, 86. B.S, Bucknell, 08, M.S, 09; Chicago,
08. *Instr. chem*, Bucknell, 08-10; asst. chemist, Bur. Standards, 10-12; physical chemist, geophys. lab, Carnegie Inst, 12-19; manager, Steuben div, *Corning Glass Works*, 20-22, asst. to v. pres. in charge mfg, 22-24, *manager*, R. I. div, 24- Manufacturer optical glass, W. I. B, 18. *Chem. Soc.* (chairman, R. I. sect, 25); *Ceramic Soc.* (chairman, glass div, 22, trustee, 23-); *Wash. Acad*; *British Soc. Glass Tech.* (Am. advisory committee). Vanadium iron; magnesium; mineral densities at high temperatures; dissociation of calcium carbonate; effect of strain on solubility; growth of crystals; optical glass; iron oxides; volatilization of iron from glass pots by chlorin.
- Hotchkiss, H(omer) J(ames)**, 208 Dearborn Place, Ithaca, N. Y. *Physics*. Mosiertown, Pa, March 1, 60. B.S, Northern Ind. Nor. Sch, 84; C.E, Allegheny, 88, A.B, 89, A.M, 92; M.M.E, Cornell, 96. *Instr. math*, Madisonville Nor. Sch, Ky, 86; Harper Nor. Sch, Kans, 87; math. and chem, Westminster (Pa), 89; asst. instr. physics, Cornell, 90-93, instr, 93-03; prof, Drexel Inst, 03-04; *instr. mech*, Cornell, 16- A.A; *Physical Soc.* Curve tracing galvanometers; counter electromotive force of arc; carbon-aluminum cells.
- Hotchkiss, Pres. W(illiam) O(tis)**, Michigan College of Mining and Technology, Houghton, Mich. *Geology*. Eau Claire, Wis, Sept. 17, 78. B.S, Wisconsin, 03, C.E, 08, Ph.D, 16. Mining engineer, Donora Mining Co, Minn, and geologist, Leith Explor. Co, 02-04; instr. geol. in charge miner. and petrog, Wisconsin, 04-07; econ. geologist, Wis. Geol. and Nat. Hist. Surv, 07-25, director, 19-25, state geologist, 09-25; *pres*, Mich. Col. Min. and Tech, 25- State Highway Commission, Wis, 11-25; War Minerals Committee, 17-18; committee on geol, Nat. Research Council, 17. A.A; *Geol. Soc*; *Min. Eng*; *Ass. State Geol.* (sec'y, 16-19, pres, 19-21); *Ass. State Highway Officials*; *Wis. Acad*; *Wis. Eng. Ass.* Mining and mine taxation; road construction and materials; mineral land classification and areal survey of Wisconsin; magnetic methods in geological surveys.
- Hotelling, Dr. Harold**, Stanford University, Calif. *Mathematics*. Fulda, Minn, Sept. 29, 95. A.B, Washington (Seattle), 19, Sc.M, 21; J. S. K. fellow, Princeton, 21-22, Ph.D, 24. Teaching asst, Washington (Seattle), 20-21; instr. math, Princeton, 22-24; junior research assoc, *Food Research Inst, Stanford*, 24-25, *research assoc*, 25- Math. Soc; *Statist. Ass.* Mathematical economics and statistics; analysis situs.
- Hotson, Prof. J(ohn) W(illiam)**, University of Washington, Seattle, Wash. *Mycology*. Innerkip, Ont, Can, May 2, 70. B.A, McMaster, 01, M.A, 02; Chicago, 02, 06-07; Cornell, Columbia and Clark, 03; Harvard, 07-08, Ph.D, 13. Lecturer bot, Ont. Agr. Col, 03-04; Austin teaching fellow, Harvard, 07-08; instr. bot, Pomona, 08-09, asst. prof, 09-11; instr, *Washington (Seattle)*, 11-14, *asst. prof*, 14- A.A; *Bot. Soc*; *Phytopath. Soc.* Bulbiferous fungi; fire blight; Sphagnum as a surgical dressing; rusts.

Hottes, Prof. Alfred C(arl), 2581 N. Fourth St, Columbus, Ohio. *Floriculture*. B.S, Cornell, 13, M.S, 14. Instr. biol, Cornell, 13, *floricult*, 13-16; *prof*, Ohio State, 16- Gladiolus culture; breeding; varieties.

Hottes, Prof. Cha(rle)s F(rederick), University of Illinois, Urbana, Ill. *Botany*. Mascoutah, Ill, July 8, 70. B.S, Illinois, 94, fellow, 94-95, M.S, 95; Ph.D, Bonn, 01. Asst. bot, Illinois, 95-98, instr, 01-02, asst. prof, 02-13, *prof*, plant physiol, 13-, consulting plant physiologist, dept. agron, 23- A.A; Bot. Soc; Ecol. Soc; Ill. Acad. Physiology of the vegetable cell; growth and development as affected by external conditions and apparatus of control.

Hough, Dr. Walter, U. S. National Museum, Washington, D. C. **Anthropology*. Morgantown, W. Va, April 23, 59. W. Va. Col, 73; A.B, West Virginia, 83, A.M, 84, Ph.D, 94. Aid dept. ethnol, U. S. Nat. Museum, 86-94, asst. curator, 94-08, acting head curator dept. anthrop, 08-09, curator ethnol, 09-, acting head curator anthrop, 20-23, head curator, 23- Commission, Hist. Expos, Madrid, 92-93. Knight of Isabella, Spain, 93. A.A; Soc. Nat; Anthrop. Ass. (pres, 23); Folk-Lore Soc; Wash. Anthropol. Soc. (sec'y, v. pres, 07, pres, 08-); Wash. Acad. (v. pres, 08, 10); cor. mem. Soc. d'Anthrop. de Paris; Swedish Soc. Anthropol. and Geog. Aboriginal fire-making; Eskimo lamps; history of illumination; primitive aboriginal armor; Hopi ethnobotany and pigments; Korean ethnography; Arizona and New Mexico; Pueblo region of Arizona; Hopi foodstuffs; Malayan ethnography.

Hough, Dr. W(alter) S(eneff), Virginia Experiment Station, Winchester, Va. *Entomology*. Ruffsdales, Pa, Jan. 3, 93. A.B, Stanford, 18; A.M, Ohio State, 21, Ph.D, 25. Quarantine inspector, fed. hort. board, U. S. Dept. Agr, 18-20; *assoc. entomologist*, Va. *Exp. Sta*, 21- Entom. Soc; Ass. Econ. Entom. Biology of mealy bugs; biology and control of apple insects.

Houghton, Dr. A(rthur) D(uvernoix), University of California, Berkeley, Calif. *Botany*, *Genetics*. London, Eng, June 8, 70. M.D, Hahnemann Med. Col, 02; A.M, California, 22, Ph.D, 24. *Research assoc. anat*, California, 23- A.A; Am. Med. Ass; British Ass; Royal Hort. Soc. Begoniaceae of North America and Cuba; Platycerium; Cactaceae.

Houghton, Prof. Clinton Osborne, Newark, Del. *Entomology*, *Botany*. Helena, N. Y, April 7, 73. Grad, N. Y. State Nor. Sch, Potsdam, 98; A.B, Cornell, 02. Entomologist, Del. Exp. Sta, 02-09, assoc. prof. zool, Delaware, 02-06, *prof*, 06-09, biol, 09- A.A; Ass. Econ. Entom. Economic and systematic entomology and botany.

Houghton, Dr. E(lijah) M(ark), 680 Longfellow Ave, Detroit, Mich. *Pharmacology*, *Bacteriology*. Antwerp, N. Y, April 29, 67. Ph.C, Michigan, 93, M.D, 94. Asst. pharmacol, Michigan, 94-95; *director med. research and biol. laboratories*, Parke, Davis and Co, Detroit, 95- Lecturer, Michigan, 02-08; Detroit Col. Med, 96-01. A.A; Soc. Bact; Physiol. Soc; Am. Med.

Ass; Col. Physicians; Ass. Immunol; Ass. Study Int. Secretions; Tuber. Ass; Pharmaceut. Ass. Strychnin tetanus; ergot aseptic; heart tonics; active principles of suprarenal glands; chloretone and brometone; preparation of the antitoxins; aseptic preparations of digitalis, ergot, veratrum viridi; antidysenteric serum; rabies; purgatives; hypnotics; diphtheria and tetanus antitoxin; tuberculins.

Houk, Ivan E(dgar), U. S. Bureau of Reclamation, 1441 Welton St, Denver, Colo. *Engineering*. Battle Creek, Iowa, Feb. 18, 88. B.S, Iowa, 11. Topog. aid, U. S. Geol. Surv, 10; hydraul. computer, Morgan Eng. Co, 11-13; asst. engineer, Miami conservancy dist, 13-21; city engineer, Dayton, Ohio, 21-23; *engineer*, U. S. *Bur. Reclamation*, 23- Civil Eng; Meteor. Soc. Meteorology; hydrography; hydraulic engineering.

House, Dr. H(omer) D(oliver), Education Building, Albany, N. Y. *Botany*. Near Oneida, N. Y, July 21, 78. B.S, Syracuse, 02; A.M, Columbia, 04, Ph.D, 08. Prof. bot. and bacter, Clemson, 06-07; assoc. director and lecturer bot. and dendrol, Biltmore Forest Sch, 08-13; asst. state botanist, N. Y, 13-14, *state botanist*, 14- Asst, Columbia, 02-03; aid, N. Y. Bot. Garden, 03-04, 07-08; U. S. Nat. Museum, 05; botanist, U. S. Dept. Agr, 06. Bot. Soc; Ecol. Soc; Soc. Foresters; Rochester Acad; N. Y. Acad; Torrey Bot. Club. Taxonomic botany; ecology; dendrology; taxonomy.

Houser, Prof. Gilbert L(ogan), 430 Iowa Ave, Iowa City, Iowa. **Biology*. Lee Co, Iowa, July 9, 66. B.S, Iowa, 91, M.S, 92; Ph.D, Hopkins, 01. Instr. biol, Iowa, 92-95, asst. prof, 95-97, *prof*. animal morphol. and physiol, 97-05, *animal biol*, 05- Iowa Geol. Surv. Collaborator, 'Am. Jour. Anat,' and 'Jour. Applied Micros.' A.A; Soc. Nat; Soc. Zool; Iowa Acad. (pres). Experimental biology; cellular biology; vertebrate embryology; architecture of the nervous system of lower vertebrates; neurones of selachian brain; intracellular canaliculi of the liver; methods for the microscopical study of the nervous system; the animal cell.

Houser, J(ohn) S(amuel), Ohio Agricultural Experiment Station, Wooster, Ohio. *Entomology*. Oxford, Kans, April 19, 81. B.S, Kansas Col, 04; M.S, Cornell, 11. Asst. entomologist, Ohio *Exp. Sta*, 03-07, 09-12, assoc. entomologist, 12-26, *entomologist*, 26- Primer ayudante, dept. path, Estacion Cent. Agron. Cuba, 07-08. A.A; Entom. Soc; Ass. Econ. Entom; Ohio Acad. Economic entomology.

Houssay, Prof. B(ernardo) A(lberto), Viamonte 2790, Buenos Aires, Argentina. *Physiology*. Buenos Aires, April 10, 87. M.D, Buenos Aires, 10. Prof. physiol, vet. faculty, Buenos Aires, 12-15; chief inst. bacter, Dept. Nat. Hygiene, 15; *prof. physiol, faculty med*, Buenos Aires, 19- Soc. de Path. exot; Soc. de Biol. de Paris; Soc. de Biol. de Barcelona; Acad. Med. Madrid; Soc. Biol. de Mexico. The hypophysis, thyroids and suprarenals; venoms of serpents, spiders and scorpions; poisonous and medicinal plants; diabetes insipidus.

- Houston, Dr. William V(ermillion)**, California Institute, Pasadena, Calif. *Physics*. Mt. Gilead, Ohio, Jan. 00. A.B., B.S., Ohio State, 20; fellow, Chicago, 21-22, M.S., 22; Ph.D., Ohio State, 25. Instr. physics, Ohio State, 22-25; Nat. Research Council fellow physics, Calif. Inst., 25-27; *Guggenheim Memorial Foundation fellow, Europe*, 27- Physical Soc. Spectroscopy; spectral fine structure and its atomic interpretation.
- Hovda, Prof. O(laf)**, Evansville College, Evansville, Ind. *Physics*. Dane Co, Wis., 75. A.B., Minnesota, 04, A.M., 09; Ph.D., Göttingen, 13. Instr. math, Iowa, 14-15; prof. physics, Morningside, 15-18; asst. prof., Carleton, 18-19; *prof. physics and math, Evansville*, 19- Physical Soc. Point-discharge of electricity.
- Hovey, O(tis) E(llis)**, 71 Broadway, New York, N. Y. *Civil engineering*. East Hardwick, Vt., April 9, 64. B.S., Dartmouth, 85, C.E., 89. Instr. civil eng., Washington (St. Louis), 89-90; asst. engineer to Geo. S. Morison, 90-96; engineer, Union Bridge Co, 96-00; engineer of design, *Am. Bridge Co*, 00-07, *asst. chief engineer*, 07- Overseer, Thayer Sch. Civil Eng., Dartmouth, 07- Civil Eng.; Mech. Eng.; Am. Iron and Steel Inst.; Soc. Test. Mat.; Ry. Eng. Ass. Movable bridges.
- Hovgaard, Prof. William**, Massachusetts Institute of Technology, Boston, Mass. *Naval construction*. Aarhus, Denmark, Nov. 28, 57. Naval Acad., Copenhagen, 75-79; Royal Naval Col., Greenwich, 83-86. Lieut., Danish Navy, 79-98, commander, 98-01; *prof. naval design, Mass. Inst. Tech.*, 01- Naval tech. staff and prof., Dockyard Sch. Naval Archit. and Eng., Copenhagen, 88-95; director, Burmeister and Wains Shipbuilding Co, Copenhagen, 95-98; aid to Danish sec'y of navy, 00-01; technical duty, bur. construction repair, U. S. Navy Dept., 17-18; consulting engineer, 19- Special Commission on Design of 'Shenandoah' and RS-1, 22-25; technical adviser, 'Shenandoah' Court of Inquiry, 25. Danish Govt. transit of Venus exped., West Indies, 82. Trustee, Am-Scandinavian Foundation. Gold medal, British Inst. Naval Archit., 17. A.A.; Naval Archit. and Marine Eng.; Naval Inst.; fel. Am. Geog. Soc.; Am. Acad.; British Inst. Naval Archit. Design and history of warships; water-tight bulkheads; submarine boats; the propulsion of ships; diverging waves; gun-turrets; strength of airships; theory of elasticity; hydrodynamics.
- Hovorka, Dr. Frank**, Western Reserve University, Cleveland, Ohio. *Physical chemistry*. Cernikovice, Bohemia, Aug. 5, 97. A.B., Iowa State Teachers Col., 22; M.S., Illinois, 23, fellow, 24-25, Ph.D., 25. Asst. chem., Illinois, 22-24; *instr. Western Reserve*, 25- Chem. Soc. The capillary rise of water in tubes of various metals; surface tension; freezing points of very dilute solutions of electrolytes.
- Howald, Dr. A(rthur) M(ark)**, 3620 Terrace St., Pittsburgh, Pa. *Industrial chemistry*. Sullivan, Mo., Oct. 12, 98. B.S., Missouri, 19, M.S., 20; Ph.D., Pittsburgh, 22. *Indust. fellow, Mellon Inst.*, 22- Summer, acting head chem. dept., Alfred, 21. Chem. Soc. Preparation of methyl amines; catalytic ammonolysis of naphthols and halo-benzenes; preservative chemical treatment of wood.
- Howard, Prof. (Alan) C(ampbell) P(almer)**, Montreal General Hospital, Montreal, Que., Can. *Medicine*. Montreal, April 2, 77. B.A., McGill, 97, M.D., C.M., 01. Asst. med., Hopkins, 02-05; demonstrator, McGill, 07-10; prof. theory and practice of med., Iowa, and physician, univ. hosp., 10-24; *prof. med., McGill, and physician, Montreal Gen. Hosp.*, 24- Am. Med. Ass.; Am. Physicians; Ass. Path. and Bact.; Soc. Clin. Invest.; Can. Med. Ass.; Royal Soc. Med. Clinical medicine; diseases of metabolism; scurvy; diabetes; endocrine glands.
- Howard, Dr. Arthur D(ay)**, 811½ W. 32d St., Los Angeles, Calif. *Zoology*. Glencoe, Ill., Sept. 30, 74. B.S., Amherst, 98; M.S., Northwestern, 01; Ph.D., Harvard, 06. Teacher, Englewood Sch., 99-00; asst. zool., Harvard, 02-04, Austin teaching fellow, 04-05; prof. biol. and geol., Westminster (Pa.), 06-08; asst. prof. zool., Washington (Seattle), 08-11; asst., U. S. Biol. Sta., Fairport, Iowa, 12-22; asst. prof. biol., Southern California, 22-25. Board directors, Puget Sound Marine Sta., 09. A.A.; Soc. Zool.; Ecol. Soc. Visual cells of vertebrates; ecology and life histories of the Unionidae; embryology.
- Howard, Prof. Burton James**, 1212 Decatur St., N. W., Washington, D. C. *Microscopy*. Ionia, Mich., Sept. 17, 72. B.S., Michigan, 97, 00-01. Teacher, Mich., 98-00; asst. chem., Michigan, 95-96, bot., 01; prof. micros., Nat. Col. Pharmacy, 04-17; *chief microchem. lab., U. S. Dept. Agr.*, 01- A.A.; Chem. Soc.; Wash. Bot. Soc. Microanalysis; applied microscopy.
- Howard, Charles D(anforth)**, State Laboratory of Hygiene, Concord, N. H. *Chemistry*. Westford, Mass., July 31, 73. B.S., Worcester, 93. Asst. to Dr. Wolcott Gibbs, 93-94; asst. chemist, N. H. Exp. Sta., 95-98; W. Va. Exp. Sta., 98-03, assoc. chemist, 03-05; *chemist, N. H. Board Health*, 05- Collaborating chemist, bur. chem., U. S. Dept. Agr.; Fed. Committee on Definitions of Standards for Food. A.A.; Chem. Soc.; fel. Pub. Health Ass. Sanitary and food chemistry; toxicology; water supply.
- Howard, Prof. C(harles) W(alter)**, Wheaton College, Wheaton, Ill. *Entomology*. Ogdensburg, N. Y., Feb. 22, 82. A.B., Cornell, 04; M.S., Minnesota, 13. Asst. entomologist, Transvaal Dept. Agr., 05-06, entomologist, 06-08; chief entom. sect., Dept. Agr., Mozambique, 08-11; instr. and assoc. prof. entom., Minnesota, 12-17; *prof. biol., Lingnan Univ.*, 17-21, sericulture, 21-27; *animal biol., Wheaton (Ill.)*, 27- Director, Kwongtung Bur. Improv. Sericulture, 23-28. Pan-African Trypanosomiasis Commission, 09- Entom. Conf., Brussels, 10. A.A.; Entom. Soc.; fel. London Entom. Soc.; S. African A.A.S.; Royal Soc. S. Africa; S. Africa Ornith. Union; Transvaal Biol. Soc. Sericulture; systematic morphological and bionical study of the Ixodidae of South Africa; blood-sucking Diptera and the diseases transmitted by them;

the production of raw silk; diseases of silk-worms.

Howard, Prof. D(elton) T(homas), 1901 Sherman Ave, Evanston, Ill. *Psychology*. South Bend, Ind, March 23, 83. A.B. Lawrence, 10; A.M. Illinois, 12; Ph.D. Cornell, 16. Instr. asst. prof. and *assoc. prof. psychol*, *Northwestern*, 16— Logical theory; history of psychology; personnel studies.

Howard, Dr. F(rederick) H(ollis), 27 W. 55th St, New York, N. Y. *Physiology*. Newburyport, Mass, Sept. 3, 76. Cornell, 93–94; M.D. Pennsylvania, 98. Res. physician, Mercy Hosp, Pittsburgh, 98–99; asst. demonstrator path, Pennsylvania, 99–00; instr. anat. and physiol, Williams, 00–04, asst. prof. *physiol*, 04–08, prof, 08–27; *asst. prof. col. physicians and surg*, *Columbia*, 27— Lieut. col, M.R.C. Am. Med. Ass.

Howard, Henry, The Grasselli Chemical Co, Guardian Building, Cleveland, Ohio. *Chemistry*. Boston, Mass, July 5, 68. Mass. Inst. Tech, 85–89. Chemist, asst. supt. and supt, Merrimac Chem. Co, 89–03, v. pres, 03–20; *Grasselli Chem. Co*, 20— Chem. Soc; Chem. Eng. (past pres); Soc. Chem. Indust; Electrochem. Soc. Sulphuric acid manufacture; picric acid; phenol; sodium hydrosulphite.

Howard, Prof. Henry C, Jr, 1401 Rosemary Lane, Columbia, Mo. *Chemistry*. Media, Pa, Nov. 25, 91. B.S. Washington (Seattle), 15; Ph.D. Princeton, 23. Chemist, Chas. A. Newhall Co, Wash, 15–17; B. F. Goodrich Co, Ohio, 21; *asst. prof. chem*, *Missouri*, 23— C.W.S., U.S.A., 17–18. Chem. Soc. Adsorption; catalysis.

Howard, James Erigene, Interstate Commerce Commission, Washington, D. C. *Engineering*. Palmer, Mass, June 26, 51. Hon. M.S. Dartmouth, 10. Engineer of tests, Watertown Arsenal, Mass, 80–10; *engineer-physicist*, Bur. Standards, 10–14; *Interstate Commerce Commission*, 14— Soc. Test. Mat. Test of metals; strength of materials.

Howard, Prof. Joseph Whitney, University of Montana, Missoula, Mont. *Chemistry*. Dixon, Ill, June 18, 89. A.B. Shurtleff, 12; A.M. Illinois, 13, fellow, 13–15, Ph.D. 15. Instr. *chem*, *Montana*, 15–18, asst. prof, 18–22, *assoc. prof*, 22— Contrib. ed, 'Jour. Chem. Educ.' Chem. Soc; Northwest Sci. Ass. Organic chemistry; plant analysis.

Howard, Dr. L(eland) O(ssian), U. S. Department of Agriculture, Washington, D. C. **Entomology*. Rockford, Ill, June 11, 57. B.S. Cornell, 77, M.S. 83; hon. Ph.D. Georgetown, 96; hon. M.D. George Washington, 11; LL.D. Pittsburgh, 11; D.Sc. Toronto, 21. Asst. entomologist, *U. S. Dept. Agr*, 78–94, *chief entomologist*, 94—; *hon. curator*, *U. S. Nat. Museum*, 95— Lecturer, Swarthmore; senior entomologist, U. S. Pub. Health Reserve. Ed, 'Insect Life'; contributor definitions in entom, 'Century' and 'Standard' Dictionaries. Chevalier, Légion d'honneur; officier, Ordre du Mérite Agr. Medal, Al Merito Agricole, Italy; medal, Holland Soc, N. Y. Nat. Acad; A.A. (v. pres, 95, 97, permanent sec'y, 98–19, pres, 20); Soc. Nat; Ass. Econ. Entom. (pres, 94);

Philos. Soc; Am. Acad; Wash. Acad. (pres, 16); Wash. Biol. Soc. (pres, 97); hon. mem. Ont. Entom. Soc; hon. fel. London Entom. Soc; cor. mem. London Zool. Soc; Entom. Gesell; hon. mem. Gesell. für angewandte Entom; hon. mem. Soc. entom. de France; Soc. d'Acclim. de France; Acad. d'Agr. de France; cor. Mus. d'Hist. nat. de Paris; hon. mem. S. African Biol. Soc; Entom. Forën. Stockholm; Soc. entom. de la Russie; Moscow Entom. Soc; Soc. Cient. Ant. Alz; Soc. Sci. de Chile; hon. mem. Portuguese Royal League Agr; cor. mem. Geneva Inst. Nat; cor. mem. Barcelona Acad. Economic entomology; relations of insects to disease; parasitic Hymenoptera.

Howard, Nathaniel O(rson), Brown University, Providence, R. I. *Plant pathology*. Providence, May 11, 80. Ph.B. Brown, 03, M.S. 17, Ph.D. 25. V. prin, high sch, Ohio and Vt, 03–05; instr. chem, Tech. High Sch, Providence, R. I, 05–18; *collaborator forest path, bur. plant indust*, *U. S. Dept. Agr*, 13–18, *pathologist*, 18—; *instr. bot*, *Brown*, 22— A.A.; Phytopath. Soc; Crop Protection Inst; Chem. Soc. Control of sap stain and mold in green timber; fungous diseases of forest and ornamental woody plants.

Howard, Neale F(rederick), U. S. Department of Agriculture, 151 W. 11th Ave, Columbus, Ohio. *Entomology*. Milwaukee, Wis, Nov. 5, 90. B.S. Wisconsin, 14, M.S. 18. Asst. entom, Wisconsin, 14; Ohio State, 15; specialist, *bur. entom*, *U. S. Dept. Agr*, 16–18, *assoc. entomologist in charge bean beetle investigations*, 19— Lieut., Sanit. C, 18–19. A.A; Entom. Soc; Ass. Econ. Entom. Economic insects affecting truck and garden crops; Mexican bean beetle.

Howard, Norman J(oseph), Filtration Laboratories, Centre Island, Toronto, Ont, Can. *Chemistry*, *Bacteriology*. London, Eng, Nov. 29, 84. Xaverian Col, England; London. Asst. chem. and bacter. laboratories, Sir Wm. Crookes and Sir James Dewar's Lab, London, 05–07; Metropolitan Water Board, 07–11; *bacteriologist in charge water purification*, *Filtration Laboratories*, 11— Lecturer, Toronto. Chem. Soc; Soc. Bact; Pub. Health Ass; Water Works Ass. (v. chairman, chem. and bact. sect, 23, mem. bact. committee standard methods of water analysis, 24); Can. Pub. Health Ass; British Sanit. Inst. Chemistry and bacteriology of water and sewage; bacteriology of carcinoma and sarcoma.

Howard, Prof. Robert Francis, Wharton, Texas. *Horticulture*. Griffin, Mo, Feb. 16, 83. B.S.A. Missouri, 08; A.M. Nebraska, 12. Asst. *hort*, Nebraska, 08–12; asst. prof, Wisconsin, 12–14; *chairman dept*, *Nebraska*, 14— Soc. Hort. Sci. Plant breeding.

Howard, Prof. S(amuel) Francis, Northfield, Vt. *Chemistry*. Wilbraham, Mass, June 14, 72. B.S. Mass. Col, 94, M.S. 01; Hopkins, 96–98, Ph.D. 12. Prin, high sch, Maine, 95; asst. prof. *chem*, Mass. Col, 99–12; *assoc. prof*, Amherst, 12–13; *prof*, *Norwich*, 13— A.A.; Chem. Soc. (v. pres, 17); Electrochem. Soc. Inorganic and physical chemistry; molecular weights of electrolytes; conductivity of salts in solution.

Howard, Prof. W(alter) L(afayette), University of California College of Agriculture, Davis, Calif. *Horticulture*. Christian Co, Mo, May 12, 72. B.Agr, B.S, Missouri, 01, M.S, 03; Ph.D, Halle-Wittenberg, 06. Asst. hort, Missouri, and asst. horticulturist, Exp. Sta, 01-03, instr. hort, 03-04, asst. prof, 05-08, *prof*, 08-15; *pomol, California, and director Davis branch, col. agr, 25-* Sec'y, Mo. State Board Hort, 08-12. A.A; Soc. Hort. Sci. (pres, 15). Plant physiology; dormant period of plants; origin of fruit buds; fruit tree root-stocks; rest period of plants.

Howard, Dr. William Travis, 835 University Parkway, Baltimore, Md. **Pathology, Bacteriology*. Statesburg, S. C, March 13, 67. Virginia, 85-87; M.D, Maryland, 89; Hopkins, 89-94; Munich, 06-07. Prof. path. and bacter, Western Reserve, 94-14; lecturer biometry and vital statist, sch. hygiene and pub. health, *Hopkins*, 19-27, *assoc. Inst. Biol. Research*, 26-Pathologist, Lakeside and City Hosp; city bacteriologist, Cleveland; asst. commissioner health, Baltimore, 15-19. A.A; Ass. Path. and Bact. (pres, 02); Am. Physicians. Heart hypertrophy; origin and occurrence of cells with eosinophil granulations; ulcerative endocarditis; B. aerogenes capsulatus; origin of gas and gas cysts of the central nervous system; streptococcus mucosus; general gaseous emphysema; the pathology of labial, nasal and corporeal herpes occurring in acute croupous pneumonia, and their relation to herpes zoster; actinomycosis; tumors; etiology of smallpox; vaccinia; physiological degeneration of Actinosphaerium eichhorni; biology of tumor cells; real risk rate of women in childbirth; public health administration and the natural history of disease in Baltimore.

Howe, Dr. Anna M(ayme), Tulane University, New Orleans, La. *Mathematics*. N. Y, 84. A.B, Wells, 08; A.M, Cornell, 11; Ph.D, 17. Teacher math, Fairmount Sem, Washington, D. C, 11-15, 17-18; overseer tech. shipments, W. R. Grace and Co, New York, 18-19; teacher *math*, Wellesley, 19-20; *asst. prof, Newcomb, Tulane*, 20- Math. Soc; Math. Ass. Photogrammetry; classification of all involutions of Order Three involving a 1-3 correspondence.

Howe, Pres. Charles S(umner), Case School of Applied Science, Cleveland, Ohio. **Astronomy*. Nashua, N. H, Sept. 29, 58. B.S, Mass. Col. and Boston, 78; Ph.D, Wooster, 87; hon. Sc.D, Armour Inst, 05; LL.D, Mt. Union, 08, Oberlin, 11, Western Reserve, 24. *Prof. math. and astron*, Buchtel, 83-89; *Case*, 89-, *pres*, 03-A.A. (sec'y, A, 03, gen. sec'y, 04); Astron. Soc; Math. Soc; fel. Royal Astron. Soc. The almucantar as an instrument for determination of star places; constant temperature rooms for clocks; printing chronographs; effect of temperature on the Case almucantar; catalogue of stars determined with the almucantar.

Howe, Prof. C(lifton) D(urant), University of Toronto, Toronto, Ont, Can. *Forest ecology*. Newfane, Vt, July 30, 74. A.B, Vermont, 98, M.S, 01; fellow, Chicago, 01-04, Ph.D, 04. Asst. biol, Vermont, 99-01; instr, Biltmore Forest Sch, 05-06, asst. director, 07-08; lec-

turer *bot. and forestry*, Toronto, 08-12, asst. prof, 13-15, assoc. prof, 16-20, *prof. and dean faculty forestry*, 20- A.A; Ecol. Soc; Bot. Soc; Can. Soc. Forest Eng. Reforestation of sand plains, Vermont; forest distribution in Nova Scotia; forest conditions in the Trent watershed; reproduction of Douglas fir in coast region, British Columbia.

Howe, Dr. Ernest, Litchfield, Conn. *Petrology, Mining geology*. New York, N. Y, Sept. 28, 75. A.B, Yale, 98; A.M, Harvard, 99, Ph.D, 01. Asst. geologist, U. S. Geol. Surv, 00-10; *consulting mining geologist*, 08- Geologist, Isthmian Canal Commission, 06-07. Ed, 'Am. Jour. Sci.', 26- A.A; Min. Eng; Min. and Metal. Soc; Seismol. Soc; Geol. Soc; Optical Soc; Wash. Geol. Soc. Experimental geology; physics of igneous intrusions; Precambrian intrusive rocks; ore deposits; Tertiary and later volcanic rocks; the eruptive rocks of the Lesser Antilles; terrace phenomena of the Rocky Mountain region; geology of Panama Canal Zone; red beds of Colorado; landslides of San Juan Mountains; magmatic ore deposits; geology of Rio Negro, Brazil; gold-quartz veins, California.

Howe, Prof. Eugene C(larence), Wellesley College, Wellesley, Mass. *Physiology*. Forestville, Calif, June 14, 83. A.B, Cornell, 04; B.S, Mass. Inst. Tech, 08, Ph.D, 11. Instr, Adelphi Acad. and Col, 04-07; biol, Mass. Inst. Tech, 11-15; *hygiene, Wellesley*, 12-14, assoc. prof, 14-24, *prof*, 24- Lecturer, Mass. Inst. Tech. Soc. Bact; Pub. Health Ass. Applied psychology; bacteriology; hygiene; sanitation.

Howe, Prof. G(eorge) H(enry), New York State Agricultural Experiment Station, Geneva, N. Y. *Horticulture*. Jericho, Vt, Feb. 9, 88. B.S, Vermont, 10. Asst. horticulturist, *N. Y. Exp. Sta, Geneva*, 10-18, *assoc. hort. research*, 19-U.S.A, 18-19. A.A; Soc. Hort. Sci; Pomol. Soc. Pomology; cherries, peaches, pears and small fruits of New York.

Howe, Prof. Harley E(arl), Cornell University, Ithaca, N. Y. *Physics*. Linneus, Mo, Aug. 26, 82. B.S, Missouri, 06; A.M, Cornell, 09, Ph.D, 16. Instr. *physics*, Cornell, 09-11; prof, Randolph-Macon, 12-18; *asst. prof, Cornell*, 18-Absorption by organic salts; optics; colorimetry.

Howe, H(arrison) E(stell), 2702 36th St, N. W, Washington, D. C. **Chemistry*. Georgetown, Ky, Dec. 15, 81. B.S, Earlham, 01; Michigan, 01-02; M.S, Rochester, 13. Chemist, Sanilac Sugar Ref. Co, 02-04; with Bausch and Lomb Optical Co, 04-15; chem. engineer, asst. to pres. and dept. manager, A. D. Little, Inc, 16-19; chairman div. research exten, Nat. Research Council, 18-21; *ed, 'Indust. and Eng. Chem.'*, 22- C.W.S, U.S.A, lieut. col, O.R.C, 25- Exec. board, Nat. Research Council. Treas, Eng. Council. A.A; Chem. Soc; Soc. Chem. Indust; Chem. Eng. Industrial chemistry.

Howe, Dr. Ja(me)s Lewis, Washington and Lee University, Lexington, Va. **Chemistry*. Newburyport, Mass, Aug. 4, 59. A.B, Amherst, 80; Ph.D, Göttingen, 82; Berlin, 82; Mass. Inst. Tech, 94; hon. M.D, Louisville Hosp. Med. Col,

86. Instr. chem, Brooks Mil. Acad, Cleveland, 82-83; prof. chem. and geol. Cent. Univ. of Ky, 83-87; scientist and lecturer, Polytech. Soc, Ky, 86-94; prof. chem. and dean, Louisville Hosp. Med. Col. and Col. of Dentistry, 87-94; *prof. chem, Washington and Lee, 94-*, *dean sch. applied science, 21-* Chairman, A. A. Committee Inorg. Chem. Nomenclature, 12; mem, U. S. Assay Commission, 16, 20, 26; special committee on platinum, Nat. Research Council, 17-18. A.A. (sec'y, C, 92, gen. sec'y, 95, v. pres, 00); Chem. Soc; Soc. Chem. Indust; Wash. Acad; Va. Acad. (pres, 25); London Chem. Soc; Chem. Gesell. Ruthenium; other platinum metals; chlorids, etc, of ruthenium.
- Howe, Prof. Malver A(bijah)**, The Hermitage, Northfield, Vt. *Civil engineering*. Northfield, Dec. 9, 63. B.S, Norwich, 82; C.E, Dartmouth, 86. Instr. *civil eng*, Lawrence Sci. Sch, Harvard, 86-87; prof, *Rose, 87-16, emer. prof, 16-* Practising engineer, 82- Civil Eng. Strength of vitrified sewer pipe; effect of different beds upon strength of stone; drawbridge reactions; deflection of bridges under various loads and speeds; reinforced concrete beams; arches.
- Howe, Dr. Marshall A(very)**, New York Botanical Garden, Bronx Park, New York, N. Y. **Botany*. Newfane, Vt, June 6, 67. Ph.B, Vermont, 90; fellow, Columbia, 97-98, Ph.D, 98; hon. Sc.D, Vermont, 19. Instr. crypt. bot, California, 91-96; curator herbarium, Columbia, 99-01; asst. curator, N. Y. Bot. Garden, 01-06, curator museums, 06-23, *asst. director, 23-* Ed, 'Torreya,' 01-07. Bot. expeditions, Newfoundland, Fla. and the West Indies, 01- Nat. Acad; A.A; Soc. Nat; Bot. Soc. (v. pres, 13); fel. N. Y. Acad; Torrey Bot. Club (assoc. ed, 'Bul,' 98-08, 11-, ed, 08-10). Taxonomy of Hepaticae and marine algae of North America.
- Howe, Dr. Paul E(dward)**, U. S. Department of Agriculture, Washington, D. C. *Biochemistry*. Chicago, Ill, July 29, 85. B.S, Illinois, 06, A.M, 07, Ph.D, 10. Asst. physiol. chem, Illinois, 07-10, instr, 10-12; asst. prof. biol. chem, Columbia, 12-17; assoc, dept. animal path, Rockefeller Inst, 17, 19-24; *biochemist in charge nutrition investigations, animal husbandry div, bur. animal indust, U. S. Dept. Agr, 24-* Capt, sect. food and nutrition, Sanit.C, 17-19; chief nutrition lab, Army Med. Sch, 19. A.A; Soc. Biol. Chem; Chem. Soc; Physiol. Soc; Soc. Exp. Biol; Soc. Animal Production; Columbia Biochem. Ass; Harvey Soc. Nutrition; fasting and recuperation; acidity of urine; proteins of blood and muscle.
- Howe, Dr. Reginald Heber, Jr**, David Mason Little Memorial Museum of Natural History, Belmont Hill School, Belmont, Mass. *Biology*. Quincy, Mass, April 10, 75. Boston, 88-95; Harvard, 01, M.S, 22; Univ. Dr, Paris, 12. Lecturer ornith, New Eng. schools, 99-02; master nat. science, Middlesex Sch, Concord, Mass, 01-19; instr. physical educ. and director rowing, Harvard, 20-23; *headmaster, Belmont Hill Sch, 23-* Assoc. Ornith. Union; Entom. Soc; Cambridge Entom. Club; Boston Soc. Nat. Hist. Birds of Rhode Island, Massachusetts and Ver-
- mont; lichens of New England; genus *Usnea*; filamentous lichens; Odonata of New England.
- Howe, Dr. T(homas) D(udley)**, 1626 W. Main St, Decatur, Ill. *Botany*. Table Rock, Nebr, Sept. 21, 98. B.S, Nebraska, 21, A.M, 22; Ph.D, Wisconsin, 25. Asst. bot, Wisconsin, 23-25; *instr. biol, James Millikin, 25-* A.A. Morphology and cytology of angiosperms.
- Howe, Dr. W(illia)m Warren**, Yale University, New Haven, Conn. *Chemistry*. Pueblo, Colo, Dec. 31, 91. A.B, Colorado, 15, Ph.D, 22. Instr. *chem*, Colorado, 19-24, acting asst. prof, 24-26; *instr, Yale, 26-* Chem. Soc. Organic chemistry.
- Howell, A(lfred) Brazier**, U. S. National Museum, Washington, D. C. *Zoology*. Catonsville, Md, July 28, 86. Yale, 08. *Sci. asst, biol. surv, U. S. Dept. Agr; collaborator, U. S. Nat. Museum. A.A; Soc. Mammal. (cor. sec'y, 25-); Ornith. Union; Cooper Ornith. Club (sec'y, 13, trustee, 20, v. pres, 21); Wash. Biol. Soc; Wash. Acad. Mammalian anatomy; vertebrate zoology; morphology; anatomy; geographic distribution and variation of birds and mammals.*
- Howell, Arthur H(olmes)**, U. S. Biological Survey, Washington, D. C. *Zoology*. Lake Grove, N. Y, May 3, 72. *Biologist, biol. surv, U. S. Dept. Agr, 95-* Soc. Mammal; mem. Ornith. Union; Wash. Biol. Soc. Mammalogy; ornithology; revisions of North American mammals; geographic distribution of mammals and birds.
- Howell, B(enjamin) F(ranklin)**, Princeton University, Princeton, N. J. *Geology, Invertebrate paleozoology*. Troy Hills, N. J, Sept. 30, 90. B.S, Princeton, 13, A.M, 15, Ph.D, 20. Asst. geol, *Princeton, 13-15, instr, 15-17, 19-20, asst. prof, 20-25, geol. and paleont, 25-26, assoc. prof, 26-*, *curator invert. paleont, 24-* Ed. paleozool, 'Biol. Abstracts.' V. pres, acad. board, U. S. Sch. Mil. Aeronaut, 17-18. A.A; Geol. Soc; Paleont. Soc. Cambrian paleontology and stratigraphy.
- Howell, Dr. J(esse) V**, P. O. Box 1406, Amarillo, Texas. *Geology*. Oskaloosa, Iowa, March 11, 91. B.S, Penn (Iowa), 12; M.S, Iowa, 15, Ph.D, 22. Teacher, high sch, Wyo, 12-13; geologist, The Texas Co, 16-18; Gypsy Oil Co, 18-21; instr. geol, Iowa, 21-22; *geologist, Marland Oil Co, 22-* Summers, geologist, Colo. Geol. Surv, 15-17. A.A; Ass. Petrol. Geol; Iowa Acad. Structural, economic and petroleum geology.
- Howell, John W(hite)**, 211 Ballantine Parkway, Newark, N. J. *Electrical engineering*. New Brunswick, N. J, Dec. 22, 57. Col. City of N. Y, 74-76; Rutgers, 76-78; Stevens, 78-81, hon. E.E, 99; hon. Sc.D, Rutgers, 25. *Engineer, Edison Lamp Works, Menlo Park, 81-82; Harrison, N. J, 82-92, Edison Lamp Works of Gen. Elec. Co, 92-; Council of Research Lab, Gen. Elec. Co, 00-* Gold medal, La. Purchase Expos, 04; Edison medal, 24. Fel. Elec. Eng; Illum. Eng. Soc; Franklin Inst. Development of incandescent lamp.
- Howell, Dr. Katharine M(yrta)**, 6830 Merrill Ave, Chicago, Ill. *Serology, Bacteriology*. Kouts, Ind. A.B, Chicago, 05, M.D, Rush Med.

- Col, 13. Intern, N. Y. Infirmary for Women and Children, 13-14; pathologist, Mary Thompson Hosp, Chicago, 14-20; serologist, John McCormick Inst, 14-16; *serologist and bacteriologist, Nelson Morris Mem. Inst, 16-* Am. Med. Ass; Ass. Path. and Bact; Soc. Exp. Biol; Chicago Inst. Med; Chicago Path. Soc.
- Howell, Dr. L(oyd) B(elsford)**, Wabash College, Crawfordsville, Ind. *Chemistry*. Piqua, Ohio, Aug. 29, 87. A.B, Wabash, 09; M.S, Illinois, 18, fellow, 18-19, Ph.D, 19. Instr. chem, Wabash, 12-13; asst. org. chem, Illinois, 16-18; instr, Rice Inst, 19-23; *prof. chem, Wabash, 24-* Chem. Soc; Ind. Acad. Organic chemistry; positive halogen in organic compounds; chemistry of taste.
- Howell, S(pencer) P(ritchard)**, 1109 East End Ave, Edgewood, Pittsburgh, Pa. *Chemical engineering*. Woodhull, Ill, Feb. 2, 80. A.B, Lombard, 04; Washington (St. Louis). Engineer, U. S. Geol. Surv, and U. S. Bur. Mines, 05-13; *explosives engineer, U. S. Bur. Mines, 14-*, supt, southwest exp. sta, 23-25. Min. and Metal. Eng. Testing, storage and safety in use of industrial explosives and blasting supplies.
- Howell, Dr. W(illiam) H(enry)**, 232 W. Lanvale St, Baltimore, Md. **Physiology*. Baltimore, Feb. 20, 60. A.B, Hopkins, 81, Ph.D, 84; hon. M.D, Michigan, 90, LL.D, 12; Trinity (Conn), 01; hon. Sc.D, Yale, 11; LL.D, Washington (St. Louis), 15, Edinburgh, 23. Asst. and assoc. biol, Hopkins, 84-88, assoc. prof. physiol, 88-89; prof. physiol. and histol, Michigan, 89-92; assoc. prof. physiol, Harvard, 92-93; *prof, Hopkins, 93-*, dean med. faculty, 99-11, asst. director *sch. hygiene and pub. health, 16-26, director, 26-* Prize, Am. Physiol. Soc. Nat. Acad; A.A. (v. pres, 08); Soc. Nat. (pres, 24); Physiol. Soc. (pres, 05-10); Soc. Exp. Biol; Philos. Soc; hon. mem. London Physiol. Soc. Origin of the red corpuscles of the blood; degeneration and regeneration of nerve fibers; causation of the rhythmic beat of the heart; mechanism of sleep; internal secretion of hypophysis cerebri; isolated mammalian heart; relation of the inorganic salts of the blood to the beat of the heart; proteins of blood serum; theory of cardiac inhibition; coagulation of blood.
- Howes, Benjamin A(lfred)**, 70 Fifth Ave, New York, N. Y. *Engineering*. Keene, N. H, Aug. 4, 75. B.S, Mass. Inst. Tech, 97. Asst. research engineer, *H. Huenniker and Co, 03-05, consulting and construction engineer, 05-* A.A; Civil Eng; Soc. Test. Mat; Concrete Inst. Fire-proof construction; Portland cement and permanence of concretes; petroleum production and transport.
- Howes, Mrs. Ethel (Dench) Puffer**, Scarsdale, N. Y. **Psychology, Philosophy*. Framingham, Mass, Oct. 10, 72. A.B, Smith, 91; Berlin and Freiburg, 95-97; Ph.D, Radcliffe, 02. Teacher, high sch, N. H, 91-92; instr. math, Smith, 92-95; asst. psychol, Radcliffe, 98-06; instr. and assoc. prof. philos, Wellesley, 01-06; psychol, Simmons, 04-06. Director, Smith Col. Inst. for Coördination of Women's Interests, 25- A.A; Psychol. Ass; Philos. Ass. Esthetics.
- Howes, Prof. Horace L(eonard)**, University of New Hampshire, Durham, N. H. *Physics*. Syracuse, N. Y, Oct. 19, 82. B.S, Syracuse, 05; Ph.D, Cornell, 15. Teacher, science dept, Cook Acad, N. Y, 05-10; asst. physics, Cornell, 10-15; research asst, Carnegie Inst, 15-18; *prof. physics, New Hampshire, 18-* A.A; fel. Physical Soc; fel. Optical Soc; N. H. Acad. Luminescence and phosphorescence of uranyl salts; luminescence of rare earths.
- Howie, Prof. J(ohn) M**, Nebraska Wesleyan University, Lincoln, Nebr. *Mathematics*. Bloomfield, Iowa, April 10, 71. A.B, Cotner, 96; Wisconsin, 95-97; A.M, Nebraska, 22, Columbia, 24. Instr. math, Cotner, 91-94; Nebraska, 94-95; Wisconsin, 95-97; *head dept, Nebr. State Teachers Col, 98-22; Nebr. Wesleyan, 24-* Acting head dept, Alma Col, 22-23. Summers, prof, Cent. Mich. State Nor. Sch, 23; instr, Colo. State Teachers Col, 24. Math. Ass; Nebr. Acad.
- Howitt, Prof. John Eaton**, Ontario Agricultural College, Guelph, Ont, Can. *Plant pathology*. Guelph, July 28, 80. B.S.A, Ont. Agr. Col, 05; M.S, Cornell, 06. Lecturer bot, Ont. Agr. Col, 07-11, *prof, 11-* A.A; Phytopath. Soc. (advisory board, first pres, Can. div). Economic botany; grain smuts; tomato and potato diseases; white pine blister rust; life history of *Venturea inequalis* Winter.
- Howland, Henry R(aymond)**, Buffalo Society of Natural Sciences, Buffalo, N. Y. *Archeology*. Springfield, Mass, June 1, 44. A.B, Col. City of N. Y, 63, A.M, 66. *Emer. director and cor. sec'y, Buffalo Soc. Nat. Sciences. A.A; Anthropol. Ass; Micros. Soc; Ass. Mus. (past pres).* American archeology and history; ethnology.
- Howland, Prof. Leroy A(lbert)**, 34 Home Ave, Middletown, Conn. *Mathematics*. Acushnet, Mass, July 6, 79. A.B, Wesleyan, 00; A.M, Harvard, 04, Parker fellow, 06-08; Ph.D, Munich, 08. Instr. math, Drexel Inst, 00-03; *Wesleyan, 05-06, assoc. prof, 08-13, prof, 13-14, Fisk prof, 14-, v. pres, 21-*, acting pres, 23-25. Conn. State Board Educ, 25- Assoc. ed, 'Annals of Math,' 10-11. A.A; Math. Soc. The invariants of binary forms; algebraic plane curves.
- Howland, Prof. Ruth B**, New York University, Washington Square, New York, N. Y. *Embryology*. Clay Center, Kans, Feb. 10, 87. Ph.B, Syracuse, 08, Ph.M, 09; Ph.D, Yale, 20. Asst. zool, Syracuse, 09-11; instr, Mt. Holyoke, 11-12; assoc. prof. biol, Sweet Briar, 12-19, prof, 20-23; *asst. prof, N. Y. Univ, 23-* A.A; Ass. Anat; Va. Acad. Experimental embryology and protozoology; migration of retinal pigments in Crustacea.
- Howlett, Dr. F(reeman) S(mith)**, 506 N. Bever St, Wooster, Ohio. *Horticulture*. Jordanville, N. Y, June 15, 00. B.S, Cornell, 21, Ph.D, 25. Asst. pomol, Cornell, 20-21, instr. agr. econ. and farm management, 21, instr. pomol, 22-24; *asst. hort, Ohio Exp. Sta, 24-* A.A; Soc. Hort. Sci; Bot. Soc; Ohio Acad. Nutritional relationships in apple flowers and young fruits; fruit setting and deciduous fruits; pollination and sterility of the apple.

Howson, Elmer T(homas), 608 S. Dearborn St, Chicago, Ill. *Engineering*. Folletts, Iowa, May 23, 84. B.S., Wisconsin, 06, C.E., 14. Res. asst. and div. engineer, Chicago, Burlington and Quincy Ry, 06-11; eng. ed, 'Ry. Age,' *Simmons-Boardman Publishing Co*, 11-17, *west. ed*, 17-, *ed*, 'Ry. Eng. and Maintenance,' 16-Ed, 'Ry. Eng. and Maintenance Cyclopedia,' 20-Civil Eng; West. Soc. Eng. (trustee, 19-22, v. pres, 22-24, pres, 24); Ry. Eng; Wood Preservers Ass. The design and maintenance of railway tracks.

Hoxie, Dr. George Howard, 1000 Rialto Building, Kansas City, Mo. *Medicine*. South Easton, N. Y., July 24, 72. A.B., Union, 93, A.M., 96; M.D., Zurich, 01. Assoc. prof. anat., Kansas, 02-05, prof. internal med. and dean clin. dept, sch. med, 05-11; *staff*, *St. Luke's and General Hospitals*; *med. director*, *Kansas City Open Air Schools* and *Kansas City Tuberculosis Soc*. Lieut. col., M.C. Am. Med. Ass; Col. Physicians; Ass. Study Int. Secretions; Therapeut. Soc. Medicine for nurses; blood pressure; re-activated thymus; blood sugar symptomatic therapeutics.

Hoxie, Dr. Geo(rge) L, Edison Building, Los Angeles, Calif. *Physics*. *Electrical engineering*. Leonardsville, N. Y., May 14, 72. M.E., Cornell, 92, M.M.E., 97, Ph.D., 02. Instr. physics, Arizona, 92-93, prof., 93-96; instr., Cornell, 98-99, elec. eng., 99-02; *consulting engineer*, 02-Mech. Eng; Elec. Eng. Engineering economics.

Hoxton, Prof. L(ewellyn) G(riffith), University of Virginia, University, Va. *Physics*. Alexandria, Va., April 28, 78. B.S., A.M., Virginia, 00; Harvard, 00; George Washington, 01-02; fellow, Hopkins, 05-06, Ph.D., 16. Asst. physicist, Bur. Standards, 01-05; adjunct prof. and assoc. prof. *physics*, *Virginia*, 06-16, *prof*, 16- U. S. Naval Observatory eclipse exped, Spain and Africa, 05, Baker, Oregon, 18, San Diego, Calif., 23. A.A.; Physical Soc; Astron. Soc. Thermodynamics; Joule-Thomson effect in gases.

Hoy, Prof. W(illiam) E(dwain), Jr, Clinton, S. C. *Biology*. Sendai, Miyagi Ken, Japan, Aug. 23, 90. A.B., Franklin and Marshall, 11; Ph.D., Princeton, 17. Instr. *biol*, Rochester, 16-18; *prof*, *Presbyterian (S. C)*, 20- A.A; Ass. Anat. Soc. Mammal. Cytology.

Hoyt, Dr. Frank C(lark), University of Chicago, Chicago, Ill. *Physics*. Chicago, Sept. 12, 98. B.S., Mass. Inst. Tech, 18, M.S., 20; Ph.D., Stanford, 21. Asst. physics, Mass. Inst. Tech, 18-19, instr., 19-20; asst., Stanford, 20-21; instr., Wisconsin, 21-22; Nat. Research Council fellow *physics*, Copenhagen, 22-23; *Chicago*, 24-26, research assoc, 26-27, *asst. prof*, 27- Gugenheim Memorial fellow, Germany, 27-28. Physical Soc. X-ray spectroscopy; quantum theory of atomic structure.

Hoyt, John C(layton), U. S. Geological Survey, Washington, D. C. *Hydraulics*. Lafayette, N. Y., June 10, 74. C.E., Cornell, 97. Cornell Hydraulic Lab. Construction Co, U. S. Deep Waterways Commission, and bur. yards and docks, Navy Dept, 97-99; U. S. Coast and Geod. Surv., 00-02; *U. S. Geol. Surv.*, 02-,

hydraulic engineer in charge surface water div, 11- Delegate, Int. Cong. Navigation, London, 23, Cairo, 26; mem, Am. committee, World Power Conf, London, 24. Civil Eng. (director, 20-22, v. pres, 27); *Wash. Acad.* (v. pres, 16); *Wash. Soc. Eng.* (sec'y, 08-15, pres, 16).

Hoyt, Ray S(tevens), Summit Ave, River Edge, N. J. *Electrical engineering*. Auburn, N. Y., July 24, 82. B.S., Wisconsin, 05; M.S., Princeton, 10. Lab. worker, West. Elec. Co, 07-09, 10-11; *Am. Tel. and Tel. Co*, 06-07, engineer theoret. investigations, 11-19, *research and developmental engineer*, 19- Elec. Eng; Math. Soc. Telephone engineering; mathematical theory of telephone transmission and devices.

Hoyt, Dr. Samuel L(eslie), General Electric Co, Schenectady, N. Y. *Metallurgy*. Minneapolis, Minn., May 29, 88. E.M., Minnesota, 09; Ph.D., Columbia, 14; Polytech, Charlottenburg, 11-13. Asst. and assoc. prof. metallog., Minnesota, 13-19; metal. engineer, Nat. Lamp Works, Ohio, 19-22; *research metallurgist*, *Gen. Elec. Co*, 22- Consulting metallurgist, U. S. Bur. Mines, 18-20. Min. and Metal. Eng. (exec. and research committee, inst. metals div); Soc. Steel Treat; British Iron and Steel Inst; Inst. Metals. Metallography; single crystals and X-ray analysis; metallurgy of tungsten.

Hoyt, Prof. W(ilbur) F(ranklin), Peru, Nebr. *Chemistry*, *Astronomy*. Reedsville, Ohio, March 13, 64. B.S.; A.B., Ohio Wesleyan, 95, A.M., 05; Harvard. Teacher, pub. schools, Ohio and Pa., 80-97; chem, Chamberlain Inst, 97-00; prof., Kans. Wesleyan, 00-10, acting pres, 02-04; *prof. chem*, *State Teachers Col, Peru, Nebr*, 10-, *head physical science dept*. A.A; Nebr. Acad. (past sec'y). Qualitative analysis.

Hoyt, Prof. W(illiam) D(ana), Washington and Lee University, Lexington, Va. *Botany*. Rome, Ga., April 16, 80. A.B., Georgia, 01, M.S., 04; fellow, Hopkins, 08-09, Ph.D., 09, Bruce fellow, 09-10. Tutor *biol*, Georgia, 01-04; sci. asst., U. S. Bur. Fisheries, Beaufort, N. C., 02-09; instr. bot., Rutgers, 10-12; fellow, Hopkins, 12-15; assoc. prof. *biol*, *Washington and Lee*, 15-20, *prof*, 20- Instr., Woods Hole, 17-19. A.A; Bot. Soc; Genetic Ass; Forestry Ass; Eugenics Research Ass; Eugenics Soc; Torrey Bot. Club; Va. Acad; Va. Biol. Ass. (pres, 22). Fertilization and hybridization in ferns; marine algae of southern United States; periodicity of reproduction and alternation of generations in *Dictyota dichotoma*; physiology of fertilization; physiological effects of colloidal metals.

Hoyt, W(illiam) G(lenn), U. S. Geological Survey, Washington, D. C. *Hydraulic engineering*. Lafayette, N. Y., Aug. 25, 86. C.E., Cornell, 09. *Hydraulic engineer*, *U. S. Geol. Surv*, 09- Assoc. Civil Eng; *Wash. Soc. Eng.* (sec'y, 22-). Runoff and water power engineering.

Hrdlička, Dr. A(leš), U. S. National Museum, Washington, D. C. **Anthropology*. Humpolec, Bohemia, March 30, 69. M.D., N. Y. Eclectic Col, 92; N. Y. Homeop. Med. Col, 94; Paris, 96; hon. Sc.D., Karlova, Prague, 21. Research intern, Middletown State Hosp, 94-96; assoc.

- anthrop. N. Y. State Path. Inst. 96-99; in charge physical anthrop. Hyde exped. Am. Museum Nat. Hist. 99-03; asst. curator in charge div. physical anthrop. U. S. Nat. Museum, 03-10, curator, 10- Lecturer, Georgetown, 19; American Univ. 20-24. Assoc. ed. 'Am. Naturalist,' 01-08; ed. 'Am. Jour. Physical Anthrop,' 18- Anthrop. exped. Mex. 98, 02, 05; parts of U. S., 99-; Egypt and Europe, 09; S. Amer. and Mex. 10; Europe, Siberia and Mongolia, 12; Peru, 10, 13; east. Asia, 20; Europe, 23; India, Java, Australia and S. Africa, 25; Alaska, 26. Sec'y, committee on anthrop. Nat. Research Council; trustee, Am. Sch. Prehist. Research; judge anthrop. exhib. La. Purchase Expos, 04; Jamestown Expos, 07; author exhibits physical anthrop. and prehist. Am. path. Panama-Calif. Expos, 15-16. Huxley mem. medal, Royal Anthrop. Inst. 27. Sec'y, 19th Int. Cong. Americanists; sect. anthrop. Second Pan-Am. Sci. Cong. Nat. Acad; A.A. (chairman H, 18); Anthrop. Ass. (pres, 24-26); Ass. Anat; Philos. Soc; fel. Am. Acad; Wash. Acad. (v. pres, 17); Wash. Anthropol. Soc. (pres, 07); Wash. Biol. Soc; hon. fel. Anthrop. Inst. Gt. Britain and Ireland; Soc. d'Anthrop. de Paris; Paris Soc. des Américanistes; for. mem. Bohemian Acad; cor. mem. Bohemian Ethnol. Soc; Royal Bohemian Ass. Sci; Liège Soc. d'Anthrop; Vienna Anthrop. Gesell; Portuguese Soc. d'Anthrop. e Ethnol; Soc. Ital. d'Antrop. Firenze; Soc. Ital. d'Antrop. Rome; Anat. and Anthrop. Ass. China. Defective classes; physical anthropology and genesis of American Indians; the evolution of man; racial osteology; anthropology of American whites and negroes, of Egyptians and Slavs, of Peru, Mexico and Asia; history of physical anthropology; anthropometry.
- Huard, Rev. Canon Victor A (Iphonsus),** 2 Rue Richelieu, Quebec, Que. Can. *Zoology, Entomology.* Quebec, Feb. 28, 53. Sem. Quebec; D.Sc. Laval. Prof. French, Latin, Greek, literature and rhetoric, institutions, 75-93; ed. and publisher, 'Le Naturaliste Canadien,' 94-; curator, Museum Pub. Instruction, Que, 04-Superior, Chicoutimi Sem, 96-99. Ed. 'La Semaine Relig. de Quebec,' 01-03. A.A.; Ass. Econ. Entom; Entom. Soc; fel. Royal Soc. Can; Soc. d'Hort. et de Bot. Bouches-du-Rhone; Soc. entom. de Belg.
- Hubbard, Dr. Bela,** Standard Oil Company of Venezuela, Apartado 85, Maracaibo, Venezuela, S. A. *Geology.* Detroit, Mich, Aug. 10, 90. Wisconsin, 10-12; Mich. Col. Mines, 13; B.S. Columbia, 14. A.M. 16, Ph.D. 22. Asst. geol. Columbia, 15-17; lecturer, Queen's (Can), 19-20; geologist, Carter Oil Co, 20; Standard Oil Co. of N. J., 20-22; chief geologist, Standard Oil Co. of Venezuela, 22-Summers, field geologist, Mich. Geol. Surv, 15, N. Y. Acad. Sciences Geol. Surv, P. R. and Virgin Islands, 16, topog. aid, U. S. Geol. Surv, 17. Second lieut. C.Eng. 18-19. A.A.; Paleont. Soc; Min. and Metal. Eng; Mil. Eng; fel. Am. Geog. Soc; fel. N. Y. Acad. Paleontology; stratigraphic and petroleum geology.
- Hubbard, Prof. Geo(rge) D(avid),** Oberlin College, Oberlin, Ohio. *Geography, Geology.* Tolono, Ill, May 12, 71. B.S. Illinois, 96, fellow, 96-97, M.S. 98; A.M. Harvard, 01; Ph.D. Cornell, 05. Asst. geol. Illinois, 97-00; geog. East. Ill. State Nor. Sch, 01-03; physical geog. Cornell, 03-04, instr. 04-05; asst. prof. geol. Ohio State, 05-10, sec'y col. educ. 07-10; prof. geol. and geog. and head dept., Oberlin, 10-Temporary field asst. glacial geol, U. S. Geol. Surv, 04-05; asst. geologist, Ohio Geol. Surv, 06- Assoc. ed. 'Ohio Naturalist,' 06-15; 'Ohio Jour. Science,' 16- Int. Geog. Cong, 04. A.A.; Ass. Geog; Am. Geog. Soc; Geol. Soc; Meteor. Soc; Ohio Acad. (pres, 15, trustee, research fund, 19-). Geographic influence of gold and silver in the development of the United States; influence of physiography and geography on industrial development; physiography of Ohio; geology of Peterstown, Virginia quadrangle, and of Wilmington, Vermont quadrangle; geology and geography of China.
- Hubbard, Dr. J(ohn) C(harles),** New York University, New York, N. Y. *Physics.* Boulder, Colo, April 16, 79. B.S. Colorado, 01; Ph.D. Clark, 04, hon. fellow, 06-10. Instr. physics, Simmons, 04-05; asst. prof. N. Y. Univ, 05-06; Clark, 06-11, prof. 11-16; head dept., N. Y. Univ, 16- Capt. Sig.C, 17-18, major, U.S.A., 18-19, official historian. Rep. Physical Soc. Am. Eng. Standards Committee; Officier d'Acad. française. A.A.; Physical Soc; Optical Soc; Am. Acad. Spark discharge; distributed capacity of solenoids; binary mixtures; period of electrical oscillations; dielectric constants; surface tension; inductive electrical circuits; visual phenomena; recoil electrons; quantum theory in optics.
- Hubbard, Dr. Lucius L(ee),** Houghton, Mich. *Geology, Mining.* Cincinnati, Ohio, Aug. 7, 49. A.B. Harvard, 72; LL.B. Boston, 75; Ph.D. Bonn, 87. Asst. Mich. Geol. Surv, 91-93; asst. instr. miner, Mich. Col. Mines, 91-93; state geologist, Mich, 93-99; consulting geologist. Board Control, Mich. Col. Mines, 05-17; regent, Michigan, 11- Lake Superior Min. Inst. Correlation of Keweenaw beds.
- Hubbard, Prof. Marion E(lizabeth),** Wellesley College, Wellesley, Mass. *Zoology.* McGregor, Iowa, Aug. 31, 68. Mt. Holyoke, 86-89; B.S. Chicago, 94. Asst. high sch, Wis, 89-93; instr. zool. Wellesley, 94-01, assoc. prof. 02-16, prof. 17- A.A.; Ornith. Union; Eugenics Soc. Poison glands of some California salamanders; order of succession of somites in the chick; variation in certain beetles.
- Hubbard, Prevost,** 441 Lexington Ave, New York, N. Y. *Chemistry.* Washington, D. C., Nov. 2, 81. George Washington, 03, 06. Chemist, B. P. Clapp Ammonia Co, 00-02; U. S. Treas. Dept, 03; asst. chemist, office pub. roads, U. S. Dept. Agr, 05-07, chemist, 07-10; lecturer highway eng. Columbia, 10-14; chem. engineer in charge div. roads and pavement, Inst. Indust. Research, 11-15; chem. engineer and chief div. tests and research, bur. pub. roads, U. S. Dept. Agr, 14-19; chem. engineer, The Asphalt Ass, 19- Advisory board on highways, N. Y. State Dept. Efficiency and Econ, 13-14; chairman sub-committee on cements, Nat. Research Council, 17-19. Soc. Test. Mat; Soc. Munic. Improv;

- assoc. Civil Eng; Road Ass; Int. Ass. Test. Mat. Decomposition of the feldspars; extraction of potash from feldspathic rocks; dust preventives and road binders; chemical road materials; physical and laboratory tests of road-building materials.
- Hubbard, Dr. Roger S(anford)**, Clifton Springs, N. Y. *Biochemistry*. Cambridge, Mass, Sept. 21, 88. A.B, Harvard, 11, A.M, 13; Ph.D, Washington (St. Louis), 21. Asst. chem, Harvard, 11-12, asst. biochem, Harvard Med. Sch, 13-14; med. sch, Washington (St. Louis), 14-17; *biochemist, Clifton Springs Sanitarium*, 17- A.A; Soc. Exp. Biol; Soc. Biol. Chem; assoc. fel. Am. Med. Ass; Chem. Soc; Physiol. Soc. Ketogenesis; nephritis; urinary acidity.
- Hubbard, Dr. W(infield) S(cott)**, Selma, Calif. *Chemistry*. Ogden, Utah, March 7, 84. Ph.G, Illinois, 04; B.S, Michigan, 08; A.M, Columbia, 09; Ph.D, Wisconsin, 11. Asst. org. chem, Wisconsin, 09-11, instr. food and drug anal, 11-14; org. chemist, *bur. chem, U. S. Dept. Agr*, 14-17, chief control chemist, 18-19, *org. chemist*, 19- Chem. Soc; Pharmaceut. Ass. Food; drugs; enzymes.
- Hubbell, Prof. Theodore H(untington)**, University of Florida, Gainesville, Fla. *Entomology*. Detroit, Mich, July 4, 97. A.B, Michigan, 20. Asst. museum zool, Michigan, 20-22; instr. *biol, Florida*, 23-24, *asst. prof*, 25- Expeditions, Mich. Biol. Surv, 19-22, 23; museum zool, Michigan, to N. Dak, 20, Tenn, 22, 24, Honduras, 23, Fla, 25. Entom. Soc. Zoogeography; North American Orthoptera.
- Hubble, Dr. Edwin P(owell)**, Mt. Wilson Observatory, Pasadena, Calif. *Astronomy*. Marshfield, Mo, Nov. 20, 89. B.S, Chicago, 10, Ph.D, 17; B.A, Oxford, 12, M.A. Asst. Yerkes Observatory, 14-17; *astronomer, Mt. Wilson Observatory*, 19- Major, Inf, 17-19. Nat. Acad; Astron. Soc; Pacific Astron. Soc; Royal Astron. Soc. Nebulae.
- Hubbs, Carl L(eavitt)**, Museum of Zoology, Ann Arbor, Mich. *Zoology*. Williams, Ariz, Oct. 18, 94. A.B, Stanford, 16, A.M, 17. Asst. curator ichthyol. and herp, Field Museum Nat. Hist, 17-20; *curator fishes, museum zool, Michigan*, 20- Asst. ichthyol. surv, Bonneville Basin, Utah, 15; special investigator, U. S. Bur. Fisheries and Mich. Dept. Conservation. A.A; Soc. Zool; Soc. Ichthyol. and Herp; Calif. Acad; Mich. Acad; Wash. Biol. Soc. Ichthyology; taxonomy, distribution, ecology, variation and life histories of fishes.
- Huber, Dr. Ernst**, Johns Hopkins Medical School, Baltimore, Md. *Anatomy*. Winterthur, Switzerland, June 5, 92. Gymnasium, Winterthur, 04-11; Ph.D, Zurich, 17. First asst. anat, Zurich, 17-21; assoc. anat, *sch. med, Hopkins*, 21-25, *assoc. prof*, 25- Summer, asst. prof, Stanford, 24. A.A; Ass. Anat; Md. Zool. Soc. Musculature in vertebrates; facial musculature in mammals and man; racial anatomy of musculature in connection with the skeletal system of negroes and whites.
- Huber, Prof. G(otthelf) Carl**, 1330 Hill St, Ann Arbor, Mich. *Anatomy, Histology, Embryology*. Hoobly, India, Aug. 30, 65. M.D, Michigan, 87; Berlin, 90-91; Prague, 95. Asst. demonstrator anat, *Michigan*, 87-89, instr. histol, 89-91, asst. prof. histol. and embryol, 91-98, junior prof. anat. and director histol. lab, 98-03, prof. histol. and embryol. and director histol. lab, 03-14, *prof. and director anat. lab*, 14- Prof. Wistar Inst, 11-12, advisory board. Past assoc. ed, 'Am. Jour. Anat,' and managing ed, 'Anat. Record.' Contract surgeon peripheral nerve repair, U.S.A., 18-20. Mem. and sometimes chairman med. fellowship board, Nat. Research Council. Prize, Am. Physiol. Soc, 01. A.A; Soc. Nat; Philos. Soc; Ass. Anat. (sec'y and treas, 04-14, pres, 15, 16); Physiol. Soc; Ass. Path. and Bact; Soc. Exp. Biol; Am. Med. Ass; Harvey Soc; Phila. Acad; Phila. Col. Physicians; fel. Royal Micros. Soc. Nerve regeneration and degeneration; microscopic anatomy of sympathetic nerves of vertebrates; sensory nerve endings; neuroglia tissue of vertebrates; neuroglia during degeneration of nerve tissues; degeneration and regeneration of motor and sensory nerve endings; development and morphology of uriniferous tubules in mammals; development of the white rat; development of the chorda dorsalis; thalamus of vertebrates.
- Huber, Dr. Harry Lee**, 122 S. Michigan Boulevard, Chicago, Ill. *Medicine*. Ill, Aug. 1, 83. B.S, Chicago, 14, M.S, 16, Ph.D, 17, M.D, 18. Asst. anat, Chicago, 12-13, path, 14-17, mat. med, *Rush Med. Col, Chicago*, 17-18, *internal med*, 24- Med. staff, Presb. Hosp, Chicago. Am. Med. Ass; Chicago Path. Soc; Chicago Internal Med. Soc. Physiology; pathology; ammonia in gastric juice; chemotherapy of organic copper; fat embolism; asthma; hay fever; immunity.
- Huber, Prof. H(arvey) E(vert)**, Ada, Ohio. *Biology*. Bluffton, Ohio, March 19, 84. A.B, Ohio Northern, 09; A.M, Yale, 12, 12-13; Wisconsin, 20. Teacher, high sch, Colo, 09-11; *prof. biol*, Ohio Northern, 13-18; Bluffton, 18-19; *Ohio Northern, and dean col. liberal arts*, 19- Summer, field plant pathologist, bur. plant indust, U. S. Dept. Agr, 18. A.A; Phytopath. Soc; Ohio Acad. Plant pathology; leaf spot diseases; anatomy.
- Huber, Dr. L(awrence) L(ester)**, Ohio Agricultural Experiment Station, Wooster, Ohio. *Entomology*. Bluffton, Ohio, March 8, 93. Ohio Northern, 12; Miami, 13; Bluffton, 19; B.S.A, Ohio State, 20, M.S, 21, Ph.D, 22. Research entomologist, Nat. Hist. Surv, Illinois, 22-23; asst. entomologist in charge *European corn borer investigations, Ohio Exp. Sta*, 23-26, *assoc. entomologist*, 26- Summer, instr. Ohio State, 22. A.A; Entom. Soc; Ass. Econ. Entom; Ecol. Soc; Micros. Soc; Ohio Acad. Taxonomy and ecology of the genus *Callimome*; control of the San Jose scale and of the European corn borer.
- Huber, Walter L(eroy)**, 1304 First National Bank Building, San Francisco, Calif. *Civil engineering*. San Francisco, Jan. 4, 83. B.S, California, 05. Dist. engineer, U. S. Forest Service, Calif. and Nev, 10-13; *consulting civil engineer*, 13- Civil Eng. (director, 22-24, v. pres, 26); Meteor.

- Soc; Seismol. Soc; San Francisco Eng. Club. Exploration.
- Huber, Wharton**, 225 St. Mark's Square, Philadelphia, Pa. *Ornithology*. Philadelphia, Nov. 9, 77. Lafayette, 01. Preparator osteol, Wistar Inst, 01-06; lumbering, Va, 06-14; asst. supt, Phila. Elec. Co, 14-20; *asst. curator birds and mammals*, Phila. Acad. Nat. Sciences, 20- Lecturer, Ludwick Inst; Game Commission Pa. Leader, Phila. Acad. Nat. Sciences exped, Nicaragua. Ornith. Union; Soc. Mammal; Cooper Ornith. Club; Del. Valley Ornith. Club (ed, 'Cassinia'); Phila. Geog. Soc. (board directors); Phila. Zool. Soc; Phila. Acad. Systematic ornithology.
- Hubert, Dr. Ernest E(verett)**, University of Idaho, Moscow, Idaho. *Forestry*. Philipsburg, Mont, Sept. 17, 87. B.S, Montana, 12, M.S, 18; Ph.D, Wisconsin, 23. Sci. asst, bur. plant indust, U. S. Dept. Agr, 13, asst. pathologist, 21-25; *prof. forest products*, Idaho, 25- Lecturer, Wisconsin, 23-26. A.A; Soc. Foresters; Forestry Ass; Phytopath. Soc. (pres, Madison sect, 24); Wis. Acad. Forest pathology and products.
- Hubert, Prof. Warren G(engembre)**, 125 Lee Ave, Yonkers, N. Y. *Mathematics*. New York, N. Y, Sept. 13, 86. B.S, Col. City of N. Y, 07; M.S, N. Y. Univ, 09, Sc.D, 17. Teacher, pub. schools, New York, 07-10; *math*, Stuyvesant High Sch, 10-12; *asst. prof*, Col. City of N. Y, 12- A.A; Math. Ass.
- Hucker, Prof. G(eorge) J(ames)**, Geneva, N. Y. *Bacteriology*. Cascade, Iowa, Aug. 19, 93. Upper Iowa, 13-14; B.S, Lenox, 15; A.M, Columbia, 16; Cornell, 21; Cutler fellow, Yale, 23, Ph.D, 24. Instr. biol, Allegheny, 16-17, asst. prof, 17-18; special agent, U. S. Dept. Agr, 18; asst. bacteriologist, N. Y. *Exp. Sta*, Geneva, 19-22, *assoc. research bacter*, 22-, *asst. prof*, Cornell, 23- Int. Educ. Board fellow, Copenhagen, London, 26. Lieut, Sanit.C, 18-19. Soc. Bact. Systematic work on Coccaceae; nitrogen metabolism of bacteria; cheese ripening.
- Huckett, Dr. H(ugh) C(ecil)**, Long Island Vegetable Research Farm, Riverhead, N. Y. *Entomology*. Tananarive, Madagascar, July 13, 90. B.S.A, Ont. Agr. Col, 19; A.M, Cornell, 20, Ph.D, 23. *Assoc. research entom*, N. Y. *Exp. Sta*, 22- Entom. Soc; Ass. Econ. Entom. Insects affecting vegetable crops.
- Hudson, Charles John**, Newton St, West Boylston, Mass. *Ceramics*. Clinton, Mass, Oct. 28, 86. A.B, Amherst, 10, A.M, 11. Instr, Amherst, 10-12; asst. astron, Allegheny Observatory, 12-17; *research asst*, Norton Co, 17- Ceramic Soc; Astron. Soc.
- Hudson, Dr. C(laude) S(ilbert)**, U. S. Bureau of Standards, Washington, D. C. **Chemistry*. Atlanta, Ga, Jan. 26, 81. B.S, Princeton, 01, M.S, 02, Ph.D, 07. Research asst. physical chem, Mass. Inst. Tech, 03-04; instr. physics, Princeton, 04-05; Illinois, 05-07; asst. physicist, U. S. Geol. Surv, 07-08; asst. chemist, bur. chem, U. S. Dept. Agr, and later chief carbohydrate lab, 08-19; with Samuel Heath Co, 19-23; *chemist*, Bur. Standards, 23- Nichols medal, Chem. Soc, 16. Mem, Am. Commission Org. Chem. Nomenclature, 12. Nat. Acad; Chem. Soc; Soc. Biol. Chem. Laws of action of enzymes; constitution of complex sugars; the forms of milk sugar; mutarotation; hydration in solution; osmotic pressures; mutual solubility of liquids; action of sucroclastic enzymes; mutarotation of rare sugars; decolorizing carbon.
- Hudson, George H(enry)**, 39 Broad St, Plattsburgh, N. Y. *Biology, Geology*. North Bangor, N. Y, Oct. 1, 55. Private instruction. Private teacher, 79-90; teacher nat. science, N. Y. State Nor. Sch, Plattsburgh, 90-92, v. prin. in charge science, 92-07, *director science and supervisor nature study*, 07- A.A; Ass. Econ. Entom; Geol. Soc; Paleont. Soc; New Eng. Hist. and Geneal. Soc. Flora, Mollusca and Lepidoptera of Clinton County, N. Y; times of flight and egg-laying of moths; educational methods in light of theory of evolution; Pelmatozoa of Chazy epoch; geology of Valcour Island, Lake Champlain and of Champlain Valley; methods of illustrating paleobiology and paleohistology.
- Hudson, Dr. Jessie B(lanche)**, Carroll, Iowa. *Bacteriology*. Franklin Co, Iowa, March 4, 70. B.S, B.L, Iowa Col, 93; M.D, Iowa, 08, M.S, 10; Pennsylvania, 12, 13. Prin. schools, Iowa, 93-03; first asst. state bacteriologist, Iowa State Board Health, 08-12; *practising physician*. A.A; Soc. Bact; Am. Med. Ass; Pub. Health Ass; Nat. Child Labor Committee. Bacteriology of the ear.
- Hudson, Prof. Ralph G(orton)**, Massachusetts Institute of Technology, Cambridge, Mass. *Electrical engineering*. Lawrence, Mass, June 7, 85. B.S, Mass. Inst. Tech, 07. Asst. elec. eng, Mass. Inst. Tech, 07-09, instr, 09-16, asst. prof, 16-22, *assoc. prof*, 22-; Lowell Inst. Sch, 22-; *consulting engineer*, Estey Organ Co, 26- A.A; Elec. Eng. Welding.
- Huestis, R(alph) R(uskin)**, University of Oregon, Eugene, Oregon. *Zoology*. Bridgewater, N. S, Can, Jan. 14, 92. B.S.A, McGill, 14; M.S, California, 20, Ph.D, 24. Asst. biol, Scripps Inst, 20-24; *asst. prof. zool*, Oregon, 24- C.E.F, 14-19. Soc. Zool; Genetic Ass; Ecol. Soc. Genetics and geographical distribution of *Peromyscus*; Fauna of Oregon; non-disjunction in *Drosophila*.
- Huettnet, Prof. Alfred F(rancis)**, Columbia University, New York, N. Y. *Zoology*. Reichenbach, Germany, Dec. 13, 82. A.B, South Dakota, 16; A.M, Columbia, 18, Ph.D, 23. Asst. zool, Columbia, 18-21, instr, 22-24, *asst. prof*, 25- A.A; Soc. Zool. Embryology of *Drosophila melanogaster*.
- Huff, Prof. N(ed) L**, 1219 Seventh St, S. E, Minneapolis, Minn. *Morphology*. Pendleton Co, Ky, 76. A.B, Minnesota, 03, A.M, 06. Instr, high sch, Minn, 03-05; asst. bot, Minnesota, 05-06, instr, 06-10, *asst. prof*, 10- A.A; Bot. Soc; Ecol. Soc. Ecology of algae; the relation of algae to public water supplies and to aquatic animals.

- Huff, Dr. Wilbert J(ames)**, Johns Hopkins University, Baltimore, Md. *Chemistry, Engineering*. Butler, Pa, Oct. 4, 90. A.B., Yale, 14, fellow, 14-17, Ph.D., 17. Research chemist, Barrett Co, 17-18; U. S. Bur. Mines, 19-20; in charge research div, Koppers Co. Laboratories, 20-24; *prof. gas eng, Hopkins, 24-* Consulting chemist and engineer. Lieut. C.W.S., 18-19. Chem. Eng; Chem. Soc; Gas Ass; S. Gas Ass. Hypophosphoric acid; coal tar chemistry; organic catalysis; corrosion in firearms; gas manufacture and purification; coke production; by-product recovery.
- Huff, Dr. W(illiam) B(ashford)**, Bryn Mawr, Pa. *Physics*. Boscobel, Wis, Oct. 12, 66. A.B., Wisconsin, 89; A.M., Chicago, 96; Ph.D., Hopkins, 00; Cambridge, 05-06. Instr. math, high sch, Milwaukee, 93-96; student asst. *physics, Hopkins, 99-00, asst, 00-01, instr, 01-02; assoc, Bryn Mawr, 02-05, assoc. prof, 05-09, prof, 09-* With Bur. Standards, 18-19; U. S. Gen. Hosp., 19. A.A.; Physical Soc; Soc. de Physique. Spectroscopy; radioactivity.
- Huffaker, Prof. Carl L(eo)**, University of Arizona, Tucson, Ariz. *Psychology, Education*. Mo, Oct. 15, 86. B.S., Chicago, 15; A.M., Iowa, 22, Ph.D., 23. Supt. schools, 15-22; asst, Iowa, 22-23; *prof. educ. psychol, Arizona, 23-* Acting dean, col. educ, Arizona, 24-25. Statistics; tests and measurements; the learning process.
- Huffer, C(harles) M(orse)**, 1609 Chadbourne Ave, Madison, Wis. *Astronomy*. Edinburgh, Ind, June 28, 94. A.B., Albion, 16; A.M., Illinois, 17; Ph.D., Wisconsin, 26. *Asst, Chile Sta, Lick Observatory, 17-22; Washburn Observatory, Wisconsin, 22-* Astron. Soc. Spectroscopic binary stars; photometric photometry of variable stars.
- Hufferd, Prof. R(alph) W(illiam)**, 711 S. College Ave, Greencastle, Ind. *Chemistry*. Chanute, Kans, Aug. 5, 92. A.B., Washington (St. Louis), 15; A.M., Illinois, 17, Ph.D., 20. Asst. prof, assoc. prof. and *prof. org. chem, De Pauw, 20-* Chem. Soc; Ind. Acad. Organic and analytical chemistry; steric hindrance; esterification; qualitative analysis.
- Huffman, Dr. Otto V**, 772 Madison Ave, New York, N. Y. *Pathology*. Dayton, Ohio, Feb. 7, 82. M.D., Columbia, 03. Instr., Cincinnati, 10-12; Columbia, 12-13; investigator med. schools and laboratories, N. Y. State Dept. Educ, 13-15; lecturer and dean, L. I. Col. Hosp, 15-20; *assoc. prof. med, N. Y. Post-Grad. Med. Sch, 20-* A.A.; Ass. Path. and Bact; N. Y. Acad. Med. Ectopic pregnancy.
- Hufford, Prof. Mason E(dward)**, Indiana University, Bloomington, Ind. *Physics*. Frankfort, Ind, Sept. 27, 82. A.B., Indiana, 11, A.M., 12, Ph.D., 16; Chicago, 13, 14; Cambridge, 24-25. Instr. physics, Indiana, 13-17; asst. physicist, Bur. Standards, 17-18; *asst. prof. physics, Swarthmore, 18-19; Indiana, 19-* Physical Soc; Ind. Acad. Diffraction photographs; diffraction ring system in the shadow of circular objects; diffraction ring pattern by a circular opening; discharge of electricity between equipotential plates.
- Huggins, Dr. Maurice L(oyal)**, Stanford University, Calif. *Chemistry*. Berkeley, Calif, Sept. 19, 97. A.B., B.S., California, 19, M.S., 20, fellow, 20-21; du Pont fellow, 21-22, Ph.D., 22. Asst. chem, California, 19-20, Nat. Research Council fellow, California, Harvard, Calif. Inst, 22-25; instr, Stanford, 25-26, *asst. prof, 26-* A.A.; Chem. Soc; Physical Soc. The structures of atoms and molecules; benzene and crystals.
- Hughes, Prof. A(rthur) Ll(ewelyn)**, Washington University, St. Louis, Mo. **Physics*. Liverpool, Eng, Dec. 18, 83. Oliver Lodge fellow, Liverpool, B.Sc, 06, D.Sc, 12; B.A., Cambridge, 10. Asst. demonstrator *physics, Cavendish Lab, Cambridge; asst. prof, Rice Inst; research prof, Queen's (Can), 19-23; Wayman Crow prof. and head dept, Washington (St. Louis), 23-* MacKinnon student, Royal Soc. London. A.A. (sec'y, sect. B, 25-); Physical Soc. (councilor, 24-). Photoelectricity; spectroscopy; ionization in gases.
- Hughes, Prof. E(mer) H(oward)**, University Farm, Davis, Calif. *Animal husbandry*. Rewey, Wis, April 8, 87. B.S.A., Wisconsin, 12; A.M., Missouri, 16. Dept. animal husbandry, Missouri, 13-17, asst. to dean and director, 17-20; *assoc. prof. animal husbandry, California, 20-* A.A.; Soc. Animal Production. The use of fruit, dairy, grain and other by-products in swine production; soft pork investigations; in-breeding with Berkshires; the effects of sunlight upon mineral metabolism in swine.
- Hughes, Prof. H(arold) D(e Mott)**, Ames, Iowa. *Agronomy*. Antioch, Ill, Jan. 16, 82. B.S., Illinois, 07; M.S.A., Missouri, 08. Instr. *farm crops, Missouri, 08-10; prof, Iowa Col. and chief, Exp. Sta, 10-* Soc. Agron; Ass. Seed Anal. (pres, 17). Crop production; alfalfa; soybeans; clover; corn; oats.
- Hughes, Prof. H(ector) J(ames)**, Harvard University, Cambridge, Mass. *Civil engineering*. Centralia, Pa, Oct. 23, 71. A.B., Harvard, 94, B.S., 99. Asst. town engineer's office, Brookline, Mass, 94-98; res. engineer, C. B. and Q. Ry, 99-02; engineer, Am. Bridge Co, 02; instr. *civil eng, Harvard, 02-03, asst. prof, 03-13, assoc. prof, 13-14, prof, 14-, dean eng. sch, 20-* A.A.; Civil Eng; Eng. Educ; Road Builders Ass; Soc. Munic. Improv; Permanent Int. Ass. Road Congresses; Am. Acad; Boston Soc. Civil Eng. Hydraulics; highway construction.
- Hughes, Prof. Horatio**, College of Charleston, Charleston, S. C. *Physical chemistry*. Charleston, Oct. 20, 85. B.S., Col. of Charleston, 05, A.M., 06; Ph.D., Hopkins, 13. Chem. engineer, Gen. Asbestos and Rubber Co, 08-11; asst. prof. chem, Ga. Tech, 13-16; *prof, Fla. State, 19-23; Col. of Charleston, 23-* A.A.; Chem. Soc; Electrochem. Soc; fel. S. C. Acad. Electrical conductivity; electrochemistry.
- Hughes, Prof. J(ames) M(onroe)**, 2251 Ridge Ave, Evanston, Ill. *Education*. Tipton, Ind, Oct. 17, 90. A.B., Indiana, 16; A.M., Columbia, 22; Ph.D., Minnesota, 24. Lecturer, Minnesota, 23-24; asst. prof. educ, Northwestern, 24-26, *assoc. prof, 26-* Standardization of physics

- scales; use of tests in evaluating factors conditioning achievement; high school supervision.
- Hughes, John L(eroy)**, Connecticut Agricultural College, Storrs, Conn. *Chemistry*. Brookfield, Mass, April 21, 87. A.B, Clark, 09, A.M, 10. Instr. and asst. prof. chem, Conn. Col, 11- A.A; Chem. Soc. Analytical chemistry.
- Hughes, Prof. J(osiah) S(impson)**, Manhattan, Kans. *Biochemistry*. Ohio, 84. B.S, Ohio Wesleyan, 08, M.S, 09; A.M, Ohio State, 10, Ph.D, 17. Prof. chem, Kansas Col, 10- A.A; Chem. Soc; Kans. Acad. Nutrition; vitamins; ultraviolet light.
- Hughes, Prof. Percy**, 1819 Tioga Ave, Bethlehem, Pa. *Psychology, Philosophy*. Peshawur, Ind, Jan. 23, 72. A.B, Alfred, 19; A.M, Columbia, 02, fellow, 02-03, Ph.D, 04. Asst. philos, Alfred, 98-09; Columbia, 03-05; instr. philos. and psychol, Minnesota, 05-06; acting prof, Tulane, 06-07; prof, Lehigh, 07-, head dept, 13- A.A; Philos. Ass. The concept action; history and underlying concepts of psychology.
- Hughes, Thomas P(atrician)**, Rockefeller Institute, New York, N. Y. *Bacteriology, Immunology*. Sonora, Calif, May 19, 00. A.B, Stanford, 21, A.M, 22; Illinois, 22-24; fellow, Harvard, 24-26. Instr. physiol. chem, col. med, Illinois, 22-24; Nat. Research Council fellow med, Harvard, 24-26; asst, Rockefeller Inst, 26- Chem. Soc. Immunological and bacteriological chemistry.
- Hughes-Schrader, Dr. Sally**, Bryn Mawr College, Bryn Mawr, Pa. *Zoology*. Hubbard, Oregon, Jan. 25, 95. B.S, Grinnell, 17; Ph.D, Columbia, 24. Instr. zool, Grinnell, 17-19; lecturer, Barnard, Columbia, 19-21; demonstrator biol, Bryn Mawr, 22-24, instr, 24- Summers, asst, bur. entom, U. S. Dept. Agr, 14, Bur. Fisheries, 20. Cranial nerves of vertebrates; life history and cytology of insects.
- Hughson, Dr. Walter**, Johns Hopkins Hospital, Baltimore, Md. *Surgery*. East Orange, N. J, Aug. 4, 91. B.S, Princeton, 14; M.D, Hopkins, 18. Instr. anat, sch. med, Hopkins, 20-22, assoc. surg, 22-25, assoc. prof, 25- A.A; Ass. Anat. Cerebro-spinal fluid and subarachnoid space; intestinal obstruction; physiology and pathological physiology of the gastro-intestinal tract.
- Hulbert, Prof. H(arold) W(atkins)**, 227 S. Almond St, Moscow, Idaho. *Agronomy*. Owosso, Mich, Nov. 11, 92. B.S, Mich. State Col, 15; M.S, Iowa Col, 17. Teacher agr, high sch, Mich, 15-16; teaching fellow crops and soils, Iowa Col, 16-17; instr. agron, Idaho, 17-18, asst. prof, 18-20, assoc. prof, 20-23, prof. and head dept, 23- Crop production; plant breeding.
- Hulbert, R(oberts)**, Department of Water Supply, Detroit, Mich. *Chemistry*. Detroit, Jan. 9, 87. B.S, Michigan, 12. Bacteriologist, state pub. health lab, North Dakota, 12-14; sanit. chemist, N. Dak. Col, 14-23; senior chemist, dept. water supply, Detroit, 23- Sanitation; water softening and purification; ground and natural waters; sewage.
- Hulburt, Dr. E(dward) O(ison)**, 3009 P St, N. W, Washington, D. C. *Physics*. Vermillion, S. Dak, Oct. 12, 90. A.B, Hopkins, 11, Ph.D, 15. Carnegie research asst, Hopkins, 15-16; instr. physics, Western Reserve, 16-17; Hopkins, 19-21; asst. prof, Iowa, 21-23, assoc. prof, 23-24; physicist and supt, heat and light div, Naval Research Lab, 24- Lieut, Sig.C, 17-18, capt, 18-19. Fel. Physical Soc; Optical Soc. Physical optics; wireless telegraphy.
- Hulburt, Prof. L(orrain) S(herman)**, Johns Hopkins University, Baltimore, Md. *Mathematics*. Albany, Wis, March 8, 58. A.B, Wisconsin, 83, A.M, 88; Göttingen, 89-90; fellow, Clark, 91-92; Ph.D, Hopkins, 94. Prof. math. and astron, South Dakota, 87-91; instr. and assoc. math, Hopkins, 92-97, collegiate prof, 97- Math. Soc; Math. Ass; Circolo Mat. di Palermo. Plane algebraic curves.
- Huleatt, Prof. W(illiam) P(enn)**, 1905 Glencoe St, Denver, Colo. *Mining, Geology*. Chicago, Ill, Oct. 7, 96. M.Eng, Colo. Sch. Mines, 21. Asst. engineer, Ariz. Copper Co, 18; Colo. Radium Co, 20; instr. geol, Colo. Sch. Mines, 21-22, asst. prof, 22- A.A; assoc. Min. and Metal. Eng. Clay filters for petroleum.
- Hulett, Dr. George A(ugustus)**, Princeton, N. J. *Physical chemistry*. Will Co, Ill, July 15, 67. A.B, Princeton, 92; Ph.D, Leipzig, 98. Asst. chem, Princeton, 92-96; instr, Michigan, 99-04, asst. prof. physical chem, 04-05; Princeton, 05-09, prof, 09- Chief chemist, U. S. Bur. Mines, 12; mem. for. service committee, Nat. Research Council, 17. Research div, C.W.S, 17-18. Nat. Acad; Chem. Soc; Philos. Soc. Surface tension and solubility; nature of precipitates; standard cells; electrochemical equivalent; isomorphism in precipitates; electromotive force of amalgams; silver and cadmium coulometers; occlusions in electro-deposits; coal and thermal decompositions; properties of carbon; decomposition potentials.
- Hulin, Prof. Carlton D**, 1711 Central Ave, Alameda, Calif. *Geology*. Eugene, Oregon, July 6, 96. B.S, California, 20, Ph.D, 24. Instr. geol, California, 21-24, asst. prof, 24- Geologist, 20-27. Min. Eng. Geology and ore deposits of Randsburg quadrangle, California; metallization from basic magmas.
- Hull, Dr. Albert W(allace)**, General Electric Co, Schenectady, N. Y. *Physics*. Southington, Conn, April 19, 80. A.B, Yale, 05, Ph.D, 09. Instr. physics, Worcester, 09-12, asst. prof, 12-14; research physicist, Gen. Elec. Co, 14- Physical Soc. Photo-electrics; X-rays; thermionic vacuum relays.
- Hull, Dr. Clark L(eonard)**, University of Wisconsin, Madison, Wis. *Psychology*. Akron, N. Y, May 24, 84. A.B, Michigan, 13; A.M, Wisconsin, 15, Ph.D, 18. Asst. psychol, Wisconsin, 14-16, instr. exp. psychol, 16-20, asst. prof, 20-22, assoc. prof, 22-25, prof, 25-, director psychol. lab. A.A; Psychol. Ass; Statist. Ass. Principles and statistics of aptitude prognosis; quantitative investigation of the reasoning processes.

- Hull, Prof. Daniel**, University of Notre Dame, Notre Dame, Ind. *Mathematics, Meteorology*. Toronto, Ont, Can, 70. B.A, Toronto, 89; M.S, Notre Dame, 22. Teacher math, Upper Can. Col, 89-97; high sch, Wis, 97-04; head dept. science, Mo, 04-13; supt, schools, Oregon, 13-17; v. prin, high sch, Texas, 17-21; *assoc. prof. math. and physics, Notre Dame, 21-* A.A.; Math. Soc; Math. Ass. Theory of thunderstorms; causes of the successive ice-sheets; mathematical formulas.
- Hull, Prof. G(ordon) F(erre)**, Hanover, N. H. **Physics*. Garnet, Ont, Can, Oct. 7, 70. B.A, Toronto, 92, fellow, 92-95; fellow, Chicago, 95-97, Ph.D, 97; Cambridge (Eng), and Berlin, 05-06. Asst. *physics*, Toronto, 92-95; Chicago, 95-97; prof, Colby, 98-00; asst. prof, Dartmouth, 00-03, *Appleton prof, 03-* Instr, Chicago, 97-98, summers, 98-00, prof, Columbia, 09-14. Major, tech. staff, ordnance dept, 18-19, physics expert, 19- A.A. (v. pres, B); Physical Soc. (councilor, 18-); Astron. Soc; Am. Acad. Electrical radiation; experimental determination of the pressure of light; the elimination of gas action in experiments on light pressure; determination of law of retardation of projectiles due to air streams of high velocity; physics of artillery.
- Hull, J(oseph) P(oyer) D(eyo)**, American Association of Petroleum Geologists, Box 1852, Tulsa, Okla. *Geology*. Highland, N. Y, Aug. 10, 89. Ph.B, Hamilton, 13, Elihu Root fellow, 13-14, Ph.M, 17; A.M, Hopkins, 17. Field asst, N. Y. State Geol. Surv, 13; asst. geol, Hopkins, 14; collaborator, bur. soils, U. S. Dept. Agr. and Md. Geol. Surv, 14, 16; field asst, Md. Geol. Surv, 15; asst. state geologist, Ga. Geol. Surv, 17-19; geologist, La. Oil Ref. Corp, 20-26, chief geologist, 26-27; *business manager, Am. Ass. Petrol. Geol, 27-* Ass. Petrol. Geol. (ed. board, 22-); Southwest. Geol. Soc. (pres, 24); Tulsa Geol. Soc. Pyrite; manganese; barite; iron ores; petroleum of Georgia; petroleum geology of gulf coastal plain.
- Hull, Dr. Thomas G(ordon)**, Illinois Department of Public Health, Springfield, Ill. *Bacteriology*. Southington, Conn, Dec. 21, 89. Ph.B, Yale, 13, M.S, 15, Ph.D, 16. Bacteriologist and asst, Am. Museum Nat. Hist, 16-17; bacteriologist, Mass. Col, 19-20; *chief bacteriologist, Ill. State Dept. Pub. Health, 20-* Chief sect. exhibits, Food Ad, 17-18. Lieut, Sanit.C, 18-19, capt, Sanit.R.C, 21- Soc. Bact; assoc. fel. Am. Med. Ass; fel. Pub. Health Ass; Ill. Acad. Diet and intestinal bacteria; poliomyelitis; animal diseases and public health; tuberculosis; milk; smallpox.
- Humason, Milton L(a Salle)**, 1034 N. Hudson Ave, Pasadena, Calif. *Astronomy*. Dodge Centre, Minn, Aug. 19, 91. Asst. observer, *Mt. Wilson Observatory, 17-21, astronomer, 21-* Astron. Soc; Pacific Astron. Soc. Stellar spectroscopy; direct photography of nebulae.
- Humbert, Dr. Eugene P(eter)**, College Station, Texas. *Genetics*. Corning, Iowa, Sept. 1, 81. B.S.A, Iowa Col, 06; M.S, Cornell, 08, Ph.D, 10. Instr, Iowa Col, 06-07; asst. plant breeding, Cornell, 08-10; plant physiologist, U. S.
- Dept. Agr, 10; assoc. biologist, Maine Exp. Sta, 11; agronomist, N. Mex. Col. and Exp. Sta, 12-15; plant breeder, *Agr. and Mech. Col. Texas, 16-21, prof. genetics, 21-* A.A.; Soc. Nat; Soc. Agron. Plant breeding.
- Hume, Prof. A(ibert) N(ash)**, Agricultural Experiment Station, Brookings, S. Dak. *Agronomy*. Plymouth, Ind, Dec. 3, 78. B.S.A, Purdue, 00, M.S, 02; Leipzig, 07; Ph.D, Göttingen, 10. Asst. agr, Purdue, 01-02; instr, Winona Inst, 02-03; instr, assoc. and asst. prof. crop production, Illinois, 04-11; *prof. agron, S. Dak. Col. and agronomist, Exp. Sta, 11-* A.A.; Soc. Agron. Crop improvement.
- Hume, Prof. Alfred**, University, Miss. *Mathematics*. Beech Grove, Tenn, Dec. 1, 66. B.E, Vanderbilt, 87, C.E, 88, fellow, 87-90, Sc.D, 90. Instr, civil eng, Vanderbilt, 87-90; *prof. math, Mississippi, 90-*, v. chancellor and dean acad. dept, 05-24, acting chancellor, 06-07, *chancellor, 24-* A.A.; Math. Soc; Eng. Educ; Eng. Ass. of the South (pres, 14).
- Hume, Dr. George S(herwood)**, Geological Survey of Canada, Ottawa, Ont, Can. *Geology*. Milton, Ont, 93. B.A, Toronto, 15; Ph.D, Yale, 20. *Can. Geol. Surv, 15-16, 20-* Geol. Soc; Paleont. Soc; Can. Inst. Min. and Metal. The Lake Timiskaming district, Ontario; the MacKenzie district, North West Territory; central, eastern and southwestern Alberta.
- Hume, Prof. H(arry) V(ictor)**, Sweet Briar College, Sweet Briar, Va. *Organic chemistry*. Wesleyville, Pa, Jan. 22, 97. B.S, Chicago, 21, M.S, 22, Ph.D, 24. Asst. chem, Chicago, 20-23; instr. biochem, Tulane, 23-24; *prof. chem, Sweet Briar, 24-* Chem. Soc. Active halogens in aromatic compounds; blood sugar; hydrogen-ion concentration in the human duodenum.
- Hummel, J(ohn) A(dolph)**, 2143 Commonwealth Ave, St. Paul, Minn. *Chemistry*. Washington Co, Minn, June 12, 75. B.Agr, Minnesota, 99. Chemist, Minn. State Dairy and Food Dept, 99-00; asst. prof. agr. chem, Minnesota, and asst. chemist, Exp. Sta, 00-09; *chemist, Minn. State Grain Inspection Dept, 17-* A.A. Agricultural chemistry.
- Hummell, Prof. R(obert) C(leveland)**, 11325 Knowlton Ave, Cleveland, Ohio. *Chemistry*. Lithopolis, Ohio, Jan. 20, 85. B.S, Otterbein, 11; fellow, Ohio State, 11-13, A.M, 12, Ph.D, 18. Asst. chem, Ohio State, 13-14, instr, 14-17; *asst. prof, Case, 17-* A.A.; Chem. Soc. (sec'y, Columbus sect, 16). Inorganic chemistry.
- Humphrey, Dr. C(larence) J(ohn)**, Bureau of Science, Manila, P. I. *Mycology, Plant pathology*. Cleveland, Ohio, March 3, 82. A.B, B.S, Nebraska, 06; Ph.D, Wisconsin, 20. Office wood preservation, forest service, U. S. Dept. Agr, 06-07; asst. mycol, Cornell, 07-09; in charge path. investigations, forest products lab, forest service, U. S. Dept. Agr, 10-22, research, timber decay, 22-25; in charge path. investigations, Appalachian Forest Exp. Sta, 25-26; *mycologist in charge div. mycol. and plant path, Bur. Science, P. I, 26-* Lecturer, Wisconsin, 13-25. A.A.; Soc. Foresters; Bot. Soc; Phytopath. Soc; Wis. Acad; British Mycol. Soc; Soc. mycol. de

France; Soc. de Path. veg. et d'Entom. agr. de France. Life history, distribution, morphology and control of timber-destroying fungi; tree diseases.

Humphrey, Prof. George, Queen's University, Kingston, Ont, Can. *Psychology*. Boughton under Blean, Kent, Eng, July 17, 89. B.A., Cambridge, 12, M.A., 20, Cassel scholar, Leipzig, 13-14; Ph.D., Harvard, 20. Tutor in classics, Borough Road Training Sch, Eng, 14-15; prof. ancient hist, St. Francis Xavier, 16-18; asst. prof. psychol, Wesleyan, 20-24; *prof. philos. and head dept, Queen's (Can), 24-* Lecturer, Harvard, 24. Psychol. Ass. Theory of learning.

Humphrey, Prof. George C(olvin), 438 University Farm Place, Madison, Wis. *Animal husbandry*. Palmyra, Mich, Feb. 13, 75. B.S., Mich. State Col. Instr. *animal husbandry*, Mich. State Col, 02-03; *prof. and chairman dept, Wisconsin, 03-* The feeding of farm animals; milking machine; sheep and dairy cattle breeding; the value of grain rations for mutton production; young animals; the relation of protein rations to milk secretion; the influence of a high protein ration on the growth and quality of wool.

Humphrey, Dr. Harry Baker, U. S. Department of Agriculture, Washington, D. C. *Botany*. Granite Falls, Minn, Aug. 4, 73. B.S., Minnesota, 99; Ph.D., Stanford, 07. Asst. bot, Minnesota, 98-99; acting instr, Stanford, 05-08; asst. prof, Wash. Col, 08-10, plant pathologist, Exp. Sta, 08-12, prof. plant path, 10-12, bot. and plant path, 12; *senior pathologist, cereal disease investigations, bur. plant indust, U. S. Dept. Agr, 13-* Instr. in charge bot, Stanford Marine Biol. Summer Sch, 06-09. A.A.; Phytopath. Soc.; Ecol. Soc.; Am. Geog. Soc. Plant pathology; development of *Fossombronina longiseta* Aust; morphology and physiology of some California Hepaticae; life history and control of tomato blight; physiology and control of bunt; *Puccinia glumarum* of cereals and grasses.

Humphrey, Dr. Rufus R(ichard), 24 High St, Buffalo, N. Y. *Histology, Embryology, Anatomy*. Thompsonville, Mich, April 12, 92. B.Pd, Mich. State Nor. Col, 16, A.B., 17; A.M., Cornell, 20, Ph.D., 23. Instr. biol, Berea Col, 16-17; histol. and embryol, Cornell, 19-23; assoc. anat, dept. med, Buffalo, 23-24, asst. prof, 24- A.A.; Ass. Anat. Interstitial cells and morphology of the testis in amphibia; origin of the germ cells in amphibia.

Humphreys, Pres. Alex(ander) C(rombie), Stevens Institute of Technology, Hoboken, N. J. *Engineering*. Edinburgh, Scotland, March 30, 51. M.E., Stevens, 81; hon. Sc.D., Pennsylvania, 03; LL.D., Columbia, 03, N. Y. Univ, 06, Princeton, 07, Rutgers and Brown, 14; E.D., Rensselaer, 18. Sec'y and supt, Bayonne and Greenville Gas Light Co, 72-81; chief engineer, Pintsch Lighting Co, 81-85; gen. supt. and chief engineer, United Gas Improv, 85-94; pres, Humphreys and Glasgow; pres, Buffalo Gas Co; *pres, Stevens, 02-* Pres, Humphreys and Miller, 11; trustee and exec. committee, Carnegie Foundation for Advancement of Teaching.

A.A.; fel. Elec. Eng; Mech. Eng. (manager, pres, 11); Min. Eng. (councilor); Civil Eng; Eng. Educ; Soc. Chem. Indust; Am. Gas Inst. (pres, 08); Soc. Gas Lighting (pres, 25); Inst. Consulting Eng. (pres, 20); Soc. Indust. Educ. (pres, 09); Inst. Weights and Measures; New Eng. Ass. Gas Eng; Pacific Coast Gas Ass; British Inst. Civil Eng; British Ass. Technical education; candle power; illumination; photometry; water gas. [*Died Aug. 14, 27.*]

Humphreys, Dr. W(illiam) J(ackson), U. S. Weather Bureau, Washington, D. C. **Physics*. Gap Mills, W. Va, Feb. 3, 62. A.B., Washington and Lee, 86, C.E., 88; Virginia, 88-89; fellow, Hopkins, 95-96, Ph.D., 97. Prof. physics and math, Miller Sch, Va, 89-93; physics and chem, Washington (Md), 93-94; instr. physics, Virginia, 97-05; supervising director, Mt. Weather Observatory, 05-08, *prof. meteor. physics, U. S. Weather Bur, 05-*; *George Washington, 11-* Assoc. ed, 'Jour. Franklin Inst,' 13- Naval observatory eclipse exped, Ga, 00, Sumatra, 01. Longstreth medal, Franklin Inst, 13, Potts medal, 14. Sec'y, Geophys. Union, 21, chairman sect. seismol, 22, v. chairman sect. meteor, 20-22. A.A. (sec'y, B, 12-16, exec. committee, 12-, v. pres, 17, gen. sec'y, 25-); Physical Soc. (councilor, 13-16); Meteor. Soc. (v. pres, 20-23); Optical Soc; Astron. Soc. (councilor, 10-12); Seismol. Soc; Math. Soc; Am. Acad; Franklin Inst; Wash. Philos. Soc. (sec'y, 10, pres, 19); Wash. Acad. (v. pres, 19-21, pres, 22). Solution and diffusion of metals in mercury; electric discharges; flash spectra; upper inversion, or isothermal layer, of the atmosphere; pressure effect on arc spectra; double reversal; spectroscopic and general radiation and absorption problems; physics of the air.

Humpstone, Prof. H(enry) J(udson), University Station, Grand Forks, N. Dak. *Psychology*. Hampton Corners, N. J, March 29, 70. N. Y. State Nor. Sch, Fredonia, 05; A.B., Rochester, 06, A.M., 12; Ph.D., Pennsylvania, 17. Head sci. dept, high sch, N. Y, 06-11; Rochester Sch. for Deaf, 11-13; instr. *psychol*, Pennsylvania, 14-20; *prof, North Dakota, 20-* A.A.; Psychol. Ass. Tests and measurements; tests of associability and general intelligence; entrance examinations for freshmen.

Hund, Dr. August, 516 Maple Ridge Road, Bethesda, Md. *Electrical engineering*. Offenbourg, Germany, Dec. 17, 87. E.E., Karlsruhe, 11, D.E., 13; California. Asst, Karlsruhe, 09; commercial testing, elec. mfg. companies, Germany, 10; designing engineer, Bartelnus and Donat, Moravia, 11; switchboard dept, Dr. Steinmetz's lab, and research engineer, Gen. Elec. Co, 12-14; asst. prof. and assoc. prof. physics and elec. eng, Southern California, 15-17; consulting research engineer, Calif, 18-22; *elec. engineer, Bur. Standards, 22-* Elec. Eng; fel. Physical Soc; Radio Eng; Philos. Soc; Wash. Acad. Radio; high frequency measurement; quartz oscillators at radio and audio frequencies; radio telephone.

Hungerford, Prof. Cha(rles) W(illiam), 514 E. C St, Moscow, Idaho. *Plant pathology*. Fillmore Co, Minn, Feb. 26, 85. B.S., Upper Iowa,

- 10; M.S., Wisconsin, 15, Ph.D., 25. Supt, high sch., Minn., 10-13; asst. bot. and plant path., Wisconsin, 13-15; sci. asst., U. S. Dept. Agr., 15-17, asst. pathologist, 17-19; *plant pathologist, Idaho Exp. Sta., 19-*; *prof. plant path., Idaho, 23-* A.A.; Phytopath. Soc. Cereal pathology; rust of grains; potato diseases.
- Hungerford, Prof. H(erbert) B(arker)**, University of Kansas, Lawrence, Kans. *Entomology*. Mahaska, Kans., Aug. 30, 85. A.B., Kansas, 11, A.M., 13; Ph.D., Cornell, 18. Prin. and supt, pub. schools, Kans., 04-09; instr. entom., Kansas, 11-13, asst. prof., 13-16, assoc. prof., 17-19, *prof., 20-*, *head dept., 24-*. Lecturer, Minnesota, 22; prof., Biol. Sta., Michigan, 23-27. Entom. surveys, Kans., Colo., Mont. and Minn. A.A.; Entom. Soc.; Ass. Econ. Entom.; Soc. Parasitol.; Ecol. Soc. Biology of aquatic Hemiptera; Corixidae.
- Hunsaker, J. C.**, Bell Telephone Laboratories, New York, N. Y. *Aerodynamics*. Creston, Iowa, Aug. 26, 86. U. S. Naval Acad.; M.S., Sc.D., Mass. Inst. Tech. Chief aircraft design, U.S.N., 16-23; *Bell Telephone Laboratories*. Wilbur Wright lecturer. Nat. Advisory Committee for Aeronautics. Inst. Naval Archit.; Soc. Naval Archit.; fel. Physical Soc.; hon. fel. Royal Aeronaut. Soc. Aeronautical engineering.
- Hunt, Miss Caroline L(ouisa)**, U. S. Department of Agriculture, Washington, D. C. *Food economy*. Chicago, Ill., Aug. 23, 65. A.B., Northwestern, 88. Teacher domestic econ., Lewis Inst., 96-01; prof., Wisconsin, 03-08; *specialist*, office home econ., U. S. Dept. Agr., 09-24, *bur. home econ., 24-* Home Econ. Ass. [*Died, 27.*]
- Hunt, C(harles) H(enry)**, Ohio Agricultural Experiment Station, Wooster, Ohio. *Nutrition*. Fall Branch, Tenn., Nov. 3, 83. B.S., Wash. State, 10; A.M., Columbia, 16; Ph.D., Ohio State, 26. Instr. chem., Wash. State, 11-15, asst. chem., Wash. Exp. Sta., 16-20; *asst. animal indust., Ohio Exp. Sta., 20-* Chem. Soc. Mineral metabolism; vitamins.
- Hunt, Dr. Franklin L(ivingston)**, U. S. Bureau of Standards, Washington, D. C. *Physics*. Manchester, N. H., Sept. 3, 83. B.S., Mass. Inst. Tech., 09, Ph.D., 19; A.M., Harvard, 13; Berlin, 13-14; Paris, 19-20; Cambridge, 20. Asst. physical chem., Mass. Inst. Tech., 09-10, physics, 10-11; Harvard, 15-16; instr., Mass. Inst. Tech., 11-13, 15-17; asst. physicist, *Bur. Standards*, 17-18, assoc. physicist, 18-20, *physicist, 20-* Rep., *Bur. Standards*, Europe, 19-20; lecturer, George Washington, 25- A.A.; Physical Soc.; Optical Soc.; Radiol. Soc.; Wash. Acad.; Wash. Philos. Soc. Aeronautics; electrolytic conduction of aqueous solutions; sound recording and reproduction; X-rays.
- Hunt, Prof. G(uy) H(ildebrand)**, 926 Hyperion Ave., Los Angeles, Calif. *Mathematics*. Washington, D. C., Sept. 21, 81. C.E., Cornell, 08. Instr., Case, 10-21; instr. and asst. prof., *California at Los Angeles, 21-* A.A.; Math. Soc.; Math. Ass. Applied mathematics.
- Hunt, Prof. H(arrison) R(andall)**, East Lansing, Mich. *Zoology*. Conneaut, Ohio, March 7, 89. B.S., Allegheny, 12; A.M., Harvard, 13, Ph.D., 16. Instr. zool., West Virginia, 16-18, asst. prof., 18-19; *prof. biol. and head dept., Mississippi, 19-23; zool. and geol. and head dept., Mich. State Col., and zoologist, Exp. Sta., 23-* A.A.; Soc. Zool.; Eugenics Research Ass.; Eugenics Soc.; Mich. Acad. (chairman, sect. zool., 25). Eugenics; genetics.
- Hunt, Dr. J(ames) Ramsay**, 46 W. 55th St., New York, N. Y. *Neurology, Psychiatry*. Philadelphia, Pa., Feb. 1, 74. M.D., Pennsylvania, 93; Vienna; Berlin; Paris. Assoc. prof. neur., *Columbia*, 08-14, *prof. clin. neur., 24-* Consulting neurologist and psychiatrist, hospitals. Lieut. col., M.C., U.S.A. Neur. Ass. (pres, 19); Am. Physicians; Soc. Clin. Invest.; Psychopath. Ass.; N. Y. Neur. Soc. (pres, 09). Neuropathology.
- Hunt, John H(erman)**, General Motors Corporation, Detroit, Mich. *Electrical engineering*. Saranac, Mich., 82. B.S.(E.E.), Michigan, 05. Instr. elec. eng., Washington (St. Louis), 06-07; asst. prof., Ohio State, 07-08, assoc. prof., 08-11, prof., 11-12; elec. engineer, Packard Motor Car Co., 13; research engineer, Dayton Eng. Lab. Co., 13-20; *head elec. div., Gen. Motors Research Corp., 20-* A.A.; Elec. Eng.; Automotive Eng.; Soc. Automobile Eng. (pres, 27); Physical Soc.; British Inst. Automobile Eng. Ignition apparatus for internal combustion engines; electrical measurements applied to automotive problems.
- Hunt, N(icholas) Rex**, 64 N. Maple St., Clarendon, Va. *Plant pathology*. Pullman, Wash., Dec. 31, 85. B.S., Wash. Col., 07; M.S., California, 09. Teacher, high sch., Wash., 07-08; asst. botanist, Wash. Exp. Sta., 09-12; expert, B. C. Dept. Agr., 12-13; plant pathologist, *bur. plant indust., U. S. Dept. Agr., 13-20, fed. hort. board, 20-27, pathologist in charge import div., 27-* Phytopath. Soc.; Wash. Bot. Soc. Forest tree rusts; soil disinfection; plant quarantine.
- Hunt, Dr. R(eginald) S(tuart)**, 150 Redington St., Swampscott, Mass. *Biochemistry*. Bridgewater, Mass., Oct. 8, 94. B.S., Mass. Inst. Tech., 21, Ph.D., 24. Teaching fellow, sch. med., Boston, 21-23; asst., Mass. Inst. Tech., 23-25; *assoc. staff, Mass. Homeop. Hosp., 25-* Conf. Biol. Chem. Chem. Soc.
- Hunt, Prof. Reid**, Harvard Medical School, Boston, Mass. **Pharmacology, Toxicology*. Martinsville, Ohio, April 20, 70. A.B., Hopkins, 91, fellow, 94-96, Ph.D., 96; Bonn, 92; Cornell, 95; M.D., Maryland, 96; Chicago, 97; Frankfurt, 92-04. Asst. physiol., Hopkins, 92-94; tutor, Columbia, 96-98; assoc. and assoc. prof. pharmacol., Hopkins, 98-03; *prof. pharmacol., U. S. Pub. Health Service, 04-13; Harvard Med. Sch., 13-* Visiting prof., Peking Union Med. Col., 23. Special expert pharmacol., U. S. Dept. Agr., 01; U. S. Treas. Dept.; pharmacologist, Mass. State Dept. Health, 17- C.W.S., U.S.A. Pres., U. S. Pharmacopoeia Convention. Nat. Acad.; A.A.; Soc. Pharmacol. (sec'y, 10, pres, 15-); Am. Physicians; Physiol. Soc.; Soc. Biol. Chem.; Chem. Soc.; Am. Acad. Physiology and pharmacology of the circulation; thyroid; nitriles; quinin; arsphenamin; cholin compounds; alcohol; biological standardization of drugs.

- Hunt, Prof. W(alter) F(rederick)**, University of Michigan, Ann Arbor, Mich. *Mineralogy, Petrography*. Cincinnati, Ohio, Sept. 6, 82. A.B., Michigan, 04, A.M., 05, Ph.D., 15. Instr. miner, *Michigan*, 06-12, asst. prof., 12-18, assoc. prof., 18-22, *prof. petrol*, 22- Asst., Mich. Geol. Surv., 06; asst. chemist, U. S. Geol. Surv., 12. Ed., 'The Am. Mineralogist,' 22- A.A.; Geol. Soc.; Miner. Soc.; Chem. Soc.; Mich. Acad. Sulphur and celestite; sulphur deposits of Sicily; crystallography and composition of American minerals; petrography of rocks of the Caroline and Pelew Islands.
- Hunt, Dr. Willis R(oberts)**, Connecticut Agricultural Experiment Station, New Haven, Conn. *Plant pathology*. Essex, Conn., Feb. 13, 93. Ph.B., Yale, 17, M.S., 23, Ph.D., 25. *Asst. bot.*, *Conn. Exp. Sta.*, 24- A.A.; Bot. Soc.; Phytopath. Soc.; Conn. Bot. Soc. New England Uredineae.
- Hunter, Dr. Albert C(layton)**, U. S. Department of Agriculture, Washington, D. C. *Bacteriology*. East Providence, R. I., Feb. 23, 93. B.S., R. I. Col., 15; M.S., Brown, 17, Ph.D., 18. *Bacteriologist*, Narragansett Bay Oyster Co., 16-18; *bur. chem.*, U. S. Dept. Agr., 18- Soc. Bact.; Pub. Health Ass.; Wash. Acad. Bacteriology of shellfish and canned fish; fish decomposition.
- Hunter, Prof. Andrew**, University of Toronto, Toronto, Ont., Can. *Biochemistry*. Edinburgh, Scotland, Sept. 28, 76. M.A., Edinburgh, 95, B.S., 99, M.B., Ch.B., 01; Berlin and Heidelberg, 05-07. Asst. physiol., Edinburgh, 02-05; Carnegie research fellow, 05-08; demonstrator physiol., Leeds, 08; asst. prof. biochem., Cornell, 08-14; biochemist, U. S. Pub. Health Service, 14-15; *prof. path. chem.*, *Toronto*, 15-19, *biochem.*, 19- Chem. Soc.; Soc. Exp. Biol.; Soc. Biol. Chem.; fel. Royal Soc. Can. (pres, sect. V, 24); London Physiol. Soc. Precipitins; protein chemistry; intracellular enzymes; uronic acid; iodine in pituitary; purine metabolism in pellagra; blood creatinin; action and distribution of arginine.
- Hunter, A(ndrew) F(rederick)**, Normal School Building, Toronto, Ont., Can. *Anthropology*. Innisfil Township, Ont., Dec. 31, 63. B.A., Toronto, 89, M.A., 92. Ed. and publisher, 'Barrie Examiner,' 89-95; with Can. Geol. Surv., 04-08; *sec'y and librarian*, *Ont. Hist. Soc.*, 13- A.A.; Royal Astron. Soc. Can. (recorder, 18, gen. sec'y, 20-24, v. pres, 24, pres, 26); Can. Inst.; Ont. Archeol. Ass. (treas.). Archeology; geology and physical science; astrophysics; Canadian history.
- Hunter, Dr. A(rchibald) Stuart**, du Pont Rayon Co., Buffalo, N. Y. *Chemistry*. Beaumont, Mass., Aug. 28, 97. B.S., Norwich, 20; Ph.D., Hopkins, 24. Research chemist, H. A. Metz Laboratories, 20-25; *indust. fellow*, Mellon Inst., 25-27; *du Pont Rayon Co.*, 27- Chem. Soc. Physical and colloidal chemistry; pharmaceuticals; cellulose and rubber lacquers; protective coatings; rayon.
- Hunter, Prof. Charles A(xtell)**, University of South Dakota, Vermillion, S. Dak. *Bacteriology*. Blue Rapids, Kans., July 30, 93. B.S., Kansas Col., 15; M.S., Wisconsin, 16. Asst. bacter., Kans. Exp. Sta., 13-15; agr. bacter., Wisconsin, 15-16; instr. bacter. and bot., Florida, 16-17; asst. prof. bacter., Pa. State, 17-19, assoc. prof., 19-21, prof., 21-22, bacteriologist, Exp. Sta., 17-22; *prof. bacter.*, *South Dakota*, and *asst. director*, *State Health Lab.*, 22- A.A.; Soc. Bact. (sec'y, committee on bacter. educ., 21). Silage; animal diseases.
- Hunter, Prof. George**, University of Toronto, Toronto, Ont., Can. *Pathological chemistry*. Mauchline, Scotland, April 2, 94. M.A., Glasgow, 18, B.Sc., 21. *Lecturer path. chem.*, *Toronto*, 22-25, *asst. prof.*, 25- Science ed., 'Can. Forum.' Soc. Biol. Chem.; Biochem. Soc. Diazo reaction of urine; uric acid determinations in blood; the isolation of ergothioneine and glutathione from blood.
- Hunter, Prof. G(eorge) W(illiam)**, Pomona College, Claremont, Calif. *Zoology, Education*. Mamaroneck, N. Y., April 7, 73. Col. City of N. Y., 91-93; A.B., Williams, 95, A.M., 96; fellow, Chicago, 96-98; Ph.D., N. Y. Univ., 18. Teacher, Hyde Park High Sch., Ill., 98-99; head dept. *biol.*, De Witt Clinton High Sch., New York, 99-19; *prof.*, Carleton, 19-20; Knox, 20-26; *Pomona*, 26- Lecturer, N. Y. Univ., 06-08, 14-16. Director educ., Wash. Dist., war work council, Y. M. C. A., 18-19. A.A.; Soc. Zool.; Inst. Social Sci.; N. Y. Zool. Soc. Anatomy, physiology and cytology of Tunicata; pedagogy of biology and general science teaching in secondary schools.
- Hunter, Dr. M(atthew) A(lbert)**, Rensselaer Polytechnic Institute, Troy, N. Y. *Physical chemistry*. Auckland, N. Z., Nov. 9, 78. B.S., New Zealand, 00, M.A., 01; 1851 Exhib. scholar, London, 02, D.Sc., 04; Göttingen and Paris, 04-05. Gen. Elec. Co., Schenectady, 06-08; asst. prof. physics and electrochem., *Rensselaer*, 08-10, *prof. electrochem.*, 10-; *director research*, *Driver Harris Co.*, 19- Chem. Soc.; Electrochem. Soc.; Min. and Metal. Eng.; Inst. Chem. Molecular aggregation of liquefied gases; decomposition velocity of nitrous oxide naphthalene in coal gas; electrical resistance and temperature coefficients of alloys; ammonia absorption with thiocyanates; preparation of pure titanium, uranium, vanadium and glucinum; electrometallurgy.
- Hunter, Dr. Oscar B(enwood)**, George Washington University Medical School, Washington, D. C. *Bacteriology, Pathology*. Cherrydale, Va., Jan. 31, 88. M.D., George Washington, 12, A.B., 16, A.M., 17. Instr. anat., *med. sch.*, *George Washington*, 12-13, *prof. histol. and embryol.*, 13-16, *bacter. and path.*, 16- Prof., Central Training Sch. for Nurses; acting dean dental sch., George Washington, and asst. dean med. sch., 18, pathologist, hosp. and dispensary; consulting pathologist, Sibley Mem. Hosp.; Gen. Hosp. and Casualty Hosp., Montgomery Co., Md. Cong. Internal Med. Soc. Bact.; Am. Med. Ass.; Ass. Anat.; Therapeut. Soc.; D. C. Med. Soc. (v. pres, 25); Wash. Med. Surg. Soc. The histologic relationship of the thymus and thyroid glands; spontaneous closure of intestinal perforation; primary Lymphoblastoma of the stomach; pernicious anemia; experimental in-

- somnia; syphilis of the stomach and other organs; pathology of gall bladder disease.
- Hunter, Prof. S(amuel) J(ohn)**, 1145 W. Campus Road, Lawrence, Kans. *Zoology, Entomology*. Bandon, Ireland, Nov. 11, 66. Baker, 88; A.B., A.M., Kansas, 93; Cornell, 96; Woods Hole, 01, 02. Prin. high schools, Kans, 90-91, 93-96; asst. prof. entom. Kansas, 96-99, assoc. prof., 99-01, comp. zool. and entom., 01-02, head dept. entom., 02-24, prof., 06-24, curator entom. collections, 09-24; *city forester, Lawrence*, 17- Director state hort. inspection, Kans, 01-; state entomologist, 07-24. A.A.; Ass. Econ. Entom.; fel. Entom. Soc.; Kans. Acad. Biology and taxonomy of Coccidae; osmosis as a factor in artificial parthenogenesis; morphology of artificial parthenogenesis; insect parasitology.
- Hunter, Prof. Walter S(amuel)**, Clark University, Worcester, Mass. **Psychology*. Decatur, Ill., March 22, 89. A.B., Texas, 10; Ph.D., Chicago, 12. Instr. philos., Texas, 12-14, adjunct prof. psychol., 14-16; prof., Kansas, 16-25; *G. Stanley Hall prof. genetic psychol.*, Clark, 25- Summers, lecturer, Tulane, 15, Iowa, 20, Chicago, 23, California at Los Angeles, 26, Northwestern, 27. Assoc. ed., 'Psychol. Bul.', 16-24; 'Psychol. Abstracts,' 27-; 'Jour. Animal Behavior,' 14-17; 'Jour. Comp. Psychol.,' 21-; 'Pedag. Sem.,' 25-; 'Genetic Psychol. Mon.,' 25-; ed., 'Behaviour Mon.,' 22; 'Comp. Psychol. Mon.,' 22-; 'Psychol. Index,' 26- Nat. Research Council, 26- Lieut. and capt., Sanit. C., 17-18. A.A.; Psychol. Ass. (councilor, 22-24). Animal behavior; comparative, experimental and theoretical psychology.
- Hunter, Dr. Warren C(lair)**, University of Oregon Medical School, Portland, Oregon. *Pathology*. Dustin, Nebr., Feb. 14, 95. A.B., Albany (Oregon), 20; M.D., Oregon, 24. *Asst. prof. path., med. sch., Oregon*, 25- Nat. Research Council fellow, Michigan, 26-27. Coronary arterial disease; immunity in renal epithelium.
- Hunter, Prof. W(illiam) H(ammett)**, University of Minnesota, Minneapolis, Minn. *Chemistry*. Boston, Mass., Sept. 3, 82. A.B., Harvard, 04, A.M., 05, Ph.D., 10. Instr. *chem.*, Bucknell, 05-06; *Minnesota*, 09-13, asst. prof., 13-16, assoc. prof., 16-20, *prof.*, 20- A.A.; Chem. Soc. Organic chemistry; chromoisomerism; reaction mechanism.
- Huntington, Prof. E(dward) V(ermilye)**, 48 Highland St., Cambridge, Mass. **Mathematics*. Clinton, N. Y., April 26, 74. A.B., Harvard, 95, A.M., 97; Ph.D., Strassburg, 01; Sc.D., San Marcos, Peru, 25. Instr. math., Harvard, 95-97; Williams, 97-99; *Harvard*, 01-05, asst. prof., 05-15, assoc. prof., 15-19, *prof. mech.*, 19- Western exchange prof., Beloit, Carleton and Knox, 25. Ed., 'Annals of Math.,' 02-11. Major, Gen. Staff, 18-19. Nat. Research Council; chairman, Am. sect. Int. Math. Union, 23-26. A.A.; Math. Ass. (pres, 18); Math. Soc. (v. pres, 24); Statist. Ass.; Am. Acad. Systems of postulates forming the bases of elementary mathematical theories.
- Huntington, Dr. Ellsworth**, Yale University, New Haven, Conn. **Geography, Geology*. Galesburg,
- Ill., Sept. 16, 76. A.B., Beloit, 97; A.M., Harvard, 02, Hooper fellow, 06-07; Ph.D., Yale, 09. Asst. to pres., Euphrates Col., Harput, Turkey, 97-01; mem., Pumpelly's Carnegie Inst. exped., Turkestan, 03-04; R. L. Barrett's exped., Chinese Turkestan, 05-06; instr. geog., Yale, 07-12, asst. prof., 12-15; private research, 15-17; *research assoc. geog., Yale*, 17- Research assoc., Carnegie Inst., 12-14. Assoc. ed., 'Geog. Rev.,' 'Econ. Geog.' and 'Ecology.' Div. geol. and geog., Nat. Research Council, 19-23, biol. and agr., 21-24, chairman committee on atmosphere and man. Yale exped., Palestine, 09. Gill mem. medal, Royal Geog. Soc.; Maunoir medal, Soc. géog. de Paris; Kane medal, Phila. Geog. Soc.; medal, Harvard Travelers Club. Delegate, Second Pan-Pacific Sci. Cong., Australia, 23. A.A.; Geol. Soc.; Ass. Geog. (pres, 23); Ecol. Soc. (pres, 17); Eugenics Soc. (advisory board, chairman committee on eugenics genealogy); Meteor. Soc.; Am. Acad. Climate in relation to land forms and deposits, geological and historical changes, solar and cosmic relations and to human activities, racial character, civilization and history; systematic anthropogeography; geographic relations of health, civilization, race and temperament.
- Huntington, Dr. Thomas (Waterman)**, 916 Mills Building, San Francisco, Calif. *Surgery*. Rockford, Ill., Jan. 16, 49. A.B., Vermont, 71, LL.D., 13; M.D., Harvard, 76. Chief surgeon, Cent. and South. Pacific Hosp., Sacramento, Calif., 85-99; *prof. clin. surg., California*, 99- San Francisco Board Health, 07; chief surgeon, West. Pacific Ry., 10-13; Red Cross Commission to Italy, 17. Lieut. M.R.C. Surg. Ass.; Am. Med. Ass. Operative treatment of recent fractures; bowel stasis.
- Huntley, Louis Grow**, 505 Frick Building, Pittsburgh, Pa. *Geology*. Greenville, Mich., July 22, 85. B.S., Carnegie Inst. Tech., 08; M.S., Pittsburgh, 22. Rodman, asst. engineer, prospector, placer miner, oil geologist and petrol. engineer, 08-13; consulting oil geologist, Johnson and Huntley, 13-18; pres., Island Oil and Transport Corp., 18-19; consultant and operator, Johnson, Huntley and Somers, 19-23; *partner, Huntley and Huntley*, 22- Director, Mudge Oil Co. Geol. work, U. S., Can., Mex., W. I. and S. Amer. A.A.; Ass. Petrol. Geol.; Min. Eng.; West. Pa. Eng. Soc.; N. Y. Eng. Club. Petroleum engineering; geology of oil and gas.
- Huntoon, L(ouis) D(oremus)**, 2 Rector St., New York, N. Y., or 156 Yonge St., Toronto, Ont., Can. *Mining engineering, Metallurgy*. Pater-son, N. J., Jan. 28, 69. Ph.G., N. Y. Col. Pharmacy, 90; E.M., Columbia, 95; hon. A.M., Yale, 08. Chemist and assayer, Colo., 95-96; N. Y., 96-03; consulting mining and metal. engineer, 03-05; asst. prof. mining and metal, Sheffield Sci. Sch., Yale, 05-08, prof., 08-11; *consulting mining engineer*, 11- Min. and Metal. Eng.; Min. and Metal. Soc. (sec'y-treas., 16-19); London Inst. Min. and Metal. Canadian mineral deposits.
- Huntsman, Dr. A(rchibald) G(owanlock)**, University of Toronto, Toronto, Ont., Can. *Biology*. Tintern, Ont., Nov. 23, 83. B.A., Toronto, 05,

- M.B., 07. Asst. *biol.*, Toronto, 05-07, lecturer, 07-16, *assoc. prof.*, 17-; curator, *Atlantic Biol. Sta.*, 11-13, 16-19, *director*, 19-; *director*, *Atlantic Exp. Sta. Fisheries*, 24- Sec'y, N. Amer. Committee Fisheries Investigations, 22- A.A.; *Ecol. Soc.*; *Soc. Zool.*; *Fisheries Soc.*; *Royal Soc. Can.* (pres, sect. V, 25); *Royal Can. Inst.* (librarian, 20-25). *Ascidians*; *Decapoda*; *Amphipoda*; *plankton*; *marine fishes*; *oceanography*.
- Hurd, Prof. Charles B(uell)**, 134 Rankin Ave, Schenectady, N. Y. *Physical chemistry*. New Britain, Conn, March 10, 94. B.S., Worcester, 15, M.S., 17; A.M., Clark, 20, fellow, 20-21, Ph.D., 21. *Instr. chem.*, Worcester, 15-20; *asst. prof.*, Colby, 21-22; Trinity (Conn), 22-23; *Union*, 23-25, *assoc. prof.*, 25- *Chem. Soc.* Heat capacities of aqueous solutions; metal hydrides and amides; conductance of glass.
- Hurd, Prof. Charles D(eWitt)**, Northwestern University, Evanston, Ill. *Organic chemistry*. Utica, N. Y., May 7, 97. B.S., Syracuse, 18; Ph.D., Princeton, 21; Minnesota. *Instr. chem.*, Illinois, 21-24; *asst. prof. org. chem.*, *Northwestern*, 24- Ed, 'Chem. Bul.' *Chem. Soc.*; *Chicago Chemists Club*. Thermal decompositions of organic compounds; ketenes; organic molecular rearrangements; allenes.
- Hurd, Dr. Henry M(ills)**, 1023 St. Paul St, Baltimore, Md. **Psychiatry, Hospital organization*. Union City, Mich, May 3, 43. Knox, 55-58; A.B., Michigan, 63, M.D., 66, A.M., 70, LL.D., 95. *Asst. physician*, Mich. Asylum for Insane, 70-77, *asst. supt.*, 78; *supt.*, Eastern Mich. Asylum, Pontiac, 78-89; *Hopkins Hosp.*, 89-11, *sec'y board directors*, 11-, *prof. psychiat.*, *Hopkins*, 89-06, *emer. prof.*, 06- Ed, 'Bul. Johns Hopkins Hosp.', 90-; 'Am. Jour. Insanity,' 97-; 'Hopkins Hosp. Reports.' Md. State Lunacy Commission, 08- A.A.; *Anthrop. Ass.*; *emer. mem. Am. Physicians*; *Psychiat. Ass.* (sec'y, 93-97, pres, 99); *Am. Acad. Med.* (pres, 96); *Am. Med. Ass.*; *Folk-Lore Soc.* Hospitals, dispensaries and nursing; folk-lore of insanity; folk-lore of Maryland. [*Died July 20, 27.*]
- Hurd, Dr. Lee M(aidment)**, 39 E. 50th St, New York, N. Y. *Laryngology*. St. Charles, Minn, Dec. 23, 73. Phillips Acad; M.D., Columbia, 95. *Prof. laryngol.*, Univ. and Bellevue Hosp. Med. Col; N. Y. Polyclinic Med. Sch; *prof. diseases mouth*, N. Y. Univ. Col. Dentistry. Attending laryngologist, Fifth Ave. Hosp; N. Y. Polyclinic Med. Sch. and Hosp. *Laryngol. Ass.*; *Laryngol. Rhinol. and Otol. Soc.*; *Ophthal. Soc.*; *Am. Med. Ass.*; *fel. Col. Surg.*; N. Y. Acad. Med. *Otolaryngology*; *rhinology*.
- Hurlin, Dr. Ralph G(ibney)**, Russell Sage Foundation, 130 E. 22nd St, New York, N. Y. *Statistics*. Antrim, N. H., Sept. 30, 88. A.B., Brown, 12, A.M., 13, Ph.D., 15. *Asst. biol.*, Brown, 13-15; *instr.*, Clark, 16, *asst. prof.*, 17-18, *docent biol.*, 17-18; *statistician*, *Russell Sage Foundation*, 19-20, *director dept. statistics*, 21- *Lieut. capt.* and *major*, U.S.A., 18-19. A.A.; *Statist. Ass.*; *Econ. Ass.*; *Sociol. Soc.*; *Genetic Ass.*
- Hurlock, Dr. Elizabeth B(ergner)**, Columbia University, New York, N. Y. *Psychology*. Harrisburg, Pa, July 4, 98. A.B., Bryn Mawr, 19, A.M., 22; Ph.D., Columbia, 24. *Teacher*, schools, N. Y. and Pa, 19-21; *dept. psychol.*, *Columbia*, 24- *Lecturer*, Barnard, 25-27. *Psychol. Ass.* Educational and child psychology; mental tests.
- Hursh, Dr. Charles R(aymond)**, Appalachian Forest Experiment Station, Asheville, N. C. *Plant physiology*. Jonesboro, Ill, Sept. 16, 95. B.S., Missouri, 17; Lackland fellow, Washington (St. Louis), 20; Ph.D., Minnesota, 23. *Asst. bot.*, Missouri, 15-16; *plant path.*, Oregon Col, 17; *asst. pathologist*, *bur. plant indust.*, U. S. Dept. Agr, 18-19, *agent*, 20-23; *instr. plant path.*, Minnesota, 20-23; fellow, Rockefeller Foundation Int. Educ. Pasteur Inst, 24; Nat. Research Council fellow, Boyce Thompson Inst, 25-26; *assoc. forest ecologist*, *forest service*, U. S. Dept. Agr, 26- A.A.; *Phytopath. Soc.*; *Bot. Soc.*; *Soc. Foresters*; *Chem. Soc.*; *Soc. de Path. veg. et d'Entom. agr.* Disease resistance in plants; physiology of parasitism in plants; microbiological toxins.
- Hursh, Prof. Ralph Kent**, University of Illinois, Urbana, Ill. *Ceramics*. Woodstock, Ill, Dec. 21, 85. B.S., Illinois, 08. Stock and shipping clerk, Ohio Min. and Mfg. Co, 09; junior ceramic chemist, Bur. Standards, 09-11; *asst. instr.*, *assoc. asst. prof.* and *assoc. prof. ceramic eng.*, *Illinois*, 11- *Ceramic Soc.* (treas, 17-23). Ceramic engineering; drying and burning of clay wares; molding clay products.
- Hurst, Lewis A(lexander)**, U. S. Department of Agriculture, Washington, D. C. *Biochemistry*. Muncie, Ind, Dec. 14, 74. B.S., Purdue, 99. *Sci. asst.*, *bur. soils*, U. S. Dept. Agr, 01-04, *scientist*, 04-16, *biochemist*, *bur. plant indust.*, 16- A.A.; *Chem. Soc.* Biochemistry of soils and plants; soil types; relation of soil conditions to plant growth; fertilizers; plant diseases.
- Hurst, Dr. M(acleod) E(wart)**, Ohio State University, Columbus, Ohio. *Geology*. Sydney, Australia, Aug. 1, 97. B.A., British Columbia, 18; M.A., Toronto, 19; Ph.D., Mass. Inst. Tech, 22; Wisconsin, 22-23. *Instr.*, Mass. Inst. Tech, 21-22; *asst. geologist*, *Can. Geol. Surv.*, 23-24; *instr. geol.*, *Ohio State*, 24- Summers, field *asst.*, *Can. Geol. Surv.*, 18-24, *Nipissing Min. Co.*, Ont, 25. Economic geology; mining geology; arsenic resources of Canada.
- Hurwitz, Dr. Samuel H(ayman)**, 490 Post St, San Francisco, Calif. *Medicine*. Poland, Sept. 6, 85. A.B., Harvard, 07, A.M., 08; M.D., Hopkins, 12. *Instr. research med.*, Hooper Foundation, California, 15-17, *asst. prof. clin. med.*, 17-26; *sch. med.*, *Stanford*, 26- *Chief med. dept.*, Mt. Zion Hosp, San Francisco. *Soc. Exp. Biol.*; *Physiol. Soc.*; *Am. Med. Ass.* Experimental medicine and biology; functions of liver and kidney; hemorrhagic diseases; blood proteins; metabolism; asthma.
- Hurwitz, Prof. W(allie) A(braham)**, Cornell University, Ithaca, N. Y. **Mathematics*. Fulton, Mo, Feb. 18, 86. A.B., B.S., A.M., Missouri, 06; Ph.D., Göttingen, 10. *Asst. math.*, Missouri, 05-06; *instr.*, *Cornell*, 10-14, *asst. prof.*, 14-24, *prof.*, 24- Summer, *asst.*, Missouri, 08. Ed, 'Math. Monthly,' 19-22. A.A.; *Math.*

- Soc. (assoc. ed., 'Trans,' 14-26, councilor, 19-24, ed., 'Bul,' 21-24); Math. Ass. (councilor, 19-22); London Math. Soc.; Circolo Mat. di Palermo. Analysis; differential and integral equations; infinite series.
- Husa, Prof. William J (ohn)**, University of Florida, Gainesville, Fla. *Pharmacy, Chemistry*. Iowa City, Iowa, Feb. 5, 96. Ph.G, Iowa, 13, Ph.C, A.B, 20, Ph.D, 23; A.M, Columbia, 21. Research chemist, E. I. du Pont de Nemours and Co, 17-19; asst. chem, Iowa, 19-20, 21-23; research asst. food chem, Columbia, 20-21; *prof. pharmacy and head dept, Florida, 23-*. Pharmaceut. Ass; Chem. Soc. (councilor, Fla. sect, 23-). Enzyme action; pharmaceutical chemistry.
- Husmann, Geo(rge) C(harles) F(rederick)**, U. S. Department of Agriculture, Washington, D. C. *Horticulture*. Hermann, Mo, April 27, 61. B.S.A, Missouri, 82, M.S.A, 85. Foreman, Talcoa vineyards and wineries, 82-87; gen. foreman, Vina wineries, 87-90; supt, Kohler and Frohling vineyards and wineries, 90-92; *pomologist in charge viticulture, bur. plant indust, U. S. Dept. Agr, 01-*. Grand prize and gold medal, grape exhibit, Panama-Pacific Expos, 15. A.A.; Soc. Hort. Sci; Pomol. Soc; Wash. Bot. Soc; Int. Viticul. Soc; hon. mem. Soc. des Viticul. de France. Viticulture; pomology.
- Hussakof, Dr. L(ouis)**, 1537 50th St, Borough Park, Brooklyn, N. Y. *Ichthyology, Zoology*. New York, N. Y., Nov. 19, 81. B.S, Col. City of N. Y, 00; Ph.D, Columbia, 06; Naples Zool. Sta, 09. Teacher, pub. sch, N. Y, 01-02; asst, Am. Museum Nat. Hist, 04-08, asst. curator ichthyol, 09-10, assoc. curator, 10-13, curator, 14-16; *private research, 16-*. A.A; Soc. Zool; Soc. Ichthyol. and Herp; Fisheries Soc; Geol. Soc; Paleont. Soc; N. Y. Acad. (sec'y, sect. biol, 09-12). Catalogs of fossil fish collections; anatomy and evolution of fishes; arthrodira; history of American science.
- Hussey, Dr. Priscilla Butler**, New York University, Washington Square, New York, N. Y. *Biology*. Bowling Green, Fla, Jan. 24, 94. A.B, Michigan, 19; A.M, Smith, 21; Sc.D, Radcliffe, 23. Asst. zool, Michigan, 17-19; curator dept. zool, Smith, 19-21; *instr. biol, N. Y. Univ, 23-*. A.A; N. Y. Entom. Soc; Brooklyn Entom. Soc; Mich. Acad; Soc. entom. de France. Entomology; embryology of insects.
- Hussey, Dr. Roland F(ountain)**, 268 W. 113th St, New York, N. Y. *Biology*. San Francisco, Calif, Nov. 16, 96. A.B, Michigan, 18; M.S, Harvard, 21, Sc.D, 23. Asst. zool, Michigan, 16-18; teaching fellow animal biol, Minnesota, 18-20; instr. biol, N. Y. Univ, 23-26; *business, 26-*. A.A; Entom. Soc; N. Y. Entom. Soc; Brooklyn Entom. Soc; Soc. entom. de France. Entomology; embryology of insects, especially Hemiptera.
- Hussey, Dr. R(ussell) C(laudius)**, University of Michigan, Ann Arbor, Mich. *Paleontology, Stratigraphy*. Mendon, Ohio, Oct. 31, 88. A.B, Michigan, 11, Ph.D, 25. Instr. hist. geol. and paleont, Michigan, 22-26, *asst. prof, 26-*. A.A; Mich. Acad. The Richmond formation of Michigan; Ordovician of the embayment of Canon City, Colorado.
- Huston, Prof. Henry A**, Kew Hall, Kew Gardens, Richmond Hill, New York, N. Y. *Agricultural chemistry*. Damariscotta, Maine, April 20, 58. A.B, Bowdoin, 79, A.M, 82; A.C, Purdue, 82. Asst. chem. and physics, Bowdoin, 79-80; prin. and teacher, high sch, Ind, 80-84; prof. physics, Purdue, 84-88, agr. chem, Purdue, and state chemist, Ind, 88-03, director, Ind. Exp. Sta, 02-03; manager west. office propaganda dept, German Kali Works, St. Louis, 03-05, Chicago, 05-10, sec'y, Baltimore, 10-12, New York, 12-19; tech. manager in the U. S. Potash Syndicate, 19-23; *consulting agr. chemist, 23-*. Asst. state chemist, Ind, 84-86; director, Ind. Weather Service, 84-96. A.A; Agr. Chem. (pres, 95, committee on food preservatives, 95-); Chem. Soc; Ind. Acad; N. Y. Chemists Club; Landwiss. Gesell. Methods of agricultural analysis; soil improvement; swamp lands; fertilizers; phosphates; potash; the sugar-beet; composition of maize at different periods of growth; symbiotic bacteria.
- Huston, Prof. Ralph C(hase)**, Michigan State College of Agriculture, East Lansing, Mich. *Chemistry*. Fairfield, Iowa, March 10, 85. B.S, Parsons, 06; M.S, Iowa, 08, Ph.D, 14. Teacher, high sch, Kans, 06-07; instr. chem, Wash. Col, 09-10, asst. prof, 10-11; *Mich. State Col, 11-15*, assoc. prof, 15-25, *prof. org. and bio chem, 25-*. Chem. Soc. (councilor, Mich. State Col. sect, 19, chairman, 20-23). Nitrosulphonic acids of paraxylene; aromatic alcohols and compounds in presence of aluminum chloride; relation of phenols to xerophthalmia; growth and calcium-phosphorus retention; effect of unsaturation on the activity of alcoholic hydroxyl.
- Hutcheson, Prof. T(homas) B(arksdale)**, Blacksburg, Va. *Agronomy*. Charlotte C. H, Va, March 23, 82. B.S, Va. Polytech, 06, M.S, 08; M.S.A, Cornell, 13. Instr. agron, Va. Polytech, 08-12; assoc. agronomist, Minnesota, 13-14; *agronomist, Va. Polytech, 14-*. A.A; Soc. Agron. Growth and maturity of maize.
- Hutchins, Prof. C(harles) C(lifford)**, Bowdoin College, Brunswick, Maine. **Physics*. Canton, Maine, July 12, 59. A.B, Bowdoin, 83, A.M, 86, Sc.D, 18; Harvard, 85-86; Leipzig, 99-00. *Prof. physics, Bowdoin, 88-*. A.A; Physical Soc; Am. Acad. Spectroscopy; atmospheric radiation; gaseous radiation.
- Hutchins, Dr. Lee M(ilo)**, U. S. Department of Agriculture, Washington, D. C. *Plant pathology*. Fennville, Mich, April 21, 88. B.S, Mich. State Col, 13; Hopkins, 15-17, 20-24, Ph.D, 24. Sci. asst, *bur. plant indust, U. S. Dept. Agr, 14-*, asst. pathologist, 20, *assoc. pathologist, 24-*. Bacteriologist, Univ. Montpellier. Lieut. Sanit. C, 17-19. A.A; Bot. Soc; Phytopath. Soc; Soc. Plant Physiol. Fruit diseases; oxygen supplying power of the soil.
- Hutchins, Otis**, 212 Sixth St, Niagara Falls, N. Y. *Metallurgy*. Keene, N. H, Nov. 11, 88. B.S, Mass. Inst. Tech, 11. *Metal. engineer and director research, Carborundum Co, 12-*. Chem. Soc; Electrochem Soc. Electrochemistry; elec-

trometallurgy; refractories; alloys; abrasives; electric furnaces and their products.

Hutchinson, Prof. A(ndrew) H(enderson), University of British Columbia, Vancouver, B. C., Can. *Botany*. York Co, Ont. B.A., McMaster, 09, M.A., 11, 13; fellow, Chicago, 13-15, Ph.D., 15. Teacher bot, Collegiate Inst, Whitby, Ont., 10; Peterborough, 11; *asst. prof.*, Agr. and Mech. Col. Texas, 15; *British Columbia*, 16-, *head dept.* Bot. Soc; Phytopath. Soc; West. Acad. Nat; B. C. Acad. Morphology; cytology; fertilization; gametophytes; forests of Ontario and British Columbia.

Hutchinson, Dr. Cary T(alcott), University Club, New York, N. Y. **Electrical engineering*. St. Louis, Mo, March 4, 66. Ph.B., Washington (St. Louis), 86; fellow, Hopkins, 88-89, Ph.D., 89. Sprague Elec. Ry. Co. and Gen. Elec. Co., 89-90; *consulting engineer*, 90- In charge dept. elec, Hopkins, 99-00; chief engineer hydroelec. plant, Pa. Water Power Co; in charge electrification Great North. Ry. over Cascade Mountains. A.A.; Physical Soc; Elec. Eng. (v. pres, 99); Mech. Eng; Franklin Inst. Determination of mercury unit; determination of absolute ohm; electromagnetic effect of convection currents.

Hutchinson, Prof. Cha(rles) A(ngevine), 837 15th St, Boulder, Colo. *Mathematics*. Springfield, Ohio, Aug. 18, 97. A.B., Wittenberg, 16, A.M., 18. Instr. math. and chem, Wittenberg, 16-18; *eng. math.*, Colorado, 18-20, acting head dept, 21-24, *asst. prof.*, 20-22, *assoc. prof.*, 22-24, *prof. and head dept.*, 24-, *recreational director*, 25- A.A.; Math. Ass; Eng. Educ. Theory of orbits.

Hutchinson, Prof. J(ohn) I(rwin), Cornell Heights, Ithaca, N. Y. **Mathematics*. Bangor, Maine, April 12, 67. A.B., Bates, 89; Clark, 90-92; Ph.D., Chicago, 96. Instr. math, Cornell, 94-03, *asst. prof.*, 03-10, *prof.*, 10- A.A.; Math. Soc. (assoc. ed, 'Trans,' v. pres, 10). Hyperelliptic functions; theta functions; automorphic functions; surfaces.

Hutchinson, Prof. R(obert) O(rland), Washington State College, Pullman, Wash. *Physics*. Near Bedford, Ind, Jan. 15, 89. A.B., Indiana, 14; Ph.D., Chicago, 23. Instr. physics, Maine, 16-17; *asst. prof.*, Miss. Agr. and Mech. Col., 19-21; *asst.*, Chicago, 21-23; *asst. prof.*, Wash. Col., 23-26, acting head dept, 25-26, *assoc. prof.*, 26- Meteor. service, U.S.A., 17-19. Physical Soc; Northwest. Sci. Teachers Ass. Extreme ultraviolet arc and spark spectra; a Boyle's Law apparatus and air thermometer.

Hutchinson, Dr. Woods, Hotel Beaconsfield, Brookline, Mass. *Medicine*. Selby, Eng, Jan. 3, 62. A.B., Penn (Iowa), 80, A.M., 83; M.D., Michigan, 84. Prof. anat, Iowa, 91-96; comp. path. and embryol, Buffalo, 96-00; sec'y, Oregon State Board Health, 03-05; *prof. clin. med.*, N. Y. Polyclinic Med. Sch, 07-09. Prof, Buffalo, 96-98; lecturer, Med. Grad. Col, London, 99-00; lecturer, exten. dept, London, 99-00. A.A.; Soc. Nat; Am. Acad. Med. (pres); Am. Med. Ass; Pub. Health Ass. Tuberculosis in man and animals; cancer in mammals and birds; the pituitary body in acromegaly,

gigantism and dwarfism; real shape of the tuberculous chest; pathology of uric acid in mammals and birds; gout; appendicitis; racial pathology, especially in Indians, Japanese and Chinese; school hygiene; public health; military sanitation; health education; centenarians.

Hutchison, Prof. C(laude) B(urton), International Education Board, 19 Rue Louis-le-Grand, Paris, France. *Genetics*. Chillicothe, Mo, April 9, 85. B.S.A., Missouri, 08; fellow, Cornell, 12-13, M.S.A., 13; M.S., Harvard, 17. Asst. agron, Missouri, 08-09, instr, 09-10, *asst. prof.*, 11-12, *prof.*, 13-14, farm crops and chairman dept, 14-16; plant breeding, Cornell, 16-22; California, and director branch col. agr, 22-24; *assoc. director for Europe, div. agr. educ, Int. Educ. Board*, 24-26, *director*, 26- A.A.; Genetic Ass; Bot. Soc; Soc. Agron. Crop production; plant breeding and genetics.

Hutchison, Dr. Miller Reese, 90 West St, New York, N. Y. *Engineering*. Montrose, Ala, Aug. 6, 76. Marion Mil. Inst, 89-91; Spring Hill Col, 91-92, Ph.D., 14; Univ. Mil. Sch, 92-95; Ala. Polytech, 95-97, E.E., 13. Chief elec. engineer, U. S. light-house for seventh and eighth districts, Spanish-Am. War; research and development, 99-10; chief engineer, Edison Lab, Thos. A. Edison, Inc, etc, 12-17, *eng. adviser*, Thos. A. Edison, 17-; *pres.*, M. E. Hutchison, Inc, 17- V. pres, Bidhamson Corp, 26; v. pres. and tech. director, Premier Lab, 27. Mem, Naval Consulting Board, 15- Special gold medal from Queen of Eng, 02; gold and silver medals, La. Purchase Expos, 04; cross of honor, Accad. Int. di Lettre e Sci, 26. Int. Elec. Cong, 04; Int. Eng. Cong, 15. A.A.; Mech. Eng; Automotive Eng; Elec. Eng; Radio Eng; Naval Eng; U. S. Naval Inst; Soc. Mil. Eng; Acad. Polit. Sci; Inst. Social Sci; Optical Soc; N. Y. Elec. Soc; Royal Soc. Arts. Instruments for the deaf; sound propagators.

Hutton, Prof. J(oseph) Gladden, Brookings, S. Dak. *Agronomy*. Monticello, Ind, Nov. 3, 73. B.S., Chicago, 08; M.S., Illinois, 10. Asst. biol, Ind. State Nor. Sch, 99-01; prin. and supt, schools, Ill, 01-08; *asst. geol.*, Illinois, 08-11; *assoc. prof. agron.*, S. Dak. Col, 11- Summers, *asst. to curator*, Woods Hole, 01, field *asst.*, Ill. Geol. Surv, 09, U. S. Geol. Surv, 15; in charge state soil survey, S. Dak. U.S.A., 18-19. A.A.; Soc. Agron; Soil Surv. Ass; Meteor. Soc; S. Dak. Acad. (pres, 17, 25); Ind. Acad; Ill. Acad; Int. Soc. Soil Sci. Soil fertility; soil survey.

Huxley, Prof. Julian S(orell), King's College, University of London, London, Eng. *Zoology*. London, June 22, 87. B.A., Oxford, 00, M.A.; scholar, Naples, 09-10. Demonstrator zool, Oxford, 10-12; research *assoc.*, Rice Inst, *prof. biol.*, 13-18; fellow, New Col, and senior demonstrator zool, Oxford, 19-25; *prof.*, King's Col, London, 25-27, *hon. lecturer*, 27-; *prof.*, Royal Inst, 26- Lecturer, Balliol Col, Oxford, 10- Zool. Soc. London; Marine Biol. Ass. of the United Kingdom. Protozoa; regeneration of sponges; sexual selection in birds; dedifferentiation; secondary sexual characters; metamorphosis; genetics; growth.

- Hyatt, Prof. J(ames) M(ead)**, Union College, Schenectady, N. Y. *Physics*. Owego, N. Y., Aug. 5, 96. A.B., Cornell, 18, Ph.D., 22. Instr. *physics*, Cornell, 18-22; *Union*, 22-24, *asst. prof.*, 24- Summers, research lab, Gen. Elec. Co., 23-26. Physical Soc. Ultraviolet absorption; secondary electron emission.
- Hyde, Charles Gilman**, University of California, Berkeley, Calif. *Engineering*. Norwich, Conn., May 7, 74. B.S., Mass. Inst. Tech., 96. Engineer, Mass. State Board Health, 96-00; filtration engineer, Phila., 00-02; Harrisburg, 02-05; *prof. sanit. eng.*, California, 05- Civil Eng; Pub. Health Ass; Water Works Ass; New Eng. Water Works Ass. Hydraulic, economic and sanitary engineering.
- Hyde, Dr. Edw(ard) P(echin)**, care of Morgan et Cie, 14 Place Vendôme, Paris, France. **Physics*. Baltimore Co, Md, Jan. 3, 79. A.B., Hopkins, 00, fellow, 01-02, fellow by courtesy, 02-06, Ph.D., 06. Lab. asst., Bur. Standards, 02-05, asst. physicist, 05-07, assoc. physicist, 07-08; director, Nela Research Lab, Nat. Lamp Works, 08-20, director research, 20-23. Pres, Int. Commission Illum, 21- Illum. Eng. Soc. (pres, 10); cor. mem. London Illum. Eng. Soc. Theory of Matthews and Russell-Leonard photometers; Talbot's law for sectorized disks; comparison of unit of luminous intensity of United States with those of Germany, England and France; geometrical theory of radiating surfaces; method of determining mean horizontal intensity of incandescent lamps; plain and frosted lamps; radiation from metals; radiating properties of metals; spectrophotometric methods; high temperature scale and temperature methods.
- Hyde, Prof. E(dward) W(yllys)**, 814 Lincoln Ave, Cincinnati, Ohio. **Mathematics*. Saginaw, Mich., Oct. 17, 43. B.C.E., Cornell, 72, C.E., 74. Instr. eng., Cornell, 71-73; *prof. math.*, Pa. Mil. Acad., 73-74; *asst. prof.*, *Cincinnati*, 75-78, *prof.*, 78- Assoc. ed., 'Annals of Math.' Treas. and actuary, Columbia Life Ins. Co, Cincinnati. A.A. (sec'y, A, 85, v. pres, 91); Math. Soc; fel. Inst. Actuaries; Optical Soc. Vector and point analyses with their applications; surfaces represented by equations whose coefficients are homogeneous functions of the roots of a given algebraic equation.
- Hyde, Dr. Ida H(enrietta)**, 1324 Torrey Pines Road, La Jolla, Calif. *Physiology*. Davenport, Iowa, Sept. 8, 57. Illinois, 81; A.B., Cornell, 91; fellow, Bryn Mawr, 91, 91-93; Strassburg, 93; Col. Alumnae European fellow, 94-95; Hearst research fellow, 95-96; Ph.D., Heidelberg, 96; Naples Zool. Sta, 96; Bern, 96; Radcliffe, 97; Harvard Med. Sch, 97; Liverpool, 04; M.D., Rush Med. Col, 11. Teacher, pub. schools, Chicago, 81-88; asst. biol, Bryn Mawr, 91; *prof. histol. and anat.*, Ingalls and Dr. Sargent's Prep. Sch, Cambridge, Mass, 97-00; assoc. *prof. physiol.*, Kansas, 99-05, *prof.*, 05-25. Summers, *prof.*, Hyanis Nor. Sch, 99-01, asst., Woods Hole, 02. Hon. life mem. Am. Women's Table, Naples (sec'y, 97-00). *Physiol. Soc*; *Eugenics Soc.* Comparative studies of respiration and circulation; the nervous system and the sense organs.
- Hyde, Prof. Jesse E(arl)**, Western Reserve University, Cleveland, Ohio. *Geology, Paleontology*. Rushville, Ohio, May 2, 84. A.B., Ohio State, 06; A.M., Columbia, 07; Harvard, 08. Asst. physiog., Harvard, 08; paleont., Columbia, 09-11; asst. *prof. geol.*, Queen's (Can), 11-15; assoc. *prof.*, *Western Reserve*, 15-21, *prof.*, 21-; *curator geol. and paleont.*, *Cleveland Museum Nat. Hist.*, 22- Summers, asst. geologist, Ohio Geol. Surv., 04-05, 07-11, 15-18, paleontologist, Can. Geol. Surv., 12-14. A.A.; Geol. Soc; Paleont. Soc; Ohio Acad. (v. pres, 19). Paleozoic stratigraphy; physiography; Devonian, Mississippian and Pennsylvanian of Ohio and Nova Scotia.
- Hyde, John**, 1760 Euclid St, N. W, Washington, D. C. *Anthropology, Geography*. Stalybridge, Eng., Dec. 16, 48. Stamford Acad; Ashton-under-Lyne; Manchester. Assoc. ed., 'Bankers' Monthly,' 85-86; expert special agent, U. S. Census, 90-94; ed., 'Nat. Geog. Mag.,' 95-01; chief bur. statist, U. S. Dept. Agr., 97-05; mem, U. S. Geog. Board, 99-05. Jury awards, Trans-Miss. Expos, 98; La. Purchase Expos, 04; expert, U. S. Commission, Paris Expos, 00; U. S. Special Commission, Europe, 01, 03, 05. Contrib. ed., 'Japan Mail,' 06-09. A.A. (v. pres, 01); fel. Royal Geog. Soc; fel. Royal Statist. Soc; fel. Scottish Antiq. Soc; hon. fel. Tokyo Statist. Soc; Int. Inst. Statist. Economics; economic effects of disease; food and population; religious festivals and the unity of religion.
- Hyde, Prof. Karl C(layton)**, Skidmore College, Saratoga Springs, N. Y. *Botany*. Brazil, Ind., Aug. 27, 91. A.B., Indiana, 15; A.M., Cornell, 21, Ph.D., 23. Instr. bot, high sch, Ind., 15-17; Montana, 19-20; Cornell, 20-23; *prof. bot. and biol.*, *Skidmore*, 23- Lieut. U.S.A., 17-19. A.A. Anatomy of tropical light-weight woods; anatomy of a gall on *Populus trichocarpa*; comparative anatomy of vertebrates; the lacrimal region of the turtle.
- Hyde, Dr. Roscoe R(aymond)**, 615 N. Wolfe St, Baltimore, Md. *Zoology, Immunology*. Cory, Ind., March 23, 84. A.B., Ind. State Nor. Sch, 08; A.B., A.M., Indiana, 09; fellow, Columbia, 12-13, Ph.D., 15. Asst. embryol, Indiana, 08-09; instr. asst. *prof. and prof. zool. and head dept.*, Ind. State Nor. Sch, 09-19; assoc. *immunol. sch. hygiene and pub. health*, *Hopkins*, 19-23, *assoc. prof.*, 23- Lecturer, Terre Haute Vet. Col, 10-19; fellow, *Hopkins*, 18-19. A.A.; Soc. Zool; Ind. Acad. Duration of life; inbreeding, multiple allelomorphs and mutation in *Drosophila*; corpuscle anaphylaxis; complement free guinea pigs; heterophile antigen and antibody; skin reactions to normal and immune antibodies; hemolytic antibodies.
- Hyde, Dr. Winifred**, University of Nebraska, Lincoln, Nebr. *Psychology*. Milwaukee, Wis. A.B., Nebraska, 00; fellow, Bryn Mawr, 02-04; Cornell, 05, Boston Woman's Educ. Ass. fellow, 06; Ph.D., Jena, Germany, 11. Instr. asst. *prof.* and assoc. *prof. psychol.*, *Nebraska*, 12-18, *prof.*, 18- Philos. Ass. Pragmatism; learning; suggestion.

- Hylan, Dr. John P(erham)**, 97 William St, Stoneham, Mass. *Psychology*. Fremont, N. H., Aug. 27, 70. Harvard, 91-95; Leipzig and Heidelberg, 99-00; Ph.D., Clark, 01. Instr. psychol., Illinois, 97-98, asst. prof., 98-99; asst. philos., Harvard, 00-05. Prof., Sloyd Training Sch., Mass. Psychol. Ass. Psychology of attention; psychology of religion; fatigue.
- Hylan, Dr. Malcolm C(leveland)**, University of Colorado, Boulder, Colo. *Physical chemistry*. Westboro, Mass., Sept. 29, 96. Ph.B., Brown, 18, A.M., 20; research fellow, Colorado, 22-23, Ph.D., 23. Head dept. chem. and physics, Yankton, 20-22; head dept. physics, Miss. Col., 23-25; instr., Colorado, 25- Adsorption in photography.
- Hyman, Dr. Harold Thomas**, 940 Park Ave., New York, N. Y. *Medicine, Pharmacology*. New York, Nov. 23, 94. A.B., Columbia, 15, M.D., 17. Asst. prof. pharmacol., col. physicians and surg., Columbia, and adjunct physician, Mt. Sinai Hosp., 23- Lieut., M.C., 18-19. A.A.; Am. Med. Ass.; Harvey Soc.; N. Y. Acad. Med. Internal medicine; therapeutics; Graves' disease; the involuntary nervous system.
- Hyman, Dr. L(ibbie) H(enrietta)**, University of Chicago, Chicago, Ill. *Zoology*. Des Moines, Iowa, Dec. 6, 88. B.S., Chicago, 10, Ph.D., 15. Asst. zool., Chicago, 10-17, research asst., 17- Soc. Zool.; Micros. Soc. Regeneration; ameiboid movement; oxygen consumption of organisms; metabolism of lower invertebrates; bioelectric phenomena; taxonomy of triclad Turbellaria.
- Hyman, Prof. O(rrin) W(illiam)**, 879 Madison Ave., Memphis, Tenn. *Biology*. Tarboro, N. C., Dec. 21, 90. A.B., North Carolina, 10, A.M., 11; Ph.D., Princeton, 21. Prin. pub. sch., N. C., 11-12; asst. prof. biol., Mississippi, 12-13; histol. and embryol., Tennessee, 13-17, assoc. prof., 17-19, prof. histol., 19-, acting dean col. med., 26-, admin. officer, health service dept., 23- Soc. Zool. Crustacean development; cytology of germ cells.
- Hyslop, J(ames) A(ugustus)**, U. S. Department of Agriculture, Washington, D. C. *Entomology*. Chicago, Ill., July 7, 84. B.S., Mass. Col., 08; M.S., Wash. Col., 11. *Entomologist, cereal and forage insect investigations, bur. entom.*, U. S. Dept. Agr., 08-17, exten. works entom., 17-19, in charge insect pest surv., 19- Summers, asst., Mass. Col., 05, in charge gipsy moth work, Conn., 06. A.A.; Entom. Soc.; Ass. Econ. Entom.; Wash. Entom. Soc.; Wash. Acad.; Cambridge Entom. Club. North American Elateridae.
- Hyslop, Prof. W(illiam) H(enry)**, University of Denver, Denver, Colo. *Physics*. Verona, Ill., Dec. 15, 83. A.B., Knox, 08; A.M., Illinois, 11, Ph.D., 20. Asst. physics, Illinois, 09-11, 14-17; teacher, high sch., Ill., 11-14; instr., Illinois, 19-21; asst. prof., Denver, 21-22, assoc. prof., 22- Dielectric constants of liquids.
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- Ibsen, Prof. Heman L(auritz)**, Kansas State Agricultural College, Manhattan, Kans. *Genetics*. Chicago, Ill., Sept. 16, 86. B.S., Wisconsin, 12, fellow, 12-13, M.S., 13, Ph.D., 16. Asst. exp. breeding, Wisconsin, 13-16, genetics, 16-17, zool., 17-18; asst. prof. animal husbandry, Kansas Col., 19-21, assoc. prof., 21-24, prof. genetics, 24- A.A.; Soc. Nat.; Soc. Zool.; Genetic Ass.; Soc. Animal Production. Animal genetics; inheritance and reproduction in rodents.
- Ickes, E(ugene) L(aw)**, 10463 Tennessee Ave., Los Angeles, Calif. *Geology*. Deadwood, S. Dak., June 11, 85. B.S., California, 09, fellow, 09-10. *Geologist*, Cia. Mex. de Petrol. 'El Aguila'; S. Pearson and Son, Ltd., London; Standard Oil Co. of Calif.; Gulf Oil Corp. Junior geologist, U. S. Geol. Surv. A.A.; Ass. Petrol. Geol.; Soc. Econ. Geol.; Min. and Metal. Eng. Petroleum and structural geology.
- Iddings, Dr. Carl**, 1534 Arch St., Berkeley, Calif. *Chemistry*. Guatemala, C. A., Oct. 23, 94. B.S., California, 18, fellow, 24-25, Ph.D., 25. Instr., San Diego State Col., 22-23; assoc. chemist, Union Oil Co., 25- Chem. Soc. Photochemistry.
- Iddings, Dean Edward John**, Moscow, Idaho. *Animal husbandry*. Peru, Ind., March 22, 79. B.S., Colo. Agr. Col., 07, M.S., 22. Special agent, bur. plant indust., U. S. Dept. Agr., 06; asst. to dean agr., Colo. Agr. Col., 07-09, asst. animal husbandry, 09-10; prin. sch. practical agr. and asst. animal husbandry, Idaho, 10-11, prof., 11-, v. dean col. agr., 13-15, dean, 15-18, dean agr. and director, Exp. Sta., 18-, director exten., 23- Summers, field commissioner, Dry Farming Cong., 09, ed., 'Bul.' 10. A.A.; Soc. Animal Production; Genetic Ass. Feeding of swine and sheep; milk production and growth in various breeds of sheep.
- Ide, Dr. G(ladys) G(enevra)**, Grant Building, 17th and Pine Sts., Philadelphia, Pa. *Psychology*. Trent, S. Dak., Oct. 4, 88. A.B., A.M., Washington (Seattle), 14; Ph.D., Pennsylvania, 18. Teacher, schools, Wash., Idaho and Oregon, 06-13; instr., Washington (Seattle), 14-15; Drexel Inst., 18-19; lecturer, Temple, 21-; exten. courses, Pa. State, 24- Summers, instr., Pennsylvania, 21- Psychol. Ass.
- Ihlseng, Axel O(laf)**, 151 E. 33d St., New York, N. Y. *Mining, Metallurgy*. New York, Feb. 20, 55. B.S., Col. City of N. Y., 74; E.M., C.E., Columbia, 77. Chief chemist, Havemeyer Sugar Ref. Co., 77-83; metallurgist and mining, consulting and designing engineer, 83- Min. and Metal. Eng.
- Illick, Prof. J(ohn) T(heron)**, University of Nanking, Nanking, China. *Zoology*. Cherry Valley, Pa., Dec. 3, 88. A.B., Taylor, 10; A.B., Syracuse, 12, A.M., 13; Francis Hinton Maule fellow, Princeton, and China Med. Board fellow, 23. Asst. zool., Syracuse, 12-13; instr., West Virginia, 13-16; head science dept., Nanchang Acad., 16-20; dept. biol., Univ. Nanking, 20- Asst., Princeton, 22; summer, instr., West Virginia, 15. A.A.; Eugenics Research Ass.; Peking Nat. Hist. Soc. Cytology of Oenothera.
- Illick, J(oseph) S(imon)**, New Cumberland, Pa. *Forestry*. Easton, Pa., Sept. 16, 84. A.B., Lafayette, 07; B.F., Biltmore Forest Sch., 11, F.E., 14; Polytech., Darmstadt, 12; Munich, 12; M.S., Juniata, 25. Instr. biol., Pa. State Forest

- Sch, 07-10, prof. forestry, 12-17, acting director, 17-19; *chief research, Pa. dept. forestry, 20-A.A.*; Soc. Foresters; Pa. Eng. Soc. Trees of Pennsylvania, New Jersey, New York, Ohio, Massachusetts, Indiana and Michigan; tree habits and distribution; forest organization.
- Illingworth, Dr. J(ames) F(ranklin)**, Bishop Museum, Honolulu, Hawaii. *Entomology*. Lenark, Ill, May 11, 70. B.S., Pomona, 00; A.M., Stanford, 01; Ph.D., Cornell, 12. Asst. zool., Pomona, 97-99; Stanford, 01; head dept. biol., high sch., Wash., 01-10; prof. entom., Hawaii, 12-17; *research assoc. entom., Bishop Museum, 22-*. Introducer parasitic sugar insects, Fiji, for Colonial Sugar Ref. Co., Australia, 13; investigator sugar cane pests, Queensland Govt., 17-21; specialist parasites of white grubs, bur. entom., U.S. Dept. Agr., 22-24; investigator, Ass. Hawaiian Pineapple Cannery, 26- A.A.; Entom. Soc.; Ass. Econ. Entom.; Hawaiian Entom. Soc.; Hawaiian Acad.; Cooper Ornith. Club; Wash. State Audubon Soc. (pres, 09). Economic entomology; fruit flies; house flies; fleas; dermestids; cockroaches; ants; white grubs; sugar-cane pests and their parasites.
- Imes, Marion**, 23 Federal Building, Kansas City, Kans. *Parasitology*. Laured Fumace, Ky, Sept. 3, 73. B.S.A., Ohio State, 99, D.V.M., 01; M.S.A., New Hampshire, 00. *Veterinarian, U. S. Dept. Agr., 01-* External animal parasites.
- Imlay, L(orin) E(verett)**, Hillcrest, Niagara Falls, N. Y. *Electrical engineering*. Guernsey Co., Ohio, Nov. 2, 64. B.C.E., Cornell (Iowa), 88, C.E., 91; California, 91-92. Engineer, San Antonio Light and Power Co., 92-93; Westinghouse Elec. and Mfg. Co., 94-02; *gen. supt. and consulting engineer, The Niagara Falls Power Co., 02-* Engineer in charge dept. power and transmission, superpower surv., U. S. Geol. Surv., 20-21. Fel. Elec. Eng. (director, 17-23); Electrochem. Soc.; N. Y. Eng. Club. Transmission of power in underground cables; high tension transmission lines; heating effects in cables; mechanical characteristics of transmission lines.
- Ince, Prof. J(oseph) W(aite)**, Kingston, R. I. *Chemistry*. Providence, R. I., March 26, 80. A.B., Brown, 02, A.M., 04; McGill, 05-08. Instr. chem., Brown, 02-04; Denison, 04-05; demonstrator, McGill, 05-08; prof. agr. chem., N. Dak. Col., and asst. chemist, Exp. Sta., 08-19; *prof. chem. and head dept., R. I. Col., 19-* Chem. Soc.; N. Dak. Acad. (pres, 19). Soils; silage.
- Ingall, Elfric Drew**, Geological Survey of Canada, Ottawa, Ont., Can. *Geology*. Eng., May 13, 58. Assoc., Royal Sch. Mines, Eng., 78. Mining geologist, *Can. Geol. Surv., 84-08, in charge borings div., 08-* Can. Min. Inst. Mining districts of Canada.
- Ingalls, Prof. N. W(illiam)**, Western Reserve Medical School, Cleveland, Ohio. *Embryology*. La Grange, Ohio, Aug. 10, 80. B.S., Baldwin, 01; M.D., Western Reserve, 05. Demonstrator *anat., Western Reserve, 05-06*, instr., 06-09, asst. prof., 09-13, *assoc. prof., 13-* A.A.; Ass. Anat. Anthropology; neurology; early stages in human development.
- Ingalls, Walter Renton**, 115 Broadway, New York, N. Y. *Metallurgy, Engineering*. Lynn, Mass., Oct. 25, 65. B.S., Mass. Inst. Tech., 86; D.Eng., Missouri, 23. Engineer and supt., companies, 86-05; *consulting engineer, 05-* Consulting engineer, Can. Dept. Mines, 10-15. Ed., 'Eng. and Mining Jour.', 05-19; 'The Miner. Indust.', 05-10. Chief, Can. Zinc Commission, 05-06; chairman committee on prevention accidents in metal mines, U. S. Bur. Mines, 11-15, committee on revision of the mining laws, 17-24; exec. committee, Nat. Bur. Econ. Research. Min. and Metal. Soc. (pres); Min. and Metal. Eng.; Electrochem. Soc.; Soc. Chem. Indust.; hon. mem. Zinc Inst.; Soc. Test. Mat.; cor. mem. Can. Min. Inst.; British Inst. Min. and Metal. (cor. mem. council). Metallurgy of zinc and cadmium; history of lead and zinc in the United States; statistics of the metal industries.
- Ingalsbe, Prof. F(rank) R(ichmond)**, University of Montana, Missoula, Mont. *Geology, Mining*. Oakfield, N. Y., Aug. 23, 78. B.S., Middlebury, 03; Mass. Inst. Tech., 06. Geologist, Cleveland-Cliffs Iron Co., 07; instr. geol., Lehigh, 06-08, asst. prof., 08-11; mineral examiner and recreation mining engineer, U. S. Forest Service, 11-21; *prof. geol., Montana, 21-* Asst. geologist, U. S. Geol. Surv., 08-11; geologist, Bethlehem Steel Co., 10-11. Min. and Metal. Eng. Economic geology in relation to mining; geology of the Coeur d'Alene mining district, Idaho.
- Ingberg, S(imon) H.**, U. S. Bureau of Standards, Washington, D. C. *Physics*. Ringsager, Norway, June 24, 77. C.E., Minnesota, 09; M.S., Illinois, 10. Instr. civil eng., Lehigh, 10-11; structural engineer, James Stewart and Co., Ill., 11-14; assoc. physicist, *Bur. Standards, 14-19, physicist and chief fire resistance investigations, 19-* Physical Soc.; Soc. Test. Mat.; Concrete Inst.; Nat. Fire Protection Ass. Structural mechanics and construction; fire resistance of materials.
- Ingersoll, Dr. A(rthur) W(illiam)**, 2121 Garland Ave., Nashville, Tenn. *Organic chemistry*. Near Syracuse, Nebr., Nov. 8, 94. B.S., Nebraska, 17, M.S., 18; Ph.D., Illinois, 22. Asst. chem., Nebraska, 17-18, instr., 18-19; asst., Illinois, 19-22; *asst. prof., Vanderbilt, 22-* Summer, instr., Illinois, 24, 26, 27. Chem. Soc. Optically active substances; electrolytic production of organic chemicals.
- Ingersoll, Ernest**, Explorers Club, New York, N. Y. *Zoology*. Monroe, Mich., March 13, 52. Oberlin, 67-71; museum comp. zool., Harvard, 72-73. Ed. asst. zool., 'Standard Diet,' 92-95, 10-12; *ed. nat. hist., 'Montreal Weekly Star,' 01-*; ed. zool., 'New Int. Encyclopedia,' 02-03. Collaborator, Smithsonian Inst., Hayden Surv., 74, 79. Boston Soc. Nat. Hist.; Davenport Acad.; Nuttall Ornith. Club; N. Y. Linnean Soc. Nests and eggs of American birds; oyster industries of United States; book of the ocean; Nature's calendar; wild life of orchard and field; life of mammals; wit of the wild birds in legend, fable and folk-lore.

- Ingersoll, Prof. J(ohn) M(arvin)**, 1020 Huron Road, Cleveland, Ohio. *Otolaryngology*. Youngstown, Ohio, March 11, 69. A.B., Western Reserve, 91, A.M., 96, M.D., 93. Lecturer, dept. otolaryngol, Western Reserve, 95-03, asst. prof. 03-10, assoc. prof., 10-24, clin. prof., 24-26, emer. prof., 26- Chief dept. otolaryngol, Gen. Hosp. No. 11, U.S.A., 18-19. A.A.; Laryngol, Rhinol. and Otol. Soc. (pres, 25); Acad. Ophthal. and Oto-Laryngol. (pres, 19); Laryngol. Ass; Otol. Soc; Am. Med. Ass; Col. Surg. Comparative anatomy of the nose and the accessory cavities; stereoscopic X-rays of the head; morphology of the nose.
- Ingersoll, Prof. Leonard R(ose)**, University of Wisconsin, Madison, Wis. **Physics*. New York, N. Y., June 1, 80. B.S., Colo. Col., 02; Ph.D., Wisconsin, 05. Instr. physics, Wisconsin, 05-08, asst. prof., 08-10, assoc. prof., 10-25, prof., 25- Smithsonian expd., Mt. Wilson, Calif., 05, 06, 09. A.A.; Physical Soc. Efficiency of the Nernst glower; measurement of high temperatures with the Nernst glower; magnetic rotatory polarization in the infra-red spectrum; reflecting power of metals; dispersion of metals in the infra-red spectrum; polarization by gratings; magnetism and crystal structure; metal films.
- Ingham, Prof. L(eslie) H(oward)**, Baltimore City College, Baltimore, Md. *Chemistry*. Cleveland, Ohio, June 7, 67. A.B., Dartmouth, 89, A.M., 92; Ph.D., Pennsylvania, 04. Electrician, Brush Elec. Co., 89-91; asst. chem., Kenyon, 91-93, Bowler prof. physics and chem., 94-07; head dept. science, Baltimore City Col., 08- Prof., Chautauqua, 92-95. Chemist and assayer, Cuyahoga Gold Min. and Milling Co. First asst. chemist, min. bldg., Columbian Expos, 93. Chem. Soc. Constitution of certain native sulphids of the tetrahedrite family; electrolytic estimation of nitric acid; modification of cyanid process.
- Ingraham, Prof. Mark H(oyt)**, 109 Arlington Ave., Providence, R. I. *Mathematics*. Brooklyn, N. Y., March 19, 96. A.B., Cornell, 17; fellow, Wisconsin, 21-22, A.M., 22; fellow, Chicago, 22-24, Ph.D., 24. Instr. math, Wisconsin, 19-21, asst. prof., 24-26; Brown, 26- A.A.; Math. Soc; Math. Ass; Statist. Ass. Foundations of algebra; algebras of infinite rank.
- Ingram, Prof. Edward L(overing)**, University of Pennsylvania, Philadelphia, Pa. *Engineering, Electricity*. Philadelphia, Sept. 9, 62. C.E., Columbia, 85. Inspector, draftsman, asst. engineer, U. S. Govt, 85-91; asst. engineer, Int. Boundary Surv., U. S. and Mex., 91-95; practising civil engineer, 95-01; with eng. dept., N. Y. C. and H. R. Ry., 01; expert aid (civil engineer), Navy Yard, N. Y., 01-06; asst. prof. civil eng., Pennsylvania, 06-11, prof. ry. eng. and geod., 11- A.A.; Civil Eng; Ry. Eng.
- Inman, Prof. O(ndess) L(amar)**, Antioch College, Yellow Springs, Ohio. *Physiology*. Bloomfield, Ind., Nov. 11, 90. A.B., Indiana, 15; B.S., Idaho, 16; Ph.D., Harvard, 21. Teaching fellow and instr. bot., Idaho, 15-18; Austin teaching fellow, Harvard, 19-20; prof. viol., Antioch, 21- A.A.; Bot. Soc; Eugenics Soc. Respiration; injury and recovery processes; symphalangism; key to the genus *Calamagrostis*; pathogenic bioluminescent bacteria; metabolic studies upon *Chlorella elathrata*; a rapid test for soil fertility.
- Inman, Dr. Thomas G(eorge)**, 1168 Flood Building, San Francisco, Calif. *Medicine*. Perth Co., Ont., Can., July 24, 72. Ph.G., Calif. Col. Pharmacy, 92; M.D., Cooper Med. Col., 94; California, 00-03; Frankfurt, Berlin, Paris, 13-14. Asst. demonstrator anat., Cooper Med. Col., 95-00, instr. applied anat., 00-11; asst. neur. and assoc. clin. prof., sch. med., Stanford, 15- A.A.; Am. Med. Ass. Anatomy; nervous system; psychology; circulation; cerebro-spinal fluid; human medulla.
- Insley, Dr. Herbert**, U. S. Bureau of Standards, Washington, D. C. *Petrography*. Nanuet, N. Y., May 16, 93. B.S., Hamilton, 14; Ph.D., Hopkins, 19. Asst. physicist, Bur. Standards, 17-18; asst. geologist, U. S. Geol. Surv., 19-21; petrographer, U. S. Bur. Mines, 21-22; Bur. Standards, 22- A.A.; Miner. Soc; Ceramic Soc; Wash. Geol. Soc; Wash. Petrol. Club. Petrography of mine dusts; microstructure of pottery, refractories and Portland cement; crystallization in glasses.
- d'Inville, E(dward) V(incent)**, 121 N. Broad St., Philadelphia, Pa. *Geology, Mining*. Philadelphia, Aug. 2, 57. B.S., Pennsylvania, 78, Sc.D., 13. Asst. geologist, Second Pa. Geol. Surv., 78-88; consulting geologist and mining engineer, 88- Geol. Soc; Min. and Metal. Eng; Philos. Soc; Franklin Inst. Geology and practice of bituminous coal and iron ore mining; appraisals.
- Ireland, Gen. Merritte Weber**, U.S.A., Office of Surgeon General, War Dept., Washington, D. C. *Medicine*. Columbia City, Ind., May 31, 67. M.D., Detroit Col. Med., 90, Jefferson Med. Col., 91, LL.D., 19; A.M., Michigan, 20; LL.D., Gettysburg, 22. Asst. surgeon, U.S.A., 91-96, capt. asst. surgeon, 96-99, major surgeon, 99-11, major, M.C., 03, lieutenant col., 11-17, col., 17-18, brig. gen., 18, major gen. and surgeon gen., 18- Nat. Board Viruses and Antitoxins; Fed. Hospitalization Board; Nat. Board Med. Examiners. D.S. medal; Légion d'honneur; Order of the Bath; Order Restitutut, Poland. Chief surgeon, A.E.F., France. Am. Med. Ass. (council med. educ. and hospitals); Col. Surg. (board regents); fel. Royal Col. Surg. Edinburgh.
- Irish, H(enry) C(lay)**, Board of Education, St. Louis, Mo. *Horticulture*. Emerald Grove, Wis., April 22, 68. B.S., S. Dak. Col., 91; M.S., Iowa Col., 97. Hort. asst., Mo. Bot. Garden, 94-02, supt., 03-12; asst. prof. hort., Iowa Col., 13-14; supervisor sch. gardens, Board Educ., St. Louis, 14- A.A.; Soc. Hort. Sci; Pomol. Soc; St. Louis Acad. (councilor). Garden peppers; garden beans; American peaches.
- Irish, John H(ulbert)**, 996 Cragmont Ave., Berkeley, Calif. *Agriculture*. Hubbard, Ohio, May 25, 85. A.B., Ohio Wesleyan, 12; B.S., California, 20, M.S., 21. Teacher, high sch., China, 12-17; Junior Anglo-Chinese Col., Foochow, 17-18; Fukien Union, 18-19; junior chemist, exp. sta., div. viticulture and fruit products, Cali-

- fornia, 21- A.A. Fruit juices and beverages; fruit juice concentrates; heat penetration of juices and syrups in glass containers.
- Irons, Prof. Ernest Edward**, 5830 Stony Island Ave, Chicago, Ill. *Medicine*. Council Bluffs, Iowa, Feb. 17, 77. B.S, Chicago, 00, fellow, 00-01, M.D, 03, Ph.D, 12. Asst. bacter, Chicago, 01-13, med, Rush Med. Col, 05-07, assoc, 07-09, instr, 09-12, asst. prof, 12-18, assoc. prof, 19-23, clin. prof. and dean, 24- Attending physician, Presb. Hosp. A.A.; Am. Physicians; Ass. Path. and Bact; Soc. Bact; Soc. Clin. Invest; Chicago Internal Med. Soc. (pres, 26); Chicago Path. Soc. (pres, 14). Internal medicine; methods in water analysis; blastomycosis; gonococcal infections; focal infections in relation to arthritis and the eye; pneumonia.
- Irvin, (Robert) Roy**, Mellon Institute, Pittsburgh, Pa. *Chemistry*. Lawrence, Kans, June 11, 87. A.B, Kansas, 16, fellow, 16-17, M.S, 17. Fellow, Mellon Inst, 17- Analyst, Kans. State Food Lab, 17. Chem. Soc; Pittsburgh Physical Soc. Organic and food chemistry.
- Irving, Dr. Laurence**, University of Toronto, Toronto, Ont, Can. *Physiology*. Boston, Mass, May 3, 95. A.B, Bowdoin, 16; A.M, Harvard, 17; Ph.D, Stanford, 24. Instr, Menlo Sch, 21-23; asst, Stanford, 23-24, instr, 24-25; Nat. Research Council fellow biol, Germany, 25-26; asst. prof. physiol, Stanford, 26-27; assoc. prof, Toronto, 27- A.A.; Soc. Exp. Biol. Carbonate equilibrium in sea water; calcium metabolism in relation to photosynthesis; chemistry of muscle; animal absorption.
- Irwin, Prof. Frank**, 2921 Regent St, Berkeley, Calif. *Mathematics*. Englewood, N. J, June 5, 68. A.B, Harvard, 90, B.S, 92, A.M, 94, Ph.D, 08. Instr. math, Harvard, 94; Princeton, 08-11; California, 11-18, asst. prof, 18-23, assoc. prof, 23- Math. Soc; Math. Ass. Invariants of differential expressions.
- Irwin, Dr. Marian**, Rockefeller Institute, New York, N. Y. *Physiology*. Tokyo, Japan, 89. A.B, 13, Ph.D, 19. Nat. Research Council fellow, Radcliffe, 23-25; assoc, dept. gen. physiol, Rockefeller Inst, 25- A.A.; Bot. Soc. The permeability of cells.
- Isaacs, Prof. Charles A (pplewhite)**, 612 Campus Ave, Pullman, Wash. *Mathematics*. Brownstown, Ind, April 9, 81. A.B, Indiana, 05; A.M, Columbia, 08. Instr. math. and civil eng, Wash. Col, 05-07; asst. math, Columbia, 07-09; prof, Wash. Col, 09-, head dept, 18-, gen. sec'y, 17- Math. Soc; Math. Ass.
- Isaacs, Dr. Raphael**, Simpson Memorial Institute, Ann Arbor, Mich. *Medicine*. Cincinnati, Ohio, Aug. 29, 91. A.B, Cincinnati, 11, A.M, 12, M.D, 18; Harvard Med. Sch, 23. Asst. biol, Cincinnati, 10-11, zool, 11-14, physiol, 17-19; instr. med, Cincinnati, 20-22; asst. med, Peter Bent Brigham Hosp, Boston, 22-23; instr, Harvard, and asst. physician, Huntington Mem. Hosp, 23-27; asst. prof. med, Michigan, 27-, asst. director, Simpson Inst, 27- Hematologist, Beth Israel Hosp, 26-27. Res. staff, Cincinnati Gen. Hosp, 18-22. Alvarenga prize, Col. Physicians, Phila, 25. A.A; Am. Med. Ass;
- Soc. Clin. Invest. Morphological properties of proteins; hematology; cancer.
- Isaacs, Schachne**, Johns Hopkins University, Baltimore, Md. *Psychology*. Cincinnati, Ohio, Dec. 8, 88. A.B, Cincinnati, 10, A.M, 12. Asst. psychol, Cincinnati, 12-15, instr. and asst. psychol. clinic, 15-17; psychologist, Bur. Mines, 17; Med. Research Lab, A.S, U.S.A, 17-20; instr. psychol, Hopkins, 21-24, assoc, 24- Fellow, Soc. Am. Fellowships in French Universities, 20-21. Psychol. Corp. A.A; Psychol. Ass; S. Soc. Philos. and Psychol; Inst. gen. Psych. de France.
- Isely, Dwight**, Bentonville, Ark. *Entomology*. Fairview, Kans, Aug. 15, 87. A.B, Fairmount, 10; A.M, Kansas, 13; Schuyler fellow, Cornell, 13-14. Sci. asst, bur. entom, U. S. Dept. Agr, 14-21; assoc. entom, Ark. Exp. Sta, 21- A.A; Entom. Soc; Wash. Entom. Soc. Deciduous fruit insects; cotton insects; biologies of Chrysomelidae.
- Isely, Prof. Frederick B**, Texas Woman's College, Fort Worth, Texas. *Zoology*. Fairview, Kans, June 20, 73. B.S, Fairmount, 99; M.S, Chicago, 09; Woods Hole, 09. Instr. biol, high sch, Kans, 01-06; prep. sch, Okla, 06-12; prof, Central Col. (Mo), 12-20; prof. and dean, Culver-Stockton, 20-22; Texas Woman's Col, 22- Asst, Bur. Fisheries, 10-13. A.A; Soc. Zool; Ecol. Soc; Okla. Acad. (sec'y, 04-06); N. Cent. Texas Biol. Club (pres, 23-25). Kansas Orthoptera; growth and migration of mussels; Unionidae of Oklahoma; family traits.
- Isham, Dr. George S (now)**, 1340 N. State St, Chicago, Ill. *Astrophysics*. Chicago, Oct. 8, 59. A.B, Yale, 81; M.D, Northwestern, 84, A.M, 86. A.A; Astron. Soc; Chicago Acad. (v. pres, 13). Spark and arc spectra.
- Israelsen, Dr. O (rson) W (inso)**, Utah Agricultural College, Logan, Utah. *Hydraulic engineering*. Hyrum, Utah, Dec. 25, 87. B.S, Utah Col, 12; M.S, California, 14, Ph.D, 25. Instr, California, 14-16; asst. prof. irrig. and drainage, Utah Col, 16-17, assoc. prof, 17-19, prof, 19- Summers, asst. div. irrig. investigation, U. S. Dept. Agr, 13, 14. Committee irrig, U. S. Food Ad, Utah, 17-18. Assoc. Civil Eng; Agr. Eng; West. Soc. Soil Sci. (v. pres, 22). Soil physics; irrigation; mathematical analysis of duty of water; the application of hydrodynamics to irrigation and drainage.
- Itano, Dr. Arao**, The Ohara Institute, Kurashiki, Okayama-ken, Japan. *Biology*. Okayama-ken, April 21, 88. B.S, Mich. State Col, 11; Ph.D, Mass. Col, 16. Asst. chem, Mich. Exp. Sta, 11-12, asst. soil bacteriologist, 12-13; asst. microbiol, Mass. Col, 13-16, instr, 16-17, asst. prof, 17-18, assoc. prof, 19-24; chief div. chem. and microbiol, Ohara Inst, 25- Soc. Bact. Relation of hydrogen-ion concentration to the physiological activities of bacteria; biophysics and chemistry of cellulose.
- Ittner, Dr. Martin H (ill)**, Colgate and Co, Jersey City, N. J. *Chemistry, Physics*. Berlin Heights, Ohio, May 2, 70. Ph.B, Washington (St. Louis), 92, B.S, 94; A.M, Harvard, 95, Ph.D, 96. Asst, Harvard, 94; private asst. to Prof. Jackson, 95;

- Dr. Wolcott Gibbs, 96; *chief chemist, Colgate and Co*, 96- Int. Cong. Applied Chem. Chem. Soc.; Soc. Chem. Indust.; Chem. Eng.; Soc. de Chim. indust.; Chem. Gesell. Organic chemistry; engineering.
- Ives, Frederic E(ugene)**, 2250 N. 7th St, Philadelphia, Pa. **Photography*. Litchfield, Conn, Feb. 17, 56. Pub. schools. In charge photog. lab, Cornell, 74-78; *commercial enterprises*, 78- Twenty-two medals and prizes for inventions and discoveries from Am. and foreign societies including Rumford medal, 12. A.A.; Micros. Soc.; Physical Soc.; Optical Soc.; hon. mem. Phila. Photog. Soc.; Franklin Inst; Motion Picture Eng; Am. Acad; Inst. Social Sci; fel. Royal Photog. Soc; fel. Royal Micros. Soc. Special photographic processes and applications, with special reference to orthochromatic photography; trichromatic photography and photoengraving.
- Ives, Dr. Herbert E(ugene)**, 32 Laurel Place, Montclair, N. J. **Physics*. Philadelphia, Pa, July 31, 82. B.S, Pennsylvania, 05; fellow, Hopkins, 06-08, Ph.D, 08. Asst. and asst. physicist, Bur. Standards, 08-09; *physicist*, Nat. Elec. Lamp Ass, Cleveland, Ohio, 09-12; United Gas Improv. Co, 12-18; West. Elec. Co, 19-25, *Bell Telephone Laboratories*, 25- Longstreth medal, Franklin Inst, 06, 15, 18. In charge aerial photog. research, A.S, U.S.A, 18-19. A.A.; Physical Soc; Illum. Eng. Soc. (v. pres, 11); Optical Soc. (v. pres, 23, pres, 24); Philos. Soc; Astron. Soc; Franklin Inst; Phila. Physics Club (pres, 17); London Physical Soc; London Optical Soc. Diffraction color photography; Lippmann color photography; light of firefly; phosphorescence; illumination; photometric instruments and measurements; primary standard of light; color measurement; intermittent vision; radiometry and physical photometry; photoelectricity; positive rays; artificial daylight; Welsbach mantle; airplane photography; photoengraving; transmission of pictures by electricity; television.
- Ives, Howard C(hapin)**, Box 2020, Los Angeles, Calif. *Civil engineering*. Cheshire, Conn, March 20, 78. Ph.B, Yale, 98, C.E, 00. Civil engineering, 99-00; instr. civil eng, Worcester, 00-03; asst. prof, Pennsylvania, 03-06; ry. eng, Worcester, 06-12, prof, 12-25; *civil and consulting engineer*, 25- Civil Eng; Ass. Eng; Inst. Social Sci. Stereotomy; railroad engineering; surveying.
- Ives, Dr. J(ames) E(dmund)**, U. S. Public Health Service, Washington, D. C. *Physics*. London, Eng, Sept. 19, 65. Ph.D, Clark, 01. Asst. curator, Acad. Nat. Sci, Phila, 87-93; instr. physics, Drexel Inst, Phila, 93-97; Cincinnati, 01-03; sci. expert, DeForest Wireless Telegraph Co, 03-05; asst. prof. physics, Cincinnati, 05-09, assoc. prof, 09-12; hon. fellow, Clark, 12-16, research assoc. and lecturer, 16-21; *physicist, office indust. hygiene and sanit*, U. S. Pub. Health Service, 21- Lieut, Sig.C, 18-19, capt, 19-20, Sig.R.C, 21- Silver medal, La. Purchase Expos, 04. A.A.; Physical Soc; Optical Soc; Illum. Eng. Soc; Am. Acad; Phila. Acad; Wash. Philos. Soc; Wash. Acad.
- Marine invertebrates; theory of the induction coil; wireless telegraphy; electric oscillations; discharge of electricity through gases; illumination.
- Ives, Prof. J(udson) D(unbar)**, Jefferson City, Tenn. *Biology*. Alfred, Maine, Feb. 19, 84. A.B, Wake Forest, 05, A.M, 06; Chicago, 08, 14-15, 16-17, 22-23; Woods Hole, 09. Asst. biol, Wake Forest, 04-06, instr, 06-14; *prof. science*, Ouachita, 15-16; biol, Mt. Allison, 17-18; biol. and geol, Col. of Charleston, 18-20; *biol*, Stetson, 20-21; William Jewell, 21-22; *Carson and Newman*, 23- A.A.; Eugenics Soc; Entom. Soc. Amer; N. C. Acad. The gall fly, *Diastrophus nebulosus*; cross-overs in *Drosophila*; respiration in fishes; cave ecology.
- Ives, Prof. Sumner A(lbert)**, Furman University, Greenville, S. C. *Plant physiology*. Alfred, Maine, July 23, 82. A.B, Wake Forest, 03; B.S, Chicago, 09, M.S, 18, Ph.D, 22. Prin, Siler City Inst, 03-05; teacher nat. sciences, Chowan Col, 05-09; *prof*, Ouachita, 09-12; *biol*, Howard, 18-26, dean science, 24-26; *Furman*, 26- A.A.; Bot. Soc; Soc. Plant Physiol; S. C. Acad. (v. pres, 27); Ala. Acad. (sec'y, 23); Birmingham Sci. Soc. (pres, 23). Germination of the seeds of *Ilex opaca* Ait and *Ilex Cassine* L; floras of Birmingham district, Mentone region and Caesar's Head.
- Ivy, Dr. A(ndrew) C(onway)**, Northwestern University School of Medicine, Chicago, Ill. **Physiology*. Farmington, Mo. B.S, Chicago, 16, M.S, 17, Ph.D, 18, M.D, Rush Med. Col, 21. Instr. physiol, Chicago, 18-19; assoc. prof, sch. med, Loyola, 10-23; physiol, Chicago, 23-25; *head dept. physiol. and pharmacol, sch. med, Northwestern*, 25- A.A.; Physiol. Soc; Am. Med. Ass; fel. Col. Physicians. Gastro-intestinal tract; brain; glands of internal secretion.
- Ivy, Dr. Emma Kohman**, University of Chicago, Chicago, Ill. *Physiology*. Dillon, Kans, Jan. 10, 89. B.S, Kansas, 16; Ph.D, Chicago, 19. Asst. *physiol*, Chicago, 16-18, assoc, 18-19, *instr*, 19-

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Jack, Prof. John G(eorge), East Walpole, Mass. *Forestry*. Chateaugay, Que, Can, April 15, 61. *Lecturer, Arnold Arboretum*, 91-; lecturer landscape hort, Mass. Inst. Tech, 99-08; instr. forestry, *Harvard*, 03-08, *asst. prof. dendrol*, 08- U. S. Geol. Surv; U. S. Bur. Forestry. A.A.; Forestry Ass; Soc. Foresters; Bot. Soc; Am. Acad; Mass. Hort. Soc; Boston Soc. Nat. Hist; Dendrol. Gesell. Dendrology; arboriculture; horticulture; economic entomology.

Jackling, Daniel C, Hobart Building, San Francisco, Calif. *Mining engineering*. Near Appleton City, Mo, Aug. 14, 69. B.S. and Met.E, Mo. Sch. Mines, 92. Asst. prof. chem, Mo. Sch. Mines, 91-93; metallurgist and manager metal. construction and plants, Colo. and Utah, 93-03; managing director, *Ray Consol. Copper Co*; v. pres, *Nev. North. Ry*; *Ray and Gila Valley Ry. Co*; pres, *Utah Copper Co*; *Nev. Consol. Copper Co*; *Butte and Superior Mining Co*; *Mesabi Iron Co*; *Bingham and Garfield Ry.* Director and

chairman operating committee, Kennecott Copper Corp. Min. and Metal. Eng; Min. and Metal. Soc.

Jackson, A(ngus) B. Laboratory of Plant Pathology, St. Catharines, Ont, Can. *Plant pathology*. Elmira, Ont, July 26, 93. B.S.A., 20, M.A., 26. Asst. pathologist, *Dominion Exp. Farms*, 23-26, *plant pathologist*, 26- A.A.; Phytopath. Soc. Fusarium wilt of China aster; verticillium wilt of raspberry.

Jackson, Prof. Charles Loring, 383 Beacon St., Boston, Mass. **Chemistry*. Boston, April 4, 47. A.B., Harvard, 67, A.M., 70; Heidelberg and Berlin, 73-75. Asst. chem., *Harvard*, 68-71, asst. prof., 71-81, prof., 81-99, Erving prof., 99-12, *emer. prof.*, 12- Nat. Acad.; A.A.; Chem. Soc.; Am. Acad. (cor. sec'y); British Ass.; Chem. Gesell. Organic selenium compounds; substituted benzyl compounds; curcumin; turmerol; preparation of borneol; difluorbenzoic acid; benzotrisulphonic acid; sodic zincate; trinitro compounds; behavior of nitrobenzols containing halogens; orthoquinones; theory of malonic ester reactions.

Jackson, Prof. Chevalier, University of Pennsylvania Hospital, 34th and Spruce Streets, Philadelphia, Pa. *Medicine*. Pittsburgh, Pa, Nov. 4, 65. West. Univ. of Pa; M.D. Jefferson Med. Col. 86. *Prof. laryngol*, Pittsburgh, 08-16; Jefferson Med. Col. 16-23; *bronchoscopy and esophagoscopy*, *Pennsylvania*, 20-; *Jefferson Med. Col.*, 23- Lecturer, Woman's Med. Col. of Pa; Temple. Research fund prize, Laryngol, Rhinol. and Otol. Soc; Bok prize, 26. Am. Med. Ass; Col. Surg; Laryngol. Ass; Laryngol, Rhinol. and Otol. Soc; Acad. Ophthalm. and Oto-Laryngol; Bronchos. Soc; Ass. Thoracic Surg; Philos. Soc; Phila. Laryngol. Soc; Phila. Col. Physicians; hon. mem. N. Y. Acad. Med; Pittsburgh Acad. Med; hon. mem. Soc. Belge d'Oto-Laryngol; hon. mem. Scottish Otol. and Laryngol. Soc; hon. mem. Soc. Rom. de Oto-Rino-Laryngol. Bronchoscopy; esophagoscopy; foreign bodies in the air and food passages; cancer of the larynx.

Jackson, Prof. C(larence) M(artin), University of Minnesota, Minneapolis, Minn. **Anatomy*. What Cheer, Iowa, April 12, 75. Fellow, Missouri, 97-99, B.S., 98, M.S., 99, M.D., 00, LL.D., 23; Chicago, 00-01; Leipzig, 03-04; Berlin, 04. Instr. anat., Missouri, 99-00, asst. prof. in charge anat. and histol., 00-02; prof., 02-13, dean med. sch., 09-13; *prof. and director dept. anat.*, *Minnesota*, 13-, acting dean grad. sch., 17-18, 25. Assoc. ed., 'Am. Jour. Anat.'; ed., fifth to eighth editions, 'Morris's Human Anat.' Advisory board, Wistar Inst; chairman med. div., Nat. Research Council, 23-24. A.A.; Soc. Nat; Ass. Anat. (pres, 22-24); Am. Med. Ass; Soc. Exp. Biol; Anat. Gesell. Human and comparative anatomy, histology and embryology; experimental morphology; human and animal growth; effects of inanition upon growth and structure.

Jackson, Prof. Daniel D(ana), Columbia University, New York, N. Y. *Chemistry*, *Chemical engineering*. Gloucester, Mass, Aug. 1, 70. B.S., Mass. Inst. Tech, 93; Harvard Med. Sch., 96-

97; M.S., N. Y. Univ, 08; Sc.D., Pittsburgh, 24. Chemist, Boston Water Works, 93-95; bacteriologist, Worcester, Mass, 95; biologist, Mass. State Board Health, and lecturer, Mass. Inst. Tech, 95-97; chief chemist, Mt. Prospect lab, Brooklyn Dept. Water Supply, New York, 97-04; director laboratories, Dept. Water Supply, Gas and Elec, New York, 04-12; lecturer, sch. mines, eng. and chem., *Columbia*, 11-13, asst. prof., 13-17, assoc. prof., 17-18, *prof. and exec. officer, dept. chem. eng.*, 18- Dean, Sch. Mil. Cinemat, Sig.C, prof, sch. explosives, ordnance dept., U.S.A., 17-19. A.A.; Chem. Soc; Soc. Chem. Indust; Micros. Soc; Soc. Bact; Eng. Educ; Pub. Health Ass; N. Y. Chemists Club; Brooklyn Eng. Club; Brooklyn Inst; Soc. de Chim. indust. Chemistry and biology of water supply; boiler treatment; coal; oil; asphalt and cement; colloid and bio chemistry.

Jackson, Dr. D(ennis) E(merson), University of Cincinnati Medical School, Cincinnati, Ohio. *Pharmacology*. Ridgeport, Ind, Sept. 3, 78. A.B., Indiana, 05, A.M., 06, Ph.D., 08; Chicago, summers, 05-09, M.D., Rush Med. Col., 13. Asst. physiol., Indiana, 04-06; pharmacol. and physiol. chem., Chicago, 06-07; instr. pharmacol., Indiana, 07-08, asst. prof. physiol. and pharmacol., 08-10; assoc. pharmacol., Washington (St. Louis), 10-15, assoc. prof., 15-18; *prof. pharmacol. and therapeutic*, *Cincinnati*, 18- Summer, special expert, div. pharmacol., hygienic lab., U. S. Pub. Health Service, 18. Assoc. ed., 'Jour. Lab. and Clin. Med.' Scroll of Merit, Nat. Anesthesia Research Soc, 23. A.A.; Soc. Pharmacol; Physiol. Soc; Am. Med. Ass; Soc. Exp. Biol; Cincinnati Acad; Int. Anesthesia Research Soc. (hon. pres, 25). Adrenalin; uranium; magnesium; vanadium; opium alkaloids; nitrous oxid; arsphenamin; ethyl chlorid; ethyl bromid; pulmonary action of drugs; physiological control of lungs; anaphylaxis; anesthesia; asthma; aconite; pituitary extracts and histamin; propylene; methyl ether; organic mercury compounds; carbon monoxide; organic lead compounds; hypnotics; artificial respiration; angina pectoris.

Jackson, Prof. Dugald C(aleb), Massachusetts Institute of Technology, Cambridge, Mass. **Electrical engineering*. Kennett Square, Pa, Feb. 13, 65. B.S., Pa. State, 85, C.E., 88; Cornell, 85-87. Instr. physics, Cornell, 86-87; v. pres. and engineer, West. Eng. Co, Lincoln, Nebr, 87-89; asst. chief engineer, Sprague Elec. Ry. and Motor Co, N. Y., 89-90; chief engineer, cent. dist., Edison Gen. Elec. Co, 90-91; *prof. elec. eng.*, Wisconsin, 91-07; *prof. and head dept.*, *Mass. Inst. Tech.*, 07- Consulting engineer and expert for various corporations. Lieut. col., C.Eng., 18-19; commendation of commander in chief, U.S.A. Chevalier, Légion d'honneur. Jury awards, Columbian Expos, 93; Pan-Am. Expos, 01. A.A.; Physical Soc; Elec. Eng. (pres, 10); Mech. Eng; Civil Eng; Eng. Educ. (pres, 06); Am. Acad; Inst. Elec. Eng. Gt. Britain; Soc. française des Elec. Applied electricity.

Jackson, Prof. Dunham, University of Minnesota, Minneapolis, Minn. **Mathematics*. Bridge-water, Mass, July 24, 88. A.B., Harvard, 08,

A.M., 09; Ph.D., Göttingen, 11. Instr. math., Harvard, 11-16, asst. prof., 16-19; *prof.*, *Minnesota*, 19- Capt, ordnance dept., 18-19. A.A. (v. pres., A., 27); Math. Soc. (v. pres., 21); Math. Ass. (v. pres., 24, pres., 26); Am. Acad. Trigonometric and other series theory of statistics.

Jackson, Dr. Ernest L(ee), Western Reserve University, Cleveland, Ohio. *Organic chemistry*. Gillsville, Ga, Sept. 27, 91. A.B., Georgia, 13; M.S., Vanderbilt, 17; A.M., Harvard, 20, du Pont fellow, 20-22, Ph.D., 24. Instr. chem., Georgia, 17-18; Austin teaching fellow, Harvard, 18-20; asst. prof., Emory, 22-24; instr., *Western Reserve*, 24-26, asst. prof., 26- Chem. Soc. Reaction of alkaline reagents with beta-bromophosphonic acids; addition of methyl hypobromite to unsaturated compounds.

Jackson, Prof. Fred K(inney), 75 S. Prospect St., Burlington, Vt. *Physiology*. Barre, Vt., March 14, 74. A.B., Vermont, 97, M.D., 99. Intern, Mary Fletcher Hosp., Burlington, Vt., 00-01; instr. *physiol.*, *Vermont*, 01-03, adjunct prof., 03-11, *prof.*, 11- Asst. demonstrator anat., 04-06; lecturer, Mary Fletcher Hosp., 12- Am. Med. Ass.; Burlington Clin. Soc.

Jackson, Dr. Hartley H(arrad) T(hompson), Biological Survey, Washington, D. C. *Zoology*. Milton, Wis., May 19, 81. A.B., Milton, 04; A.M., Wisconsin, 09; Ph.D., George Washington, 14. Instr., high schools, 04-08; asst. zool., Wisconsin, 09-10; asst. biologist, *biol. surv.*, U. S. Dept. Agr., 10-24, *biologist*, 24-25, in charge *div. biol. investigations*, 25- Summers, field naturalist, Wis. Geol. and Nat. Hist. Surv., 08-10. A.A. (councilor); Soc. Nat.; assoc. Ornith. Union; Soc. Mammal. (cor. sec'y, 19-25, ed., 25-); Ec. Soc.; Wis. Acad.; Wis. Nat. Hist. Soc.; Wash. Biol. Soc. (v. pres.). Ecology of vertebrates; zoogeography; systematic mammalogy; behavior of amphipods.

Jackson, Dr. Henry, 380 Marlborough St., Boston, Mass. *Medicine*. Boston, Oct. 25, 58. A.B., Harvard, 80, M.D., 84. Visiting physician, Boston City Hosp.; instr. clin. med., Harvard Med. Sch.; *retired*, 19. Am. Physicians; Am. Acad.

Jackson, Prof. H(enry) Louis, Rhode Island State College, Kingston, R. I. *Chemistry*. Utica, N. Y., Feb. 8, 79. B.S., Mass. Inst. Tech., 05; M.S., Hamilton, 09. Asst. chem., Mass. Inst. Tech., 05; sugar chemist, 06; instr. chem., Mass. Inst. Tech., 07; asst. prof., Kansas, 07-13; state chemist, Idaho, 13-17; *prof. indust. chem.*, N. Dak. Col., 17-18; *R. I. Col.*, 19- Lieut., Sanit. C., 18-19, capt., 19. Chem. Soc. The action of pyridin on salicyl chlorides; lead number of vanilla extracts; vinegar; testing for saccharin; benzoate of soda in food; tin in canned foods.

Jackson, Prof. H(erbert) S(pencer), West Lafayette, Ind. **Botany*. Augusta, N. Y., Aug. 29, 83. A.B., Cornell, 05; Harvard, 08-09; Wisconsin, 26-27. Asst. mycol. and instr. bot., Del. Col. and Exp. Sta., 05-08; Austin teaching fellow, Harvard, 08-09; prof. bot. and plant path., Oregon Col., 09-15; *chief bot.*, *Purdue Exp. Sta.*, 15- Agent, office cereal investigations, bur. plant indust., U. S. Dept. Agr., 18- Summers, instr., Harvard, 09, prof., Cornell, 16, 17. A.A.; Bot.

Soc.; Phytopath. Soc. (pres., Pacific div., 15); New Eng. Bot. Club; Ind. Acad. Mycology; rusts and smuts; plant pathology.

Jackson, Dr. Holmes C(ondict), 338 E. 26th St., New York, N. Y. **Physiology*. New York, Feb. 18, 75. Ph.B., Yale, 96, Ph.D., 99; Strassburg and Bern, 00-01. Asst. *physiol. chem.*, Yale, 96-00; instr., Univ. and Bellevue Hosp. Med. Col., 01-03, asst. prof., 03-05; adjunct prof. and director laboratories *physiol. chem.* and exp. *physiol.*, Albany Med. Col., 05-09; *prof. physiol.*, *Univ. and Bellevue Hosp. Med. Col.*, 09-, asst. dean, 25-; dean col. *dentistry*, N. Y. Univ., 25- A.A.; Soc. Nat.; *Physiol. Soc.*; Soc. Biol. Chem.; Soc. Exp. Biol. (sec'y, 13-23, pres., 23-25); Harvey Soc.; N. Y. Acad. Med.; N. Y. Acad. *Dentistry*. Physiology and clinical medicine.

Jackson, John Price, 130 E. 15th St., New York, N. Y. *Electrical engineering*. B.S., B.E., M.E., Pa. State; Sc.D., Pittsburgh. Constructing and consulting engineer; prof. elec. eng., dean sch. eng. and director eng. exp. sta. and eng. exten., Pa. State, 07-13; Pa. commissioner labor and indust., chairman, Indust. Board, and v. chairman, Pa. Workmen's Ins. Fund, 13; report on operation, elec. power utilities, 20; tech. adviser, Indust. Relations Committee, Phila., 21; nat. director joint fuel committee, Nat. Utility Ass., Washington, D. C., 22; *manager personnel bur.*, N. Y. *Edison Co.*, 23- Trustee, Pa. State. Committees, Eng. Council. Officer, Crown of Italy; Chevalier, Légion d'honneur; Cross of War of Italy; citation, Gen. Pershing. Director econ. damage sect., Am. Peace Commission, mil. report indust. conditions, Eng. and France, and Am. Mil. Mission, Turkey. C.Eng., U.S.A., 17-18, col., O.R.C. Fel. Elec. Eng. (safety codes committee); Mech. Eng. (chairman, committee on safety); Eng. Educ. (past v. pres.); Franklin Inst.; Nat. Elec. Light Ass. (past v. chairman, indust. relations committee); Land Grant Col. Eng. Ass. (pres., 10); Pa. Eng. Soc. (pres., 15); Pa. Eng. Club; N. Y. Elec. Soc.; N. Y. Eng. Club. Electricity and magnetism; heat insulation; heat treatment of metals; road materials; light transmission qualities of glass; accident prevention; alternating current machinery.

Jackson, Dr. L(ambert) L(incoln), 26 Westcott Road, Princeton, N. J. *Mathematics*. Binghamton, N. Y., April 14, 70. A.B., Michigan, 97, A.M., 99; B.Pd., Mich. Nor. Col., 00; Ph.D., Columbia, 06. Instr. math., Mich. Nor. Col., 91-00; prof., N. Y. State Nor. Sch., Brockport, 00-06; *head educ. dept.*, *D. Appleton and Co.*, 06-; asst. supt., schools, N. J., 13-18; supt., N. J. State Home for Boys, Jamesburg, 18-19; *asst. commissioner educ.*, N. J., 20- Joint author math. articles, 'Int. Ency.' Math. Soc. The teaching of mathematics in the sixteenth century.

Jackson, L(awrence) O(scar), 2347 King St., Denver, Colo. *Entomology*. Denver, March 26, 90. A.B., George Washington, 20; A.M., Colorado, 26. Preparator entom., *biol. surv.*, U. S. Dept. Agr., 14-15, sci. preparator, 15-20; *instr. biol.*, *Colorado Springs High Sch.*, 22- Entom. Soc.; Wash. Entom. Soc.; Wash. Biol. Soc.

- Bremidae; fossorial Hymenoptera; flower ecology.
- Jackson, Lloyd E(arl)**, Mellon Institute, Pittsburgh, Pa. *Chemistry*. Oswego, Kans. Dec. 6, 92. B.S. Kansas. Anal. chemist, water laboratories, Kans. State Board Health, 13-16; control chemist, E. I. du Pont de Nemours and Co, 16; chemist, Empire Gas and Fuel Co, Okla, 17-20; *indust. fellow, Mellon Inst.*, 20- Chem. Soc. Water; sewage; dry cleaning; dyeing.
- Jackson, Dr. R(eginald) H(enry)**, 415 N. Carroll St, Madison, Wis. *Surgery*. De Pere, Wis, Jan. 17, 76. Wisconsin, 92-95; M.D. Columbia, 99. Intern, Presb. Hosp, New York, 00-02; lecturer clin. surg, med. sch, Wisconsin, 16-25, *clin. prof. surg.*, 25- Chief staff, Methodist Hosp. and Jackson Clinic. A.A.; Am. Med. Ass; fel. Col. Surg; West. Surg. Soc. General surgery.
- Jackson, Dr. R(ichard) F(ay)**, Bureau of Standards, Washington, D. C. *Chemistry*. Boston, Mass, Jan. 2, 81. A.B. Harvard, 03, Ph.D, 17. Asst. physicist, *Bur. Standards*, 07-16, assoc. chemist, 17-22, *chemist*, 22- Mem. Int. Commission on Sugar Analysis. Chem. Soc; Wash. Acad. Polarimetry; phase rule; homogeneous catalysis; sugar analysis; production of levulose from artichokes and dahlias.
- Jackson, Dr. Robert T(racy)**, Peterborough, N. H. **Paleontology*. Dorchester, Mass, July 13, 61. B.S. Harvard, 84, Sc.D, 89. Instr. paleont, Harvard, 92-99, asst. prof, 99-09; *assoc. paleont, museum comp. zool, Harvard*, 11- A.A; (sec'y, F, 98); Soc. Nat; Paleont. Soc; Geol. Soc. (v. pres, 19); Am. Acad. Anatomy, structure and phylogeny of Pelecypoda and Paleozoic Echini; localized stages in development of plants and animals; development and morphology of Echini.
- Jackson, Dr. T(homas) F(ranklin)**, Bloomington, Ind. *Geology*. Glen Allen, Mo, Feb. 20, 82. A.B. Indiana, 13, A.M, 14, fellow, 14-15, Ph.D, 16. Teaching fellow, Indiana, 13; *consulting geologist*. Ind. Acad. Stratigraphy; paleobotany.
- Jackson, Dr. Vestus T(wiggs)**, University of Florida, Gainesville, Fla. *Chemistry*. Sandersville, Ga, Jan. 29, 89. A.B, B.S, Mercer, 12; M.S, Chicago, 16, Ph.D, 21. Asst. physics, Mercer, 10-11, chem, 11-12; Okla. Agr. and Mech. Col, 12-16; chemist, Lindsay Light Co, 16-20; Catholic Univ, 21-22; West. Elec. Co, 22-23; *acting head dept. chem, Heidelberg*, 24; *Florida*, 24- Chem. Soc. Manganates; rare and precious metals.
- Jackson, Prof. V(ictor) H(ugo)**, 40 E. 41st St, New York, N. Y. *Orthodontia, Orthopedia*. Arcade, N. Y, May 13, 50. D.D.S, Michigan, 77, M.D, 78, hon. A.M, 14. *Private practice*, N. Y, 80-; clinician and demonstrator, *Buffalo*, 92-95, clinician and lecturer, 95-98, *prof. orthodont*, 98-15, *emer. prof.*, 15- Lecturer, Forsythe Dental Infirmary, Boston; Col. Dental and Oral Surg, New York; Pa. Col. Dental Surg. Director, Int. Dental Jour. and Pub. Co, 01-06. Medal, Expos. Universelle Int, France, 00; Jarvey gold medal, N. Y. Dental Soc, 16; medals, Int. Med. Congresses. Hon. v. pres, Fourth Int. Dental Cong, St. Louis, 04; hon. pres, sect. orthodont, Fifth Int. Dental Cong, Berlin, 09; v. pres, Panama-Pacific Dental Cong, San Francisco, 15; hon. pres, sect. orthodont, Seventh Int. Dental Cong, Phila, 26; hon. pres, First Int. Orthodont. Cong, N. Y, 26. Soc. Orthodont; Am. Dental Ass. (exec. committee, 90-98); Nat. Dental Ass. (exec. committee, 98-13); fel. Col. Dentists; fel. Am. Med. Ass; fel. N. Y. Dental Soc. (v. pres, first district, 92, pres, 94); N. Y. Odontol. Soc; N. Y. Orthodont. Soc. (founder); fel. N. Y. Acad. Med; fel. N. Y. Acad; N. Y. Inst. Stomatol; Brooklyn Dental Soc; Int. Ass. Dental Research; European Orthodont. Soc. Orthodontia and orthopedia of the face; treatment of deficient nasal space to increase nasal apertures and capacity.
- Jackson, Vincent William**, 737 MacMillan Ave, Winnipeg, Man, Can. *Biology*. Grimsby, Ont, Can, Jan. 22, 86. B.A, Queen's (Can); M.S, Minnesota, 23. Lecturer biol, Ont. Agr. Col, 04-06; director agr. educ, New Zealand, 06-10; *prof. biol, Manitoba*, 13- Can. Soc. Tech. Agr; Winnipeg Sci. Club. Ecology and epidemiology of flora and fauna; vegetational succession in Red River Basin; standard method of plant survey; rusts and barberry eradication; fur and game resources of Manitoba.
- Jacobs, Prof. Elbridge C(hurchill)**, University of Vermont, Burlington, Vt. *Geology, Mineralogy*. Ogunquit, Maine, Feb. 15, 73. B.S, Mass. Inst. Tech, 96; A.M, Columbia. Asst. mining and metal, Mass. Inst. Tech, 97-99; instr. chem. and miner, *Vermont*, 99-01, asst. prof, 01-04, *prof.*, 04-24, *geol. and miner*, 24- Asst. state geologist, Vt. A.A; Chem. Soc; Geol. Soc. Vermont mineral deposits.
- Jacobs, Dr. Henry Barton**, 11 Mt. Vernon Place, Baltimore, Md. *Medicine*. Norwell, Mass, June 2, 58. A.B, Harvard, 83, M.D, 87. Asst. bot, Harvard, 83-85; assoc. med, Hopkins, 96-04. Lecturer on prevention of tuber; past director, Md. State Sanatorium; pres, Md. Hosp. for Consumptives. Assoc. ed, 'Annals Med. Hist'; 'Rev. of Tuber.' Trustee, Hopkins Hosp; Peabody Inst; Md. Inst. Arts; Church Home and Infirmary; Hosp. for Crippled Children. A.A; Tuber. Ass. (past sec'y); Am. Med. Ass; Md. Ass. Tuber. (past pres); Int. Ass. Tuber; Soc. d'Hist. de Méd. de France. Sociology; education; suppression and cure of tuberculosis; advancement and history of medicine.
- Jacobs, J(oseph) Warren**, 404 S. Washington St, Waynesburg, Pa. *Ornithology*. Waynesburg, Dec. 5, 68. Pub. schools. *Director, Museum Applied Oölogy*. Hon. mem. board visiting members, Museum Comp. Oölogy. Advisory council, World's Cong. on Birds, Chicago, 93. Highest award, gold medal, birds' eggs, La. Purchase Expos, 04. A.A; mem. Ornith. Union; Wilson Ornith. Club; Cooper Ornith. Club; Mich. Ornith. Club; Del. Valley Ornith. Club. Oölogy; life histories of birds.
- Jacobs, Prof. M(erkel) H(enry)**, University of Pennsylvania, Philadelphia, Pa. **Physiology*. Harrisburg, Pa, Dec. 6, 84. A.B, Pennsylvania, 05, Ph.D, 08; Berlin, 08-09. Instr. zool, *Penn-*

- sylvania*, 09-13, asst. prof, 13-23, *prof. gen. physiol.*, 23- Instr. Woods Hole, 21-, assoc. director, Marine Biol. Lab, 25-26, director, 26- Ed. board, 'Biol. Bul.', 'Jour. Morphol.', and 'Jour. Exp. Zool.' Capt, Sanit.C, 18-19. A.A; Soc. Nat; Soc. Zool; Physiol. Soc; Phila. Acad. Effects of desiccation, high temperatures and carbon dioxid on organisms; cell permeability; hemolysis.
- Jacobs, Dr. W(alter) A.** Rockefeller Institute, New York, N. Y. *Chemistry*. New York, Dec. 24, 83. A.B, Columbia, 04, A.M, 05; Ph.D, Berlin, 07. Fellow *chem.*, *Rockefeller Inst.*, 07-08, asst, 08-10, assoc, 10-12, assoc. mem, 12-23, *mem.*, 23- A.A; Chem. Soc; Soc. Biol. Chem; Soc. Exp. Biol; Therapeut. Soc; Harvey Soc. Organic chemistry; chemotherapy; amino and nucleic acids; sugars; synthesis of bactericidal compounds; hexamethylene tetramine; cinchona compounds; arsenic compounds; dyes; alkaloids; structure of cardiac glucosides; strophanthin; digitalis glucosides; ouabain.
- Jacobs-Muller, Dr. Jessie (Marie)**, 503 W. 28th St, Austin, Texas. *Mathematics*. Wilmington, Del, Oct. 1, 90. A.B, McPherson, 14; fellow, Kansas, 15-16, A.M, 16; fellow, Illinois, 17-19, Ph.D, 19. Teacher, high schools, Kans, 11-12, 14-15; asst, Illinois, 16-17; assoc. prof. math. and physics, Rockford, 19-20; instr. math, Texas, 20-24. A.A; Math. Soc; Math. Ass. The twenty-seven lines on a cubic surface.
- Jacobsen, Dr. M(ary) E(ster)**, 37 State St, Bloomfield, N. J. *Biochemistry*. Nakvascha, Austria, July 27, 90. C.E, Technische Hochschule, Zurich, 12, Sc.D, 15. Research chemist, Weiler-ter Meer, Uerdingen, Germany, 15-16; ed, 'Ed. Publications and Abstracts,' Deutsche Chem. Gesell, Berlin, 16-17; chief chemist, Chem. Co, Freiburg, 17-22; co-worker of Prof. Max Bergman, Kaiser Wilhelm Inst, Berlin, 21-22; *librarian-chemist, plant research laboratories, Lehn and Fink, Inc*, 23- A.A; Chem. Soc. Organic chemistry; magneton theory and copper salts; artificial resins; refined tar oils; the chemistry of proteins.
- Jacobsen, Dr. Victor C(larence)**, 44 Lawndridge Ave, Albany, N. Y. *Pathology*. La Crosse, Wis, Sept. 17, 91. B.S, Wisconsin, 15; M.D, Harvard, 17. Med. house officer, Peter Bent Brigham Hosp, 17-18, path. house officer, 19, res. pathologist, 20-21; asst. prof. path, Wisconsin, 19-20; *prof. path. and bacter.*, *Albany Med. Col.*, 21- Pathologist, Albany Hosp. and Child's Hosp, 21- Lieut, M.C, 18. A.A; Ass. Path. and Bact; Soc. Bact; Ass. Cancer Research; N. Y. Ass. Pub. Health Laboratories (pres, 25); Int. Ass. Med. Mus. Autotransplantation of human tissues; multiple myeloma; hypernephroma; tumors of acoustic nerve; haemoglobin determination; paralysis agitans; diseases of spinal cord.
- Jacobson, Prof. C(arl) A(lfred)**, Morgantown, W. Va. *Chemistry*. Grantsburg, Wis, Jan. 25, 76. B.S, Carleton, 03, M.S, 07; Ph.D, Hopkins, 08; Cracow, Geneva, Upsala and Halle, 11-13. Fellow and research chemist, Rockefeller Inst, 08-09; prof. agr. chem, Nevada, and chief chemist, Exp. Sta, 09-18; *prof. chem.*, *West Virginia*, 20- A.A; Chem. Soc. (pres, North. W. Va. sect, 26-, councilor, 27); Ass. Biol. Chem. Electrical conductivity; phosphatids; poisonous plants; chlorophyll; enzymes; saponin; fluosilicic acid and fluosilicates; chemical spelling; chemical apparatus; calculating machines.
- Jacobson, Dr. Clara**, 7556 Saginaw Ave, Chicago, Ill. *Physiology*. Chicago, July 21, 87. B.S, Chicago, 09, M.S, 10, fellow, 10-11, Ph.D, 16, M.D, Rush Med. Col, 13. Intern, Cook Co. Hosp, 14-15; *physician in charge, Grand Crossing Dispensary, Municipal Tuber. Sanitarium*, 17- Am. Med. Ass; Pub. Health Ass; Chicago Path. Soc. Glands of internal secretion; tuberculosis.
- Jacobson, Dr. Ralph A(lbert)**, E. I. du Pont de Nemours and Co, Wilmington, Del. *Chemistry*. Omaha, Nebr, June 22, 96. Ph.G, Creighton, 16; B.S, Nebraska, 18, A.M, 22; fellow, Illinois, 24-25, Ph.D, 25. Chemist, Union Pacific Ry, 18-21; asst. chem, Nebraska, 21-22; Illinois, 22-24; *research org. chemist, Exp. Sta. E. I. du Pont de Nemours and Co*, 25- Chem. Soc. Polyhydroxy-methylantraquinones.
- Jacobus, Dr. D(avid) S(chenck)**, 85 Liberty St, New York, N. Y. *Mechanical engineering, Physics*. Ridgefield, N. J, Jan. 20, 62. M.E, Stevens, 84. Instr. and asst. prof. exp. mech, Stevens, 84-98, prof. exp. mech. and eng. physics, 98-03, *in charge Carnegie Lab. Eng.*, 00-, *prof. exp. eng.*, 03- Advisory engineer, The Babcock and Wilcox Co, 06-, head eng. dept; special lecturer, dept. exp. eng, Stevens, 06- A.A. (sec'y, D, 93, v. pres, 04); Math. Soc; Mech. Eng. (manager, 00, v. pres, 03); Min. Eng; Elec. Eng; Eng. Educ; Naval Archit. and Marine Eng; Soc. Refrig. Eng. (director, 04, pres, 06); Franklin Inst. Steam engineering.
- Jacoby, George W**, 44 W. 72d St, New York, N. Y. *Neurology, Psychiatry*. St. Louis, Mo, Sept. 21, 56. M.D, Bellevue Med. Col, 77, Berlin, 78. Prof. nervous and mental diseases, Woman's Med. Col, N. Y., 90-00; *consulting neurologist, Lenox Hill Hosp, Beth Israel Hosp. Infirmary for Women and Children*. Am. Med. Ass; Neur. Ass. (pres, 15); Soc. Med. Jurisprudence; N. Y. Acad. Med; N. Y. Neur. Soc. (pres, 88-90). Diseases of the mind and nervous system; diseases of the muscles; medical jurisprudence; electrotherapy.
- Jacoby, Prof. Harold**, 39 Claremont Ave, New York, N. Y. *Astronomy*. New York, March 4, 65. A.B, Columbia, 85, Ph.D, 96. Asst. astronomer, U. S. eclipse exped, W. Africa, 89-90; voluntary asst, Cape of Good Hope Observatory, 90; adjunct prof. *astron.*, *Columbia*, 94-04, *prof.*, 04-, *head dept.*, 05- A.A; Astron. Soc. (ed, 07-09); Math. Soc. (treas. and ed, 'Bul'); fel. N. Y. Acad. (sec'y); fel. Royal Astron. Soc; Astron. Gesell. Application of photography to astronomical measurements of precision; stellar parallax; star clusters; variation of latitude; aberration of light; polar photography; navigation.
- Jacoby, Prof. Henry S(ylvester)**, 650 Highland Ave, Bethlehem, Pa. *Bridge engineering*. Springtown, Pa, April 8, 57. C.E, Lehigh, 77.

- Topog. corps, Second Pa. Geol. Surv, 78; transitman, gaging Red River and Atchafalaya River, 79; chief draftsman, U. S. Engineer's Office, Memphis, Tenn, 79-85; instr. civil eng, Lehigh, 86-90; asst. prof. *bridge eng. and graphics*, Cornell, 90-94, assoc. prof, 94-97, prof, 97-22, *emer. prof*, 22- A.A. (sec'y, D, 95, v. pres, 01); Civil Eng; Eng. Educ. (sec'y, 00-02, ed, 'Proc,' 00, 01, pres, 15); Ry. Eng. (chairman, committee on wooden bridges and trestles, 06-11); Wash. Acad. Bridge stresses and design; graphic statics; stresses in metallic arches and in reinforced concrete arches; structural details.
- Jaffa, Prof. Myer Edward**, University of California, Berkeley, Calif. *Chemistry*. Sydney, Australia, Oct. 6, 57. Ph.B, California, 77, M.S, 96. Asst. chemist, tenth census, 79-80; asst. agr. dept, California, 80-81; asst. chemist, North. Transcontinental Surv, 81-83; first asst. and chemist, dept. viticulture, California, 83-89, instr. agr, 93-96, asst. prof. in charge agr. chem, 96-06, *nutrition*, 06-08, prof, 08-25, *emer. prof*, 25- Food expert, U. S. Dept. Agr, 00; director bur. food and drugs, Calif. State Board Health. Chem. Soc; Agr. Chem. (pres, 04). Agricultural chemistry; soils; water; cattle and human foods; nutrition of man and poultry.
- Jaffe, Dr. Henry L**, Hospital for Joint Diseases, 1919 Madison Ave, New York, N. Y. *Pathology*. New York, 96. B.S, M.D, 20. Asst. pathologist, serologist and bacteriologist, Montefiore Hosp, New York, 22-25; *director laboratories*, Hosp. for Joint Diseases, 25- Soc. Exp. Path; Ass. Path. and Bact; Soc. Exp. Biol; N. Y. Path. Soc. Pathological physiology of the endocrine glands and bones.
- Jaffe, Dr. R(ichard) H(erman)**, 500 Fullerton Parkway, Chicago, Ill. *Pathology*. Vienna, Austria, June 13, 88. M.D, Vienna, 13. Docent, Vienna, 22; assoc. path, col. med, Illinois, 23-25, assoc. prof, 25- Director, Uihlein Mem. Lab, Grant Hosp, Chicago. Ass. Path. and Bact; Ass. Immunol; Chicago Soc. Path; Chicago Internal Med. Soc; Chicago Inst. Med. Pathological anatomy and histology.
- Jaggat, Dr. T(homas) A(ugustus)**, Volcano House, Hawaii. **Geology*. Philadelphia, Pa, Jan. 24, 71. A.B, A.M, Harvard, 94, Ph.D, 97; Heidelberg and Munich, 94-95. Instr. geol, Harvard, 95-03, asst. prof, 03-06; prof. and head dept, Mass. Inst. Tech, 06-12; director, Hawaiian Volcano Observatory, 12-19; *volcanologist*, U. S. Weather Bur, 19-24; U. S. Geol. Surv, 24- Asst. geologist, U. S. Geol. Surv, 98-04. Geophys. Union. Am. Acad; Wash. Acad. Experimental geology; volcanology; physical mineralogy; geophysics; the Caribbean eruptions of 1902; volcanology of Aleutian Islands, Hawaii, Japan, Italy, New Zealand and Central America.
- Jakobsen, B(ernhard) F(aaborg)**, 202 N. Broadway, Los Angeles, Calif. *Hydraulics*. Hjørring, Denmark, Sept. 25, 81. E.E, Mittweida Tech. Inst, Germany, 02; Dresden, 03. Draftsman and designer, 03-07; engineer, U. S. Reclamation Service, 07-12; elec. engineer, Cerro de Pasco Mining Co, Peru; with Sanderson and Porter, Chicago, and designing engineer, Homestake Mining Co, S. Dak, 12-19; designing engineer in charge San Joaquin Light and Power Corp, Calif, 19-22; consulting engineer, Feather River Power Co, 22-24; *engineer in charge dams*, Los Angeles County Flood Control Dist, 24- Norman medal, Soc. Civil Eng, 24. A.A; Elec. Eng; Civil Eng. Economics of synchronous condensers; corona tests at high altitude; surge tanks; stresses in multiple arch dams; stresses in thick arch of dams.
- Jakosky, J(ohn) J(ay)**, 1016 W. Ninth St, Los Angeles, Calif. *Electrical engineering*. Vinita, Okla, Jan. 20, 95. B.S, Kansas, 20, M.E, 25; Carnegie Inst. Tech, 22-23; E.E, Pittsburgh, 25. Asst. oil shale engineer, U. S. Bur. Mines, 20-22; asst. elec. engineer, 22-24, assoc. elec. engineer, in charge radio and underground communication laboratories, 24-25; *elec. research engineer*, West. Precipitation Co, 25-; consulting engineer, Radiore Co. and Southwestern Eng. Corp, 25- Instr, Kansas; construction engineer, Kans. Nat. Gas Co; consulting engineer, Pa. Radio Eng. Radio engineering; oil shale; underground communication; radio interference.
- James, Prof. Charles**, University of New Hampshire, Durham, N. H. **Chemistry*. Northampton, Eng, 80. F.I.C, London, 07. Chemist, Nat. Ref. Co, 05-06; asst. prof. *inorg. chem*, New Hampshire, 06-12, *prof*, 12- Nichols medal, Chem. Soc, 11. Chem. Soc; London Chem. Soc. Rare metals.
- James, Prof. G(eorge) O(scar)**, Washington University, St. Louis, Mo. *Mathematics*. Bowers Hill, Va, Aug. 1, 73. A.B, Hopkins, 95, Ph.D, 99. Instr. physics, Utah, 96-97; math. and astron, Lehigh, 02-03; math, Washington (St. Louis), 03-08, asst. prof. astron. and math, 08-13, *prof. applied math. and dean col*, 18- Math. Soc. Approximate longitudes from observations of the moon in the polaris vertical circle; relation between empirical and inertial trihedrons of gravitational astronomy; philosophy of relativity theory and of science.
- James, Prof. Glenn**, University of California at Los Angeles, Los Angeles, Calif. *Mathematics*. Wabash, Ind, Oct. 2, 82. A.B, Indiana, 05, A.M, 10; Ph.D, Columbia, 17. Instr. math, Mich. State Col, 05-08; Purdue, 08-17, asst. prof, 17-19; Carnegie Inst. Tech, 19-20, assoc. prof, 20-22; asst. prof, California at Los Angeles, 22-25, *assoc. prof*, 25- A.A; Math. Soc; Math. Ass. Theory of divergent series.
- James, Henry D(uvall)**, 435 Locust St, Pittsburgh, Pa. *Electrical engineering*. Baltimore, Md, Sept. 21, 74. B.S, Pennsylvania, 95, M.E, 96. Consulting control engineer, Westinghouse Elec. and Mfg. Co. Fel. Elec. Eng; West. Pa. Eng. Soc. (past pres). Control of electric motors.
- James, Prof. J(oseph) H(idy)**, Carnegie Institute of Technology, Pittsburgh, Pa. *Industrial organic chemistry*. B.S, Buchtel, 94; Ph.D, Pennsylvania, 99. Asst. chem. and physics, Buchtel, 94-97; chief chemist, Lake Su-

- perior Power Co, Can, 99-02; asst. prof. textile chem, Clemson, 02-05; *prof, Carnegie Inst. Tech*, 05- Chem. Soc; Electrochem. Soc; Chem. Eng; Eng. Educ; West. Pa. Eng. Soc. Storage of acetylene; manufacture of oxidation products from hydrocarbons.
- James, Lawrence H(enry)**, U. S. Department of Agriculture, Washington, D. C. *Bacteriology*. Wayne, Nebr, Aug. 5, 98. B.S., Iowa Col, 21; Ph.D., Yale, 27. *Bacteriologist, bur. chem, U. S. Dept. Agr*, 22- Soc. Bact. Sanitary bacteriology; food decomposition; thermogenic powers of bacteria.
- James, Prof. Preston E(verett)**, University of Michigan, Ann Arbor, Mich. *Geography*. Brookline, Mass, Feb. 14, 99. A.B., Harvard, 20, A.M., 21; Ph.D., Clark, 23. Asst. geog, Harvard, 19-21, Radcliffe, 20; instr, Clark, 21-23; *Michigan*, 23-24, *asst. prof*, 24- Am. Geog. Soc; Meteor. Soc; Nat. Council Geog. Teachers. The development of transportation in South America; regional and economic geography of Trinidad.
- James, W(illiam) F(leming)**, Canadian Geological Survey, Ottawa, Ont, Can. *Geology*. St. John, N. B., Dec. 1, 94. B.A., M.Sc., Ph.D. *Geol. surv, Ottawa*, 23- Investigation of Precambrian geology of northern Quebec and Ontario.
- Jamieson, Dr. George S(amuel)**, 3914 McKinley St, N. W., Washington, D. C. *Chemistry*. Bridgeport, Conn, June 7, 79. Ph.B., Yale, 01, Ph.D., 04. Instr. anal. chem, Sheffield Sci. Sch, Yale, 04-09, asst. prof, 09-18, anal. research chemist, 18-19; *chemist in charge oil, fat and wax lab, bur. chem, U. S. Dept. Agr*, 19- A.A.; Chem. Soc; Oil Chem. Soc; Wash. Acad. Organic, inorganic and analytical chemistry; mineralogy; methods for various elements; vegetable oils.
- Janney, Dr. Nelson W(ilson)**, Pacific Mutual Building, Los Angeles, Calif. *Endocrinology*. Philadelphia, Pa, Sept. 13, 81. B.S., Pennsylvania, 02, M.D., 06; Munich, 11; D.Chem, Marburg, 12. Research, Herter Lab, New York, 12; director metab. lab, Montefiore Home and Hosp, 12, adjunct attending physician, 18; adjunct prof. med, N. Y. Post-Grad. Med. Sch, and attending physician, Hosp, 17-19; director, Mem. Metab. Clinic, Santa Barbara, 19-20; *consultant, Scripps Metab. Research Clinic, La Jolla*, 24- Chief med. service, Base Hosp, 99, U.S.A., 18. Am. Med. Ass; Soc. Biol. Chem; Ass. Study Int. Secretions; Soc. Clin. Invest; Pacific Interurban Clin. Club; Chem. Gesell. Diseases of metabolism and endocrinology; influence of the thyroid gland on metabolism; metabolism in diabetes.
- Jansky, Prof. Cyril M(ethodius)**, 2117 Jefferson St, Madison, Wis. *Electrical engineering*. Richland Co, Wis, March 15, 70. A.B., Valparaiso, 91; B.S.(E.E.), Michigan, 04. Research asst, Bur. Standards, 04-05; *prof. elec. eng.* and acting dean sch. applied science, Oklahoma, 05-08; *prof, Wisconsin*, 08- A.A.; assoc. Elec. Eng; Eng. Educ; Wisconsin Acad; Prague Soc. Physics and Math. Determination of E.M.F. of Clark and Weston cells; the coulometer; electrical meters; direct current machinery; principles of the telephone, radiotelegraphy and storage batteries.
- Jaques, Prof. H(arry) E(dwinn)**, Iowa Wesleyan College, Mt. Pleasant, Iowa. *Entomology*. Danville, Iowa, July 24, 80. B.S., Iowa Wesleyan, 11; A.M., Ohio State, 17; Iowa Col. *Prof. biol, Iowa Wesleyan*, 12- Field entomologist and collaborator, bur. entom., U. S. Dept. Agr, 18- A.A.; Iowa Acad. Biology; economic entomology; grasshopper control; white grub and army worm distribution; reproduction of weeds.
- Jardine, James T(ertius)**, Agricultural Experiment Station, Corvallis, Oregon. *Forestry*. Cherry Creek, Idaho, Nov. 28, 81. B.S., Utah Col, 05; Chicago, 05-06. Instr. English, Utah Col, 05-07; special agent, U. S. Forest Service, 07-08, deputy forest supervisor, 08-10, inspector grazing, 10-20, in charge range investigations and surveys, 20; *director, Oregon Exp. Sta*, 20- Lecturer, Washington (Seattle), 10-11, Montana, 10-11, Colo. Col, 11, forest sch, Yale, 14-16. A.A.; Soc. Foresters; Ecol. Soc; Wash. Acad; Wash. Bot. Soc. Range management; livestock production; native pastures; economic botany.
- Jardine, Sec'y W(illiam) M(arion)**, U. S. Department of Agriculture, Washington, D. C. *Agriculture*. Oneida Co, Idaho, Jan. 16, 79. B.S.A., Utah Col, 04; Illinois, 06; LL.D., Campbell, 16, Utah Col, 25. Asst. agron, Utah Col, 04, instr, 05, prof, 05-06; asst. cerealist in charge dry land cereal investigations, U. S. Dept. Agr, 07-10; agronomist, Kansas Col. and Exp. Sta, 10-13, dean and director, 13-18, pres, 18-25; *sec'y agr, U. S.*, 25- Lecturer, grad. sch, Mich. State Col, 12. Nat. Forest Reservation Commission; Fed. Board for Vocational Educ; exec. board, Nat. Research Council. Jury awards, Panama-Pacific Expos, 15; pres, Int. Dry Farming Cong. and Soil Products Expos, 15-16; Int. Wheat Cong, 20. A.A.; Soc. Agron. (pres, 16); Inst. Social Sci; Nat. Educ. Ass. (v. pres, 20); Kans. Teachers Ass. Dry farming; agronomy; farm tenancy; land settlement; rural life.
- Jarnagin, Dr. Milton (Preston)**, University of Georgia, Athens, Ga. *Animal husbandry*. Farmville, Va, Sept. 17, 81. Tennessee, 00-03; Wisconsin, 03-04; B.S.A., Iowa Col, 05; Sc.D., Georgia, 21. Instr. *animal husbandry*, Va. Polytech, 06-07; assoc. prof, Georgia, 07-08, *head div*, 08- Ga. Acad.
- Jarvis, C(larence) S(ylvester)**, U. S. Department of Agriculture, Washington, D. C. *Engineering*. St. George, Utah, Feb. 17, 80. B.S., Missouri, 06, C.E., 08; Detroit-Edison fellow, Michigan, 24-25, M.S.E., 25. U. S. Reclamation Service, 06-07; construction and irrig. eng, water supply and flood control, 08-17; highway engineer, 17-18; *highway and bridge engineer, bur. pub. roads, U. S. Dept. Agr*, 23- Capt, C.Eng, 18-22. Croes medal, Soc. Civil Eng, 26. Civil Eng; Soc. Mil. Eng; Wash. Soc. Eng. Flood control; estimating and rating of storm runoff; bridges and waterways; public roads; fourth scale for log-log slide rule.

- Jasper, T(homas) McLean, A. O. Smith Corporation**, Milwaukee, Wis. *Engineering*. Tregunnon, Altarnum, Eng. Dec. 25, 82. B.S., Illinois, 10, M.S., 11, C.E., 21. Asst. engineer, Alvord and Burdick, 11-13; examiner efficiency, Dept. Health, Chicago, 13-15; asst. prof. mech., Wisconsin, 20-21; special research assoc. prof. eng. materials, Illinois, 21-26; *director research, A. O. Smith Corp*, 26- Engineer of tests, fatigue of metals investigations, Nat. Research Council, 21-26; asst. state sanitary engineer, Wis., 19. Commissioned officer, artil, British Army, 15-19. A.A.; Soc. Test. Mat; Civil Eng; Mech. Eng. Metals under elevated temperatures; fatigue, corrosion and creep; complex stresses in structures and shapes.
- Jastrow, Prof. Joseph**, 237 Langdon St, Madison, Wis. **Psychology*. Warsaw, Poland, Jan. 30, 63. A.B., Pennsylvania, 82, A.M., 85; fellow, Hopkins, 85-86, Ph.D., 86. Prof. *psychol*, Wisconsin, 88-27, *emer. prof*, 27- Non-res. lecturer, Columbia, 10. Ed, 'Conduct of Mind' series. In charge sect. psychol, Columbian Expos, 93. A.A. (sec'y, H, 90, v. pres, 91); Soc. Nat; Psychol. Ass. (pres, 00). Development, analysis and correlation of mental processes; abnormal psychology; the subconscious; character and temperament; belief, judgment and their irregular forms; child psychology.
- Jauncey, Prof. G(eorge) E(ric) M(acdonnell)**, 5626 Julian Ave, St. Louis, Mo. **Physics*. Adelaide, Australia, Sept. 21, 88. B.Sc., Adelaide, 10, D.Sc., 22; 1851 Exhib. research scholar, Leeds, Eng, 12-13; M.S., Lehigh, 16. Instr. *physics*, Lehigh; 14-16; Missouri, 16-18; Iowa Col, 19-20; *Washington (St. Louis)*, 20-21, asst. prof, 21-24, *assoc. prof*, 24- Assoc. ed, 'Physical Rev.', 26- Fel. Physical Soc. Scattering of X-rays from crystals; corpuscular quantum theory of the scattering of X-rays; polarizing angle of scattered X-rays.
- Jean, Dr. F(rank) C(overt)**, 1729 12th Ave, Greeley, Colo. *Ecology*. Plattsmouth, Nebr, June 21, 80. A.B., Nebraska, 11, A.M., 17, Ph.D., 25. Asst. prof. *biol*, Nebr. State Teachers Col, Peru, 11-17, *head dept*, 17-21; *Colo. State Teachers Col, Greeley*, 21- A.A.; Ecol. Soc; Nebr. Acad. (pres, 17). Plant and field crops ecology; ecotone between prairie and woodland; development and activities of roots of crop plants; root behavior and crop yield under irrigation.
- Jeans, Prof. Philip C(harles)**, Children's Hospital, Iowa City, Iowa. *Pediatrics*. Hillsboro, Ohio, Jan. 3, 83. A.B., Kansas, 04; M.D., Hopkins, 09. Assoc. prof. *pediat*, Washington (St. Louis); *prof*, Iowa. Major, M.R.C. Am. Med. Ass; *Pediat. Soc*. Clinical pediatrics; heredity of syphilis.
- Jeffers, Prof. D(wight) S(mithson)**, 1214 Orchard Drive, Ames, Iowa. *Forestry*. Deland, Ill, May 21, 83. A.B., Ill. Wesleyan, 06; M.F., Yale, 11. Forest supervisor, U. S. Forest Service, 11-21; *assoc. prof. forestry, Iowa Col*, 21- Forest management.
- Jeffers, Hamilton M(oore)**, Lick Observatory, Mt. Hamilton, Calif. *Astronomy*. Sewickley, Pa, Oct. 13, 93. A.B., California, 17, Ph.D., 21. Asst., California, 16-18, instr, 18-19, fellow, Lick Observatory, 19-21; instr, Iowa, 21-23, *assoc*, 23-24; *asst. astronomer, Lick Observatory*, 24- A.A.; Astron. Soc; Math. Soc; Math. Ass; Pacific Astron. Soc. Theoretical astronomy; comets and minor planets; meridian circle.
- Jefferson, Prof. Mark**, Ypsilanti, Mich. *Geography*. Melrose, Mass, March 1, 63. A.B., Boston, 89; Harvard, 97, A.M., 98. Asst. astronomer, Argentine Nat. Observatory, Cordoba, 83-86; teacher and supt, schools, 89-96, 98-01; *prof. geog, Mich. State Nor. Col, Ypsilanti*, 01-Summer, instr, Harvard, 98, 00, Michigan, 03, Yale, 07, Chicago, 17, California, 20. Am. Geog. Soc. exped, Chile, Argentina and Brazil, 18; chief div. geog, Am. Peace Commission, Paris, 19. Am. Geog. Soc. (assoc. ed, 'Bul', 10-); Ass. Geog. (pres, 17); Geol. Soc; Mich. Acad. (v. pres, 03, 04, pres, 07). Geography of tides; river meanders; beach cusps and rainfall of Great Lakes; distribution of man; distribution of temperatures; population growth; geography of cities.
- Jeffery, Prof. R(alph) L(ent)**, Wolfville, N. S., Can. *Mathematics*. Yarmouth, N. S., Oct. 3, 89. B.A., Acadia, 21; A.M., Cornell, 23. Instr. *math*, Cornell, 21-23; Harvard, 23-24; *prof, Acadia*, 24- Math. Soc. Mathematical analysis; definite integrals containing a parameter; continuity of a function defined by a definite integral.
- Jeffrey, Prof. E(dward) C(harles)**, 47 Lakeview Ave, Cambridge, Mass. **Botany*. St. Catharines, Ont, Can, May 21, 66. B.A., Toronto, 88, hon. D.Sc., 18; Ph.D., Harvard, 98; LL.D., Acadia, 23. Lecturer *biol*, Toronto, 92-02; asst. prof. *veg. histol* and *gen. morphol*, *Harvard*, 02-07, *prof. plant morphol*, 07- A.A.; Soc. Nat; Bot. Soc; Geol. Soc; Paleont. Soc; Am. Acad; London Linnean Soc. Evolution; morphology and experimental morphology of vascular plants; paleobotany and fossil plants of America, Europe and Australasia; evolution of fossil plants; origin and structure of coal and lignites.
- Jeffries, Dr. Zay**, 2800 Harvard Ave, Cleveland, Ohio. *Metallurgy*. Willow Lake, S. Dak, April 22, 88. B.S., S. Dak. Sch. Mines, 10, Met.E., 14; Sc.D., Harvard, 18. Instr. *metal*, Case, 11-16, asst. prof, 16-17; *director research, Aluminum Castings Co*, 17-20; *consulting metallurgist, Aluminum Co. of Amer*, 20- Consultant incandescent lamp dept, Gen. Elec. Co. Min. and Metal. Eng; fel. Physical Soc; Soc. Test. Mat; Soc. Steel Treat; Automotive Eng; Franklin Inst; Faraday Soc; British Inst. Metals. Metallography; tungsten; aluminum; iron; steel.
- Jeffs, Prof. R(oyal) E(dgar)**, 427 College Ave, Norman, Okla. *Botany*. Gilman, Iowa, Dec. 21, 79. B.S.A., Iowa Col, 06, M.S.A., 10; Ph.D., Iowa, 23. Prof. *biol*, Iowa Wesleyan, 10-12; Friends, 13-14; instr. *bot, Oklahoma*, 16-21, *asst. prof*, 21- Acting head dept. bot, Oklahoma, 25-27. A.A.; Bot. Soc; Micros. Soc; Iowa Acad. Plant physiology.
- Jehle, Dr. R(obert) A(ndrew)**, University of Maryland, College Park, Md. *Plant pathology*.

- B.S.A, Minnesota, 05, M.S.A, 10; fellow, Cornell, 11-12, Ph.D, 15. Asst, Minnesota, 09-10; prof, high sch, Minn, 10-11; asst. plant pathologist, Kansas Col, 12-13; instr. plant path, Cornell, 13-14; asst. plant pathologist, Cuban Exp. Sta, Santiago, 14-15; Fla. State Plant Board, 15-17; exten. pathologist, N. C. Exp. Sta, 17-20; *specialist plant path, Maryland, 20*- Phytopath. Soc. Brown rot of orchard fruits.
- Jelliffe, Dr. Smith Ely**, 64 W. 56th St, New York, N. Y. *Neurology, Psychiatry*. New York, Oct. 27, 66. A.B, Brooklyn Polytech, 86; M.D, Columbia, 89, A.M, Ph.D, 00; Vienna, 90; Paris, 91; Munich, Berlin, Paris, 06-09. Prof. pharmacog, N. Y. Col. Pharmacy, 95-07; clin. asst, dept. neur, Columbia, 99-09; instr. pharmacol. and therapist, 02-06; prof. psychiat, Fordham, 07-12; assoc. prof. diseases of mind and nervous system, N. Y. Post-Grad. Med. Sch, 12-17; *consulting neurologist, Manhattan State Hosp, 04*-; *Kings Park State, 14*- Visiting physician, City Hosp; Hosp. for Nervous Diseases, 06-16; asst, Neur. Inst, 09-14. Ed, 'Med. News,' 00-06; managing ed, 'Jour. Nervous and Mental Disease,' 01-; assoc. ed, 'N. Y. Med. Jour,' 06-08, 16-19; 'Psychoanalytic Rev,' 15-; 'Nervous and Mental Disease Monograph series,' 09-Neur. Ass; Am. Med. Ass; Psychopath. Ass. (pres, 17); Psychiat. Ass; Psychoanal. Ass. (pres, 19); N. Y. Psychiat. Soc. (pres, 22-24); N. Y. Psychoanal. Soc; N. Y. Acad. Med; N. Y. Neur. Soc. (pres, 13, 14); cor. mem. Soc. neur. de Paris. Clinical investigations; diseases of the nervous system; psychology of unconscious; psychoneuroses; multiple sclerosis; convulsive disorders; dementia praecox; unconscious psychical factors in the causation of somatic diseases; tuberculosis; skin; kidneys; blood; bone; tumor formation.
- Jenkins, Dr. E(dward) H(opkins)**, 108 E. Rock Road, New Haven, Conn. **Agricultural chemistry*. Falmouth, Mass, May 31, 50. A.B, Yale, 72, Ph.D, 79; Leipzig, 75-76. Chemist, Conn. Exp. Sta, 76-00, v. director, 84-00, director, 00-23, treas, 01-23. Chairman, Conn. Sewerage Commission, 97-03. A.A. Agricultural chemistry; culture, cure and fermentation of tobacco.
- Jenkins, Dr. Francis A(rthur)**, 5411 Greenwood Ave, Chicago, Ill. *Physical chemistry*. Nashville, Tenn, June 2, 99. Swarthmore, 16-18; B.S, Chicago, 21, Ph.D, 25; Diploma, Toulouse, 22. *Nat. Research Council fellow, 25*- Separation and spectra of isotopes.
- Jenkins, Prof. George B(ain)**, George Washington University, Washington, D. C. *Anatomy*. Bardstown, Ky, Dec. 19, 74. M.D, Hosp. Col. Med. (Ky), 98; Ky. Med. Sch, 00. Intern, City Hosp, Louisville, 98-99, asst. med. supt, 99-03; prof. anat, Ky. Med. Sch, 05-08; Louisville, 08-12; asst, Hopkins, 12-13; *prof. anat, histol. and embryol, Louisville, 13*; *anat, Iowa; George Washington. A.A*; Ass. Anat; Eugenics Research Ass. Embryology; anatomy; neurology.
- Jenkins, Dr. J(ohn) D(onald)**, 561 Bradford Ave, Milwaukee, Wis. *Physical chemistry*. Brookings, S. Dak, Jan. 25, 97. B.S, Oregon Col, 20; M.S, Wisconsin, 21, Ph.D, 23. Asst. chem, Wisconsin, 20-21, research asst, 21-23; *research chemist, paint and varnish div, Pittsburgh Plate Glass Co, 23*- Chem. Soc. (treas, v. chairman, Milwaukee sect). Velocity of crystallization of substances from solution; physical chemistry of paint and varnish.
- Jenkins, Merle T(ruman)**, Iowa State College, Ames, Iowa. *Genetics*. Brookings, S. Dak, Jan. 4, 95. B.S, Oregon Col, 16; M.S, Iowa Col, 25. Sci. asst, *bur. plant indust, U. S. Dept. Agr*, 19-22, asst. agronomist, 22-25, *assoc. agronomist, 25*- Soc. Agron. Corn breeding and genetics.
- Jenkins, Olaf P(itt)**, Nederlandsche Koloniale Petroleum Maatschappij, Sluisbrug, Weltevreden, Batavia, Java. *Geology*. Greencastle, Ind, Feb. 9, 89. A.B, Stanford, 13, A.M, 15. Asst. geologist, Tenn. Geol. Surv, 13-16; asst. prof. econ. geol, Wash. Col, 16-18; geologist, Ariz. Bur. Mines, 18-19; Sinclair Consolidated Oil Corp, 19-20; assoc. prof. econ. geol, Wash. Col, 20-25; *geologist, Standard Oil Co. of N. J, Batavia, 25*- Asst. geologist, Gypsy Oil Co, 16; Wash. State Geol. Surv, 17; field geologist, South. Pacific Ry. Co, 18; geologist, State Dept. Conservation and Development, Wash, 21-25. Asst. geologist, Stanford exped, Brazil, 11. Geol. Soc; Miner. Soc; Seismol. Soc; Am. Geog. Soc; Min. and Metal. Eng. Stratigraphy; economic geology.
- Jenkins, Prof. Oliver P(eebles)**, Stanford University, Calif. *Physiology, Ichthyology*. Bantam, Ohio, Nov. 3, 50. A.B, Moore's Hill, 69, A.M, 71, LL.D, 16; M.S, Indiana, 86, Ph.D, 90. Prof. nat. sciences, Moore's Hill, 76-82; Ind. State Nor. Sch, 83-86; biol, De Pauw, 86-91; *physiol, Stanford, 91-16, emer. prof, 16*- Director with C. H. Gilbert, marine lab, Stanford, 92-16. A.A; Soc. Nat; Physiol. Soc; Cooper Ornith. Club; Calif. Acad; Ind. Acad. Nervous system of invertebrates; Hawaiian, American and Mexican fishes.
- Jenkins, Dr. Russell L(ewis)**, Mellon Institute, Pittsburgh, Pa. *Organic chemistry*. Richmond, Ind, Jan. 4, 97. Earlham, 15-17; B.Ch, Pittsburgh, 20; M.S, Illinois, 21, Carr fellow, 22-23, Ph.D, 23; research fellow, Lyons, 23-24. Research asst. chem, Illinois, 21-22; *indust. fellow, Mellon Inst, 24*- Chem. Soc. Relation between physical properties and physiological action of certain local anesthetics; organo-aluminum compounds.
- Jenkins, Dr. Tho(mas) N(icholas)**, Columbia University, New York, N. Y. *Psychology*. Mapleton, Iowa, May 2, 92. B.S, 10; A.B, Nebraska, 15, fellow, 15-17, A.M, 16; Chicago, 19-20; Ph.D, Columbia, 25. *Nat. Research Council fellow psychol, Columbia, 25*- Motor facilitation and inhibition; effect of subliminal stimulation upon reactions to visual and auditory stimuli; visual, auditory and electrical stimulation; motivation and learning in animals; statistical methods for animal data; fatigue in reaction-time; psychology of estimation.
- Jenks, Prof. A(ibert) E(rnest)**, University of Minnesota, Minneapolis, Minn. *Anthropology*,

- Ethnology*. Ionia, Mich, Nov. 28, 69. B.S., Kalamazoo, 96, hon. Sc.D., 24; B.S., Chicago, 97; hon. fellow, Wisconsin, 98-99, Ph.D., 99. Econ. ed, 'Am. Thresherman,' 00-01; asst. ethnologist and ethnologist, Bur. Am. Ethnol., 01-02; asst. chief and chief, Ethnol. Surv., P. I., 02-05; asst. prof. social, *Minnesota*, 06-07, *prof. anthrop.*, 07- Summers, lecturer, California at Los Angeles, 23, 25. Assoc. ed, 'Am. Jour. Physical Anthropol.', 18- Chief ethnol. dept., Philippine Expos., La. Purchase Expos., St. Louis, 04. Nat. Research Council, 22-25, chief div. anthrop. and psychol., 23-24. A.A. (v. pres, chairman, H, 19, 21); Anthropol. Ass; Genetic Ass; Sociol. Soc. Primitive economics of the American Indian; Philippine ethnology; savage childhood; human heredity and amalgamation; immigrant peoples; racial psychology; prehistoric man and culture.
- Jenks, Prof. Leon E.**, Worcester Polytechnic Institute, Worcester, Mass. *Chemistry*. Deansville, N. Y., Oct. 20, 76. B.S., Hamilton, 05, M.S., 08; Cornell, 14-17. Prof. physical and metal. chem., Cooper Union, 17-18; asst. prof. anal. chem., Pittsburgh, 18-19; chem., Buffalo, 19-23; *prof. tech. and econ. chem.*, Col. City of N. Y., 23-24; *chem.*, Worcester, 24- Chem. Soc; Eng. Educ; N. Y. Chemists Club. Physical chemistry.
- Jenne, Lyle L(oren)**, 796 City Hall, Philadelphia, Pa. *Sanitary engineering*. Enosburg Falls, Vt. B.S., Pennsylvania, 09. Asst. chemist, Phila. Sewage Disposal Exp. Sta., 09-10; chemist in charge sewage disposal investigations, Pittsburgh, 10-12; *chemist and sanitary engineer*, Bur. Water, Phila., 12- Operating chemist, New Chester Water Co., 24-; lecturer, Temple. A.A.; Chem. Soc; Water Works Ass; Pub. Health Ass; assoc. mem. Civil Eng. Water purification and coagulation; removal of taste and odors; trade waste elimination.
- Jennemann, Rev. V(incent) L(ouis), S(J), Loyola** High School, Mankato, Minn. *Chemistry*. St. Louis, Mo., Jan. 22, 83. A.B., St. Louis, 08, A.M., 17. *Prof. chem.*, Campion, 09-11; St. Mary's (Kans.), 11-13; Detroit, 18-19; St. John's (Ohio), 19-20; Loyola, 20-25; *Loyola High Sch.*, 25- Inorganic chemistry.
- Jenness, D(iamond)**, Victoria Memorial Museum, Ottawa, Ont., Can. *Anthropology*. Wellington, N. Z., Feb. 10, 86. M.A., New Zealand, 08; diplomé, Oxford, 10, M.A., 11. Anthropologist, Can. Geol. Surv., 13-26; *chief div. anthrop.*, Nat. Museum, 26- Oxford research scholar, Papua, 11-12. Ethnologist, Can. Arctic exped., 13-16. Anthropol. Ass; fel. Royal Anthropol. Inst. Ethnography of the D'Entrecasteaux Archipelago, Papua; Eskimo ethnology and archeology; ethnology of the northern Indian tribes of Canada.
- Jennings, Prof. H(erbert) S(pencer)**, Johns Hopkins University, Baltimore, Md. *Zoology, Genetics*. Tonica, Ill., April 8, 68. B.S., Michigan, 93, Sc.D., 18; Morgan and Parker fellowships, Harvard, 95-97, A.M., 95, Ph.D., 96; Jena, 96-97; LL.D., Clark, 09. Asst. zool., Michigan and Harvard, 92-95; *prof. bot.*, Mont. Col., 97-98; *instr. zool.*, Dartmouth, 98-99; Michigan, 99-01, asst. prof., 01-03; Pennsylvania, 03-06; assoc. prof. physiol. zool., *Hopkins*, 06-07, *prof. exp. zool.*, 07-10, *Henry Walters prof. zool. and director biol. lab.*, 10- Director biol. surv. of Great Lakes, U. S. Fish Commission, 01; research asst., Carnegie Inst., 03-04. Assoc. ed, 'Jour. Exp. Zool'; 'Genetics'; 'Jour. Comp. Psychol.' Nat. Research Council, 22-25. Trustee, Woods Hole. Leidy award, Phila. Acad; Walker prize, Boston Soc. Nat. Hist. Nat. Acad; A.A.; Soc. Nat. (pres, 11); Soc. Zool. (pres, 09); Soc. Exp. Biol.; Philos. Soc; Am. Acad; Phila. Acad; hon. fel. Royal Micros. Soc; cor. mem. Russian Acad. Behavior and genetics, especially of lower organisms.
- Jennings, Prof. O(tto) E(mery)**, Carnegie Museum, Pittsburgh, Pa. *Botany*. Olena, Ohio, Oct. 3, 77. B.S.A., Ohio State, 03; Ph.D., Pittsburgh, 11. Florist, Ohio State, 01-02, asst. bot., 02-04; custodian bot., *Carnegie Museum*, 04-07, asst. curator, 07-15, *curator*, 15-; *instr. paleobot.*, Pittsburgh, 11-14, *prof. and head dept. bot.*, 14- Instr. in charge bot. lake lab, Ohio State, 05, ecol., 10; lecturer, Pittsburgh and Allegheny Kindergarten Col., 10. Assoc. ed, 'Ohio Naturalist,' 03-04; ed, 'Bryologist,' 13- Summers, Carnegie Museum bot. expeditions to Isle of Pines, 10, northwest. Ont., 12-17, Wash, 15. A.A. (gen. sec'y, 18); Bot. Soc; Ecol. Soc; Paleobot. Soc; Sullivant Moss Soc; Fern Soc; Ass. Geog; Ass. Mus; Ohio Acad; West. Pa. Bot. Soc. (pres, 07-09, sec'y, 09-); Wash. Biol. Soc; Pa. Acad. (pres, 24); Pittsburgh Acad. (pres, sect. biol. and geol., 16-20); Ottawa Field Nat. Club. Systematic botany and ecology of western Pennsylvania, Isle of Pines and northwestern Ontario; paleobotany of western Pennsylvania and Oligocene of western Montana.
- Jennings, Prof. Walter L(ouis)**, 18 Boynton St., Worcester, Mass. *Chemistry*. Bangor, Maine, Nov. 15, 66. A.B., Harvard, 89, A.M., 90, Ph.D., 92; Heidelberg, 92-93; Berlin, 93-94. Asst. prof. chem., Worcester, 94-01, *prof.*, 01-, *director*, 11- A.A.; Chem. Soc; Am. Acad; Chem. Gesell. Products of the dry distillation of wood; constitution of rosanilin and para-rosanilin; condensation of phenols with sugars; synthetic glucosids; cyanogen chlorid.
- Jennison, Prof. H(arry) M(illiken)**, University of Tennessee, Knoxville, Tenn. *Botany*. Worcester, Mass., June 24, 85. B.S., Mass. Col., 08; A.M., Wabash, 11; Woods Hole, 09-11; Washington (St. Louis), 15-16, Ph.D., 22. Instr. bot., Mass. Col., 08-10; Wabash, 10-11; Mont. Col., 11-13, asst. prof. bot. and bacter., 13-22; assoc. prof. bot., *Tennessee*, 22-23, *prof.*, 23- Extension botanist, Mont. Col., 18-22; summers, agent, bur. plant indust., U. S. Dept. Agr., 23- A.A.; Phytopath. Soc; Bot. Soc. Plant pathology and physiology; taxonomy; botanical pedagogy.
- Jensen, Dr. C(arey) M(organ)**, University of Wisconsin, Madison, Wis. *Mathematics*. Minneapolis, Minn., Jan. 14, 95. A.B., Minnesota, 18, A.M., 20, Ph.D., 24. Asst. math., Minnesota, 19-23; *instr.*, Wisconsin, 23- Math. Soc. Theory of interpolation by Sturm-Liouville functions.

- Jensen, Dr. C(hristian) N(ephi)**, Capitol Building, Salt Lake City, Utah. *Plant pathology*. Ephraim, Utah, June 18, 80. B.S.A, Utah Col, 08; M.S.A, Cornell, 09, Ph.D, 12; fellow, California, 10. Prin. and instr. pub. schools, 97-03; instr. Snow Acad, 05-07; Utah Col, 07-08, prof. plant path, 12-13; pres, Brigham Young Col, 13-20; instr, Cornell, 20-21; *state supt. pub. instruction, Utah, 21-* A.A; Phytopath. Soc; Utah Acad. (v. pres, 13).
- Jensen, (Estelle) Louise (Mrs. E. C. Stakman)**, 1411 Hythe St, St. Paul, Minn. *Plant pathology*. Minneapolis, Minn, May 25, 88. A.B, Minnesota, 09, fellow, 11-12; A.M, Smith, 10. Instr, high sch, S. Dak, 10-11; xylotomist, forest products lab, Wisconsin, 12-13; instr. mycol, Minnesota, and mycologist, Exp. Sta, 13-17. A.A; Phytopath. Soc. Imperfect fungi on cereals.
- Jensen, Jens, Ravinia, Ill.** *Landscape gardening*. Dybbøl, Denmark, Sept. 13, 60. Agr. Col, 78-80. Supt, Humboldt Park, Chicago, 94-00, *gen. supt, West Park System, 06-* Consulting landscape architect, West Chicago Parks. A.A; Am. Geog. Soc; Ill. Acad. Destruction of the oak at Lake Geneva; plant acclimatization; parks.
- Jensen, Prof. J(ohn) C**, Nebraska Wesleyan University, University Place, Nebr. *Physics*. Utica, Nebr, Oct. 19, 80. B.Sc, Nebraska Wesleyan, 09; A.M, Nebraska, 16; Iowa, 16; Chicago, 21. Supt, schools, Nebr, 03-07; instr. *physics, Nebraska Wesleyan, 07-09, prof, 09-* Operator in charge Radio Sta. WCAJ, 21-; chief instr. radio, War Training Unit, Nebraska, 18. A.A; Physical Soc; Radio Eng; Meteor. Soc; Nebr. Acad. (pres, 14, 21). Radio engineering; meteorology; direct current and alternating current spark potentials; atmospheric potential gradients during thunderstorms; radio signal fading as related to weather conditions.
- Jepson, Prof. W(illis) L(inn)**, University of California, Berkeley, Calif. **Botany*. Vacaville, Calif, Aug. 19, 67. Ph.B, California, 89, Ph.D, 99; Cornell, 95; Harvard, 96; Kew and Berlin, 05-06. Asst. bot, California, 91-94, instr, 95-98, asst. prof, 99-18, *prof, 18-* Ed, 'Erythea,' 93- Soc. Foresters; Wash. Acad; Calif. Bot. Soc. (pres); Calif. Acad. Taxonomy, special morphology, geographic distribution, life-history and habits of west American, especially Californian, seed-plants.
- Jesse, Prof. R(ichard) H(enry), Jr**, 610 University Ave, Missoula, Mont. *Chemistry*. Princess Anne, Md, Jan. 4, 84. A.B, Missouri, 02; A.M, Harvard, 07, Ph.D, 09. Austin teaching fellow, Harvard, 08; instr. applied chem, Illinois, 09-12, assoc. chem, 12; *prof, Montana, 12-*, dean, 15- Carnegie research asst, Harvard, 09. Chem. Soc; Chem. Gesell; Chem. Verein. Atomic weights; thermochemistry; gas analysis; sewage disposal.
- Jesse, Prof. William P(olk)**, Lehigh University, Bethlehem, Pa. *Physics*. New Orleans, La, 91. A.B, M.E, Missouri, 13, 15-17; Chicago, 19-21; Ph.D, Yale, 24. Asst, Missouri, 15-17; instr. *physics, Yale, 21-24; asst. prof, Lehigh,*
- 24- Instr, First Corps Artil. Sch, France, 18. A.A; Physical Soc. Ionization of gases.
- Jette, Dr. Eric R(andolph)**, New York University, Washington Square, New York, N. Y. *Physical chemistry*. Lancaster, Pa, Sept. 30, 97. B.S, Franklin and Marshall, 18; M.S, Columbia, 20, Ph.D, 23. Chemist, Arthur D. Little, Inc, 19; Am-Scandinavian Foundation fellow, Sweden and Denmark, 22-24; instr. chem, Columbia, 24-26; *asst. prof, N. Y. Univ, 26-* C.W.S, U.S.A, 18. Chem. Soc. Vapor pressure of salt hydrates; crystal structure; copper aluminum alloys; cataphoresis of proteins; migration of ions; fluorescence.
- Jewell, Prof. Minna E(rnestine)**, Kansas State Agricultural College, Manhattan, Kans. *Zoology*. Irving, Kans, Feb. 9, 92. A.B, Colo. Col, 14; A.M, Illinois, 15, Ph.D, 18. Biochemist, Ill. State Water Surv, 18-19; asst. prof. 20-22, Milwaukee-Downer, 19-22; instr, *Kansas Col, 22-24, asst. prof, 24-* A.A; Soc. Zool; Ecol. Soc; Micros. Soc; Soc. Parasitol. General animal ecology; factors limiting the distribution of fish in bog lakes, polluted streams and other unusual bodies of water; effects of hydrogen-ion concentration on animals.
- Jewell, Dr. Willard B(rownell)**, Vanderbilt University, Nashville, Tenn. *Geology*. Little Compton, R. I, April 4, 99. Ph.B, Brown, 23; Ph.D, Princeton, 26. *Asst. prof, Vanderbilt, 26-* Asst. U. S. Geol. Surv, Alaskan branch, 24-25. Tenn. Acad. Coast range intrusives; ore deposits of southeast Alaska.
- Jewett, Dr. Frank B(aldwin)**, 195 Broadway, New York, N. Y. **Physics, Electrical engineering*. Pasadena, Calif, Sept. 5, 79. A.B, Throop, 98; Ph.D, Chicago, 02; Sc.D, N. Y. Univ. and Dartmouth, 25. Research asst. to Prof. A. A. Michelson, Chicago, 01-02; instr. physics and elec. eng, Mass. Inst. Tech, 02-04; transmission engineer, Am. Tel. and Tel. Co, 04-12; asst. chief engineer, West. Elec. Co, 12-16, chief engineer, 16-22, v. pres, 22-25; v. pres. in charge development and research, Am. Tel. and Tel. Co. and pres, Bell Telephone Laboratories, 25- V. chairman, Eng. Foundation, 19-25; chairman div. eng. and indust. research, Nat. Research Council, 23-25. D.S. medal, 19; Fourth Order of the Rising Sun, Japan. Lieut. col, Sig.C, 17-18; past advisory mem, Submarine Board, U.S.N. Mem, State Dept. Special Committee on Cables. Nat. Acad; A.A; fel. Physical Soc; fel. Elec. Eng. (pres, 22); fel. Radio Eng; Eng. Educ; N. Y. Elec. Soc; British Inst. Elec. Eng. Vapor density of sodium vapor; magnetic change of resistance in bismuth; effect of pressure on insulation resistance; electrical communication.
- Jewett, Frederick W(illiam)**, 14 Morningside Ave, New York, N. Y. *Chemical and economic engineering*. Portland, Oregon, Nov. 28, 92. B.S, 14, M.A, 17, Ch.E, 18. *Consulting engineer*. Mem, Pres. Butler's committee, investigation of eng. educ. A.A; Chem. Soc; Ass. Pulp and Paper Indust. Engineering economics; business surveys; merchandising as an engineering problem; correlations of science

and business with regard to product and market analysis, adaptation and development.

Jillson, Dr. W(illard) R(ouse), Old Capitol Building, Frankfort, Ky. *Geology*. Syracuse, N. Y., May 28, 90. B.S., Syracuse, 12, Sc.D., 21; M.S., Washington (Seattle), 15; Chicago, 15-16; Yale, 16-17; Sc.D., Berea, 25. Instr. geol., Washington (Seattle), 15; asst. prof. geol., Kentucky, and asst. state geologist, Ky., 18-19, *state geologist*, 19- Geologist, Mid-Continent and Appalachian oil fields, 17-; curator, Ky. State Museum, 24-; geologist, bur. internal revenue, U. S. Treas. Dept., 18; summers, Carter Oil Co., 16-, U. S. Geol. Surv., 15. Chairman, Ky. State Park Commission, 24-; chairman, Ky. Geog. Council, 27- A.A.; Ass. State Geol.; Min. and Metal. Eng.; Am. Geog. Soc.; Am. Hist. Ass.; Miss. Valley Hist. Ass.; Ky. Hist. Soc. (v. pres, 23-25); Ky. Acad. (pres, 24); fel. Royal Geog. Soc.; Royal Soc. Arts. Economic, physiographic and glacial geology; petroleum, natural gas, coal, rock asphalt and other non-metals; geology of Kentucky.

Job, Herbert K(eightley), West Haven, Conn. *Ornithology*. Boston, Mass., Nov. 29, 64. A.B., Harvard, 88. State ornithologist, Conn; *lecturer ornith*; *official lecturer, rep. and organizer, Nat. Ass. Audubon Societies*, 14- State director nature and conservation educ., S. C., 26- Ornith. Union. Wild birds of America.

Job, Robert, 84 Antoine St., Montreal, Que., Can. *Chemistry*. Boston, Mass., Oct. 10, 66. A.B., Harvard, 90. Asst. chemist, P. and R. Ry., 92-97, chemist, 97-06; mem. firm of Booth, Garrett and Blair, 06-10; v. pres, *Milton Hersey Co*, 10- Chemist, Lehigh Valley Ry., 07-27; Grand Trunk Ry.; Can. North. Ry.; Can. Nat. Ry.; asst. chemist, Can. Pacific Ry.; professional engineer, Que. A.A.; Chem. Soc.; Soc. Chem. Indust.; Min. Eng.; Soc. Test. Mat.; Franklin Inst.; Can. Inst. Chem. Industrial chemistry; steel rails; bearing metals; iron castings; oils; paints and varnishes; patent chemistry.

Job, Dr. Thesle T(heodore), 706 S. Lincoln St., Chicago, Ill. *Anatomy*. Boone Co., Iowa, Dec. 24, 85. A.B., Simpson, 12; fellow, Iowa, 15-17, M.S., 15, Ph.D., 17; Woods Hole, 16. Asst., Simpson, 10-12; teacher, high sch., Mont., 12-14; instr. animal biol., Iowa, 17-18; assoc. prof. *anat*, *Loyola*, 18-25, *prof*, 25- Iowa Univ. exped., Barbados, 18. A.A.; Ass. Anat.; Soc. Zool.; fel. Iowa Acad. Development and microscopic and gross anatomy of the lymphatics.

Jobling, Prof. James W(esley), College of Physicians and Surgeons, Columbia University, New York, N. Y. **Pathology*. Steubenville, Ohio, Aug. 2, 76. M.D., Tenn. Med. Col., 97. Director, Serum Lab., Manila, P. I., 02-04; assoc., Rockefeller Inst., 04-09; pathologist, Michael Reese Hosp., 09-13; assoc. prof. *path*, Columbia, 13-14; Vanderbilt, 14-18; *prof. col. physicians and surg*, Columbia, 18- A.A.; Am. Physicians; Ass. Path. and Bact.; Soc. Exp. Path.; Harvey Soc.; Soc. Bact.; Soc. Exp. Biol.; Soc. Cancer Research; Chicago Path. Soc.; N. Y. Path. Soc. Antimeningitis serum; malignant tumors in

small animals; ferments and antiferments; pellagra; anemias.

Jochelson, Waldemar, American Museum of Natural History, New York, N. Y. *Anthropology*. Vilno, Poland, Jan. 14, 55. Gym. of Vilno, 68-75; Zurich, 84-85; Bern, 98-99. Assoc. curator, Museum Anthropol. and Ethnog. and collaborator, Asiatic Museum, Russian Acad., 12-22; with Am. Museum Nat. Hist., New York, 22-27; *div. curator, Museum Anthropol. and Ethnog*, Acad. Sci., Leningrad, and *lecturer ethnol*, Leningrad, 27- Yakut exped., Russian Geog. Soc., 95-97; leader, Siberian div., Jesup N. Pacific exped., Am. Museum Nat. Hist., 00-02; ethnol. div., Aleut-Kamchatka exped., Russian Geog. Soc., 09-11. Silver medal, Russian Geog. Soc., 92, gold medal, 98, large gold medal, 12; Rastvietov gold medal, Soc. Nat. Sci., Anthropol. and Ethnog., Moscow Univ., 12; Akhmatoff's prize, Russian Acad., 16. Anthropol. Ass.; Am. Linguistic Soc.; Russian Geog. Soc.; hon. mem. Geog. Soc. Munich. The Koryak; Yukaghir; Yakut archeology of the Aleutian islands; anthropology of Asiatic Russia; grammar of the Aleut and Kamchadal languages; mythology, anthropology and ethnology of the Aleut and of the Kamchadal; archeology of Kamchatka.

Jodidi, Dr. Samuel L, U. S. Department of Agriculture, Washington, D. C. *Chemistry, Plant physiology*. Kovno, Russia, Oct. 6, 67. Ph.D., Giessen, 94. Research chemist, Mich. Exp. Sta., 08-09; in charge soil chem. research, Iowa Exp. Sta., 09-13; *org. chemist, bur. plant indust*, U. S. Dept. Agr., 13- A.A.; Chem. Soc.; Bot. Soc.; Franklin Inst.; Wash. Acad. Physiological and biological chemistry; organic chemistry; plant biology and physiology; nitrogen metabolism in plants.

Joerg, W(olfgang) L(ouis) G(ottfried), American Geographical Society, New York, N. Y. *Geography*. Brooklyn, N. Y., Feb. 6, 85. Leipzig, 04; Columbia, 04-06; Göttingen, 06-11. Asst. ed., 'Bul,' *Am. Geog. Soc.*, 11-15, assoc. ed., 'Geog. Rev.', 15-20, *ed. research series*, 20- Div. geol. and geog., Nat. Research Council, 25-27. A.A.; Ass. Geog. (councilor, 22-24). Tectonic lines of North American Cordillera; natural regions of North America; maps for locating earthquake epicenters; cartography; methods of geography.

Joffe, Dr. J(acob) S(amuel), New Jersey Agricultural Experiment Station, New Brunswick, N. J. *Chemistry, Bacteriology*. Koopishki, Kovno, Russia, Sept. 87. Baron de Hirsch Agr. Sch., 10; B.S., Rutgers, 18, M.S., 21, Ph.D., 22. Research asst. soil microbiol., N. J. Exp. Sta., 19-23, *chemist and bacteriologist soil research*, 23- Assoc., N. Y. Exp. Sta., Geneva, 23; lecturer, Arbeiter Ring. Soc. Bact. Oxidation of sulfur in soils and isolation of organism responsible; spore formers in soil; soil colloids.

Joffe, S(olomon) A(chillovich), 32 Nassau St., New York, N. Y. *Mathematics, Actuarial science*. Petropavlovka, Russia, May 9, 68. M.S., N. Y. Univ., 93; Chicago, 93, fellow, 94-95. Asst. math., Columbia, 97; instr., N. Y. Ethical Culture High Sch., 97-98; mathematician, foreign dept., *Mutual Life Ins. Co*, 98-10, *asst.*

- actuary*, 10— A.A.; Math. Soc. (trustee, 23, chairman, auditing committee, 22–26); Math. Ass.; Statist. Ass.; fel. Actuarial Soc. (exam. committee, 22); Circolo Mat. di Palermo; Soc. astron. de France. Mortality tables; Bernoullian numbers; Eulerian numbers; central differences; interpolation.
- Johann, Dr. Norma E(va)**, Hunter College, New York, N. Y. *Chemistry*. New York, Jan. 9, 93. A.B., Hunter, 14; A.M., Columbia, 17, Ph.D., 21. Instr. chem., Hunter, 14–16; asst., Columbia, 16–21; chemist, N. Y. Skin and Cancer Hosp., 21–22; research chemist, Fleischmann Co., 22–26; *instr. chem.*, Hunter, 26— A.A.; Chem. Soc.
- Johannsen, Prof. Albert**, University of Chicago, Chicago, Ill. **Geology*. Belle Plaine, Iowa, Dec. 3, 71. B.S., Illinois, 94; Utah, 98; fellow, Hopkins, 02–03, Ph.D., 03. Geol. asst., Md. Geol. Surv., 01–03; geologist, U. S. Geol. Surv., 03–25, acting chief sect. petrol., 07–10; asst. prof. *petrol.*, Chicago, 10–14, assoc. prof., 14–18, *prof.*, 18— Lecturer, Chicago, 09. Petrógrafo, Inst. Geol. de Mex., 19. Assoc. ed., 'Jour. Geol.', 10— A.A.; Geol. Soc.; Miner. Gesell.; hon. mem. Soc. Cien. Ant. Alz. Petrology.
- Johannsen, Prof. O(skar) A(ugustus)**, New York State College of Agriculture, Ithaca, N. Y. *Entomology*. Davenport, Iowa, May 14, 70. B.S., Illinois, 94; A.M., Cornell, 02, Ph.D., 04. Engineer, Chicago, 94–99; instr. civil eng., Cornell, 99–04, asst. prof., 04–09; prof. entom., Maine, and entomologist, Exp. Sta., 09–12; *prof. biol.*, Cornell, 12–18, *entom.*, 18— A.A.; Soc. Nat.; Entom. Soc.; Soc. Zool.; Ass. Econ. Entom. Hydrobiology; biology and taxonomy of Diptera; medical entomology; insect embryology, histology and morphology; parthenogenesis in insects.
- Johanson, Dr. A(lbert) M(athew)**, 333 Mosholu Parkway, New York, N. Y. *Psychology*. New York, Dec. 31, 93. A.B., Columbia, 16, A.M., 20, Ph.D., 22. Instr. psychol., Columbia, 21–24; *advertising consultant*, 25— Summers, instr., Columbia, 21–24. Psychol. Ass. Psychology of advertising; influence of incentive and punishment upon reaction time.
- Johns, Dr. Carl O(scar)**, Standard Oil Company of New Jersey, Elizabeth, N. J. **Biochemistry*. Vinköl, Sweden, Aug. 19, 70. A.B., Bethany (Kans.), 99, A.M., 02, Sc.D., 22; Ph.B., Yale, 04, Ph.D., 06. Instr. nat. hist., Bethany (Kans.), 99–02, prof., 02–03; asst. chem., Sheffield Sci. Sch., Yale, 04–06, instr., 06–11, asst. prof., 11–14; org. chemist, bur. chem., U. S. Dept. Agr., 14–15, in charge protein investigation lab., 15–20, sci. personnel, 17–20, color lab., 20; *director research*, Standard Oil Co. of N. J., 20— Lecturer, Yale, 20. Nat. Research Council; Joint Commission on Reclassification of Govt. Salaries, 19–20. Chairman, Petrol. Symposium, N. Y., 25. A.A.; Soc. Biol. Chem.; Chem. Soc. (councilor, 17–20, 24, 26—); Petrol. Inst.; Wash. Chem. Soc. (pres., 20); N. J. Chem. Soc. (director, 26—). Synthesis of pyrimidins, purins and halogen and nitroamino acids; furfurans; cyanogenesis; hydrocyanic acid; proteins and amino acids; protein metabolism; saponins; toxicity of metals; dye intermediates; tetraethyl lead; higher alcohols from petroleum olefines; motor fuels; petroleum chemistry.
- Johnson, Dr. A(aron) G(uy)**, U. S. Department of Agriculture, Washington, D. C. *Plant pathology*. Sept. 1, 80. Washington (St. Louis); B.S., S. Dak. Col., 07; M.S., Purdue, 11; Ph.D., Wisconsin, 14. Bot. asst., Mo. Bot. Garden, 03–06; asst. bot. and hort., S. Dak. Col., 06–08; asst. botanist, Purdue Exp. Sta., 08–11; asst. bot. and plant path., Wisconsin, 11–12, plant path., 12–13, instr. and asst. prof., 13–18, assoc. prof., 18–22; *pathologist, office cereal crops and diseases, bur. plant indust.*, U. S. Dept. Agr., 14— A.A.; Bot. Soc.; Phytopath. Soc.; Wis. Acad.; Wash. Acad. Unattached forms of plant rusts; diseases of cereals.
- Johnson, Prof. Arden R(ichard)**, 1029 Jefferson St., St. Charles, Mo. *Physical chemistry*. Rutland, Wis., Sept. 21, 84. B.S., Wisconsin, 06, M.S., 08, Ph.D., 11. Instr. chem., Wisconsin, 06–08; prof., De Paul, 08–12; assoc. prof. theoret. chem., Iowa Col., 12–13; chemist, C. F. Burgess Laboratories, 14; director, Indust. Chem. Laboratories, 15–18; asst. prof. physical chem., Northwestern, 18–19; *prof. chem.*, Lindenwood Col., 22— A.A.; Chem. Soc. (sec'y-treas., Iowa sect., 12); Electrochem. Soc. Boron; metallic calcium; osmosis of optical isomers; photo-chemistry; deposition of metal coatings from vapor phase.
- Johnson, Dr. Arnold H(arvey)**, 523 S. Sixth St., Bozeman, Mont. *Biochemistry*. Minneapolis, Minn., Nov. 21, 96. B.S., Minnesota, 21, Strietmann fellow, 22–23, M.S., 23, Ph.D., 24. Asst. prof. biochem., Minnesota, 24; *asst. chemist, Mont. Exp. Sta.*, 25— A.A.; Chem. Soc.; Ass. Cereal Chem. Biochemistry as applied to cereals; effect of the chlorine bleaching on the electrolytic resistance and hydrogen-ion concentration of water extracts.
- Johnson, Dr. A(rthur) M(onrad)**, Curtis Hotel, Minneapolis, Minn. *Botany*. Fredrikstad, Norway, Jan. 19, 78. A.B., Minnesota, 04, fellow, 16–19, Ph.D., 19; Harvard, 24–25. Instr. high schools, Wash., 05–16; instr. bot., Minnesota, 19–24. A.A.; Bot. Soc.; Soc. Mammal. Systematic morphology; phytogeography; Saxifragaceae.
- Johnson, Bertrand L(eroy)**, U. S. Bureau of Mines, Washington, D. C. *Geology, Mining*. Boston, Mass., May 11, 82. B.S., Mass. Inst. Tech., 05. Hydrol. aid., U. S. Geol. Surv., 05–06, junior geologist, 07–10, asst. geologist, 11–12, assoc. geologist, 12–20, geologist, 20–25; *supervising engineer, sect. for. mineral econ.*, U. S. Bur. Mines, 25— Geol. Soc.; Soc. Econ. Geol.; Wash. Acad.; Wash. Geol. Soc. (treas., 17). Titaniferous iron ores; Pleistocene terracing and underground waters in the North Carolina coastal plains; coal fields of southern Wyoming; soil movements in Alaska; metals of Alaska; occurrence of chalmersite in Alaskan copper ores; silver and coal resources of the world; foreign mineral resources.
- Johnson, Dr. Buford J(ennette)**, Johns Hopkins University, Baltimore, Md. *Psychology*. Thomson, Ga., Aug. 23, 80. A.B., Lagrange, 95; A.M., Hopkins, 15, Ph.D., 16. Assoc. psychologist, Lab. Social Hygiene, Bedford Hills, N. Y., 16–17; Bur. Educ. Exp., New York, 17–20;

- assoc. prof. *psychol.*, Hopkins, 20-24, *prof.*, 24-Summers, instr., Hopkins, 18-20. A.A.; *Psychol. Ass.*; S. Soc. Philos. and Psychol. Psychology of children; practise effects; motor abilities of young children.
- Johnson, Dr. Charles E(ugene)**, New York State College of Forestry, Syracuse, N. Y. *Zoology.* Oslo, Norway, April 24, 80. A.B., Minnesota, 06, A.M., 07, Ph.D., 12. Instr. comp. anat. of vertebrates, Minnesota, 12-18; asst. prof. zool., Kansas, 19-20, assoc. prof., 20-23; prof. forest zool., N. Y. State Col. Forestry, Syracuse, and field naturalist, *Roosevelt Wild Life Sta.*, 23-26, *acting director*, 26- A.A.; Soc. Zool.; Ass. Anat.; Soc. Mammal.; Ornith. Union. Vertebrate embryology and anatomy; mammalogy; ornithology; ecology of vertebrates.
- Johnson, C(harles) M(orris)**, 731 Orchard St., Avalon, Pa. *Chemistry.* Alliance, Ohio, Aug. 15, 69. Ph.B., Ph.M., Pittsburgh, 89. Asst. chemist, Park Steel Co., 89-00; *chief chemist*, *Crucible Steel Co. of Amer.*, 00-, supt., tungsten works, 09-26, director research dept., 17-25. A.A.; Chem. Soc.; Soc. Test. Mat.; Soc. Steel Treat.; West. Pa. Eng. Soc. Alloy steels; laboratory refractories; metallic tungsten powder; molybdenum; analysis of special steels, steel-making alloys and graphite.
- Johnson, Dr. Cha(rle)s W(illis)**, University of Washington College of Pharmacy, Seattle, Wash. *Chemistry.* Concord, Ind., Sept. 23, 73. Ph.C., Michigan, 96, B.S., 00, Ph.D., 03. Asst. instr. chem., Michigan, 98-01; instr., Iowa, 01-02; asst. prof., *Washington (Seattle)*, 03-04, *prof. pharmaceut. chem. and dean col. pharmacy*, 04-; *state chemist*, 09- U. S. Pharmacopœia Revision Committee. A.A.; Pharmaceut. Ass. (pres, 27); Ass. Col. Pharm. (pres, 23); Wash. State Pharmaceut. Ass. Oxidation products of morphin.
- Johnson, C(harles) W(illison)**, Boston Society of Natural History, Boston, Mass. **Natural history.* Morris Plains, N. J., Oct. 26, 63. Pub. and private schools. *Curator* museum, Wagner Free Inst., Phila., 88-03; *Boston Soc. Nat. Hist.*, 03- Assoc. ed., 'Nautilus,' 90- A.A.; Entom. Soc. (pres, 24); Am. Acad.; Boston Soc. Nat. Hist.; Phila. Acad.; Wash. Entom. Soc.; Conchol. Soc. Gt. Britain and Ireland; London Malacol. Soc. Diptera; recent and fossil Mollusca; Diptera of New England.
- Johnson, Prof. Douglas (Wilson)**, Columbia University, New York, N. Y. **Physiography, Geology.* Parkersburg, W. Va., Nov. 30, 78. Denison, 96-98; B.S., New Mexico, 01; fellow, Columbia, 02-03, Ph.D., 03; Harvard, 03-04; hon. Dr., Grenoble, 24. Teacher, pub. schools, 97-98; field asst., Univ. Geol. Surv., N. Mex., 99-01; instr. high sch., N. Mex., 00-01; instr. geol., Mass. Inst. Tech., 03-05, asst. prof., 05-07; physiog., Harvard, 06-12; lecturer geog., Teachers' Sch. Science, 07-12; assoc. prof. *physiog.*, *Columbia*, 12-19, *prof.*, 19- Exchange prof., France, 23-24; asst., U. S. Geol. Surv., 01, 03, 04-05; N. J. Geol. Surv., 11; geog. adviser, U. S. Dept. State, 19-20. Assoc. ed., 'Geog. Rev.' Director, Shaler Mem. exped., 11-12. Nat. Research Council, 17-23, for. rep. div. geol. and geog., 18. Janssen medal, Soc. de Géog. de Paris, 20; Kane medal, Phila. Geog. Soc., 22; medal, Univ. Naney, 24; Gaudy medal, Soc. de Géog. commerciale de Paris, 25; A. Cressy Morrison prize, N. Y. Acad., 24. Chevalier, Légion d'honneur, 24. Major, intelligence div., U.S.A., chief div. boundary geog. Mem. Roumanian, Jugoslav, Cent. Territorial Commissions, Am. Commission to Negotiate Peace, Paris, 18-19; consulting physiographer to Canada-Labrador boundary dispute, 26. A.A.; Geol. Soc. (v. pres, 27); Ass. Geog.; Am. Geog. Soc.; Am. Acad.; Philos. Soc.; N. Y. Acad. (v. pres, 16-18); Phila. Geog. Soc.; cor. mem. Royal Serbian Acad.; for. mem. Swedish Soc. Anthropol. and Geog.; hon. mem. Bordeaux Geog. Soc. Physiography of the lands; shoreline physiography; military geography.
- Johnson, Prof. Duncan S(tarr)**, Johns Hopkins University, Baltimore, Md. **Botany.* Cromwell, Conn., July 21, 67. B.S., Wesleyan, 92; Ph.D., Hopkins, 97. Assoc. bot., Hopkins, 98-01, assoc. prof., 01-06, *prof.*, 06-, *director bot. lab. and bot. garden*, 09- In charge crypt. bot., biol. lab., Brooklyn Inst., 96-11; v. pres., Harpswell Lab., 14-23; Mt. Desert Biol. Lab., 24- Bot. expeditions to Am. tropics, 03, 06, 10, 19, 26. Nat. Research Council. War work, bur. plant indust., U. S. Dept. Agr., 18. A.A. (pres, G, 12); Bot. Soc. (sec'y, 07-10); Ecol. Soc.; cor. mem. Soc. Bot. de Genève. Development of sporophyte of Marsiliaceae; embryology of dicotyledons; development of the Piperaceae, Chloranthaceae and Hepaticae; ecological distribution of marine algae; flowering and fruiting habits of Cactaceae and Myrtaceae.
- Johnson, Dean Edw(ard) C(arl)**, Washington State College, Pullman, Wash. *Plant pathology, Agricultural economics.* Otisco, Minn., April 18, 80. A.B., Minnesota, 06, A.M., 07; George Washington, 10-11. Instr. bot., Minnesota, 06-07; asst. plant pathologist, U. S. Dept. Agr., 07-08, plant pathologist in charge cereal disease work, 08-12; supt., Farmers Institutes, and state leader farm demonstration work, Kansas Col., 12-15, *dean div. col. exten.*, 15-18; *col. agr.*, Wash. Col., and *director*, *Exp. Sta.*, 19- A.A.; Phytopath. Soc.; Farm Econ. Ass.; Acad. Polit. Sci.; Am. Geog. Soc. Farm management; cereal diseases.
- Johnson, Prof. E(lbe) H(erbert)**, Kenyon College, Gambier, Ohio. *Physics.* Traverse City, Mich., Aug. 9, 87. A.B., Olivet, 11, A.M., 13; Wisconsin, 11-14; Chicago, 16, 17, 23, 24, fellow, 25, Ph.D., 26. Asst. physics, Olivet, 09-11; asst. instr., Wisconsin, 11-14; asst. prof., *Kenyon*, 14-15, physics and chem., 15-17, assoc. prof. *physics*, 17-18, *prof. and head dept.*, 18- A.A.; Physical Soc.; Illum. Eng. Soc.; Hist. Sci. Soc.; Cent. Ass. Sci. and Math. Teachers. History of physics; scientific education; laboratory physics; spectroscopy and the quantum theory; molecular spectra.
- Johnson, Prof. E(lijah) N(ewton)**, 304 Downey Ave., Indianapolis, Ind. *Mathematics, Astronomy.* Willow Branch, Ind., June 30, 65. A.B., Campbell, P.C.E., 98; A.B., Drake, 93, A.M., 95; M.S., Kansas, 04; Sc.D., Butler, 26. Pres. and *prof. math.*, Campbell, 97-04; *Butler*, 04- Math. Soc.; Math. Ass. (pres, Ind. sect.).

Johnson, Dr. Franklin P(aradise), Medical Arts Building, Portland, Oregon. *Urology*. Hannibal, Mo, Jan. 7, 88. A.B, Missouri, 08, A.M, 10; Ph.D, Harvard, 12; M.D, Hopkins, 20. Instr. histol, Harvard Med. Sch, 10-12; asst. prof. anat, Missouri, 12-13, assoc. prof, 13-18, prof, 18-19; house officer, New Haven Hosp, 20-21; asst. res. and res. urologist, Hopkins Hosp, 21-23; *urologist*, 23- Sec'y, Mo. State Anat. Board, 13-18. A.A; Am. Med. Ass; Ass. Anat. Human embryology and urology.

Johnson, Prof. F(rederick) M(urray) G(oosehall), McGill University, Montreal, Que, Can. *Chemistry*. Montreal, Oct. 31, 82. B.Sc, McGill, 04, M.Sc, 05; University, London, 05-06; Ph.D, Breslau, 08. Demonstrator, McGill, 04-05, lecturer, asst. prof. and assoc. prof, 08-15; asst. gen. supt, Curtiss and Harvey, Ltd, 17; technical adviser, British Chem. Co, 18; *prof. in- org. chem*, McGill, 20- Chem. Soc; Soc. Chem. Indust; fel. Royal Soc. Can; fel. Inst. Chem. Gt. Britain and Ireland (hon. cor. sec'y). Vapor pressures; absorption of gases and vapors by alumina; solution and diffusion of gases in metals.

Johnson, Dr. George E(dwin), Kansas State Agricultural College, Manhattan, Kans. *Zoology*. Clear Lake, S. Dak, May 3, 89. B.S, Dakota Wesleyan, 13; M.S, Chicago, 16; Ph.D, Harvard, 23. Instr. biol, North Dakota, 16-17; zool, Michigan, 17-18; prof. biol, Porto Rico, 18-21; Austin teaching fellow, Harvard, 21-23; prof, Mississippi, 23-24; *assoc. prof. zool*, Kansas Col, and *mammalogist*, *Exp. Sta*, 24- Woods Hole. A.A; Soc. Zool; Soc. Mammal; Kans. Acad. Ecology; neurology; physiology; endocrinology; giant nerve fibers of crustaceans; hibernation, habits and life histories of mammals.

Johnson, Dr. Harry (Isaac), Roanoke College, Salem, Va. *Physical chemistry*. Hagerstown, Md, Jan. 23, 89. A.B, A.M, Roanoke, 12; Ph.D, Hopkins, 17. Prof. nat. sciences, Daleville, 12-14; asst. prof. chem, Louisville, 17-19; N. C. Col, 19-20; *prof*, Roanoke, 20- Chem. Soc. Conductivity.

Johnson, Dr. H(arry) M(iles), Mellon Institute, Pittsburgh, Pa. *Psychology*. Nelson, Mo, May 16, 85. A.B, Missouri Valley, 09; fellow, Hopkins, 11-12, Ph.D, 12; Chicago, 11. Asst. psychologist, Nela Research Lab, 12-13, assoc. psychologist and psychologist, 14-18; chief psychol. sect, Air Service, Med. Research Lab, 19-20; research, B. F. Goodrich Co, 20-21; lecturer *psychol*, Minnesota, 21-23; asst. prof, Ohio State, 23-25; *senior fellow*, Mellon Inst, 25- Lieut, Sanit.C, 18, capt, 18- A.A; Psychol. Ass; Optical Soc. Pattern vision in vertebrates; audition and habit formation in the dog; physiological optics; selection and classification of aviators; reaction-time; attention; fatigue and sleep.

Johnson, Prof. Henry S(toddard), 23 Trumbull St, New Haven, Conn. *Pharmaceutical chemistry*. New Haven, April 13, 99. Ph.B, Yale, 19, M.S, 22. Instr. chem. and head dept, high sch, Conn, 19-23, 25-26; *prof. org. chem*, Porto Rico, 23-25; *chem. and head dept*, Conn.

Col. Pharmacy, 25- Reader chem, col. entrance examination board. Capt, C.W.S, O.R.C. Chem. Soc. (contributing ed, 'Jour. Chem. Educ'); Pharmaceut. Ass; New Eng. Ass. Chem. Teachers. Organic chemistry.

Johnson, Dr. Herbert P(arlin), Cedaredge, Colo. **Zoology*. Nahant, Mass, Sept. 23, 64. A.B, Harvard, 89, A.M, 90, Austin fellow, 00-01; Clark, 91-92; Ph.D, Chicago, 94. Asst. biol, Williams, 90-91; instr, Des Moines, 94; zool, Chautauqua, 94; asst. prof. zool, California, 94-00; assoc. prof. bacter. sch. med, St. Louis, 03-09. A.A; Soc. Nat; Soc. Zool; Calif. Acad. Infusoria; Sporozoa; faunistic and systematic study of Polychaeta; etiology of malarial diseases; mosquitoes and malaria; icterohematuria of sheep.

Johnson, Prof. James, University of Wisconsin, Madison, Wis. *Horticulture*. Deerfield, Wis, May 11, 86. B.S.A, Wisconsin, 09, M.S, 11, Ph.D, 18. Asst. *hort*, Wisconsin, 09-11, instr, 11-16, asst. prof, 16-20, assoc. prof, 20-22, *prof*, 22- Agent, U. S. Dept. Agr, 17- A.A; Phytopath. Soc; Bot. Soc. Phytopathology; virus diseases of plants; soil sterilization; tobacco culture and diseases.

Johnson, Dr. J(ames) M(cIntosh), Public Health Service, Washington, D. C. *Chemistry*. Newberry, S. C, Aug. 15, 83. B.S, Newberry, 02, A.M, 03; Ph.D, Hopkins, 08. Asst. chem, Newberry, 02-03; prin. schools, 03-04; lecture asst. and Carnegie research asst, Hopkins, 06-08, asst. med, 08-09; chemist, Tenn, 09-10; instr, high sch, Ala, 10; asst. org. chemist, bur. chem, U. S. Dept. Agr, 10-18; *org. chemist*, *hygienic lab*, U. S. Pub. Health Service, 18- Chem. Soc. Organic chemistry; acetyl derivatives of sugars; edible oils; vitamins in nutrition; trinitrotoluene poisoning; arsenicals; synthesis of chemotherapeutic drugs.

Johnson, Prof. J(ames) R(ichard), University of Kentucky, Lexington, Ky. *Mechanics*. Louisa, Ky, Oct. 11, 68. B.M.E, Kentucky, 93. Asst. prof. math, Kentucky, 93-05; prof. math. and mech, Nevada, 05-07; math, Ky. State Nor. Sch, 07-16; practising engineer, 16-19; *prof. applied mech*, Kentucky, 19- Soc. Test. Mat.

Johnson, J(esse) Harlan, 1220 Cheyenne St, Golden, Colo. *Geology*. Philadelphia, Pa, March 21, 92. B.S, S. Dak. Sch. Mines; certificate, Univ. de Montpellier; M.S, Colo. Sch. Mines. Instr, Colo. Sch. Mines, 20-21, asst. prof. geol, 21-25, *assoc. prof*, 25- Miner. Soc; assoc. Min. and Metal, Eng; Ass. Petrol. Geol; Colo. Hist. and Nat. Hist. Soc; Soc. géol. de France; Soc. d'Ethnog. Stratigraphic and historic geology; Colorado stratigraphy and paleontology.

Johnson, Dr. J(ohn) B(ertrand), 463 West St, New York, N. Y. *Physics*. Sweden, 87. B.S, North Dakota, 13, M.S, 14; Ph.D, Yale, 17. *Research engineer*, West. Elec. Co, 17-25, *Bell Telephone Laboratories*, 25- A.A; Physical Soc; Optical Soc. Infra-red absorption; ionization in gases; Schottky effect; cathode ray oscillograph; thermal agitation of electric charge.

- Johnson, Dr. John C(hristopher)**, Gunnison, Colo. *Zoology*. Sterling, Colo., Feb. 25, 91. A.B., Colo. State Teachers Col, 11; M.S., California, 15, fellow, 18-19, Ph.D., 19. Instr. biol. and agr., Colo. State Nor. Sch., 11-14; asst. zool., California, 14-15; prof. biol., Colo. State Teachers Col, 15-18; prof. biol., head dept. science and dean, Colo. State Nor. Sch., 19-23; *head dept. biol. and dean, West. State Col, Colo., 23*-Colo. Acad. Cultivation of tissues from amphibians; life cycle of *Echinostoma revolutum*.
- Johnson, Prof. John S. A.**, Virginia Polytechnic Institute, Blacksburg, Va. *Mechanical engineering*. Cismont, Va., Aug. 10, 78. B.S., Va. Polytech, 98, M.E., 99. Instr., *Va. Polytech*, 98-00, asst. prof. mech. eng., 00-06, *prof. applied mech. and exp. eng.*, 07- Mech. Eng.; Soc. Test. Mat. Materials of engineering; power transmission.
- Johnson, Prof. L(ewis) J(erome)**, 90 Raymond St., Cambridge, Mass. *Civil engineering, Political science*. Milford, Mass., Sept. 24, 67. A.B., Harvard, 87, C.E., 88; Polytech, Zurich, 88-89; Ecole des Ponts et Chaussées, Paris, 89-90. Instr. civil eng., Harvard, 90-92; practising engineer, Chicago, 92-94; instr. *civil eng., Harvard*, 94-96, asst. prof., 96-06, *prof.*, 06- Civil Eng.; Eng. Educ.; Soc. Test. Mat.; Concrete Inst.; Am. Acad.; Boston Soc. Civil Eng. Reinforced concrete, particularly proportioning of concrete; design of web reinforcement for beams; distribution of stress in the general case of flexure; floor loads due to crowds of people; political and economic requisites for a secure social order.
- Johnson, Maxwell O(scar)**, California Packing Corporation, Wahiawa, Oahu, Hawaii. *Chemistry*. Lafayette, Ind., July 28, 92. B.S., Purdue, 13; M.S., George Washington, 15. Asst. chemist, U. S. Rubber Co, 13-14; *chemist*, U. S. Dept. Agr., 14-19; Pearl City Fruit Co, 19-22; *California Packing Corp.*, 22- A.A.; Chem. Soc. Agricultural chemistry.
- Johnson, Dr. Maynard S(tickney)**, University Farm, St. Paul, Minn. *Zoology*. Brownville, Maine, Jan. 21, 00. A.B., Bates, 21; A.M., Illinois, 23, fellow, 23-25, Ph.D., 25. Asst. zool., Illinois, 21-23; *asst. prof. econ. zool., Minnesota*, 25- A.A.; Soc. Mammal; Ecol. Soc.; Fisheries Soc. Animal ecology; economic vertebrate zoology.
- Johnson, Prof. Roger A(rthur)**, Hunter College, New York, N. Y. *Mathematics*. Gardner, Mass., June 9, 89. A.B., Amherst, 10; A.M., Harvard, 11, Ph.D., 13. Instr. *math.*, Western Reserve, 13-17; prof., Hamline, 17-26; *asst. prof., Hunter*, 26- Math. Soc.; Math. Ass. Modern geometry.
- Johnson, Prof. Roswell H(ill)**, 1039 Murrayhill Ave., Pittsburgh, Pa. *Geology*. Buffalo, N. Y., Oct. 9, 77. Brown, 95-96; Harvard, 96-99; B.S., Chicago, 00; M.S., Wisconsin, 03; California; Columbia. Instr., high sch., S. Dak., 00-01; asst. vert. anat., Wisconsin, 01-03; instr. biol. and agr., Wash. State Nor. Sch., Cheney, 03-05; research asst., sta. for exp. evolution, Carnegie Inst., 05-08; *consulting geologist*, 08-; *prof. oil and gas production, Pittsburgh*, 16- Commissioner, Pa. Topog. and Geol. Surv., 17-19. A.A.; Geol. Soc.; Soc. Econ. Geol.; Ass. Petrol. Geol.; Min. Eng.; Eugenics Research Ass. Evolution; eugenics; petroleum; natural gas.
- Johnson, Prof. S(amuel) Arthur**, State Agricultural College, Fort Collins, Colo. *Entomology*. Morristown, N. J., Dec. 13, 67. B.S., Rutgers, 91, M.S., 95. Prin. pub. sch., Ill., 93-95; high sch., Colo., 96-02; asst. *zool., Colo. Agr. Col.*, 02-07, *assoc. prof.*, 07-, *dean faculty*, 13- Institute instr., Colo. Agr. Col., 03-14; instr., Teachers' Nor. Institutes, 08-17. A.A.; Ass. Econ. Entom. Economic entomology.
- Johnson, Prof. Sydney E(vans)**, 101 W. Chestnut St., Louisville, Ky. *Anatomy*. Lansing, Minn., May 1, 89. A.B., Washington (Seattle), 13, M.S., 14; fellow, Northwestern, 14-16, Ph.D., 16, M.D., 22. Instr. *anat.*, Northwestern, 16-18, assoc., 19-20, asst. prof., 20-23; *prof., Louisville Med. Col.*, 23- Consulting röntgenologist, Louisville City Hosp., 24- Ass. Anat.; Am. Med. Ass. Osteology; sense organs of the lateral canal system; sympathetic trunks; myenteric plexus.
- Johnson, Prof. T(homas) C(arskadon)**, Virginia Truck Experiment Station, Norfolk, Va. *Horticulture, Botany*. Long Reach, W. Va., Jan. 1, 70. B.S.A., West Virginia, 96, A.M., 00; fellow, Cornell, 02-03. Acting prof. hort., Missouri, 01-02; asst. horticulturist, W. Va. Exp. Sta., 03-06, instr. hort. and bot., West Virginia, 03-05, asst. prof., 05-07; supt., *Va. Truck Exp. Sta.*, 07-09, *director*, 09- A.A.; Soc. Hort. Sci. (pres., 17); Soc. Agron.; Farm Econ. Ass. Spraying plants; plant breeding; malnutrition of plants; fertilizer requirements of certain truck crops and soils.
- Johnson, Prof. Treat Baldwin**, Yale University, New Haven, Conn. **Chemistry*. Bethany, Conn., March 29, 75. Ph.B., Yale, 98, Ph.D., 01. Instr. chem., *Sheffield Sci. Sch., Yale*, 01-08, asst. prof. *org. chem.*, 08-15, *prof.*, 15- Nichols medal, Chem. Soc., 18. Nat. Acad.; A.A.; Soc. Biol. Chem.; Chem. Soc. (asst. ed., 'Chem. Abstracts'); Conn. Acad.; Chem. Gesell. Organic chemistry; biochemistry; synthetic organic chemistry; organic synthesis as applied to therapeutic substances; nucleic acid; new local anesthetics; silk fibroin; phenanthrene and its relation to morphin; histamin; tyramin; nucleosid; cyclic polypeptids; thiopolypeptides; chemistry of tubercle bacilli; biochemistry of sulphur, pyrimidines and hydantoins.
- Johnston, C(harles) O(tis)**, Kansas State Agricultural College, Manhattan, Kans. *Plant pathology*. Sharon, Kans., Oct. 21, 93. B.S., Kansas Col., 18, M.S., 24. *Asst. pathologist*, U. S. Dept. Agr., *Kansas Col.*, 19- Phytopath. Soc. Cereal rusts.
- Johnston, Clarence T.**, University of Michigan, Ann Arbor, Mich. *Irrigation engineering*. Near Denver, Colo., Oct. 23, 72. B.S., Michigan, 95, C.E., 99. Asst. state engineer's office, Wyo., 88-91, summers, 91-95; gaging streams, Wyo., for U. S. Geol. Surv., 95-97; asst. state engineer, Wyo., 96-98; asst. chief irrig. investigations, U. S. Dept. Agr., 98-03; state engineer, Wyo., 03-11; *prof. geod. and surv., Michigan*, 11- Consulting irrig. engineer, 97-99. A.A.; Civil

Eng; Ass. State Engineers; Wyo. Soc. Eng. and Surv. Irrigation law and engineering; flow of water in canals and ditches; administration of water resources; design of irrigation structures; coefficient of friction and value of coefficient of roughness (Kutter's formula); engineering education; theory of least squares.

Johnston, Dr. Earl S(teinford), University of Maryland, College Park, Md. *Plant physiology*. Quarryville, Pa, Feb. 5, 89. Ph.B, Dickinson, 13, A.M, 14; Ph.D, Hopkins, 17. Instr. science, Pennington Sch. for Boys, 13-14; asst. physiol, Hopkins, 14-17; *assoc. prof. plant physiol, Maryland, and assoc. plant physiologist, Exp. Sta.*, 17- Summer, asst, desert lab, Carnegie Inst, 15. A.A; Soc. Plant Physiol; Bot. Soc; Wash. Acad. Growth and climatic conditions; mineral nutrients; physiological effects of radiant energy on plants; biophysics.

Johnston, H(enry) Freeborn, Department of Terrestrial Magnetism, Washington, D. C. *Terrestrial magnetism*. Hay, Ont, Can, 88. B.A, Toronto, 10. Computer, Dominion Astron. Observatory, 08; with Carnegie Inst, 10-16; sci. adviser to supt, compass dept, British Admiralty, 16-19; *dept. terrestrial magnetism, Carnegie Inst*, 19- Atmospheric electricity.

Johnston, Prof. John, United States Steel Corporation, 71 Broadway, New York, N. Y. **Chemistry*. Perth, Scotland, Oct. 13, 81. Carnegie scholar, St. Andrews, Scotland, 03-05, B.Sc, 03, D.Sc, 08, 1851 Exhib. scholar, Breslau, 05-07; A.M, Yale, 19. Research assoc. physical chem, Mass. Inst. Tech, 07-08; chemist, geophys. lab, Carnegie Inst, 08-16; in charge research dept, Am. Zinc, Lead and Smelting Co, 16-17; chemist, U. S. Bur. Mines, 17-18; with Nat. Research Council, 18-19; prof. chem. and chairman dept, Yale, 19-27; *head research dept, U. S. Steel Corp*, 27- Nat. Research Council, chem. div, fellowship board; ed. board, Int. Critical Tables. A.A. (sec'y, C, 12-16); Electrochem. Soc; Chem. Soc. (ed. board, 14-); Inst. Metals; Franklin Inst. Physical chemistry.

Johnston, Dr. J(ohn) Allen, 341 Myrtle St, Atlanta, Ga. *Anatomy*. Augusta, Ga, Dec. 18, 83. M.D, Georgia, 08. Asst. prof. anat, Georgia, 08-18; *health commissioner*, Walker Co, Ga, 20-21; Decatur Co, 21-24; *Decatur, Seminole and Miller Counties*, 24- Am. Med. Ass. Embryology; chondrocranium of the albino rat; epidemiology and etiology of dengue fever.

Johnston, Prof. J(ohn) B(lack), University of Minnesota, Minneapolis, Minn. **Neurology*. Belle Center, Ohio, Oct. 3, 68. Ph.B, Michigan, 93, Ph.D, 99; Smithsonian table, Naples Zool. Sta, 04-05; Freiburg, 05. Asst. and instr. zool, Michigan, 93-99; asst. prof, West Virginia, 99-00, prof, 00-07; asst. prof. anat. of nervous system, *Minnesota*, 07-08, *assoc. prof. comp. neur*, 08-09, *prof*, 09-, *dean col. science, lit. and arts*, 14- Ed. staff, 'Ergeb. u. Fort. d. Zool,' 07-; ed. board, 'Jour. Comp. Neur,' 08- A.A; Soc. Nat; Soc. Zool; Ass. Anat; Minn. Neur. Soc; Mich. Acad. Nervous system of vertebrates; development of heart and blood vessels in Amphibia; circulation in earthworms; mor-

phology of vertebrate head; evolution and morphology of the mechanism of correlation in the vertebrate nervous system; vertebrate fore-brain and cerebral cortex; university education and administration; methods of predicting ability for college work.

Johnston, John R(ober) 31 Lakeville Place, Jamaica Plain, Mass. *Plant pathology*. Ludlow, Vt, June 19, 80. B.S, Harvard, 02, M.S, 04. Plant path. lab, bur. plant indust, U. S. Dept. Agr, 05-10; pathologist, Estacion Exp. de los Productores de Azucar, Rio Piedras, P. R, 10-14; Estacion Exp. Agron. Santiago, Cuba, 14-17; *chief office veg. sanit*, 16-; prof. plant path, Univ. Havana, 18-20; *director agr. research, United Fruit Co*, 20- Bot. exped, Margarita, Venezuela, 01; Gray Herbarium exped, Margarita and Trinidad, 03; sugar cane disease surv, Santo Domingo, P. R. Board Commissioners Agr, 11; sugar cane disease surv, south. U. S, U. S. Dept. Agr, 13. A.A; Bot. Soc; Wash. Bot. Soc. Flora of Margarita, Venezuela; coconut, sugar cane and banana diseases; entomogenous fungi.

Johnston, R(ober) A(ngus) A(lister), Ottawa, Ont, Can. *Mineralogy*. Reach, Ont, July 5, 67. Toronto. Asst. chemist, Can. Geol. Surv, 87-07, mineralogist, 07-22; *retired*. Fel. Royal Soc. Can. Rocks; meteorites.

Johnston, W(illiam) A(lfred), Geological Survey of Canada, Ottawa, Ont, Can. *Geology*. Aberarder, Ont, Jan. 24, 74. M.A, Queen's (Can), 03, B.S, 05; Yale. *Geologist, Can. Geol. Surv*, 05- Geol. Soc; fel. Royal Soc. Can. Pleistocene geology of Canada.

Johnston, Prof. William A(tkinson), Massachusetts Institute of Technology, Cambridge, Mass. *Mechanical engineering*. Boston, Mass, Aug. 31, 68. B.S, Mass. Inst. Tech, 92. Asst. mech. eng, *Mass. Inst. Tech*, 92-94, instr, 94-00, asst. prof, 00-06, *assoc. prof*, 06-12, *prof. theoret. and applied mech*, 12- Mech. Eng; Soc. Test. Mat; Eng. Educ. Applied mechanics; strength of materials.

Johnston, William Drumm, Jr, New Mexico School of Mines, Socorro, N. Mex. *Geology*. Garrett, Ind, Nov. 3, 99. B.S, Chicago, 21. Instr. *geol*, Cincinnati, 22-23; asst. prof, Kentucky, 23-24; geologist, Inst. Indust. Research, Cincinnati, 24-25, hon. fellow *geol*, 25-26; *asst. prof, N. Mex. Sch. Mines, and geologist, N. Mex. Bur. Mines*, 27- Venezuela, 25; summers, U. S. Geol. Surv, 26, 27. A.A; Petrol. Geol; Inst. Min. Eng; Ohio Acad. Chromium; non-metallics; sedimentary petrography.

Johnstone, E(dward) R(ansom), Vineland, N. J. *Psychology*. Galt, Ont, Can, Dec. 27, 70. Ft. Wayne Col. Med, 95-97; hon. M.S, Princeton, 23. Teacher, Ohio, 89-93; prin, Ind. Sch. Feeble-Minded, 93-98; asst. supt, *Training Sch. for Feeble-Minded*, 89-00, supt, 00-21, *director*, 21- Prison and Parole Board, N. J; consultant, N. J. Dept. Institutions and Agencies; N. J. Council Educ. Ass. Study Feeble-Minded; Am. Prison Ass. Feeble-mindedness.

Johnstone, Prof. G(eorge) R, University of Southern California, Los Angeles, Calif. *Plant*

- physiology*. Galva, Ill. A.B., Illinois, 13; M.S., Chicago, 17, Ph.D., 24. Instr. bot., Mich. State Col., 13-16; N. Y. State Col. Forestry, Syracuse, 19-20; assoc. prof. bot. and assoc. botanist, Ala. Polytech., 20-23; *asst. prof. bot.*, *Southern California*, 24- A.A.; fel. Bot. Soc. The effect of wounding on respiration and exchange of gases; Ipomea batatas.
- Johnstone, Prof. J(ohn) H(amilton) L(ane)**, Dalhousie University, Halifax, N. S., Can. *Physics*. Pictou, N. S., April 27, 91. B.Sc., Dalhousie, 12, M.Sc., 14; 1851 Exhib. research scholar, 14-16; Ph.D., Yale, 16. Instr. *physics*, *Dalhousie*, 19-21, asst. prof., 21-22, assoc. prof., 22-24, *prof.*, 24- Physical Soc; N. S. Inst. Sci. Electrical conductivity; radioactivity; high resistance measurements.
- Joliat, Rev. J(oseph) S(ebastian), S.J.**, St. Louis University, St. Louis, Mo. *Chemistry*. Louisville, Ohio, Jan. 12, 82. A.B., St. Louis, 10, A.M., 11, M.S., 12. Instr. chem., *St. Louis*, 12-13, asst. prof., 13-16, *assoc. prof. geophysics*, 25- Chem. Soc. Geochemistry.
- Jolliffe, Dr. C(harles) B(yron)**, Buckeye Incubator Co, Springfield, Ohio. *Physics*. Mannington, W. Va., Nov. 13, 94. B.S., West Virginia, 15, M.S., 20; Ph.D., Cornell, 22. Asst. physics, Ohio State, 16-17; instr., West Virginia, 17-20; Cornell, 20-22; assoc. physicist, Bur. Standards, 22-24, physicist, 24-26; *research director*, *Buckeye Incubator Co*, 26- Fel. Physical Soc; Radio Eng. Electrolytic capacity; regeneration in radio receiving sets; radio frequency standardization; radio wave phenomena.
- Jonas, Dr. A(nna) I(sabel)**, 72 Hampton St., Bridgeton, N. J. *Geology*. Bridgeton, Aug. 17, 81. A.B., Bryn Mawr, 04, A.M., 05, Ph.D., 12. Demonstrator, geol. lab., Bryn Mawr, 05-06, asst. curator geol. museum, 08-09; dept. geol. and invert. paleont., Am. Museum Nat. Hist., 16-17; cashier, Williamstown Glass Co, 17-19; *geologist*, *Md. and Pa. Geol. Surveys*, 19-, *Va. Geol. Surv.*, 26- A.A.; fel. Geol. Soc; Wash. Geol. Soc. Petrology; stratigraphy; metamorphic rocks.
- Jonas, Dr. A(ugust) F(rederick)**, 106 S. 31st Ave, Omaha, Nebr. *Surgery*. Arlington, Wis., June 12, 58. M.D., Bennett Col., 77; Munich, 84; Berlin, Vienna, Paris. Prof. surg., col. med., Nebraska; *chief surgeon*, *Union Pacific Ry*, 98- Surgeon, Nebr. M. E. Hosp; Univ. Hosp. Surg. Ass. (v. pres); Col. Surg; Am. Med. Ass. (v. pres); Acad. Ry. Surg. (pres); West. Surg. and Gynec. Ass. (pres).
- Jonas, Dr. Leon**, 2253 N. 17th St., Philadelphia, Pa. *Physiological chemistry*. White Haven, Pa., Aug. 30, 83. M.D., Pennsylvania, 09. Asst. *physiol. chem.*, *Pennsylvania*, 12-14, *Woodward fellow*, 14-; *director lab.*, *Jewish Hosp.*, *Phila.*, 17- A.A.; Am. Med. Ass; Soc. Exp. Biol; Phila. Physiol. Soc; Phila. Col. Physicians. Diseases of metabolism.
- Jones, Prof. Adam Leroy**, Columbia University, New York, N. Y. *Philosophy*, *Psychology*. Dunlap, Ill., July 2, 73. A.B., Williams, 95; Ph.D., Columbia, 98. Asst. *philos.*, Columbia, 98-01, lecturer, 01-02, tutor, 02-05; preceptor, Princeton, 05-09; adjunct prof., *Columbia*, 09-11, *assoc. prof.*, 11- Summers, instr., Columbia, 01-03. A.A.; Philos. Ass; Psychol. Ass. Early American philosophers; logic and scientific method; educational administration.
- Jones, Dr. Alice M(arget),** Geneva College, Beaver Falls, Pa. *Psychology*. Philadelphia, Pa., Aug. 16, 98. B.S., Pennsylvania, 18, A.M., 22, Ph.D., 24. *Director*, *Beaver Co. Child Study Bur.*, 24- Instr., Geneva Col. exten. and summer sch., 24- Psychol. Ass; Ass. Study Feeble-Minded. Clinical psychology; the superior child; the problem child.
- Jones, Prof. A(rthur) T(aber)**, 78 N. Elm St., Northampton, Mass. *Physics*. Vassalboro, Maine, Sept. 9, 76. B.S., Chicago, 99; fellow, Clark, 11-13, Ph.D., 13. Teacher, high schools, Ill., 00-02; asst. *physics*, *Purdue*, 02-03, instr., 03-06, asst. prof., 06-11; Iowa Col., 13-14; *Smith*, 14-19, *assoc. prof.*, 19- Summer, asst. physicist, Bur. Standards, 18. A.A.; Physical Soc. Acoustics.
- Jones, Chancellor Cecil Charles**, Fredericton, N. B., Can. *Mathematics*. Boundary Creek, N. B., Feb. 11, 72. B.A., New Brunswick, 97, M.A., 99, Ph.D., 02; A.B., Harvard, 98; Chicago, 04; LL.D., Toronto, 07, Bates, 20, McMaster, 23. *Prof. math.*, *Acadia*, 98-06; *New Brunswick*, 06-, *chancellor*, 06- N. B. Board Educ. Math. Soc. Education.
- Jones, Dr. Chester M(orse)**, 98 Grant Ave, Newton Center, Mass. *Medicine*. Portland, Maine, March 29, 91. A.B., Williams, 13; M.D., Harvard, 19. Asst. med., *Harvard*, 21-24, Moseley traveling fellow, 24-25; *instr. med. and Henry P. Wolcott fellow*, 25- Asst. med., Mass. Gen. Hosp., 21-24, assoc. physician, 25- Am. Med. Ass; Soc. Clin. Invest; Soc. de Chim. biol. Bile pigment metabolism; diseases of the biliary system; hepatic and pancreatic function; reference of pain from the alimentary tract; uric acid; acid, base and salt equilibrium in the stomach.
- Jones, Prof. Clarence F(ielden)**, Clark University, Worcester, Mass. *Geography*. Radford, Va., Aug. 30, 93. Diploma, West. Ill. State Teachers Col., 15; B.S., Chicago, 17, Ph.D., 23. Prin., high sch., Ill., 13; Minn. State Teachers Col., St. Cloud, 17-18; asst. geog., Chicago, 21-23; asst. prof. *econ. geog.*, *Clark*, 23-26, *assoc. prof.*, 26- Assoc. ed., 'Econ. Geog.', 24. Am. Geog. Soc; Ass. Geog; Acad. Polit. Sci; Nat. Council Geog. Teachers. General economic geography; economic geography of South America.
- Jones, Prof. C(lement) R(oss)**, Morgantown, W. Va. *Mechanical engineering*. Knottsville, W. Va., April 19, 71. B.S., C.E., West Virginia, 94, M.E., 97; M.M.E., Cornell, 00. Assoc. prin., W. Va. Col., 94-95; asst. mech. eng., *West Virginia*, 95-97, instr., 97-99, asst. prof., 99-01, prof., 01-11, *dean col. eng.*, 11- Consulting engineer. Ed., 'Eng. Exp. Sta. Record,' 21-24. A.A.; Mech. Eng. (chairman, W. Va. sect., 25-); Eng. Educ; Soc. Test. Mat; Land Grant Col. Ass. (sec'y, eng. sect., 21-24, committee eng. exp. stations, 24-) Specific heat of superheated steam; analysis of flue gases; losses in

transmission of power by belting; fuel value of natural gas; effect of condensance on operation of induction motors.

Jones, Prof. Dan H(erbert), Ontario Agricultural College, Guelph, Ont, Can. *Bacteriology*. Stourbridge, Eng, Sept. 29, 75. B.S.A. Ont. Agr. Col, 08. Res. master, *Ont. Agr. Col*, 06-08, lecturer *bacter*, 08-15, *prof*, 15- Soc. Bact; Phytopath. Soc; Can. Phytopath. Soc. Agricultural bacteriology; bacterial diseases of plants; soil bacteria.

Jones, Dr. D(avid) B(reese), U. S. Department of Agriculture, Washington, D. C. *Biochemistry*. Cambria, Wis, Oct. 5, 79. A.B, Ripon Col, 04; Ph.D, Yale, 10. Research chemist, Conn. Exp. Sta, 08-09; assoc. prof. chem, Morning-side, 10-11; instr. org. chem, Wisconsin, 11-15; *senior chemist in charge protein investigation lab, bur. chem, U. S. Dept. Agr*, 15- In charge org. chem, Pittsburgh, 14. A.A; Soc. Biol. Chem; Chem. Soc; Soc. Exp. Biol; Pub. Health Ass; Wash. Acad. Proteins; amino acids; vitamins; nutrition.

Jones, D(ettmar) W(entworth), 10 Court St, Arlington, Mass. *Entomology*. Melrose, Mass, Sept. 2, 90. M.S. Mass. Col, 14. *Entomologist, bur. entom, U. S. Dept. Agr*, 14- A.A; Ass. Econ. Entom. European earwig and its control; corn borer parasites; parasites of the gipsy and brown tail moth.

Jones, Dr. D(onald) F(orsha), 109 Hartford Turnpike, New Haven, Conn. *Genetics*. Hutchinson, Kans, April 16, 90. B.S, Kansas Col, 11; M.S, Syracuse, 16; Sc.D, Harvard, 18. Asst. plant breeder, Ariz. Exp. Sta, 11-13; instr. hort, Syracuse, 13-15; *geneticist, Conn. Exp. Sta*, 15- Genetic Ass; Soc. Nat; Bot. Soc; Soc. Agron. Genetics.

Jones, Prof. Edward N(ewlon), Baylor University, Waco, Texas. *Botany*. Downs, Kans, April 15, 99. B.S, Ottawa (Kans), 21; fellow, Iowa, 24-25, Ph.D, 25. *Prof. bot. and head dept, Baylor*, 25- A.A; Bot. Soc; Iowa Acad. Morphology and biology of aquatic spermatophytes.

Jones, Prof. E(dward) R(ichard), University of Wisconsin, Madison, Wis. *Agricultural engineering*. Bangor, Wis, May 20, 82. B.S.A, Wisconsin, 05, M.S, 08. Asst. instr, asst. prof. and assoc. prof. soils, *Wisconsin*, 05-18, *prof. agr. eng*, 18- Agr. Eng; Wis. Eng. Soc; Wis. State Drainage Ass. (sec'y, 14-) Agricultural engineering; land drainage.

Jones, Prof. Edward S(afford), University of Buffalo, Buffalo, N. Y. *Psychology*. Madura, S. India, Aug. 18, 88. A.B, Oberlin, 10; Ph.D, Chicago, 17. Instr. *psychol*, Northwestern, 16-17; asst. prof, Oberlin, 19-23; *Buffalo*, 23-25, *prof. and director office personnel research*, 25- Lieut. and capt, Sanit.C, 17-19. Psychol. Ass. Experimental psychology; mental tests; personnel problems.

Jones, Prof. Elmer E(llsworth), 1115 Church St, Evanston, Ill. *Education*. Pennville, Ind, May 31, 76. A.B, Monmouth, 94; A.M, Colorado, 00; Ph.D, Columbia, 08. Prof. psychol. and educ, Va. State Nor. Sch, 02-08; hist. and philos. of educ, Indiana, 08-14; head dept.

educ, *Northwestern*, 14-20, *director sch. educ*, 20- A.A; Psychol. Ass; Soc. Col. Teachers Educ; Ill. Acad. Individual differences; educational measurements; heredity; psychology of drawing and music; the senile mind; mental states; vocational guidance; sex relations among adolescents; association among delinquents; the sense impressions of children; the waning of consciousness under chloroform.

Jones, Col. E(rnest) Lester, U. S. Coast and Geodetic Survey, Washington, D. C. *Geodesy*. East Orange, N. J, April 14, 76. A.B, Princeton, 98, A.M, 19. Business, research and secretarial work, 03-13; deputy commissioner fisheries, 13-15; supt, U. S. Coast and Geod. Surv, 15-19, director, 19-20, commissioned director, 20, *commissioner, Int. Boundary Commission, U. S. and Can, Alaska and Can*, 21- Hydrographic and geodetic engineer. First Aerial Coastal Patrol Commission; Fed. Board Surv. and Maps. Officier, Légion d'honneur. Major and lieut. col, Sig.C, col. div. mil. aero, 17-19. A.A; Meteor. Soc; Seismol. Soc; Civil Eng; Philos. Ass; Bison Soc; Nat. Ass. Audubon Societies; Fisheries Soc; Soc. Mammal; Soc. Mil. Eng; Pacific Fisheries Soc; Wash. Soc. Eng; Wash. Acad. Hypsometry; elements of chart making; tides and currents of the U. S. coast; aerial surveying; earthquakes in the United States; the evolution of the nautical chart.

Jones, E(va) Elizabeth, 695 Huntington Ave, Boston, Mass. *Genetics*. Ottawa, Kans, Sept. 12, 98. A.B, Radcliffe, 20; A.M, Maine, 24. Research asst, sta. for exp. evolution, Carnegie Inst, 21-22; Maine, 22-24, instr. biol, 24-25; *biophysics lab, cancer commission, Harvard*, 27- A.A; Soc. Zool; Genetic Ass.

Jones, Frank Morton, 2000 Riverview Ave, Wilmington, Del. *Entomology*. Wilmington, Jan. 13, 69. Certificate, Franklin Inst, 21. A.A; Entom. Soc; N. Y. Entom. Soc; Pa. Bot. Soc; Del. Nat. Hist. Soc; fel. London Entom. Soc. Insectivorous plants and their insect associates; lepidopterous insects; Psychidae.

Jones, Dr. Fred R(euel), University of Wisconsin, Madison, Wis. *Plant pathology*. Mercer, Maine, June 9, 84. B.S, Maine, 12; M.S, Wisconsin, 14, Ph.D, 17. *Pathologist, bur. plant indust, U. S. Dept. Agr. at Wisconsin*, 17- A.A; Bot. Soc; Phytopath. Soc. Fungus diseases of leguminous forage plants.

Jones, Dr. F(rederic) S(owden), Rockefeller Institute, Princeton, N. J. *Pathology*. Philadelphia, Pa, Feb. 14, 88. D.V.M, Pennsylvania, 08; Cornell, 08-09. Instr. comp. path. and bacter, N. Y. State Vet. Col, Cornell, 09-13; asst. and assoc, *Rockefeller Inst*, 13-16, assoc. dept. animal path, 16-21, *assoc. mem*, 21- Ass. Path. and Bact; Soc. Exp. Path; Soc. Exp. Biol; Vet. Med. Ass. Animal pathology; cancer.

Jones, Prof. F(rederic)k S(cheetz), Yale University, New Haven, Conn. **Physics*. Palmyra, Mo, April 7, 62. A.B, Yale, 84, A.M, 90; Berlin, 87-88; Zurich, 88-89; LL.D, Kentucky, 15. Instr. physics, Shattuck Sch, 84-85; Minnesota, 85-89, prof, 89-09, *dean col. eng. and mech. arts*, 02-09; *Yale Col*, 09- Chairman board

- trustees, Hotchkiss Sch, 20; Conn. Board Educ, 19. A.A. Primary cells; Röntgen rays.
- Jones, Prof. George Ellis**, 73 Harwood St, Pittsburgh, Pa. *Psychology, Hygiene*. Tipton, Eng, June 7, 79. A.B, Kans. State Teachers Col, 09; A.M, Clark, 13, fellow, 13-15, Ph.D, 15. Asst. prof. *educ*, Pittsburgh, 15-17, *prof*, 17- A.A.; Soc. Col. Teachers Educ; Sch. Hygiene Ass. Educational psychology; school hygiene.
- Jones, George T(allmon)**, 322 W. College St, Oberlin, Ohio. *Ecology, Mycology*. Oberlin, Aug. 28, 97. A.B, Oberlin, 20, A.M, 23; Nebraska, 22-23; Illinois, 23-24. Asst. bot, Nebraska, 22-23; Illinois, 23-24; instr, Oberlin, 24-25; *instr.* and acting prof. animal ecol, Oberlin, 25-26, *bot*, 26- Ecol. Soc; Wilson Ornith. Club. Mycorrhiza.
- Jones, Dr. Grinnell**, Harvard University, Cambridge, Mass. **Chemistry*. Des Moines, Iowa, Jan. 14, 84. B.S, Vanderbilt, 03, fellow, 03-04, M.S, 05; A.M, Harvard, 05, Ph.D, 08. Austin teaching fellow, Harvard, 06-07; instr. chem, Illinois, 08-12; Harvard, 12-16, asst. prof, 16-17; chief chemist, U. S. Tariff Commission, 17-19, consulting chemist, 19-26; asst. prof. *chem*, Harvard, 19-20, *assoc. prof*, 20- Chem. Soc; Electrochem. Soc; Am. Acad. Atomic weight of sulphur; compressibility of salts; negative coefficient of expansion of silver iodide; atomic weight of phosphorus; equilibrium iodine and iodides, bromine and bromides; electrochemistry of silver iodide, thallium and thallium salts; coal-tar products; potash; sulphur and pyrites; thorium nitrates and Welsbach mantles; fixation of atmospheric nitrogen; conductivity of solutions.
- Jones, Prof. H(arold) E(llis)**, Berkeley, Calif. *Psychology*. New Brunswick, N. J, Dec. 3, 94. A.B, Amherst, 18; A.M, Columbia, 20, Ph.D, 23. Asst. biol, Amherst, 18-19; psychologist, City Children's Hosp, New York, 20; instr. psychol, Columbia, 22-26, asst. prof, 26-27; *director research, Inst. Child Welfare, California*, 27- Psychologist, Riverdale Sch, 22-27. Pres, Child Development Foundation, 26-27. Psychol. Ass. Rural community surveys; familial resemblance in mental traits; child development.
- Jones, Prof. Henry A(lbert)**, University of California, Davis, Calif. *Botany*. Deer Park, Ill, May 6, 89. B.S.A, Nebraska, 16; Ph.D, Chicago, 18. Asst. marketing, bur. markets, U. S. Dept. Agr, 18; *assoc. prof.* hort, West Virginia, and *assoc. horticulturist*, Exp. Sta, 19-20; *prof. vegetable gardening*, Maryland, 20-22; *assoc. prof. truck crops, California*, and *plant breeder, Exp. Sta*, 22- Plant physiology; truck crops.
- Jones, Prof. Henry N(eely)**, 859 Lancaster Ave, Syracuse, N. Y. *Bacteriology*. Ashland, Maine, Oct. 25, 81. A.B, Colby, 05; Harvard Med. Sch, 08-10. Bacteriologist, Mass. State Board Health, 10-14; asst, *assoc.* and *prof. bacter*, Syracuse, 14- City bacteriologist, Health Dept, Syracuse, 22-25. A.A. Quantitative relationships of types of pneumococci as found in Syracuse; differentiation of colon aerogenes group members.
- Jones, Dr. Hilton Ira**, 1538 Forest Ave, Wilmette, Ill. *Chemistry*. Mankato, Minn, May 9, 82. A.B, Parker, 03; A.M, Drake, 04; Harvard, 06-08; fellow, Chicago, 08-09; Ph.D, South Dakota, 16. Instr, high sch, Iowa, 04-06; chemist, B. O. and G. C. Wilson Co, 07; head dept. science, Muskogee, Okla, 09-12; assayer, Arbuckle Mining Exchange, 10-12; head dept. chem, Dakota Wesleyan, 12-18; Okla. Agr. and Mech. Col, 18-22; *director dept. sci. research, The Redpath Bur*, 22- A.A; Chem. Soc; London Chem. Soc. Rare organic chemicals; metallic soaps.
- Jones, Dr. Howard**, Park Place, Circleville, Ohio. *Medicine*. Cleveland, Ohio, 53. A.B, Hobart, 75, A.M, 84; M.D, Ohio Med. Col, 76. Prof. *physiol*, Columbus Med. Col, 78-84; *surgeon*, Pa. lines west of Pittsburgh; *Norfolk and West. Ry, C. and O. Ry.* Lecturer, Kenyon. A.A; Am. Med. Ass; Col. Physicians; Am. Acad. Med; Nuttall Ornith. Club. Clinical medicine; biology; ornithology and archeology of Ohio.
- Jones, Dr. H(oward) A(lgernon)**, 2230 Grand Boulevard, Schenectady, N. Y. *Physical chemistry*. Conshohocken, Pa, July 28, 98. B.S, Pa. State, 18; Harvard fellow, Princeton, 20-21, A.M, 21, fellow, 21-22, Ph.D, 22. Research chemist, Hercules Powder Co, 18-19; asst. chem, Princeton, 19-20; *research chemist, Gen. Elec. Co*, 22- Chem. Soc. Catalysis; ballast resistors; tungsten temperature scale; mechanism of ionization in gases; vapor pressure of metals.
- Jones, Prof. J C(laude)**, University of Nevada, Reno, Nev. *Geology*. Merrimac, Wis, July 2, 77. A.B, Illinois, 02; Ph.D, Chicago, 23. Instr. *geol*, Illinois, 04-06; *research asst*, Chicago, 07-09; asst. *prof. geol, Nevada*, 09-14, *prof*, 14- Geologist, Nev. Mining Lab, 10-; consulting geologist, 10- A.A; Ass. Petrol. Geol; Min. Eng. (v. chairman, Nev. sect, 17-); Seismol. Soc. Economic geology; history of Lake Lahontan; earthquakes in Nevada; origin of metaliferous ore in Nevada.
- Jones, Prof. J. Shirley**, Oregon Agricultural College, Corvallis, Oregon. *Chemistry*. Garrett, Ind, Feb. 14, 76. B.S, California, 03; M.S.A, Cornell, 14. Chemist, Giant Powder Co, 04-06; *prof. agr. chem*, Idaho, and chemist, Exp. Sta, 06-14, *director*, 14-18; *prof. agr. chem, Oregon Col*, and *chemist, Exp. Sta*, 19- Operating chemist, U. S. Nitrate Plant No. 1, 18-19. A.A; Chem. Soc. (pres. and counselor, north. intermountain sect); Soc. Chem. Indust. Soils; plant nutrition; fruit and plant composition.
- Jones, Prof. J(ohn) P(aul)**, Massachusetts Agricultural College, Amherst, Mass. *Agronomy*. Davidsonville, Md, May 9, 97. B.S, Maryland, 18, M.S, 21. Asst. plant *physiol*, Md. Exp. Sta, 19-21; instr. bot, Cornell, 21-23; *asst. research prof. agron, Mass. Col*, 23- Second lieut, Inf, 18. A.A. Hard seed in vetch; growing habit in wheat; cropping systems for and nutrient requirement of tobacco and onions.
- Jones, Prof. Joseph W(illiam) L(ester)**, Heidelberg College, Tiffin, Ohio. *Ethics*. East Orange, N. J, July 4, 73. A.B, Princeton, 94, A.M, 95, Ph.D, 01. *Prof. philos. and psychol, Heidelberg (Ohio)*, 02- The ethics of sympathy.

- Jones, Prof. Lauder W(illiam)**, Princeton University, Princeton, N. J. **Chemistry*. New Richmond, Ohio, July 22, 69. A.B, Williams, 92; fellow, Chicago, 95-97, Ph.D, 97. Asst. chem, Chicago, 97-00, assoc, 00-02, instr, 02-07, asst. prof, 07; prof, Cincinnati, 07-18; dean sch. chem, Minnesota, 18-20, eng. and archit, 19-20; *prof. chem, Princeton, 20-* Chief research sect. offense, C.W.S, 18-19. A.A; Chem. Soc. (chairman, sect. org. chem, 19). Nitroparaffin salts; alkyl derivatives of hydroxylamin; preparation of hydroxamic acids from hydroxylamin salts of organic acids; the Beckmann molecular rearrangement; electron conception of valence; alkyl derivatives of mercury and lead; preparation of electromeres.
- Jones, Dr. Leon K(ilby)**, 136 William St, Geneva, N. Y. *Plant pathology*. Seattle, Wash, Jan. 15, 95. B.S, Oregon Col, 17; M.S, Wisconsin, 21, Ph.D, 22. Instr, Wisconsin, 22-25; *assoc. research plant path, N. Y. Exp. Sta, Geneva, 25-* A.A; Phytopath. Soc. Orchard and small fruit diseases; canning crop diseases.
- Jones, Prof. L(ewis) R(alph)**, University of Wisconsin, Madison, Wis. **Plant pathology*. Brandon, Wis, Dec. 5, 64. Ripon, 82-86; Ph.B, Michigan, 89, Ph.D, 04; hon. Sc.D, Vermont, 10. Instr. nat. science, Mt. Morris Acad, Ill, 87-88; nat. hist, Vermont, 89-90, asst. prof, 91-92, *assoc. prof, 92-93, prof. bot, 93-09;* botanist, Vt. Exp. Sta, 90-09; *prof. plant path, Wisconsin, 09-* Special agent, bur. plant indust, U. S. Dept. Agr, 04. V. chairman div. biol. and agr, Nat. Research Council, 20- Nat. Acad; A.A; Soc. Nat; Bot. Soc. (v. pres, 10, pres, 13); Phytopath. Soc. (pres, 09); Philos. Soc; New Eng. Bot. Club; Vt. Bot. Club (sec'y, 95-09); Vt. Forestry Ass. (pres, 08-09); Wis. Acad; Phila. Acad. Bacterial diseases of plants; disease resistance; relation of environment to disease.
- Jones, Dr. Linus H(ale)**, Massachusetts Agricultural College, Amherst, Mass. *Botany*. Quincy, Mass, Dec. 25, 93. B.S, Mass. Col, 16, M.S, 19; Ph.D, Rutgers, 22. Instr. pharmacog, Western Reserve, 22-23; teacher, high sch, Conn, 24-25; *nematologist, Mass. Exp. Sta, 25-* A.A. Effect of ammonium sulphate on iron availability and hydrogen-ion concentration in nutrient solution; eradication of nematodes from soils.
- Jones, Prof. Lloyd T(heodore)**, University of California, Berkeley, Calif. *Physics*. Raymond, Ill, Feb. 20, 87. A.B, Lake Forest, 09, A.M, 10; M.S, Illinois, 12, Ph.D, 15. Asst. *physics, Lake Forest, 09-10; Illinois, 10-14, instr, 14-15; California, 15-17, asst. prof, 19-* Capt, A.S, 17-19. A.A; Physical Soc. Mass variation of electron; motion of electrons in varying electric fields; dielectric constants of gases.
- Jones, Dr. Louis Cleveland**, 17 E. 42d St, New York, N. Y. *Chemistry*. Oak Hill, N. Y, Dec. 25, 71. A.B, Yale, 96, Ph.D, 99. Asst. to Prof. Gooch, Yale, 96-99; *pres, Nitrogen Eng. Corp; v. pres, Muscle Shoals Fertilizer Corp; Indust. Processes Development, Ltd; consulting chem. engineer. A.A; Chem. Soc; Chem. Gesell.* Estimation of boric acid; coal and its by-products; coal mining; dyestuffs and intermediates; synthetic ammonia.
- Jones, Loyd A(ncile)**, Eastman Kodak Co, Rochester, N. Y. **Physics*. York, Nebr, April 12, 84. B.S, Nebraska, 08, A.M, 10. Asst. physics, Nebraska, 08-10; Bur. Standards, 10-12; *physicist, research lab, Eastman Kodak Co, 12-* Physical Soc; Optical Soc; Soc. Motion Picture Eng. (pres, 23-26); Illum. Eng. Soc; Astron. Soc; Royal Photog. Soc. Photometry; physical optics; illumination; colorimetry; physics of photography; visual sensitometry; motion picture engineering.
- Jones, Prof. Lynds**, Spear Laboratory, Oberlin, Ohio. *Zoology, Ornithology, Ecology*. Jefferson, Ohio, Jan. 5, 65. Grinnell, 88-90; A.B, Oberlin, 92, M.S, 95; fellow, Chicago, 04-05, Ph.D, 05. Asst. zool. and geol, Oberlin, 92-99, instr, 99-00, acting prof, 00-01, instr. zool, 01-05, *assoc. prof, 05-08, animal ecol, 08-* Teacher, Oberlin, 95-98, asst. curator museum, 99-09, curator, 08-; lake lab, Ohio State, 07-08. Ed, 'Wilson Bul', 92-24. A.A; fel. Ornith. Union; Ecol. Soc; Ohio Acad. Bird migration; molting of birds; development of nesting feathers; pterylosis and molting of passerine birds; skeleton of Asterias; birds of Ohio.
- Jones, Prof. Marcus E(ugene)**, Pomona College, Claremont, Calif. *Botany, Geology*. Jefferson, Ohio, April 25, 52. A.B, Grinnell, 75, A.M, 78. Tutor Latin, Grinnell, 75-76; prof. nat. science, Colo. Col, 79; Salt Lake Acad, 80; prin, high sch, Utah, 81-86; special expert, U. S. Treas. Dept, 89-90; geologist, R. G. W. Ry, 90-03; special field agent, U. S. Dept. Agr, 94-95; geologist, P. and I. N. Ry, 98-99; *curator bot, Pomona, 23-* A.A; Bot. Soc; Utah Nat. Hist. Soc. (pres, 99-). Botany and geology of the Great Plateau; climatic distribution; plant adaptation; ore reduction.
- Jones, Dr. Noble W(iley)**, 641 Market St. Drive, Portland, Oregon. *Medicine*. Wauseon, Ohio, June 13, 76. A.B, Stanford, 95; M.D, Rush Med. Col, 01. *Clin. prof. med. and mem. exec. committee in charge dept. med, sch. med, Oregon, 20-* A.A; Am. Med. Ass; fel. Col. Physicians (board regents, 26); Am. Physicians; Gastro-Enterol. Ass; Portland Acad. Med. (pres, 20-22). Gastro-enterology.
- Jones, Paul R(obert)**, Balfour, Guthrie and Co, 351 California St, San Francisco, Calif. *Entomology*. Draper, S. Dak, Nov. 20, 84. A.B, Nebraska, 07. Asst. entomologist, bur. entom, U. S. Dept. Agr, 07-12; *manager and entomologist, insecticide dept, Balfour, Guthrie and Co, 12-* A.A; Ass. Econ. Entom. Systematic and economic entomology; insecticides.
- Jones, Dr. R(eginald) L(amont)**, 463 West St, New York, N. Y. *Electrical engineering*. New York, Feb. 28, 86. B.S, Mass. Inst. Tech, 09, M.S, 10, Sc.D, 11. Research and development engineer, West. Elec. Co, 11-25, *dept. head, Bell Telephone Laboratories, 25-* Capt, Sig.C, 17-18. A.A; Elec. Eng; Physical Soc. Magnetic properties; telephone transmission; inspection.
- Jones, Sarah Van Hoosen**, Rochester, Mich. *Genetics*. Rochester, June 23, 92. Ph.B, Chi-

- cago, 14; M.S., Wisconsin, 16, Ph.D., 21. Asst., Wisconsin, 17-21. A.A.; Soc. Zool.; Wis. Acad. Animal genetics; inheritance in pigeons, poultry and dogs; statistics from herd books.
- Jones, T(homas) H(enry)**, 17 E. Highland Ave., Melrose Highlands, Mass. *Entomology*. Pawtucket, R. I., Sept. 25, 85. B.S., Mass. Col., 08. P. R. Sugar Producers Exp. Sta. and Insular Exp. Sta., 11-14; Louisiana Exp. Sta., 20-24; *bur. entom., U. S. Dept. Agr.*, 09-11, 14-20, *assoc. entomologist*, 24- A.A.; Ass. Econ. Entom. Biology and control of various insects injurious to cultivated plants and domestic animals.
- Jones, Dr. Walter**, Hopkins Apartments, Baltimore, Md. **Physiological chemistry*. Baltimore, April 28, 65. A.B., Hopkins, 88, Ph.D., 91; Marburg, 99. Prof. nat. science, Wittenberg, 91-92; anal. chem., Purdue, 92-95; *asst. physiol. chem., Hopkins*, 95-99, *assoc.*, 99-01, *assoc. prof.*, 01-08, *prof.*, 08- Nat. Acad.; *Physiol. Soc.* (pres, 15); *Soc. Biol. Chem.* Sulphonphthaleins; animal alkaloids; melanins; nucleotids; nuclein ferments.
- Jones, Dr. Walter B(ryan)**, University, Ala. *Geology*. Huntsville, Ala., Feb. 25, 95. A.B., Alabama, 18, A.M., 20; Ph.D., Hopkins, 24. *Instr. geol.* North Carolina, 20-21; *chief asst.*, *Ala. Geol. Surv.*, 24- Summers, geologist, petroleum companies, S. A. and Mex., 20, 22. U.S.A., 18-19, *capt.*, *C.Eng.R.* Soc. Mil. Eng; Ala. Acad. Economic geology.
- Jones, Prof. Walter C(linton)**, 2420 Arlington Ave., Birmingham, Ala. *Zoology, Medicine*. Chicago, Ill., May 2, 74. A.B., Northwestern, 98, A.M., 99, M.D., 02. Asst. zool., Northwestern, 98-99, *anat. med. sch.*, 00-02; *instr. surg. path. col. med.*, Illinois, 05-08, *asst. prof.*, 13-15; *prof. path. and bacter. sch. med.*, Alabama, 18-19; *biol.*, *Birmingham-Southern Col.*, 20-24, *zool.*, 24- Pathologist, Tenn. Coal, Iron and Ry. Hosp., Birmingham, 18-; South. Highlands Infirmary and St. Vincent's Hosp., 19-23. A.A.; *fel. Am. Med. Ass.*; *fel. Col. Surg.*; *Soc. Clin. Path.*; *South. Med. Ass.*; *Ala. Med. Ass.*; *Ala. Acad.* (v. pres, 24-26); *Birmingham Sci. Soc.* (v. pres, 22, pres, 23). Pathology; the autonomic nervous system; the ureter; gastric surgery; index of body resistance.
- Jones, Prof. Wellington D(owning)**, University of Chicago, Chicago, Ill. *Geography*. Kansas City, Mo., April 4, 86. B.S., Chicago, 08, Ph.D., 14; Heidelberg, 13. Asst. *geog.*, *Chicago*, 09-11, *instr.*, 13-16, *asst. prof.*, 16-22, *assoc. prof.*, 22-25, *prof.*, 25- Argentine Govt. exped., Patagonia; Univ. of Chicago expeditions, China and Japan, 16, India, 20. A.A.; Ass. Geog. Economic geography with special reference to Japan, China and India.
- Jopson, Dr. John H(oward)**, 1824 Pine St., Philadelphia, Pa. *Surgery*. Philadelphia, Dec. 28, 71. M.D., Pennsylvania, 93. Res. physician, Univ. Hosp., Phila., 93-95; Children's Hosp., 95; dispensary surgeon, Episcopal Hosp., 95-02; *attending surgeon, Children's Hosp.*, 02-; *Presb. Hosp.*, 05-; *prof. surg.*, *Pennsylvania*, 09- Consulting surgeon, Phila. Home for Incurables; Norristown State Hosp. Major, M.R.C., 17-18, lieut. col., M.C., 18-19. Surg. Ass. (recorder, 19-); Col. Surg.; Soc. Clin. Surg.; Am. Med. Ass.; Phila. Col. Physicians (councilor, 25-); Phila. Acad. Surg. (recorder, 04-14, v. pres, 20; pres, 23); Phila. Pediat. Soc. (pres, 04); Soc. Int. de Chirurg. General surgery.
- Jordan, Prof. A(rthur) M(elville)**, 313 Pittsboro St., Chapel Hill, N. C. *Educational psychology*. Somerton, Va., Oct. 9, 88. A.B., Randolph-Macon, 07; A.M., Trinity (N. C.), 09; Ph.D., Columbia, 19. *Instr. psychol.*, Arkansas, 14-15, *asst. prof.*, 15-19, *prof.*, 19-23; *educ. psychol.*, *North Carolina*, 23- Education; interests of school children in reading.
- Jordan, Dean Charles B(ernard)**, Purdue University, Lafayette, Ind. *Pharmacy, Pharmaceutical chemistry*. Morrice, Mich., Nov. 5, 78. Grad. Mich. State Nor. Sch., Ypsilanti, 04; Ph.C., B.S., Michigan, 10, M.S., 12. Supt. schools, Mich., 04-08; *prof. pharmaceut. chem. and director sch. pharmacy, Purdue*, 10-23, *dean*, 23- Lecturer, St. Elizabeth's Hosp., 15- Revision committee, U. S. Pharmacopœia, 20- Pharmaceut. Ass. (chairman, sect. educ. and legislation, 16); Ass. Col. Pharmacy (pres, 18, chairman, exec. committee, 22-); Chem. Soc.; Ind. Pharmaceut. Ass.; Ind. Acad. Constituents of white snake root; keeping properties of hydrogen peroxide; crude drug assays.
- Jordan, Cha(rie)s N(eal)**, 1402 S. Grand Ave., St. Louis, Mo. *Chemistry*. Cattletsburg, Ky., Dec. 31, 90. B.S., Okla. Agr. and Mech. Col., 14; M.S., Washington (St. Louis), 22. Asst. prof. chem., Norwich, 18-21; *instr. org. chem.*, Kansas Col., 22-24; *sch. med.*, *St. Louis*, 24- A.A.; Chem. Soc. Organic and bio chemistry; intermediate products of carbohydrate metabolism.
- Jordan, Dr. David Starr**, Stanford University, Calif. **Ichthyology*. Gainesville, N. Y., Jan. 19, 51. M.S., Cornell, 72; M.D., Ind. Med. Col., 75; Ph.D., Butler, 78; LL.D., Cornell, 86, Hopkins, 02, Illinois, 03, Indiana, 09. *Instr. bot.*, Cornell, 71-72; *prof. nat. hist.*, Lombard, 72-73; *prin.*, Col. Inst., Appleton, Wis., 73-74; lecturer marine bot., Anderson Sch., Penikese, 73-74; teacher, high sch., Ind., 74-75; *prof. biol.*, Butler, 75-79; *zool.*, Indiana, 79-85, *pres*, 85-91; *Stanford*, 91-13, *chancellor*, 13-16, *emer. chancellor*, 16- Lecturer, Harvard Sch. at Cumberland Gap, 75. Asst., U. S. Fish Commission, 77-91; U. S. commissioner in charge fur seal investigations, 96-98; investigations of waters of Alaska, Hawaii and the South Sea Islands, 01-; salmon investigation, 04. Int. Fisheries Commissioner, Gt. Britain and U. S., 08-; chief director, World Peace Foundation, 09-11; *pres.*, World Peace Cong., 15. A.A. (v. pres, 01, pres, 09); Ornith. Union; Philos. Soc.; Nat. Educ. Ass. (pres, 15); *cor. mem.*, Phila. Acad.; Wash. Acad.; Wash. Biol. Soc.; Calif. Acad. (pres, 96-98, 01-03, 08); Am. Peace Soc. (v. pres); London Eugenics Ass. (v. pres); British Soc. Welfare (v. pres); Swedish Acad.; New South Wales Linnean Soc.; Soc. Cent. de la Paix-Durable; Geneva Fed. Abolitionists. Zoology; genetics; geographical distribution, fishes of America, Europe, Alaska, West Indies, Hawaii, Japan, Philippines and Samoa; fossil fishes of

California, Kansas and Brazil; the origin of species.

Jordan, Prof. Edwin O(akes), University of Chicago, Chicago, Ill. **Bacteriology*. Thomaston, Maine, July 28, 66. B.S., Mass. Inst. Tech, 88; fellow, Clark, 90-92, Ph.D, 92; Pasteur Inst., Paris, 96; Sc.D., Cincinnati, 20. Chief asst. biologist, Mass. State Board Health, 88-90; assoc. anat., *Chicago*, 92-93, instr., 93-95, asst. prof. *bacter*, 95-00, assoc. prof., 00-07, *prof*, 07-, chairman dept., 14- Joint ed, 'Jour. Infectious Diseases'; ed, 'Jour. Prev. Med.' Med. fellowship board, Nat. Research Council; Int. Health Board, 20. Trustee, McCormick Inst. A.A. (v. pres, 17); Soc. Nat; Soc. Bact. (pres, 05); Ass. Path. and Bact; Soc. Exp. Biol; Pub. Health Ass; Tuber. Ass; Chicago Path. Soc. (pres, 06). Influenza; pneumonia; typhoid; food poisoning; water bacteriology.

Jordan, Prof. E(lijah), Butler College, Indianapolis, Ind. *Philosophy*. Elberfeld, Ind., March 28, 75. A.B., Indiana, 07; A.M., Cornell, 08; Wisconsin, 08-09; Ph.D., Chicago, 11. Asst. *philos*, Cornell, 11-12, instr., 12-13; *prof*, *Butler*, 13- *Philos*, Ass; West. Philos. Ass. Constitutive and regulative principles in Kant; political and social philosophy; psychology.

Jordan, Prof. Frank C(raig), Allegheny Observatory, Pittsburgh, Pa. **Astronomy*. Cordova, Ill., Sept. 24, 65. Ph.B., Marietta, 89, A.M., 92; Ph.D., Chicago, 14. Instr. astron. and math, Marietta, 89-00; high sch., Oregon, 00-02; Colorado Springs, 02-05; fellow, Yerkes Observatory, 05-08; asst., Allegheny Observatory, 08-10, asst. prof. *astron*, *Pittsburgh*, 10-19, *prof*, 19- A.A.; Astron. Soc. Stellar photometry; radial velocities; photometry.

Jordan, Prof. H(arvey) E(rnest), University of Virginia, Charlottesville, Va. **Anatomy*. Coopersburg, Pa., Aug. 14, 78. A.B., Lehigh, 03, A.M., 04; Columbia; Ph.D., Princeton, 07. Asst. biol., Lehigh, 03-04; histol. and embryol., med. col., Cornell, 04-06; adjunct prof. anat., *Virginia*, 07-08, assoc. prof., 08-11, *prof. histol. and embryol*, 11- Asst. sta. for exp. evolution, Carnegie Inst., 07; Woods Hole, 08; summers, in charge histol., Columbia, 18, Chicago, 20; investigator embryol., marine lab, Carnegie Inst., Tortugas, Fla., 07, 14; Montego Bay lab, 12. Advisory council, U. S. Eugenics Committee. A.A.; Soc. Nat; Ass. Anat. (exec. committe, 18-21, committee journals, 26-); Am. Med. Ass; Soc. Zool. (exec. committee, 11-14); Soc. Exp. Biol; Micros. Soc; Eugenics Research Ass; Va. Acad. Human yolk sac; pineal gland; blood development; primordial germ cells of loggerhead turtle embryo; spermatogenesis of opossum; histology of lymph; blood platelets and giant cells; histology of striped muscle; function of the lymphocyte; intercalated discs of heart muscle; red bone marrow of the frog; the significance of spleen; mitochondria and Golgi apparatus of giant cells; comparative hematology; histology; embryology.

Jordan, Dr. Henry, 1111 Franklin St., Wilmington, Del. *Chemistry*. Cologne, Germany, Sept. 22, 76. Bonn; Ph.D., Heidelberg, 99. Plant supervisor, Portland Cement Factory, Germany,

99-00; research, Bayer Co, Germany, 00-20; expert azo dyes, *E. I. du Pont de Nemours and Co*, 21- Chem. Soc; Chem. Verein. Azo dyes.

Jordan, Prof. H(erbert) E(dwin), 1600 Kentucky St., Lawrence, Kans. *Mathematics*. Lemonville, Ont., Can., Feb. 18, 78. B.A., McMaster, 00, M.A., 01; Ph.D., Chicago, 04. Instr. math. and science, Brandon, 04-06; math. and physics, Mich. Col. Mines, 06-11; asst. prof. *math*, *Kansas*, 11-25, *assoc. prof*, 25- Linear groups.

Jordan, Prof. Hovey, 350 S. Prospect St., Burlington, Vt. *Histology*. Jericho Center, Vt., Feb. 26, 91. Ph.B., Vermont, 13, M.S., 14; A.M., Harvard, 17. Instr. zool., Vermont, 13-14; asst., Harvard, 14-17, Austin teaching fellow, 17, 19; *asst. prof. histol. embryol. and biol. col. med*, Vermont, 19- White fish investigations, Lake Champlain, 13-14; summers, Bermuda Biol. Sta., 15, 16. Lieut., U.S.A., 17-19, instr., A.E.F. Univ. Beaune, 19. A.A. Embryology; zoology; human histology; Reissner's fiber; integumentary photosensitivity and rheotropism in fishes; staining of cancer cells; inheritance of appendicitis.

Jordan, Louis, U. S. Bureau of Standards, Washington, D. C. *Chemical metallurgy*. Bethel, Maine, May 28, 94. A.B., Bates, 15; A.M., Illinois, 17. Asst. chemist, *Bur. Standards*, 17-19, assoc. chemist, 19-21, *chemist*, 21- A.A.; Chem. Soc; Electrochem. Soc. Rare earths; gases in metals; pure metals; alloys; refractories.

Jordan, Dr. Stroud, 352 Parkside Ave., Brooklyn, N. Y. *Chemistry*. Orange Co., N. C., Nov. 11, 85. A.B., North Carolina, 05, M.S., 07, Ph.D., 09. Research asst., Col. City of N. Y., 05; teacher chem. and physics, Gordon, 05-06; asst. chem., North Carolina, 06-09; instr., Mass. Inst. Tech., 09-11; *chief chemist*, Am. Tobacco Co., 11-20; *Henry Heide, Inc*, 20- Capt., C.W.S., 18-19. Chem. Soc; N. Y. Chemists Club. Condensation of aldehydes with amines; cigarette paper; sugar syrups; storax; tobaccos; confectionery; almond products.

Jordan, Dr. W(hitman) H(oward), Geneva, N. Y. *Animal nutrition*. Raymond, Maine, Oct. 27, 51. B.S., Maine, 75, M.S., 78, hon. Sc.D., 96; LL.D., Mich. State Col., 07, Hobart, 11. Asst. chem. lab, Conn. Exp. Sta., 78-79; instr. agr. and agr. chem., Maine, 79-80; prof. agr. chem., Pa. State, 81-85; director, Maine Exp. Sta., 85-96; N. Y. Exp. Sta., Geneva, 96-21. A.A. (v. pres, 16). Loss of proteins in silo fermentation; digestibility of various feeding stuffs; metabolic nitrogen in feces; the economy of a free use of milk in the human dietary; influence of the food upon the composition of the animal body; the food sources of milk fat; the metabolism and function of the organic phosphorus compounds in animal foods; the feeding of farm animals; human nutrition.

Jordy, Prof. Louis C(leveland), Syracuse University, Syracuse, N. Y. *Chemistry*. Flemington, N. J., Nov. 20, 88. B.S., Syracuse, 10, M.S., 11, B.Pd., 15. Dept. chem., Wyoming Sem., Pa., 11-17; *Syracuse*, 19-23, *prof*, 24- Head dept. chem., Porto Rico, 23-24. C.W.S., U.S.A., 17-19. Chem. Soc. Mineral and rock analysis; atomic weights.

- Jorgensen, Lars R(asmus)**, 1203 Hobart Building, San Francisco, Calif. *Hydro-electric engineering*. Denmark, April 25, 76. E.E., Germany, 00. Draftsman, Gen. Elec. Co., Schenectady, N. Y., 01-03; draftsman and construction engineer, Los Angeles Edison Elec. Co., 03-05; designing engineer, Pacific Gas and Elec. Co., 05-07; mem. firm, F. G. Baum and Co., 07-14; *consulting hydro-electric engineer*, 14-; *v. pres. and chief engineer, Feather River Power Co.*, 24- Founder, Constant Angle Arch Dam Co., 19. Norman gold medal, Soc. Civil Eng., 18. Elec. Eng. (*v. pres.*, 19); Civil Eng.; Concrete Inst. Hydro-electric engineering; constant angle arch dam.
- Joseph, Dr. Don R(osco)**, St. Louis University, St. Louis, Mo. *Physiology, Pharmacology*. Chatsworth, Ill., Nov. 24, 81. B.S., Chicago, 04; M.S., St. Louis, 06, M.D., 07. Asst. physiol., St. Louis, 04-07; fellow, Rockefeller Inst., 07-08, asst., 08-10, assoc., 10-12; *assoc. prof. physiol.*, Bryn Mawr, 12-13; *prof. and director dept.*, St. Louis, 13-; *v. dean*, 19- Major, M.C., 18-19. A.A.; Physiol. Soc.; Soc. Pharmacol.; Soc. Exp. Biol.; Harvey Soc. Blood pressure; cardiac rigor; toxicities of magnesium, calcium, potassium and sodium chlorides; effects of inorganic ions of body on muscle and nerve irritability; threshold dosage of digitalis on kidney, heart and blood vessels; vasomotor center in shock; the sphincter muscle of the iris.
- Joseph, T(homas) L(eonard)**, U. S. Bureau of Mines, Minneapolis, Minn. *Metallurgy*. Adamsville, Utah, Sept. 12, 94. Metallurgical chemist, Am. Smelting and Ref. Co., Utah, 17; asst., *U. S. Bur. Mines*, 19-23, *assoc. metallurgist*, 23-24, *metallurgist and supt.*, N. Cent. Sta., 24- Min. and Metal. Eng.; Soc. Steel Treat. The iron blast furnace; effect of sulphur on blast furnace; effect of silica on cost of pig iron; combustibility of coke and stock descent; time element in iron ore reduction.
- Joseph, Dr. W(alter) E(dward)**, Bozeman, Mont. *Animal husbandry*. Lovett, Ind., Dec. 22, 81. B.S., Purdue, 07; scholar and fellow, Illinois, 09-12, Ph.D., 12. Asst. *animal husbandry*, S. Dak. Col., 08-09; instr., Illinois, 12-13, *assoc.*, 13-16; asst. prof., *Mont. Col.*, 16-24, *assoc. prof.*, 24- A.A.; Soc. Animal Production. Sheep and wool production; swine production; nutrition of swine.
- Joslin, Dr. Elliott P(roctor)**, 81 Bay State Road, Boston, Mass. *Medicine, Physiological chemistry*. Oxford, Mass., June 6, 69. A.B., Yale, 90, Ph.B., 91, hon. A.M., 14; M.D., Harvard, 95. Asst. physiol. chem., *Harvard Med. Sch.*, 98-00, theory and practice of med., 00-05; instr., 05-12, asst. prof. med., 12-22, *clin. prof. med.*, 22- Consulting physician, Boston City Hosp.; physician, New Eng. Deaconess Hosp. Lieut. col., M.C., 18-19. Am. Physicians; Soc. Clin. Invest; Philos. Soc.; Am. Acad.; Mass. Med. Soc. Diabetes mellitus.
- Jouard, Dr. Farel (Louis)**, 1 W. 89th St., New York, N. Y. *Chemistry, Therapeutics*. New York, April 18, 84. A.B., Columbia, 04, Ph.D., 08; M.D., N. Y. Homeop. Med. Col., 18. Asst. electrochem., Columbia, 08-10; prof. chem., N. Y. Homeop. Med. Col., 10-19; attending physician, Flower Hosp. Dispensary, 18, attending obstetrician, 18-22; asst. attending physician, Metrop. Hosp., 19-21; asst. urologist, Community Hosp. Dispensary, 19-21; attending obstetrician, Maternity Center Ass., 18-23; asst. attending physician, N. Y. Post-Grad. Hosp., 19-21, instr. med., 21-24; asst. attending physician physical therapy, *Mt. Sinai Hosp.*, 25-26, *adjunct physical therapist*, 26- Am. Med. Ass.; Chem. Soc.; Electro-Therapeut. Ass.; Acad. Path. Sci. Electro-therapeutics; organic chemistry; physiological chemistry; electrolysis of fused salts.
- Jouët, Dr. Cavalier H(argrave)**, Department of Health, New York, N. Y. *Chemistry*. Mulford Station, Elizabeth, N. J., Nov. 7, 60. Ph.B., Columbia, 82, Ph.D., 95. Chemist, companies, 82-97; instr. chem., Newark Tech. Sch., 97-99; asst. anal. chem., Columbia, 97-00, lecturer, 00-01, tutor, 01-10, instr., 10-12; *dept. health*, New York, 13- Chem. Soc.; Min. and Metal. Eng.; Soc. Chem. Indust. London. Bibliography of thorium; the Cretaceous clays of Long Island; thorium and rare earths; analysis of slags and cinders.
- Joy, Alfred H(arrison)**, Mt. Wilson Observatory, Pasadena, Calif. *Astronomy*. Greenville, Ill., Sept. 23, 82. Ph.B., Greenville, 03; A.M., Oberlin, 04; Thaw fellow, Princeton, 10-11. Instr., American Univ., Syria, 04-10, prof. and director observatory, 10-16; instr. astron., Yerkes Observatory, 14-15; *astronomer*, Mt. Wilson Observatory, 15-, *sec'y*, 20- Lick Observatory eclipse exped., Egypt, 05. A.A.; Astron. Soc.; Pacific Astron. Soc.; fel. Royal Astron. Soc. Stellar parallax; spectroscopy.
- Joyce, Dr. A(sa) Willard**, 32 S. Tenth St., Newark, N. J. *Chemistry*. Annapolis, Md., May 8, 93. B.S., St. John's (Md.), 13; Ph.D., Yale, 16. Asst. chem., Lehigh, 13-14; Yale, 14-16; *research chemist*, Calco Chem. Co., 16-19; *Chem. Foundation, Inc.*, 20- Chem. Soc. Organic chemistry; pyrimidins; vat and azo dyestuffs.
- Joyce, C(larence) M(ason)**, 145 Walnut St., Leominster, Mass. *Chemistry*. Medford, Mass., April 1, 81. B.S., Mass. Inst. Tech., 03. *Chemist*, Arlington Co., 03-14; Viscoloid Co., 14-25; *du Pont-Viscoloid Co.*, 25- Chem. Soc. (*sec'y*, N. Y. sect., 06-16); Soc. Chem. Indust; Chem. Eng. Cellulose esters; camphor; standards for acid control.
- Juday, Chancey**, University of Wisconsin, Madison, Wis. *Limnology*. Ligonier, Ind., May 5, 71. A.B., Indiana, 96, A.M., 97. Teacher, high sch., Ind., 98-00; biologist, Wis. Geol. and Nat. Hist. Surv., 00-01; acting prof. biol., Colorado, 03-04; instr. zool., California, 04-05; *biologist*, Wis. Geol. and Nat. Hist. Surv., 05- Lecturer, Wisconsin, 08- A.A.; Soc. Zool; Micros. Soc.; Ecol. Soc.; Wis. Acad. Biological significance of gases dissolved in lake waters; productivity of lakes.
- Judd, Prof. Charles H(ubbard)**, University of Chicago, Chicago, Ill. *Psychology, Education*. Bareilly, British India, Feb. 20, 73. A.B., Wesleyan, 94; Ph.D., Leipzig, 96; hon. A.M., Yale, 07; LL.D., Miami, 09, Wesleyan, 13, Iowa, 23, Colorado Col., 23. Instr. philos., Wesleyan, 96-

- 98; prof. exp. psychol. N. Y. Univ, 98-01; psychol. and pedag. Cincinnati, 01-02; instr. psychol. Yale, 02-04, asst. prof, 04-07, prof. and director psychol. lab, 07-09; *head prof. educ. and director sch. educ. Chicago, 09-*, chairman dept. psychol, 20-24. Ed, 'Mon. Supplements, Psychol. Rev,' 03-09; 'Studies from Psychol. Lab. of Yale Univ'; 'Lessons in Community and Nat. Life,' U. S. Bur. Educ. and Food Ad, 17-18; 'Sch. Rev,' 'Element. Sch. Jour,' 09- A.A. (v. pres, Q, 20); Soc. Nat; Psychol. Ass. (pres, 09); Soc. Col. Teachers Educ. (pres, 11, 16); N. Cent. Ass. Col. and Secondary Schools (pres, 24). Social psychology; educational psychology; nature and development of reading; variation and nature of visual perceptions; mental development; number ideas and their development.
- Judd, Dr. Edward Starr**, Mayo Clinic, Rochester, Minn. *Surgery*. Rochester, July 11, 78. M.D., Minnesota, 02. *Surgeon, Mayo Clinic, 07-* Prof., Minnesota. *Surg. Ass; Am. Med. Ass; Col. Surg; Soc. Clin. Surg; West. Surg. Ass; South. Surg. Ass; Interurban Surg. Soc; Minn. Path. Soc; Minn. Acad. Med; Int. Surg. Ass. Surgery of the biliary and urinary tracts.*
- Judd, Prof. Horace**, Ohio State University, Columbus, Ohio. *Hydraulics*. North Hatfield, Mass, May 4, 68. M.E., Ohio State, 97, M.S., 99. Instr. mech. eng, Ohio State, 97-99; dept. science and tech, Pratt Inst, 99-02; asst. prof. exp. eng, *Ohio State*, 02-09, assoc. prof, 09-18, *hydraul. eng*, 18-20, *prof*, 20- A.A.; Mech. Eng; Eng. Educ. Experimental hydraulics; form and velocity of jets with pitot tubes; the frictionless orifice; diaphragm orifices for flow meters; centrifugal pumps for motor fire-engines; effect of pulsations on fluid flow.
- Judd, Neil M(erton)**, U. S. National Museum, Washington, D. C. *Anthropology, Archeology*. Cedar Rapids, Nebr, Oct. 27, 87. A.B., Utah, 11; A.M., George Washington, 13. Aid div. ethnol, *U. S. Nat. Museum*, 11-17, asst. curator dept. anthrop, 18, *curator Am. archeol*, 19- Asst, Univ. of Utah archeol. expeditions, 07-09; Sch. of Am. Archeol. expeditions, 10, 14; in charge reproduction of stone monuments of Guatemala, California-Pacific Expos, 14; field director, numerous Smithsonian Inst. archeol. expeditions; director, Pueblo Bonito explorations, Nat. Geog. Soc, 20-26. Div. anthrop. and psychol, Nat. Research Council, 25- A.A.; Anthrop. Ass. (treas, 16-19, councilor, 16-); Archeol. Inst. (sec'y, Utah branch, 09); Wash. Anthropol. Soc. (v. pres, 23, pres, 25-27); Wash. Acad; Ariz. Archeol. Soc; Archeol. Soc. Wash. (chairman, research committee and trustee, 26-). American archeology, especially of Utah, Arizona and New Mexico.
- Judkins, Prof. H(enry) F(orest)**, Eastern Dairies, Inc, Springfield, Mass. *Dairying*. Kingston, N. H, Feb. 13, 90. B.S., New Hampshire, 11. Assoc. prof. *dairying*, Conn. Col, 13-18; Iowa Col, 18-19; prof. and head dept, Mass. Col, 19-26; *director research and production, Eastern Dairies, Inc*, 26- Principles of dairying.
- Judson, Dr. Lewis V(an Hagen)**, 2923 Tilden St, N. W, Washington, D. C. *Physics*. Plainville, Conn, Aug. 10, 93. A.B., Clark, 16, A.M., 17; Ph.D., Hopkins, 25. Asst, *Bur. Standards*, 17-18, asst. physicist, 18-20, *chief length sect*, 18-, *assoc. physicist*, 20- Investigator, European standardizing laboratories, *Bur. Standards*, 22-23. A.A.; Physical Soc; Wash. Philos. Soc; Soc. de Physique. Weights and measures; length measurements; calibration of divided circles and theodolites; precision sieve testing.
- Jull, Dr. Morley A(llan)**, U. S. Department of Agriculture, Washington, D. C. *Poultry husbandry*. Burford, Ont, Can, Aug. 26, 85. B.S.A., Toronto, 08; M.Sc., McGill, 19; Ph.D., Wisconsin, 22. Exp. Sta., W. Va, 08-09; B. C. Dept. Agr, 09-11; McGill, 12-23; *office poultry investigations, bur. animal indust, U. S. Dept. Agr*, 23- A.A.; Genetic Ass; Poultry Sci. Ass; Int. Ass. Poultry Husbandry.
- Jurica, Dr. Edmund J(oseph)**, St. Procopius College, Lisle, Ill. *Physiology*. Cloverdale, Ill, July 16, 00. A.B., St. Procopius Col, 20; Ph.D., Chicago, 26. Instr. *zool. St. Procopius Col*, 20-23, *prof*, 26- Am. Med. Ass. Motility of the denervated mammalian esophagus.
- Jurica, Prof. Hilary S(tanislaus)**, St. Procopius College, Lisle, Ill. *Botany*. Czecho-Slovakia, June 19, 92. A.B., St. Procopius, 17; M.S., Chicago, 20, Ph.D., 22. Instr. *St. Procopius*, 17-22, *prof. bot. and head dept. biol*, 22- A.A.; Bot. Soc; Fern Soc; Torrey Bot. Club; Ill. Acad. Morphology; ecology; head and flower of *Dipsacus sylvestris*; Umbelliferae; grouping of plants.
- Jurist, Dr. Alfred E(dward)**, E. R. Squibb and Sons, Brooklyn, N. Y. *Chemistry*. Philadelphia, Pa, Jan. 28, 95. B.S., Chicago, 17, Ph.D., 21. Research dept, Barrett Co, 17; research fellow chem, Nelson Morris Mem. Inst, 23-25; *research dept, E. R. Squibb and Sons*, 25- A.A.; Chem. Soc. Organic and bio chemistry; fatty acids; volatile organic acids; organic medicinal product synthesis.
- Just, Prof. E(rnest) E(verett)**, Howard University, Washington, D. C. *Zoology*. Charleston, S. C, Aug. 14, 83. A.B., Dartmouth, 07; Ph.D., Chicago, 16. Instr. *zool. Howard*, 09-10, asst. prof, 10-11, assoc. prof, 11-12, *prof. zool*, 12-; *Nat. Research Council Rosenwald fellow biol*, 20- A.A.; Soc. Nat; Soc. Zool; Ecol. Soc; Soc. des Sci. nat. et math. de Cherbourg. Fertilization; artificial parthenogenesis; physiology of development.
- Justin, Dr. Margaret M.**, Kansas State Agricultural College, Manhattan, Kans. *Home economics*. Agra, Kans, 89. B.S., Kansas Col, 09; A.B., Columbia, 15; Susan Rhoda Cutler fellow and Am. Ass. Univ. Women fellow, Yale, 22-23, Ph.D., 23. Settlement worker, Bennett Acad, Mathiston, Miss, 10-14; dist. leader, home demonstration agents, Mich. State Col, 15-18; *dean div. home econ, Kansas Col*, 23- Y. M. C. A. canteen service, 18-19. A.A.; Home Econ. Ass. Effect of weather on health; seasonal variation in the growth curve of children; resumption of growth by stunted children.

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Kaan, Dr. Helen W(arton), Wheaton College, Norton, Mass. *Zoology, Anatomy*. Brookline, Mass, July 4, 97. A.B., Mt. Holyoke, 19;

- fellow, Yale, Ph.D, 25. Asst. and instr. biol., Wheaton Col, 19-21; instr. zool., Wellesley, 21-22; anat., Univ. and Bellevue Hosp. Med. Col, 25-27; *assoc. prof. zool., Wheaton (Mass), 27*-A.A. The development of the ear in *Amblystoma punctatum*.
- Kabakjian, Prof. D(icran) H(adjy)**, University of Pennsylvania, Philadelphia, Pa. *Physics*. Armenia, Nov. 11, 75. A.B., Anatolia, 96; M.S., Pennsylvania, 07, Frazier fellow, 09-10, Ph.D, 10. Prin. Sivas Nor. Sch, 98-05; instr. *physics, Pennsylvania, 10-14, asst. prof, 14*- Silent discharge and ozone formation; radioactivity.
- Kadesch, Dr. William H(enry)**, 1109 Main St, Cedar Falls, Iowa. *Physics*. Grand Rapids, Ohio, 79. B.S., Ohio Wesleyan, 06; Ph.M., Chicago, 10, Ph.D, 15. Prof. physics, Iowa State Teachers Col, 10-13; instr. elec. eng. and physics, U. S. Naval Acad, 13-18, prin., Calvert Sch, 18-21; *prof. physics, Iowa State Teachers Col, 21*- A.A.; Physical Soc. Photoelectricity.
- Kahl, (Paul) Hugo (Isidor)**, Carnegie Museum, Pittsburgh, Pa. *Entomology*. Gotland, Sweden, March 17, 59. Visby Col, Sweden; hon. Sc.D, Pittsburgh, 27. Asst. entom. and ornith., State Lab. Nat. Hist., Illinois, 92-94; systematic entomologist and curator entom., Kansas, 94-01; systematic entomologist, curator entom. and state hort. inspector, State Lab. Nat. Hist., Illinois, 01-02; *custodian entom., Carnegie Museum, 02-23, curator, 23*- In charge collections, entom. and ornith., State Lab. Nat. Hist., Illinois, at World's Columbian Expos, Chicago, 93; Univ. Kansas exped, Magdalena Mountains, N. Mex, 94, paleont. and entom. exped, Wyo, 95. A.A.; Entom. Soc; Ecol. Soc. Diptera; Odonata.
- Kahlenberg, Dr. Herman H(eald)**, 1316 River St, Two Rivers, Wis. *Chemistry*. Madison, Wis, Feb. 19, 01. B.S., Wisconsin, 22, M.S., 23, Ph.D, 25; Cand. Chem., Freiburg, 24. *Chief chemist and v. pres., Kahlenberg Laboratories, Inc, 25*- A.A.; Electrochem. Soc. The production of metallic tungsten and its alloys; preparation, properties and alloys of pure boron; the use of colloids in medicine.
- Kahlenberg, Prof. Louis**, 234 Lathrop St, Madison, Wis. *Chemistry*. Two Rivers, Wis, Jan. 27, 70. B.S., Wisconsin, 92, fellow, 92-93, M.S., 93; Ph.D, Leipzig, 95. Instr. chem, *Wisconsin, 95-97, asst. prof. physical chem, 97-00, prof, 00-07, chem, 07*-, chairman dept, 08-19. Summer, asst, U. S. Geol. Surv, 91. Assoc. ed, 'Jour. Physical Chem,' 99-23; 'Jour. chim. Phys,' 03-22. A.A. (v. pres, C, 08); Chem. Soc; Electrochem. Soc. (v. pres, 02-04, 09-11); Wis. Acad. (pres, 06-09); Wash. Acad. Inventor of the surgical suture "Equisetene"; the chemical, physical and physiological nature and action of solutions; specific heats and latent heats of vaporization; specific induction capacities; separation of lithium from alkalis; vapor tension; osmosis; equilibria; hydrolysis of cellulose; new solvents for cellulose, sulphur and keratin; sulphur content of keratin; single potential of aluminum and of arsenic; the electrochemical series of the metals; separation of crystalloids from one another by dialysis; colloids; passage of boric acid and other compounds through the skin and other living membranes; catalytic hydrogenation of oils; cholesterolin; colloidal gold in cases of malignancy; qualitative analysis; chemistry in daily life.
- Kahn, Dr. Morton Charles**, Cornell University Medical College, New York, N. Y. *Bacteriology, Hygiene*. Montgomery, Ala, Jan. 23, 95. B.S., Cornell, 16, Ph.D, 24; A.M., Columbia, 17. *Instr. hygiene, med. col., Cornell, 19-26, assoc, 27*- Research assoc, Nat. Tuber. Ass, Huntington Fund for Cancer Research, 20-; sci. asst, U. S. Pub. Health Service, 21. Collecting exped, Cent. Amer, 22, British Guiana, 25. Chief bacteriologist, U. S. Navy Lab. Unit 1, 17-19. Soc. Bact; Soc. Exp. Biol; Pub. Health Ass; Harvey Soc; fel. N. Y. Acad. Anaerobic spore-bearing bacteria; single cell technic; relation of *Bacillus welchii* to pernicious anemia; communal activity of bacteria; bacteriology of gas gangrene; inhibition of anaerobes; hydrogen-sulphide production by anaerobic bacteria; tubercle bacillus; malaria control.
- Kahn, Dr. R(euben) L(eon)**, State Department of Health, Lansing, Mich. *Bacteriology, Immunology*. Kovno, Lithuania, July 26, 87. B.S., Valparaiso, 09; M.S., Yale, 11; Sc.D, N. Y. Univ, 16. Bacteriologist, Dept. Health, New York, 13-14; research chemist, Harriman Research Lab, 16-17; *immunologist, Mich. State Dept. Health, 20*- Lieut, Sanit.C, 17-18, capt, 18-19, major, Sanit.R.C. A.A; Soc. Bact; Ass. Immunol; Ass. Path. and Bact; Soc. Exp. Biol; Chem. Soc; Pub. Health Ass; Mich. Acad. (v. pres, 23). Bacteriology of water; *Bacillus coli*; chemistry of spinal fluid; immunity studies on blood serum; Kahn precipitation test; serum diagnosis of syphilis; immunological studies on tuberculosis and syphilis.
- Kalmbach, E(dwin) R(ichard)**, 3007 26th St, N. E, Washington, D. C. *Ornithology*. Grand Rapids, Mich, April 29, 84. Pub. schools. Asst. director, Kent Sci. Museum, 03-10; asst. biologist, *biol. surv., U. S. Dept. Agr, 10-24, biologist, 24*- Ornith. Union; Soc. Mammal; Cooper Ornith. Club; Wilson Ornith. Club; Wash. Biol. Soc. Economic ornithology.
- Kalmus, Dr. Herbert T(homas)**, 110 Brookline Ave, Boston, Mass. *Physics*. Boston, Nov. 9, 81. B.S., Mass. Inst. Tech, 04; P.D, Zurich, 06. Prin. Univ. Sch, San Francisco, 05; research assoc, Mass. Inst. Tech, 06-07, instr. physics, 07-10, asst. prof, 10-12; prof. electrochem. and metal, Queen's (Can), and director research lab. electrochem. and metal, Can. Govt, 13-15; *pres, Technicolor Motion Picture Corp, 16*-, *Technicolor, Inc, 22*- A.A.; Physical Soc; Electrochem. Soc; Chem. Eng. Electrical conductivity and viscosity of fused salts; latent heat of fusion and specific heats of salts; electromotive forces in the human body; bacteriological effects of ultraviolet radiations; metallic cobalt by the reduction of the oxid; physical properties of metal cobalt; electroplating with cobalt.
- Kamm, Mrs. Minnie Watson**, 571 Washington Road, Grosse Pointe, Mich. *Zoology*. Fostoria, Mich, Dec. 8, 86. A.B., Olivet, 09; M.S., Illinois, 13, Ph.D, 15. Micros. Soc; Soc. Para-

- sitol; Fern Soc; Mich. Acad. Protozoology; gregarines; the pre-school age.
- Kamm, Dr. Oliver**, Parke, Davis and Co, Detroit, Mich. *Chemistry*. Highland, Ill, Dec. 6, 88. B.S., Illinois, 11, M.S., 13, Ph.D., 15. Instr. chem, Michigan, 16; Illinois, 17-18, asst. prof, 18-20; research director, Parke, Davis and Co, 20- A.A.; Chem. Soc. Correlation of ionization and structure; relation between chemical constitution and physiological action; organic analysis; medicinal chemistry.
- Kammer, Dr. Glenn D(onald)**, 5327 Beeler St, Pittsburgh, Pa. *Chemistry*. Ionia, Mich, Oct. 9, 88. B.S., 12; Ph.D., 25. Asst. director radium research lab, Standard Chem. Co. Lecturer, Pittsburgh. Chem. Soc. Radium; ionium; radioactivity.
- Kammerer, Dr. Frederic**, Bern, Switzerland. *Surgery*. New York, N. Y, Feb. 4, 56. Karlsruhe, 72-75, Leipzig, Vienna; M.D., Freiburg, 80. Asst. surg. clinic, Freiburg, 80-85; prof. clin. surg, Cornell and Columbia; retired. A.A.; Surg. Ass; N. Y. Surg. Soc; Gesell. für Chirurg; Int. Surg. Soc.
- van de Kamp, Dr. P(eter)**, University of Virginia, Charlottesville, Va. *Astronomy*. Kampen, Netherlands, Dec. 26, 01. Cand, Utrecht, 20, Dr, 22; Martin Kellogg fellow, California, 24-25, Ph.D., 25. Asst. Kapteyn Astron. Lab, Groningen, 22-23; Leander McCormick Observatory, 23-24; instr. astron, Virginia, 25- Astron. Soc; Pacific Astron. Soc. Motions of the stars.
- Kampmeier, Prof. Otto Frederic**, University of Illinois College of Medicine, Chicago, Ill. *Anatomy*. Clarksville, Iowa, May 7, 88. A.B., Iowa, 09; fellow, Princeton, 09-12, Ph.D., 12; Munich, 13, M.D., 24. Asst. biol. Iowa, 06-08; instr. anat. and embryol, Pittsburgh, 12-15, asst. prof, 15-18; instr. col. med, Illinois, 18-19; assoc. prof. anat. and director dept, Marquette, 19-20; assoc. prof, Illinois, 20-22, 24- Vol. asst, Freiburg; asst, Bur. Fisheries, 08. Soc. Nat; Ass. Anat; Am. Med. Ass; Soc. Zool; Deutsch. Med. Gesell, Chicago. Development of the lymphatic system in vertebrates; development of the human kidney; congenital renal cysts; abdominotomy; development of the venous system.
- Kanavel, Dr. Allen B(uckner)**, 54 E. Erie St, Chicago, Ill. *Surgery*. Sedgwick, Kans, Sept. 2, 74. A.B., Northwestern, 96, M.D., 99, hon. Sc.D. Instr, asst. prof, assoc. prof. and prof. surg, Northwestern, 99- Attending surgeon, Wesley Mem. Hosp. Surg. Ass; Soc. Clin. Surg; Col. Surg. (regent); Am. Med. Ass; West. Surg. Ass; Int. Surg. Ass. Plastic surgery; infections; surgery of hand, brain and thyroid.
- Kanolt, Dr. C(larence) W(hitney)**, U. S. Bureau of Mines Experiment Station, Pittsburgh, Pa. *Physics*. Susquehanna, Pa, Aug. 14, 80. B.S., Columbia, 02, Ph.D., 05, Barnard fellow, 05-07; Berlin, 05; Mass. Inst. Tech, 06. Instr. chem, Adelbert, 06-09; asst. physicist, Bur. Standards, 09-13, assoc. physicist, 13-18, physicist, 18-26; in charge cryogenic lab, U. S. Bur. Mines, 25- Physical Soc; Wash. Acad. Combination of a solvent with the ions; ionization of water; melting points of refractory materials; thermal conductivity; liquefaction of hydrogen; thermal properties of substances at low temperatures; low temperature apparatus.
- Kantor, Prof. J(acob) R(ober)**, Indiana University, Bloomington, Ind. *Psychology*. Harrisburg, Pa, Aug. 8, 88. Ph.B., Chicago, 14, Ph.D., 17. Instr. psychol, Minnesota, 15-17; Chicago, 17-20; asst. prof, Indiana, 20-21, assoc. prof, 21-23, prof, 23- A.A.; Psychol. Ass; Linguistics Soc. Theoretical psychology; psychopathology; social psychology; language.
- Kantor, Dr. John L(eonard)**, 145 W. 86th St, New York, N. Y. *Medicine*. Moscow, Russia, April 12, 90. A.B., Columbia, 08, M.D., Ph.D., 12. Intern and house physician, Mt. Sinai Hosp, 12-14; clin. asst, Columbia, 16-24, assoc. med, 24-, chief in gastroenterol, 19- Attending gastroenterologist and assoc. röntgenologist, Montefiore Hosp, 21- Gastroenterologist, U.S.A., 18-19, major, M.R.C., 24- Gastroenterol. Ass; Am. Med. Ass; Röntgen Ray Soc; N. Y. Acad. Med. Gastroenterology; Röntgen diagnosis; biochemistry; body types; atmospheric air in the digestive tract; hookworm; colon anomalies; constipation.
- Karapetoff, Prof. Vladimir**, Cornell University, Ithaca, N. Y. *Electrical engineering*. Leninograd, Russia, Jan. 8, 76. C.E., Inst. Way of Communication, 97, M.M.E., 02; Darmstadt Polytech, Germany, 99-00. Engineer, Dept. Waterways, Petrograd, and instr. hydraul. and elec. eng, tech. schools, 97-02; Westinghouse Elec. and Mfg. Co, Pa, 03-04; asst. prof. elec. eng, Cornell, 04-08, prof, 08-; outside expert, Gen. Elec. Co, 24- Consulting engineer. A.A.; Elec. Eng; Math. Soc; Math. Ass; Physical Soc. Transmission lines; electrical machinery and circuits; the magnetic circuit; theory of relativity; dielectrics.
- Karchey, J(ohn) C(larence)**, 17 Glen Ridge Parkway, Montclair, N. J. *Physics*. Dale, Ind, April 15, 94. A.B., Oklahoma, 16; Tyndale fellow, Pennsylvania, 16-20, Ph.D., 20. Assoc. physicist, Bur. Standards, 20-22, physicist, 22-23; research engineer, West. Elec. Co, 23-25; chief physicist, Geophys. Research Corp, 25- A.A.; Physical Soc; Elec. Eng. X-rays; sound and interior ballistics of guns; geophysics.
- Karling, Dr. John Sidney**, 500 Riverside Drive, New York, N. Y. *Botany*. Austin, Texas, Aug. 2, 98. A.B., Texas, 19, A.M., 20; Ph.D., Columbia, 25. Instr. bot, Texas, 20-21; Columbia, 23- Physiology; cytology.
- Karns, Dr. Geo(rge) M(elvin)**, University of Illinois, Urbana, Ill. *Chemistry*. Carrollton, Ohio, March 12, 99. B.S., Mt. Union, 22; M.S., Ohio State, 24, Ph.D., 25. Instr. chem, Illinois, 25- Chem. Soc. Physical and inorganic chemistry.
- Karpinski, Dr. Louis C(harles)**, University of Michigan, Ann Arbor, Mich. **Mathematics*. Rochester, N. Y, Aug. 5, 78. A.B., Cornell, 01; Ph.D., Strassburg, 03; Columbia, 09-10. Instr. math, Berea, 98-00; N. Y. State Nor. Sch, Oswego, 03-04; Michigan, 04-10, asst. prof,

- 10-15, assoc. prof, 15-19, *prof*, 19- A.A. (sect. councilor, 21-23, chairman, 1, 23-24); Math. Soc; Math. Ass. (librarian, 22); Hist. Sci. Soc; Mich. Acad; Math. Verein. History and pedagogy of mathematics; history of science and cartography.
- Karr, Prof. Walter G(erald)**, Philadelphia General Hospital, Philadelphia, Pa. *Biochemistry*. Almond, N. Y., Dec. 18, 92. B.S., Alfred, 13; M.S., Illinois, 16; Ph.D., Yale, 20. Research chemist, Parke, Davis and Co, 20-21; *chief biochemist*, Phila. Gen. Hosp, 21-; *asst. prof. biochem, grad. sch. med, Pennsylvania*, 22- Soc. Biol. Chem; Chem. Soc. Vitamins; carbohydrate metabolism; clinical biochemistry.
- Karraker, Prof. P(erry) E(Immer)**, Experiment Station, Lexington, Ky. *Agronomy*. Dongola, Ill, Nov. 14, 86. B.S., Illinois, 11, fellow, Missouri, 12-13, A.M., 13. Asst. soil surv, Illinois, 11-12; research asst. *soils*, Mich. State Col, 13-14; asst. prof, *Kentucky*, 14-19, *assoc. prof*, 20- A.A.; Soc. Agron; Ky. Acad. Soil technique.
- Karrer, Dr. Annie May Hurd**, U. S. Department of Agriculture, Washington, D. C. *Plant physiology*. La Conner, Wash, July 28, 93. B.S., Washington (Seattle), 15, Denny fellow, 16-17, M.S., 17; fellow, California, 17-18, Ph.D., 18. Asst. physiologist, *cereal investigations, bur. plant indust, U. S. Dept. Agr*, 18-24, *assoc. physiologist*, 24- Summers, asst. instr, Puget Sound Biol. Sta, 16-18. A.A.; Bot. Soc; Wash. Bot. Soc. Marine algae; seed disinfection; disease resistance in wheat; physiology of cereals; physico-chemical properties of plant sap.
- Karrer, Dr. Enoch**, Western Reserve University, Cleveland, Ohio. *Physics*. Rich Hill, Mo, May 23, 87. A.B., Washington (Seattle), 11, fellow, 11-12, A.M., 12; fellow, Hopkins, 13-14, Ph.D., 14. Physicist, United Gas Improvement Co, 14-18; Bur. Standards, 19-21; Nat. Lamp Works, Gen. Elec. Co, 21-26; *research assoc, Cushing Lab. Exp. Med, Western Reserve*, 23- Capt, Eng, O.R.C. A.A.; Physical Soc; Optical Soc; Chem. Soc; Wash. Philos. Soc; Franklin Inst; Berlin Soc. Tech. Physics.
- Karrer, Dr. S(ebastian)**, Consolidated Gas, Electric Light and Power Company of Baltimore, Baltimore, Md. *Physics, Chemistry*. Rich Hill, Mo, April 10, 89. A.B., Washington (Seattle), 11, A.M., 13; Ph.D., Illinois, 18. Instr, Illinois, 18-19; physicist, fixed nitrogen research lab, U. S. Dept. Agr, 19-26; *director research, Consol. Gas, Elec. Light and Power Co. of Baltimore*, 26- A.A.; Physical Soc; Optical Soc; Wash. Acad; Wash. Philos. Soc. Physical chemistry; atoms; molecules; chemical kinetics; nitrogen fixation.
- Karslake, Dr. William J(ay)**, 158 Linden Ave, Buffalo, N. Y. *Chemistry*. Le Roy, N. Y., April 5, 69. B.S., Lafayette, 91, M.S., 94; Ph.D., Hopkins, 95. Asst. to Dr. Wolcott Gibbs, Newport, R. I., 91-92; asst. chem, Pa. State, 92-93; demonstrator, Maryland, 94-95; lecturer, Dalhousie, 95-96; chemist with Prof. W. O. Atwater, Middletown, Conn, 96-97; prof. chem, Butler, 97-04; assoc. prof, Iowa, 04-18; *patent chemist, Nat. Aniline and Chem. Co, Inc, Buffalo*, 18- Chem. Soc. Oxidation products of the nitroxylene sulphonic acids; nitration of acid-chlorids; identification of manganese and chromium in their compounds; the nitro-p-xylene sulphonic acids; the nitro-methyl-sulphobenzoic and the nitro-sulphophthalic acids.
- Karsner, Prof. Howard T(homas)**, Western Reserve University School of Medicine, Cleveland, Ohio. **Pathology*. Philadelphia, Pa, Jan. 6, 79. B.S., Cent. High Sch, Philadelphia, 99; M.D., Pennsylvania, 03. Res. physician, Phila. Gen. Hosp. and Phila. Hosp. for Contagious Diseases, 03-06; asst. demonstrator *path*, Pennsylvania, 07-08, demonstrator, 08-11; asst. prof, Harvard Med. Sch, 11-14; *prof, sch. med, Western Reserve*, 14- Nat. Board Med. Examiners, 24-; div. med. sci, Nat. Research Council. A.A.; Am. Med. Ass; Col. Physicians; Am. Physicians; Soc. Exp. Biol; Soc. Biol. Chem; Ass. Path. and Bact. (pres, 20); Soc. Exp. Path. (pres, 22). Experimental pathology and immunity.
- Karsten, Prof. A(ndrew)**, State School of Mines, Rapid City, S. Dak. *Chemistry, Chemical engineering*. Jamestown, Mich, June 18, 95. A.B., Hope, 19, A.M., 22; A.M., Ohio State, 20, fellow, 21-22, Ph.D., 22. Asst. gen. chem, Hope, 15-17, 18-19; Ohio State, 19-20, anal. chem, 20-21; *prof. chem. and head dept. chem. and chem. eng, S. Dak. Sch. Mines*, 22- Committee on substitution of potassium for sodium compounds, Nat. Research Council. Chem. Soc; Soc. Test. Mat. Substitution of sodium nitrate for potassium nitrate as an oxidizing agent; cement as a non-conductor and insulator; effect of pressure on surface tension measurements.
- Kasner, Prof. Edward**, Columbia University, New York, N. Y. **Mathematics*. New York, April 2, 78. B.S., Col. City of N. Y., 96; A.M., Columbia, 97, Ph.D., 99; Göttingen, 99-00. Tutor *math, Columbia*, 00-05, instr, 05-06, adjunct prof, 06-10, *prof*, 10- Assoc. ed, 'Rev. sem. des Math.' Int. Cong. Arts and Sciences, St. Louis, 04. Nat. Acad; A.A. (v. pres, 07); Math. Soc. (v. pres, 09, ed, 'Trans,' 23-); Soc. math. de France; Circolo Mat. di Palermo. Differential geometry of dynamics; conformal geometry; geometry of divergent series; heat conduction; relativity; null spaces; irregular invariants.
- Kast, Dr. Ludwig**, 521 Park Ave, New York, N. Y. *Medicine*. Vienna, Austria, March 2, 77. Vienna, 96-99, 00-01; Berlin, 99; M.D., Prague, 03; Path. Inst, Berlin, 03-06; Rockefeller Inst, 07. *Prof. med, N. Y. Post-Grad. Med. Sch.* Trustee, N. Y. Post-Grad. Med. Sch. Soc. Exp. Biol; Gastro-Enterol. Ass; N. Y. Acad. Med; N. Y. Path. Soc. Physiology and pathology of digestion; internal medicine.
- Katte, Edwin B(ritton)**, New York Central Railroad Co, Grand Central Terminal, New York, N. Y. *Engineering*. St. Louis, Mo, Oct. 16, 71. M.E., Cornell, 93, M.M.E., 94. *Mech. engineer, N. Y. Cent. Ry. Co*, 02, elec. engineer, 03, *chief engineer elec. traction*, 06- Eng. apprentice, Henry R. Worthington Corp; lecturer, Cornell, Harvard, Stevens. Mech. Eng. (past v. pres); fel. Elec. Eng; Ry. Ass. (chairman, elec. sect);

- Ry. Eng. Ass. (past director); N. Y. Elec. Soc. (past pres). Heavy electric traction; Diesel electric locomotives.
- Katz, Frank J(ames)**, U. S. Bureau of Mines, Washington, D. C. *Geology, Mineral economics*. New York, N. Y., Jan. 27, 83. A.B., Wisconsin, 05; fellow, Chicago, 06-07. Junior geologist, U. S. Geol. Surv., 07-10, asst. geologist, 10-11, assoc. geologist, 12-19, geologist, 19-25; *chief engineer div. mineral resources and statistics*, U. S. Bur. Mines, 25- A.A.; Geol. Soc.; Soc. Econ. Geol.; Mech. Eng.; Wash. Geol. Soc. Geology of Alaska, Maine and New Hampshire; statistics and economics of the mineral industries.
- Katz, Dr. L(ouis) N(elson)**, Western Reserve University, Cleveland, Ohio. *Physiology*. Pinsk, Poland, Aug. 25, 97. A.B., Western Reserve, 18, M.D., 21, A.M., 23. Demonstrator med., Western Reserve, 22-23, physiol., 23-24; Nat. Research Council fellow med., London, 24-25; senior instr. *physiol. sch. med.*, Western Reserve, 25-27, *asst. prof.*, 27- Physiol. Soc.; Soc. Exp. Biol.; Cleveland Acad. Med.; London Physiol. Soc. Cardio-dynamics; pulsus paradoxus; duration of systole; lactic acid in heart; plurisegmental innervation of skeletal muscle; volume curve of heart; asynchronism of ventricles of the heart; T wave of electrocardiogram.
- Katz, S(idney) H(ershsberg)**, 4740 Friendship Ave., Pittsburgh, Pa. *Chemistry*. Gilmore, Pa., Feb. 1, 84. B.S., Ohio State, 09; M.S., Pittsburgh, 23, Ch.E., 25, Ph.D., 26. Chemist, Nat. Carbon Co., Ohio, 09; instr., New Hampshire, 10-14; *assoc. physical chemist*, U. S. Bur. Mines, 14- Lecturer, Pittsburgh, 24. Lieut., C.W.S., 18-19, major, C.W.S.R., 24-25. A.A.; Chem. Soc. (chairman, employment committee, Pittsburgh sect., 24); W. Pa. Eng. Soc. Industrial gases; gas mask; suspensoids in air; combustion; coal.
- Kauffman, Prof. C(alvin) H(enry)**, 1236 Prospect St., Ann Arbor, Mich. **Botany*. Lebanon, Pa., March 10, 69. Palatinate, 90-92; A.B., Harvard, 96; Wisconsin, 01-02; Cornell, 02-04; Ph.D., Michigan, 07. Prin., prep. sch., Pa., 97-98; teacher, high sch., Ind., 98-00; Ill. Nor. Col., Bushnell, 00-01; *asst. bot.*, Cornell, 02-04; instr., Michigan, 04-10, *asst. prof.*, 10-20, *assoc. prof.*, 20, *prof. and director herbarium*, 23- Path. inspector, fed. hort. board, U. S. Dept. Agr., 17-19. A.A.; Bot. Soc.; Phytopath. Soc.; Wash. Bot. Soc.; Mich. Acad. Cortinari; Michigan fungi; biology of Saprolegniaceae; mycology.
- Kaufmann, Dr. Berwind P(etersen)**, Southwestern College, Memphis, Tenn. *Plant cytology*. Philadelphia, Pa., April 23, 97. B.S., Pennsylvania, 18, A.M., 20, Ph.D., 25. Asst., Pennsylvania, 16-24; teacher, high sch., Pa., 19-25; research, Pennsylvania, 26; *prof. biol.*, Southwestern, 26- Bot. Soc.; Pa. Bot. Soc. Structure of chromosomes in plants.
- Kaufmann, Dr. Ralph J(ennings)**, University of Louisville, Louisville, Ky. *Organic chemistry*. Glenmont, Ohio, Sept. 14, 96. A.B., A.M., Oberlin, 18; Ph.D., Illinois, 23. Chemist, E. I. du Pont de Nemours and Co., 18-20; *asst. prof. chem.*, North Dakota, 23-24; *prof. and acting head dept.*, Hiram, 24-25; *dept. chem.*, Louisville, 25- Summer, instr., Illinois, 23. Chem. Soc. The condensation of organic thiocyanates with certain phenols.
- Kaufmann, Dr. W(ilford) E(dward)**, 152 Halsted St., East Orange, N. J. *Industrial chemistry*. Glenmont, Ohio, Feb. 12, 93. A.B., Oberlin, 18, A.M., 19; Ph.D., Illinois, 23. Research chemist, E. I. du Pont de Nemours and Co., 19-21; *prof. chem.*, Hiram, 23-24; *asst. research director*, Meadows Plant, E. I. du Pont de Nemours and Co., 24- Chem. Soc. Vibration and syneresis of silicic acid gels; catalytic reduction of furane ring compounds with platinum black.
- Kaupp, Prof. B(enjamin) F(ranklin)**, North Carolina State Agricultural College, Raleigh, N. C. *Poultry science*. Williamsport, Pa., March 16, 74. B.S., M.S., Colo. Agr. Col.; D.V.M., Kansas City Vet. Col.; Chicago; Odessa Col.; Cornell, 15. Vet. inspector, bur. animal indust., U. S. Dept. Agr., 96-04; director anat. lab. and lab. diagnosis, Kansas City Vet. Col., 04-08; *prof. path.*, Colo. Agr. Col. and pathologist, Exp. Sta., 08-12; commissioner pub. health, Spartanburg, S. C., 12-14; *prof. poultry science*, N. C. State, head poultry dept. and pathologist, Exp. Sta., 14- Lecturer, Harper-Adams Agr. Col., England, 21; v. pres., Kansas City Vet. Col., 96-08. Delegate, World's Poultry Congresses; Int. Poultry Cong. Poultry Ass.; Poultry Sci. Ass. (pres); Vet. Med. Ass. (chairman, committee on diseases, 11); Mo. Vet. Med. Ass. (sec'y, 96-00); Colo. Vet. Med. Ass. (sec'y, 08-12); N. C. Poultry Ass. (sec'y, 15-). Animal parasites; parasitic diseases; poultry raising; poultry diseases; poultry culture, sanitation and hygiene; anatomy of domestic fowl.
- Kavanaugh, Prof. W(illiam) H(arrison)**, 2081 N. 63d St., Philadelphia, Pa. *Mechanical engineering*. Williamsport, Pa., Aug. 19, 73. M.E., Lehigh, 94. Prin., Miners and Mechanics Inst., 94-95; instr. mech. eng., Illinois, 97-98; draftsman and chief draftsman, Pa. Ry., 98-01; instr. mech. eng., Minnesota, 01-02, *asst. prof.*, 02-07, *prof. exp. eng.*, 07-16; *Pennsylvania*, 16-; *consulting engineer*. Int. jury awards, Panama-Pacific Expos., 15; jury awards, Sesqui-centennial Int. Expos., 26. Mech. Eng.; Eng. Educ.; Franklin Inst.; Phila. Eng. Club. Experimental engineering; gas engineering.
- Kay, Prof. Edgar B(oyd)**, Tuscaloosa, Ala., or Washington, D. C. *Civil engineering*. Warriors Mark, Pa., Jan. 15, 60. C.E., Rensselaer, 83. Instr. civil eng., Rensselaer, 83-85; Union, 96-97; Cornell, 97-03; *prof. eng.*, Alabama, 03-06, civil eng. and dean col. eng., 07-12; *consulting engineer*, 12- Consulting engineer, Ala. Ry. Commission, 03-15; designer, U. S. standard incinerator; chief hydraulic and sanit. eng. sect., in charge water supply, sewerage, drainage. Office quartermaster gen., U.S.A. Eng. Educ.; Munic. Eng. Ass.; Ass. Eng. (pres, Wash. chapter); Am. Water Works Ass.; Int. Ass. Test. Mat. Physical tests of materials; water supply, water power, sewerage, sewage disposal and filtration engineering; chert and chert roads; Alabama coals and iron ores; Alabama road materials; metallurgy; standard incinerator.

Kay, Dean G(eorge) F(rederick), University of Iowa, Iowa City, Iowa. *Geology*. Virginia, Ont, Can, Sept. 14, 73. B.A, Toronto, 00, M.A, 02; fellow, Chicago, 03-04, Ph.D, 14. Prin. pub. schools, Ont, 92-94; geologist, Lake Superior Power Co, 00-02; asst, Ont. Bur. Mines, 03; asst. prof. geol. and miner, Kansas, 04-07; *prof. geol*, Iowa, 07-, *head dept*, 11-; *dean col. liberal arts*, 17- Junior geologist, U. S. Geol. Surv., 07-; state geologist, Iowa, 11- A.A. (sec'y, E, 12-17); Geol. Soc; Iowa Acad; Iowa Conservation Ass. (pres). Economic geology; Pleistocene geology; geology and mineral resources of southwestern Oregon, Bering coal field (Alaska) and Iowa.

Keach, Prof. DeWitt T(almage), Yale University, New Haven, Conn. *Chemistry*. Enfield, Conn, Sept. 3, 90. Ph.B, Yale, 15, Ph.D, 23; M.S., Pa. State, 17. Instr. *chem*, Pa. State, 15-17, asst. prof, 17-20; instr, Yale, 20-25, *asst. prof*, 25- Chem. Soc. Synthetic drugs; molecular structure in relation to physiological effect; hypnotics; ether-substituted derivatives of diethyl malonate and barbituric acid.

Kearney, Thomas H, U. S. Department of Agriculture, Washington, D. C. **Physiological botany*. Cincinnati, Ohio, June 27, 74. Tennessee, 90-92; Columbia, 93-94. Asst. botanist, Tenn. Exp. Sta, 92-93; asst. curator herbarium, Columbia, 94; asst. bot, U. S. Dept. Agr, 94-95, asst. agrostologist, 95-98, asst. botanist, 98-00, asst. physiologist, 00-02, *physiologist*, 02-07, *in charge alkali and drought resistant plant investigations*, bur. plant indust, 08- A.A; Soc. Nat; Bot. Soc; fel. Am. Geog. Soc; Wash. Acad. (v. pres, 08, board managers, 17-19); Wash. Bot. Soc. (v. pres, 08, pres, 16); Wash. Biol. Soc. Genetics; ecological plant geography; physiology of arid region crop plants; Egyptian cotton; date and olive culture in northern Africa; taxonomy of Gramineae.

Keats, Dr. John L(ewis), 117 W. 26th St, Wilmington, Del. *Chemical engineering*. Milwaukee, Wis, Sept. 21, 97. Wisconsin; B.S, Mass. Inst. Tech, 20, M.S, 21, Sc.D, 24. Instr. chem. eng, Mass. Inst. Tech, 22-23; *chem. engineer*, E. I. du Pont de Nemours and Co, 23- Chem. Soc. Interaction between gases and liquids; basic open hearth steel manufacture; manufacture of paint pigments.

Kebler, Leonard, South St, Mt. Vernon, N. Y. *Electrical engineering*. Cincinnati, Ohio, 83. Pres, Ward Leonard Elec. Co, 04- Elec. Eng. Electrical control.

Kebler, Dr. Lyman F(rederic), U. S. Department of Agriculture, Washington, D. C. **Chemistry, Medicine*. Lodi, Mich, June 8, 63. Ph.C, Michigan, 90, B.S, 91, M.S, 92; Jefferson Med. Col, 99; Temple, 99-03; M.D, George Washington, 06. Instr. chem, Iowa Col, 88-89; Michigan, 91-92; chief mfg. chemist, Phila, 92-03; chief drug lab, bur. chem, U. S. Dept. Agr, 03-07, drug div, 07-23, *special collaborating investigator in charge food and drug work*, 23- Asst. prof, Georgetown. Jury award, Nat. Export Expos, 98. Trustee, Nat. Col. Pharmacy. Chem. Soc. (v. pres, 17); Agr. Chem; Am. Med. Ass. (council pharmacist. chem, 05-14); Pub. Health

Ass; Pharmaceut. Ass; Wash. Acad. Chemical, pharmaceutical, medicinal and commercial value of drugs; purity of chemical reagents; methods of assaying alkaloidal drugs; headache mixtures; alcohol in medicinal agents; medicated soft drinks; cancer remedies; drug addiction treatments; American and Norwegian codliver oils; diet therapy; uniformity of medicinal tablets; weight reduction; mail order medical schemes.

Keefe, Rev. Anselm M(aynard), St. Norbert's College, West Depere, Wis. *Botany*. Oconto, Wis, Jan. 21, 95. A.B, St. Norbert's Col, 16; A.M, Catholic Univ, 23; fellow, Wisconsin, 24-25, Ph.D, 26. Asst. instr. bot, Wisconsin, 25-26; *prof. biol*, St. Norbert's Col, 26- Summers, instr, Woods Hole, 25. A.A; Bot. Soc; Ecol. Soc; Wis. Acad. Morphology and cytology of algae.

Keegan, Dean J. Jay, University of Nebraska College of Medicine, Omaha, Nebr. *Medicine*. Axtell, Kans, Jan. 8, 89. A.B, Nebraska, 12, A.M, 14, M.D, 15. Instr. anat, Nebraska, 15-17; intern, Peter Bent Brigham Hosp, 17, 19-20; prof. clin. path, col. med, Nebraska, 20-25, *dean*, 25- Lieut, M.C, U.S.N, 17-19. A.A; Ass. Anat; Soc. Neur. Surg; Soc. Bact. Neurol.ogy; epidemiology; pathology.

Keen, F(rederick) P(aul), Stanford University, Calif. *Entomology*. San Diego, Calif, Nov. 20, 90. B.S, California, 14. Sci. asst. entom, bur. entom, U. S. Dept. Agr, 14-17, *assoc. entomologist*, 21- Second lieut, C.A.C, 17-19. Ass. Econ. Entom; Soc. Foresters. Forest entomology; control of pine bark beetles.

Keen, Prof. W(illiam) W(illiams), 1520 Spruce St, Philadelphia, Pa. *Surgery*. Philadelphia, Jan. 19, 37. A.M, Brown, 59, LL.D, 91; M.D, Jefferson Med. Col, 62, hon. Sc.D, 12; LL.D, Northwestern, 03, Toronto, 04, Edinburgh, 05, Yale, 06, St. Andrews, 11, Pennsylvania, 19; hon. Ph.D, Upsala, 07; hon. Sc.D, Harvard, 20; hon. Dr, Paris, 23. Prof. *surg*, Woman's Med. Col, 84-89; *Jefferson Med. Col*, 89-07, *emer. prof*, 07- Bigelow gold medal, Boston Surg. Soc; Susan Colver Rosenberger medal, Brown. Officier, Légion d'honneur; officer, Order of the Crown, Belgium. Lieut, M.R.C, 09-17, major, 17-19. Hon. pres, First Egyptian Med. Cong, 02; pres, Triennial Cong. Am. Physicians and Surg, 03. Surg. Ass. (pres, 98); Am. Med. Ass. (pres, 99); Philos. Soc. (pres, 08-17); Am. Acad; Phila. Acad; Wash. Acad; Phila. Co. Med. Soc. (pres, 89-91); Phila. Col. Physicians (pres, 00); hon. mem. London Clin. Soc; hon. fel. Royal Col. Surg, Eng, Edinburgh, Ireland; Acad. de Méd. de Paris; Soc. de Chirurg. de Paris; Acad. Royale de Méd. de Belge; Soc. Belge de Chirurg; Ital. Surg. Soc. General surgery; surgery of the brain, spinal cord and nerves.

Keenan, George L, 1339 Taylor St, N. W, Washington, D. C. *Chemistry*. Buffalo, N. Y, Feb. 16, 86. B.S, Michigan, 11, A.M, 12. *Assoc. microanalyst*, bur. chem, U. S. Dept. Agr, 13- A.A; Miner. Soc; Wash. Bot. Soc. Microchemistry; insecticides; fungicides; foods; drugs; optical crystallography; microscopy of flour; calcium oxalate; amino acids.

Keenan, Thomas J, 18 E. 41st St, New York, N. Y. *Chemistry*. Dundee, Scotland, Aug. 29, 66. Pub. and private schools. *Ed*, 'Pharmaceutical Record,' 92-; 'Paper' and 'Paper Indust,' 19- Co-editor, 'Am. Druggist,' 93-11. A.A.; Chem. Soc. (councilor, 19); Electrochem. Soc.; Soc. Chem. Indust. (v. chairman, Am. sect, 24); Ass. Pulp and Paper Indust. (sec'y, 15-21); N. Y. Chemists Club. Pharmaceutical chemistry; papermaking; clay in papermaking; synthetic silk.

Keene, Prof. Edward Spencer, 1028 Seventh St, Fargo, N. Dak. *Mechanical engineering*. Rock Island, Ill, Oct. 8, 64. B.S.(M.E.), Illinois, 90; M.E. 12. Instr. mech. eng, Illinois, 90-92; prof, N. Dak. Col, 92-02, dean mech. arts, 02- Assoc. ed, 'Book of Rural Life.' Mechanics of the household; sewage disposal; water supply; heating; plumbing.

Keeney, Robert M(ayro), Connecticut Light and Power Co, Waterbury, Conn. *Metallurgy*. Somerville, Conn, May 28, 87. E.Met, Colo. Sch. Mines, 10. Metallurgist, U. S. Bur. Mines, 13-14; asst. manager, Baker Mines Co, 14-15; metallurgist, Standard Chem. Co, 15-16; Snyder Elec. Furnace Co, 16; manager, Ferro Alloy Co, 16-18; director dept. metal. research, Colo. Sch. Mines, 19-21; *indust. heating engineer*, Westinghouse Elec. and Mfg. Co, 21-25; *Conn. Light and Power Co*, 25- Consulting engineer, U. S. Bur. Mines and indust. concerns, 17- Carnegie scholar, British Iron and Steel Inst, 11-12. Min. and Metal. Eng; Electrochem. Soc; Soc. Steel Treat; Nat. Elec. Light Ass. Electrometallurgy; ferro-alloys; electric smelting; alloy steels; industrial heating.

Keeton, Dr. R(obert) W(ood), 7455 Greenview Ave, Chicago, Ill. *Medicine*. West Point, Miss, July 7, 83. A.B, Cumberland, 03; Chicago, 06, M.S, 13; M.D, Northwestern, 16. Asst. physiol, Illinois, 10-12; adjunct prof, Albany Med. Col, Union, 12-14; asst. pharmacol, Northwestern, 14-16; instr. col. med, Illinois, 18-20, asst. prof. pharmacol. and therapeut, 20-21; assoc. mem, Sprague Mem. Inst, Chicago, and assoc. med, Rush Med. Col, 21-25; *assoc. prof. med, col. med, Illinois*, 25- Summers, instr, Chicago, 13, 15, 16. Physiol. Soc; Soc. Pharmacol; Chicago Inst. Med; Chicago Internal Med. Soc. Physiology; pharmacology; gastric secretion; hypophysis and carbohydrate metabolism; fever; nausea.

Keffer, Prof. Charles A(lbert), University of Tennessee, Knoxville, Tenn. *Horticulture, Forestry*. Des Moines, Iowa, June 11, 61. Iowa Col, 83. Prof. bot. and hort, S. Dak. Col, 87-91; hort. and forestry, Missouri, 91-95; asst. chief div. forestry, U. S. Dept. Agr, 95-99; prof. agr. and hort, N. Mex. Col, 99-00; hort. and forestry, Tennessee, 00-14, *director div. exten*, 14- Forestry Ass; Pomol. Soc; Tenn. Forestry Ass; Ill. Hort. Soc; Tenn. Hort. Soc. Early growth of the apple tree; diseases of fruits and remedies; tillage.

Kehoe, Dr. Robert A(rthur), 345 Resor Ave, Cincinnati, Ohio. *Physiology*. Georgetown, Ohio, Nov. 18, 93. Ohio State, 14-15; B.S, Cincinnati, 18, M.D, 20. Pathologist, Cincinnati Gen. Hosp, 19-20; *asst. prof. physiol, col.*

med, Cincinnati, 20- A.A; fel. Am. Med. Ass; Chem. Soc; Pub. Health Ass; Cincinnati Acad. Med. The nature and relief of heavy metal poisoning.

Keiller, Prof. W(illiam), University of Texas School of Medicine, Galveston, Texas. *Anatomy*. Midlothian, Scotland, July 4, 61. L.R.C.P, L.R.C.S, Edinburgh and Glasgow, 88. Lecturer *anat, sch. med*, Edinburgh, 89-90; *prof, Texas*, 91-, *dean*, 21- Am. Med. Ass; fel. Edinburgh Royal Col. Surg. Human anatomy; applied anatomy; neurology.

Keiser, Prof. Edward H(arrison), 134 Linden Ave, Clayton, Mo. *Chemistry*. Allentown, Pa, Nov. 20, 61. B.S, Swarthmore, 80, M.S, 81; Ph.D, Hopkins, 84. Instr. chem, Swarthmore, 80-81; Hopkins, 84-85; prof, Bryn Mawr, 85-99; Washington (St. Louis), 99-12. Chem. Soc; Soc. Chem. Indust; Philos. Soc; Chem. Gesell. Acetylene derivatives; atomic weights; analytical methods; acid carbonates of the alkaline earth metals; colloidal compounds; emulsions.

Keith, Arthur, U. S. Geological Survey, Washington, D. C. *Geology*. St. Louis, Mo, Sept. 30, 64. A.B, Harvard, 85, A.M, 86. Asst, U. S. Geol. Surv, 87-94, *geologist*, 94- Prof, Texas, 26. Int. Cong. Geol, 13; committee on tectonics, Nat. Research Council. A.A; Geol. Soc. (councilor, 13, v. pres, 21, pres, 27); Ass. Geog; Seismol. Soc; Am. Acad; Wash. Acad. (v. pres, 15); Wash. Geol. Soc. (pres, 14). Stratigraphy and structural geology in the United States, especially the Appalachian region; earthquakes in New England.

Keith, Dr. Ernest Baker, 1719 Fairchild Ave, Manhattan, Kans. *Chemistry*. Council Grove, Kans, Oct. 29, 90. B.S, Kansas Col, 13; Ph.D, Chicago, 24. Instr. *chem, Kansas Col*, 18-24, *asst. prof*, 24- Emulsions.

Keith, Miss Marcia A(nna), 493 E. 15th St, Brooklyn, N. Y. *Physics*. Brockton, Mass, Sept. 10, 59. B.S, Mt. Holyoke, 92; Worcester, 89; Berlin, 97-98. Teacher, pub. schools, Mass, 76-79; instr. sciences, Mich. Sem, 83-85; math, Mt. Holyoke, 85-88, head dept. physics, 89-03; Lake Erie, 05-06; asst. to H. C. Keith, consulting engineer, 06-18. A.A; Physical Soc.

Keith, Prof. N(orman) M(acdonnell), 615 Eighth Ave, S. W, Rochester, Minn. *Internal medicine*. Toronto, Ont, Can, June 8, 85. B.A, Toronto, 08; M.D, Hopkins, 11. Instr. med, Hopkins, 14-16; clinician, Toronto, 19-20; *asst. prof. med, Mayo Foundation, Minnesota*, 20-21, *assoc. prof*, 21- B.E.F, 18. Am. Physicians; Soc. Clin. Invest; Soc. Exp. Path; Physiol. Soc. Experimental medicine; surgical shock; dehydration.

Keitt, Prof. G(eorge) W(annamaker), University of Wisconsin, Madison, Wis. *Plant pathology*. Newberry, S. C, June 11, 89. B.S, Clemson, 09; M.S, Wisconsin, 11, Ph.D, 14. Asst. plant path, S. C. Exp. Sta, 09; special agent, bur. plant indust, U. S. Dept. Agr, 10, sci. asst, 10-13; asst. prof. *plant path, Wisconsin*, 14-17, *assoc. prof*, 17-20, *prof*, 20- Lecturer, Wisconsin, 13. Lieut. and capt, C.W.S, 17-19, major, O.R.C,

- 19- A.A.; Bot. Soc.; Phytopath. Soc.; Wis. Acad. Fruit diseases.
- Keller, Dr. Edward**, 2002 Argyle Ave, Los Angeles, Calif. *Chemistry, Metallurgy*. Sauk City, Wis, March 10, 57. Polytech, Stuttgart, 77-79; Ph.D, Zurich, 81. Representative, Anaconda Copper Mining Co, 93-17; hon. senator, Tech. Hochschule, Stuttgart. Consulting metallurgist and chemist, U. S. Bur. Mines, 13-16. A.A.; Min. Eng; Chem. Soc.; Electrochem. Soc. Magnetic oxid in copper mattes; distribution of precious metals and impurities in copper; elimination of impurities from copper; electrolysis and refining of copper; labor-saving appliances in the chemical works laboratory; the principles and practice of sampling metallic metallurgical materials.
- Keller, Dr. Ida A(ugusta)**, 4424 Osage Ave, Philadelphia, Pa. *Plant physiology*. Darmstadt, Germany, June 11, 66. Pennsylvania, 84-86; Leipzig, 87-89; Ph.D, Zurich, 90. Asst. bot, Bryn Mawr, 86-87, lecturer, 91-93; teacher chem, *Phila. High Sch. for Girls*, 93-98, head dept. science, 98- Advisory committee, Int. Plant Breeding Conf, 02. A.A.; Soc. Nat; Eugenics Soc; Pa. Acad; hon. mem. Pa. Hort. Soc; Phila. Acad; Phila. Bot. Club (v. pres, 00); Ass. Col. and Prep. Sch. of Middle States and Md. (v. pres, 95). Fertilization; flora of Philadelphia and vicinity.
- Kellerman, Dr. K(arl) F(rederic)**, U. S. Department of Agriculture, Washington, D. C. **Plant physiology*. Göttingen, Germany, Dec. 9, 79. Ohio State, 96-99; B.S, Cornell, 00; Sc.D, Kansas Col, 23. Asst. bot, Cornell, 00-01; asst. physiologist, *bur. plant indust, U. S. Dept. Agr.*, 01-04, physiologist in charge lab. plant physiol, 05-06, in charge soil bacter. and water purification investigations, 06-14, asst. chief *bur.*, 14-17, *assoc. chief*, 17- Director, campaign to eradicate citrus canker, Gulf States and bur. plant indust, U. S. Dept. Agr, 15- Sec'y agr. committee, Nat. Research Council, 17, div. biol. and agr, 18-25, div. fed. relations, 18- Chairman ed. committee, 'Jour. Agr. Research,' 13-24. Fed. Hort. Board, 14-24. A.A.; Soc. Nat; Bot. Soc; Soc. Agron; Soc. Bact; Wash. Bot. Soc; Wash. Biol. Soc; Wash. Acad; Int. Soc. Soil Sci. The physiology of lower plants, especially in connection with water supplies; soil bacteriology; nitrification in soils; life history of soil organisms; physiological effect of copper in water; plant nutrition; citrus canker eradication.
- Kellert, Dr. Ellis**, Ellis Hospital, Schenectady, N. Y. *Pathology*. Albany, N. Y, July 18, 86. M.D, Albany Med. Col, 09; Harvard Med. Sch. Prof. path, Albany Med. Col, 13-16; *director*, Bender Hygienic Lab, 13-23; *laboratories, Ellis Hosp, and City and Co. of Schenectady*, 23- Pathologist, North Adams Hosp, 22- Ass. Path. and Bact; Am. Med. Ass; Pub. Health Ass; Ass. Cancer Research. Cancer; tuberculosis.
- Kelley, Dr. Arthur Pierson**, Rutgers University, New Brunswick, N. J. *Botany*. Malvern, Pa, Aug. 15, 97. B.S, Pennsylvania, 20, A.M, 21, Ph.D, 23. Instr. bot, Rutgers, 22-26, *asst. prof.*, 26- A.A.; Bot. Soc; Ecol. Soc; Torrey Bot. Club; Phila. Acad. Ecological botany; soil acidity in relation to plant distribution; distribution of coastal plants.
- Kelley, Dr. G(eorge) L(eslie)**, 6804 McCallum St, Philadelphia, Pa. *Chemistry*. Quincy, Mass, June 30, 79. B.S, Harvard, 07, Ph.D, 11. Austin teaching fellow, Harvard, 07-09, instr. chem, 09-12; research chemist, Midvale Steel and Ordnance Co, 12-21; *research director, Edward G. Budd Mfg. Co*, 21- A.A.; Chem. Soc; Soc. Test. Mat; Soc. Steel Treat; Franklin Inst. Organic chemistry; absorption; halogenated orthoquinones; steel analysis; electrometric titrations; transition temperatures of sodium chromate hydrates.
- Kelley, Dr. Kenneth K(eith)**, Stanford University, Calif. *Physical chemistry*. Columbus, Ohio, Dec. 16, 01. A.B, Stanford, 23, A.M, 24, Ph.D, 26. Instr. applied math, Stanford, 23-25, *math*, 25- Chem. Soc. Specific heats at low temperatures; third law of thermodynamics.
- Kelley, Prof. Louise**, Goucher College, Baltimore, Md. *Organic chemistry*. Franklin, N. H, Oct. 10, 94. A.B, Mt. Holyoke, 16, A.M, 18; Ph.D, Cornell, 20. Instr. chem, Wheaton, 17-18; asst. prof, Goucher, 20-23, *assoc. prof*, 23- Chem. Soc. p-Hydroxybenzoyl-o-benzoic acid and some of its derivatives; tyrosyl-alanine hydantoin.
- Kelley, Prof. Truman L(ee)**, Stanford University, Calif. **Psychology*. Muskegon, Mich, May 25, 84. A.B, Illinois, 09, A.M, 11; Ph.D, Columbia, 14. Adjunct prof. math, Ga. Tech, 09-10; teacher, high sch, Calif, 11-12; consulting psychologist, Culver Mil. Acad, 13-14; adjunct prof. educ. psychol, Texas, 14-17; asst. prof. educ, Teachers Col, Columbia, 17-20; acting prof, Stanford, 20-21, *prof*, 22-26, *educ. and psychol*, 26- Expert psychol. service, Nat. Research Council. Sanit.C, U.S.A. Psychol. Ass; fel. Statist. Ass; Nat. Soc. Study Educ; Ass. Directors Educ. Research. Mental measurement; educational and vocational guidance; social statistics.
- Kelley, Prof. Walter P(earson)**, Citrus Experiment Station, Riverside, Calif. *Chemistry*. Franklin, Ky, Feb. 19, 78. B.S, Kentucky, 04; M.S, Purdue, 07; Ph.D, California, 12. Asst. chemist, Exp. Sta, Purdue, 05-08; chemist, Hawaii Exp. Sta, 08-14; *prof. agr. chem, Citrus Exp. Sta, California*, 14- A.A.; Chem. Soc; Soc. Agron; Pacific Coast Biol. Ass; Int. Soc. Soil Sci. Agricultural chemistry; the influence of manganese on plants; assimilation of nitrogen by rice plants; effect of salts and of heat on soils; Hawaiian soils; transformation of nitrogen in soils; nutrition of citrus trees; base and ion exchange in soils; alkali soils.
- Kellogg, (Arthur) Remington**, U. S. Department of Agriculture, Washington, D. C. *Zoology*. Davenport, Iowa, Oct. 5, 92. A.B, Kansas, 15, A.M, 16. Biologist, museum, Kansas, 13-15; teaching fellow, California, 16-20; asst. biologist, *biol. surv, U. S. Dept. Agr*, 20-24, *assoc. biologist*, 24- Field naturalist, biol. surv, U. S. Dept. Agr, 15-17. Soc. Mammal; Soc. Ichthyol. and Herp; Paleont. Soc; Wash. Biol. Soc. Pelagic mammals; herpetology.

Kellogg, Dr. Chester E(ljah), 249 Edison Ave, St. Lambert, Que, Can. *Psychology*. Melrose, Mass, Nov. 11, 88. A.B., Bowdoin, 11; A.M., Harvard, 12, Austin fellow, 12-13, Ph.D., 14. Asst. psychol., Radcliffe, 13-14; lecturer, Bryn Mawr, 14-15; instr., Minnesota, 15-16; development specialist grading and testing, war plans div, gen. staff, U.S.A., 20-21; prof. psychol. and educ., Acadia, 21-24; *assoc. prof. psychol.*, McGill, 24- Psychol. examiner, med. dept., U.S.A., 17, lieut. Sanit.C.; 18-19, capt., 19-20. Psychol. Ass. Alternation and interference of feelings; graphic record of maze reactions.

Kellogg, Prof. C(laude) R(upert), Fukien Christian University, Foochow, China. *Economic entomology*. Minneapolis, Minn., April 6, 86. A.B., Denver, 09; A.M., Wisconsin, 18. Asst., Denver, 09; teacher science, Anglo-Chinese Col., Foochow, China, 10-18; *prof. zool.*, Fukien Christian Univ., 18- Collaborator, bur. entom., U. S. Dept. Agr. Assoc. Ass. Econ. Entom.; Genetic Ass.; Royal Asiatic Soc.; China Soc. Science and Arts. Sericulture; bee-keeping.

Kellogg, Prof. James I(awrence), Williamstown, Mass. **Biology*. Kewanee, Ill., Sept. 15, 66. B.S., Olivet, 88; Ph.D., Hopkins, 92; hon. A.M., Williams, 01. *prof. biol.*, Olivet, 92-99; asst. prof., Williams, 99-03, *prof.*, 03- Instr., Woods Hole, 92-95; investigator, U. S. Fish Commission, 89-91, 96-98, R. I., 98, N. Y., 01-03, La., 04, Mass., 06. Soc. Nat.; Soc. Zool. Lamelli-branches; ciliary mechanisms of lamelli-branches.

Kellogg, Prof. O(liver) D(imon), 20 Craigie St., Cambridge, Mass. **Mathematics*. Linwood, Pa., July 10, 78. A.B., Princeton, 99, J.S.K. fellow, 99-02, A.M., 00; Ph.D., Göttingen, 02. Instr. math., J. C. Green Sch. Science, Princeton, 02-05; asst. prof., Missouri, 05-10, prof., 10-20; lecturer *math.*, Harvard, 19-20, *assoc. prof.*, 20-27, *prof.*, 27- Summer, *assoc. prof.*, Chicago, 09. U.S.N. Exp. Sta., 18-19. A.A. (v. pres., A, 19); Math. Soc. (councilor, 09-11, 21-23, v. pres., 27); Math. Ass.; Am. Acad.; Math. Verein; Circolo Mat. di Palermo. Integral equations; potential theory; function theory; differential equations.

Kellogg, Prof. Vernon L(yman), National Research Council, Washington, D. C. **Zoology*. Emporia, Kans., Dec. 1, 67. B.S., Kansas, 89, M.S., 92; Cornell, 91-92; Leipzig, 93-94, 97-98; Paris, 04-05, 08-09; LL.D., California, 19, Brown, 20; Sc.D., Oberlin, 22. Asst. prof. entom., Kansas, 90-93, *assoc. prof.*, 93-94; asst. prof., Stanford, 94-95, *assoc. prof.*, 95-96, *prof.*, 96-20; *permanent sec'y and chairman div. educ. relations, Nat. Research Council*. Asst., Samoan explorations, U. S. Fish Commission, 02; staff, Belgian Relief Commission; Food Ad; Am. Relief Ad; Inter-Allied Sci. Food Commission; Rockefeller Foundation. Nat. Acad. (permanent sec'y); A.A. (v. pres., 15, exec. committee, 24); Soc. Nat.; Ecol. Soc.; Entom. Soc. (v. pres., 10); Ass. Econ. Entom.; Nature Study Soc. (v. pres., 08, 09); Philos. Soc.; Kans. Acad.; Calif. Acad.; Wash. Acad. (pres., 26); Phila. Acad.; Entom. Gesell.; Soc. entom. de France. Classification and distribution of the Mallophaga; morphology and development of mouth parts of insects; classification, structure and life history of Blepharo-

ceridae; the scales of the Lepidoptera; phagocytosis in insects; variation in insects; artificial parthenogenesis, regeneration and general biology of silkworms; variation, inheritance and behavior of insects.

Kellogg, Prof. Wilfred H(arvey), University of California, Berkeley, Calif. *Bacteriology, Immunology*. Arkansas City, Kans., Sept. 3, 71. Ph.G., 92, M.D., 96. Bacteriologist, Board Health, San Francisco, 00-03; acting asst. surgeon, U. S. Pub. Health Service, plague investigations, Venezuela, 09-11; clin. instr. prev. med., Stanford, 12-15; *asst. clin. prof. prev. med. and hygiene, California*, 17-; *director, State Hygienic Lab.*, 17- Sec'y and exec. officer, Calif. State Board Health, 18-20; director laboratories, San Francisco, 12-17. Soc. Bact.; Pub. Health Ass. (director, 18-21); fel. Am. Med. Ass.; Soc. Exp. Biol.; Calif. Acad. Med. Pathology and bacteriology of plague; epidemiology of a pneumonic outbreak of plague; antigens used in the Wassermann test; diphtheria immunity; control measures in influenza; Kellogg test.

Kelly, E. G., Kansas State Agricultural College, Manhattan, Kans. *Entomology*. Fulton, Ky., July 25, 80. B.S., Kentucky, 03, M.S., 04. Asst. to state entomologist, Ill., 04-07; asst. entomologist, U. S. Dept. Agr., 07-18; *exten. entomologist, Kansas Col.*, 18- A.A.; Entom. Soc.; Ass. Econ. Entom.; Wash. Entom. Soc. Control of farm crop insects; orchard management and orchard pests; insecticides; arsenicals and oil emulsions; cyanides; toxicity in plants and animals; extension entomology.

Kelly, Prof. Frank L., 1626 Spruce St., Berkeley, Calif. *Public health*. Oakland, Calif., July 12, 84. B.S., California, 08, M.D., 12, M.S., 14, Dr.P.H., 24. Calif. State Board Health, 15-23; *asst. prof. pub. health administration, California*, 23- Health officer, Berkeley, Calif., 23-25; lecturer, med. sch., California. Am. Med. Ass.; Pub. Health Ass.; Soc. Bact. Communicable diseases; public health administration.

Kelly, Prof. H(arry) M(cCormick), Cornell College, Mount Vernon, Iowa. *Zoology*. Harrisburg, Pa., May 27, 67. A.B., Bucknell, 88, A.M., 91; A.B., Harvard, 91, A.M., 93; LL.D., J. B. Stetson, 11. Asst. zool., Harvard, 91-93; *instr. biol.*, Northwestern, 93-94; *prof.*, Cornell (Iowa), 94- Soc. Nat.; Soc. Zool.; Iowa Acad. Parasites of the Unionidae.

Kelly, Prof. Howard A(wood), 1406 Eutaw Place, Baltimore, Md. **Surgery*. Camden, N. J., Feb. 20, 58. A.B., Pennsylvania, 77, M.D., 82, LL.D., 07; LL.D., Aberdeen, 06, Washington and Lee, 06. Assoc. prof. obstet., Pennsylvania, 88-89; *prof. gynec. and obstet.*, Hopkins, 89-99, *gynec.*, 99-19, *emer. prof.*, 19- Gynec. surgeon, Hopkins Hosp., 99-19, consulting gynecologist, 19-; hon. curator div. reptiles and amphibians, Michigan. Commander, Order of Leopold, Belgium; Order of the Cross of Mercy, Serbia. A.A.; fel. Col. Surg.; fel. Gynec. Soc. (pres., 12); fel. Urol. Ass.; hon. fel. Röntgenol. Soc.; fel. Radium Soc.; Soc. Ichthyol. and Herp.; Nat. Ass. Audubon Societies; Tree Ass.; fel. S. Surg. and Gynec. Soc. (pres., 07); hon. fel. Chicago

- Gynec. Soc; Phila. Acad; N. Y. Zool. Soc; fel. British Gynec. Soc; Philos. Soc. Gt. Britain; hon. fel. Edinburgh Royal Col. Surg; hon. mem. Edinburgh Royal Med. Soc; hon. fel. Edinburgh Obstet. Soc; hon. fel. Glasgow Obstet. and Gynec. Soc; hon. fel. Royal Acad. Med. Ireland; hon. mem. Berlin Gesell. für Geburtshilfe und Gynec; hon. mem. Leipzig Gesell. für Geburtshilfe; cor. mem. K. K. Gesell. der Aerzte Wien; Ass. française d'Urol; cor. mem. Soc. d'Obstet. de Gynec. et de Pediat. de Paris; cor. mem. Soc. d'Obstet. et de Gynec. de Paris; for. cor. mem. Soc. de Chirurg. de Paris; hon. mem. Soc. Ital. di Ostet. e Ginec; hon. mem. Moscow Obstet-Gynec. Soc; hon. fel. Kiev Obstet-Gynec. Soc; Roumanian Acad; cor. mem. Peruvian Surg. Soc; Soc. int. d'Hist. de Med. Operative and medical gynecology; abdominal surgery; the vermiform appendix and its diseases; yellow fever; myomata of the uterus; diseases of the kidneys, ureters and bladder; radiotherapy; medical history and biography; medical botanists.
- Kelly, Dr. James P(eter)**, State College, Pa. *Botany, Genetics*. Hamilton, Ont, Can, June 9, 85. B.S. Col. City of N. Y. 06; A.M. Columbia, 14; Sc.D. Princeton, 20. Teacher, schools, N. Y. 06-14; instr. bot. Pa. State, 14-18, asst. prof. 18-20, assoc. prof. 20-25, *prof. 25-* Asst. Princeton, 18-19. Asst. ed. 'Bot. Abstracts,' 20-22. Walker prize, Boston Soc. Nat. Hist., 24. A.A.; Bot. Soc; Genetic Ass; Eugenics Soc; Pa. Acad. (press sec'y, 24). Genetics of flower color and form in Phlox; heredity in Aphids; genetics of disease resistance in potatoes; variation under domestication.
- Kelly, Dr. Margaret W**, 90 Morningside Drive, New York, N. Y. *Chemistry*. Oakmont, Pa, Jan. 6, 86. A.B. Mt. Holyoke, 09; A.M. Columbia, 20, Ph.D. 23. Teacher, schools, Pa, 10-18; research asst, Columbia, 20-24; asst. prof. chem, Mt. Holyoke, 24-25; *research asst, Columbia, 25-* A.A.; Chem. Soc. Physical and colloid chemistry; proteins; tanning materials.
- Kelly, Col. W(illiam)**, 37 W. 39th St, New York, N. Y. *Engineering*. New York, Jan. 8, 77. Yale; U. S. Mil. Acad; U. S. Eng. Sch. of Application. *Officer, C.Eng.*, 99-, *col*; chief engineer, Fed. Power Commission, 20-25; director eng, Nat. Elec. Light Ass, 25-26; v. pres, Buffalo, Niagara and Eastern Power Corp; *chairman board on head-water reservoirs, Miss. Valley Flood Protection, 26-* Joint Board Engineers, St. Lawrence River, 24- James Laurie prize, Soc. Civil Eng. Officier, Légion d'honneur. Civil Eng; fel. Elec. Eng; Soc. Mil. Eng. Inductive coordination between power and communication circuits; loading and mechanics of construction and overhead power lines.
- Kelly, William**, Iron Mountain, Mich. *Mining engineering*. New York, N. Y., April 17, 54. A.B. Yale, 74; E.M. Columbia, 77; hon. D.Eng. Rensselaer, 24. Pres. Pa. Board Examiners of Bituminous Mine Inspectors, 85-89; *board control, Mich. Sch. Mines, 97-04, chairman, 04-*; mem. Pub. Domain Commission, 09-21, chairman, 17-21, *mem. state highway advisory board, 19-* A.A.; Min. Eng. (councilor, 10-12, director, 23, pres, 24); Min. and Metal. Soc; Lake Superior Min. Inst. (pres, 99); Can. Min. Inst; London Inst. Min. and Metal; hon. mem. British Inst. Min. Eng. Electricity in mines; mine dam; shaft sinking.
- Kelly, Dr. William A(ultin)**, Michigan State College, East Lansing, Mich. *Geology*. Edmonton, Alta, Can, Feb. 19, 96. B.A. Alberta, 21, M.A. 22; Ph.D. Princeton, 25. *Instr. geol.* Princeton, 25-26; *Mich. State Col, 26-* Paleont. Soc. Devonian and Mississippian faunas.
- Kelly, Dr. W(illiam) J(ames)**, 157 Casterton Ave, Akron, Ohio. *Physical chemistry*. Boston, Mass, Jan. 18, 88. B.S. Mass. Inst. Tech, 09; Ph.D. Leipzig, 13. *Research chemist*, U. S. Rubber Co, 13-14; Standard Oil Co. of N. Y., 14-18; *Goodyear Tire and Rubber Co, 18-* Chem. Soc. (sec'y-treas, Akron sect, 23-26, sec'y, local sect. officers, 26-); Chem. Gesell. Rubber chemistry.
- Kelser, Capt. Raymond A(lexander)**, Medical Department Research Board, U. S. Army, Manila, P. I. *Bacteriology, Pathology*. Washington, D. C, Dec. 2, 92. D.V.M. George Washington, 14; A.M. American Univ, 22, Ph.D. 23. Bacteriologist, H. K. Mulford Co, Pa, 14; bur. animal indust, U. S. Dept. Agr, 15-18; chief vet. lab. service, Letterman Gen. Hosp, San Francisco, 18-19; commanding officer, Army Vet. Lab, Pa, 19-20; officer in charge vet. lab. sect, Army Med. Sch. and instr. bacter, 21-25; instr. infectious diseases and röntgenology, Army Vet. Sch, 24-25; *capt, U. S. Med. Dept. Research Board, Manila, 25-* A.A.; Soc. Bact; fel. Pub. Health Ass; Vet. Med. Ass. (v. pres, 23); Royal Inst. Pub. Health, London. Immunology.
- Kemble, Prof. Edwin C(rawford)**, Harvard University, Cambridge, Mass. **Physics*. Delaware, Ohio, Jan. 28, 89. B.S. Case, 11; A.M. Harvard, 14, Ph.D. 17. Asst. instr. physics, Carnegie Inst. Tech, 11-12, instr. 12-13; eng. physicist, Curtiss Aeroplane Co, 17-18; instr. *physics*, Williams, 19; *Harvard, 19-24, asst. prof., 24-* Physical Soc; Optical Soc; Am. Acad. Infrared absorption spectra; application of quantum theory to molecular motions.
- Kemmerer, Prof. Geo(rge) (Irving)**, 916 Van Buren St, Madison, Wis. *Chemistry*. Janesville, Wis, Feb. 25, 79. A.B. Wisconsin, 04, A.M. 06; Ph.D. Pennsylvania, 08. Asst. chem, Wisconsin, 04-06; prof. N. Mex. Sch. Mines, 08-14; Carroll, 14-20; *asst. prof, Wisconsin, 20-* Summers, chemist, Wis. Geol. and Nat. Hist. Surv, 07-09; Bur. Fisheries, 11-13, Kodiak, Alaska, 27; consulting chemist. Chem. Soc. (chairman, Milwaukee sect, 18, councilor, 19). Inorganic, analytical and industrial chemistry.
- Kemmerer, Dr. Mabel C. Williams**, 964 N. Jefferson St, Jackson, Miss. *Psychology*. Coralville, Iowa, Nov. 6, 78. Ph.B. Iowa, 99, fellow, 99-02, Ph.D. 03. Asst. instr. psychol, Iowa, 02-03, instr. 03-04; prof. psychol. and philos. Coe, 04-05; instr. *psychol, Iowa, 07-10, asst. prof, 10-20, assoc. prof, 20-*, *correspondence courses, 24-* A.A.; Psychol. Ass; West. Philos. Ass; Iowa Acad. Visual illusions; color vision.

- Kemp, Dr. Garrett**, Atlantic Oil Producing Co, Dallas, Texas. *Physics*. Baltimore, Md, Aug. 26, 77. A.B, Illinois, 06, A.M, 10, fellow, 11-12, Ph.D, 12. Instr. physics, Purdue, 06-08; Illinois, 08-11; assoc. prof, Arkansas, 12-14; acting prof. math. and astron, Baker, 14-15; prof. physics, Okla. Agr. and Mech. Col, 15-20; assoc. prof, Kentucky, 20-23; *geophysical research*, Atlantic Oil Producing Co, Texas, 26- Physical Soc. Photo-electricity; photoelectric cells.
- Kemp, James T(aylor)**, American Brass Company, Waterbury, Conn. *Metallurgy*. Kingston, R. I, Aug. 7, 90. B.S, Columbia, 12, Met.E, 16. Foreman and supt, Int. Nickel Co, 16-18, asst. manager and metallurgist, ref. div, 18-23; metallographer, *Am. Brass Co*, 24-26, asst. metallurgist, 26- Min. and Metal. Eng; Soc. Test. Mat. Microscopic metallurgy.
- Kemp, Prof. W(illiam) B(eck)**, University of Maryland, College Park, Md. *Plant breeding*. Baltimore Co, Md, March 3, 90. B.S, Maryland, 12. Instr, high sch, Md, 12-13, prin, 17-21; instr. agron, West Virginia, and asst. agronomist, Exp. Sta, 13-14, asst. prof, 14-16; exten. agronomist, Md. Exp. Sta, 16-17; *assoc. prof. agron, Maryland, and assoc. agronomist, Exp. Sta*, 21- A.A; Soc. Agron. Breeding of wheat and corn.
- Kempf, Dr. Edward J(ohn)**, 100 Central Park, S, New York, N. Y. *Psychopathology*. Jasper, Ind, July 26, 85. A.B, Indiana, 07; M.D, Western Reserve, 10. House staff, Phipps Psychiat. Clinic, Hopkins Hosp, 13-14; clin. psychiatrist, Govt. Hosp. for Mental Diseases, Washington, D. C, 14-20; *practising psychopathologist*, New York, 20- Psychopath. Ass; Psychiat. Ass; Psychoanal. Ass; N. Y. Acad. Med; N. Y. Neur. Ass. Autonomic functions and personality; social and sexual behavior of infrahuman primates; psychology of dementia praecox.
- Kempner, Prof. Aubrey J(ohn)**, 956 13th St, Boulder, Colo. **Mathematics*. London, Eng, Sept. 22, 80. Ph.D, Göttingen, 11. Instr, assoc. and asst. prof. math, Illinois, 11-25; *prof. and head dept, Colorado*, 25- Math. Soc. (councilor); Math. Ass. (v. pres, trustee, assoc. ed, 'Trans' and 'Math. Monthly'). Algebra; theory of numbers.
- Kempton, Dr. F(orrest) E(llwood)**, U. S. Department of Agriculture, Washington, D. C. *Plant pathology*. Centerville, Ind, Oct. 5, 83. B.S, Earlham, 06; M.S, Wisconsin, 13; Ph.D, Illinois, 18. Teacher, pub. schools, Ind, 05-12; prof. biol, Ill. Col, 13-14; asst. bot, Illinois, 14-18; *plant pathologist*, smelter smoke investigations, St. Louis Smelting and Ref. Co, 17; *U. S. Dept. Agr*, 18-, in charge barberry eradication. A.A; Phytopath. Soc; Bot. Soc; Ill. Acad; Wash. Bot. Soc. Cytology of Entylomas; origin and development of the pycnidium; barberry eradication.
- Kempton, J(ames) H**, U. S. Department of Agriculture, Washington, D. C. *Genetics*. Cincinnati, Ohio, April 14, 91. Minnesota. *Assoc. botanist, bur. plant indust, U. S. Dept. Agr*, 07- A.A; Genetic Ass; Soc. Nat. Genetics in corn.
- Kendall, Prof. Arthur I(saac)**, Washington University School of Medicine, St. Louis, Mo. **Bacteriology, Hygiene*. Somerville, Mass, May 7, 77. B.S, Mass. Inst. Tech, 00, fellow, 02-03; fellow, Hopkins, 03-04, Ph.D, 04; D.P.H, Harvard, 12. Acting chief board health lab, Isthmian Canal Commission, Panama, 04-06; fellow, Rockefeller Inst, 06-09; instr. dept. prev. med. and hygiene, Harvard Med. Sch, 09-12; prof. bacter. and director, Patten Research Foundation, Northwestern, 12-24, dean med. sch, 16-24; *prof. bacter. and pub. health, sch. med, Washington (St. Louis)*, 24- Trustee, Wesley Mem. Hosp, 17-24; Northwestern, 18-24. Chairman, Yellow Fever Commission, Int. Board Health, 18. Service medal, Isthmian Canal Commission. Ass. Path. and Bact; Pub. Health Ass; Chem. Soc; Chicago Inst. Med; Chicago Internal Med. Soc; Chicago Path. Soc. (pres, 17). Bacterial metabolism; chemistry of bacterial action; intestinal bacteriology; public health.
- Kendall, Prof. Claribel**, 1305 Euclid Ave, Boulder, Colo. *Mathematics*. Denver, Colo, Jan. 23, 89. A.B, B.E, Colorado, 12, A.M, 14; fellow, Chicago, 20-21, Ph.D, 21. Asst. math, Colorado, 11-13, instr, 13-22, asst. prof, 22- Math. Soc; Math. Ass. Projective differential geometry.
- Kendall, Dr. E(dward) C(alvin)**, 627 Eighth Ave, S. W, Rochester, Minn. **Chemistry*. South Norwalk, Conn, March 8, 86. B.S, Columbia, 08, A.M, 09, Goldschmidt fellow, 09-10, Ph.D, 10, Sc.D. *Head sect. chem, Mayo Foundation and prof. biochem, Minnesota*. Chem. Soc; Physiol. Soc; Soc. Biol. Chem; Soc. Exp. Biol; Soc. Exp. Path. Chemistry of the thyroid gland; isolation and investigation of thyroxin; oxidation in the animal organism.
- Kendall, Prof. James**, New York University, Washington Square, New York, N. Y. **Chemistry*. Surrey, Eng, July 20, 89. B.Sc, M.A, Edinburgh, 10, D.Sc, 15; Nobel Inst, Stockholm and Tech. Inst, Petrograd, 12-13. Instr. chem, Columbia, 13-15, asst. prof, 15-16, assoc. prof, 16-22, *prof*, 22-26; *administrative head dept, Wash. Square Col, N. Y. Univ*, 26-, *dean grad. school*, 27- Acting prof, Stanford, 19, 23; California, 23. Lieut, U.S.N.R.F, 17, lieutenant commander, 25-26. A.A. (sec'y, C, 16-); Chem. Soc. (chairman, N. Y. sect, 25); Soc. Chem. Indust; Inst. Chem. (pres, N. Y. chap, 26); London Chem. Soc; Royal Soc. Ionic dissociation; addition compound formation; viscosity; separation of isotopes and rare earths; chemical education.
- Kendall, Dr. William C(onverse)**, U. S. Bureau of Fisheries, Washington, D. C. *Zoology*. Freeport, Maine, April 4, 61. A.B, Bowdoin, 85, A.M, 90; M.D, Georgetown, 96. Prin, pub. schools, Minn, 85-87; acad, Maine, 87-89; *naturalist*, U. S. Fish Commission, 89-21; Roosevelt Wild Life Exp. Sta, N. Y. State Col. Forestry, 21-23; *Bur. Fisheries*, 23- Bronze medal, Paris Expos. A.A; Fisheries Soc; Forestry Ass; Soc. Ichthyol. and Herp; Inst. Social Sci; Wash. Acad; Wash. Biol. Soc; cor. mem. Portland (Maine) Soc. Nat. Hist. Ichthyology; geographical distribution and natural history of fishes, especially Salmonidae and allied

forms; osteological and visceral anatomy of Isospondyli.

Kendrick, Arthur, 45 Hunnewell Ave, Newton, Mass. *Physics*. Nashua, N. H., March 30, 65. A.B., Amherst, 87; A.M., Harvard, 91; Göttingen, 99-00. Teacher science, Leicester Acad., Mass., 87-90; asst. physics, Harvard, 92-93; asst. prof., Worcester, 93-96; assoc. prof., Rose, 96-01; *mfr. sci. and eng. apparatus*, 01- A.A.

Kendrick, Dr. James B(lair), University Farm, Davis, Calif. *Plant pathology*. Clover, S. C., Aug. 13, 93. B.S., Clemson, 16; M.S., Iowa Col., 19, Ph.D., 25. Asst. botanist, Exp. Sta., Purdue, 19-27; *assoc. plant pathologist*, Calif. *Exp. Sta.*, 27- Second lieut., Inf., 18. A.A.; *Phytopath. Soc.*; Ind. Acad. Truck crop, vegetable, legume and cereal diseases.

Kenerson, Prof. W(illiam) H(erbert), 100 Morris Ave, Providence, R. I. *Mechanical engineering*. Mass., Dec. 9, 73. M.E., Brown, 96; A.M., Harvard, 06; Sc.D., R. I. Col., 19. Instr. drawing and math, *Brown*, 96-99, asst. prof. *mech. eng.*, 99-05, assoc. prof., 05-12, *prof.*, 12-, *chairman div. eng.* Consulting engineer; supervising engineer, Gen. Fire Extinguisher Co; director, R. I. conservation, Fuel Ad. Army Educ. Corps, U.S.A. A.A.; *Mech. Eng.* (v. pres, 22-24); *Eng. Educ.*; *Soc. Test. Mat.*; Providence *Eng. Soc.* (pres). Materials of construction; power measurement; modulus of elasticity of steel; losses in power transmissions.

Kennard, D(wight) C(linton), Ohio Agricultural Experiment Station, Wooster, Ohio. *Poultry husbandry*. Smith Center, Kans., 81. Ph.C., Kansas; B.S.A., Wisconsin. Asst. chemist, Santa Fe Ry, 04-09; commercial poultry keeping, Petaluma dist, Calif., 10-15; poultry dept., Purdue, 18-20; *in charge* poultry feeding investigations, food research lab, bur. chem., U. S. Dept. Agr., 20-21; *poultry investigations*, Ohio *Exp. Sta.*, 21- Poultry Sci. Ass; Int. Ass. Poultry Husbandry. Minerals in the poultry ration; vitamin requirements of chickens; utilization of vegetable proteins to replace animal proteins.

Kennard, Dr. E(arle) H(esse), Cornell University, Ithaca, N. Y. **Physics*. Columbus, Ohio, Aug. 2, 85. A.B., Pomona, 07; B.A., Oxford (Eng.), 10, B.Sc., 11; fellow, Cornell, 11-12, Ph.D., 13. Asst. *physics*, Cornell, 12-13, instr., 13-14; Minnesota, 14-16; asst. prof., Cornell, 19-27, *prof.*, 27- A. K. Angström nocturnal-radiation exped, Mt. Whitney, 13. A.A.; *Physical Soc.* Unipolar induction; decay of low-temperature phosphorescence; effect of light on contact potentials; thermodynamics of fluorescence; electromagnetic theory; relativity.

Kennard, Fred(eric) H(edge), 246 Dudley Road, Newton Center, Mass. *Ornithology*. Brookline, Mass., Nov. 19, 65. A.B., Harvard, 88. *Ornith. Union*; Nuttall *Ornith. Club*.

Kennedy, Dr. Clarence H(amilton), Ohio State University, Columbus, Ohio. *Entomology*. Rockport, Ind., June 25, 79. A.B., Indiana, 02, A.M., 03; Stanford, 14; Ph.D., Cornell, 19. Asst. zool., Indiana, 02-03; sci. asst., Bur. Fisheries, 03; bot. collector, Mt. Holyoke Herbarium, Texas and Oregon, 08; sci. artist, 13-15; asst.

biol., Cornell, 15, instr. limnol., 16-17; zool., N. C. State, 18-19; *entom.*, Ohio State, 19-21, *asst. prof.*, 21-, *in charge entom. lake lab.*, 20- Collector Odonata, Calif. and Nev., 14; summers, instr. biol. sta., Indiana, 02, Cornell, 18-20. A.A.; *Entom. Soc.* (asst. managing ed., 'Annals'); *Ass. Econ. Entom.*; *Ecol. Soc.*; Cooper *Ornith. Club*; Ind. Acad.; fel. Ohio Acad. (v. pres, zool. sect., 26); *Soc. entom. de France*; fel. *Entom. Soc. London*. Morphology and ecology of insects; Odonata.

Kennedy, Dr. Cornelia, University of Minnesota, Minneapolis, Minn. *Biochemistry*. Eau Claire, Wis., Feb. 3, 85. A.B., Minnesota, 03; M.S., Wisconsin, 16; Berliner fellow, Hopkins, 18-19, Ph.D., 19. Asst. chemist, Washburn-Crosby Flour Mills, 03-08; instr. *agr. chem.*, Minnesota, 08-14, *asst. prof.*, 20-, *asst. agr. biochemist*, *Exp. Sta.*, 08- Nutrition.

Kennedy, Dr. James A(rthur), University of Rochester, Rochester, N. Y. *Bacteriology*, *Public health*. Brooklyn, N. Y., Sept. 3, 94. A.B., Cornell, 17, Ph.D., 24. Asst. instr. sanit. chem., Cornell, 17-24; Nat. Research Council fellow *bacter.*, Harvard Med. Sch., 24-26; *instr. sch. med. and dent.*, Rochester, 26- Control analyst, water purification plant, Cornell, 20-24. Chemist, N. Y. State Col. Agr., Cornell, 20-22. A.A.; *Soc. Bact.*; Pub. Health Ass; Chem. Soc. Sanitary chemistry; blood groups; paroxysmal hemoglobinuria.

Kennedy, Dr. John J(oseph), Maywood Chemical Works, Maywood, N. J. *Chemistry*. Nov. 21, 91. A.B., Cornell, 12, B.Ch., 13, Ph.D., 16. *Chemist*, Maywood *Chem. Works*, 16- Chem. Soc. Nitration products of phenoltetrachlorophthalein and tetrachlorofluoran.

Kennedy, Julian, 5400 Forbes St, Pittsburgh, Pa. *Mining engineering*. Lowellville, Ohio, March 15, 52. Ph.B., Yale, 75, hon. A.M., 00; hon. D.Eng., Stevens, 09. Manager, Carnegie Blast Furnaces and Steel Works, 79-88; engineer, Latrobe Steel Works, 89-91; *consulting engineer*, 91- Min. Eng.

Kennedy, Prof. P(atrick) Beveridge, University of California, Berkeley, Calif. *Agronomy*. Mt. Vernon, Scotland, June 17, 74. Ont. Agr. Col., 92; B.A.S., Toronto, 94; Ph.D., Cornell, 99. Asst. chemist, Ont. Agr. Col., 95; asst. div. agrost., U. S. Dept. Agr., 99, expert in charge exp. work, 00; asst. prof. bot., hort. and forestry, Nevada and Exp. Sta., 00-02, prof., 02-13; asst. prof. *agron. California*, and *Exp. Sta.*, 14-18, assoc. prof., 18-24, *prof.*, 24- A.A.; *Soc. Agron.* Economic botany; flora of California; range improvement; grasses; legumes; the genus *Trifolium*; weeds.

Kennedy, Dr. Roy J(ames), California Institute, Pasadena, Calif. *Physics*. Rochester, N. Y., Jan. 6, 96. A.B., Cornell, 21; Ph.D., Hopkins, 24. Instr. physics, Princeton, 21-22; asst. and assoc. physicist, Bur. Standards, 22-24; *Nat. Research Council fellow physics*, Calif. *Inst.*, 24- *Physical Soc.* Relativity; vapor pressures; dew points of complex solutions.

Kennelly, Prof. A(rthur) E(dwin), Harvard University, Cambridge, Mass. **Electrical engineering*. Colaba, Bombay, India, Dec. 17, 61.

- Univ. Col. Sch, London, 72-75; hon. Sc.D, Pittsburgh, 95, Toulouse, 22; hon. A.M, Harvard, 06. Electrician, East. Teleg. Co, London, 76-86; prin. elec. asst. to Thomas A. Edison, 86-94; consulting engineer, Phila, 94-02; *prof. elec. eng, Harvard, 02-* Prof. Mass. Inst. Tech, 13-25, chairman faculty, 17-19; consulting elec. engineer, Gen. Elec. Co, 90-94. Nat. Research Council, 22. Elec. juries, Phila. Export Expos, Pan-Am. Expos. and La. Purchase Expos; pres, U. S. nat. committee, Int. Electrotech. Commission, 10, sec'y, 10-22, hon. sec'y, 23-; Int. Illum. Commission, Berlin, 13. Chevalier, Légion d'honneur, 22. Two premiums of merit, British Inst. Elec. Eng; Longstreth and Potts medals, Franklin Inst, 17. V. pres, Int. Elec. Cong, Paris, 00; gen. sec'y, St. Louis, 04. Civilian liaison officer, Sig.C, 18. Nat. Acad; A.A. (chairman, sect. M, 24); Elec. Eng. (past pres); Radio Eng. (past pres); Illum. Eng. Soc. (past pres); Math. Soc; Physical Soc; hon. mem. Nat. Elec. Light Ass; hon. fel. Electro-Therapeut. Ass; Philos. Soc; Am. Acad. (v. pres, chairman, Rumford committee); Pacific Astron. Soc; Franklin Inst; hon. mem. N. Y. Elec. Soc; cor. mem. British Ass; fel. Royal Astron. Soc; hon. mem. British Inst. Elec. Eng; hon. mem. Soc. française des Elec. Magnetism in engineering; alternating electric currents.
- Kenney, Dr. Arthur W(ebster)**, 1508 Franklin St, Wilmington, Del. *Chemistry*. Pownal, Maine, Nov. 15, 91. Ph.D, Mass. Inst. Tech, 18. Research assoc. physical chem, Mass. Inst. Tech, 17; *research chemist, E. I. du Pont de Nemours and Co, 18-*; head *intelligence div, chem. dept, 21-* Lieut. and capt, C.W.S, 17-18. Chem. Soc; Inst. Chem. (sec'y). Thermodynamics; chemical bibliography.
- Kennicott, Cass (Langdon)**, Flossmoor, Ill. *Chemistry*. Chicago, Ill, Feb. 25, 71. Case, 93. Chemist, Nelson Morris and Co; Dept. Health, Chicago; Consumers Ice Co; city chemist, Chicago; chief engineer ry. dept, The Permutit Co; *consulting chem. engineer*. Chem. Soc; West. Soc. Eng; Chicago Acad; Chicago Ry. Club; Chicago Eng. Club; N. Y. Chemists Club; fel. London Chem. Soc. Milk analysis; water analysis, softening and purification; dust explosions; methods of mineral water analysis.
- Kennon, Prof. W(illiam) L(ee)**, University of Mississippi, University, Miss. *Physics, Astronomy*. Columbus, Miss, May 3, 82. B.S, Millsaps, 00, M.S, 01; fellow, Hopkins, 05-06, Ph.D, 06. Asst. chem. and physics, Millsaps, 00-01; prof, Ky. Wesleyan, 01-03; instr. chem, Williams, 06-09; asst. prof, *Mississippi, 09-11, prof. physics and astron, 11-* Physical Soc; Eng. Educ. Physical properties and specific heats of solutions; the direct measurement of the osmotic pressure of cane-sugar solutions.
- Kenoyer, Dr. Leslie A(lva)**, Western State Normal School, Kalamazoo, Mich. *Plant ecology*. Dover, Ill, April 14, 83. A.B, Campbell, 06; A.M, Kansas, 08; Ph.D, Iowa Col, 16; Chicago, 16. Prof, high sch, Kans, 08-09; biol, Leander Clark, 10-15; Ewing Christian Col, 16-22; asst. prof. *bot, Mich. State Col, 22-23; prof. and head dept. biol, West. State Nor. Sch,*
- 23- A.A; Bot. Soc; Ecol. Soc. Ecology of nectar secretion; ecology of regions in India and the Great Lakes region.
- Kenrick, Prof. Frank B(oteler)**, 77 Lonsdale Road, Toronto 5, Ont, Can. *Chemistry*. Send, Eng, Feb. 4, 74. B.A, Toronto, 94, 1851 Exhib. research scholar, 94-97, M.A, 01; Ph.D, Leipzig, 96. Asst. *chem, Toronto, 97-00, lecturer, 00-07, assoc. prof, 07-19, prof, 19-* Chem. Soc; Electrochem. Soc; fel. Royal Soc. Can. Physical chemistry; equilibrium; rate of reaction; surface tension phenomena.
- Kent, Prof. Carleton V(olney)**, 1501 Pennsylvania St, Lawrence, Kans. *Physics*. Marshalltown, Iowa, April, 81. B.S, M.S, Iowa, 04; Ph.D, Michigan, 15. Prof. *physics, Carleton Col, 05-13; instr, Michigan, 14-18, 19-22; asst. prof, Kansas, 22-23, assoc. prof, 23-* Physical Soc. Metallic conduction of electricity; optical constants of metals.
- Kent, Prof. F(rederick) C(harles)**, Oregon Agricultural College, Corvallis, Oregon. *Mathematics*. Monroe, Mich, May 7, 74. B.S, A.B, Michigan, 94. Instr, high schools, Minn, 95-03; head dept. math, Cent. State Nor. Sch, Edmond, Okla, 08-11; asst. prof. *math, Oklahoma, 11-16; assoc. prof, Oregon Col, 16-* Asst. teacher, Realgym, Berlin, Germany, 14-15. Math. Soc; Math. Verein. Elementary transcendental functions; pedagogy of elementary mathematics; mathematical principles of finance; elements of statistics; limitations of the probable error formulae when applied to discreet variables.
- Kent, Dr. Grace Helen**, 6120 Fieldston Road, New York, N. Y. *Psychology*. Michigan City, Ind, June 6, 75. A.B, Iowa, 02, A.M, 04; Ph.D, George Washington, 11. Psychol. research, Phila. Hosp. for Insane, 06-07; Kings Park State Hosp, N. Y, 07-10; Govt. Hosp. for Insane, Washington, D. C, 10-11; State Hosp, Warren, Pa, 11-12; psychologist, State Training Sch, Clinton, S. C, 20-22; Worcester State Hosp, 22-26. A.A; Psychol. Ass. Association in insanity; habit formation in dementia praecox; occupations for the insane; performance tests; tests of special abilities.
- Kent, Prof. Norton A(dams)**, Boston University, Boston, Mass. *Physics*. New York, N. Y, July 28, 73. A.B, Yale, 95; Ph.D, Hopkins, 01. Asst. Yerkes Observatory, 01-03; prof. *physics, Wabash, 03-06; asst. prof, Boston, 06-10, prof, 10-* A.A; Physical Soc; Astron. Soc; Am. Acad. Zeeman effect; electric spark in liquids and in air at high pressure; shift of spark lines due to changed conditions; vacuum tube discharge in magnetic field; magnetic separation of lithium doublets; line structure.
- Kent, Prof. O(lney) B(rown)**, The Quaker Oats Co, Chicago, Ill. *Zoology*. Meriden, Conn, Nov. 16, 90. B.S, Cornell, 13, M.S, 14, Ph.D, 17. Instr. poultry husbandry, Cornell, 13-17, asst. prof, 17-20, prof, 20-22; *poultry service dept, Quaker Oats Co, 22-* Poultry husbandry.
- Kenyon, Otis Allen**, 8 W. 40th St, New York, N. Y, or Steamboat Road, Greenwich, Conn. *Electrical engineering*. Baldwinsville, N. Y, Nov. 19, 79. M.E, Cornell. Ed, McGraw-Hill

- Book Co, 05-11; asst. to Dr. Edward Weston, 11; consulting engineer, 12-15; chief engineer, Arc Welding Machine Co, 15-18; *v. pres*, Ray D. Lillibridge, Inc. Elec. Eng; Automotive Eng. Arc welding; production processes; market distribution.
- Kenyon, Prof. W(alter) A(lexander)**, Hamline University, St. Paul, Minn. *Zoology*. Alfred, N. Y., June 15, 97. A.B., Milton, 19; A.M., Wisconsin, 22, Ph.D., 24. Instr. *biol*, Milton, 20-21; asst. *zool*, Wisconsin, 21-24; asst. *prof. biol*, Hamline, 24-26, assoc. *prof*, 26-27, *prof*, 27-28. Summers, investigator, Bur. Fisheries, 22-24. A.A.; Ecol. Soc; Soc. Mammal; Wis. Acad. Physiology; animal ecology; digestion in poikilothermal vertebrates; electric potentials and cell respiration in growing root tips.
- Kepner, Prof. W(illiam) A(rlison)**, University of Virginia, University, Va. *Zoology*. Mt. Alto, Pa., July 9, 75. A.B., Franklin and Marshall, 98, A.M., 00; Göttingen, 03; fellow, Princeton, 03-04; Ph.D., Virginia, 08. Prof. *invert. zool*, Millersville State Nor. Sch., Pa., 01; teacher, Leyte Island, P. I., 01-03; instr. *biol*, Virginia, 04-08, adjunct *prof*, 08-17, *prof*, 17- A.A.; Soc. Zool. Animal histology; food reactions of amoeba; nematocysts of Microstoma; special sense organs of Rhabdocoeles; structure and reactions of Hydra.
- Kern, Dr. Edward F(rank)**, Columbia University, New York, N. Y. *Chemistry*, *Metallurgy*. Knoxville, Tenn., Dec. 13, 72. B.S., Tennessee, 97; Pennsylvania, 99-00; Ph.D., Columbia, 01. Electrometallurgist, Can. Smelting Works, Trail, B. C., 01-02; research metallurgist and electrometallurgist, Belt's Lab, Troy, N. Y., 02-05; instr. *metal. and electrometal*, Columbia, 05-11, *prof*, 11- A.A.; Min. and Metal. Eng; Chem. Soc; Electrochem. Soc; Ceramic Soc; N. Y. Acad. Uranium; the lead coulombmeter; addition agents in electrolytes; the electrodeposition of nickel and iron; the electrolytic refining of iron, tin and zinc; electrolysis of vanadium and cyanid solutions and fused materials containing zinc; copper precipitation; arsenic and antimony; anode residues; manganiferous slags in electric furnaces; basic refractory materials for high temperature use; ores; metals from speiss; copper nickel matte; metallurgical refractories.
- Kern, Erwin J**, 1271 Maryland Ave, Milwaukee, Wis. *Chemistry*. Milwaukee, Aug. 19, 91. Chief asst. *chemist*, leather laboratories, A. F. Gallun and Sons Co. Chem. Soc. (treasurer, Milwaukee sect, 22, *v. chairman*, 23). Leather chemistry.
- Kern, Dr. Frank D(unn)**, Pennsylvania State College, State College, Pa. **Botany*. Reinbeck, Iowa, June 29, 83. B.S., Iowa, 04; M.S., Purdue, 07; fellow, Columbia, 10-11, Ph.D., 11; Sc.D., Porto Rico, 26. Asst. animal morphol. and physiol., Iowa, 02-04; special agent, bur. plant indust, U. S. Dept. Agr., 04-05; asst. and assoc. botanist, Exp. Sta., Purdue, 05-13, instr. *crypt. bot*, 10-11; *prof. bot. and head dept*, Pa. State, 13-, *dean grad. sch*, 22- Research scholar, N. Y. Bot. Garden, 06-08, 10; collaborator, bur. plant indust, U. S. Dept. Agr., 07-; dean colleges agr. and eng, Porto Rico, 25-26. A.A.; Phytopath. Soc. (*v. pres*, 14, *councilor*, 16); Bot. Soc; Ind. Acad; Pa. Acad; Torrey Bot. Club. Fungous diseases of crop plants; the genus *Gymnosporangium*; plant rusts.
- Kern, Prof. John W(illiams)**, 226 Glenwood Boulevard, Schenectady, N. Y. *Chemistry*. Hamilton, N. Y., June 21, 80. A.B., Colgate, 04; A.M., Syracuse, 10; Ph.D., Illinois, 25. Instr. *science*, Friends' Sch., Del., 04-05; high sch., Ohio, 05-07; Pa. State Nor. Sch., Mansfield, 07-09; with dept. *chem*, Elmira Free Acad., N. Y., 10-18; head dept., Mercer, 18-22; *asst. prof*, Union (N. Y.), 24- Chem. Soc; Chem. Gesell. Separation of platinum and iridium; catalytic reduction of olefins; condensation reactions of saturated cycloaldehydes.
- Kern, Dr. Richard A(rminius)**, University of Pennsylvania, Philadelphia, Pa. *Medicine*. Columbia, Pa., Feb. 20, 91. A.B., Pennsylvania, 10, M.D., 14. Instr. *med*, Pennsylvania, 16-21, *assoc. sch. med. and grad. sch. med*, 21- Asst. physician, Univ. Hosp., 19- Am. Med. Ass; Allergic Soc; Soc. Clin. Invest; Soc. Study Asthma and Allied Diseases; Phila. Col. Physicians; Phila. Path. Soc. Internal medicine; allergy.
- Kerr, Dr. Abram T(ucker)**, Cornell University, Ithaca, N. Y. *Anatomy*. Buffalo, N. Y., Jan. 7, 73. B.S., Cornell, 95; M.D., Buffalo, 97. Asst. *histol. and path*, Buffalo, 94-97, acting *prof. anat*, 97-98, adjunct *prof. and demonstrator*, 98-00; asst. *prof. Cornell*, 00-04, *prof*, 04- Sec'y, med. col., Cornell, 04- A.A.; Ass. Anat; Am. Med. Ass. Specific gravity of blood and hemoglobin; preservation of anatomical material by cold storage; ureter in man; brachial plexus in man; variations in stomach, spleen and liver.
- Kerr, Prof. Andrew A**, University of Utah, Salt Lake City, Utah. *Anthropology*. Ogden, Utah, Sept. 29, 77. A.B., Utah, 07; A.M., Harvard, 17, Hemenway fellow, 19-20, Ph.D., 21. Asst. *anthrop*, Harvard, 20-21; asst. *prof. west. hist. and archeol*, Utah, 21-26, *head dept. anthrop*, 26- In charge *archeol. expeditions*, Univ. Utah, 17-26. Am. Acad; Anthropol. Soc; Royal Anthropol. Inst. Gt. Britain and Ireland. Archeology of southern Utah.
- Kerr, C(harles) H(enry)**, Jenkintown, Pa. *Chemistry*. Cleveland, Ohio, Sept. 23, 84. E.M., Ohio State, 09. Chemist, Riverton Lime Co, 05; Abrasive Materials Co, 06; Carborundum Co, 07-08; Am. Optical Co, 09-11; director research lab, Pittsburgh Plate Glass Co, 11-17; research manager, Am. Optical Co, 17-20; *v. pres*, De Zeng Standard Co, Camden, N. J., 20-26; *works manager*, Brown Instrument Co, 26- A.A.; Chem. Soc; Optical Soc; Soc. Glass Technol; Ceramic Soc; Soc. Chem. Indust. Glass; refractories; optics; instruments.
- Kerr, Dr. Paul F(rancis)**, Columbia University, New York, N. Y. *Mineralogy*. Hemet, Calif., Jan. 12, 95. B.S., Occidental, 19; Ph.D., Stanford, 23. Acting instr. *miner*, Stanford, 23-24; instr. *Columbia*, 24-26, *asst. prof*, 26- Fel. Miner. Soc. Identification of minerals by means of X-ray diffraction patterns; active thrust-faults in San Benito County, California.

- Kessel, Dr. John F(lenniken)**, Peking Union Medical College, Peking, China. *Medical zoology*. Medicine Lodge, Kans, Feb. 28, 94. A.B, Greenville, 19; A.M, California, 21, fellow, 23, Ph.D, 23. Asst. zool. California, 22-23; instr. biol, *Peking Union Med. Col.*, 23-25, *assoc. parasitol.*, 25- A.A.; Soc. Parasitol; Soc. Exp. Biol; Soc. Trop. Med; Far East Ass. Trop. Med; Peking Soc. Nat. Hist; Royal Soc. Trop. Med. and Hygiene. Intestinal Protozoa of man and of domestic animals.
- Kester, Prof. F(rederick) E(dward)**, University of Kansas, Lawrence, Kans. **Physics*. Eaton, Ohio, Feb. 22, 73. M.E, Ohio State, 95, fellow, 95-96; A.M, Cornell, 99, Ph.D, 05; Göttingen, 03-04. Asst. *physics*, Ohio State, 96-98, instr, 99-01, asst. prof, 01-07, *assoc. prof.*, 07-09; *prof. and head dept.*, Kansas, 09- A.A.; Physiol. Soc. Phosphorescence; grouping of asteroids; Joule-Thomson effect in gases.
- Ketchum, Dean Milo S(mith)**, University of Illinois, Urbana, Ill. *Civil engineering*. Kewanee, Ill, Jan. 26, 72. B.S, Illinois, 95, C.E, 00; Sc.D, Colo. Sch. Mines, 26. Instr. civil eng, Illinois, 95-97; practising engineer, 97-99; asst. prof. civil eng, Illinois, 99-03; practising engineer, 03-04; prof. civil eng, Colorado, 04-19, dean col. eng, 05-19; prof. civil eng. and in charge dept, Pennsylvania, 19-22; *dean col. eng. and director*, Eng. Exp. Sta, Illinois, 22- On leave of absence in eng. practice, 09-10; asst. director, U. S. Govt. explosive plants, 18-19. A.A; Civil Eng. (director, 18-21, v. pres, 25-27); Eng. Educ. (sec'y, 04-06, pres, 18); Soc. Test. Mat; Ry. Eng. Properties of engineering materials; walls, bins and grain elevators; steel mill buildings; highway bridges; pressure of grain in bins; tests of reinforced concrete, timber and structural steel.
- Kettering, Charles Franklin**, Ridgeleigh Terrace, Dayton, Ohio. *Electrical engineering*. Ashland Co, Ohio, Aug. 29, 76. A.B, Ohio State, 04. *Pres.*, Dayton Eng. Laboratories Co; *Day-Fan Elec. Co.*; *C. F. Kettering Co.*; *Flexible Co.*; v. pres, Moraine Development Co; *Domestic Building Co.*; v. pres, Delco Light Co; v. pres. and director, Gen. Motors Corp, pres, Gen. Motors Research Corp. Director, Moraine Park Sch. Automotive Eng. (pres, 17); Mech. Eng; Elec. Eng. Electrical and mechanical phases of the automotive industry.
- Keuffel, Carl W**, 300 Adams St, Hoboken, N. J. *Optics*. Hoboken, Feb. 27, 91. M.E, Stevens, 11. *Optical engineer*, Keuffel and Esser Co, Hoboken. Optical Soc; Mech. Eng; Illum. Eng. Soc. Optical engineering; manufacture of optical glass; spectrophotometry.
- Kew, Dr. W(illiam) S(tephen) W(ebster)**, Standard Oil Building, Los Angeles, Calif. *Geology*. San Diego, Calif, June 15, 90. B.S, California, 12, M.S, 14, Ph.D, 17. Asst. geologist, U. S. Geol. Surv, 17, *assoc. geologist*, 18-20, *geologist*, 20-24; Gulf Oil Corp, 24-25; *Standard Oil Co. of Calif.*, 25- A.A.; Geol. Soc; Ass. Petrol. Geol; Seismol. Soc; Paleont. Soc; Wash. Geol. Soc; Calif. Acad. Paleontology; petroleum geology.
- Key, Mrs. Francis B. (Dr. Wilhelmine E(nte-man))**, Somers, Conn. *Eugenics*. Hartland, Wis, Feb. 22, 72. A.B, Wisconsin, 94; fellow, Chicago, 99-01, Ph.D, 01. Asst. high sch, Wis, 94-98; zool, Chicago, 99-02; head dept. biol. and nature study, N. Mex. Nor. Univ, 03-04; presiding teacher, Belmont Col, 07-09; prof. biol, Lombard, 09-12; eugenical field worker, eugenics record office, Carnegie Inst, 12-14; investigator, Pub. Charities Ass. of Pa, 14; educ. director, Pa. State Training Sch, Polk, 14-17; archivist, eugenics record office, Carnegie Inst, 17-20; in charge biol. and eugenics, race betterment foundation, 20-25. A.A; Eugenics Research Ass. Variation in Daphnia and Polistes; feeble-minded citizens; human heredity.
- Key, Dr. J(ohn) A(lbert)**, Shriners' Hospital, St. Louis, Mo. *Surgery*. Jackson, Miss, April 21, 90. B.S, Ala. Polytech, 13; M.D, Hopkins, 18. Instr. anat, Creighton, 15-16; res. house officer, Children's Hosp, Boston, 19-20; Mass. Gen. Hosp, 20-22; instr. applied physiol, Harvard, 21-22; *orthop. surg.*, Maryland, 22-24; *director research*, Shriners' Hosp, 24-; *assoc.*, Washington (St. Louis), 26- Summers, asst, Chicago, 15-17. Lieut, M.C, 17-19. A.A; Am. Med. Ass; Ass. Anat; Soc. Exp. Biol. Anatomy and physiology of the bones and joints; chronic arthritis; orthopedic surgery; secretion antecedents in pancreas and thyroid; blood cells.
- Keyes, Prof. Charles R(ollin)**, 944 Fifth Ave, Des Moines, Iowa. **Geology*. Des Moines, Dec. 24, 64. B.S, Iowa, 87, A.M, 90; fellow, Hopkins, 90-92, Ph.D, 92. Museum asst, Iowa, 85-87; paleontologist and artist, Wachsmuth and Springer, 87-89; asst, U. S. Geol. Surv, 90-92; paleontologist, Bur. Geol. and Mines, Mo, 90-92; asst. state geologist, Iowa, 92-94; director, Bur. Geol. and Mines, Mo, 94-97; pres, N. Mex. Sch. Mines, 02-06; *consulting mining engineer*, 88- Exec, corporations, 06- Ed, 'Pan-Am. Geologist,' 22- Lecturer, N. Mex. Sch. Mines, 07. A.A; Geol. Soc; fel. Am. Geog. Soc; Min. Eng; Min. and Metal. Soc; Iowa Acad; St. Louis Acad. Genesis of ore deposits; geology of Mississippi valley and New Mexico; paleontology of Missouri; Maryland granites; American Carboniferous; geologic correlation; changes in geologic climate; desert geology; eolic erosion; geotectonics; dynamical geology.
- Keyes, Dr. D(onald) B(abcock)**, University of Illinois, Urbana, Ill. **Chemistry*. Westerly, R. I, Feb. 8, 91. B.S, New Hampshire, 13; A.M, Columbia, 14; Ph.D, California, 17. Asst. chem, Columbia, 14; teaching fellow, California, 14-17; chem. engineer, Bechman and Linden, 17-18; U. S. Indust. Alcohol Co, 18-24, director research, 24-26; *prof. indust. chem. and head div.*, Illinois, 26- A.A; Chem. Soc; Soc. Test. Mat; London Soc. Chem. Indust; Soc. de Chim. indust. Applied physical chemistry.
- Keyes, Dr. Edward L(oughborough)**, Jr, 121 E. 60th St, New York, N. Y. *Medicine*. Elizabeth, N. J, May 15, 73. A.B, Georgetown, 92, Ph.D, 01; M.D, Columbia, 95. *Prof. urol.*, Univ. and Bellevue Hosp. Med. Col, 10-11; *med. col.*, Cornell, 11- Urologist, St. Vincent's

- Hosp; consulting urologist, Bellevue Hosp. A.A.; Urol. Ass. (pres, 16); Soc. Clin. Urol. (pres, 23); Ass. Genito-Urinary Surg. (pres, 12); Social Hygiene Ass. (pres, 24); Int. Urol. Soc. (v. pres, 20). Urology.
- Keyes, Dr. Frederick G(eorge)**, Massachusetts Institute of Technology, Cambridge, Mass. **Chemistry, Physics*. Kingston, Ont, Can, June 24, 85. B.S., R. I. Col, 06; M.S., Brown, 07, Ph.D., 09. Asst. chem, Brown, 06-07, instr, 08-09, G.A.R. research fellow, 09; research assoc. physical chem, Mass. Inst. Tech, 10-13; chief engineer, Cooper Hewitt Elec. Co, 13-16; assoc. prof. physical chem. research, *Mass. Inst. Tech*, 16-19, *director lab*, 20-, *in charge dept. chem*, 23- Consulting prof, Brown, 26- Director, C.W.S. research and control lab, Puteaux, U.S.A. Physical Soc; Am. Acad. Gas metabolism of bacteria; equilibria measurements; development of kinetic theory; gas and liquid phase isometrics; thermodynamic properties of ammonia; establishment of the absolute temperature scale; low temperature and kinetic theory development.
- Keys, Prof. David A(rnold)**, McGill University, Montreal, Que, Can. *Physics*. Toronto, Ont, Nov. 4, 90. Upper Can. Col; Munich, 10-11; B.A. Toronto, 15, fellow, 15-16, M.A., 16; Whiting fellow, Harvard, 16-17, A.M., 18, Ph.D., 20, Sheldon traveling fellow, 20-21; B.A., Ph.D., Cambridge, 22. Austin teaching fellow, Harvard, 19-20, asst. demonstrator, Cavendish Lab, 21-22; asst. prof. *physics*, *McGill*, 22-26, *assoc. prof*, 26- Physicist, antisubmarine div, Board Invention and Research Admiralty, 18-19. Fel. Physical Soc; fel. Royal Soc. Can. Cathode ray oscillograph and piezoelectricity; discharge of electricity through gases; mobility of ions; spectroscopy.
- Keyser, Prof. C(assius) J(ackson)**, Columbia University, New York, N. Y. **Mathematics*. Rawson, Ohio, May 15, 62. Ohio Nor. Univ, 79-83; B.S., Missouri, 92, LL.D., 14; Michigan, 94; A.M., Columbia, 96, fellow, 96-97, Ph.D., 02. Supt, schools, 85-89; prof. *math*, N. Y. State Nor. Sch, New Paltz, 92-94; instr, Smith Acad, Washington (St. Louis), 94-95; instr, Barnard, and tutor, *Columbia*, 97-00, instr, 00-02, adjunct prof, 02-04, *Adrain prof*, 04-, head dept. math, 10-16. Instr, Mo. State Summer Sch, Kirksville, 92-93; summers, prof, California, 11, 15, exchange prof, 16. Ed. pure math, 'Ency. Americana,' 04- A.A. (v. pres, 08); Math. Soc; Ass. Teachers Math. Middle States and Md; Mo. Valley Teachers' Ass. (pres, 89). Geometry; foundations of mathematics and logic; philosophy of mathematics; infinite groups of relations.
- Kezer, Prof. Alvin**, Colorado Agricultural College, Ft. Collins, Colo. *Agriculture*. Bower, Nebr, Nov. 7, 77. B.S., Nebraska, 04, A.M., 06. Asst, bur. plant indust, U. S. Dept. Agr, 04-06; *prof. soils*, Nebraska, 06-09; *agron*, *Colo. Agr. Col*, 09- A.A.; Soc. Agr. Eng; Soc. Agron; Chem. Soc. Agronomy; yellow berry in hard winter wheat; copper sulphate for pond scums; inoculation of Nebraska soils with alfalfa bacteria; Colorado soils and crops.
- Kharasch, Prof. M(orris) S(elig)**, University of Maryland, College Park, Md. *Organic chemistry*. Aug. 24, 95. B.S., Chicago, 17, Ph.D., 19. Lecture assoc, Chicago, 16-17, chemist, Sprague Mem. Inst, 18-19, Nat. Research Council fellow *org. chem*, 19-22; *prof*, *Maryland*, 22- Subcommittee, metallo organic compounds, Nat. Research Council. Consultant, C.W.S. Lecturer, Bur. Standards, 24. Chem. Soc. Organo-metallic derivatives; the relation between the electronic structure and the physical properties of organic compounds; the theory of partial polarity in the interpretation of organic reactions.
- Kibbe, Prof. Alice L(ovina)**, Carthage College, Carthage, Ill. *Biology*. Bridgewater, S. Dak, June 27, 81. A.B., Washington (Seattle), 10, A.M., 14; M.S., Cornell, 20, Ph.D., 26. Teacher, prin. and supt, schools; *prof. biol. and head dept*, *Carthage Col*, 20- A.A.; Bot. Soc; Ill. Acad. Taxonomy; morphology; zoology; *Alaria fistulosa*; *Chytridium alaria*.
- Kibler, Dr. A(iton) L(ewin)**, Edgewood Arsenal, Edgewood, Md. *Chemistry*. Talbott Co, Md, Dec. 6, 80. A.B., Randolph-Macon, 04; M.S., George Washington, 09, Ph.D., 12; Berlin; Karlsruhe Tech, 09-10. Research chemist, E. I. du Pont de Nemours and Co, 12-15; chief chemist, Picatinny Arsenal, 15-20; supt, platinum recovery, Old Hickory Powder Plant, Tenn, 20-21; *chief physical dept. chem. div*, *Edgewood Arsenal*, *C.W.S.*, 21- Major, ordnance dept, 18-19. Chem. Soc. (pres, 09). Explosives; recovery of platinum from used contact mass; aerosols; physical chemical aspects of toxicity.
- Kidder, Prof. A(lbert) F(ranklin)**, Cañete, Peru, S. Amer. *Agronomy*. Good Hope, Ill, April 2, 81. B.S., Illinois, 06. Asst, farm crops lab, Illinois, 04-06, soil physics, 06-07; asst. prof. agron, Louisiana, 07-10, prof, 10-19, agronomist and asst. director, Exp. Sta, 19-26; cotton breeder, *Cañete, Peru*, 26-27; *director cotton exp. sta. and cotton breeder*, *Soc. Nacional Agraria*, 27- Summers, asst, Ill. Soil Surv, 03, 04, 06. A.A.; Soc. Agron. Plant breeding.
- Kidder, Dr. A(lfred) V(incen)**, Phillips Academy, Andover, Mass. **Archeology*. Marquette, Mich, Oct. 29, 85. A.B., Harvard, 08, A.M., 11, Ph.D., 13. Austin teaching fellow anthrop, Harvard, 09-13; *director*, *Andover exped. Pecos*, 15-17, 19- Capt, Inf, 18-19. Chevalier, Légion d'honneur. Anthrop. Ass. American archeology.
- Kiehl, Prof. S(amuel) J**, Columbia University, New York, N. Y. *Chemistry*. Herminie, Pa, May 16, 83. A.B., Otterbein, 10; Ph.D., Columbia, 21. Teacher math, Otterbein, 09-13; high sch, Ohio, 13-17; instr. *chem*, *Columbia*, 17-21, asst. prof, 21-27, *assoc. prof*, 27- Chem. Soc. Phase rule; phosphates and their transformations from the standpoint of equilibrium.
- Kienholz, Dr. A(aron) Raymond**, University of Illinois, Urbana, Ill. *Botany*. Bellingham, Minn, Oct. 18, 94. B.S., Northwestern Col, 17; M.S., Illinois, 20, Ph.D., 22. Prof. *bot*, Philippines, 22-24; *instr*, *Illinois*, 24- Summers, field asst, bur. plant indust, U. S. Dept. Agr,

- 17, 19, U. S. Forest Service, 20, 25, 26. A.A.; Bot. Soc.; Phytopath. Soc.; Ecol. Soc.; Ill. Acad. Temperature relations of seeds; growth and response of plants; forestry in relation to plant physiology; anatomy and physiology of lianas; beach vegetation and marine phanerogams of tropical countries.
- Kiess, Dr. C(arl) C(larence)**, 2928 Brandywine St, N. W., Washington, D. C. *Spectroscopy*. Fort Wayne, Ind., Oct. 18, 87. A.B., Indiana, 10; fellow, Lick Observatory, 10-13, Ph.D., California, 13. Instr. astron., Missouri, 13-15; asst. prof., Pomona, 15-16; instr., Michigan, 16-17; asst. physicist, *Bur. Standards*, 17-19, *assoc. physicist*, 19-24, *physicist*, 24- Donohoe medal, Pacific Astron. Soc., 11. A.A.; Astron. Soc.; Optical Soc.; Physik. Gesell. Astrophysics; variable stars; red and infra-red spectra of the chemical elements; standard wave lengths; series in complex spectra.
- Kiesselbach, Prof. T(heodore) (Alexander)**, Agricultural Experiment Station, Lincoln, Nebr. *Agronomy*. A.B., Nebraska, 07, B.S., 08, A.M., 12, Ph.D., 19. Instr. *agron.*, *Nebraska*, 09, exp. asst., 10-11, *prof.*, 12- A.A.; Soc. Agron.; Bot. Soc.; Nebr. Acad. Crop production and improvement; technique of field experimentation; principles of plant growth; crop ecology; genetics.
- Kilby, Dr. C(linton) M(aury)**, Randolph-Macon Woman's College, Lynchburg, Va. *Physics*. Suffolk, Va., Nov. 1, 74. A.B., A.M., Randolph-Macon, 96; Chicago, 03; Columbia, 04; Ph.D., Hopkins, 09. Instr. math., Randolph-Macon, 94-96; prin. pub. sch., 96-98; master physics and math, Woodberry Forest Sch., Va., 98-05; lecture asst. physics, Hopkins, 08-09; instr., Lehigh, 09-10; *prof. physics and astron.*, *Randolph-Macon Woman's Col.*, 10- A.A.; Physical Soc.; Optical Soc. Spectroscopy; redetermination of wave-lengths of arc and spark lines of titanium, manganese and vanadium; effect of self-induction and capacity on wave-lengths.
- Kildee, Prof. H(enry) H(erbert)**, Iowa State College, Ames, Iowa. *Animal husbandry*. Osage, Iowa, March 1, 85. B.S.A., Iowa Col., 08, fellow, 08-09, M.S.A., 17. Instr. animal husbandry, Iowa Col., 09, experimentalist, 09-10, *assoc. prof.* in charge dairy production, 10-15, *prof.* animal husbandry and chief dairy husbandry, 15-16; chief div. dairy husbandry, Minnesota, 16-18; *head dept. animal husbandry*, *Iowa Col.*, and *chief sect.*, *Exp. Sta.*, 18-; *v. dean div. agr.*, 23- Ed. staff, 'Dairy Science.' Judge, Int. Live Stock Expositions; Nat. Dairy Shows; Dairy Cattle Congresses. A.A.; Soc. Animal Production; Dairy Sci. Ass.; Nat. Dairy Ass. (director). Animal feeding; dairy production.
- Kilgore, Prof. B(enjamin) W(esley)**, Raleigh, N. C. *Chemistry*. Lafayette Co., Miss., March 27, 67. B.S., Miss. Agr. and Mech. Col., 88, M.S., 91; Hopkins, 96. Asst. chem., Miss. Agr. and Mech. Col., 88-89; asst. chemist, N. C. Exp. Sta., 89-97; *prof. chem.*, Miss. Agr. and Mech. Col., 97-99; state chemist, N. C., 99-19; director, Exp. Sta., 01-25, exten. service, 14-25; dean agr., N. C. State, 23-25; *pres.*, N. C. Cotton Growers Cooperative Ass., 23-; Am. Cotton Growers Exchange, 24-26. N. C. State Board Vocational Educ. A.A.; Chem. Soc. (chairman, N. C. sect., 01); Agr. Chem. (pres., 00). Methods of analysis and value of fertilizers, soils and feeds.
- Killeffer, D(avid) H(erbert)**, 419 Fourth Ave., New York, N. Y. *Chemistry*. Columbia, Tenn., Dec. 22, 95. B.S., North Carolina, 15. Chemist, Brown Laboratories, Tenn., 15-16; N. C. and St. Louis Ry., 16-18; Calco Chem. Co., N. J., 18-19; ed., 'Drug and Chem. Markets,' 20-22; *assoc. ed.*, 'Indust. and Eng. Chem.,' 22- Chairman steering committee, Nat. Conf. Oil and Gas Power, 26. Capt., C.W.S.R. Chem. Soc. (sec'y, N. Y. sect., 24-); N. Y. Chemists Club.
- Killian, Prof. J(ohn) A(llen)**, 303 E. 20th St., New York, N. Y. *Biochemistry*. Philadelphia, Pa., Jan. 4, 91. A.B., St. Joseph's (Phila.), 13; A.M., Fordham, 15, Ph.D., 21. Instr. anal. chem., Fordham, 13-15, *physiol. chem.*, 15-16; *biochem.*, N. Y. *Post-Grad. Med. Sch.*, 16-18, *assoc.*, 18-21, *asst. prof.*, 21-23, *assoc. prof.*, 23-26, *prof.*, 26- Soc. Biol. Chem.; Soc. Exp. Biol.; Harvey Soc.; Soc. chim. de France. Blood and urine in diabetes, nephritis, toxemias of pregnancy, pneumonia and diseases of the liver; humors of the eye; spinal fluid in meningitis and epilepsy; polychrome methylene blue stains.
- Killip, Ellsworth P(aine)**, 1650 Fuller St., Washington, D. C. *Botany*. Sept. 2, 90. A.B., Rochester, 11. *Assoc. curator*, Rochester Acad. Science, 14-17; *aid. div. plants*, U. S. Nat. Museum, 19- A.A.; Bot. Soc.; Wash. Acad. (ed., 'Jour,' 23-25); Rochester Acad. Taxonomy of South American plants.
- Kilmer, Fred(erick) B(arnett)**, 147 College Ave., New Brunswick, N. J. *Pharmaceutical chemistry*. Chapinville, Conn., Dec. 11, 51. N. Y. Col. Pharmacy, 75; Columbia, 77; Rutgers, 85; Yale, 92; Phar.M., Phila. Col. Pharmacy, 20. *Director laboratories*, *Johnson and Johnson*, 89- Pharmaceut. Ass.; Chem. Soc.; Pub. Health Ass.; N. J. Pharmaceut. Ass. (pres); N. J. Micros. Soc. (pres); N. J. Chemists Club; Soc. Quimica Agric., Buenos Aires; Ass. Econ. Biol. England; London Soc. Chem. Indust.; Royal Soc. Arts; Inst. Arzenmittelhehre, Braunschweig. Pharmaceutical chemistry; hygiene; belladonna; kola; ginger; carica papaya; intestinal tissue; alkaloids.
- Kilpatrick, Dr. Martin, Jr.**, University of Copenhagen, Copenhagen, Denmark. *Chemistry*. New York, N. Y., April 3, 95. A.B., Col. City of N. Y., 15, fellow, 15-18; A.M., Columbia, 17; Ph.D., N. Y. Univ., 23. Asst. chem., N. Y. Univ., 17-19; asst. prof., Vassar, 19-23; *prof.*, Duke, 23-25; *Nat. Research Council fellow*, Hopkins, 25-27; *Copenhagen*, 27- Chem. Soc. Inorganic and physical chemistry.
- Kilpatrick, Dr. M(ary) L(ydston)**, 3010 N. Calvert St., Baltimore, Md. *Chemistry*. Weston, Mass., Dec. 15, 98. A.B., Radcliffe, 20; A.M., Vassar, 22; Ph.D., Hopkins, 26. Asst. chem., Vassar, 20-23; chemist, Liggett and Myers Tobacco Co., 23-24. Photochemistry; physical and inorganic chemistry.

- Kimball, Arthur L.** 1546 Wendell Ave, Schenectady, N. Y. *Physics*. Baltimore, Md, Feb. 22, 86. Amherst, 08; M.E.E, Harvard, 14. Asst. geol. Amherst, 08-10; asst. elec. engineer, Interborough Rapid Transit Co, N. Y., 14-16; instr. math, Amherst, 17-18; *research physicist, Gen. Elec. Co.*, 18- Physical Soc; Elec. Eng; Mech. Eng. Internal friction in solids; vibration phenomena of revolving shafts; stress analysis by means of polarized light.
- Kimball, Prof. Dexter S(impson)**, Cornell University, Ithaca, N. Y. *Mechanical engineering*. St. John, N. B., Can., Oct. 21, 65. A.B., Stanford, 96, M.E., 13; LL.D., Rochester, 26. Apprentice, Pope and Talbot, Wash., 81-87; machine shop, Union Iron Works, Calif., 87-93, drafting room, dept. eng., 96-98; designing engineer, Anaconda Mining Co, Mont., 98; asst. prof. machine design, Cornell, 98-01; works manager, Stanley Elec. Mfg. Co, Mass., 01-04; *prof. mech. arts, Cornell*, 04-05, machine design and construction, 05-15, *indust. eng.*, 15-, acting pres., 18, *dean col. eng.*, 20- Council indust. educ., N. Y. State Dept. Educ., 11; pres., Am. Eng. Council, 26; faculty rep., Board Trustees, Cornell, 15-20; board visitors, Naval Acad., 22. Fuel administrator, Tompkins Co, N. Y., 17-19. Mech. Eng. (pres., 22); Eng. Educ. (v. pres., 23). Elements of machine design; industrial education and organization; elements of cost finding.
- Kimball, Dr. H(erbert) H(arvey)**, U. S. Weather Bureau, Washington, D. C. *Meteorology*. Hopkinton, N. H., Feb. 13, 62. B.S., New Hampshire, 84, LL.D., 21; M.S., George Washington, 00, Ph.D., 10. Asst. ed., 'Monthly Weather Rev.', 01-03; librarian, *U. S. Weather Bur.*, 04-08, prof. meteor. and in charge solar radiation investigations, 08-20, *meteorologist*, 20- Chairman commission solar radiation, Int. Union Geod. and Geophys., 24-; committee solar radiation, Int. Meteor. Committee. Geophys. Union. A.A.; fel. Meteor. Soc; Wash. Acad; Wash. Philos. Soc. Atmospheric circulation; evaporation from water surfaces; meteorology of smoke; radiation from sun and sky; skylight polarization; nocturnal radiation; brightness of the sky; daylight illumination.
- Kimball, Dr. James H(enry)**, U. S. Weather Bureau, 17 Battery Place, New York, N. Y. *Meteorology*. Detroit, Mich., Feb. 12, 74. B.S., Mich. State Col., 12; A.M., Richmond, 14; Ph.D., N. Y. Univ., 26. *U. S. Weather Bur.*, 95-, *assoc. meteorologist*. Faculty lecturer, N. Y. Univ. A.A.; fel. Meteor. Soc. Atmospheric visibility; marine meteorology.
- Kimball, Dr. J(ohn) Willard**, 761 Mt. Prospect Ave, Newark, N. J. *Chemistry*. Manhattan, Kans., July 30, 89. B.S., Colby, 12; Ph.D., Hopkins, 16. Instr. chem., Colby, 12-13; asst. prof., Maine, 16-17; instr., Western Reserve, 17-18; *chemist*, E. I. du Pont de Nemours and Co, 19-21; Nat. Aniline and Chem. Co, 21-24; *Valentine and Co*, 24- Lieut., C.W.S., 18-19. Chem. Soc. Limits of esterification.
- Kimball, William S(cribner)**, Michigan State College, East Lansing, Mich. *Mathematics, Physics*. Plainfield, N. J., Aug. 28, 87. A.B., Amherst, 08; LL.B., N. Y. Law Sch., 11; A.M., Chicago, 18, Ph.D., 22. Instr. physics, Michigan, 22-25; *asst. prof. math, Mich. State Col.*, 25- Physical Soc. Theory of relativity; theory of electron currents; kinetic theory of gases.
- Kincaid, Prof. Trevor**, University of Washington, Seattle, Wash. *Entomology*. Peterboro, Ont., Can., Dec. 21, 72. B.S., Washington (Seattle), 99, A.M., 01. *Prof. zool., Washington (Seattle)*, 01- Special agent, U. S. Dept. Agr., 08; director, Puget Sound Biol. Sta., 10-15. Asst. Am. Fur Seal Commission, Alaska, 97; entomologist, Harriman Alaska exped., 99. A.A.; Entom. Soc; Ass. Econ. Entom.; Soc. Zool; Ecol. Soc; Pacific Entom. Soc. Fishes; taxonomy and morphology of insects; insects of Alaska; Psychodidae; Crabronidae; Tenthredinidae; life histories of Coleoptera; life histories and habits of insects; marine life of Puget Sound; oyster culture.
- Kincer, J(oseph) B(urton)**, 4112 Fessenden St., N. W., Washington, D. C. *Meteorology, Climatology*. Wytheville, Va., Nov. 15, 74. Private schools. Farmer; teacher; meteorologist, *U. S. Weather Bur.*, chief div. agr. meteor., 25-Fel. Meteor. Soc; Ass. Geog.
- Kindle, Dr. Edward M(artin)**, Geological Survey of Canada, Ottawa, Ont., Can. **Paleontology*. Franklin, Ind., March 10, 69. A.B., Indiana, 93; M.S., Cornell, 96; Ph.D., Yale, 99. Instr. geol., Indiana, 94-95; asst. state geologist, Ind., 98-01; paleontologist, U. S. Geol. Surv., 01-12; *chief div. paleont., Can. Geol. Surv.* Volunteer asst., Ark. Geol. Surv., 89; paleontologist, Cornell exped., Greenland, 96. Prize essay, Royal Soc. Can., 25. A.A.; Geol. Soc; Paleont. Soc. Devonian fossils and stratigraphy of Indiana; Niagara faunas of Indiana; Ouray limestone fauna of Colorado and New Mexico; Jefferson limestone fauna and stratigraphy of the northern Rocky Mountains; Onondaga fauna of the Allegheny Mountain region; Devonian faunas of the Mackenzie basin and northern Rocky Mountains; recent and fossil ripple-mark; bottom deposits of Lake Ontario; Lake Melville district, Labrador.
- Kindred, Dr. James E(rnest)**, University of Virginia, Charlottesville, Va. *Zoology*. Boston, Mass., Oct. 20, 93. A.B., Tufts, 14; A.M., Illinois, 15, fellow, 17-18, Ph.D., 18. Asst. zool., Illinois, 15-17; instr. biol., dental sch., and demonstrator histol. and embryol. med. sch., Western Reserve, 18-20, asst. prof. biol., 20-23; *histol. and embryol., dept. med., Virginia*, 23-25, *assoc. prof.*, 25- Marine Biol. Lab. Corp. A.A.; Soc. Zool; Ass. Anat; Va. Acad; fel. Ohio Acad. (v. pres., zool. sect., 21). Invertebrate hematology; the crania of the Teleostei; embryology.
- Kinealy, J(ohn) H(enry)**, 503 Granite Building, St. Louis, Mo. *Mechanical engineering*. Hannibal, Mo., March 18, 64. D.E., Washington (St. Louis), 84. Eng. work, 84-86; instr. mech. eng., Washington (St. Louis), 86-87; *assoc. prof., Agr. and Mech. Col. Texas*, 87-89; prof., N. C. State, 89-92; Washington (St. Louis), 92-02; *mech. engineer and patent expert*, 02-A.A. (sec'y, D, 95); Mech. Eng; Heat. and

Vent. Eng. (past pres); Franklin Inst; St. Louis Eng. Club (past pres); Royal Soc. Arts. Heating and ventilating; the transmission of heat; steam-engines and boilers; centrifugal fans; purification of air for ventilation of buildings; patent causes.

King, A(den) J(ackson), University of Illinois, Urbana, Ill. *Chemistry*. Lafayette, N. Y., Nov. 25, 97. B.S., Syracuse, 21, M.S., 22, Ph.D., 27. Teaching fellow physical chem, Syracuse, 21-22, *instr. gen. chem.*, 22-27; *Illinois*, 27- Chem. Soc. (sec'y, Syracuse sect, 25). Ammonia-hydrogen-selenide and sulphide; the binary alloys of barium.

King, Dr. Arthur S(cott), Mount Wilson Observatory, Pasadena, Calif. **Experimental physics*. Jerseyville, Ill., Jan. 18, 76. B.S., California, 99, M.S., 01, Ph.D., 03, Whiting fellow (Bonn), 03-04; Berlin, 04-05. Asst. physics, California, 01-03; Carnegie research asst., 04-05; instr. physics, California, 05-08; *supt, physical lab, Mt. Wilson Observatory*, 08- Lecturer, California, 18. A.A.; Physical Soc; Optical Soc; Astron. Soc. Effect of changes of physical conditions on arc and spark spectra; electric furnace spectra and Zeeman effect in relation to astrophysical phenomena; classification of spectrum lines in various light sources.

King, Dr. C(ecil) V(ictor), Columbia University, New York, N. Y. *Chemistry*. Union City, Ind., Dec. 22, 99. A.B., Indiana, 19; A.M., Columbia, 22, Ph.D., 24. Asst. sta. for exp. evolution, Carnegie Institution, 19-20; *chem, Columbia*, 20-24, *instr.*, 25- Am-Scandinavian Foundation fellow, 24-25. Solutions.

King, Prof. C(harles) G(len), 3405 Iowa St, Pittsburgh, Pa. *Chemistry*. Entiat, Wash., Oct. 22, 96. B.S., Wash. Col., 18; M.S., Pittsburgh, 20, Ph.D., 23. Asst. Exp. Sta., Wash. Col., 18, by-products specialist, 19; *instr. chem, Pittsburgh*, 19-25, *asst. prof.*, 25- Consulting chemist, Nat. Certification Laboratories. Chem. Soc. Organic and bio chemistry.

King, Dr. Cyrus A(mbrose), 387 E. Fifth St, Brooklyn, N. Y. *Botany*. Plum Tree, Ind., June 19, 67. A.B., Indiana, 93; A.B., Harvard, 97, A.M., 98, Ph.D., 02. Teacher, high sch., Iowa, 93-96; asst. bot., Harvard, 96-00, Radcliffe, 99-00; instr., Indiana, 00-02; teacher biol., DeWitt Clinton High Sch., New York, 02-07; *first asst. and head dept. biol, Erasmus Hall High Sch.*, 07- Summers, asst., Harvard, 97-01, *instr. in charge bot. biol. sta.*, Indiana, 02. A.A.; Bot. Soc. Cytology of *Araiospora pulchra* Thaxter; explosive antherozoids in *Conocephalus*; cytology of *Sapromyces* and *Rhipidium*.

King, Prof. Edward S(kinner), Harvard College Observatory, Cambridge, Mass. **Astronomy*. Liverpool, N. Y., May 31, 61. A.B., Hamilton, 87, A.M., 90. Asst. *Harvard Col. Observatory*, 87-90, 93-13, asst. prof. *astron.*, 13-26, *Phillips prof.*, 26- Observer in charge, Harvard Astron. Sta., Mt. Wilson, Calif., 89. A.A.; Astron. Soc; Am. Acad; hon. mem. Nantucket Maria Mitchell Ass; Soc. astron. de France. Forms of images in stellar photography; transformation of prismatic to normal spectra; photographic photometry on a

uniform scale determined principally from out-of-focus images; photometry of stars and other sources of light, made both photographically and photovisually, including color indices; measures of earthlight.

King, Prof. Everett Edgar, University of Illinois, Urbana, Ill. *Civil engineering*. Warren, Ind., 77. B.S., Rose, 01, M.S., 08, C.E., 09; A.B., Indiana, 10; fellow, Cornell, 10-11, M.C.E., 11. Ry. engineer, 01-07; prof. civil eng., Okla. Agr. and Mech. Col., 07-10; *prof. ry. eng.*, Iowa Col., 11-18; *ry. civil eng, Illinois*, 18- Civil Eng; Ry. Eng; Eng. Educ. Preservation of timber by antiseptic treatment; railway signalling.

King, Mrs. Harold S. (Susan Raymond), Dalhousie University, Halifax, N. S., Can. *Astronomy*. Darien, Conn., June 27, 92. A.B., Smith, 13, A.M., 19. Demonstrator astron., Smith, 13-15; fellow, Nantucket Maria Mitchell Ass, 15-17; *instr. astron.*, Smith, 17-22. Astron. Soc; N. S. Inst. Variable stars; asteroids.

King, Dr. Helen Dean, Wistar Institute, Philadelphia, Pa. **Zoology*. Owego, N. Y., Sept. 27, 69. A.B., Vassar, 92; fellow, Bryn Mawr, 97-98, Ph.D., 99, fellow, 06-08. Asst. biol. lab., Bryn Mawr, 99-04; teacher physiol., Miss Baldwin's Sch., Bryn Mawr, 99-07; asst. anat., *Wistar Inst.*, 08-09, assoc., 09-12, *asst. prof. embryol.*, 12- Assoc. ed., 'Jour. Morphol. and Physiol.', 24- A.A.; Soc. Nat; Ass. Anat; Soc. Zool; Genetic Ass; Eugenics Soc. (advisory council, 24-); Eugenics Research Ass. Sex determination in amphibians; germ-cells in amphibians and mammals; parthenogenesis; sex determination in mammals; growth and reproduction of the white rat; modification of sex ratio; inbreeding; domestication.

King, Prof. H(erbert) H(iram), 1711 Fairchild Ave, Manhattan, Kans. *Chemistry*. Ewing, Ill., Feb. 28, 82. A.B., Ewing, 04, A.M., 06; M.S., Kansas Col., 15; fellow, Chicago, 17-18, Ph.D., 18. Prof. *chem.*, Manchester, 04-06; asst., *Kansas Col.*, 06-08, *instr.*, 08-09, asst. prof., 09-14, assoc. prof., 14-18, *prof. and head dept.*, 18-, asst. chemist, *Eng. Sta.*, 10-14, assoc. chemist, 14-16, *chemist in charge*, 18-, *Agr. Exp. Sta.*, 18- Chem. Soc; Kans. Acad. Surface tension; adsorption; colloids; soils.

King, Prof. Horace W(illiams), 1203 Oakland Ave, Ann Arbor, Mich. *Civil engineering*. Big Rapids, Mich., Feb. 10, 74. B.S.(C.E.), Michigan, 95. Practising engineer, 95-12; *prof. hydraulic eng, Michigan*, 12- Civil Eng. Hydraulic engineering; irrigation and drainage.

King, Prof. Jessie L, 2435 N. Charles St, Baltimore, Md. *Physiology*. Richmond, Ind., Oct. 19, 81. B.S., Earlham, 04; Ph.D., Cornell, 11. *Instr. physiol, Goucher*, 11-15, assoc. prof., 15-19, *prof.*, 19- Physiol. Soc; Soc. Bact. Menstrual cycle in women.

King, Dr. Jno. C, Pasadena, Calif. *Medicine*. Pittsburgh, Pa., Feb. 9, 53. M.D., Nashville, 74. Surgeon, South. Pacific Ry. Co; Banning Hosp; *retired*. Calif. State Board Med. Examiners, 04-06. A.A.; Am. Med. Ass; Col. Surg; Calif. Med. Soc. (pres); S. Calif. Med. Soc. (pres). Tuberculosis.

- King, Dr. J(ohn) Fitch**, Williams College, Williamstown, Mass. *Chemistry*. Ohio, Oct. 13, 94. A.B., Oberlin, 17; A.M., Harvard, 19; Ph.D., Hopkins, 21. Instr. *chem.*, Hopkins, 19-21; asst. prof., *Williams*, 21-25, *assoc. prof.*, 25- Summers, asst. prof., Oberlin, 20, 22, 23. C.W.S., U.S.A. A.A.; Chem. Soc. Measurements of dielectric constants; density of hydrochloric acid; vapor pressures of liquids; electrochemistry of iron.
- King, J(oseph) Lyonel**, 100 Seventh St, Riverton, N. J. *Entomology*. Cleveland, Ohio, Jan. 10, 88. B.S., Ohio State, 14; M.S., Illinois, 16. Asst. entomologist, Ohio Exp. Sta., 12-17; sci. asst., bur. plant indust., Pa. State Dept. Agr., 17-20; special agent in Japan, *U. S. Dept. Agr.*, 20-23, *entomologist, Japanese beetle lab, bur. entom.*, 23- A.A.; Entom. Soc.; Ass. Econ. Entom. Parasitic Diptera; parasites of *Po pillia japonica*.
- King, Kenneth M(arion)**, Dominion Entomological Laboratory, Saskatoon, Sask., Can. *Entomology*. Virginia City, Mont., March 1, 96. B.S., Mont. Col., 20; M.Sc., Saskatchewan, 26. Sci. asst., bur. entom., U. S. Dept. Agr., Va., 20-22; *entomologist, entom. branch, Dom. of Can.*, 22- Asst., Mont. Exp. Sta., 16, 17, 19. A.A.; Entom. Soc.; Ass. Econ. Entom.; Ecol. Soc.; Can. Soc. Tech. Agr.; Ont. Entom. Soc. Corn ear worms; red-backed cutworms; wireworms.
- King, Prof. Louis V(essot)**, McGill University, Montreal, Que., Can. *Physics*. Toronto, Ont., April 18, 86. B.A., McGill, 05, D.Sc., 15; B.A., Cambridge, 08, M.A., 15. Lecturer *physics, McGill*, 10-13, asst. prof., 13-15, *assoc. prof.*, 15-20, *Macdonald prof.*, 20- Consulting physician, Royal Victoria Hosp., Montreal. Cambridge math. tripos. Physical Soc.; Math. Soc.; Astron. Soc.; assoc. Elec. Eng.; Chem. Soc.; fel. Royal Soc. Can.; fel. Royal Soc. London. Mathematical physics and electrophysics; solar and sky radiation; anemometry; fog-signal machinery; submarine acoustics; molecular scattering of light; numerical calculation of elliptic functions and integrals; calculations of self and mutual inductance.
- King, Ralph T(erence)**, 2089 Scudder St, St. Paul, Minn. *Biology*. St. Paul, Kans., June 30, 00. B.S., Utah Col., 24, A.M., 25; Minnesota, 25-26. Instr. zool., Utah Col., 24-25; animal biol., Minnesota, 25-26; *head dept. biol. Col. of St. Thomas*, 26- Ecology of birds; ecology of insects affecting stored grains.
- King, Dr. Robert L(eslie)**, 18 Waverly Ave, Morton, Pa. *Zoology*. Chester, Pa., July 7, 96. A.B., Pennsylvania, 19, Ph.D., 22. Instr. zool., Pennsylvania, 22- A.A.; Soc. Zool. Cytology; genetics.
- King, Dr. R(obert) W(aldo)**, 195 Broadway, New York, N. Y. *Physics*. Sioux Falls, S. Dak., May 13, 90. A.B., Cornell, 12, Ph.D., 15. Instr. physics, Cornell, 13-17; *engineer*, West. Elec. Co., 17-20; *Am. Tel. and Tel. Co.*, 20- Ed., 'Bell System Tech. Jour.' A.A.; Physical Soc.; Elec. Eng. Heat conductivity; thin metal films; high vacua and thermionic tubes, particularly amplifiers.
- King, Prof. Roy Stevenson**, 1293 Oxford Road, N. E., Atlanta, Ga. *Mechanical engineering*. Xenia, Ohio, Sept. 10, 76. M.E., Ohio State, 02; Sc.M., Minneapolis, 07; Sc.D., Georgia, 22. Instr. mech. eng., Minnesota, 03-05; asst. prof. exp. eng., Ohio State, 05-07; asst. prof. mech. eng., Arizona, 14-17; prof. exp. eng., *Ga. Tech.*, 17-23, *head dept. mech. eng.*, 23- Consulting engineer. Mech. Eng.; Eng. Educ. (v. pres., 24). Flow of water through thin orifices.
- King, Dr. W(alter) E(dward)**, Parke, Davis and Co., Detroit, Mich. *Bacteriology*. Kinsman, Ohio, Sept. 2, 77. A.B., Wabash, 00, hon. A.M., 08; A.M., Cornell, 05; M.D., Detroit Col. Med., 14. Asst. bacter., Cornell, 02-05; research bacteriologist, Parke, Davis and Co., 05-07; bacteriologist, Kansas Col., 07-10; bacteriologist and asst. director med. research, Parke, Davis and Co., 10-19; lab. director, Beebe Lab, Inc., 19-24; *asst. director med. research and biol. lab, Parke, Davis and Co.*, 24- A.A.; Soc. Bact.; Am. Med. Ass.; Ass. Immunol.; Pub. Health Ass.; Soc. Clin. Path. Bacterial flora of the intestine of the chicken; the oral administration of antitoxins and toxins; diagnosis of glanders by agglutination; hog cholera; soil bacteriology; filterable viruses; viability of bacteria; estimation of number of bacteria in suspension; the training of laboratory technicians.
- King, Dr. W(illard) V(an Orsdel)**, Mound, La. *Entomology*. Virginia City, Mont., July 19, 88. B.S., Mont. Col., 11; Ph.D., Tulane, 15. Entom. asst., *bur. entom., U. S. Dept. Agr.*, 10-24, *entomologist*, 24- A.A.; Ass. Econ. Entom.; Micros. Soc.; Soc. Parasitol.; La. Entom. Soc.; S. Med. Ass. (malaria committee, chairman, sub-committee on entom.); New Orleans Acad. Medical entomology; Rocky Mountain spotted fever; pellagra; malaria fever; mosquitoes.
- Kingdon, Dr. K(enneth) H(ay)**, General Electric Co., Schenectady, N. Y. *Physics*. Jamaica, B. W. I., May 13, 94. Ph.D., Toronto, 20. *Physicist, Gen. Elec. Co.*, 20- Physical Soc. Thermionic emission.
- Kingery, Dr. H(ugh) M(cMillan)**, 2350 Colorado Boulevard, Denver, Colo. *Anatomy*. Emporia, Kans., May 19, 87. A.B., Wabash, 08, A.M., 09; Ph.D., Cornell, 17. Instr. physics and chem., Idaho, 09-10; elementary science, Robert Col., Constantinople, 10-11; high sch., Kans., 11-12; asst. and instr. histol. and embryol., Cornell, 12-18; instr. *anat., Colorado*, 19-20, asst. prof., 20-23, *assoc. prof.*, 23- A.S., U.S.A., 18-19. A.A.; Ass. Anat. Histology; cytology; embryology.
- Kinghorn, Dr. Hugh M(cLennan)**, 14 Church St, Saranac Lake, N. Y. *Medicine*. Kingston, Ont., Can., Nov. 9, 69. B.A., McGill, 90, M.D., C.M., 94. Res. physician, Montreal Gen. Hosp., 94-96; *practising physician*, 96- Acting supt., Montreal Gen. Hosp., 96. Ass. Path. and Bact. Tuberculosis.
- Kingsbury, Albert**, Greenwich, Conn. *Mechanical engineering*. Near Morris, Ill., Dec. 23, 62. Buchtel, 80; Ohio State, 84-85; M.E., Cornell, 89. Supt. machine shops, H. B. Camp Co., Cuyahoga Falls, Ohio, 90-91; prof. mech. eng., New Hampshire, 91-99; applied mech., Worcester, 99-03; *mech. engineer, Westinghouse Elec. and*

Mfg. Co, 03- Consulting engineer, Pittsburgh, 10; pres, Kingsbury Machine Works, Phila. A.A.; Mech. Eng; Eng. Educ. Friction and lubrication; mechanics; steam engineering; tests of lubricating oils.

Kingsbury, Prof. B(enjamin) F(reeman), Cornell University, Ithaca, N. Y. **Histology, Embryology*. St. Charles, Mo, Nov. 18, 72. A.B, Buchtel, 93; Ph.D, Cornell, 96; M.D, Freiburg, 03. Instr. histol, Cornell, 96-99, asst. prof, 99-01, physiol, 03-08, prof. histol. and embryol, 08- Collaborator, 'Jour. Comp. Neur'; 'Am. Jour. Anat.' A.A.; Soc. Zool; Ass. Anat. Comparative anatomy.

Kingsbury, E(dwin) F(oster), 463 West St, New York, N. Y. *Physics*. Hamilton, N. Y, Dec. 24, 86. B.S, Colgate, 10. *Physicist*, United Gas Improv. Co, Pa, 10-18; Eastman Kodak Co, 19-20; West. Elec. Co, 20-25, *Bell Telephone Laboratories*, 25- Longstreth medal, Franklin Inst, 19. Lieut. and capt, A.S, 18-19, A.S.R, 18- Fel. Physical Soc; Optical Soc; Franklin Inst. Photometry; illuminating engineering; photography; telephone transmission.

Kingsbury, Prof. Forrest A(lva), 5621 Drexel Ave, Chicago, Ill. *Psychology*. Oelwein, Iowa, Aug. 3, 83. Ph.B, Central Col, 09; A.M, Yale, 11; Ph.D, Chicago, 20. Prof. philos. and educ, Grand Island Col; 11-15; prof, Ottawa (Kans), 15-18; asst. prof. psychol, Chicago, 20-23, *assoc. prof, 23-*, dean colleges of arts, lit. and science, 24- A.A.; Psychol. Ass. Psychological tests; job analysis and grading; personnel rating scales; business psychology; history of psychology.

Kingsbury, Dr. F(rancis) B(ullard), Metropolitan Life Insurance Co, 1 Madison Ave, New York, N. Y. *Biochemistry*. Holliston, Mass, Nov. 18, 86. A.B, Harvard, 09, A.M, 12, Ph.D, 14. Instr. physiol. chem. and physiol, Minnesota, 13-17, asst. prof. physiol. chem, 17-20, assoc. prof, 20-23; *chemist in charge biochem. laboratories, Metropolitan Life Ins. Co, 23-* Lieut. and capt, Sanit.C, 18-19. Soc. Biol. Chem; Chem. Soc; Soc. Exp. Biol. Synthesis of hippuric acid in the animal organism; blood of new-born infants; relation of bile to digestion and absorption of fat; determination of protein in urine; variation in sugar excretion in human urine.

Kingsbury, Dr. J(oseph) T(homas), University of Utah, Salt Lake City, Utah. *Chemistry*. Uintah, Utah, Nov. 4, 53. Ph.B, 91, A.M, 92, Ph.D, 94, Sc.D, 94, LL.D, 16. Prof. physics and chem, Utah, 78-08, acting pres, 92-94, v. pres, 94-97, pres, 97-16, *emer. pres, 16-* Prin, mining sch, Utah, 95-97, chairman grad. dept, 17-24. Trustee, pub. schools, Salt Lake City. Ass. State Univ. (past v. pres); Utah State Teachers Ass. (pres). Water of the Great Salt Lake.

Kingsford, Dr. H(oward) N(elson), Dartmouth College, Hanover, N. H. *Pathology, Bacteriology*. Providence, R. I, Sept. 24, 71. Brown, 94; M.D, Dartmouth, 97, A.M, 08; Harvard Med. Sch, 98. Instr. path. and bacter, Dartmouth, 98-00, prof, 01-, med. director, 02-

House officer, Hitchcock Hosp, Hanover, 97; path. dept, Boston City Hosp, 98; pathologist, Hitchcock Hosp, 02; Littleton, N. H, Hosp; Manchester, N. H, Hosp; state bacteriologist, N. H. Ass. Path. and Bact; Am. Med. Ass; N. H. Med. Soc. (pres, 23). Mosquitoes; etiology of cancer; infectious diseases; gallstones; water pollution; copper sulphate and water supplies; college sanitation; rabies in New Hampshire.

Kingsley, Prof. J(ohn) S(terling), 2500 Cedar St, Berkeley, Calif. **Zoology, Comparative anatomy*. Cincinnati, N. Y, April 7, 54. A.B, Williams, 75; Sc.D, Princeton, 85; Freiburg, 91-92. Prof. zool, Indiana, 87-89; Nebraska, 89-91; Tufts, 92-13; *Illinois*, 13-21, *emer. prof, 21-* Ed, 'Am. Naturalist,' 86-96, biol. board, 08-; ed, 'Jour. Morphol,' 10-20. Delegate, Int. Zool. Cong, Graz, 10. A.A; Soc. Nat; Soc. Zool; Ass. Anat; Calif. Acad; Boston Soc. Nat. Hist; Phila. Acad; London Zool. Soc. Embryology; morphology of vertebrates.

Kingston, Prof. H(arold) R(eynolds), University of Western Ontario, London, Ont, Can. *Mathematics*. Picton, Ont, June 26, 86. M.A, Queen's (Can), 08; Ph.D, Chicago, 14. Teacher, pubschools, Ont, 03-06; asst, high sch, Ind, 08-12; lecturer math. and astron, Manitoba, 13-18, asst. prof, 18-21; *prof. and head, Western Ontario, 21-*, director summer sch. and extramural dept, 23- A.A; Math. Soc; Math. Ass; Astron. Soc; Royal Astron. Soc. Can. (sec'y, Winnipeg branch, 15-17, pres, 17-19, London branch, 22-); fel. Royal Astron. Soc. Metric differential geometry.

Kinman, C(harles) F(ranklin), 2100 Marshall Way, Sacramento, Calif. *Agriculture*. Illinois, Dec. 11, 80. B.S, Kansas Col, 04. Asst. horticulturist, Ala. Polytech. and Exp. Sta, 04-06; Estacion Cent. Agron. de Cuba, 07-09; horticulturist, P. R. Exp. Sta, 09-18; *pomologist, office hort. and pomol, U. S. Dept. Agr, 18-* Fruit culture; leguminous cover crops and root crops for Porto Rico; vegetables in Porto Rico; coconut seed selection.

Kinney, Prof. Charles Noyes, 1318 27th St, Des Moines, Iowa. *Chemistry*. Iowa City, Iowa, 69. B.S, Drake, 93, M.S, 94; Mass. Inst. Tech; Chicago; Yale. *Prof. chem, Drake, 96-* Consulting and analytical chemist; state chemist, Iowa; chemist, Iowa State Board Health; pres, Pub. Sch. Board, Des Moines. Chem. Soc. (past pres); Iowa Acad. Water analysis; oil; coal; changes in food composition on ripening of fruit; comparison of food values in fruits.

Kinney, E(dmund) J, 750 Rose St, Lexington, Ky. *Agronomy*. Yellow Springs, Ohio, Dec. 26, 79. B.S.A, Ohio State, 08. Asst. entom. and bot, Ky. *Exp. Sta*, 08-10, asst. agronomist, 10-17, *assoc. agronomist, 17-* A.A; Soc. Agron. Field crops.

Kinney, Dr. J(acob) M(illison), Crane Junior College, Chicago, Ill. *Mathematics*. Spencer, Ind, Dec. 21, 77. A.B, Indiana, 04; A.M, Nebraska, 07; fellow, Illinois, 08-10; Ph.D, Chicago, 17. Teacher and prin, schools, Ind, 96-06; teaching fellow, Nebraska, 06-08; *instr. math*, Lewis Inst, 10-12; Hyde Park High Sch,

- 12-22; *Crane Junior Col*, 22- A.A.; Math. Soc; Math. Ass. Projective differential geometry.
- Kinney, S(elwyne) P(erez)**, U. S. Bureau of Mines, Pittsburgh, Pa. *Metallurgy*. Salt Lake City, Utah, Oct. 15, 91. B.S. Utah, 15, Ch.E, 20. *Supervising ferrous metallurgist*, U. S. *Bur. Mines*, 19- J. E. Johnson award, Inst. Min. and Metal. Eng. Second lieut. C.W.S, 19. Min. and Metal. Eng; Chem. Soc. Blast-furnaces; the gas mask in industry; coke.
- Kinsella, Prof. Ralph A.**, St. Louis University School of Medicine, St. Louis, Mo. *Medicine*. St. Louis, Feb. 13, 86. A.B. St. Louis, 07, A.M, 10, M.D, 11. Fellow med. research, Columbia, 14-17, instr. med, 15-17; prof. exp. med, St. Louis, 19-21; assoc. prof. *med*, Washington (St. Louis), 21-24; *prof*, St. Louis, 24- Chairman staff, St. Mary's Hosp, 25- Major, M.R.C, 17-19. Am. Physicians; Soc. Clin. Invest; Soc. Exp. Biol; Harvey Soc. Infectious diseases; Streptococcus; acute rheumatic fever; Gonococcus infections; endocarditis.
- Kinsey, Prof. Alfred C(harles)**, Indiana University, Bloomington, Ind. *Entomology*. Hoboken, N. J, June 23, 94. B.S, Bowdoin, 16; Sheldon traveling fellow, Harvard, 19-20, Sc.D, 20. Asst. prof. *zool*, Indiana, 20-22, *assoc. prof*, 22- Waterman research prof, Indiana, 25-27. A.A; Entom. Soc. Amer; Ass. Econ. Entom; New Eng. Bot. Club; Ind. Acad; Cambridge Entom. Club; Soc. Linnean de Lyon. Life histories, gall formation, evolution, geographic distribution and taxonomy of gall wasps; elementary biology.
- Kinsley, Carl**, 22 Lynwood Road, Scarsdale, N. Y. **Physics*. Lansing, Mich, Nov. 25, 70. A.B, Oberlin, 93, A.M, 96; M.E, Cornell, 94; fellow, Chicago, 01-02; Cambridge, 04. Instr. physics, Washington (St. Louis), 94-99; elec. expert, War Dept, 99-01; instr. physics, Chicago, 02-03, asst. prof, 03-09, *assoc. prof*, 09-19; *research and development*, 19- Major, Sig.C, chief sect. ten, M.I.D, gen. staff, U.S.A, 17-19. A.A; fel. Physical Soc; *assoc. mem*. Elec. Eng; Radio Eng. Frequency of alternating currents; series-dynamo electric machines; coherers for wireless telegraphy; residual charges of condensers; short spark discharges; methods of designing electrical machines; dielectric losses; discharge through gases; radio direction measurements; telegraphy; photoelectric photometer; magnetic analysis.
- Kinsman, C(laude) D(ennison)**, Western Harvester Co, Stockton, Calif. *Agricultural engineering*. Polk County, Nebr, March 9, 89. B.S, Nebraska, 12; M.S, Purdue, 16. Instr, Purdue, 12-16; *assoc. prof*, Nebraska, 17-18; consulting engineer and farm manager, 19-23; senior agr. engineer, bur. pub. roads, U. S. Dept. Agr, 23-27; *consulting agr. engineer*, Western Harvester Co, 27- Agr. Eng. Relation of power and machinery to agricultural production; amount of power used by agriculture in the United States.
- Kinsman, J(ames) Warren**, 1923 Delaware Ave, Wilmington, Del. *Organic chemistry*. Elizabeth, N. J, Dec. 4, 94. Wesleyan (Conn); Columbia. *Asst. director dyestuffs sales*, E. I. du Pont de Nemours and Co, Wilmington. Nomenclature committee and committee on transportation of explosives, Am. Dyes Inst. and Synthetic Org. Chem. Mfg. Ass; nomenclature committee, Nat. Research Council; Committee for Preparation and Publication of a List of Ring Systems. Chem. Soc; Wood Preservers Ass; N. J. Chem. Soc. Chemical nomenclature; rubber accelerators; seed and plant disinfectants; dyestuff intermediates; coal tar chemicals; flotation reagents.
- Kiplinger, Prof. C(laude) C(layton)**, Alliance, Ohio. *Physics, Chemistry*. West Salem, Ohio, Jan. 6, 84. A.B, Western Reserve, 10; Iowa Col, 13-16. Teacher, high sch, Ill, 10-13; instr. chem, Iowa Col, 13-16; asst. prof, Mississippi, 16-17; org. chem, Kentucky, 17-18; acting head dept. chem, Mt. Union, 18-25; acting prof. physics, Wells, 26. A.A; Chem. Soc; Ky. Acad. Ebulliscopic determination of molecular weights; apparatus designing; absorption spectra and chemical constitution; chemical microscopy; chemical education; geology.
- Kirby, Dr. George H(ughes)**, Psychiatric Institute, Ward's Island, N. Y. *Psychiatry*. Goldsboro, N. C, Feb. 9, 75. B.S, North Carolina, 96; M.D, L. I. Col. Hosp, 99. Assoc. clin. psychiat, N. Y. Psychiat. Inst, 02-08; instr. psychopath, med. col, Cornell, 06-12; director clin. psychiat, Manhattan State Hosp, 08-17; *prof. mental diseases*, Univ. and Bellevue Hosp. Med. Col, 14-17; *psychiat*, med. col, Cornell, 17-; *Columbia*, 27-; *director*, N. Y. State Psychiat. Inst, 17- Consultant psychiatrist, U. S. Pub. Health Service, 20- Ed, 'N. Y. State Psychiatric Quart'; 'Am. Jour. Psychiat.' Int. Committee for Sci. Study of Alcohol Problems; Nat. Committee Mental Hygiene; Med. Council, U. S. Veterans Bur. Major, M.C, 18-19, surgeon, M.R.C, 20- Psychiat. Ass; Neur. Ass; N. Y. Acad. Med; N. Y. Psychiat. Soc; N. Y. Neur. Soc. Alcohol psychoses; race psychopathology; manic-depressive insanity; catatonic syndromes; malarial treatment of general paresis.
- Kirby, Dr. Harold, Jr**, Yale University, New Haven, Conn. *Protozoology*. Tusket, N. S. Can, Feb. 2, 00. B.S, Emory, 22; A.M, California, 23, James M. Goewey fellow, 24-25, Ph.D, 25. Teaching fellow *zool*, California, 22-24; *instr. biol*, Yale, 25- Univ. of Calif. exped, Fanning Island, 24, Cent. Amer, 25. A.A; Soc. Zool. Entozoic Protozoa; termites.
- Kirby, R(obert) S(tearns)**, State College, Pa. *Plant pathology*. Battle Creek, Mich, March 18, 92. B.S, N. Mex. Col, 16; fellow, Iowa Col, 16-18, M.S, 17; Ph.D, Cornell, 23. Asst. pathologist, office cereal investigations, bur. plant indust, U. S. Dept. Agr, 18-19; *instr. exten. plant path*, Cornell, 20-24; *asst. prof*, Pa. State, and *asst. exten. pathologist*, 24- A.A; Bot. Soc; Phytopath. Soc; Pa. Acad; Okla. Acad; Iowa Acad. Cereal rusts, smut and root rot; fruit bud development.
- Kircher, Dr. Edward A(ugust Theodore)**, National City Co, 55 Wall St, New York, N. Y. *Mathematics*. Chicago, Ill, March 21, 90. A.B, Illinois, 11, A.M, 12, Ph.D, 14. Instr. math, Mass. Inst. Tech, 14-15; Harvard, 15-17; in-

vestment banking, Nat. City Co, 19— Capt, C.A.C, 17–19. Math. Soc. Residue classes of Kronecker modular systems; finite algebras; yields of bonds and stocks depending on the solution of an n th degree equation instead of a first degree equation.

Kirchner, Prof. William H(erman), 722 Tenth Ave, S. E, Minneapolis, Minn. *Geometry, Graphs.* Templeton, Mass, Oct. 24, 68. B.S, Worcester, 87. Instr. and junior prof, Rose, 88–94; *prof. and head dept. drawing and descriptive geom, Minnesota, 94—* Librarian, Rose, 91–93. Math. Soc; Math. Ass. (chairman, Minn. sect, 25); Eng. Educ; Circolo Mat. di Palermo. Descriptive geometry; geometric construction and transformation; graphical computation.

Kirk, Dr. Charles T(ownsend), 1226 S. Newport Ave, Tulsa, Okla. *Geology.* Francisco, Ind, June 22, 76. B.S, Oklahoma, 04, A.M, 05; fellow, Wisconsin, 08–10, Ph.D, 10. Supt. and instr. schools, Okla, 03, 05–06; geol. Mont. Sch. Mines, 06–08; statistician, U. S. Geol. Surv, 07–08, junior geologist, 10–12; asst. prof. geol. Hunter, 10–13; prof, New Mexico, and state geologist, 13–17; *consulting geologist, 18—* Jury awards, San Diego Expos, 15. A.A; Geol. Soc; Ass. Petrol. Geol; Min. Eng; N. Mex. Geog. Soc. (sec'y, 16–17); N. Y. Acad. (sec'y, geol. sect, 13); Tulsa Geol. Soc. (pres, 23). Drainage and sedimentation; stratigraphy; mineralization at Butte, Mont; western coal deposits; tungsten of Boulder County, Colo; loci and migration of oil in anticlines; oil geology of New Mexico; oil prospecting.

Kirk, Edwin, U. S. Geological Survey, Washington, D. C. *Paleontology.* Richland, S. Dak, Dec. 6, 84. A.B, Columbia, 07, Ph.D, 11. Asst. paleont, Columbia, 07–09; junior geologist, U. S. Geol. Surv, 09–17, paleontologist, 17–19, *geologist, 21—* Oil expert, Bolivia-Argentina Explor. Co, 19–20. A.A; Geol. Soc; Paleont. Soc; Wash. Acad; Wash. Geol. Soc; Wash. Biol. Soc.

Kirk, Prof. Raymond E(ller), University of Minnesota, Minneapolis, Minn. *Chemistry.* Hamilton Co, Nebr, 90. B.S, Nebraska, 15; M.S, Iowa Col, 17. Instr. chem, Iowa Col, 17–20; *asst. prof. gen. inorg. chem, Minnesota, 20—* Marl investigation, Minn. Eng. Exp. Sta, 22. Ordnance dept, U.S.A, 18, capt, O.R.C. Chem. Soc; Eng. Educ. (pres, Minn. sect, 25). Origin, occurrence and uses of marl; cement; colloidal character of asphalts and road oils; hydrazine.

Kirk, Dr. W(illia)m, 35 Ziegler Tract, Pennsgrove, N. J. *Chemistry.* Greenfield, Iowa, Oct. 23, 90. A.B, Tarkio, 12; A.M, Nebraska, 14; Ph.D, Cornell, 16. *Chemist, E. I. du Pont de Nemours and Co, 16—* Intermediates for dye-stuffs.

Kirkham, Prof. William B(arri), International Y. M. C. A. College, Springfield, Mass. *Zoology.* Springfield, Feb. 11, 82. A.B, Yale, 04, A.M, 06, Ph.D, 07; Harvard, 04–05. Asst. *biol.* Sheffield Sci. Sch, Yale, 05–07, instr, 07–16, asst. prof, 16–21; *prof, Int. Y. M. C. A. Col, 21—, dean freshmen, 23—* A.A; Soc. Zool;

Anthrop. Ass; Ass. Anat; Archeol. Inst; N. Y. Zool. Soc. Vertebrate embryology and anatomy.

Kirkland, A(rchie) H, Concord Depot, Va. *Entomology.* Huntington, Mass, June 4, 73. B.S, Mass. Col, 94, M.S, 96. Asst. entomologist, Mass. Gipsy Moth Committee, 94–00; v. pres. and gen. manager, Bowker Insecticide Co, 00–05; supt, Mass. Gipsy Moth Work, 05–08. Ass. Econ. Entom; Boston Sci. Soc. Economic entomology; shade tree insects; spraying apparatus; insecticides.

Kirkland, Prof. Burt P(ersons), University of Washington, Seattle, Wash. *Forestry.* Silver Creek, N. Y, Feb. 6, 81. A.B, Cornell; Yale. Forest supervisor, U. S. Forest Service, 06–12; *prof. forestry, Washington (Seattle), 12—* Ed. board, 'Jour. Forestry.' A.A; Soc. Foresters (exec. council, 21–26). Forest finance and management.

Kirkpatrick, Dr. Clifford, University of Pennsylvania, Philadelphia, Pa. *Psychology, Sociology.* Fitchburg, Mass, 98. A.B, Clark, 20, A.M, 22, fellow, 22–23; Harrison fellow, Pennsylvania, Ph.D, 25. *Instr. sociol. and social psychol*, Brown, 23–24; *Pennsylvania, 25—* A.A; Sociol. Soc. Mental tests; linguistic handicap of immigrant children; immigration; criminology.

Kirkpatrick, E(dwin) A(sbury), State Normal School, Fitchburg, Mass. *Psychology.* Peoria, Iowa, Sept. 29, 62. B.S, Iowa Col, 87, Ph.M, 89; scholar and fellow, Clark, 89–91. Asst. math. and rhetoric, Iowa Col, 88–89; instr. psychol, philos. and hist. of educ, Minn. State Nor. Sch, Winona, 92–98; *head dept. psychol. and child study, Mass. State Nor. Sch, Fitchburg, 98—* Summers, instr, Columbia, Chicago, Virginia, West Virginia, Cornell and Vermont; lecturer, Smith. A.A. (chairman, committee on pub. records of data bearing on race betterment); Psychol. Ass. Education; memory; learning; motor and mental development of children; vocabularies; scientific ethics.

Kirkpatrick, Prof. Paul (Harmon), University of Hawaii, Honolulu, Hawaii. *Physics.* Westington, S. Dak, July 21, 94. B.S, Occidental, 16; Whiting fellow, California, 22–23, Ph.D, 23. Instr. *physics*, Hanchow Col, China, 16–18; *prof, Hawaii, 23—* Summers, California at Los Angeles, 23–25. A.A; Physical Soc; Seismol. Soc; Hawaiian Acad. Continuous X-ray spectrum; theory of X-ray reflection; seismography.

Kirkpatrick, R(alph) Z(enas), Panama Canal, Balboa Heights, C. Z. *Engineering.* Bardolph, Ill, Feb. 10, 80. Grad, Ill. State Nor. Sch, Macomb, 01; South Dakota; B.C.E, Iowa Col, 07, C.E, 14. *Navy and War Departments, Panama Canal, 07—* Major, C.Eng, 18. A.A; Ass. Eng; Mil. Eng; Seismol. Soc; C. Z. Eng. Soc. (past pres). Meteorology; hydrography; seismology; history and descriptions of the Panama Canal.

Kirkpatrick, Sidney D(ale), McGraw-Hill Publishing Co, Tenth Ave. and 36th St, New York, N. Y. *Engineering.* Urbana, Ill, April 2, 94. Chemist, Ill. State Water Surv, 16–17; chem. adviser, U. S. Tariff Commission, 17–21; *ed, Mc-*

- Graw-Hill Publishing Co, 21-*, assoc. ed, 'Chem. and Metal. Eng.' Chem. adviser, Am. Commission to Negotiate Peace, Paris, 19; investigator, Tariff Commission, European chem. indust, 19. Public relations adviser, Ethyl Gasoline Corp, 25. Lieut. Sanit.C, 18. Chem. Soc. Chemical and metallurgical engineering; economic and technical characteristics of the chemical and chemical engineering industries.
- Kirkwood, Prof. J(oseph) E(dward)**, State University of Montana, Missoula, Mont. *Botany*. Cedar Rapids, Iowa, Jan. 24, 72. A.B, Pacific, 98; fellow, Princeton, 99, A.M, 02; Ph.D, Columbia, 03. Asst. biol. Teachers Col, Columbia, 00-01; instr. bot, Syracuse, 01-04, assoc. prof, 04-07, prof, 07; asst. botanist, Continental-Mexican Rubber Co, 07-08; asst. prof. bot. and forestry, *Montana*, 09-10, prof, 10-13, bot, 13-A.A; Bot. Soc; Ecol. Soc; Northwest Sci. Ass. (chairman, sect. biol, 20); Inland Empire Sci. Teachers Ass. (chairman, 25); Torrey Bot. Club. Embryology; botany of the Rocky Mountains; trees, shrubs and distribution of plants of the northern Rocky Mountains.
- Kirsten, K(urt) F(riedrich) J(ohannes)**, 138 E. 52d St, Seattle, Wash. *Electrical engineering, Aeronautics*. Quersa, Germany, March 13, 85. B.S, Washington (Seattle) 09, E.E, 14. Elec. engineer, Stone and Webster Eng. Corp, 11-15; *Washington (Seattle)*, 15-, prof. elec. eng; v. pres, *Kirsten-Boeing Eng. Corp*, 24- Elec. Eng. Marine engineering; design of long transmission lines; improved methods of propulsion for airships and marine vessels; internal combustion engines.
- Kisliuk, Max, Jr**, 134 S. Second St, Philadelphia, Pa. *Entomology*. London, Eng, Nov. 10, 89. B.S, Md. Col, 15; M.S, Ohio State, 18. Field asst, bur. entom, U. S. Dept. Agr, 15, asst. zool. and entom, 16-17, field agent, bur. plant indust, 16, field asst, bur. entom, 18, sci. asst, 18, plant quarantine inspector in charge, *Phila.* Summer, asst. nursery inspector, Md, 14. A.A; Entom. Soc; Ass. Econ. Entom; Ecol. Soc; Wash. Entom. Soc. Medical entomology; muscid flies; insects affecting the castor oil plant.
- Kithil, Karl L(udwig)**, 728 Ogden St, Denver, Colo. *Engineering*. Nuremberg, Germany, Dec. 24, 78. Grad, Nuremberg; Munich, 00. Owner, Monazite operations, N. C. and S. C, 01-05; managing director, Anglo-Am. Minerals Co, Ltd, Eng, 06-08; director minerals dept, Welsbach Incandescent Gas Mantle Co, Germany, 06-11; senior mineral technologist, U. S. Bur. Mines, Exp. Sta, Denver, 12-15; engineer in charge, Exp. Sta, Tucson, Ariz, 16-17; v. pres, consulting engineer, and gen. manager, The Radium Co. of Colo, 17-23; Cold Light Mfg. Co, 18-21; manager rare metals dept, *Metals Exploration Co, Colo. and N. Y.*, 22-; consulting engineer, 23- Co-manager, British Incandescent Gas Mantle Co, Ltd, 06-07; Austro-German Gas Mantle Export Co, Ltd, 09-10; manager, Syndicate for Utilization of Chem. Products, Ltd, Germany, 06-08; Osram Lamp and Gas Lamp Distributing Co, Ltd, Austria, 07-10; manager mines dept, Nat. Radium Inst, 13-16. A.A; Min. and Metal. Eng. (committee, uncommon metals, 26); Seismol. Soc; Soc. Mil. Eng; Min. Eng; Denver Teknik Club. Radium; rare metals and earths; seismographic research as applied to sub-structure geology; dry process for concentration of low grade carnotite ores; seismic-vibrographic instruments.
- Kitson, Prof. Harry Dexter**, 106 Morningside Drive, New York, N. Y. *Psychology*. Mishawaka, Ind, Aug. 11, 86. A.B, Hiram, 09; A.M, Minnesota, 13; fellow, Chicago, 13-14, Ph.D, 15. Assoc. psychol, Chicago, 14-15, instr, 15-19; assoc. prof, Indiana, 19-20, prof, 20-25; educ, *Teachers Col, Columbia*, 25- Lieut, C.A.C. Psychol. Ass. Vocational and educational psychology.
- Kittredge, Joseph, Jr**, Lake States Forest Experiment Station, University Farm, St. Paul, Minn. *Forestry*. Marblehead, Mass, Nov. 26, 90. A.B, Harvard, 12, M.F, 13. Forest asst. and examiner, U. S. Forest Service, 13-17, chief office forest exp. stations, 19-23; *silviculturist, Lake States Forest Exp. Sta*, 23- Summer, asst, Gray Herbarium bot. exped, Newfoundland, 10. Lieut. and capt, C.Eng, 17-19. A.A; Soc. Foresters; Ecol. Soc; Ornith. Union; Cooper Ornith. Club. Chestnut bark disease; forest reproduction in the Adirondacks; statistical methods in forestry; forest planting in the lake states; soils; growth and natural succession of aspen-paper birch in the lake states.
- Kjerstad, Dr. C(onrad) L(und)**, State Teachers College, Valley City, N. Dak. *Psychology*. Charles Mix Co, S. Dak, July 11, 83. A.B, South Dakota, 11; fellow, Chicago, 15-16, A.M, 16, Ph.D, 17. Teacher, pub. schools, S. Dak, 05-07; prof. educ. and psychol, Augustana, 11-15; psychol, Minn. State Nor. Sch, Winona, 16-17; asst. psychol, N. Dak. State Nor. Sch, *Valley City*, 17-18, prof. educ. and psychol. and head dept, *State Teachers Col*, 19-, dean faculty, 25- Lieut, Sanit.C, 18-19. A.A; Psychol. Ass. Learning curves.
- Klages, Prof. K(arl) H(enry) W(illiam)**, Oklahoma Agricultural and Mechanical College, Stillwater, Okla. *Agronomy*. Dannenberg, Germany, March 27, 98. B.S, Oregon Col, 21; M.S, Illinois, 22, fellow, 24-25, Ph.D, 25. Asst. prof. agron, Colo. Agr. Col, 22-23; *Okla. Agr. and Mech. Col*, 25- Soc. Agron. Crop ecology; forage crops; soil moisture content and the resistance of wheat seedlings to low temperatures; physiology of winter wheat.
- Klarmann, Dr. Emil**, 516 Bergen Ave, Jersey City, N. J. *Organic chemistry*. Resov, Austria, Dec. 31, 00. Brünn; Ch.E, Halle, 22, D.Sc, 23. Asst, Inst. Physical Chem, Brünn, 21-22; instr, inst. physiol, Halle, 23-24; *Plaut Research Lab, Bloomfield, N. J.*, 24- Chem. Soc. Physical chemistry; chemistry of proteins; antiseptics; disinfectants.
- Klauber, L(aurence) M(onroe)**, 2569 Front St, San Diego, Calif. *Electricity, Herpetology*. San Diego, Dec. 21, 83. A.B, Stanford, 08. Salesman, *San Diego Consol. Gas and Elec. Co*, 11, engineer, records, 11-14, supt, elec. dept, 14-18, asst. gen. supt, 18-20, gen. supt, 20-, v. pres, 23- Curator reptiles, Zool. Soc, San Diego;

- hon. curator reptiles, San Diego Soc. Nat. Hist. Calif. Gas Research Council. A.A.; fel. Elec. Eng.; Civil Eng.; Mech. Eng.; Gas Ass.; Elec. Light Ass.; Physical Soc.; Soc. Test. Mat.; Electrochem. Soc.; Chem. Soc.; Math. Soc.; Math. Ass.; Seismol. Soc.; Soc. Ichthyol. and Herp.; Am. Geog. Soc.; Meteor. Soc.; Pacific Coast Elec. Ass. (pres, 23); Pacific Coast Gas Ass.; Calif. Acad.; fel. San Diego Soc. Nat. Hist. Electrical distribution; distribution of reptiles.
- Kleckner, Prof. Martin E(zra)**, Heidelberg University, Tiffin, Ohio. *Geology, Chemistry*. Davis, Ill, May 6, 61. A.B., Heidelberg (Ohio), 83, A.M., 86, Sc.D., 22; Woods Hole, 91. Instr. science, Col. North. Ill, 84-86; asst. *Heidelberg (Ohio)*, 86-90, *prof. chem. and geol.*, 90- Lecturer, Homeop. Hosp. Col., Cleveland, 93. A.A.; Ohio Acad. Minerals; fossils of the Devonian and Silurian rocks of Ohio.
- Kleeman, Prof. Richard Daniel**, 127 Woodland Ave, Schenectady, N. Y. *Physics*. S. Australia, 75. Cambridge, 05-13, B.A., 07; D.Sc., Adelaide, 08. *Assoc. prof. physics, Union*, 14- Consulting physicist and physical chemist. Physical Soc. Chemistry; radiations; gaseous ionization; molecular forces.
- Klein, A(braham) Albert**, Norton Co, Worcester, Mass. *Ceramics*. Syracuse, N. Y., May 6, 89. B.S., Michigan. Semet Solvay Co, 06-07; asst. miner, Michigan, 08-11; asst. physicist, Bur. Standards, 11-16; *Norton Co*, 16- Ceramic Soc. (chairman, committee on rules, refractory div, councilor, New Eng. sect); Soc. Test. Mat. (chairman, sub-committee on microstructure); fel. Miner. Soc. Portland cement; porcelain; silica brick; lead silicates; glazes; abrasives; refractories.
- Klein, Dr. David**, 4221 S. Western Ave, Chicago, Ill. *Chemistry*. Chicago, Oct. 22, 84. A.B., Illinois, 06, A.M., 07; fellow, Wisconsin, 07-08, Ph.D., 10. Instr. chem, Illinois, 06-07; asst., Wisconsin, 08-09, instr., 09-11, asst. prof., 11-14; state analyst, Ill, 14-18; assoc. prof. chem, sch. hygiene and pub. health, Hopkins, 19-20; tech. director, *The Wilson Laboratories*, 20-26, *pres*, 26- Capt., Sanit.C., 18-19, major, 19. Chem. Soc. Physical and bio chemistry; food chemistry.
- Klein, Prof. Elias**, Lehigh University, Bethlehem, Pa. *Physics*. Wilno, Poland, Jan. 11, 90. B.S., 11, B.C.E., 12; Howard fellow, Yale, 20-21, Ph.D., 21. Instr. *physics*, Valparaiso, 12-17; asst., Yale, 17-21; instr., Saskatchewan, 21-22; asst. prof., *Lehigh*, 22-25, *assoc. prof.*, 25- Physical Soc. Spectroscopy.
- Klein, Dr. M(ichael) W(illiam)**, University of Wisconsin, Madison, Wis. *Chemistry*. Appleton, Wis, Jan. 30, 95. B.S., Lawrence; M.S., Wisconsin, 23, Ph.D., 24. *Instr. org. chem, Wisconsin*, 24- Chem. Soc. (sec'y-treas, Wis. sect, 25). Selenium oxychloride; petroleum.
- Klein, Dr. Millard A(ischuler)**, First National Bank Building, Stockton, Calif. *Chemistry*. Corydon, Iowa, Aug. 25, 86. B.S., Nebraska, 09; Ph.D., Cornell, 15. Asst. soil technol., Cornell, 11-15; instr. soil chem, California, 15-16; soil chemist, Spreckels Sugar Co, Calif, 16-20; Symmes and Associates, 20-22; *consulting agr. engineer*, 22- A.A.; Agr. Eng.; fel. Royal Soc. Arts. Soil chemistry and bacteriology.
- Klein, Dr. S(imon) R(obert)**, 278 Astoria Ave, Long Island City, N. Y. *Serology*. Teplicz, Hungary, Dec. 23, 68. B.Sc., Budapest, hon. Litt.D.; Ph.D., Vienna; M.D., Tübingen. Prof., sch. med, Fordham, 09-11; Mt. St. Mary's Col. and Villanova Col, 11-14; pathologist, Norwich State Hosp, 14-17; *director private lab*, 17- Deputy sheriff, Queens County, 27- Pub. lecturer, Board Educ, New York, 10-19. Ass. Advancement Nat. Sci. (pres, 23); Ass. Clin. Research (registrar, 15). Criminology; dementia praecox; epilepsy; causes of crimes; hydrophobia; antitoxins; the Wassermann blood test.
- Kleiner, Prof. Israel S(imon)**, 196 Rutland Road, Brooklyn, N. Y. *Physiological chemistry*. New Haven, Conn, April 8, 85. Ph.B., Yale, 06, Ph.D., 09. Asst. physiol. chem, Yale, 07-09; demonstrator and instr. chem, sch. med, Tulane, 09-10; asst., Rockefeller Inst, 10-14, assoc, 14-19; *prof. physiol. chem. and head dept*, N. Y. *Homeop. Med. Col*, 19- Consulting chemist, Flower Hosp, 19- Conf. Biol. Chemists. A.A.; Physiol. Soc.; Soc. Biol. Chem.; Soc. Pharmacol.; Soc. Exp. Biol.; Harvey Soc. Experimental diabetes; intermediary metabolism of carbohydrates; micro-analysis of blood.
- Kleitman, Prof. Nathaniel**, University of Chicago, Chicago, Ill. *Physiology*. Bessarabia, April 26, 95. B.S., Col. City of N. Y., 19, fellow, 19-20; A.M., Columbia, 20; Ph.D., Chicago, 23. Instr. physiol. and pharmacol, Georgia, 20-22; assoc. physiol, Chicago, 22-23; National Research Council fellow med, Utrecht, Paris and Chicago, 23-25; *asst. prof. physiol, Chicago*, 25- Physiol. Soc.; Soc. Exp. Biol.; Inst. Med. Chicago. Physiology of the central and peripheral nervous systems; sleep; body-righting reflexes; retina; pharmacology of mercury, acetone and tartrates.
- Klemin, Prof. Alexander**, New York University, New York, N. Y. *Aeronautics*. B.Sc., M.S., London. *Assoc. prof., Daniel Guggenheim Sch. Aeronautics, N. Y. Univ.* Mech. Eng.; Automotive Eng. Dynamical stability of airplanes.
- Klemme, Dr. Margaret S(wisher)**, 633 Russell St, Lafayette, Ind. *Organic chemistry*. Moundsville, W. Va, June 26, 99. Ph.G., 19; Ph.C., 20; B.S., 21; M.S., Colorado, 22, Ph.D., 25. Asst. chem, Colorado, 18-22, instr., 22-25. Chem. Soc. Pharmaceutical and bio chemistry.
- Kligler, Dr. I(srael) J(acob)**, Hebrew University, Jerusalem, Palestine. *Bacteriology*. Austria, April 24, 89. B.S., Col. City of N. Y., 11; A.M., Columbia, 14, Ph.D., 15; fellow, Northwestern, 16. Sci. asst., Am. Museum Nat. Hist., 11-15; Rockefeller Inst, 16-20; director laboratories, Hadassah Med. Unit, Palestine, 21-22; Malaria Research Unit, 22-26; *prof. hygiene, Hebrew Univ, Jerusalem*, 26- A.A.; Soc. Nat.; Soc. Bact.; Soc. Exp. Biol.; fel. Pub. Health Ass; fel. Royal Soc. Trop. Med. and Hygiene. Bacterial classification and nutrition; dental

- caries; vitamins and bacteria; soil pollution and intestinal diseases; dysentery bacilli and toxin; relapsing and yellow fever; malaria; trypanosomiasis; immunity in protozoan infections.
- Klinck, Pres. L(eonard) S(ilvanus)**, University of British Columbia, Vancouver, B. C., Can. *Agriculture*. Victoria Square, Ont, Jan. 20, 77. B.S.A., Ont. Agr. Col, 03; M.S.A., Iowa Col, 05, Sc.D; LL.D., Western Ontario, 24. Asst. prof. field crops, Iowa Col, 04-05; prof. cereal husbandry, Macdonald, 06-14; dean col. agr., *British Columbia*, 14-19, *pres.*, 19- Soc. Agron; Can. Seed Growers' Ass; Can. Soc. Tech. Agr. Cereal husbandry; breeding of oats, wheat and corn and alfalfa.
- Kline, Dr. Benjamin S**, Western Reserve University, Cleveland, Ohio. *Pathology*. Philadelphia, Pa, May 4, 86. A.B., Swarthmore, 07; M.D., Hopkins, 11. Asst. path., Hopkins, 12-14; fellow pharmacol., Rockefeller Inst., 14-15; instr. path., Columbia, 15-17, assoc., 19-21; pathologist, Lakeside Hosp, 21-23; *assoc. path.*, *Western Reserve*, 23- Pathologist, Montefiore Home and Hosp, New York, 15-17, 19-21; Mt. Sinai Hosp, Cleveland, 23- Pathologist, Hopkins Overseas Unit, 17-19. Soc. Exp. Biol; Int. Ass. Med. Mus. Experimental pathology; lobar pneumonia; spirochetal gangrene.
- Kline, Dr. J(ohn) E(obert)**, University of Pennsylvania, Philadelphia, Pa. **Mathematics*. Quakertown, Pa, Dec. 7, 91. A.B., Muhlenberg, 12; A.M., Pennsylvania, 14, Harrison fellow, Ph.D, 16. Instr. *math.*, Pennsylvania, 16-18; Yale, 18-19; assoc., Illinois, 19-20; *asst. prof.*, *Pennsylvania*, 20- John Simon Guggenheim research fellow, Göttingen, 26-27. Math. Soc; Math. Ass; Circolo Mat. di Palermo. Analysis situs; foundations of geometry; real variable theory.
- Kline, Dr. Linus W(ard)**, Saratoga Springs, N. Y. *Psychology, History of science*. Benton, Pa, Oct. 16, 66. B.S., Harvard, 96; Ph.D., Clark, 98. Teacher psychol. and pedag., Minn. State Nor. Sch., Mankato, 99-00; Va. State Nor. Sch., Farmville, 00-02; teacher and supervisor, training sch., Minn. State Nor. Sch., Duluth, 02-19; *prof. psychol. and hist. science*, *Skidmore Col*, 20- Summers, lecturer, Virginia, 02; fellow by courtesy, Hopkins, 19-20. A.A.; Psychol. Ass; Hist. Sci. Soc. Experimental psychology; migratory impulse versus love of home; psychology of property; methods in animal psychology; association in animals; juvenile ethics; psychology of the sermon; origin, function and nature of humor; the writing process; acquisition of skill; inhibition in higher thought processes; measurement scale for drawing; associative inhibition.
- van Klooster, Prof. H(endrik) S(joerd)**, Rensselaer Polytechnic Institute, Troy, N. Y. *Physical chemistry*. Groningen, Holland, Nov. 26, 84. Ph.D., Groningen, 10; Göttingen, 09-10; Pasteur Inst, Paris, 14-15. Asst. chem., Groningen, 10-14; chemist, Govt. Testing Lab., Amsterdam, 15; chemist in charge dyeing dept., Elias Cloth Factory, Holland, 15-16; instr. chem., Lafayette, 16-18; asst. prof., *Rensselaer*, 18-26, *prof. physical chem.*, 26- Chem. Soc; N. Y. Chemists Club.
- Application of the phase rule to the study of salts and metallic alloys; metallography.
- Klopsteg, Dr. Paul E(rnest)**, Central Scientific Co, 460 E. Ohio St, Chicago, Ill. *Physics*. Henderson, Minn, May 30, 89. B.S., Minnesota, 11, A.M., 13, Ph.D, 16. Asst. physics, Minnesota, 11-13, instr., 13-17; physicist, Leeds and Northrup Co, 18-21; *director in charge develop. and mfg.*, *Cent. Sci. Co*, 21- Engineer, ordinance dept., U.S.A., 17-18. A.A.; Physical Soc; Elec. Eng; Optical Soc; Chem. Soc. Moving coil galvanometers; measurement of short time intervals; hydrogen-ion concentrations; educational problems in physics; design of scientific apparatus.
- Klosky, Dr. Simon**, 1256 Otis St, N. E., Washington, D. C. *Chemistry*. Mobile, Ala, Feb. 4, 95. A.B., St. Mary's (Md), 14, A.M., 16; Ph.D., Hopkins, 21. Assoc. chemist, Edgewood Arsenal, 21-23; *instr. chem.*, *Catholic Univ*, 23- A.A.; Chem. Soc. Colloids; impregnated silica gel; titania jellies; catalysis.
- Klotz, J(ohn) R. M(acPherson)**, 183 Madison Ave, New York, N. Y. *Chemistry*. Newark, N. J, Jan. 2, 87. B.S., Pennsylvania, 09. Chemist, Barrett Mfg. Co, 10-15; manager, Newport Chem. Works, Inc, 15-21; *consulting chem. engineer*, 21- Chem. Soc; Soc. Chem. Indust; Chem. Eng; N. Y. Chemists Club (trustee, 15-, sec'y, 16-22). Aromatic hydrocarbons and their derivatives.
- Klotz, Dr. L(eo) Jos(eph)**, Citrus Experiment Station, Riverside, Calif. *Botany*. Carleton, Mich, April 3, 95. B.S., Mich. State Col, 20, M.S., 21; Lackland fellow, Washington (St. Louis), 21-23, Ph.D, 23. Asst. prof. bot., New Hampshire, and asst. botanist, Exp. Sta, 23-25; *Nat. Research Council fellow and research assoc. plant path.*, *Citrus Exp. Sta.*, California, 25- A.A.; Chem. Soc. Plant physiology and pathology; physiology of fungi.
- Klotz, Dr. Oskar**, University of Toronto, Toronto, Ont, Can. **Pathology, Bacteriology*. Preston, Ont, Jan. 21, 78. M.B., Toronto, 02; Governor's fellow, McGill, 03-04, M.D., C.M., 06; Bonn, 04-05; Freiburg, 08. House physician, Ottawa Gen. Hosp, 02; supt., Ottawa Civic Hosp, 03; demonstrator path. and bacter., McGill, 05-08, lecturer path., 08-09; *prof. path. and bacter.*, Pittsburgh, 10-20; path., Sao Paulo, Brazil, 20-23; *path. and bacter.*, *Toronto*, 23- Fellow, Rockefeller Inst, 05; asst. pathologist, Royal Victoria Hosp, Montreal; pathologist, Maternity and Alexandra Hospitals; director, Magee Path. Lab, 10-20; consulting pathologist, U. S. Bur. Mines, 17-19; Hosp. for Sick Children, Toronto. Committee on tuberculosis, Can. Nat. Research Council; Yellow Fever Commission, 26. Am. Physicians; Soc. Exp. Path; Soc. Exp. Biol; Ass. Path. and Bact. (past pres); Ass. Med. Mus. (past pres); Can. Med. Ass; Ont. Col. Physicians and Surg; Int. Soc. Hist. Med. Arteriosclerosis and diseases of arteries; calcareous degeneration; osteogenesis imperfect; variability of *Bacillus coli*; fatty kidney; medial diseases of arteries; diseases of the liver; bacterial causes of nephritis; pneumonia and in-

fluenza; syphilis of arteries; aneurysm; yellow fever.

Klugh, Prof. A(lfred) Brooker, Queen's University, Kingston, Ont. Can. *Ecology*. London, Eng, May 6, 82. Ont. Agr. Col; fellow, Queen's (Can), 07-10, M.A., 10; Ph.D., Cornell, 25. Instr. field bot. and ornith, Ont. Agr. Col, 04-06; lecturer animal biol, *Queen's (Can)*, 10-20, *asst. prof. biol*, 21- Research, marine biol. sta, St. Andrews, N. B., 09, 10, 12, 13, 21-25; biol. sta, Nanaimo, B. C., 14. Ecol. Soc; Soc. Mammal. Limnology; light as a biotic factor; algae; Entomostraca.

Klüver, Dr. H(einrich), University of Minnesota, Minneapolis, Minn. *Psychology*. Germany, May 25, 97. Hamburg, 20-22; Berlin, 22-23; Ph.D., Stanford, 24. Teaching asst, Stanford, 23-24; *instr. psychol*, *Minnesota*, 24- Psychol. Ass. Differential, theoretical, genetic and experimental psychology.

Knappen, Dr. R(ussell) S(tafford), Gulf Refining Co, Pittsburgh, Pa. *Geology*. Three Rivers, Mich, July 17, 92. B.S., Ohio Wesleyan, 13; A.M., Wisconsin, 15; Ph.D., Columbia, 25. Asst. geol, Columbia, 15-17; instr. econ. geol, Chicago, 19-20; asst. prof, Kansas, 20-21, assoc. prof, 21-25, prof, 25; visiting lecturer, Harvard, 25-26; *geologist*, *Gulf Ref. Co*, 26- Aid, U. S. Geol. Surv, 14-15, geologist, 21-; Ill. Geol. Surv, 19-21. Geologist, U.S.A., 18. Geol. Soc; Ass. Petrol. Geol; Min. Eng. Economic geology; geology of Dixon, Illinois, and northern Bighorn Basin, Montana.

Knaus, Warren, McPherson, Kans. *Entomology*. Liber, Ind, Feb. 24, 58. B.S., Kansas Col, 82, M.S., 85; Sc.D., McPherson, 27. A.A.; Entom. Soc. Amer; Kans. Acad; cor. mem. Wash. Entom. Soc. Coleoptera of Kansas and North America.

Kneass, Strickland L(andis), 418 S. 15th St, Philadelphia, Pa. *Mechanical engineering*, *Thermodynamics*. Philadelphia, Jan. 7, 61. C.E., Rensselaer, 80. Mech. engineer, exp. dept, *Wm. Sellers and Co*, *Phila*, 83-88, foreman, 88-95, manager injector dept. and v. pres, 95-Trustee, Rensselaer. Mem. board judges, Elec. Exhib, *Phila*, 86; chairman sub-committee, board jury and awards, Export Exhib, 99. John Scott medal and premium, Franklin Inst. Diploma for inventions, Columbian Expos, 93; La. Purchase Expos, 04. Mech. Eng; assoc. mem. Am. Ry. Ass; Inst. Social Sci; Franklin Inst; fel. Royal Soc. Arts. Discharge of elastic fluids; flow of steam; the Sellers injector; bronzes.

Knerr, Dr. E(lsworth) B(rownell), 7345 State Line, Kansas City, Mo. *Chemistry*. Rochester, Minn, Dec. 3, 61. A.B., Wittenberg, 84, A.M., 86, Sc.D., 87; M.D., Univ. Med. Col, Kansas City, 07. Asst. prof. science, Wittenberg, 85, 86; prof. nat. sciences, Parsons, 86-89; Midland Col, Atchison, Kans, 89-04; asst. chem. lab, Univ. Med. Col, and asst. city chemist, Kansas City, 04-06; *practising physician*, 07- Radiologist, Research Hosp, Kansas City, 13-27. Asst. chemist, Kansas Univ. Geol. Surv. Chem.

Soc; Kans. Acad. (sec'y, 94-98, pres, 99). Radiology; clinical chemistry and microscopy.

Knight, Prof. A(rchibald) P(atterson), Alice St, Kingston, Ont, Can. *Physiology*. Renfrew, Ont. M.A., Queen's (Can), 75, LL.D.; M.D., Toronto, 85. Prof. physiol. and animal biol, Queen's (Can), 92-20; *retired*. Fel. Royal Soc. Can. Life history of the American lobster; fish culture.

Knight, Prof. Charles M(ellen), 583 Weber Ave, Akron, Ohio, or 447 Ave. Navarre, Coral Gables, Fla. *Physics*, *Chemistry*. Dummerston, Vt, Feb. 1, 48. A.B., Tufts, 73, A.M., 78; hon. Sc.D., Buchtel, 97. Asst., Goddard Sem, Barre, Vt, 73-74; asst. physics, Tufts, 74-75; prof. nat. science, *Buchtel*, 75-83, physical science, 83-07, *chem*, 07-13, *emer. prof*, 13- Acting pres, Buchtel, 96-97. A.A.; Chem. Soc. Lithium in waters of Summit County, Ohio; chemistry of rubber.

Knight, Cyril W(orkman), Nipissing Mining Co, Cobalt, Ont, Can. *Geology*. Kingston, Ont, Nov. 28, 79. B.S., 04. Assoc. provincial geologist, Ont, 06-23; *geologist*, *Nipissing Mining Co*, 23- Bigsby medal, London Geol. Soc, 25. Geol. Soc; Soc. Econ. Geol; Min. and Metal. Eng; Royal Soc. Can; Can. Min. Inst. Precambrian stratigraphy; ore deposits in Ontario.

Knight, Prof. F(rederic) B(utterfield), State University of Iowa, Iowa City, Iowa. *Psychology*. Springfield, Mass, July 2, 91. A.B., 13; A.M., 15; Ph.D., 20. Supt, schools, Mass, 15-19; *prof. psychol. educ*, *Iowa*, 19- Lecturer, Columbia, 25. Psychol. Ass; Nat. Research Ass. Personnel and psychology of the elementary school subjects.

Knight, Prof. H(arry) H(azelton), Iowa State College, Ames, Iowa. *Entomology*. Koshkonong, Mo, May 13, 89. B.S., Cornell, 14, Ph.D., 20. Investigator entom, Cornell, 16-17; asst. prof. entom. and curator collections, Minnesota, 19-24; asst. prof. entom, *Iowa Col*, 24-25, *assoc. prof*, 25- Entomologist, Genesee Co, N. Y. Fruit Growers' Ass, 13-16. Cornell biol. exped, 17. Lieut, A.S., 17-19. A.A.; Entom. Soc; Ass. Econ. Entom; N. Y. Entom. Soc; Soc. entom. de France; Soc. entom. de Belg. Economic and systematic entomology; Miridae; army worm; fruit insects; melanism in *Perillus bioculatus*; nature of color in Hemiptera.

Knight, Prof. Henry G(ranger), U. S. Department of Agriculture, Washington, D. C. *Chemistry*. Bennington, Kans, July 21, 78. A.B., Washington (Seattle), 02, A.M., 04; fellow, Chicago, 03; Ph.D., Illinois, 17; hon. fellow, Cornell, 21-22. Asst. chem, Washington (Seattle), 00-01, instr, 01-02; asst, Chicago, 02-03; asst. prof, Washington (Seattle), 03-04; prof, Wyoming, and state chemist, 04-10, director, Exp. Sta, 10-18; dean col. agr, Okla. Agr. and Mech. Col, and director, Exp. Sta, 18-21; research chemist, West Virginia, 22-26, director, Exp. Sta, 22-27, dean col. agr, 26-27; *chief bur. chem. and soils*, *U. S. Dept. Agr*, 27- Chairman, Wyo. State Council Defense, 17-18. Chem. Soc; Ass. Agr. Col; Ass. Agr. Exp. Sta. Qualitative analysis; potable waters; effect of alkali upon plants and seeds; poisonous plants; soils

- nitrogen; Wyoming forage; drainage; effect of alkali on cement; food adulteration; digestion; wool; soil acidity; plant metabolism.
- Knight, Howard L (awton)**, 1420 Buchanan St, Washington, D. C. *Nutrition*. Gardner, Mass, Sept. 29, 81. B.S, Mass. Col. and Boston, 02; Wesleyan, 04-06. Instr. chem. and eng, Mass. Col, 02-04; asst. chem, Wesleyan, 04-06; sci. asst. physiol. and nutrition, *U. S. Dept. Agr*, 04-06, asst. ed, '*Exp. Sta. Record*,' 06-18, assoc. ed, 18-23, *ed*, 23- A.A.; Farm Econ. Ass; Home Econ. Ass. (treas, 11). Food economics; agriculture.
- Knight, Prof. Nicholas**, Mt. Vernon, Iowa. *Chemistry*. Mexico, N. Y., April 2, 61. A.B, Syracuse, 82, A.M, 85, Ph.D, 88; Strassburg, 92-94; Hopkins, 94-95, 98-99. *Prof. nat. science*, Cazenovia Sem, 82-92; chem, Randolph-Macon, 95-98; *Cornell (Iowa)*, 99- Committee on Pure Foods, Iowa, 00-08; city chemist, Mt. Vernon; chemist, water commission, Oneida, N. Y. Assoc. ed, 'Sch. Science and Math,' 12- Chem. Soc. (pres, Iowa sect, 08-09); Iowa Acad. (v. pres, 19, pres, 20); Chem. Gesell. Rocks; water; dissociation of complex salts in aqueous solutions; analysis of precipitations at Mt. Vernon, Iowa.
- Knight, Prof. S(amuel) H(owell)**, University of Wyoming, Laramie, Wyo. *Geology*. Laramie, July 31, 92. A.B, Wyoming, 13; Columbia, 14-17. Asst. prof. *geol. Wyoming*, 17-18, *prof*, 19- Lieut, intelligence div, 18. A.A; Paleont. Soc; Min. and Metal. Eng; fel. Am. Geog. Soc; N. Y. Acad. Stratigraphy and paleontology of Paleozoic and Mesozoic formations of the Rocky Mountain region.
- Knipp, Prof. Cha(rie)s T(obias)**, 1003 W. Nevada St, Urbana, Ill. **Physics*. Napoleon, Ohio, Aug. 13, 69. A.B, Indiana, 94, A.M, 96; Pres. White fellow, Cornell, 98-00, Ph.D, 00; Cambridge, 10-11, 26-27. Instr. *physics*, Indiana, 93-00, asst. prof, 00-03; *Illinois*, 03-15, assoc. prof, 15-17, *prof*, 17- Summers, instr, Missouri, 02, Indiana, 05, 22, research, Nat. Elec. Light Ass, 25. A.A; Physical Soc; fel. Elec. Eng; Radio Eng; Eng. Educ; Ill. Acad. (v. pres, 20, pres, 21); Ind. Acad. Surface tension of water above 100° C; surface tension and density of liquid air; temperature and potential pressure relations in the mercury arc; rays of positive electricity from the Wehnelt cathode; positive rays in helium; mercury arc still; mercury vapor vacuum pumps; a new singing tube; alkali-vapor detector tubes; alpha ray-track apparatus; electron emission in alkali-vapors; properties of cathode rays and positive rays; X-rays in the study of materials.
- Knobel, Prof. Max**, Massachusetts Institute of Technology, Cambridge, Mass. *Electrochemistry*. Dedham, Mass, May 22, 98. B.S, Mass. Inst. Tech, 18, M.S, 19, Ph.D, 21. Asst. physics, Mass. Inst. Tech, 18-19, instr, 19-23; Nat. Research Council fellow chem, California, 23-24; res. chemist, Guggenheim Bros, N. Y, 24; instr. *physics and electrochem*, Mass. Inst. Tech, 24-25, *asst. prof*, 25- Electrochem. Soc; Chem. Soc. Overvoltage; storage batteries; electron theory.
- Knoll, Lloyd M(onroe)**, 6120 Carpenter St, West Philadelphia, Pa. *Physics*. Moselem, Pa, May 12, 77. A.B, Ursinus, 01; A.M, 04; Pennsylvania. *Prof. physics*, Cent. High Sch. Phila, 10- A.A; Physical Soc; Radio Eng. Isochronous tuning forks; radio direction finders.
- Knopf, Prof. Adolph**, Yale University, New Haven, Conn. **Geology*. San Francisco, Calif, Dec. 2, 82. B.S, California, 04, M.S, 05, Ph.D, 09; A.M, Yale, 23. Aid, *U. S. Geol. Surv*, 06-07, asst. geologist, 08-12, *geologist*, 12-; assoc. prof. *geol*, Yale, 20-23, *prof*, 23- Assoc. ed, 'Am. Jour. Sci,' 26- Div. geol. and geog, Nat. Research Council, 23-26. A.A; Geol. Soc; Soc. Econ. Geol. (councilor, 25); Wash. Acad. (ed, 'Jour,' 16-18). Economic geology; petrology.
- Knopf, Mrs. Adolph (Dr. Eleanora Frances Bliss)**, 105 E. Rock Road, New Haven, Conn. *Geology*. Rosemont, Pa, July 15, 83. A.B, A.M, Bryn Mawr, 04, Ph.D, 12. Demonstrator, geol. lab, Bryn Mawr, 05-06, asst. curator geol. museum, 04-05, 08-09; geol. aid, *U. S. Geol. Surv*, 12-17, asst. geologist, 17-18, *assoc. geologist*, 18- Geologist, Md. Geol. Surv, 17- Geol. Soc; Wash. Acad. Petrology; economic geology; Precambrian geology of the northern Atlantic states.
- Knopf, Dr. S(igard) Adolphus**, 16 W. 95th St, New York, N. Y. *Medicine*. Halle, Germany, Nov. 27, 57. Southern California, 85-87; M.D, N. Y. Univ, 88; B.S. and A.B, Sorbonne, 90; Berlin and Vienna, 91; M.D, Paris, 95; Falkenstein, 95-96. Prof. phthisiotherapy, N. Y. Post-Grad. Med. Sch, 08-20; attending physician, *Riverside Hosp. Sanatorium for Consumptives*, 04-23, *consulting physician*, 23-; *Gabriels Sanatorium*; *White Mt. Sanatorium*, *Scranton*; *Bruchesi Tuber. Inst*, *Montreal*. Tuber. specialist, U. S. War Veterans Hosp. No. 61, S. I, N. Y, 20-22; hon. director, Gaylord Farm Sanatorium, Conn. Laureate, Inst. of France and Acad. de Méd. de Paris, 95; Alvarenga prize, Phila. Col. Physicians, 98; Tuber. Cong. prize, Berlin, 99, Washington, 08; gold medal, La. Purchase Expos, 04. Official delegate, Tuber. Cong, London, 01, Paris, 05, v. pres, social sect, Washington, D. C, 08; Int. Prison Cong, Budapest, 05. Major, M.O.R.C. Am. Med. Ass; Tuber. Ass. (director, 04-19); hon. mem. Ass. Thoracic Surg; Soc. Med. Juris; Ass. Psychological Research; fel. N. Y. Acad. Med; Soc. d'Hygiène de Paris; hon. mem. Soc. Cient. Ant. Alz; Int. Antituber. Ass. Etiology, diagnosis, prophylaxis, treatment, social aspects of tuberculosis and the housing problem; tuberculosis in children and in prisons; home hygiene and therapeutics; birth control; eugenics; psychical research; historical medicine.
- Knott, Prof. J(ames) E(dward)**, Pennsylvania State College, State College, Pa. *Horticulture, Plant physiology*. Jamaica Plain, Mass, June 5, 97. B.S, R. I. Col, 20; M.S, Cornell, 24, Ph.D, 26. County agr. agent, Newport, R. I, 20-23; instr. plant physiol, Cornell, 23-25, *vegetable gardening*, 25-26; assoc. prof, *Pa. State*, 26-27, *prof*, 27- A.A; Soc. Hort. Sci; Soc. Agron. Seed treatment and yield; catalase in relation to growth changes.

- Knower, Dr. H(enry) McE(lderry)**, University of Alabama, University, Ala. **Anatomy*. Baltimore, Md, Aug. 5, 68. A.B, Hopkins, 90, Adam T. Bruce fellow, 95-96, Ph.D, 96, fellow by courtesy, 97-99. Asst. biol, Hopkins, 91-93; instr, Williams, 96-97; *anat*, Hopkins, 99-08, assoc, 08-09; lecturer, Toronto, 09-10; prof, Cincinnati, 10-25; visiting prof, med. dept, Georgia, 24-26; *prof, Alabama*, 26- Asst, Woods Hole, 97, librarian, 09-20. Co-editor and sec'y, 'Jour. Anat,' 01-21; ed, 'Anat. Record,' A.A; Soc. Nat. (sec'y, 08-10); Ass. Anat. (exec. committee, 08-15, 24-26); Soc. Zool. Embryology of termites; morphology of sexual tract and brain in termites; muscle bands of the human heart; lymphatic and vascular systems of amphibian embryos by experiment and injection; anatomical building and teaching.
- Knowles, Dr. C(hester) L(ewis)**, Dorr Company, 247 Park Ave, New York, N. Y. *Chemistry*. Narragansett, R. I, Feb. 27, 94. Ph.B, Brown, 14, M.S, 15, A.M, Ph.D, 17. Research chemist, E. I. du Pont de Nemours and Co, 17-23; sales engineer, *Dorr Co*, 23-25, *asst. manager chem. sales*, 26-, *manager chem. div*, 27- Chem. Eng. Sales engineering; chemical engineering; preparation of diphenyl propiolic acid; physical constants of aniline; manufacture of tetryl.
- Knowles, Howard B(rabrook)**, 5802 Cedar Parkway, Chevy Chase, Md. *Chemistry*. Taunton, Mass, Jan. 17, 88. B.S, Vermont, 12; LL.B, Nat. Univ, 25. Research chemist, Gen. Elec. Co, Mass, 12-13; asst. chemist, Cuban-Am. Sugar Co, Cuba, 13; asst. and *assoc. chemist*, *Bur. Standards*, 13- Analytical inorganic chemistry; determination and separation of zirconium, columbium and tantalum.
- Knowlton, Prof. A(nsel) A(lphonso)**, Reed College, Portland, Oregon. *Physics*. New Portland, Maine, Oct. 12, 76. A.B, Bates, 98; A.M, Northwestern, 03; Ph.D, Chicago, 10. Instr. *physics*, Carleton, 99-02; assoc. prof, Armour, 03-09; Utah, 09-15; *prof, Reed*, 15- Chairman administration committee, Reed, 20-21. A.A; Physical Soc; Utah Acad. Micro-structure of magnetic alloys.
- Knowlton, Prof. Frank P(attengill)**, 1618 E. Genesee St, Syracuse, N. Y. *Physiology*. Holland Patent, N. Y, June 17, 75. A.B, Hamilton, 96; A.M, Michigan, 97; M.D, Syracuse, 00; Cambridge, 11; Univ. Col, London, 11, 12. Instr. *physiol* and *embryol*, *col. med*, *Syracuse*, 97-00, lecturer *physiol*, 00-06, assoc. prof, 06-08, *prof*, 08- Instr, Woods Hole, 09-, trustee, 23- A.A; Am. Med. Ass; *Physiol. Soc*; Soc. Exp. Biol; London *Physiol. Soc*. Effect of temperature on growth; a tumor of the medulla in a cat; action of urea on the isolated heart; action of various salts on the selachian heart; physiology of the heart and circulation; physiology of the kidney; glycosuria; oxygen consumption and blood flow in the thyroid gland.
- Knowlton, Prof. H(arry) E(dward)**, West Virginia University, Morgantown, W. Va. *Pomology*, *Plant physiology*. Fennville, Mich, May 1, 90. B.S, Mich. State Col, 12; Ph.D, Cornell,
20. Asst. bur. plant indust, U. S. Dept. Agr, 12; asst. entom, Illinois, 12-14; instr. bot, Cornell, 15-17; *assoc. prof. hort. and assoc. horticulturist*, *West Virginia*, 19- Field artil, U.S.A, 17-19. A.A; Bot. Soc; Soc. Hort. Sci. Peach and apple sterility; orchard fertilization; hardiness of plants.
- Knowlton, Dr. Millard**, Connecticut State Department of Health, Hartford, Conn. *Medicine*. Colfax Co, Nebr, Feb. 18, 75. M.D, Indiana, 05; C.P.H, Harvard, 18. Teacher, rural schools, Ind, 96-01; private practice med, 05-10; educ. work, N. J. State Dept. Health, 11-15, chief bur. educ. and publicity, 15-17; chief bur. venereal diseases, Kans. State Board Health, 18-19; N. C. State Board Health, 19-21; passed asst. surgeon, U. S. Pub. Health Service and U. S. Veterans Bur, 21-23; *director bur. preventable diseases*, *Conn. State Dept. Health*, 23- Summer, field asst, U. S. Fish Commission, Lake Maxinkuckee, 00. Gold medal, Int. Expos. Hygiene, Lima, Peru, 13. A.A; Am. Med. Ass; Pub. Health Ass; Conn. Pub. Health Ass. Educational work in public health; the prevention of disease.
- Knox, Dr. John K(nox)**, Phillips Petroleum Co, Bartlesville, Okla. *Geology*. Fergus, Ont, Can, Aug. 14, 86. B.A, Toronto, 14; Ph.D, Chicago, 17. Field geologist, Can. Geol. Surv, 12-16; geologist, Roxana Petrol. Co, 17-18; asst. state geologist, Kans, 18-19; geologist, Whitehall Petrol. Corp, 20-23; consulting geologist, Denver, 23-25; *chief geologist*, *Phillips Petrol. Co*, 25- Petrography.
- Knudsen, Prof. Vern O(liver)**, University of California at Los Angeles, Los Angeles, Calif. *Physics*. Provo, Utah, Dec. 27, 93. A.B, 15; Ph.D, Chicago, 22. Engineer, research laboratories, West. Elec. Co, N. Y, 18-19; asst. *physics*, Chicago, 20-22; *asst. prof, California at Los Angeles*, 23- A.A; Physical Soc. Physiological and architectural acoustics; sensibility of the ear; the effect of reverberation and the interfering effect of tones and noise upon speech reception; the quality of speech in auditoriums.
- Knudson, Prof. Arthur**, Albany Medical College, Albany, N. Y. *Biochemistry*. Milwaukee, Wis, Aug. 13, 89. A.B, Missouri, 12; Ph.D, Columbia, 15. Asst. biochem, Columbia, 12-14; adjunct prof. *physiol. chem*, *Albany Med. Col*, 14-15, assoc. prof. *biochem*, 15-21, *prof*, 21- A.A; Chem. Soc; Soc. Biol. Chem; Soc. Exp. Biol. Metabolism in leukemia; metabolism of cholesterol and cholesterol esters; chemical assay of digitalis; strophanthus series.
- Knudson, Dr. Clarence M(ilton)**, Colorado School of Mines, Golden, Colo. *Chemistry*. Denver, Colo, Dec. 19, 00. B.S, Denver, 21, A.M, 22; Ph.D, Iowa, 24. Instr. *chem*, Denver, 21-22; asst, Iowa, 22-23, research asst, 23-24; instr, Nebraska, 24-26; *Colo. Sch. Mines*, 26-27, *asst. prof*, 27- Summer, research chemist, Mid-Continent Petrol. Corp, 26. Chem. Soc. Electro-metric titrations; adsorption; catalysis.
- Knudson, Prof. L(ewis)**, Cornell University, Ithaca, N. Y. **Plant physiology*. Milwaukee, Wis, Oct. 15, 84. B.S.A, Missouri, 08; Ph.D, Cornell, 11. Asst. *plant physiol*, *Cornell*, 08,

- instr, 08-11, asst. prof, 11-16, *prof*, 16- Summers, Woods Hole, 10-12; lecturer, Madrid and Barcelona, 20, 21. A.A.; Bot. Soc.; Soc. Espan. Hist. Nat. Tannic acid fermentation; growth; enzyme production; organic nutrition of green plants; orchid seed germination; symbiosis.
- Kober, Dr. Geo(rge) M(artin)**, 1819 Q St, N. W, Washington, D. C. *Hygiene*. Alsfeld, Germany, March 28, 50. M.D., Georgetown, 73, L.L.D., 06. Acting asst. surgeon, U.S.A., 74-87; *prof. hygiene, sch. med*, Georgetown, 90-, *dean*, 01- Consulting staff, Providence, Children's, Wash. Asylum and Univ. Hospitals; Wash. Sanit. Housing Co. (sec'y, 97-15, pres, 15-). V. pres, Board Charities, 06-; sec'y, President's Homes Commission, 07. Gold medal, Paris Expos, 00. Int. Tuber. Cong. (chairman, sect. indust. hygiene, 06); Int. Cong. Hygiene and Demog, 12; Pan-Am. Sci. Cong, 14. A.A.; Am. Physicians (sec'y, 07-16, hon. mem, 16); Am. Med. Ass; Pub. Health Ass. (v. pres, 15); hon. mem. Ass. Mil. Surg; Ass. Am. Med. Colleges (pres, 04); Anthropol. Ass; D. C. Med. and Surg. Soc. (pres, 87); D. C. Med. Ass. (pres, 97); D. C. Med. Soc. (pres, 02); Wash. Acad. (v. pres, 18); Wash. Anthropol. Soc. (v. pres, pres, 05, 18, 19); Tuber. Ass. (pres, 15). Transmission of typhoid fever by flies; milk in relation to public health; personal and industrial hygiene; habitations; diseases of occupation; tuberculosis among the North American Indians.
- Kober, Philip Adolph**, Evanston, Ill. *Industrial chemistry*. Pittsburgh, Pa, Sept. 28, 84. Lehigh, 02-03; B.S., Harvard, 06; Rockefeller Inst, 07-08. Chemist, U. S. Leather Co, 06; Roberts Chem. Co, 07; expert analyst, Remsen Referee Board, 08-09, expert anal. chemist, 09-10; chemist, Harriman Research Lab, Roosevelt Hosp, 10-15; *physiol. chemist*, dept. health, N. Y., 16-19; chemist, E. R. Squibb and Sons, 19-20; pres, Kober Chem. Co, 20-25; *director chem. and research laboratories*, G. D. Searle and Co, Chicago, 25- A.A.; Chem. Soc; *Physiol. Soc*; Soc. Biol. Chem; N. Y. Chemists Club. Ammonia distillation; phenolphthalates; copper complexes of amino acids; polypeptids and proteases; nephelometry; arsphamines; bismuth tartrates; mineralization.
- Koch, Dr. Edward William**, University of Buffalo, Buffalo, N. Y. *Pharmacology*. Lawrenceburg, Ind, Jan. 8, 82. A.B., Indiana, 08, A.M., 09; M.D., Rush Med. Col, 11. Asst. *physiol. and pharmacol*, Indiana, 07-08, teaching fellow, 08-09, instr, 13-15; pharmacologist, Eli Lilly and Co, 15-18; *prof. pharmacol, dept. med*, Buffalo, 18- Experimental therapeutics.
- Koch, E(rnest) H(erman)**, Jr, 208 N. Maple Ave, East Orange, N. J. *Mathematics*. Philadelphia, Pa, Sept. 7, 75. B.S., Pennsylvania, 97. Math. master, MacKenzie Sch, 01-04; instr. math, Pratt Inst, 04-13; High Sch. of Commerce, New York, 13-22; *dean*, Brooklyn Tech. High Sch, 22- A.A.; Math. Soc; Eng. Educ. Engineering mathematics; generalization of human knowledge through mathematical conceptions.
- Koch, Prof. F(red) C(onrad)**, University of Chicago, Chicago, Ill. *Physiological chemistry*. Chicago, May 16, 76. B.S., Illinois, 99; fellow, Chicago, 09-12, Ph.D., 12. Instr. chem, Illinois, 00-02; research chemist, Armour and Co, 02-09; asst. *physiol. chem*, Chicago, 09-12, instr, 12-13, asst. prof, 13-19, assoc. prof, 19-23, *prof*, 23-, acting chairman dept, 19-26. A.A.; Chem. Soc; Am. Med. Ass; Soc. Biol. Chem. (sec'y, 26); Soc. Exp. Biol; Chicago Inst. Med. Secretins; thyroid active principle; phospholipins; enzymes; blood chemistry.
- Koch, Mrs. Fred Conrad (Dr. Elizabeth Miller)**, University of Chicago, Chicago, Ill. *Physiological chemistry*. Winneconne, Wis, July 19, 85. Ph.B., Chicago, 14, A.M., 15, Ellen H. Richards fellow, 18-20, Ph.D., 20. Instr. home econ, Chicago, 14-17; assoc. prof, Iowa Col, 17-18, prof, 20-21; *research assoc. pharmacol. and pediat*, col. med, Illinois, 24-26; *physiol. chem*, Chicago, 26- A.A. Yeast and animal nutrition.
- Koch, Dr. George P(eter)**, Martinez, Calif. *Chemistry*. Elma, Wash, April 26, 90. B.S., Wash. Col, 13; M.S., Minnesota, 14; fellow, Rutgers, 14-17, Ph.D., 17. Agr. chemist and bacteriologist, H. K. Mulford Co, 17-20; *chief research chemist*, Shell Co. of Calif, 22- A.A.; Chem. Soc; Soc. Bact. Chemical engineering; the refining of petroleum products.
- Koch, Dr. Helen L(ois)**, 2204 San Antonio St, Austin, Texas. *Psychology*. Blue Island, Ill, 95. Ph.B., Chicago, 18, fellow, 19-21, Ph.D., 21. Instr. *educ. psychol*, Texas, 21-22, adjunct prof, 23-26, *assoc. prof*, 26- A.A.; Psychol. Ass. Experimental and educational psychology; mental tests.
- Koch, Dr. John R(alph)**, Marquette University, Milwaukee, Wis. *Chemistry*. Janesville, Wis, Sept. 23, 98. B.S., Wisconsin, 20, M.S., 22, Ph.D., 24. Research asst. to Prof. Louis Kahlenberg, Wisconsin; research lacquers, Sherwin-Williams Co, 24-25; *prof. org. and physical chem*, Marquette, 25-, head dept, 26- Chem. Soc. Osmosis and dialysis; lacquers; electro and bio chemistry.
- Koch, Prof. Julius A(rnold)**, 28 Arlington Ave, Pittsburgh, Pa. *Pharmaceutical chemistry*. Bremen, Germany, Aug. 15, 64. Ph.G., Pittsburgh, 84, Phar.D., 95; Munich, 96; Heidelberg, 97; Ph.D., Scio, 05; Sc.D., Washington and Jefferson, 07. *Prof. pharmacy*, Pittsburgh, 91-99, *chem. and dean col. pharmacy*, 99-, prof, med. sch, 00-12. A.A.; Pharmaceut. Ass. (ed, 'Year Book,' v. pres, 04, councilor, 08-); Am. Conf. Pharmaceut. Faculties (chairman, exec. committee, 07-19); Pa. Pharmaceut. Ass. (pres, 07); British Pharmaceut. Conf; Chem. Gesell. Synthesis of aromatic aldehydes.
- Koch, Dr. William Frederick**, 3215 E. Jefferson Ave, Detroit, Mich. *Physiology*. Detroit, 85. A.B., Michigan, 09, A.M., 10, Ph.D., 17; M.D., Detroit Col. Med, 18. Instr. *physiol*, Michigan, 09-14; *prof*, Detroit Col. Med, 14- Chem. Soc. The parathyroid glands; eclampsia; cancer.
- Koehler, Dr. Alfred E(dward)**, Henry Ford Hospital, Detroit, Mich. *Medicine*. Mishicot, Wis, Aug. 31, 95. B.S., Wisconsin, 18, M.S.,

- 19, research fellow; Ph.D, Chicago, 22; M.D, Harvard, 24. *Physician, Henry Ford Hosp.* Soc. Biol. Chem. Acid-base and energy metabolism.
- Koehler, Dr. Benjamin**, University of Illinois, Urbana, Ill. *Plant pathology*. Mishicot, Wis, May 17, 90. A.B, Lawrence, 17; M.S, Wisconsin, 20, Ph.D, 25. Asst. pathologist, office cereal investigations, U. S. Dept. Agr, 19-24; *asst. chief field crop path, Illinois, 24-* Phytopath. Soc. Wheat scab; corn root, ear and stalk rot diseases; pathology of farm crops.
- Koehler, Dr. W(alter) A(llos)**, West Virginia University, Morgantown, W. Va. *Ceramics*. Manitowoc, Wis, March 25, 93. B.S, Wisconsin, 19, Ph.D, 24; M.S, Illinois, 22. Research chemist, Carborundum Co, Niagara Falls, 20-21; *in charge ceramic div, dept. chem. eng, West Virginia, 24-* Ceramic Soc. Refractories; colloids.
- Koelz, Dr. Walter (Norman)**, University of Michigan, Ann Arbor, Mich. *Ichthyology, Ornithology*. Waterloo, Mich, Sept. 11, 95. A.B, Olivet, 15; A.M, Michigan, 17, Ph.D, 20. Instr. German, Olivet, 15; *sci. investigator, Bur. Fisheries, 19-* Summer, instr, Michigan, 17. Naturalist, MacMillan Arctic exped, 25. Fisheries industry; coregonic fishes of the Great Lakes.
- Koenig, Adolphus, Jr**, 118 W. Swissvale Ave, Pittsburgh, Pa. *Physiology*. Pittsburgh, Sept. 6, 96. B.S, Pittsburgh, 20, M.D, 21. *Instr. physiol. and pharmacol, Pittsburgh, 22-* Am. Med. Ass. Ether narcosis; mechanism of the heart beat.
- Koenig, Prof. A(lfred) E(dward)**, State School of Mines, Butte, Mont. *Chemistry*. Howard Lake, Minn, May 30, 82. B.A, Macalester, 04; A.M, Wisconsin, 10, Ph.D, 12. Teacher, high sch, Minn. and Oregon, 04-08; asst. and instr. chem, Wisconsin, 08-16, asst. prof, 16-20; assoc. prof, *Mont. Sch. Mines, 20-23, prof, 23-* Chem. Soc. (see'y, Wis. sect, 14, 16, chairman, 19). Osmosis; colloids.
- Koessler, Prof. Karl K(onrad)**, 104 S. Michigan Boulevard, Chicago, Ill. *Internal medicine, Biochemistry*. Vienna, Austria, Nov. 6, 80. M.D, Vienna, 03; Ph.D, Chicago, 19. *Assoc. prof. med, Rush Med. Col, exp. med, Chicago; mem, Sprague Mem. Inst. A.A; Am. Med. Ass; Soc. Biol. Chem; Ass. Path. and Bact; Soc. Clin. Invest; Ass. Study Allergy (pres, 25); Chem. Soc; Chicago Internal Med. Soc. (pres, 25). Pathological physiology; immunology; putrefactive amines; asthma; pernicious anemia.*
- Kofoed, Prof. Charles A(twood)**, University of California, Berkeley, Calif. **Zoology*. Granville, Ill, Oct. 11, 65. A.B, Oberlin, 90, Sc.D, 15; A.M, Harvard, 92, Ph.D, 94; Smithsonian table, Naples Zool. Sta, 09; D.Sc, Wales, 20. Instr. vert. morphol, Michigan, 94-95; supt, biol. exp. sta, Illinois, 95-00, asst. prof. zool, 97-00; histol. and embryol, *California, 00-04, assoc. prof, 04-10, prof. zool, 10-* Asst. director, San Diego Marine Biol. Sta, 07-10; Scripps Inst, California, 10-23; Mich. Fish Commission, 94. Assoc. ed, 'Am. Naturalist,' 97-09; zool. ed, 'Jour. Applied Micros,' 00-; ed, 'Univ. Calif. Pub. Zool,' 08-; 'Int. Rev. Hydrol,' 10-; 'Zool. Acta,' 20-; 'Jour. Morphol,' 20-; 'Am. Jour. Hygiene,' 20- Supt, Ill. Nat. Hist. Surv, 98-00. Agassiz exped, South. Pacific, 04-05. Diploma, Paris Expos, 00; gold medal, La. Purchase Expos, 04; Panama-Pacific Expos, 15. Nat. Acad; A.A; Soc. Nat; Soc. Zool; Ass. Anat; Soc. Exp. Biol; Ecol. Soc; Pub. Health Ass; Soc. Trop. Med; Micros. Soc; Philos. Soc; Am. Acad; Calif. Acad; Wash. Acad; Phila. Acad; Royal Soc. Trop. Med. and Hygiene; Soc. de Path. exot. Plankton; morphology and taxonomy of Protozoa; embryology of Mollusca; plankton of Illinois River; protozoology; parasitology; marine zoology; amoebiasis.
- Kohl, Prof. E(dwin) J(acob)**, 218 Fowler Ave, West Lafayette, Ind. *Plant pathology*. Myers-town, Pa, April 27, 93. B.S, Albright Col, 15; M.S, Purdue, 19; Wisconsin. Teacher, high sch, Pa, 15-16; asst. instr. gen. biol, *Purdue, 16-19, instr, 19-21, bot, 21-25, asst. prof, 25-* Summers, instr, Hopkins, 19, 20. A.A; Bot. Soc; Phytopath. Soc; Ind. Acad. Mycology.
- Kohler, Prof. Elmer P(eter)**, Harvard University, Cambridge, Mass. **Chemistry*. Egypt, Pa, 65. A.B, Muhlenberg, 86, A.M, 89, LL.D, 19; fellow, Hopkins, 91-92, Ph.D, 92. *Instr. chem, Bryn Mawr, 92-94, assoc, 94-97, assoc. prof, 97-00, prof, 00-12; prof, Harvard, 12-14, Lawrence prof, 14-* Nat. Acad; Am. Acad; Imp. Leopoldine Acad. Organic chemistry.
- Kohman, Dr. Edw(ard) F(rederick)**, 1739 H St, Washington, D. C. *Chemistry*. Dillon, Kans, Jan, 85. A.B, Kansas, 12; Ph.D, Yale, 15. Assoc. dairy chem, Illinois, 15-17; org. and physiol. chemist, bur. chem, U. S. Dept. Agr, 17-18; *research chemist, Nat. Cannery Ass, 19-* Lieut. Sanit. C, 18-19. Chem. Soc. Food and dairy chemistry; poultry nutrition and metabolism; effect of carbon dioxide on metabolism; cause of vitamin C destruction in cooking; vitamins in canned foods; phenolchlorine water contamination; oxygen and other corrosive agents in canned foods.
- Kohman, Dr. G(irard) T(heodore)**, 458 Park Ave, East Orange, N. J. *Physical chemistry*. Dillon, Kans, Nov. 28, 97. B.S, Kansas, 20; Ph.D, Yale, 23. *Research chemist, Bell Telephone Laboratories, 23-* Chem. Soc. Solubility relations in ternary systems of O-M-P isomers; absorption of water by rubber.
- Kohman, Dr. H(enry) A(dolph)**, Mellon Institute, Pittsburgh, Pa. *Chemistry, Bacteriology*. Dillon, Kans, Jan. 30, 81. A.B, Kansas, 08, fellow, 08-11, Ph.D, 11. *Fellow, Mellon Inst, 11-* Lecturer, Pittsburgh, 11-12. Chem. Soc. Salt rising bread; yeast nutrients; fermentation; flour.
- Kohn, Dr. Lawrence A(lbert)**, Strong Memorial Hospital, Rochester, N. Y. *Medicine*. New York, N. Y, June 19, 94. A.B, Williams, 14; M.D, Hopkins, 23. Asst. bacter. research lab, Dept. Health, New York, 14-17; intern, Hopkins Hosp, 23-24; asst. res. physician, Peter Bent Brigham Hosp, Boston, 24-25; res.

- physician, *Strong Mem. Hosp.*, and *instr. med.*, Rochester, 25—Bacteriology of typhoid-paratyphoid group; pneumonia; bichloride poisoning; rheumatic fever.
- Kohn, Dr. S(iegfried)**, 6836 N. Broad St., Philadelphia, Pa. *Chemistry*. Austria, Dec. 6, 79. Ph.D., Vienna, 04. Chemist, commercial lab, Germany, 06; chief chemist, Mont. and Ind. Werke, Austria, 06-08; supt, chem. factory, 08-10; chemist, Tenn. Copper Co, 11-12; *chem. director*, Radium Co. of Amer, 12-16; *Chas. Lennig and Co*, 17—Chem. Soc; Inst. Chem; Leather Chem. Ass; Chem. Eng. Synthetic tars and resins; inorganic chemicals.
- Kohs, Dr. S(amuel) C(almin)**, 436 O'Farrell St., San Francisco, Calif. *Psychology*. New York, N. Y., June 2, 90. B.S., Col. City of N. Y., 12; fellow, Training Sch., Vineland, N. J., 12-14; Clark, 13-14, A.M., 14; Chicago, 16; fellow, Stanford, 16-18, Ph.D., 18. Director clinic, children's inst, Clark, 13-14; psychopathic lab, Chicago House of Correction, 14-16; asst. prof. psychol., Reed, 18-19, 21-23; psychologist, court of domestic relations, Portland, 19-23; exec. director, Oakland Jewish Federation, 23-25; *director social service*, Eureka Benevolent Soc, 25—Lecturer, N. Y. Univ, 17; Training Sch., Vineland, N. J., 13-14; Stanford, 16-18; St. Mary's Acad., Portland, 22; Oregon, 20-23; Wisconsin, 22, 23. A.A.; Psychol. Ass; Ass. Clin. Psychol. Clinical and educational psychology; statistics; intelligence and performance tests; social service.
- Kokatnur, Dr. V(aman) R(amchandra)**, 50 E. 41st St., New York, N. Y. *Chemistry*. Athani, India, Dec. 16, 86. B.Sc., Bombay, 12; M.S., Minnesota, 14, Shevlin fellow, 14-15, Ph.D., 16. Research asst., Minnesota, 15-17; with Mathieson Alkali Works, 17-18; chief research dept., Niagara Alkali Co, 18-20; asst. chief vat dye-group, Nat. Aniline and Chem. Co, 20-21; By-product Steel Corp. and E. I. du Pont de Nemours and Co, 21-22; *consulting chemist*, 22—Capt, C.W.S. A.A.; Chem. Soc; Electrochem. Soc; N. Y. Acad. Action of trioxymethylene and carbohydrates on hydrocarbons; commercial chlorin; influence of catalysts on chlorination of hydrocarbons; molecular compounds; benzoic acid; indanthrene dyes; indigo; phenolic compounds; soap and glycerin; batik; embroidery; solvents.
- Koller, Dr. Lewis R(ichard)**, General Electric Company, Schenectady, N. Y. *Physics*. New York, N. Y., Sept. 12, 95. A.B., Cornell, 17, Ph.D., 21. Asst. physics, Cornell, 16-17, instr., 19; *research lab*, Gen. Elec. Co, 20—Radio engineer, Sig.C, 17-19. Electron emission.
- Kolmer, Dr. J(ohn) A(lbert)**, Cynwyd, Pa. **Pathology*. Lonaconing, Md., April 24, 86. M.D., Pennsylvania, 08, D.P.H., 14; hon. M.S., Villanova, 15, hon. Sc.D., 18. *Prof. path. and bacter.*, Pennsylvania, 19—A.A.; Soc. Exp. Biol; Ass. Immunol; Ass. Path. and Bact; Soc. Bact; fel. Phila. Col. Physicians. Immunity; bacteriology; chemotherapy, especially in the treatment of syphilis.
- Kolodny, Dr. Anatole**, University of Iowa, Iowa City, Iowa. *Surgery*. Kasan, Russia, Nov. 23, 92. Matura, Classical Gym, Russia, 09; Ph.D., Dorpat, 12; M.D., Bâle, Switzerland, and Kasan, Russia, 16. Instr. surg., Kasan, 18; v. asst. path., Berlin, 19-21; pathologist, Iowa, 22-23; instr. anat., Illinois, 23-24; *instr. surg. and surgical research*, Iowa State, 24—Medical exped., Caucasasia and Asia Minor, 15. Regimental chief surgeon, Russian Imperial Army, 17. Ass. Path. and Bact; Berlin Surg. Soc. Bone anatomy and pathology; bone sarcoma; mineral metabolism of the skeleton.
- Kolster, Frederick A.**, Federal Telegraph Co., Palo Alto, Calif. *Radio engineering*. Geneva, Switzerland, Jan. 13, 83. Harvard, 08. Radio engineer, Stone Tel. and Tel. Co, 02-09; de Forest Radio Tel. and Tel. Co, 09-12; chief radio sect, Bur. Standards, 12-21; *chief research engineer*, Fed. Telegraph Co, 21—Fel. Radio Eng; Elec. Eng. Decremeter; radio compass; directive radio reception and transmission; radio devices for the reception of music and speech.
- Kommers, Prof. J(esse) B(enjamin)**, 1920 Regent St., Madison, Wis. *Mechanical engineering*. Sheboygan, Wis., March 11, 84. B.S., Wisconsin, 06, M.E., 22. Instr. applied mech., Wisconsin, 07-13, asst. prof., 13-20; research assoc. prof. eng. materials, Illinois, 20-21; *assoc. prof. mech.*, Wisconsin, 21—Consulting engineer, Fulton Co, Knoxville, Tenn, 23—Soc. Test. Mat; Wis. Eng. Soc. Mechanics; strength of materials; fatigue of metals.
- Komp, W(illiam) H. W(ood)**, U. S. Public Health Service, Memphis, Tenn. *Entomology*. Yokohama, Japan, March 16, 93. Mass. Col; N. Y. Univ; B.S., Rutgers, 16, M.S., 17; fellow, Cornell, 17. Asst. sanit. engineer, U. S. Pub. Health Service, 18-24, *assoc. sanit. engineer*, 24—Nat. Malaria Committee, 23—Culicidae; malaria; epidemiology; biology of the anopheles; control methods.
- Kopeloff, Dr. Nicholas**, Psychiatric Institute, Ward's Island, New York, N. Y. *Bacteriology*. New York, June 6, 90. B.S., Columbia, 12; B.S.A., Cornell, 14; fellow, Rutgers, 14-17, M.S., 16, Ph.D., 17. Field asst., U. S. Dept. Agr, 17; bacteriologist, La. Sugar Exp. Sta., 17-20; *assoc. bacter.*, *Psychiat. Inst.* A.A.; assoc. fel. Am. Med. Ass; Soc. Bact; Chem. Soc; Soc. Exp. Biol. Focal infection in psychiatry; functional method of gastric analysis; Lactobacillus acidophilus; soil biology and chemistry; sugar microbiology.
- Koplik, Dr. Henry**, 30 E. 62d St., New York, N. Y. *Pediatrics*. New York, Oct. 28, 58. A.B., Col. City of N. Y., 78; M.D., Columbia, 81. House physician, Bellevue Hosp, 81-83; asst. and instr. histol., Columbia, 83-85; *attending physician*, Good Samaritan Dispensary and St. John's Guild, 86-00; *Mt. Sinai Hosp*, 00—Consulting physician, Hebrew Orphans Asylum; Hosp. for Deformities. Permanent committee, Int. Child Welfare Cong. Am. Physicians; Pediat. Soc. (pres); N. Y. Acad. Med; hon. mem. Vienna Med. Soc. Diseases of infancy and childhood.
- Koppányi, Dr. Theodore**, University of Chicago, Chicago, Ill. *Physiology*, *Zoology*. Gyöngyös,

- Hungary, Dec. 26, 01. Budapest, 18-19; fellow, Vienna, 20-23, Ph.D., 23. Research assoc. *physiol.*, Chicago, 23-25, *instr.*, 25- Physiol. Soc; Soc. Zool; Soc. Exp. Biol; Biol. Gesell; Vienna Zool-Bot. Gesell. Comparative physiology; experimental zoology.
- Koppius, Prof. O(tto) T(ownsend)**, University of Kentucky, Lexington, Ky. *Physics*. Hettstedt, Germany, Dec. 24, 89. B.S., Marion Inst, 09; Chicago, 13, fellow, 14-15, Ph.D., 20. Asst., Chicago, 15-17, *instr. physics*, 17-20; asst. prof., Oberlin, 20-24; *assoc. prof.*, Kentucky, 24- A.A; Physical Soc; Ky. Acad. Electronics.
- Kornhauser, Prof. S(idney) I(saac)**, University of Louisville, Louisville, Ky. *Zoology*, *Anatomy*. Cleveland, Ohio, Nov. 3, 87. A.B., Pittsburgh, 08; A.M., Harvard, 10, Humbolt fellow, Bermuda, 10, Ph.D., 12, Hooper fellow at Halle, 12-13, Sheldon traveling fellow, Würzburg, 13-14; Smithsonian table, Naples Zool. Sta., 13. *Instr.* Biol., George Washington, 08-09; Austin teaching fellow, Harvard, 09-12; asst. prof. zool., Northwestern, 14-17, *assoc. prof.*, 17-18; *prof.*, Denison, 19-22; *anat. histol. and embryol. med. dept.*, Louisville, 22- Second lieut., Sanit.C., 18-19. Exec. committee, Commission on Standardization of Biol. Stains. A.A; Soc. Nat; Soc. Zool; Ass. Anat. Chromosomes; cytology of copepods and of Anisobalis; parasitism and sexual characteristics.
- Korstian, C(larence) F(erdinand)**, Appalachian Forest Experiment Station, Asheville, N. C. *Forestry*. Saline Co, Nebr., June 26, 89. B.S.F., Nebraska, 11, M.F., 13; A.M., Asheville, and Southeast. Christian Col., 24, Ph.D., 26; research fellow, Yale, 25-26. Asst. dendrol. and silviculture, Nebraska, 09-10; asst. pathologist, Pa. Chestnut Blight Commission, 12; forest asst., U. S. Forest Service, 12-13, forest examiner, 13-22, *assoc. silviculturist*, 22- Ed. board, 'Ecology', 23- Committee on cooperation, Nat. Research Council, 19-22. A.A; Soc. Foresters (chairman, forestry classification committee, 20-26, sec'y, intermountain sect., 16-21, south. Appalachian sect., 21-24); Bot. Soc; Soc. Plant Physiol; Ecol. Soc; N. C. Acad; Utah Acad. (v. pres, 19, pres, 20). Silviculture; forest management; growth and reproduction of forest trees; artificial reforestation; forest ecology and pathology; chlorosis of conifers; forestry bibliography; sap density of vegetation in relation to environmental conditions.
- Koser, Dr. Stewart A(rment)**, University of Illinois, Urbana, Ill. *Bacteriology*. Harrisburg, Pa., March 30, 94. Ph.B., Yale, 15, A.M., 17, Ph.D., 18. Asst. bacter. and hygiene, Yale, 16-18; bacteriologist, bur. chem., U. S. Dept. Agr., 19-23; *asst. prof. bacter.*, Illinois, 23- M.C., U.S.A., 18-19. Soc. Bact; Pub. Health Ass. Bacterial nutrition and metabolism; hemolysin of streptococci; food bacteriology; botulism and food poisoning; paratyphoid-enteritidis group; colon group; sanitary water analysis.
- Kostalek, Prof. J(ohn) A(nton)**, 320 E. A St, Moscow, Idaho. *Organic chemistry*. Prague, Czecho-Slovakia, Sept. 13, 85. A.B., Wisconsin, 07, A.M., 08; Ph.D., Illinois, 10. Research chemist, B. F. Goodrich Rubber Co, 10-11; *instr. org. chem.*, Idaho, 11-12, *asst. prof.*, 12-15, *assoc. prof.*, 15-18; head div. anal. and org. chem., N. Dak. Col., 19; *prof. org. chem.*, Idaho, 19- C.W.S., 18. Chem. Soc. Nitrogenous derivatives of the malonic ester; formic acid.
- Kostir, W(ancel) J(erome)**, Ohio State University, Columbus, Ohio. *Zoology*. Cleveland, Ohio, Sept. 28, 86. A.B., Ohio State, 12, A.M., 13; Columbia, 19-20; 21. *Instr. zool. and entom.*, Ohio State, 13-21; *zool.*, Columbia, 21-22; *asst. prof.*, Ohio State, 22- Summers, *instr.*, Woods Hole, 17-18. A.A; Micros. Soc; Ohio Acad. (treas., 19). Cranial ganglia of Amphibia; physiology and life history of Protozoa.
- Koten, Dr. I(rvin) A(ivin)**, 408 E. Beecher St, Bloomington, Ill. *Chemistry*. Bonduel, Wis., Dec. 15, 99. A.B., North-Western Col., 20; M.S., Illinois, 21, Ph.D., 24. Asst., Illinois, 20-23; *asst. prof. chem.*, Ill. Wesleyan, 24- Chem. Soc. Organic compounds of mercury; potassium xanthate.
- Kotila, J(ohn) E(rnest)**, 1108 Victor St, East Lansing, Mich. *Botany*, *Plant pathology*. Hancock, Mich., Feb. 13, 93. B.S., Mich. State Col., 18, M.S., 20. *Research asst. plant path.*, Mich. State Col., 20- Phytopath. Soc. Hopperburn of potato plants; blackleg disease of potatoes; bacteriophage in relation to plant pathogens.
- Kotinsky, Jacob**, 5154 Parkside Ave, Philadelphia, Pa. *Entomology*. Poltava, Russia, July 22, 73. B.S., Rutgers, 98. Asst. div. entom., U. S. Dept. Agr., 99-04; asst. entomologist, Hawaiian Board Agr., 04-08, *supt. entom.*, 08-10. Lecturer, Col. of Hawaii, Honolulu High and Nor. Schools, 08, 09. A.A; Entom. Soc; Ass. Eeon, Entom; Wash. Entom. Soc; Wash. Biol. Soc; Hawaiian Entom. Soc. (sec'y-treas., 05-08). Economic entomology; Coccidae; Aleyrodidae; Adelgidae; Coccidae of Hawaii; utilization of predators in economic entomology; manner and prevention of import of pests inimical to agriculture; shade tree pests.
- Kouwenhoven, Prof. William B(ennett)**, Johns Hopkins University, Baltimore, Md. *Electrical engineering*. Brooklyn, N. Y., Jan. 13, 86. E.E., Brooklyn Polytech, 06, M.E., 07; D.Ing., Karlsruhe, 13. *Instr. elec. eng.*, Brooklyn Polytech, 06-10; Washington (St. Louis), 13-14; *Hopkins*, 14-17, *assoc. prof.*, 17- Elec. Eng; Soc. Test. Mat. Magnetic analysis of steel; electrical measurements; batteries; quadrant electrometer.
- Kovarik, Prof. Alois F(rancis)**, Yale University, New Haven, Conn. **Physics*. Spillville, Iowa, March 8, 80. A.B., Minnesota, 04, A.M., 07, Ph.D., 09; John Harling research fellow, Victoria (Manchester), 10-11, D.Sc., 16; hon. A.M., Yale, 25. *Instr. physics*, Decorah Inst., Iowa, 96-00; asst., Minnesota, 02-04, *instr.*, 04-12, *asst. prof.*, 12-15, *assoc. prof.*, 15-16; *asst. prof.*, Sheffield Sci. Sch., Yale, 16-22, *assoc. prof.*, 22-25, *prof.*, Yale, 25- Nat. Research Council. Medal, Charles Univ., Prague, 25. Radioactivity Cong., Brussels, 10. A.A. (councilor, 19); Physical Soc; Meteor. Soc; Math. Soc; Math. Ass; Soc. de Physique; hon. mem.

- Soc. Math. and Physicists, Czecho-Slovakia. Mobility of ions in gases; absorption and reflection of beta particles; periods of radioactive substances; recoil atoms; statistical method for alpha and beta particles; gamma rays; X-rays; electronics; radioactivity; Decorah ice cave.
- Kowalke, Prof. O(tto) L(ouis)**, University of Wisconsin, Madison, Wis. *Chemical engineering*. Manitowoc, Wis, Jan. 18, 78. B.S, Wisconsin, 06, Ch.E, 09. Instr. *chem. eng, Wisconsin*, 08-11, asst. prof, 11-14, assoc. prof, 14-17, *prof*, 17- A.A.; Chem. Eng; Chem. Soc; Min. and Metal. Eng; Electrochem. Soc; Gas Ass; Eng. Educ. Pyrometry; refractories; alloys; calorimetry and combustion of gas; purification of manufactured gas; absorption of gases in packed towers.
- Kraatz, Dr. Walter C(harles)**, 957 Mercer Ave, Akron, Ohio. *Zoology*. Milwaukee, Wis, Jan. 20, 93. A.B, Wisconsin, 18; A.M, Ohio State, 20, Ph.D, 23. Asst. anthropol, Milwaukee Pub. Museum, 12-14; student asst. zool, Wisconsin, 16-18; Ohio State, 18-22, instr, 22-23; *asst. prof*, Miami, 23-24; *biol*, Akron, 24- Summers, instr, Ohio State, 19, asst, aquatic surv, Div. Fish and Game, Ohio, 20-22. A.A; assoc. Soc. Zool; Entom. Soc; Ecol. Soc; fel. Ohio Acad. Aquatic biology; food of fishes; morphology of fish intestine.
- Kraemer, Prof. Elmer O(tto)**, 123 N. Charter St, Madison, Wis. *Physical chemistry*. Liberty, Wis, Feb. 27, 98. B.S, Wisconsin, 18, Ph.D, 24; Am-Scandinavian Foundation fellow, Upsala, 21-22; Berlin, 22-23. Nat. Research Council fellow, 24-25; *asst. prof. colloid chem, Wisconsin*, 25- A.A; Chem. Soc. Colloid physics and chemistry; formation and structure of gels; colloid behavior of proteins; emulsification; stability of disperse systems.
- Krafka, Prof. Joseph, Jr**, Medical Department, University of Georgia, Augusta, Ga. *Anatomy*. Ottumwa, Iowa, Aug. 14, 90. A.B, Lake Forest, 14, A.M, 15; Ph.D, Illinois, 19. Research asst, sta. for exp. evolution, Carnegie Inst, 15-16; Illinois, 16-19; assoc. prof. zool, Georgia, 19-20, *prof*, 20-26, *assoc. prof. anat, med. dept*, 26- Soc. Zool; Entom. Soc. Trichopterous larvae; heredity in *Drosophila*; menopause.
- Krall, Stanley**, 33 Benedict Terrace, Longmeadow, Mass. *Chemistry*. Detroit, Mich, Oct. 12, 94. B.S, Case, 16. Research chemist, Firestone Tire and Rubber Co, 16-24; development manager, Mason Tire and Rubber Co, 24-26; *research chemist, Fisk Rubber Co*, 26- Chem. Soc. Rubber chemistry and compounding; rubber organic accelerators.
- Kramer, Dr. Benjamin**, 6 Pierrepont St, Brooklyn, N. Y. *Pediatrics*. Russia, Aug. 15, 87. M.D, Bellevue, 09; M.S, Iowa, 17. Instr. physiol, Iowa, 13-15, asst. prof, 15-17; instr. pediat, Hopkins, 17-20, assoc. prof, 20-22; assoc. pediatrician, Hopkins Hosp, 22-25; *peditrician-in-chief, Jewish Hosp, in charge Harry Caplin pediat. research lab*, 25-; *assoc. prof. pediatrics, L. I. Col. Hosp*, 25- Pediat. Soc; Am. Med. Ass; Physiol. Soc; Soc. Biol. Chem; Soc. Clin. Invest. Inorganic components of blood; rickets; calcifications.
- Krance, Prof. John A(loysius), S.J.**, Creighton University, Omaha, Nebr. *Chemistry*. Berea, Ohio, Feb. 1, 80. St. Mary's (Kans), 95-01; A.M, St. Louis, 17. Prof. *chem*, St. John's (Ohio), 08-13; *head dept*, Creighton, 17-20; John Carroll, 20-21; Regis Col, 21-26; *col. arts*, Creighton, 26-
- Krantz, Prof. Fred A(lfred)**, 2231 Knapp St, St. Paul, Minn. *Horticulture*. Westphalia, Iowa, Nov. 10, 90. B.S, Minnesota, 18, M.S, 21, Ph.D, 24. Instr. *hort*, Minnesota, 19-23, *asst. prof*, 23-, *head sect. veg. gardening, Exp. Sta.* Potato breeding; truck crops.
- Krantz, Prof. John C(hristian), Jr**, University of Maryland, Baltimore, Md. *Pharmacy*. Baltimore, Oct. 8, 99. Ph.G, 19, Ph.C, 20, Phar.B, 23, M.S, Sc.D, 24. Assoc. prof. chem. and instr. physics, dent. sch, Maryland, 21-23, assoc. prof. *pharmacy*, 21-26, *prof*, 26- Asst. lecturer, Hopkins, 21-, consulting pharmacist, Hopkins Hosp, and lecturer, nurses' sch, 24- Sec'y and treas, Nat. Conf. Pharmaceut. Research, 25- Pharmaceut. Ass. (chairman, sect. practical pharmacy, 24); Chem. Soc; Md. Acad; Am. Ass. Pharmacy Colleges (chairman, sect. pharmacy teachers). Pharmaceutical chemistry; electro-metric determination of alkaloids; theory and stability of emulsions; phytopharmacological methods of standardization; effect of polarized light on drugs.
- Kranz, Dr. Fred(erick) W(illiam)**, 615 South St, Geneva, Ill. *Physics, Otology*. Dixon, Ill, Sept. 26, 87. A.B, Lawrence, 11; A.M, Wisconsin, 19; Ph.D, Chicago, 22. *Research physicist*, West. Elec. Co, N. Y., 13-20; *Riverbank Laboratories, Ill*, 20- Physical Soc; Radio Eng. Physical aspects of audition; acoustics.
- Krathwohl, Prof. W(illiam) C(harles)**, Armour Institute of Technology, Chicago, Ill. *Mathematics*. Buffalo, N. Y., Oct. 10, 82. A.B, Harvard, 07; A.M, Columbia, 10; Ph.D, Chicago, 14. Instr. *math*, Columbia, 07-11; Washington (St. Louis), 11-12; *prof*, Ripon, 13-14; *asst. prof*, Armour, 14-18, *assoc. prof*, 19- Math. Soc. Modular invariants.
- Kratz, Prof. Alonzo P(lumsted)**, 1003 Douglas Ave, Urbana, Ill. *Mechanical engineering*. Champaign, Ill, 85. B.S, Illinois, 07, M.S, 09. *Research prof. mech. eng, Illinois*, 09- Mech. Eng; Heat. and Vent. Eng. Combustion; warm-air furnaces; refrigeration.
- Kraus, Prof. Charles A(ugust)**, Brown University, Providence, R. I. **Chemistry*. B.S, Kansas, 98; fellow, Hopkins, 99-00; Ph.D, Mass. Inst. Tech, 08. Research assoc. physical chem, Mass. Inst. Tech, 08-12, asst. prof. physical chem. research, 12-14; *prof. chem. and director chem. lab*, Clark, 14-24; *research prof*, Brown, 24- Nat. Acad; Am. Acad; Wash. Acad. Solutions; organic radicals; vapor electric apparatus; seals; glasses.
- Kraus, Prof. E(dward) H(enry)**, University of Michigan, Ann Arbor, Mich. *Mineralogy*. Syracuse, N. Y., Dec. 1, 75. B.S, Syracuse, 96, M.S, 97, Sc.D, 20; Ph.D, Munich, 01. Instr.

- German and miner, Syracuse, 96-99, miner, 01-02, assoc. prof, 02; head dept, high sch, N. Y., 02-04; asst. prof. miner, *Michigan*, 04-06, junior prof, 06-07, miner. and petrog, 07-08, *prof*, 08-19, *crystallog. and miner*, 19-, *director miner. lab*, 08-, acting dean *col. pharm*, 20-23, *dean*, 23- Summer, prof, Syracuse, 03-05, acting dean, Michigan, 11-15, dean, 15- A.A.; Geol. Soc; Chem. Soc; Optical Soc; Miner. Soc. (pres, 20); Min. Eng; Pharmaceut. Ass; Mich. Acad. (v. pres, 07, pres, 19). Descriptive mineralogy; chemical and physical crystallography; optical constants of crystals at varying temperatures.
- Kraus, Prof. E(zra) J(acob)**, University of Chicago, Chicago, Ill. **Botany*. Lansing, Mich, March 19, 85. B.S, Mich. State Col, 07; Ph.D, Chicago, 17. Sci. asst. U. S. Dept. Agr, 07-09; prof. hort. research, Oregon Col, 09-18, dean art and science departments, 18-19; *prof. applied bot*, Wisconsin, 19-27; *bot*, Chicago, 27- Bot. Soc; Soc. Hort. Sci; Math. Entom. Soc. Applied botany; plant morphology and physiology.
- Kraus, Dr. Walter M(ax)**, 116 E. 63d St, New York, N. Y. *Neurology, Psychiatry*. New York, Aug. 25, 89. A.B, Harvard, 10; M.D, Hopkins, 13; A.M, Columbia, 14. Intern, Bellevue, 14-16; instr. biol. chem, Columbia, 15-16; adjunct and clin. asst. neurologist, Bellevue Hosp, 16-23; Cornell Dispensary; col. physicians and surg, Columbia, 19-20; Neur. Inst, 19-21; adjunct neurologist, Mt. Sinai Hosp, chief clinic, 20-22; instr. neur. med. col, Cornell, 20; attending and consulting neurologist, Montefiore Hosp, 21, neuropathologist, 23; consulting neurologist, French Hosp, 1st and 2nd Med. Divisions, 23; asst. visiting neurologist, Bellevue Hosp, 23; exec. officer, neur. div, Montefiore Hosp, 26; *assoc. neurologist, med. col, Cornell*, 26- Capt, M.C, 17-19. Am. Med. Ass; Ass. Research Nervous and Mental Diseases; Neur. Ass; assoc. Harvey Soc; N. Y. Neur. Soc; N. Y. Soc. Clin. Psychiat; N. Y. Path. Soc; fel. N. Y. Acad. Med. (sec'y, neurol. and psychiat, 26, chairman, 27); Am. Med. Soc. Paris; cor. mem. Soc. Neur. de Paris. Neuropathology; comparative neurology; anthropology.
- Krause, Prof. Allen K(ramer)**, Johns Hopkins Hospital, Baltimore, Md. **Medicine*. Lebanon, Pa, Feb. 13, 81. A.B, Brown, 01, A.M, 02, 02-03; M.D, Hopkins, 07. Asst. and instr. path, Hopkins, 07-09; asst. director, Saranac Lab, 09-16; *assoc. prof. med*, Hopkins, 16- Director, Dows tuber. research fund, Hopkins, 16-, physician in charge, Phipps Tuber. Dispensary and assoc. physician, Hopkins Hosp, 16-; lecturer, Trudeau Sch. Tuber, 16- Managing ed, 'Am. Rev. Tuber,' 17-22, ed, 22-; ed, Am. sect, 'Tubercle.' Advisory board, Loomis Sanatorium; Colo. Foundation Study Tuber; Northwoods Sanatorium; director, Desert Sanatorium of S. Arizona; advisory council, Milbank Mem. Fund; med. council, U. S. Veterans Bur. A.A; Am. Physicians; Soc. Clin. Invest; Tuber. Ass. (director, 17-20, 26-, research committee); Ass. Anat; Ass. Study Int. Secretions; Pub. Health Ass; Ass. Path. and Bact; Soc. Bact; Soc. Exp. Path; hon. mem. Harvey Soc; Climat. and Clin. Ass; hon. mem. Los Angeles Clin. and Path. Soc. Infection, pathology and immunity of tuberculosis.
- Krause, Dr. A(rlington) C(olton)**, 69 Howe St, New Haven, Conn. *Chemistry*. Chicago, Ill, July 27, 96. A.B, Lawrence, 18; A.M, Wisconsin, 21, Ph.D, 23. Asst. chem, Wisconsin, 19-22; *instr. pharmacol, sch. med, Yale*, 23- Organic catalysis; organic nitrogen compounds of molybdates and tungstates; tartrate nephritis.
- Krauskopf, Prof. Francis C(raig)**, University of Wisconsin, Madison, Wis. *Chemistry*. Richmond, Ind, Nov. 13, 77. A.B, Indiana, 04; A.M, Wisconsin, 07, Ph.D, 09. Asst. chem, Indiana, 03-04; Cornell, 04-06; instr, *Wisconsin*, 06-11, asst. prof, 11-19, *assoc. prof*, 19- Chem. Soc. Analytical and inorganic chemistry; separation of lithium; vapor pressure; absorption of carbon monoxid; silicon and titanium; substituted ammonium molybdates and tungstates.
- Krauss, Dr. F(rederick) G(eorge)**, 2447 Parker St, Honolulu, Hawaii. *Agronomy, Genetics*. San Francisco, Calif, May 6, 70. Stanford, 91-94; California, 98-01; Sc.D, Hawaii, 21; Berlin, 27-28. In charge plant breeding, Sunset Seed and Plant Co, Calif, 94-98; in charge agron. field exp, California, 98-01; consulting agriculturist and instr. agr, Kamehameha Schools, Hawaii, 01-05; agronomist, U. S. Exp. Sta, Hawaii, 05-10; prof. agr, Col. of Hawaii, 10-14; in charge, Hawaii Agr. Sub-sta, Haiku, and proprietor, New Era Farms, 14-21; *prof. agron. and genetics, Hawaii*, 21- Agr. exploration, Java, Malaya and Himalayas, 27- Fifth int. cong. genetics, Berlin, 27. Ed, 'Jour,' Pan-Pacific Research Inst. A.A; Soc. Agron; Farm Econ. Ass; Genetic Ass; fel. Geog. Soc; Hawaiian Bot. Soc; Hawaiian Acad; Pan-Pacific Union; World Agr. Soc. Plant breeding; rice; cotton; leguminous forage crops; culture and improvement through breeding; Cajanus indicus as a forage and green manuring crop; grain and forage grasses.
- Krauss, Dr. William**, 1900 Central Ave, Memphis, Tenn. *Medicine*. Near Kaiserslautern, Bavaria, June 13, 61. Ph.G, Maryland, 83; M.D, Memphis Hosp. Med. Col, 89; Kiel, Würzburg. Asst. demonstrator anat, Memphis Hosp. Med. Col, asst. surg. and instr. chem, 90-92, histol. and path. and director laboratories, 92-03; *prof. path, Col. Physicians and Surg, Memphis*, 06-09; surg. path. and dean clin. branch, sch. med, Mississippi, 09-10; trop. and prev. med. and bacter, *col. med, Tennessee*, 12-25, *trop. med. and bacter*, 25- Yellow fever expert, U. S. Pub. Health Service, 97-98, 05, lab. field investigation malaria. Chairman, Tenn. Pellagra Field Commission, 11; chairman, sub-committee med. research, Nat. Malaria Committee. Am. Med. Ass; fel. Col. Physicians; Soc. Trop. Med; Soc. Bact; South. Pub. Health Lab. Ass. (past chairman and sec'y). Malaria; bacteriology; serology.
- Kraybill, Henry R(eist)**, Purdue University, Lafayette, Ind. *Chemistry*. Mt. Joy, Pa, May 1, 91. B.S, Pa. State, 13, fellow, 13-14; M.S, Chicago, 15, Ph.D, 17. Asst. chem, Exp. Sta, Pa. State, 13-15, instr. agr. chem, 15-17; teaching fellow, Chicago, 16-17; asst. physiologist, bur.

- plant indust, U. S. Dept. Agr, 17-19; prof. agr. chem, New Hampshire, and chemist, Exp. Sta, 19-24; biochemist, Boyce Thompson Inst, 24-26; *prof. agr. chem, Purdue, and state chemist and seed commissioner*, 26- Chem. Soc; Soc. Hort. Sci; Bot. Soc. Chemistry, culture and breeding of tobacco; chemistry of apples, peaches and tomatoes; chemistry of plant metabolism.
- Krecker, Prof. Frederick H(artzler)**, Ohio State University, Columbus, Ohio. *Zoology*. Tokyo, Japan, Dec. 21, 81. A.B, Princeton, 04, Class of '77 fellow, 08-09, Ph.D, 09; A.M, Cornell, 06; Freiburg, Munich and Chicago, 06-08. Prof. biol, Marietta, 09-14; asst. prof. *zool*, Ohio State, 14-23, *prof*, 23-, acting director lake lab, 16-25, *asst. director*, 25- Ed, 'Ohio Jour. Science,' 18- A.A; Soc. Zool; Soc. Parasitol; Micros. Soc. (first v. pres, 24); Ecol. Soc; Ohio Acad. (v. pres, zool. sect, 20-). Regeneration; ecology.
- Kreger, Prof. Clarence W(illiam)**, Miami University, Oxford, Ohio. *Chemistry*. Louisville, Ky, June 1, 96. A.B, Miami, 19; A.M, Illinois, 22; Ph.D, Ohio State, 25. Asst. prof. *chem*, Miami, 19-20, 22-25, *assoc. prof*, 25- A.A; Chem. Soc. Organic and physiological chemistry; synthetic drugs; structure of disalicyl aldehyde; oxidation mechanism of raffinose; dioxans.
- Kreider, Prof. D(avid) Albert**, 298 Lawrence St, New Haven, Conn. *Physics*, *Chemistry*. Annville, Pa, March 23, 71. A.B, Lebanon, 92; Ph.D, Yale, 95; Göttingen, 01. Asst. chem, Yale, 93-95, asst, 95-96, instr. *physics*, 96-02, asst. prof, 02-20, *assoc. prof*, 20- A.A; Physical Soc; Conn. Acad. Structural and magneto-optic rotation; potassium; sodium; detection and quantitative determination of perchlorates; perchloric acid; iodine titration voltameter selective emission by flames.
- Kreidler, W(illiam) A(lfred)**, Philadelphia General Hospital, Philadelphia, Pa. *Bacteriology*. Tatamy, Pa, June 17, 96. B.S, Lehigh, 20, M.S, 24; Ph.D, Pennsylvania, 26. Instr. *bacter*, Lehigh, 21-24; *Pennsylvania, and bacteriologist*, Phila. Gen. Hosp, 24- Physiological chemist, St. Luke's Hosp, Bethlehem, Pa, 20-24; bacteriologist, Bethlehem Steel Co, 22-24. Soc. Bact. Eberthella typhi at low temperatures; adjustment of gold solutions; endocarditis.
- Kreisinger, Henry**, Combustion Engineering Corp, New York, N. Y. *Engineering*. Radnice, Bohemia, Feb. 17, 76. B.S, Illinois, 04, M.E, 06. Engineer, U. S. Bur. Mines, 04-10, in charge fuel efficiency lab, 13-20; *research engineer*, Combustion Eng. Corp, 20- Fuel engineer, Clinchfield Fuel Co, 10-13. Chanute medal, West. Soc. Eng. A.A; Mech. Eng; West. Soc. Eng. Fuel combustion; heat transmission; furnace design.
- Kremers, Prof. Edward**, University of Wisconsin, Madison, Wis. **Plant chemistry*. Milwaukee, Wis, Feb. 23, 65. Phila. Col. Pharmacy, 84-85, hon. Ph.M; Ph.G, Wisconsin, 86, B.S, 88; Ph.D, Göttingen, 90; hon. Sc.D, Michigan. Instr. pharmacy, Wisconsin, 90-92, *prof. pharmaceut. chem*, 92-, *director course in pharmacy*, 99-, *Pharm. Exp. Sta*, 12- Ed, 'Pharmaceut. Rev,' 96-09; 'Pharmaceut. Archives.' Ebert prize, Am. Pharmaceut. Ass, 88, 00. A.A; Chem. Soc; Pharmaceut. Ass. (chairman, sci. sect, 98, historian, 04-12); Am. Conf. Pharmaceut. Faculties (pres, 02); Wis. Acad. Chemistry of volatile oils and their constituents; sesquiterpenes and derivatives; quinhydrone as plant pigments; bibliography of the chemical constituents of volatile oils; classification and occurrence of the constituents of volatile oils according to modern principles; the Monardas, a phyto-chemical study; classification of carbon compounds.
- Kremers, Dr. H(arry) C(leveland)**, University of Illinois, Urbana, Ill. *Chemistry*. Springfield, S. Dak, Jan. 28, 89. A.B, Hope, 13; M.S, Illinois, 15, Ph.D, 17. Asst. chem, Illinois, 13-17, instr, 17-18; production chemist, Fansteel Products Co, 18-20; *assoc. chem*, Illinois, 20-21, *asst. prof*, 21- Chem. Soc. Chemistry of rare elements; metallurgy of rare earths.
- Kremers, Dr. Roland E(dward)**, 87 Orchard Place, Battle Creek, Mich. *Chemistry*. Madison, Wis, Feb. 7, 94. A.B, Wisconsin, 15, Ph.D, 21. Instr. chem, Wabash, 15-16; asst. chemist, forest products lab, U. S. Dept. Agr, 17; asst. prof. org. chem, Vanderbilt, 19-22; Nat. Research Council fellow, Wisconsin, 22-23; asst. prof. mat. med, Ohio State, 23-24; *research chemist*, Postum Cereal Co, 24- A.A; Chem. Soc; Pharmaceut. Ass. Plant and organic chemistry; the genus Mentha; oil-yielding plants; chemistry of cereal grains.
- Kress, Dr. Otto**, Thilmany Pulp and Paper Co, Kaukauna, Wis. *Chemistry*. B.S, Columbia, 06, A.M, 07, Ph.D, 09. Instr. chem, Columbia, 06-09; pulp and paper mills, 09-13; tech. expert, Badische Co, 13-16; in charge research, sect. pulp and paper, forest products lab, U. S. Forest Service, 16-18; Consol. Water Power and Paper Co, 18-20; *supt. manufacture*, Thilmany Pulp and Paper Co, 20- Chem. Soc; Soc. Chem. Indust; Ass. Pulp and Paper Indust. Pulp; paper; cellulose.
- Kressmann, F(rederick) W(illiam)**, Continental Turpentine and Rosin Corp, Laurel, Miss. *Chemistry*. Chicago, Ill, Feb. 6, 88. B.S, Illinois, 09, M.S, 10. Asst. chem. eng, Illinois, 09-10; asst. chemist forest products, forest products lab, U. S. Forest Service, 10-12, chemist, 12-16; v. pres. and manager, Cont. Turp. and Rosin Corp. Lecturer, Wisconsin, 14. A.A; Chem. Soc; Leather Chem. Ass; Ill. Acad. Bituminous coals; dyes and tannins of woods and barks; acid catalytic hydrolysis of wood waste.
- Kribs, Dr. Herbert Guy**, Ewing Christian College, Allahabad, India. *Zoology*. Trempealeau, Wis, Jan. 23, 70. A.B, Oberlin, 98; B.D, Union, 04; Ph.D, Pennsylvania, 08. Asst. zool, Pennsylvania, 08-09, instr, 09-10, lecturer animal behavior, 10-18; *prof. biol*, Hahnemann Sch. Science, 20-23; *zool*, Ewing Christian Col, 23- A.A; Soc. Nat; Soc. Zool.
- Krieble, Prof. Vernon K(riebel)**, Trinity College, Hartford, Conn. *Chemistry*. Worcester, Pa, March 4, 85. Ph.B, Brown, 07; M.S, McGill, 09, Ph.D, 13; Hopkins; Pennsylvania; Jefferson Med. Col. Demonstrator *chem*, McGill,

- 07-12, lecturer, 12-14, asst. prof, 14-20; *Scoville prof, Trinity (Conn)*, 20- A.A.; Chem. Soc. Amygdalins; enzymes, with special reference to emulsins and oxynitrilases; asphalts.
- Krieger, H(erbert) W**, U. S. National Museum, Washington, D. C. *Anthropology*. Burlington, Iowa, Dec. 8, 89. A.M. Instr. Minnesota, 22-24; asst. curator, *U. S. Nat. Museum*, 24-25, *curator*, 25- Exped. Bur. Am. Ethnol., Columbia River valley and southeast. Alaska, 26. Anthropol. Ass. (board managers); Wash. Anthropol. Soc. (board managers). Material culture of the peoples of Panama; aboriginal weapons and armor of the Philippines; archeology of the American northwest.
- Kriz-Hettwer, Dr. Rose**, 437 40th St, Milwaukee, Wis. *Pharmacology*. New York, N. Y., May 6, 94. B.S., Wisconsin, 18; M.B., Minnesota, 20, M.D., 21. *Asst. prof. pharmacol. sch. med, Marquette*. Wis. Med. Women's Soc. (sec'y and treas, 24-26); Milwaukee Co. Med. Soc. Strychnin and nicotin on unicellular organisms; absorption of undigested protein.
- Kroeber, Dr. A(lfred) L**, University of California, Berkeley, Calif. **Anthropology*. Hoboken, N. J., June 11, 76. A.B., Columbia, 96, A.M., 97, Ph.D., 01. Asst. rhetoric, Columbia, 97-99; curator *anthrop*, Calif. Acad. Sciences, 00, 03-06; instr. *California*, 01-06, asst. prof, 06-12, assoc. prof, 12-19, *prof*, 19-, *curator*, 08-Guest, Am. Museum Nat. Hist, 16-17. V. chairman div. anthrop. and psychol. Nat. Research Council, 21-22. A.A. (v. pres, 07); Anthropol. Ass. (pres, 17); fel. Ethnol. Soc.; Folk-Lore Soc. (pres, 06); Archeol. Inst. (sec'y, San Francisco sect, 05-08). Ethnology; American languages; ethnology of California; archeology of Mexico and Peru; North American Indians; relations of anthropology and the biological sciences.
- Kroeck, Prof. Louis (Samuel)**, College of the Pacific, Stockton, Calif. *Anatomy*. Iowa, 72. B.S., Col. of Pacific, 95, M.S., 98; A.M., Stanford, 97. Instr. biol. *Col. of Pacific*, 96-99, *prof. biol. and geol*, 99-04, *biol*, 04- Summers, research, Hopkins biol. lab, Stanford; Calif. Acad. Sciences. A.A.; Genetic Ass; Calif. Acad. Cellular anatomy.
- Krohn, Dr. W(illiam) O(sterbein)**, Heyworth Building, Chicago, Ill. *Psychology, Medicine*. Galion, Ohio, March 23, 68. A.B., Western, 87; Ph.D., Yale, 89; senior fellow, Clark, 92; M.D., Northwestern, 05. Prof. psychol. Western Reserve, 89-91; Illinois, 92-97; psychologist, State Insane Hosp, Kankakee, Ill, 97-00. Ed. 'Child Study Monthly'; 'The Psychiatrist.' A.A.; Psychiat. Ass; Am. Med. Ass; Ill. Child Study Soc. (ed, 'Trans'); Berlin Psychol. Gesell. Child-study; psychiatry; physiology and hygiene; laboratory studies of mental peculiarities of the insane; reaction-time; sense disturbances; mental temperament in children as sequella of ordinary children's diseases. [Died July 17, 27.]
- Kronig, Dr. R(alph) de L(aer)**, Columbia University, New York, N. Y. *Physics*. Dresden, Germany, March 10, 04. A.B., Columbia, 23, A.M., 24, Bayard-Cutting fellow, 24-25, Ph.D., 25. *Lecturer physics, Columbia*, 25- Physical Soc. Atomic physics.
- Kropff, Dr. Alfred H(emmer)**, Mulhens and Kropff, Inc, Chicago, Ill. *Chemistry*. New York, N. Y., Jan. 2, 87. B.S., Columbia, 07, A.M., 08, Ph.D., 09. Research asst. to Prof. M. T. Bogert, 09-10; pres, Hoffman and Kropff Chem. Co, 10-21; *mid-west. rep*, Mulhens and Kropff, Inc, 21- Organic chemistry; chemistry of petroleum oils.
- Krout, Dr. W(ebster) S(herburn)**, Pennsylvania State College, State College, Pa. *Botany*. North Berne, Ohio. B.S., Ohio, A.M. Asst. bot., New Jersey, and plant path., Exp. Sta., 15-17; field pathologist, Mass. Exp. Sta., 17-23; *assoc. plant pathologist, exten*, Pa. State, 23- *Phytopath. Soc.* Plant pathology and bacteriology.
- Krull, Prof. Wendell**, Elmhurst College, Elmhurst, Ill. *Biology*. Tripoli, Iowa, Dec. 8, 97. A.B., 21, M.S., 24. Asst. zool., Iowa, 21-24; *prof. zool.*, Northwestern Col., 24-25; *biol*, Kans. Wesleyan, 25-26; *Elmhurst Col*, 26- A.A.; fel. Iowa Acad.
- Krumbhaar, Prof. E(dward) B(ell)**, University of Pennsylvania, Philadelphia, Pa. **Medicine*. Philadelphia, Aug. 1, 82. A.B., Harvard, 04; M.D., Pennsylvania, 08, fellow, 13-14, Ph.D., 16. Res. pathologist, Pa. Hosp, 08-09; instr. *med*, *Pennsylvania*, 12-15, assoc. 15-16, asst. prof, 16-20, *assoc. prof, grad. sch. med*, 20-, *prof. path*, 27- Director lab, Phila. Gen. Hosp, 20-27. A.A.; Am. Physicians; Physiol. Soc; Ass. Path. and Bact; Soc. Exp. Biol; Soc. Exp. Path. (sec'y, 24-27, v. pres, 27-); Soc. Clin. Invest; Am. Med. Ass; Phila. Col. Physicians; Phila. Path. Soc. (pres, 24-26); Phila. Physiol. Soc. (treas, 16-22). Cardiac pathology; electrocardiography; physiology and pathology of blood spleen and bone marrow.
- Krumwiede, Charles**, Bronxville, N. Y. **Bacteriology*. New York, N. Y., 79. A.B., Columbia, 02, M.D., 05. *Asst. director bur. laboratories, Dept. Health, New York*; *assoc. prof. bacter. and hygiene, Univ. and Bellevue Hosp. Med. Col. and N. Y. Col. Dent.* Ass. Path. and Bact; Soc. Bact. (v. pres, 19, pres, 20); Soc. Exp. Biol; Soc. Immunol; Tuber. Ass; Pub. Health Ass. Tuberculosis; typhoid and paratyphoid infections; pneumonia; acute respiratory diseases; agglutinin-absorption.
- Kruse, Prof. Paul J**, 121 Heights Court, Ithaca, N. Y. *Psychology*. Boone, Iowa, Sept. 7, 83. A.B., Iowa, 06; A.M., Washington (Seattle), 12; Ph.D., Columbia, 17. Prin. and supt. schools, Iowa, 06-12; instr. *educ*, Washington (Seattle), 14-16; asst. prof, N. Y. State Col. Agr, Cornell, 17-18, *prof*, 18- Summer, California at Los Angeles, 24. Investigator, N. Y. State Rural Sch. Surv; director div. educ. measurement, Texas State Educ. Surv. Commission. Trade test div, Committee Classification of Personnel, War Dept, 18. A.A.; Psychol. Ass; Nat. Soc. Study Educ. Educational psychology and measurement.
- Kruse, Prof. T(heophile) K(arl) T(heodore)**, University of Pittsburgh, Pittsburgh, Pa. *Physiology, Pharmacology*. Sappington, Mo, March 3, 88. A.B., Missouri, 12, A.M., 13, Ph.D.,

18. Asst. *physiol. and pharmacol.*, 12-14, instr., 14-16; *Pittsburgh*, 16-19, asst. prof., 19-20, *assoc. prof.*, 20- A.A.; *Physiol. Soc.*; *Soc. Pharmacol.* Pharmacology; muscle physiology and pharmacology; pharmacology of *Acacia*; ether.
- Krusekopf, Prof. H(enry) H(erman)**, 613 Lee St, Columbia, Mo. *Soils*. Casco, Mich., Jan. 7, 86. B.S., Missouri, 08, A.M., 16. *Prof. soils*, *Missouri*, 08- A.A.; *Soc. Agron.*
- Kubie, Dr. Lawrence S(chlesinger)**, Rockefeller Institute, New York, N. Y. *Neurology, Psychiatry*. New York, March 17, 96. A.B., Harvard, 16; M.D., Hopkins, 21. Asst. psychiatrist, Henry Phipps Psychiat. Clinic, Hopkins Hosp, 22-23, instr. psychiat. and in charge neurol. lab, 23-24; instr. *physiol.*, sch. med, Hopkins, 24-26; *Rockefeller Inst.*, 26- Histopathology and physiology of the nervous system.
- Kudo, Dr. R(oksabro)**, University of Illinois, Urbana, Ill. *Zoology*. Japan, July 25, 86. D.A.Sc., D.Sc., Tokyo. Instr. Tokyo Agr. Col., 10-11, protozoologist, Exp. Sta., 11-15; research asst., Rockefeller Inst., 16-18; instr. *zool.*, *Illinois*, 18-21, *assoc.*, 21-25, *asst. prof.*, 25- A.A.; *Soc. Zool.*; *Micros. Soc.*; *Soc. Parasitol.*; *Soc. Trop. Med.*; *Ill. Acad. Parasitology*; *Protozoa*; *Sporozoa*; parasitic diseases of animals, especially of fishes and arthropods; diseases of the mosquito.
- Kuehne, Dr. J(ohn) M(atthias)**, University of Texas, Austin, Texas. *Physics*. Hallettsville, Texas, Aug. 11, 72. B.S., Texas, 99, A.M., 01; fellow, Chicago, 06-08, Ph.D., 10. Instr. *physics*, *Texas*, 01-09, adjunct prof., 09-17, *assoc. prof.*, 17-23, *prof.*, 23- Summer, Chicago, 13. A.A.; *Physical Soc.* Electrostatic effect of changing magnetic field; polarization and phase change of diffracted light.
- Kuentzel, Ward E(dward)**, 1473 Irving St, N. W., Washington, D. C. *Chemistry*. Taylor, Minn., Oct. 17, 93. B.S., Minnesota, 17; M.S., George Washington, 24. *Research chemist, fixed nitrogen research lab, U. S. Dept. Agr.*, 19- Chem. Soc. Nitrogen fixation by the direct synthetic process.
- Kugelmass, Dr. I(saac) Newton**, Yale University, New Haven, Conn. *Pediatrics*. New York, N. Y., June 28, 96. B.S., Col. City of N. Y., 16, fellow, 17; A.M., Columbia, 17; Ph.D., Hopkins, 21; D.Sc., Brussels, 22; Sorbonne, 22; M.D., Yale, 25. Instr. chem, Columbia, 18; prof., Howard Col., 18-20; *research assoc. pediat.*, *Yale*, 22- Lecturer, Boards Educ, New York and Birmingham, 18-20; chief chem. training sect., Birmingham, 19-20. Ed., 'Ostwald's Colloid Chem.' A.A.; *Physiol. Soc.*; *Soc. Exp. Biol.*; *Chem. Soc.* (v. pres, Ala. sect.); *N. Y. Acad.*; *Ala. Tech. Ass.*; *Soc. Belge de Biol.* Coagulation of the blood; regulatory mechanisms of the body; gel viscosimetry; nephelectrometry; micromethods; nutrition; chemical mechanisms in disease; biological, physiological and colloid chemistry in pediatrics.
- Kuh, Dr. Sydney**, 30 N. Michigan Ave, Chicago, Ill. *Neurology, Psychiatry*. New York, N. Y., March 6, 66. Gym. Bayreuth, Bavaria; Chicago Med. Col.; M.D., Heidelberg, 90; Vienna; Paris; London. Asst., Heidelberg; prof. nervous and mental diseases, Chicago Post-Grad. Med. Sch.; Chicago Polyclinic; *clin. prof. med.*, *Rush Med. Col., Chicago*. Past attending neurologist, St. Elizabeth and Cook Co. Hospitals; senior attending neurologist, Michael Reese Hosp; attending alienist, Saleth Hosp, and chief staff, Cook Co. Psychopath. Hosp; consulting alienist, Chicago Lying-in Hosp. A.A.; *Neur. Soc.*; *fel. Am. Med. Ass.*; *Soc. Mental Hygiene*; *Inst. Criminal Law and Criminology*; *Ill. Soc. Mental Hygiene* (director, v. pres); *Chicago Neur. Soc.* (past pres); *Chicago Path. Soc.*; *Chicago Soc. Med. Hist.*; *Chicago Inst. Med.*; *Chicago Acad. Med.*; *German Med. Soc.*
- Kuhlman, Prof. Arthur H(enry)**, South Dakota State College, Brookings, S. Dak. *Animal husbandry*. Lowell, Wis., Jan. 1, 86. B.S., Wisconsin, 10, M.S., 16. Asst. animal husbandry, Wisconsin, 10-14, instr., 14-17; emergency demonstration agent, Dodge County, Wis., 17-18; *assoc. prof. animal husbandry*, *S. Dak. Col.*, 18- A.A.; *Genetic Ass.*; *Soc. Animal Production*. Livestock feeding; animal breeding; inheritance of characters in sheep.
- Kuhlmann, Dr. Fred**, State Board of Control, 292 Macalester Ave, St. Paul, Minn. *Physiology*. Davenport, Iowa, March 20, 76. A.B., Nebraska, 99, fellow, 99-01, A.M., 01; fellow, Clark, 01-03, Ph.D., 03, hon. fellow, 03-05. Asst. psychol., Clark, 01-05; Wisconsin, 05-06; lecturer, Clark, 06-07; instr. Illinois, 07-10; director research, Minnesota Sch. for Feeble-Minded, 10-21; *director research bur.*, *Minn. State Board Control*, 21- A.A.; *Psychol. Ass.*; *Ass. Study Feeble-Minded*. Experimental studies in mental deficiency; mental imagery and memory; development of instincts and habits in young birds; mental tests; psychological, social and educational aspects of the mentally deficient and delinquents.
- Kuhn, Prof. H(arry) W(aldo)**, Ohio State University, Columbus, Ohio. *Mathematics*. Etna, Ohio, May 26, 74. B.S., Ohio State, 97, fellow, 97-98; Erastus Brooks fellow, Cornell, 99-00, Ph.D., 01. Asst. *math.*, Cornell, 00-01; asst. prof., *Ohio State*, 01-07, *assoc. prof.*, 07, *prof.*, 08- *Math. Soc.* Imprimitive substitution groups; mathematics of finance.
- Kulp, Dr. W(alter) L(eroy)**, 328 W. Rock Ave, New Haven, Conn. *Bacteriology*. West Middlesex, Pa., July 29, 90. A.B., Allegheny, 11, M.S., 12; Ph.D., Yale, 23. Indust. chem, 12-14; instr. bacter., Mich. State Col., 14-16; asst. biochem., N. Y. Exp. Sta., Geneva, 16-20; asst. *bacter.*, *Yale*, 20-23, instr., 23-26, *asst. prof.*, 26- Asst., N. Y. Exp. Sta., Geneva, 14. *Soc. Bact.*; *Pub. Health Ass.* *L. acidophilus* and *L. bulgaricus*; dairy bacteriology; vitamins and respiratory quotients; chemistry of vegetable proteins; indol studies; method for flagella staining.
- Kummel, Dr. Henry B(arnard)**, 917 Edgewood Ave, Trenton, N. J. **Geology*. Milwaukee, Wis., May 25, 67. A.B., Beloit, 89; A.M., Harvard, 92; fellow, Chicago, 92-95, Ph.D., 95. Instr. acad, Beloit, 89-91; asst. geol., Harvard, 91-92; asst. prof. physiog., Lewis Inst., Chicago, 96-99; asst. state geologist, *N. J.*, 99-02, *state*

- geologist, 02-, director conservation and development, 22-* A.A.; Geol. Soc; Ass. State Geol. (pres, 08-11). Glacial and stratigraphical geology; Paleozoic rocks of New Jersey; stratigraphy of clays of New Jersey; areal and economic geology of New Jersey.
- Kunerth, Prof. W(illia)m**, 427 Welch Ave, Ames, Iowa. *Physics*. LaCrosse Co, Wis, Aug. 19, 78. A.B, Wisconsin, 04, A.M, 10; Ph.D, Chicago, 21. Instr, high schools, Wis, 04-07; *physics, Iowa Col*, 07-16, *assoc. prof*, 16- A.A.; Optical Soc; Iowa Acad. Illumination; kerosenes; lighting systems; reflecting power of metals; solubility of gases in liquids.
- Kunitz, Dr. M(oses)**, Rockefeller Institute, New York, N. Y. *Physiology*. Slonim, Russia, Dec. 19, 87. B.S, Cooper Union, 16; Ph.D, Columbia, 24. Technical asst. to Dr. Jacques Loeb, *Rockefeller Inst*, 13-23, *asst. gen. physiol*, 23-25, *assoc*, 25- Chem. Soc. Colloidal properties of proteins.
- Kunkel, Prof. B(everly) W(augh)**, Lafayette College, Easton, Pa. *Zoology*. Harrisburg, Pa, Oct. 27, 81. Ph.B, Yale, 01, Ph.D, 05; Freiburg, 11-12. Asst. biol, Sheffield Sci. Sch, Yale, 01-05, instr, 05-12; *prof. zool*, Beloit, 12-15; *biol, Lafayette*, 15- A.A.; Soc. Zool; Ass. Anat; Pa. Acad. Vertebrate embryology; Crustacea.
- Kunkel, Dr. L(ouis) O(tto)**, Boyce Thompson Institute, Yonkers, N. Y. **Botany*. Mexico, Mo, May 7, 84. B.S, Missouri, 09, A.B, 10, A.M, 11; Ph.D, Columbia, 14. Pathologist, bur. plant indust, U. S. Dept. Agr, 14-20; *assoc. pathologist*, Hawaiian Sugar Planters Ass, 20-23; *pathologist, Boyce Thompson Inst*, 23- Bot. Soc; Phytopath. Soc. Plant pathology.
- Kunsman, Dr. C(harles) H(enry)**, 4627 49th St, N. W, Washington, D. C. *Physics*. Flicksville, Pa, June 7, 90. Grad, East Stroudsburg State Nor. Sch, Pa, 10; B.S, Pa. State, 14; M.S, California, 15, Whiting research fellow, 18-20, Ph.D, 20. Prof. physics, N. Mex. Col, 15-17; *physicist* and research engineer, West. Elec. Co, 20-23; *fixed nitrogen research lab, U. S. Dept. Agr*, 23- Instr, Sch. Mil. Aeronaut, Calif, 17-18, Sig.R.C, U.S.A. A.A; Physical Soc; Franklin Inst. Earth's penetrating radiation; thermionics; ionization and low pressure discharges; surface catalysis.
- Kuntsen, Prof. Martin H(alvor)**, 217 W. Park Ave, State College, Pa. *Bacteriology*. Kimball, S. Dak. B.S, 14, M.S, 16; Wisconsin. Asst. instr. *bacter*, Wash. Col, 16-17, instr, 17-18; *Pa. State*, 19-22, *asst. prof*, 22-23, *assoc. prof*, 23- Second lieut, Sanit.C, 18-19, lieut, 19- A.A; Soc. Bact; Pub. Health Ass.
- Kuntz, Prof. Albert**, St. Louis University School of Medicine, St. Louis, Mo. *Anatomy, Zoology*. Batesville, Ind, March 19, 79. A.B, Morning-side, 04; fellow, Iowa, 09-10, Ph.D, 10, senior fellow, 10-11; M.D, St. Louis, 18. Prof. nat. science, Charles City, 05-08; instr. biol, Iowa, 11-13; *asst. prof, sch. med, St. Louis*, 13-16, *assoc. prof. anat. and biol*, 16-19, *prof*, 19- Summers, investigator, Bur. Fisheries, 13-16. A.A; Ass. Anat; Soc. Zool; Soc. Exp. Biol; fel.
- Iowa Acad. Development of the sympathetic nervous system and of the adrenals; innervation of the digestive tube and the gonads; embryology of fishes; adaptive color changes; superfetation; changes in amphibian digestive system during metamorphosis; sympathetic innervation of voluntary muscles.
- Kunz, Dr. George F(rederick)**, 401 Fifth Ave, New York, N. Y. *Mineralogy, Geology*. New York, Sept. 29, 56. Pub. schools; Cooper Union, 72; hon. A.M, Columbia, 98; Ph.D, Marburg, 03; Sc.D, Knox, 07. Asst, chem. lab, Cooper Union, 75-76; *gem expert and v. pres, Tiffany and Co*, 79-; special agent in charge of precious stones, U. S. Geol. Surv, 83-09. Hon. special agent of mines, Omaha Expos, 87; Paris, 89; Kimberley, 91; Columbian, 93; Nashville, 98; Pan-Am, 01; La. Purchase, 04; Lewis and Clark, 05. Special agent, U. S. Fish Commission, 92-98; research curator precious stones, Am. Museum Nat. Hist; founder and pres, Museums of Peaceful Arts; chairman hist. exhibits, Hudson-Fulton Celebration, 09. Officier de l'Instruction Pub, 00; Officier, Légion d'honneur; Knight of St. Olaf, Norway; Officer, Order of the Rising Sun, Japan. A.A; Geol. Soc; Chem. Soc; Min. Eng; Metric Ass. (pres); Am. Scenic and Hist. Preserv. Soc. (pres); fel. N. Y. Acad. (v. pres, 10, pres, 13); N. Y. Miner. Club (founder and pres). Gems and precious stones of North America; meteorites; folk-lore of precious stones; radium; American pearls; industrial uses of precious stones.
- Kunz, Prof. Jacob**, University of Illinois, Urbana, Ill. **Physics*. Brittnau Aargau, Switzerland, Nov. 3, 74. Ph.D, Zurich, 02. Asst. and lecturer, Polytech, Zurich, 00-07; instr. physics, Michigan, 08-09, *asst. prof*, 09-15; *assoc. prof. math. physics, Illinois*, 15- Univ. Ill. solar eclipse exped, 18, 25. Physical Soc; Astron. Soc; Soc. de Physique. Magnetism; photoelectricity; theory of light; corona; Röntgen spectra.
- Kurrelmeyer, Dr. B(ernhard)**, Harvard University, Cambridge, Mass. *Physics*. Baltimore, Md, March 27, 03. A.B, Hopkins, 21, Ph.D, 24. *Nat. Research Council fellow, Harvard*, 25- Physical Soc. Corona in gases; photoelectric conductivity of crystals.
- Kurth, Dr. E(dward) H(oughton)**, 529 S. El Molino Ave, Pasadena, Calif. *Physics*. Schenectady, N. Y, Nov. 11, 97. C.E, Princeton, 20, M.S, 21, Sc.D, 22. Nat. Research Council fellow physics, Calif. Inst, 22-25. Summer, *asst. physicist*, Bur. Standards, 21. Physical Soc; fel. Optical Soc. Atomic physics; soft X-rays; excitation of optical spectra; mercury condensation pump.
- Kurtz, Prof. Edwin**, Oklahoma Agricultural and Mechanical College, Stillwater, Okla. *Electrical engineering*. Cedarburg, Wis, Dec. 10, 94. B.S, Wisconsin, 17; M.S, Union, 19; E.E, Iowa Col, 25. Engineer, Gen. Elec. Co, 17-19; *asst. prof. elec. eng*, Iowa Col, 19-24, *assoc. prof*, 24-25; *prof. and head dept, Okla. Agr. and Mech. Col*, 25- A.A; Elec. Eng; Eng. Educ; Nat. Elec. Light Ass. Valuation and mortality laws of physical property; replacement; iron and

steel wire; null points; wind electric power; rural electrification.

Kurtz, H(enry) F(rederick), 31 Highland Parkway, Rochester, N. Y. *Optics*. Rochester, March 30, 88. Rochester, 09-13. *Sci. bur, Bausch and Lomb Optical Co.* Optical Soc. (see'y, Rochester sect, 17-19, pres, 23).

Kurz, Prof. H(erman), Florida State College for Women, Tallahassee, Fla. *Plant ecology*. Cedar Rapids, Iowa, April 12, 86. B.S, Chicago, 20, M.S, 21, Ph.D, 22. Asst. prof. *bot, Florida Col. for Women*, 22-25, assoc. prof, 25-27, *prof, 27-* Summers, asst, Chicago, 21-24, 26, assoc. prof, 27; Cold Spring Harbor, 25. A.A; Ill. Acad. Plant morphology; hydrogen ion in relation to ecological factors.

Kuschke, Prof. Carl G(ustav) P(aul), University of Porto Rico, Rio Piedras, P. R. *Mathematics*. Germany, Dec. 2, 80. M.E, Saxony, Germany, 06; A.M, Columbia, 08; Ph.D, California, 12. Instr. math, California, 08-12; docent math. and mech, Sch. Tech, Saxony, 13-14; instr. *math*, Washington (Seattle), 14-18; asst. prof, Alabama, 20-21; *prof. and head dept, Porto Rico*, 21- Math. Soc. Theory of groups.

Küstermann, Dr. W(alter) W(olleben), Box 788, San Diego, Calif. *Mathematics, Electrical engineering*. Green Bay, Wis, July 10, 88. A.B, Wisconsin, 08, E.E, 09; Ph.D, Munich, 13. Instr, Pa. State, 13-14; Michigan, 14-18; elec. engineer, Allis-Chalmers Mfg. Co, 18-19; assoc, Illinois, 19-20. A.A; Math. Soc; Math. Verein. Double Fourier's series; functions of several variables; electrical machines.

Kutchin, Mrs. H(arriet) L(ehmann), The Maplewood, Green Lake, Wis. *Zoology*. Neosho, Wis, April 10, 79. A.B, Ripon, 02; A.M, Northwestern, 03, fellow, 03-04; Bermuda Biol. Sta, 04; Alice Freeman Palmer fellow, Wellesley, at Radcliffe, 04-05; American Women's table, Naples Zool. Sta, 05; Chicago, 05-06. Asst. zool, Ripon, 01-02; Northwestern, 02-03; instr. biol, Montana, 07-08. A.A; Soc. Zool; Ass. Anat; Wis. Acad. Crustacea; mammalian embryology; the peripheral nervous system of Amphioxus.

Kyes, Prof. Preston, University of Chicago, Chicago, Ill. **Experimental medicine*. North Jay, Maine, Jan. 24, 75. A.B, Bowdoin, 96, A.M, 00, Sc.D, 21; Harvard, 98-99; M.D, Hopkins, 00. Assoc. anat, *Chicago*, 00-02, instr, 02-03, asst. prof, 04-06, exp. path, 06-12, *prev. med*, 12-16, assoc. prof, 16-17, *prof, 17-* Fellow, Rockefeller Inst, 02-03, 04-05; assoc, Mem. Inst. for Infectious Diseases, Chicago, 04-09; Royal Inst. Exp. Therap, Frankfort-on-the-Main, 00-02, 04-06. Ass. Anat; Ass. Path. and Bact; Ass. Immunol. The structure of toxins and antitoxins; structure of the human spleen; the structure of venoms; venom hemolysis; fixed tissue phagocytes; serum therapy in pneumonia; experimental pneumonia.

Kyle, Dean E(dwin) J(ackson), College Station, Texas. *Horticulture*. Kyle, Texas, July 22, 76. B.S, Agr. and Mech. Col. Texas, 99; B.S.A, Cornell, 01, M.S.A, 02. Asst. prof. *hort, Agr. and Mech. Col. Texas*, 02-05, *prof, 11-*, *dean sch.*

agr, 11- Soc. Hort. Sci; Nut Growers Ass. Pomology; vegetable gardening; pecan growing.

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Laake, E(rnest) W(illiam), Box 208, Dallas, Texas. *Entomology*. New Ulm, Texas, Sept. 22, 87. B.S, Agr. and Mech. Col. Texas, 13. *Assoc. entomologist, bur. entom, U. S. Dept. Agr, 13-* A.A; Entom. Soc; assoc. Ass. Econ. Entom; Soc. Parasitol. Insects affecting man and domestic animals.

Lacey, Prof. William Noble, California Institute, Pasadena, Calif. *Chemistry*. California, 90. A.B, Stanford, 11, Ch.E, 12; M.S, California, 13, Ph.D, 15. Asst. chem, Stanford, 11-12; California, 12-15; research chemist, Giant Powder Co, 15; research assoc. chem, Mass. Inst. Tech, 16; instr, *Calif. Inst*, 16-17, *assoc. prof. chem. eng, 19-* Chem. Soc. Industrial and engineering chemistry.

Lachman, Dr. Arthur, 1051 Sierra St, Berkeley, Calif. **Chemistry*. San Francisco, Calif, Dec. 4, 73. B.S, California, 93; Ph.D, Munich, 95. Instr. chem, Michigan, 96-97; prof, Oregon, 97-02, dean colleges of eng, 00-02; tech. chemist, 02-19; *consulting chem. engineer, 19-*; research assoc, *California*, 20-26, *lecturer chem, 26-* A.A; Chem. Soc; Soc. Chem. Indust; Chem. Eng. Valence of nitrogen in oxygen compounds; azoxybenzene nitramid; molecular rearrangements of benzil and oximes; technical and industrial applications of organic and physical chemistry.

Lachmund, H(arry) G(ray), P. O. Box 4137, Portland, Oregon. *Pathology*. Fresno, Calif, Jan. 1, 93. A.B, Stanford. Field asst. forest path, 16, 17; field asst, junior pathologist and *asst. pathologist, office forest path, bur. plant indust, U. S. Dept. Agr, 19-* U.S.A, 17-19. Soc. Foresters. The formation of fire scars and relative susceptibility to fire damage to the boles in incense cedar and western yellow pine; white pine blister rust in the Pacific northwest.

Lacy, Dr. B(urritt) S(amuel), Blossom Cove Road, Red Bank, N. J. *Chemistry*. Dubuque, Iowa, March 4, 82. A.B, Harvard, 03, A.M, 04, fellow, 05-06, Ph.D, 06, Parker fellow, 06-07. Asst. chem, Harvard, 04-06; instr, Illinois, 08-09; *indust. research, 10-* A.A. Electrochemistry; chemistry of flames; Thomson effect in electrolytes; separation of gases; chlorination of hydrocarbons; alcohols.

Lacy, Prof. Walter N(ind), Foochow, China. *Geography*. Pleasant Prairie, Wis, Dec. 12, 84. B.S, Ohio Wesleyan, 06; A.B, Harvard, 07, A.M, 08. Prof. geog. and physics, Anglo-Chinese Col. High Sch, 08-15, 16-22, acting prin, 22; *exec. sec'y, Methodist Episcopal Mission and manager, Methodist Book Store, Foochow, 23-* Asst, Ohio Wesleyan, 16. Contrib. ed, 'Jour. of Geog,' 17-22. Climatology.

Ladd, Dr. C(arl) E(dwin), Cornell University, Ithaca, N. Y. *Agriculture*. McLean, N. Y, Feb. 25, 88. B.S.A, Cornell, 12, Ph.D, 15. Director, N. Y. State Sch. Agr, Delhi, 15-17; specialist agr, N. Y. State Dept. Educ, 17-

- 19; director, N. Y. State Sch. Agr, Alfred, 19-20; prof. farm management, *Cornell*, 20-24, *director exten*, 24- Farm Econ. Ass. Farm management; rural education; marketing.
- Ladd, Dr. Geo(rge) E(dgar)**, U. S. Department of Agriculture, Washington, D. C. *Geology*. Haverhill, Mass, July 23, 64. A.B., Harvard, 87, A.M., 88, Ph.D., 93; Munich, 93, 94. Asst. U. S. Geol. Surv., 87-89; chief asst. Mo. Geol. Surv., 89-90; asst. geol. Harvard, 90-92; asst. geologist and chemist, Ga. Geol. Surv., 95-96; prof. geol. and mining, and director sch. mines and metal, Missouri, 96-08; pres, Okla. Sch. Mines and Metal, 08-13; N. Mex. Col., 13-17; *econ. geologist, bur. pub. roads, U. S. Dept. Agr*, 17- Lecturer, Maryland; summers, instr., Harvard; asst. geologist, Texas Geol. Surv., 89; U. S. Geol. Surv., 91-92. Supt, Mass. mineral and building stone exhibit, Columbian Expos, 93; Mo. mining and metal exhibit, La. Purchase Expos, 04. Geol. Soc; Min. Eng; Eng. Educ; Min. and Metal. Soc.
- Ladd, Dr. Harry S(tephen)**, University of Virginia, University, Va. *Geology*. St. Louis, Mo, Jan. 1, 99. A.B., Washington (St. Louis), 22; M.S., Iowa, 24, Ph.D., 25. Asst. geol. Iowa, 22-24, research asst., 24-25, Bishop Museum fellow, 25-26; asst. prof. geol., Virginia, 26- Invertebrate paleontology; stratigraphy; Maquoketa shale of Iowa; geology of Viti Levu, Fiji.
- Ladd, Prof. J(ohn) E(verett)**, Rhode Island State College, Kingston, R. I. *Animal husbandry*. Raymond, N. H., Sept. 17, 90. B.S., New Hampshire, 13; M.S.A., Purdue, 17. Instr. animal husbandry, New Hampshire, 14-15; asst. dairy husbandry, Purdue, 15-17; *prof. animal husbandry, R. I. Col*, 17-
- Ladd, Dr. William Sargent**, 254th St. and Independence Ave, New York, N. Y. *Medicine*. Portland, Oregon, Aug. 16, 87. B.S., Amherst, 10; M.D., Columbia, 15. Asst. physician, Presb. Hosp, New York, and instr. med, Columbia, 18-19; instr., Hopkins, and asst. med, Hopkins Hosp, 19-21; instr., Columbia, 21-24, *as-soc. med. and asst. physician, Presb. Hosp*, 24- Lieut, M.C. A.A.; Am. Med. Ass; Soc. Exp. Biol; Harvey Soc; Soc. Mammal; fel. Am. Geog. Soc; N. Y. Acad. Med. Clinical medicine; geography.
- Ladd-Franklin, Dr. Christine (Mrs. Fabian Franklin)**, 617 W. 113th St, New York, N. Y. **Psychology, Logic*. Windsor, Conn, Dec. 1, 47. A.B., Vassar, 69, LL.D., 87; fellow, Hopkins, 79-82; Göttingen, 91-92; Berlin, 92, 94, 01. Assoc. ed, 'Dict. Philos. and Psychol'; lecturer, Hopkins, 04-09; *Columbia*, 09- A.A.; Soc. Nat; Psychol. Ass; Optical Soc; Philos. Ass. The Ladd-Franklin color theory; the antilogism; the doctrine of history; the one-time one-place theory of the judgment; proof that nerve when stimulated emits physical light.
- Ladue, Prof. Pomeroy**, 683 Prentiss Ave, Detroit, Mich. *Mathematics*. Detroit, Oct. 23, 68. B.S., Michigan, 90. Instr. math, Michigan, 92-93; prof., N. Y. Univ, 93-05; treas, Mich. United Railways Co, 05-10; *pub. accountant*, 10- Sec'y faculties, grad. sch. and sch. ap-plied sci, N. Y. Univ. Math. Soc. (librarian, 95-01).
- LaFétra, Dr. Linnaeus E(dford)**, 580 Park Ave, New York, N. Y. *Medicine*. Washington, D. C, Oct. 12, 68. A.B., Wesleyan, 91; M.D., Columbia, 94. Lecturer pediat, N. Y. Polyclinic Med. Sch, 97-00; prof. assoc. diseases of children, Columbia, 02-20; *prof. pediat, N. Y. Post-Grad. Med. Sch*, 20- Chief children's clinic, Vanderbilt Clinic, 02-11; physician, Roosevelt, Babies', Bellevue, N. Y. Skin and Cancer, Italian and Flushing Hospitals, New York; St. Joseph's Hosp, Far Rockaway; Lawrence Hosp, Bronxville; St. Vincent's Hosp, Montclair. Ed, 'Archives of Pediat.' Am. Med. Ass; Pediat. Soc; Am. Geog. Soc; N. Y. Acad. Pediatrics; bronchial asthma in children; infantile scurvy; anterior poliomyelitis; nutrition of feeble infants.
- La Forge, Dr. F(rederick) B(urr)**, U. S. Department of Agriculture, Washington, D. C. *Organic chemistry*. Bridgeport, Conn, March 12, 82. B.S., Princeton, 05; M.A., Ph.D., Berlin, 08. Asst, Berlin, 08-09; fellow and asst, Rockefeller Inst, 10-12, assoc, 12-15; *org. chemist, bur. chem, U. S. Dept. Agr*, 15- A.A.; Chem. Soc; Inst. Chem; Wash. Acad. Biochemistry; nucleic acid; chondroitin sulphuric acid; pentosuria; sugars; corn cob utilization; furfural; insecticides.
- La Forge, Dr. Laurence**, U. S. Geological Survey, Washington, D. C. *Geology, Geophysics*. New York, N. Y., Sept. 17, 71. Alfred, 87-92; A.B., Harvard, 99, A.M., 00, Austin fellow, 02-03, Ph.D., 03. Instr. astron, Alfred, 96-97; asst. geologist, U. S. Geol. Surv., 01-05; aid geol., U. S. Nat. Museum, 05-08; consulting geologist, 08-14; *geologist, U. S. Geol. Surv*, 14- Lecturer, Harvard, 25; meteorologist, Alfred, 95-97. Ed. specialist geol., 'Standard Dict.', 11-12. Am. Geog. Soc; Wash. Geol. Soc. Topography and climate; crystallography of leadhillite; geology of Georgia, Massachusetts, New Hampshire and Maine; physiography of the Piedmont plateau and the Blue Ridge; stream erosion; periodicity of climate; stratigraphy and glacial geology of southwestern New York; geomorphology of Appalachian Georgia; Pleistocene terraces of the District of Columbia.
- Lagaard, Prof. M. B.**, Portland Cement Association, Chicago, Ill. *Engineering*. Minneapolis, Minn, Sept. 1, 81. B.S., Minnesota, 14, C.E., 15. Asst. engineer, commercial testing, Minnesota, 15-18, asst. prof. structural eng, 19-26; *assoc. engineer, research lab, Portland Cement Ass*, 26- Asst. engineer, N. Pacific Ry, 15; U. S. Bur. Pub. Roads, 20; res. engineer, Minn. Highway Dept, 23-24. Concrete engineer, Emergency Fleet Corp, U. S. Shipping Board, 18, 19. Soc. Test. Mat; Concrete Inst; Minneapolis Eng. Club. Saturation of concrete; use of calcium chloride in concrete; shrinkage in buildings in service; setting temperature of Portland and Aluminite concrete; steam curing of concrete for early test results.
- Lagal, Dr. George**, 8533 110th St, Richmond Hill, N. Y. *Natural science*. Insultheim, Germany, March 10, 69. Polytech. Sch, Karlsruhe, 88-91; M.A., Ph.D., Basel, 93. Asst, chem. lab,

- Basel; sugar factory, Waghausel, 86-88, chemist in charge, 94; *manager dept. nat. science, Kny-Scheerer Corp. of Amer.*, 95- Gold medal, St. Louis exhib; silver medal, World's Expos, Paris. Chem. Soc; Entom. Soc; N. Y. Entom. Soc; N. Y. Zool. Soc. Chemistry; biology; entomology; phenetolsulfonic acids; sulphur compounds in petroleum.
- Lagerpusch, Prof. Horace H(anson)**, 1567 Delhi St, Dubuque, Iowa. *Physics*. Brunswick, Mo, June 1, 00. Chicago, 22; B.S. Knox, 23; M.S. Illinois, 24. Asst. instr. Knox, 20-23; Illinois, 23-24; *prof. physics, Dubuque*, 24- Summer, tutor, Chicago, 22. Physical Soc; Chem. Soc; Iowa Acad. Measurements with the capillary electrometer; electrolytic rectifiers; physical chemistry.
- Lahee, Dr. F(rederic) H(enry)**, The Sun Co, Dallas, Texas. *Geology*. Hingham, Mass, July 27, 84. A.B. Harvard, 07, A.M. 08, Ph.D. 11. Asst. geol. Harvard, 06-09, instr. 09-12; Mass. Inst. Tech, 12-14, asst. prof. dynamical and field geol. 14-18; assoc. geologist, *Sun Oil Co*, 18-20, *chief geologist*, 20- Instr. Wellesley, 08-18; geol. aid, U. S. Geol. Surv, 12, field investigator, 13. A.A.; Geol. Soc; Soc. Econ. Geol; Min. and Metal. Eng; Ass. Petrol. Geol; Petrol. Inst; Am. Geog. Soc; Mid-Cont. Oil and Gas Ass; Southwest. Geol. Soc. Structural geology; petrology; metamorphism and metamorphic rocks; mineral growth during metamorphism; field, glacial and petroleum geology.
- Laird, Prof. Donald A(nderson)**, Hamilton, N. Y. *Psychology*. Angola, Ind, May 14, 98. A.B. Dubuque, 19; A.M. Iowa, 21, Ph.D. 23. Research asst. Iowa Child Welfare Research Sta, 19-21; instr. Iowa, 21-22; asst. prof. psychol. Wyoming, 22-23; Nat. Research Council fellow biol. Yale, 23-24; *prof. psychol. and director lab, Colgate*, 24- Ed, 'Indust. Psychol.' Sec'y, cent. N. Y. div. Psychol. Corp. Psychol. examiner, U.S.N., 18-19. A.A.; Am. Management Ass; Taylor Soc. Industrial and applied psychology; mental hygiene.
- Laird, Prof. E(lizabeth) R(ebecca)**, South Hadley, Mass. *Physics*. Owen Sound, Ont, Can, Dec. 6, 74. B.A. Toronto, 96; fellow, Bryn Mawr, at Berlin, 98-99, Ph.D. 01; Cambridge, 09; Chicago, 19. Instr. math. Ont. Ladies' Col, 96-97; *physics, Mt. Holyoke*, 01-03, *prof*, 04- Substitute demonstrator physics, Bryn Mawr, 00, Sarah Berliner research fellow, Würzburg, 13-14; hon. research fellow, Yale, 25. A.A.; Physical Soc; Optical Soc. Solids vibrating in liquids; magnetic lag; spectrum analysis; soft X-rays; density of thin films.
- Laist, Frederick**, 218 W. Seventh St, Anaconda, Mont. *Metallurgy*. Cincinnati, Ohio, Oct. 30, 78. B.S. California, 01. Chief chemist and supt, blast furnace dept, asst. supt. and gen. supt, Anaconda Reduction Works; metallurgical manager, Anaconda and Great Falls Reduction Works, *Anaconda Copper Mining Co*, 14-16, *gen. metallurgical manager*, 16- Min. and Metal. Eng. (v. pres, 20, chairman, Mont. sect, 19); Chem. Soc. Metallurgy of copper and zinc.
- Lake, Dr. Dyer B(arker)**, Edgewood Arsenal, Edgewood, Md. *Chemistry*. South Shaftsbury, Vt, Oct. 19, 84. B.S. Syracuse, 09, M.S. 10; Columbia, 12-15; Ph.D. Cornell, 16. Prof. chem. and head dept, Alfred, 10-12; asst. dept. soils, Cornell, 13; instr. agr. Columbia, 13-15; asst. chem. Cornell, 15-16; instr. physical chem. and head dept, Lehigh, 16-18; asst. prof. animal husbandry, N. Y. State Col. Agr. Cornell, 18; chemist, Chile Exploration Co, 18-20; chief chemist, Am. Chem. and Mfg. Corp, 20-23; *chemist, C.W.S. Edgewood Arsenal*, 24- Inorganic, physical and industrial chemistry; electrochemistry; dyeing and cleaning; colloidal chemistry.
- Lake, E(dward) R(alph)**, U. S. Department of Agriculture, Washington, D. C. *Horticulture*. Peterboro, Eng, 60. B.S. Mich. State Col, 85, M.S. 88. Instr. bot. Mich. State Col, 86-88; Oregon Col, 88-91; Wash. Col, 91-94; newspaper work and politics, 94-97; instr. bot. Oregon Col, 97-10; *pomologist, U. S. Dept. Agr*, 10- Govt. expert, Paris Expos, 00; mem. House of Representatives, Oregon, 97-99. Pomol. Soc. (sec'y, 12-20); Soc. Hort. Sci; Oregon Acad. Pomology; plant breeding.
- Lamar, J(ohn) E(verts)**, State Geological Survey, Urbana, Ill. *Geology*. Grand Rapids, Mich, Dec. 6, 97. B.S. Chicago, 20. *Ill. Geol. Surv*, 20- Instr. Illinois, 20-21. A.A.; Min. and Metal. Eng; Ill. Acad. Stratigraphy; non-metallic economic geology; sedimentation.
- Lamar, Prof. Richard V(anderhorst)**, University of Georgia, Augusta, Ga. *Pathology, Bacteriology*. Milledgeville, Ga, April 8, 83. M.D. 02. Scholar-assoc. path. Rockefeller Inst, 07-13; *prof. path. and bacter, Georgia*, 13- A.A.; Ass. Path. and Bact; Soc. Exp. Biol; Harvey Soc. Pneumococcic infections; bacteriolysis; hemolysis; Gram negative Streptococci.
- Lamb, Alvin R(omaine)**, 412 S. 24th St, Quincy, Ill. *Biochemistry*. Bangor, Wis, April 23, 90. Beloit, 09-11; B.S. Wisconsin, 13, M.S. 15. Asst. agr. chem. Wisconsin, 12-14; research chemist, Iowa Exp. Sta, 14-25, chief nutrition, 19-25; *chief research, Moorman Mfg. Co*, 25- Second lieut. Sanit.C, 18-19. A.A.; Soc. Biol. Chem; Chem. Soc; Soc. Animal Production; fel. Iowa Acad. Fermentation; animal nutrition.
- Lamb, Prof. Arthur B(ecket)**, Harvard University, Cambridge, Mass. **Chemistry*. Attleboro, Mass, Feb. 25, 80. A.B. A.M. Tufts, 00, 00-01; A.M. Harvard 03, Ph.D. 04, traveling fellow, Leipzig and Heidelberg, 04-05; Ph.D. Tufts, 04, Sc.D. 20. Instr. chem. Tufts, 01-02; electrochem, Harvard, 05-06; prof. chem. and director, Havemeyer chem. lab, N. Y. Univ, 06-12; *prof. chem. and director lab, Harvard*, 12- U. S. Fixed Nitrogen Commission and director, Nitrogen Research Lab, 19-20. Ed, 'Jour. Am. Chem. Soc,' 17- Chief defense chem. research, C.W.S., 17-19, lieut. col, 18-19. Chem. Soc; Electrochem. Soc; Wash. Acad; Am. Acad; Chem. Gesell. Eye muscles in *Squalus acanthias*; dehydration of periodic acid; the specific heat of aqueous solutions; isomerism in cumaric acid derivatives; me-

chanics of mitosis; change from green to violet in chromic chlorid solutions; partial vapor pressures of binary mixtures; the potential of iron; equilibria among cobaltamines; density of aqueous salt solutions; Thomson effect in electrolytes; rhodium and iridium amines; removal of carbon monoxid from air; active charcoal; heat of adsorption; strength of cobalt-amine bases; preferential combustion of carbon monoxid; hydrolysis of chloroquerochromic chloride; liquid junction potentials; electrical filter; iodic acid; adsorption of gases.

Lamb, Prof. Arthur L.(incoln), Roland Park, Md. *Biology*. Baltimore, Md, Sept. 2, 65. A.B, Hopkins, 88, 90-92, 94-95. Instr. schools, Md, 87-90, 92-94, 97-98; director science dept, Tome Inst, Md, 96-97; *science master, The Gilman Country Sch. for Boys*, 98- Soc. Nat. Development of poison teeth of *Ankistrodon contortrix*.

Lamb, Dr. D(aniel) S(mith), Poplar Hill, Md. *Medicine, Anthropology*. Philadelphia, Pa, May 20, 43. A.B, Cent. High Sch. Phila, 59, A.M, 64; M.D, Georgetown, 67; LL.D, Howard, 13, Sc.D, 23. Acting asst. surgeon, U.S.A, 68-92; prof. mat. med, Howard, 73-77, anat, 77-23; *retired*. Pathologist, Army Med. Museum, 92-20. Ed, 'Wash. Med. Annals.' A.A; fel. U. S. Col. Vet. Surg; D. C. Med. Soc. (pres); Wash. Acad. (v. pres); Wash. Anthropol. Soc. (v. pres, 07, pres). Anatomy and pathology.

Lamb, Prof. G(eorge) F(ranklin), 234 Hartshorn St, Alliance, Ohio. *Geology*. Near Lancaster, Ohio, Aug. 20, 72. Ph.B, Ohio (Athens), 02; A.M, Ohio State, 09; Chicago, 11-12. Asst. biol. and geol, Ohio (Athens), 00-02; prin. high sch, 02-04; *prof. biol. and geol, Mt. Union*, 05-16, *geol*, 16- Consulting geologist, 12-; asst, Ohio Geol. Surv, 10-18. A.A; Ohio Acad. (v. pres, geol. sect, 18-20). The preglacial Cuyahoga drainage system; limestones of northeastern Ohio below the lower Kittanning coal; the Mississippian-Pennsylvanian unconformity in northern Ohio; Maxville limestone north of Licking River; deposition in lower Pennsylvania in northeastern Ohio.

Lambert, Dr. Adrian V(an) S(inderen), 168 E. 71st St, New York, N. Y. *Surgery*. New York, June 30, 72. A.B, Yale, 93; M.D, Columbia, 96. Asst. demonstrator anat, *Columbia*, 00-04, instr. surg, 04-12, assoc. prof, 12-21, *prof. clin. surg*, 21- Attending surgeon, Lincoln Hosp, 06-08; asst. attending surgeon, Bellevue Hosp, 05-09, attending surgeon, 21-; asst. attending surgeon, Roosevelt Hosp, 08-12; assoc. attending surgeon, Presb. Hosp, 12-17, director surg. service, 17-21, consulting surgeon, 21-; Orthopedic Hosp, 22-; Sea View Hosp, 23- Ass. Anat.

Lambert, Dr. Alexander, 43 E. 72d St, New York, N. Y. *Medicine*. New York, Dec. 15, 61. A.B, Yale, 84, Ph.B, 85; M.D, Columbia, 88, alumni fellow, 91-92. Intern, *Bellevue Hosp*, 88-89, *attending physician*, 94-; *prof. med*, Woman's Med. Col. N. Y., 98-99; *clin. med*, *Cornell*, 98- Consulting physician, hospitals; bacteriologist, N. Y. Dept. Health, 95-02. A.A; Am. Med. Ass. (chairman, judicial coun-

cil, 10-17, pres, 19-20); Am. Acad. Med; Gastro-Enterol. Soc; N. Y. Path. Soc; N. Y. Med. Soc. (treas, 06-15, pres, 17-18). Sugars in liver; metabolism and nephritis with uranium salts; sun stroke; tetanus; alcoholism and narcotism.

Lambert, Prof. A(very) E(ldorus), University of Iowa, Iowa City, Iowa. *Anatomy*. Waldoboro, Maine, Oct. 31, 73. B.S, Dartmouth, 02, Ph.D, 06; Harvard; Chicago. Instr. biol, Mass. State Nor. Sch, Framingham, 05-11; *prof. biol*, Middlebury, 12-17; *histol. and embryol*, Vermont, 18-20; *anat*, Alabama, 20-25; *col. med*, *Iowa*, 25- Ass. Anat. Histology; embryology; a new trilobite of the lower Devonian; minerals and rocks; cephalic lobes of Arachnids; variations in the human musculature and their significance.

Lambert, C(charles) A(lfred), Hercules Powder Co, Hattiesburg, Miss. *Chemistry*. Philadelphia, Pa, May 31, 84. B.S, Pa. State, 10, Ch.E, 21. Chemist, ordnance dept, U.S.A, 02-07; U. S. Bur. Mines, 10-11; Ord. Bur, U.S.N, 11-13; Carnegie Steel Co, 13-15; *Hercules Powder Co*, 15-, *supt, naval stores plant*. Chem. Soc; N. Y. Chemists Club. Manufacture of ether; fractional distillation; turpentine; rosin; pine oil.

Lambert, Dr. Charles I(rwin), 16 Claremont Ave, Scarsdale, N. Y. *Psychiatry*. B.S, Iowa, 01, M.S, M.D, 03. Instr. path, Iowa, 04; asst. neuropath, N. Y. State Psychiat. Inst, 04-10; pathologist, Manhattan State Hosp, 10-13; first asst. physician, Bloomingdale Hosp, 13-22; *assoc. prof. psychiat. and chief clinic, dept. psychiat, col. physicians and surg, Columbia*, and *asst. attending psychiatrist, Presb. Hosp*, 22- Lecturer, Columbia. Psychopath. Ass; Psychiat. Ass; N. Y. Psychiat. Soc. (sec'y). Neuropathology; clinical psychiatry.

Lambert, Dr. F(red) D(ayton), Tufts College, Mass. *Biology*. Muscatine, Iowa, Oct. 28, 71. Ph.B, Tufts, 94, A.M, Ph.D, 97. Asst. biol, Tufts, 96-97, instr, 97-98; sub-master, high sch, Maine, 98-99; instr. nat. hist, *Tufts*, 99-04, asst. prof. biol, 04-13, *prof. bot*, 13- A.A; Bot. Soc; Am. Acad; New Eng. Bot. Club (v. pres, 08, pres, 15-17); Boston Soc. Nat. Hist; Boston Nat. Club. Morphology and life histories of green algae.

Lambert, Dr. Robert A(rchibald), School of Tropical Medicine, San Juan, P. R. *Pathology*. Lamison, Ala, Oct. 3, 83. A.B, Howard Col, 02, A.M, 03; M.D, Tulane, 07. Instr. surg. path, Hopkins, 08-09; asst. path, Columbia, 09-11, assoc, 11-17, acting head dept, 17-18; asst. prof, sch. med, Yale, 19-23; *prof. path. anat*, Faculdade de Med. de Sao Paulo, Brazil, 23-25; *path. and director, Columbia Sch. Trop. Med*, *Porto Rico*, 26- Montefiore Hosp, New York, 14-15, 17-18; Presb. Hosp, 15-16, 17-18; New Haven Hosp; director laboratories, Near East Relief, Turkey and Syria, 19-20; lecturer, Univ. Salvador, 22. Rice exped, Brazil, 16-17. A.A; Soc. Exp. Path; Ass. Path. and Bact; Soc. Exp. Biol; Ass. Cancer Research; Harvey Soc. (sec'y and ed, Harvey lectures, 14-17); N. Y. Path. Soc. (sec'y and ed,

- 'Proc,' 12-16, v. pres, 17); N. Y. Acad. Med; Soc. de Med. e Cirurg. de Sao Paulo; Soc. de Biol. e Hygiene de Sao Paulo; Int. Ass. Med. Mus. (v. pres, 22). Cultivation of tissues in vitro; pathology of war gases; tuberculosis in the tropics; immunity to rat and mouse cancers; ocular lesions in vitamin A deficiency.
- Lambert, Dr. Samuel W(aldron)**, 130 E. 35th St, New York, N. Y. *Medicine*. New York, June 18, 59. A.B, Yale, 80, Ph.B, 82, hon. A.M, 05; M.D, Columbia, 85, hon. Sc.D, 21. *Attending physician*, Nursery and Child's Hosp, New York, 90-96; *Lying-in Hosp*, 90-05; N. Y. Hosp, 96-10; *St. Luke's Hosp*, 06-; prof. applied therapeut, *Columbia*, 03-14, clin. med, 14-19, dean col. *physicians and surg*, 04-19, emer. dean, 19- A.A; Am. Med. Ass; Am. Physicians; Clin. Soc; N. Y. Acad. Med. (pres, 27); Gastro-Enterol. Ass.
- Lambert, W(alter) D(avis)**, U. S. Coast and Geodetic Survey, Washington, D. C. *Geodesy*. West New Brighton, N. Y, Jan. 12, 79. A.B, Harvard, 00, A.M, 01; Harrison fellow, Pennsylvania, 07-08. Instr. math, Maine, 02-04; instr, Pennsylvania, 08-11; with U. S. Coast and Geod. Surv, 04-07, 11- Lieut, C.Eng, 17-19. Sec'y, sect. geod. Geophys. Union, 25-; Int. Astron. Union; Int. Geod. and Geophys. Union. A.A; Math. Soc; Math. Ass; Wash. Acad. (rec. sec'y, 24-); Wash. Philos. Soc. (treas, 25-). Geophysics; figure and rigidity of the earth.
- LaMer, Prof. Victor K(uhn)**, Columbia University, New York, N. Y. *Chemistry*. Leavenworth, Kans, June 15, 95. A.B, Kansas, 15; Chicago, 16; Ph.D, Columbia, 21; Cambridge, 22; Copenhagen, 23. Instr, high sch, Kans, 15-16; research asst, Carnegie Institution, 16-17; teaching asst, *Columbia*, 19, research asst. food chem, 19-20, instr. *gen. and inorg. chem*, 20-24, asst. prof, 24- Cutting traveling fellow, *Columbia*, 23-24. First lieut, Sanit.C, 17-19. Chem. Soc; Soc. Exp. Biol. Physical and bio chemistry; physical chemistry of vitamin C; gastrin bodies; melanin pigment formation; auto-oxidation; free energy of oxidation reduction reactions; quinhydrone electrode; solubility product of calcium phosphate and calcification; activity coefficients of strong electrolytes.
- Lamkey, Dr. E(rnest) M(ichael) R(udolph)**, Delaware Agricultural Experiment Station, Newark, Del. *Plant physiology*. Riverton, Ill, Jan. 1, 90. A.B, Illinois, 13, A.M, 14, fellow, 15-16, Ph.D, 16. Asst. bot, Illinois, 13-15; plant pathologist, St. Louis Smelting and Ref. Co, 16; instr. floricultural path, Ill. Exp. Sta, 16-17; *plant physiologist*, Del. Exp. Sta, 17- A.A; Bot. Soc; Phytopath. Soc; Entom. Soc. Fungi; carnation yellows; transpiration; enzymes; permeability of plant tissues.
- Lammert, Prof. Olive M**, Vassar College, Poughkeepsie, N. Y. *Chemistry*. Chicago, Ill, March 5, 94. A.B, Vassar, 15, Suto fellow, 19-20; Ph.D, Columbia, 24. Asst. chem, *Vassar*, 15-17, instr, 17-19, asst. prof, 21-25, *assoc. prof*, 25- A.A; Chem. Soc. Physical and analytical chemistry; electrical conductance of solutions; photochemistry.
- Lampland, C(arl) O(tto)**, Lowell Observatory, Flagstaff, Ariz. *Astronomy*. Hayfield, Minn, Dec. 29, 73. A.B, Indiana, 02, A.M, 05. *Astronomer*, *Lowell Observatory*, 03- Medal, Royal Photog. Soc, 07. Lowell Observatory exped, 18, eclipse exped, 23. A.A; Astron. Soc; Physical Soc; Seismol. Soc; Math. Soc; Math. Ass; Am. Acad; Pacific Astron. Soc; hon. mem. Soc. Astron. de Mex; Soc. astron. de France; Astron. Gesell. Photography of surface detail of planets; photographic observations of nebulae, star fields, novae, star clusters, comets and satellites; stellar and planetary radiometry; determination of planetary temperatures.
- Lamson, Eleanor A(nnie)**, U. S. Naval Observatory, Washington, D. C. *Astronomy*. Washington, April 19, 75. B.S, George Washington, 97, M.S, 99. Miscellaneous computer, U. S. Naval Observatory, 00-03, computer, 03-07, asst, 07-25, *assoc. astronomer*, 25- Nat. Research Council delegate, Int. Astron. Union, Eng, 25. A.A; Astron. Soc. Fundamental star catalogues; orbits of comets and asteroids.
- Lamson, Prof. G(eorge) H(erbert), Jr**, Storrs, Conn. *Zoology*. Malden, Mass, April 8, 82. Conn. Col, 02; B.S, Mass. Col, 03; M.S, Yale, 05. Prof. biol, Tarkio, 05-06; *prof. zool*, Conn. Col, 06- Zoologist, Storrs Exp. Sta. A.A; Ass. Econ. Entom. Economic zoology; bacterial infection of the hen's egg; preservation of eggs; the effect of carbon dioxide on the development of the chick embryo; life history and control of animal life; stomach worm in sheep.
- Lamson, Dr. Paul D(udley)**, Vanderbilt University School of Medicine, Nashville, Tenn. *Pharmacology*. Charlestown, Mass, 84. A.B, Harvard, 05, M.D, 09. House officer, Mass. Gen. Hosp, 09-10; Sheldon traveling fellow, 11-13; asst. pharmacol, Würzburg, 12-13; asst. res. physician, Peter Bent Brigham Hosp, 13-14; asst. exp. therapeut, Hopkins, 14-15, *assoc. pharmacol*, 16-20, *assoc. prof*, 20-25; *prof. sch. med*, *Vanderbilt*, 25- Soc. Pharmacol; Physiol. Soc. Heart rhythms; liver function in acute polycythemia; blood volume; carbon tetrachloride poisoning; experimental cirrhosis.
- Lamson-Scribner, Dr. F(rank)**, 559 S. Hanover St, Carlisle, Pa. *Agriculture, Botany*. Cambridgeport, Mass, April 19, 51. B.S, Maine, 73, LL.D, 20. Teacher, pub. schools, Maine; officer, Girard, Phila, 76-84; asst. botanist, U. S. Dept. Agr, 84-85, chief sect. veg. path, 85-87; prof. bot. and hort, Tennessee, 87-94; chief div. agrost, U. S. Dept. Agr, 94-01; chief, Insular Bur. Agr, P. I, 01-04; special agent and agrostologist, U. S. Dept. Agr, 04-22, expert on exhibits, 13-22; *retired*. Director, Exp. Sta, Tennessee, 89-94. In charge exhibits, bur. plant indust, U. S. Dept. Agr, La. Purchase Expos, 04, Lewis and Clark Expos, 05, Jamestown Expos, 07, Alaska-Yukon Expos, 09, Buenos Aires Expos, 10; rep, U. S. Dept. Agr, Turin Expos, 11; mem, U. S. Govt. Exhibit Board, Panama-Pacific Expos, 15; director exhib, U. S. Dept. State, Cent. Expos, Rio de

- Janeiro, 22-23; supervisor U. S. exhib, Sesqui-centennial Expos, 26. Chevalier, Mérite agricole, 89. Phila. Acad; Buffalo Acad; New Eng. Bot. Club. Fungous diseases of plants; Gramineae; Philippine agriculture; weeds and plants of Maine; grasses of Tennessee.
- Lancaster, Dr. Walter B(rackett)**, 520 Commonwealth Ave, Boston, Mass. *Ophthalmology*. Newton, Mass, May 11, 63. A.B, Harvard, 84, M.D, 89. Assoc. ophthal, Harvard Med. Sch, 12-23. Pres, Am. Board Ophthal. Examiners, 15- Major, M.C. in charge ophthal, Med. Research Lab, A.S, 18-19. Am. Med. Ass. (delegate, 19); Acad. Ophthal. and Otolaryngol. (councilor, 15, 16, 24, pres, 24); Ophthal. Soc. (councilor, 18); Optical Soc. (councilor, 17, assoc. ed, 'Jour,' 17-23); New Eng. Ophthal. Soc. (pres); Illum. Eng. Soc. (committee on research, 13, on progress, 15-21). Physiological optics.
- Lancefield, Prof. D(onald) E(lwood)**, Columbia University, New York, N. Y. *Genetics*. Amity, Oregon, Jan. 9, 93. A.B, Reed, 15; A.M, Columbia, 17, Ph.D, 21. *Asst. prof. zool*, Oregon, 21-22; *Columbia*, 22- A.A; Soc. Zool; Soc. Exp. Biol. Genetics of *Drosophila melanogaster*; the relationship of two biologically distinct races of *Drosophila obscura*.
- Lancefield, Dr. R(ebecca) C(raighill)**, 39 Claremont Ave, New York, N. Y. *Bacteriology*. Ft. Wadsworth, N. Y, Jan. 5, 95. A.B, Wellesley, 16; A.M, Columbia, 18, Ph.D, 25. Tech. asst, Rockefeller Inst, 18-19; sta. for exp. evolution, Carnegie Institution, 19-21; instr. bacter, Oregon, 21-22; tech. asst, Rockefeller Inst, 22-25, *asst, Rockefeller Inst. Hosp*, 25- A.A; Soc. Bact. Genetics.
- Land, Dr. W(illiam) J(esse) G(oad)**, University of Chicago, Chicago, Ill. *Botany*. Alton, Ind, Dec. 2, 65. B.S, Chicago, 02, fellow, 02-04, Ph.D, 04. Principal, Rome Acad, Ind, 91-94; supt, schools, Ashley, Ill, 95-01; asst. morph, *Chicago*, 04-06, instr. bot, 06-11, asst. prof. and later *assoc. prof*, 11- Bot. exploration in Am. tropics, 06, 08. A.A. Angiosperms; gymnosperms; morphology of Hepaticae, especially tropical species.
- Landacre, Prof. F(rancis) L(eroy)**, Ohio State University, Columbus, Ohio. *Anatomy*. Hilliard, Ohio, Feb. 13, 67. A.B, Ohio State, 95; Ph.D, Chicago, 14. Asst. zool. and entom, *Ohio State*, 95-00, asst. prof, 00-02, assoc. prof, 02-08, *prof*, 08-14, *anat*, 14- A.A; Ass. Anat; Soc. Zool; Ohio Acad. (pres, 16). Embryology; neurology; origin of cerebral ganglia and of cartilage in head.
- Landauer, Dr. Robert S(tern)**, Ravinia, Ill. *Physics*. Chicago, Ill, March 27, 97. Ph.D, Chicago. *Exp. physicist, Standard X-ray Co*, 22- Chem. Soc. Electron discharge in gases; tri-atomic hydrogen.
- Landauer, Dr. Walter**, Storrs Agricultural Experiment Station, Storrs, Conn. *Genetics*. Mannheim, Germany, July 15, 96. Frankfurt; Ph.D, Heidelberg, 21. Asst, Zool. Inst, Heidelberg, 22-24; *asst. geneticist, Storrs Exp. Sta*, 24- A.A; Soc. Zool; Zool. Gesell; Gesell. für Vererbungswissen; Gesell. Naturforscher und Ärzte. Poultry; genetics and mechanics of development.
- Landes, Prof. Henry**, University of Washington, Seattle, Wash. *Geology*. Carroll, Ind, Dec. 22, 67. A.B, Indiana, 92; A.B, A.M, Harvard, 93; fellow, Chicago, 03-04. *Prof. geol, Washington (Seattle)*, 95-, *dean col. science*, 13-, acting pres, 14-15. State geologist, Wash, 01-21; asst, U. S. Geol. Surv, 92-94; asst. to state geologist, N. J, 93-94. A.A; Geol. Soc; Min. and Metal. Eng. The coal fields and clay deposits of Washington; the road materials and mineral resources of Washington.
- Landis, Dr. Carney**, Wesleyan University, Middletown, Conn. *Psychology*. West Alexandria, Ohio, Jan. 11, 97. A.B, Ohio State, 21; A.M, Dartmouth, 22; Ph.D, Minnesota, 24. Instr. psychol, Dartmouth, 21-22; Minnesota, 22-24; Nat. Research Council fellow biol, 24-26; *asst. prof. psychol, Wesleyan*, 26- Psychol. Ass. Physiological psychology; the psychology and physiology of emotion.
- Landis, Dr. H(enry) R(obert) M(urray)**, University of Pennsylvania, Philadelphia, Pa. *Medicine*. Niles, Ohio, Feb. 3, 72. A.B, Amherst, 94; M.D, Jefferson Med. Col, 97. *Director med. and sociol. departments, Henry Phipps Inst*, 10-, *prof. clin. med, Pennsylvania*, 12- Am. Physicians; Tuber. Ass; Climat. Ass; Phila. Col. Physicians. Diseases of the chest.
- Landis, Walter Savage**, American Cyanamid Co, 511 Fifth Ave, New York, N. Y. *Metallurgy*. Pottstown, Pa, July 5, 81. Met.E, Lehigh, 02, M.S, 06, Sc.D, 22; Heidelberg, 05-06; Aachen, 09. Asst. metal, Lehigh, 02-04, instr, 04-07, asst. prof, 07-10, assoc. prof, 10-12; *chief technologist, Am. Cyanamid Co*, 12-, v. pres, 22- Min. and Metal. Eng; Chem. Eng; Chem. Soc; Electrochem. Soc. (chairman, N. Y. sect, 19, pres, 20). Nitrogen fixation; fertilizers; electric furnace products.
- Landis, Prof. W(illiam) W(eidman)**, Dickinson College, Carlisle, Pa. *Mathematics*. Coatesville, Pa, Feb. 15, 69. Ph.B, Dickinson, 91, A.M, 94; Hopkins, 91-94, Sc.D, 06. Asst. math, Hopkins, 92-94; *prof*, Thiel, 95; *math. and astron, Dickinson*, 95- Y. M. C. A. in Italy, 18-19; hon. major, Italian Army. Cavalier of the Crown of Italy. A.A; Math. Soc; Circolo Mat. di Palermo; Soc. Belge d'Astron. Method of defining the conics.
- Landon, Prof. Mary (Louise)**, Vassar College, Poughkeepsie, N. Y. *Chemistry*. Burlington, Vt, Sept. 29, 85. A.B, Vassar, 07; A.M, Columbia, 14, Ph.D, 20. Teacher, high sch, N. J, 07-08; asst. chem, *Vassar*, 08-10, instr, 10-13, 14-17, asst. prof, 19-24, *assoc. prof*, 24- A.A; Chem. Soc; Biochem. Soc. Physical and inorganic chemistry.
- Landreth, Prof. Olin H(enry)**, 156 Fifth Ave, New York, N. Y. *Civil engineering*. Addison, N. Y, July 21, 52. C.E, Union, 76, A.B, 77, A.M, 80, hon. Sc.D, 05. Asst. astronomer, Dudley Observatory, 77-79; *prof. eng, Vanderbilt*, 79-94, *dean dept*, 86-94; *prof, Union*, 94-19, *emer. prof*, 19-; *chief and consulting*

- engineer, *East. Potash Corp.*, 19- Consulting engineer, N. Y. State Board Health, 96-06; with Metropolitan Sewerage, New York, 06-08. Advisory council, Eng. Cong. Columbian Expos, 93; N. Y. State Water Storage Commission, 02-; N. Y. Bay Pollution Commission, 03. Mech. engineer, ordnance dept, U.S.A., 18-19. A.A. (sec'y, D, 02, v. pres, 07); Civil Eng. (director, 93-95); Mech. Eng. (v. pres, 93); Inst. Consulting Eng. (councilor, 24-26, chairman, committee professional practice and ethics, 24-); Eng. Educ. (v. pres, 08); Pub. Health Ass; Eng. Ass. of South (sec'y, 89-92); East. N. Y. Soc. Eng. (v. pres, 04, pres, 05); Atlantic Deeper Waterways Ass; N. Y. State Waterways Ass. (director); Schenectady Tech. Ass. (v. pres, 95, pres, 96-98). Technical training; hydraulic and sanitary engineering; administration for engineers; sanitary disposal of refuse matter; stream pollution prevention and sewage disposal; railway, water power and industrial valuation; economics of water transportation.
- Landrum, Robert D(allas)**, Titanium Alloy Manufacturing Co, Cleveland, Ohio. *Chemical engineering*. Terre Haute, Ind, Feb. 8, 82. B.S., Rose, 04, M.S., 09, Ch.E., 14. Chemist, Columbian Enameling and Stamping Co, Ind, 04-07; asst. prof. chem, Kansas, 07-10; chem. engineer, Lisk Mfg. Co, 10-13; factory manager, Mich. Enamel Works, 13-14; chem. engineer, Gen. Stamping Co, 14; chem. engineer and manager service dept, Harshaw Fuller and Goodwin Co, 14-22; v. pres, Vitreous Enameling Co. and Vitreous Steel Products Co, 22-25; *gen. manager ceramic materials dept, Titanium Alloy Mfg. Co*, 25- Expert, Bur. Standards, 15. A.A.; Chem. Soc. (sec'y, Cleveland sect, 19); Ceramic Soc. (chairman, enamel div, war service committee, 17-19, trustee, 18-20, v. pres, 23, pres, 24); Cleveland Eng. Soc; N. Y. Chemists Club; London Soc. Chem. Indust; Soc. de Chim. indust. Composition of enamels; methods of analysis for enamels, glass and their raw materials; enamel ware resistance to acids; enamels for sheet steel; cobalt oxid in ground coat enamels for sheet steel.
- Landry, Prof. A(ubrey) E(dward)**, Catholic University of America, Washington, D. C. *Mathematics*. Memramcook, N. B., Can, Nov. 24, 80. A.B., Harvard, 00; fellow, Hopkins, 06-07, Ph.D., 07. Instr. math, *Catholic Univ.*, 07-09, assoc. prof, 09-12, *prof*, 12- Math. Soc. Projective geometry.
- Landsteiner, Dr. K.**, Rockefeller Institute, New York, N. Y. **Immunology, Pathology*. Vienna, Austria, June 14, 68. M.D., Vienna, 91. Prof. path, Vienna, 10-20; *mem, Rockefeller Inst.*, 22- Chevalier, Légion d'honneur. Ass. Immunol; Ass. Path. and Bact; Harvey Soc; Verein für Mikrobiol; Swedish Med. Soc; Halle Akad. der Naturforscher; Wien Mikrobiol. Gesell. Poliomyelitis; paroxysmal hemoglobinuria; human blood groups; serological specificity.
- Lane, Dr. Alfred C(hurch)**, Tufts College, Mass, or 22 Arlington St, Cambridge, Mass. **Geology*. Boston, Mass, Jan. 29, 63. A.B., Harvard, 83, Ph.D., 88; Heidelberg, 85-97; hon. Sc.D., Tufts, 13. Instr. math, Harvard, 83-85; U. S. Geol. Surv, 88-89; petrographer, Mich. Geol. Surv, 89-92; asst. state geologist, Mich, 92-99, state geologist, 99-09; *Pearson prof. geol. and miner, Tufts*, 09- Teacher, Mich. Col. Mines, 89-92; lecturer, Field Museum Nat. Hist; Michigan; Wisconsin. Chairman sub-committee on estimation of geol. age by atomic disintegration, Nat. Research Council, 22- Head dept. mining, A.E.F. Univ. Beaune. A.A. (v. pres, 06); Geol. Soc; Min. Eng. (chairman, Boston sect, 18, mem. committee on mining geol); Min. Soc; Am. Acad. (councilor, 16-19); Econ. Ass; Mich. Eng. Soc. (pres, 08); Mich. Acad. (pres, 05); Boston Soc. Nat. Hist; Boston Geol. Soc. (pres, 20); Lake Superior Min. Inst; cor. mem. Can. Inst; London Min. Soc; Soc. Belge de Géol. Petrographical geology; theory of heat in its geological applications; grain of igneous rocks; economic geology; mine waters and connate waters.
- Lane, Prof. Ernest P(reston)**, University of Chicago, Chicago, Ill. **Mathematics*. Russellville, Tenn, Nov. 28, 86. A.B., Tennessee, 09; A.M., Virginia, 13; Ph.D., Chicago, 18. Instr. math, Rice Inst, 18-19; asst. prof, Wisconsin, 19-23; *Chicago*, 23-26, Guggenheim fellow, 26-27, *assoc. prof*, 27- Math. Soc; Math. Ass. Projective differential geometry.
- Lane, Dr. Frederick W(illiam)**, U. S. Bureau of Mines, Bartlesville, Okla. *Chemistry*. Springfield, Mass, Feb. 17, 89. B.S., Mass. Inst. Tech, 14; Ph.D., Yale, 20. Asst. org. chem, Mass. Inst. Tech, 13-15; instr. chem, Maine, 15-16; Yale, 16-20; *petrol. chemist, U. S. Bur. Mines*, 20- A.A.; Chem. Soc; Soc. Test. Mat. Alkyl derivatives of resorcinol as antiseptics; viscosity of fractions of crude oils; pollution by oil of coast waters; the less volatile constituents of crude oil.
- Lane, Prof. H(enry) H(iggins)**, University of Kansas, Lawrence, Kans. *Zoology*. Bainbridge, Ind, Feb. 17, 78. Ph.B., De Pauw, 99; A.M., Indiana, 03; Cornell, 03-04; *Chicago*, 04-05; Ph.D., Princeton, 15. Prof. biol, Hiram, 05-06; instr. zool. and embryol, Oklahoma, 06-08, *prof*, 08-20; biol, Phillips, 20-22; *zool. and head dept, Kansas*, 22- Summers, dean undergraduates, Oklahoma; instr, Indiana, 06, 08, *Chicago*, 05, 11. A.A.; Soc. Nat; Soc. Zool; Soc. Mammal. (sec'y, council and rec. sec'y); Okla. Acad. (pres, 10, treas, 16); Wash. Biol. Soc. Experimental embryology of mammals; correlation between structure and function in the ontogenetic development of the special senses; vertebrate paleontology.
- Lane, M(erton) C(hesleigh)**, Box 448, Toppenish, Wash. *Entomology*. Everett, Mass, Sept. 4, 93. B.S., Mass. Col, 15. *Bur. entom; U. S. Dept. Agr.*, 17-, *asst. entomologist*. A.A.; Ass. Econ. Entom. Economic entomology; Elateridae.
- Lane, Prof. W(ilmot) B(urkemar)**, University of Toronto, Toronto, Ont, Can. *Psychology, Philosophy*. Perth, Ont, Dec. 13, 72. B.A., Toronto, 93, M.A., 94, 95-97; Victoria, 95; fellow, Wisconsin, 97-99, Ph.D., 99; Cornell, 99-00. Asst. psychol, Wisconsin, 97-99; *prof. psychol. and philos*, Mt. Union, 00-02; philos.

- and pedag, Randolph-Macon, 02-13; *ethics*, Toronto, 13- Summer, asst, Cornell, 00; examiner, Toronto, 96-97. Philos. Ass; S. Soc. Philos. and Psychol. Color contrast; mental fatigue; elemental consciousness; poetry and art psychology.
- Laney, Dr. Francis B(aker)**, 805 Kenneth Ave, Moscow, Idaho. *Geology*. Greene Co, Mo, April 9, 75. B.S, Drury, 02; A.M, Wisconsin, 05; Ph.D, Yale, 08. Asst. state geologist, N. C, 03-05; instr. geol. and miner, California, 05-06; asst. state geologist, N. C, 07-08; asst. curator geol, U. S. Nat. Museum, 09-10; asst. geologist, U. S. Geol. Surv, 10-13; mineralogist and metallographist, U. S. Bur. Mines, 13-16; *geologist*, U. S. Geol. Surv, 18-; *head dept. geol*, Idaho, 20- In charge metallographic sect, cent. checking lab, ordnance dept, U.S.A., 17-18. Mineralogical relationships in metalliferous ores.
- Lanford, Dr. John A(lexander)**, Touro Infirmary, New Orleans, La. *Pathology*. Gainesville, Ala, June 19, 81. Ph.G, Ala. Polytech, 00; M.D, Alabama, 05. Asst. physician, Ala. Insane Hospitals, 05-11; instr. *surg. path*, Tulane, 11-14, *asst. prof*, 14- Pathologist, Touro Infirmary, 12- Major, M.C, 17-19, lieut. col, M.R.C, 24- Ass. Path. and Bact; Am. Med. Ass. Bacteriology; surgical pathology; serology.
- Lang, Prof. Frederic C**, University of Minnesota, Minneapolis, Minn. *Engineering*. London, Minn, April 28, 86. C.E, Minnesota, 08. *Assoc. prof. highway eng*, Minnesota, 19-; *eng. tests and inspection*, Minn. Highway Dept, 19- Committee on character and use of road materials, Nat. Research Council. Soc. Test. Mat; Ass. State Highway Officials (chairman, subcommittee on non-bituminous materials). The use of highway materials.
- Lang, Prof. Harold L(ocke)**, Carnegie Institute of Technology, Pittsburgh, Pa. *Biology*, *Public health*. Franklin, N. H, March 5, 87. B.S, Mass. Inst. Tech, 10. Instr, Mass. Inst. Tech, 10-12; sci. asst, U. S. Dept. Agr, 12-17, consulting specialist, 17-23; *prof. biol. and pub. health*, Carnegie Inst. Tech, 17- Fel. Pub. Health Ass; Soc. Bact. Food bacteriology.
- Lang, Herbert**, American Museum of Natural History, New York, N. Y. *Zoology*. Oehringen, Germany, March 24, 79. Grad, Royal Lyceum, Oehringen, 94; Zurich; Paris; Columbia. With Fed. Museum, Zurich, 96-00; Maison Fasse, Paris, 00-03; *Am. Museum Nat. Hist*, 03-15, *asst. dept. mammal*, 15-19, *asst. curator*, 19- Am. Museum Nat. Hist. representative, Tjader exped. to E. Africa, 06-07; in charge exped. to Belgian Congo, 09-15. Soc. Mammal. (chairman, subcommittee on exotic mammals); assoc. Ornith. Union; Am. Geog. Soc; N. Y. Acad; N. Y. Zool. Soc. Vertebrate zoology; mammalogy; life histories; African ecology.
- Lang, Prof. R(obert) J(ames)**, University of Alberta, Edmonton, Alta, Can. *Physics*. Peterborough, Ont, Can, 85. B.A, McMaster, 16; M.A, Toronto, 17, Ph.D, 23. Lecturer *physics*, Alberta, 20-24, *asst. prof*, 24-26, *assoc. prof*, 26- British Ass. Ultra-violet spectroscopy; production of helium from natural gas; purification of helium; vacuum spectroscopy.
- Lang, Walter B(arnes)**, U. S. Geological Survey, Roswell, N. Mex. *Geology*. St. Paul, Minn, 90. A.B, Minnesota, 15, M.S, 16; Currier fellow, Yale, 20; Columbia, 21. Instr, high sch, 14; asst. instr. geol, Minnesota, 15; research asst, Sloane Physical Lab, Yale, 16-17, 19; geol. aid, U. S. Geol. Surv, 22, paleontologist, 23-24, asst. geologist, 24-26, *assoc. geol. and mining supervisor*, southeast. N. Mex, 26- Tech. expert ballistic photog, Aberdeen Proving Ground, Md, 18. A.A; Am. Geog. Soc; Meteor. Soc; Min. and Metal. Eng; Soc. Petrol. Geol. Potash; petroleum; photography.
- Langdon, Dr. F(rank) W(arren)**, 4003 Rose Hill Ave, Cincinnati, Ohio. *Medicine*, *Neurology*. Cincinnati, Dec. 16, 52. M.D, Miami Med. Col, 81; London, 95. Demonstrator anat, Miami, 81-84, prof, 84-94, nervous and mental diseases, 95-09; *psychiat*, Cincinnati, 09-18, *emer. prof*, 18- Director, Cincinnati Gen. Hosp, 95-12, consulting psychiatrist, 17-; visiting consultant, Cincinnati Sanitarium for Nervous and Mental Diseases, 03- A.A; Am. Med. Ass. (chairman, sect. nervous and mental diseases, 02); Neur. Ass. (v. pres, 08, 09); Psychiat. Ass; Cincinnati Acad. Med. (pres, 07); Neur. Soc. of Cincinnati (pres, 19); Cincinnati Soc. Nat. Hist. (sec'y, 80, pres, 96-); cor. mem. N. Y. Linnean Soc; hon. mem. Brooklyn Neur. Soc; Royal Soc. Med. Anthropology; psychology; psychiatry; bacteriology of paresis; structure of brain membranes; topography of brain; prehistoric Ohio.
- Langdon, Dr. LaDema Mary**, Allston Apartments, N. Charles St, Baltimore, Md. *Botany*. Arcade, N. Y, Jan. 5, 93. A.B, Oberlin, 16; M.S, Chicago, 17, fellow, 18-19, Ph.D, 19. Instr, high sch, Ill, 20; *biol*, Goucher, 20-23, *asst. prof*, 23- A.A; Bot. Soc. Ray system of Quercus alba; sectioning hard, woody tissues; stem anatomy of Dioon spinulosum; the seedling anatomy of the Amentiferae.
- Langdon, Dr. Seth C(hapin)**, 820 Foster St, Evanston, Ill. *Chemistry*. Leadville, Colo, June 18, 87. B.S, Northwestern, 11; A.M, Washington (Seattle), 13, Ph.D, 15. Instr. chem, Washington (Seattle), 15-18; assoc. chemist, Bur. Standards, 19; *asst. prof. chem*, Northwestern, 19- C.W.S, U.S.A., 18. A.A; Chem. Soc; Electrochem. Soc. Electrochemistry; passivity; carbon monoxid; gas control of steel; colloids.
- Lange, Dr. Mathilde Magarethe**, Wheaton College, Norton, Mass. *Zoology*. New York, N. Y, April 14, 88. Ph.D, Zurich, 19. U. S. Dept. Agr, 20-21; *prof. zool*, Wheaton, 21- Woods Hole. Soc. Parasitol. Growth.
- Lange, Prof. N(orbert) A(dolph)**, Case School of Applied Science, Cleveland, Ohio. *Chemistry*. Sandusky, Ohio, Aug. 4, 92. A.B, Michigan, 15, M.S, 17, Ph.D, 18. Instr. *org. chem*, Michigan, 17-19; *asst. prof*, Case, 19- Chem. Soc. (sec'y-treas, Cleveland sect). Organic chemistry; condensation of isocyanic acid and of phenols.
- Langelier, Prof. Wilfred F(rancis)**, University of California, Berkeley, Calif. *Chemistry*. Nashua, N. H, Sept. 25, 86. B.S, New Hampshire, 09; M.S, Illinois, 11. Asst. chem, Illi-

- nois, 09-11; chemist, Ill. Water Surv, 11-16; asst. prof. sanit. eng, California, 16-22, assoc. prof, 22- Summer, sanit. engineer, U. S. Shipping Board, 18; U. S. Pub. Health Service, 18-19. Water supply; sewage treatment.
- Langenbeck, Karl**, 1625 Hobart St, N. W, Washington, D. C. **Chemistry, Ceramics*. Cincinnati, Ohio, Oct. 7, 61. Col. Pharmacy, Cincinnati, 82; Polytech, Zurich, 83; Charlottenburg, 84. Supt, Rookwood Pottery Co, Ohio, 86; prof. chem, Miami Med. Col, 88-90; chemist, Am. Encaustic Tiling Co, 90-93; *manager*, Mosaic Tile Co, Ohio and N. Y, 94-04; *Ceramic Lab, Boston*, 04- Consulting ceramic engineer, Bur. Standards. Assoc. ed, 'Jour. Indust. and Eng. Chem,' 08- A.A.; Chem. Soc. Difference between glass and pottery glazes; aventurin glazes; chemical character of American pottery glazes; kiln constructions and foundations; fire clays of the United States; inorganic plasticity; nutrition and related psychology.
- Langenhan, Prof. H(enry) A(ugust)**, University of Washington, Seattle, Wash. *Pharmacy*. Ableman, Wis, March 26, 83. Ph.G, Illinois, 08, Ph.C, 09; B.S, Wisconsin, 13, M.S, 15, Ph.D, 18. Instr. pharmaceut. chem, Illinois, 09-12; instr. *pharmacy*, Wisconsin, 12-18, asst. prof, 19-22; *assoc. prof*, Washington (Seattle), 22- Research pharmacist, Pharmaceut. Exp. Sta, Wisconsin, 13-21, univ. hospitals, 18-22. Pharmaceut. Ass. Arsenical solutions; hypochlorite solutions; acetylsalicylic acid; halide syrups.
- Langer, Prof. Rudolph E(rnest)**, Brown University, Providence, R. I. *Mathematics*. Boston, Mass, March 8, 94. B.S, Harvard, 17, A.M, 20, Ph.D, 22. Instr. *math*, Harvard, 20-22, Sheldon traveling fellow, Göttingen, 22-23; instr, Dartmouth, 23-24, *asst. prof*, 24-26; *Brown*, 26- Math. Soc. Analysis; differential and integral equations.
- Langfeld, Prof. Herbert S(idney)**, Princeton University, Princeton, N. J. **Psychology*. Philadelphia, Pa, July 24, 79. Haverford, 97-98; Ph.D, Berlin, 09. Research fellow, Harvard, 09-10, instr. *psychol*, 10, asst. prof, 15-22, assoc. prof, 22-24, acting director lab, 17-19, director, 19-22; *prof. and director lab*, Princeton, 24- A.A.; Psychol. Ass. Pupillary action; visual sensations; inhibitory processes; voluntary action; psychological effects of fasting; experimental esthetics.
- Langford, Prof. C(ecil) T(heodore)**, 212 W. Eufaula St, Norman, Okla. *Chemistry*. Spanish Fort, Texas, Sept. 6, 96. B.S, 18; M.S, 20; Ph.D, 26. Chemist, E. I. du Pont de Nemours and Co, 18-19; instr. *chem*, Oklahoma, 20-22, *asst. prof*, 22- Teaching fellow, California, 25-26. Capt, C.W.S. O.R.C. Chem. Soc. Activity coefficients of mixed electrolytes; free energy of chemical compounds.
- Langford, Dr. C(oooper) H(arold)**, 74 Kirkland St, Cambridge, Mass. *Logic*. Dublin, Ark, Aug. 25, 95. A.B, Clark, 20; Ph.D, Harvard, 24. Sheldon traveling fellow, Harvard, at Cambridge, 24-25, *instr. educ*, 25- Math. Soc. Sets of postulates; general propositions.
- Langley, Wilson D(avis)**, Evergreen Ave, Maple Shade, N. J. *Physiological chemistry*. Charleston, S. C, Jan. 7, 95. Ph.D, 22. *Instr. physiol. chem*, Pennsylvania, 22- Extractives of muscle.
- Langman, Dr. Harry**, 846 Prospect Place, Brooklyn, N. Y. *Mathematics*. New York, N. Y, Nov. 7, 89. B.S, Col. City of N. Y, 11; Ph.D, Columbia, 22. Statist. bur, Metropolitan Life Ins. Co, 15-16; chief statistician, Ocean Accident and Guarantee Corp, 16-18; head statist. div, Yourroveta Home and For. Trade Co, 18-19; Bur. Jewish Social Research, 19-20; instr. statist, Col. City of N. Y, 19-20; *proprietor*, Solar Chem. Mfg. Co, 20- A.A.; Math. Soc; Math. Ass; Statist. Ass. Mathematical and applied statistics.
- Langmuir, Dr. A(rthur) C(omings)**, 243 S. Broadway, Hastings-on-Hudson, N. Y. *Chemistry*. Chicago, Ill, Feb. 7, 72. Ph.B, Columbia, 93; Ph.D, Heidelberg, 95. Asst. to Prof. C. F. Chandler, New York, 95-96; head chemist, Ricketts and Banks, New York, 96-00; chemist and supt, Marx and Rawolle, Brooklyn, 00-02; *research and consulting chemist*, 20- Instr, Pratt Inst, 98-00; lecturer, Brooklyn Polytech, 05. A.A.; Chem. Soc. (chairman, N. Y. sect, 12); Soc. Chem. Indust; Chem. Eng. (v. pres, 17-19). Analysis and technology of shellac and glycerine.
- Langmuir, Dr. Irving**, General Electric Co, Schenectady, N. Y. **Chemistry*. Brooklyn, N. Y, Jan. 31, 81. Met.E, Columbia, 03, Sc.D, 24; Ph.D, Göttingen, 06; Sc.D, Northwestern, 21, Union, 23; LL.D, Edinburgh, 21. *Asst. director research lab*, Gen. Elec. Co, 09- Nichols medal, Chem. Soc, 14, 20; Hughes medal, Royal Soc, 18; Rumford medal, Am. Acad, 20. Nat. Acad; Chem. Soc; Physical Soc; Radio Eng. (pres, 23); Philos. Soc; Am. Acad. Kinetics of gas reactions, especially at low pressures; dissociation of hydrogen; nitrogen and argon filled tungsten lamps; vapor pressures of metals; production of high vacuum; electron discharges; constitution of solids and liquids; adsorption; surface tension; structure of atoms; theory of chemical valence; ionization of gases; acoustic devices for submarine detection.
- Langsdorf, A(lexander) S(uss)**, 5187 Cabanne Ave, St. Louis, Mo. *Electrical engineering*. St. Louis, Aug. 31, 77. B.S, Washington (St. Louis), 98; M.M.E, Cornell, 01. Instr. physics, Washington (St. Louis), 98-00, asst. prof. elec. eng, 01-04, prof, 04-20, dean sch. eng, 10-20; indust. engineer, Crunden Martin Mfg. Co, 20-23; v. pres. and chief engineer, Alvey Mfg. Co, 23-26; *director dept. indust. eng. and research*, Washington (St. Louis), 26- V. chairman city plan commission, St. Louis, 17- A.A.; Elec. Eng; Eng. Educ; Inst. Archit; St. Louis Acad; St. Louis Eng. Club (past pres). Alternating current machinery; industrial engineering problems.
- Langworthy, Dr. C(harles) F(ord)**, U. S. Department of Agriculture, Washington, D. C. *Chemistry*. Middlebury, Vt, Aug. 9, 64. A.B, Middlebury, 87, A.M, 90, Sc.D, 12; Ph.D, Strassburg, 93. Asst. chem, Wesleyan, 93-94, instr,

- 94-95; assoc. ed, 'Exp. Sta. Record,' *U. S. Dept. Agr.* 95-24, in charge nutrition investigations, 05-15, chief office home econ, 15-23, *specialist home econ*, 23- Summers, lecturer, Wesleyan, 02, Illinois, 06, Cornell, 08. A.A.; Chem. Soc; Soc. Biol. Chem; Home Econ. Ass. (v. pres, 09-12); Dietetic Ass; Wash. Acad; Soc. d'Hygiène alimentaire. Food; human nutrition; nutritive and economic value of foods; historical aspects of home economics.
- Langworthy, Dr. Orthello R(ichardson)**, Johns Hopkins University, Baltimore, Md. *Anatomy*. Hamilton, N. Y., Aug. 23, 97. A.B, Colgate, 18, A.M, 21; M.D. Hopkins, 22. Asst, *sch. med*, Hopkins, 22-23, instr, 23-25, *assoc. anat*, 25- Ass. Anat. Innervation of the tongue; morphology and physiology of the developing central nervous system of mammals.
- Lanier, Prof. A(lexander) C(artwright)**, 300 College Ave, Columbia, Mo. *Electrical engineering*. Nashville, Tenn, June 3, 78. B.S, Tennessee, 00, M.E, 05; M.E.E, Harvard, 09. Instr. mech. eng, Tennessee, 02-05; asst. prof. elec. eng, Cincinnati, 05-08; designing engineer, Westinghouse Elec. and Mfg. Co, 09-15; *prof. elec. eng. and chairman dept*, Missouri, 15- Elec. Eng; Eng. Educ. Design of electrical machinery.
- Lankelma, Prof. Herman P(eter)**, Western Reserve University, Cleveland, Ohio. *Chemistry*. Pella, Iowa, July 28, 96. A.B, Central (Iowa), 18; M.S, Iowa, 21, Ph.D, 23. Asst. chem, Iowa, 19-21; *asst. prof*, Western Reserve, 23- A.A; Chem. Soc. The migration of acyl from oxygen to nitrogen; steric hindrance in acylation of aminophenols; molecular rearrangement in acylation of o-aminophenols.
- Lantz, Prof. C(yrus) W(illiam)**, Iowa State Teachers College, Cedar Falls, Iowa. *Botany*. Brooklyn, Ill, June 27, 89. A.B, Illinois, 13, A.M, 14, fellow, 19, Ph.D, 25; Chicago, 16-17. Asst. bot, Illinois, 14-15; asst. prof. bot. and hort, Nevada, 17-21; *prof. bot*, Iowa State Teachers Col, 21- A.A; Bot. Soc; Phytopath. Soc. Plant physiology and pathology; plant respiration.
- Lanza, Prof. Gaetano**, 5624 Cedar Ave, Philadelphia, Pa. **Mechanics, Mechanical and civil engineering*. Boston, Mass, Sept. 26, 48. C.E, Virginia, 69, B.S, C.E, M.E, 70. Asst. instr. math, Virginia, 70-72; instr, Mass. Inst. Tech, 71-72, asst. prof, 72-75, *prof. theoret. and applied mech*, 75-11, in charge dept. mech. eng, 83-11, *emer. prof*, 11-; *special consultant*, Baldwin Locomotive Works, 11- Jury awards, exhibitions. Cavaliere dell' Ordine dei Santi Maurizio e Lazzaro, 07. Mech. Eng; hon. mem. Soc. e Mat. Mat; Ry. Ass; fel. Am. Acad; Franklin Inst. (past assoc. ed, 'Jour'); Circolo Mat. di Palermo; Soc. Ital. Progresso delle Sci; Int. Ass. Test. Mat. Applied mechanics; strength of materials; dynamic machinery.
- Lapham, Macy H(arvey)**, P. O. Box 54, Berkeley, Calif. *Soils*. Okemos, Mich, April 10, 74. B.S, Mich. State Col, 99. Sci. aid, *bur. soils*, U. S. Dept. Agr, asst. and scientist, *soil surv.* in charge field parties and *soil scientist and inspector west. div*, 99- Board Surv. and Adjustment, 25; committees, Bur. Reclamation. A.A; Soil Surv. Ass; Forestry Ass; Am. Geog. Soc; Calif. Acad; Int. Soc. Soil Sci. Field study, classification and mapping of soils.
- Laporte, Dr. Otto**, University of Michigan, Ann Arbor, Mich. *Physics*. Mainz, Germany, July 23, 02. Frankfort, 20-21; Ph.D, Munich, 24. Int. Educ. Board fellow, 24-26; *instr. theoret. physics*, Michigan, 26- Lecturer, Bur. Standards. Wash. Philos. Soc. Theoretical spectroscopy; the spectra of metals; the atomic structure of atoms.
- Lapp, Dr. C(laude) J(erome)**, 426 Bayard St, Iowa City, Iowa. *Physics*. Smiths Creek, Mich, June 24, 92. A.B, Albion, 17; A.M, Illinois, 20, Ph.D, 22. Asst. *physics*, Illinois, 19-22; *assoc. Iowa*, 22-24, *asst. prof*, 24- Summers, instr, 20-22. Mil. research, Bur. Standards, 18. Physical Soc; Iowa Acad. Knipp tube; sound waves; high frequencies; trace left by a helical beam of electron on a plane perpendicular to its axis; L series X-rays in rare earths; radio frequency magnetic fields of large intensity.
- Larew, Prof. Gillie A(ldah)**, Randolph-Macon Woman's College, Lynchburg, Va. *Mathematics*. Pulaski Co, Va, July 28, 82. A.B, Randolph-Macon Woman's Col, 03; A.M, Chicago, 11, fellow, 15-16, Ph.D, 16. Instr. *math*, Randolph-Macon Woman's Col, 03-09, adjunct prof, 09-18, assoc. prof, 18-21, *prof*, 21- Math. Soc; Math. Ass. Calculus of variations.
- Large, Thomas**, East 1528 18th Ave, Spokane, Wash. *Biology, Geology*. Mt. Etna, Ind, June 21, 71. A.B, Indiana, 97; Illinois, 99-02; fellow, Chicago, 03. Teacher, rural schools, 89-92; high sch, Ind, 93-99; Ill, 03-09; Idaho, 11-12; asst, U. S. Fish Commission Surv, Lake Maxinkuckee, 99; ichthyol, Ill. Nat. Hist. Surv, 99-02; farmer, Idaho, 09-20; *teacher*, Lewis and Clark High Sch, Spokane, 20- Summer, instr, Chicago, 03. Field asst. and collaborator, bur. plant indust, U. S. Dept. Agr, 24-26. A.A; Northwest Sci. Ass. (councilor, 23-27); Ass. Eng. Spokane. Lakes in northern Indiana; pedagogy of high school sciences; geological observations of glaciation, drainage and lava flows in northeastern Washington and northern Idaho; ecology of Ribes and white pine.
- Larrabee, Prof. Austin P(ark)**, Yankton College, Yankton, S. Dak. *Ornithology, Ecology*. Gardiner, Maine, Jan. 26, 78. A.B, Bowdoin, 01; A.M, Harvard, 03; Ph.D, Iowa, 27. Asst. biol, Bowdoin, 01-02; zool, Harvard, 03-04; teacher, high sch, Utah and Calif, 04-09; *prof. biol*, Fairmount Col, 09-16; *Yankton Col*, 16- Instr, Iowa; visiting prof, Carleton Col, 26-27. A.A; Ornith. Union; Soc. Mammal; Audubon Soc; Wilson Ornith. Club; S. Dak. Acad. (v. pres, 25). Genetics; ecology of fishes.
- Larrimer, Dr. W(alter) H(arrison)**, U. S. Department of Agriculture, Washington, D. C. *Entomology*. Bloomburg, Ohio, Feb. 23, 89. B.S, Ohio State, 13, Ph.D, 25; M.S, Purdue, 21. Sci. asst, *bur. entom*, U. S. Dept. Agr, 13-19, assoc. entomologist in charge, West Lafayette Lab, 19-25, *senior entomologist in charge cereal and forage insect investigations*, 25- Capt, F.A, 17-19, F.A.R, 19- A.A; Entom.

- Soc; Ass. Econ. Entom. Cereal and forage crop insects; statistical methods in entomology.
- Larsell, Prof. O(lof)**, University of Oregon Medical School, Portland, Oregon. *Anatomy, Zoology*. Rättvik, Sweden, March 13, 86. B.S. McMinnville, 10; fellow, Northwestern, 13-14, A.M., 14, Ph.D., 18. Prof. biol. McMinnville, 10-15; instr. zool. Northwestern, 15-18; asst. prof. anat. Wisconsin, 18-20; assoc. prof. zool. Northwestern, 20-21; *prof. anat. med. sch., Oregon*, 21- A.A.; Ass. Anat.; Soc. Hist. Sci.; West. Soc. Nat. Embryology and anatomy of the avian lung; the nervus terminalis in vertebrates; cerebellum of Amphibia; innervation of the lung.
- Larsen, Prof. C(hristian)**, South Dakota State College, Brookings, S. Dak. *Dairy husbandry*. Odense, Denmark, Aug. 4, 74. B.S. Iowa Col., 02, M.S., 04. Instr. dairy husbandry, Mass. Col., 01-02; asst. prof. and assoc. prof. Iowa Col., 02-06; prof. Utah Col., 06-07; prof. and director exten. S. Dak. Col., 07-20; director dairy marketing dept., Ill. Agr. Ass., 21-23; *dean agr. S. Dak. Col.*, 23- Ed. dairy dept., 'Dakota Farmer'; former ed. Iowa dept., 'Dairy Record'; creamery dept., 'Creamery Jour.' Chairman, S. Dak. Produce Committee, U. S. Food Ad., 18. A.A.; Dairy Sci. Ass.; Northwest Dairy Officials Ass. (pres., 12-15); Nat. Ass. Marketing Officials; Farm Econ. Ass. Dairy technology; buttermaking; effects of water and alkali water on nutrition, secretion and the physiology of milk; milk production hereditary through the sire; chemistry of butter.
- Larsen, Dr. Esper S(ignius)**, Harvard University, Cambridge, Mass. **Geology*. Astoria, Oregon, March 14, 79. B.S. California, 06, Ph.D., 18. Instr. geol. and miner. California, 06-07; asst. petrographer, geophys. lab. Carnegie Institution, 07-09; asst. geologist, U. S. Geol. Surv., 09-14, geologist, 14, in charge petrol. sect., 18-23; *prof. petrog. Harvard*, 23- Acting assoc. prof. California, 14-15. Geol. Soc.; Miner. Soc.; Am. Acad. Petrology; geology of southwestern Colorado; optical mineralogy; tungsten deposits.
- Larsen, J(ulius) A(nsgar)**, Iowa State College, Ames, Iowa. *Forestry*. Drammen, Norway, 77. A.B. Yale, 08, M.F., 10. U. S. Forest Service; *asst. prof. forestry, Iowa Col.* Soc. Foresters; Ecol. Soc.; Iowa Acad. Silviculture.
- Larsen, Dr. Louis Melvin**, 432 New St, Cincinnati, Ohio. *Chemistry*. Santa Fe, N. Mex., Jan. 28, 92. Ph.D. Chicago, 21. *Ault and Wiborg Co.*, 19- Chem. Soc. Organic chemistry; inks.
- Larson, Dr. Alfred**, 952 Greene St, Augusta, Ga. *Bacteriology*. Spring Lake, Mich., Aug. 22, 84. A.B. Wisconsin, 07, Ph.D., 23. Expert dairy bacter, dairy div. U. S. Dept. Agr., 08-10; bacteriologist in charge Bismarck branch, N. Dak. State Pub. Health Lab., 11-15, Minot branch, 16-17; asst. bacteriologist, Munic. Lab. Ga., 17-21; *assoc. bacter. med. dept. Georgia*, 23- Soc. Bact.; Pub. Health Ass. The use of ultraviolet rays in the production of antigens.
- Larson, Dr. Alfred T(heodore)**, 711 W. 26th St, Wilmington, Del. *Chemistry*. Montevideo, Minn., July 4, 84. B.S. Carleton, 08, M.S., 12; Ph.D. Harvard, 17. Instr. chem. Harvard, 14-17; asst. prof. Carleton, 17-19; catalytical chemist, ordnance dept. U.S.A., 19-20; fixed nitrogen research lab. U. S. Dept. Agr., 20-25; *Lazote, Inc.*, 25- Asst. gas chemist, U. S. Bur. Mines, 18. Lieut. N.A., 18, capt. C.W.S., 18-19. A.A.; Chem. Soc. Inorganic complexes; electrodes; carbon monoxid; synthetic ammonia.
- Larson, Dr. C(arl) W(illiam)**, 1209 Delafield Place, N. W., Washington, D. C. *Dairying*. St. Ansgar, Iowa, May 29, 81. B.S. Iowa Col., 06; M.S. Pa. State, 11; Ph.D. Columbia, 16. Instr. asst. prof. and prof. in charge dairy dept. Pa. State, 07-15; asst. prof. agr. and agr. econ. Columbia, 16-17; dairy expert, dairy div. U. S. Dept. Agr., 17-19, asst. chief, 19-21, *chief*, 21-24, *bur. dairy indust.*, 24- Delegate, Int. Dairy Cong. Sweden, 11. Dairy Sci. Ass. (sec'y, 14-16); Wash. Acad. Economics of dairying; production and manufacture.
- Larson, Dr. John Augustus**, Johns Hopkins Hospital, Baltimore, Md. *Physiology, Psychology*. Shelburne, N. S. Can., Dec. 11, 92. A.B. Boston, 14, A.M., 15; Ph.D. California, 20; certificate, Rush Med. Col. Chicago, 27; Harvard. Asst. biol. Boston, 14-15; instr. physiol. pharmacol. and dietetics, med. branch, Southern California, 15-16; research finger prints and deception technique, Police Dept. Berkeley, 20-22; psychol. and psychiat. Inst. Juvenile Research, 23-27; *intern, Hopkins Hosp.*, 27- Asst. California; instr. Mills. Soc. Exp. Biol. Psychiatry; criminology; biology; heredity in relation to finger prints; single finger print system; endocrine glands; conduction of impulses in the spinal cord; deception technique in criminal investigation.
- Larson, Dr. Winford Porter**, University of Minnesota, Minneapolis, Minn. *Bacteriology, Immunology*. Poy Sippi, Wis., March 7, 80. M.D. Illinois, 04; Berlin; Paris; Copenhagen. Instr. bacter, *Minnesota*, 11-12, asst. prof., 12-15, assoc. prof., 15-18, *prof. bacter. and immunol.*, 18- Soc. Bact.; Ass. Path. and Bact.; Ass. Immunol. Immunity.
- Lartigau, Dr. A(ugust) J(erome)**, 391 Sutter St, San Francisco, Calif. **Pathology, Gynecology*. San Francisco, Feb. 19, 75. M.D. California, 96. Asst. Bender Hygienic Lab., 96-99; instr. path. Columbia, 99-03; asst. prof. gynec. California, 03-06; *attending surgeon, Children's Hosp.*, 03- Am. Med. Ass.; Col. Surg.; Calif. Acad. Med.; San Francisco Co. Med. Soc. (pres). Bacteriology of *Bacillus pyocyaneus*; bacterial etiology of gall-stones; tuberculosis of adenoids; hyperplastic tuberculosis of caecum; endothelioma of ovary; solid tumors of ovary; bacteria and channels of urinary infections.
- La Rue, Prof. Carl D(owney)**, University of Michigan, Ann Arbor, Mich. *Botany*. Williamsburg, Ill., April 22, 88. B.S. Valparaiso, 10; A.B. Michigan, 14, A.M., 16, Ph.D., 21. Instr. bot. Syracuse, 16-17; botanist, Hollandsch-Americaansche Plantage Maatschappij,

- Sumatra, 17-20; instr. bot, *Michigan*, 20-23, asst. prof, 24- Specialist rubber investigations and director, S. Amer. rubber expd, U. S. Dept. Agr, 23-24. A.A.; Bot. Soc; Phytopath. Soc; Mich. Acad. (sec'y, 23). Genetics of cryptogams; rubber-bearing plants.
- La Rue, Dr. George R(oger)**, 2019 Day St, Ann Arbor, Mich. *Zoology*. Paullina, Iowa, Jan. 1, 82. B.S, Doane, 07; A.M, Nebraska, 09; Ph.D, Illinois, 11. Asst. med. col, Nebraska, 07-09; zool, Illinois, 09-11; instr, *Michigan*, 11-13, asst. prof, 13-17, assoc. prof, 21- Hon. curator museum, Michigan, and director, Biol. Sta, 17- Summers, sci. asst, Bur. Fisheries, Alaska, 09, asst, Illinois, 10. A.A; Soc. Zool; Soc. Parasitol; Ecol. Soc; Micros. Soc; Soc. Trop. Med; Mich. Acad. Parasitic worms.
- Lasby, Miss Jennie B(elle)**, 309 E. 17th St, Santa Ana, Calif. *Astronomy*. Northfield, Minn, Aug. 23, 83. A.B, Carleton Col, 04; A.M, Mt. Holyoke, 06. Mt. Wilson Observatory, 06-14; Goodsell Observatory, 16-18; instr, *Santa Ana Junior Col*, 19- Astron. Soc. Solar rotation; radial velocity; asteroid positions.
- Lashley, Dr. K(arl) S(pencer)**, Institute for Juvenile Research, Chicago, Ill. **Psychology, Zoology*. Davis, W. Va, 90. A.B, West Virginia, 10; M.S, Pittsburgh, 11; fellow, Hopkins, 13-14, Ph.D, 14. Teaching fellow, Pittsburgh, 11; Johnston scholar, Hopkins, 15-16, fellow, 19; instr. psychol, Minnesota, 17-18; investigator, U. S. Interdepartmental Hygiene Board, 19; asst. prof. psychol, Minnesota, 20-21, assoc. prof, 21-24, prof, 24-26; *psychologist, behavior research fund, Inst. Juvenile Research*, 27- Psychol. Ass; Physiol. Soc; Soc. Zool; Soc. Exp. Biol. Heredity; color vision; instincts of birds and primates; learning; cerebral localization; reëducation; sex behavior of animals.
- Lasley, Prof. J(ohn) W(ayne), Jr**, University of North Carolina, Chapel Hill, N. C. *Mathematics*. Burlington, N. C, Sept. 22, 91. A.B, North Carolina, 10, fellow, 10-11, A.M, 11; fellow by courtesy, Hopkins, 15-16; fellow, Chicago, 19-20, Ph.D, 20. Instr. math, *North Carolina*, 11-15, 16-18, asst. prof, 18-20, assoc. prof, 20-24, prof, 24- Math. Soc; Math. Ass; Elisha Mitchell Sci. Soc; N. C. Acad. Projective differential geometry; transformations of the Flecnode congruence; the curvature of manifolds.
- Lassalle, Dr. Leo Joseph**, 616 Golden Rod Ave, Baton Rouge, La. *Physics*. Opelousas, La, Sept. 8, 86. B.S, Louisiana, 08; M.S, Pa. State, 11; Ph.D, Chicago, 17. Asst. physics, Louisiana, 08-09; instr, Pa. State, 09-12; asst. prof, Philippines, 12-13; assoc. prof, Pa. State, 13-18, prof, 18-20; mech. eng. and head dept, *Louisiana*, 20-24, eng. mech. and head dept, 24- Chief physicist and head optical dept, Recording and Computing Machines Co, 18-20. Summers, faculty, Chicago, 15, special mech. engineer, U. S. Dept. Agr, 24. Mech. Eng. Optics; atmospheric radioactivity; Stokes law; viscosity coefficient; corrosion of ferrous metals.
- Lathrop, Prof. Carl O(swald)**, 24 High St, Buffalo, N. Y. *Bacteriology, Immunology*. Fall River, Mass, Jan. 22, 90. A.B, Brown, 17, M.S, 18, A.M, 20. Bacteriologist and serologist, Providence City Hosp, R. I, 17-20; instr, assoc. and asst. prof. bacter, dept. med, *Buffalo*, 20- Asst. city bacteriologist, Providence, 19-20. Lieut, Sanit.C, 18-19. A.A; Soc. Bact; Am. Med. Ass; Pub. Health Ass; Soc. Exp. Biol; Buffalo Acad. Med. Serology of diphtheria group; diabetes.
- Lathrop, Dr. Elbert C(lyde)**, The Celotex Co, 645 Michigan Ave, Chicago, Ill. *Industrial chemistry*. Greensburg, Ind, Oct. 6, 85. A.B, De Pauw, 07; Ph.D, American Univ, 16. Asst. chem, De Pauw, 06-07; Purdue, 07-08; instr, Pratt Inst, 08-09; consulting and anal. chemist, New York, 08-09; chemist, bur. soils, U. S. Dept. Agr, 09-15, biochemist, bur. plant indust, 15-18; head gen. div, Jackson lab, E. I. du Pont de Nemours and Co, 18-19, manager standards div, chem. dept, 19-22; v. pres. and treas, *Samuel P. Sadtler and Son, Inc, Phila*, 22-; director research and development, *The Celotex Co, Chicago*, and *Dahlberg and Co*, 25- Assoc. Am. ed, 'Allen Commercial Org. Analysis.' Nat. Research Council. Longstreth medal, Franklin Inst, 11. A.A; Soc. Chem. Indust; Chem. Soc; Soc. Test. Mat; Chem. Eng; Ass. Pulp and Paper Indust; Heat. and Vent. Eng; Franklin Inst; Int. Sugar Technol. Organic compounds of soils; fertilizers; fibers; synthetic insulating lumber; coal tar dyestuffs; organic by-products.
- Lathrop, Dr. Frank H(eidtman)**, U. S. Department of Agriculture, Washington, D. C. *Entomology*. Orangeburg, S. C, July 31, 91. B.S, Clemson, 13; M.S, Ohio State, 15, Ph.D, 23. Asst. entom, S. C. Exp. Sta, 13; zool. and entom, Ohio State, 13-15; asst. entomologist, N. Y. Exp. Sta, Geneva, 15-16; assoc. entomologist, Oregon Exp. Sta, 17-22; fellow, Crop Protection Inst, 22-23; assoc. entomologist, N. Y. Exp. Sta, 23-24; state entomologist, S. C, 24-25; *entomologist, bur. entom, U. S. Dept. Agr*, 25- A.A; Entom. Soc; Ass. Econ. Entom; Ecol. Soc. Cicadellidae; deciduous fruit insects.
- Latimer, Prof. Claiborne G(reen)**, Tulane University, New Orleans, La. *Mathematics*. Hyattsville, Md, Sept. 23, 93. B.S, M.S, Ph.D, Chicago. Instr. math, Swarthmore, 21-22; *Tulane*, 23-24, asst. prof, 24- Math. Soc; Math. Ass. Hypercomplex numbers.
- Latimer, Prof. Homer B(arker)**, University of Kansas, Lawrence, Kans. *Anatomy*. Rock Creek, Ohio, March 2, 82. A.B, Minnesota, 07, A.M, 08, Ph.D, 21. Prof. biol, Charles City Col, 08-09; sci. asst, Bur. Fisheries, 10-11; prof. zool, Nebraska Wesleyan, 11-16; assoc. prof. vert. anat, Nebraska, 16-18, prof. anat, 18-26; med. sch, Kansas, 26- Instr, Minnesota, 20-21. A.A; Ass. Anat; Soc. Zool; Micros. Soc. Comparative neurology; growth.
- Latimer, Dr. Wendell M(itchell)**, University of California, Berkeley, Calif. *Chemistry*. Garnett, Kans, April 22, 93. A.B, Kansas, 15; fellow, California, 17-18, Ph.D, 18. Instr. chem, Kansas, 15-17; lecturer and demonstrator, *California*, 18-21, asst. prof, 21-23, asst. dean

- col. letters and science, 23-24, *assoc. prof.*, 24-
Dielectric constants; specific heats; heats of
fusion; liquefaction of hydrogen; entropy;
thermo-electric force; ionization of gases.
- Latshaw, Dr. Max**, Curtis Bay, Baltimore, Md.
Chemistry. Woodbury, Pa., Jan. 15, 93. A.B.
Stanford, 16; Ph.D., Hopkins, 24. Chemist,
Minn. Testing Lab, 16; Zenith Furnace Co, 16-
19; asst. chem., Minnesota, 19-22; *research*
chemist, Silica Gel Corp., 24- A.A.; Chem. Soc.
Solid adsorbents; reaction rates of gases.
- Latta, Prof. John S(tephens)**, University of Ne-
braska College of Medicine, Omaha, Nebr.
Histology, Embryology. North Tonawanda, N.
Y., June 5, 95. A.B., Miami, 16; Ph.D., Cor-
nell, 20. Instr. histol. and embryol. med. col.
Cornell, 18-21; asst. prof. *anat. col. med.*, Ne-
braska, 21-24, *assoc. prof.*, 24- Ass. Anat.
Blood and lymph vascular formation; histo-
genesis of the cells of the blood and lymph;
pathology of the fetus and the newborn child.
- de Laubenfels, M(ax) W(alker)**, 325 S. Green-
wood Ave, Pasadena, Calif. *Zoology*. Mt.
Pleasant, Iowa, May 9, 94. A.B., Oberlin, 16;
A.M., Stanford, 26. *In charge dept. zool. and*
museum, Pasadena High School, 23- Ornithol-
ogy and taxonomy of Porifera; taxonomy and
physiology of sponges.
- Laucks, I(rving) F(ink)**, 314 Maritime Building,
Seattle, Wash. *Chemistry*. Akron, Ohio, July
3, 82. B.S., Case, 04, M.S., 08. Consulting chem-
ist, 08-18; *pres.*, I. F. Laucks, Inc, 18- Chem.
Soc; Chem. Eng; Min. and Metal. Eng. Low
temperature carbonization of coal; Greene-
Laucks process; soya bean adhesives; fatty oils.
- Lauer, Dr. A(rnold) W(illiam)**, The Texas Co,
Palace Building, Tulsa, Okla. *Geology*. Mid-
dletown, Iowa, July 18, 81. Ph.B., Iowa, 04;
fellow, Yale, 12-13, Ph.D., 17. Geologist, Cia.
de Petroleo la Corona, Mex, 13-16; asst. econ.
geol., Yale, 16-17; field geologist, Carter Oil
Co, 17-19, *geologist in charge* sub-surface dept,
19-24; *Okla. div.*, East. Oil Co, N. Y., 24-25;
Texas Co., 26- Summers, asst., Colo. Geol. Surv.,
10, topographer, 11. Ass. Petrol. Geol.; Tulsa
Geol. Soc. Petroleum bearing rocks; sedi-
mentary history of oil bearing regions; rela-
tion of mid-continent oil structure to ancient
physiographic features.
- Lauer, Prof. Walter M(cClellan)**, University of
Minnesota, Minneapolis, Minn. *Organic chem-
istry*. Thomasville, Pa., July 18, 95. A.B.,
Ursinus, 13; M.S., Minnesota, 17, Ph.D., 24. Re-
search chemist, E. I. du Pont de Nemours and
Co, 19-20; instr. *org. chem.*, Minnesota,
20-25, *asst. prof.*, 25- Inspector powder and
explosives, ordnance dept, U.S.A., 17-19. Chem.
Soc.
- Laufer, Dr. Berthold**, Field Museum of Natural
History, Chicago, Ill. **Anthropology, Oriental*
languages. Cologne, Germany, Oct. 11, 74.
Berlin, 93-95; Ph.D., Leipzig, 97. Jesup exped,
Siberia, 98-99; East Asiatic Committee exped,
China, 01-04; asst. ethnol., Am. Museum Nat.
Hist., 04-08; lecturer anthrop., Columbia, 05-07;
Blackstone exped, Tibet and China, 08-10;
curator anthrop., Field Museum Nat. Hist., 11-
- Collaborator, U. S. Dept. Agr. Nat. Research
Council. Capt, Marshall Field exped, China,
23. Fel. Ethnol. Soc; Anthropol. Ass; Oriental
Soc; Linguistic Soc; Hist. Sci. Soc; Royal
Asiatic Soc. of Shanghai; Royal Asiatic Soc.
London; Hakluyt Soc; Soc. asiat. de Paris;
Soc. linguist. de Paris; hon. mem. Archeol. Soc.
Finland; cor. mem. Soc. finn. Helsingfors; Soc.
Asiat. Art, The Hague. East Asiatic cultures;
Buddhism and Tibetan literature; Chinese
archeology and ethnology; Chinese pottery,
bronze, jade and precious stones; history of
cultivated plants and domestic animals; Sino-
Tibetan languages.
- Laughlin, Dr. Harry H(amilton)**, Eugenics Record
Office, Carnegie Institution, Cold Spring Har-
bor, N. Y. *Genetics*. Oskaloosa, Iowa, March
11, 80. Grad., N. E. Mo. State Teachers Col.,
00; Sc.D., Princeton, 17. Prin. high sch., Mo.
and Iowa, 00-05; teacher agr., N. E. Mo. State
Teachers Col., 08-10; supt., *Eugenics Record*
Office, 10-18, *asst. director*, 18- In charge
training course for field investigators in
eugenics, 10-24; in charge researches, genetics
of thoroughbred horse, 23-; eugenics expert,
committee on immigration and naturalization,
House of Representatives, 21-; eugenics assoc.,
Munic. Court of Chicago, 21-; permanent com-
mittee on emigration, Int. Labor Bur., League of
Nations, 25. A.A.; Soc. Nat; Eugenics Re-
search Ass. (sec'y-treas., 17-); Eugenics Soc;
Soc. Exp. Biol; Statist. Ass; Acad. Polit. and
Social Sci; Soc. Int. Law. Eugenics; statistics;
international law.
- Laughlin, Homer**, 602 Laughlin Building, Los
Angeles, Calif. *Chemistry*. Wellsville, Ohio,
June 18, 75. A.B., Stanford, 96. V. pres. and
manager, Homer Laughlin China Co, 96-99;
pres., Homer Laughlin Eng. Corp., 99-; *Laugh-*
lin Fruit Ref. Co., 99- A.A.; Chem. Soc; Mech.
Eng; Seismol. Soc; S. Calif. Acad.
- Laughton, Dr. N(elles) B(oyd)**, University of
Western Ontario, London, Ont., Can. *Physi-
ology*. Strathroy, Ont., Sept. 26, 96. B.A., To-
ronto, 21; M.Sc., Western Ontario, 24; Ph.D.,
Chicago, 24. Demonstrator biol., Toronto, 20-
21; instr. *physiol.*, Western Ontario, 21-23, asst.
prof., 23-25, *assoc. prof.*, 25- Physiol. Soc. The
nervous system; reflexes; progression decere-
brate rigidity; kidney; circulation.
- Laurens, Prof. Henry**, Tulane University School
of Medicine, New Orleans, La. *Physiology*.
Charleston, S. C., Oct. 15, 85. A.B., Charleston,
07, A.M., 08; Ph.D., Harvard, 11, Kirkland
fellow at Bonn and Freiburg, 11-12. Asst.
zool., Harvard, 10-11; instr. biol., Yale, 12-16,
asst. prof., 16-21, in charge dept. *physiol.*, 17-19,
assoc. prof. physiol., 21-26; *prof. sch. med.*,
Tulane, 26- Asst. physiologist, C.W.S., 18.
A.A.; Soc. Nat; Physiol. Soc; Soc. Zool; Soc.
Exp. Biol; Optical Soc. Reactions of animals
to light; physiology and anatomy of the heart;
melanophores; spectral sensitivity and visibility;
radiation on metabolism; growth; blood.
- Lauritzen, Dr. J(ohn) I(rvin)**, 4005 Leland St,
Chevy Chase, Md. *Plant pathology*. Moroni,
Utah, July 28, 84. B.S., Utah Col., 14; Ph.D.,
Cornell, 18. Asst. bot., Utah Col., 12-13, instr.,

13-14; asst. plant physiol, Cornell, 15-16, instr, 17; asst. pathologist, *bur. plant indust, U. S. Dept. Agr*, 18-19, pathologist, 20-24, *assoc. pathologist*, 24- Summers, asst, Utah Exp. Sta, 12-14. A.A; Bot. Soc. (board control, 'Bot. Abstracts'); Phytopath. Soc. Temperature and moisture relations; diseases of vegetables in storage.

Laurson, Prof. Philip G(ustave), Yale University, New Haven, Conn. *Engineering, Mechanics*. Oneida, Ill, Dec. 10, 85. B.S, Dakota Wesleyan, 07; Mass. Inst. Tech, 10- M.S, Yale, 26. Draftsman and asst. engineer, Am. Bridge Co, N. Y, 10-17; Fed. Shipbuilding Co, N. J, 17-20; asst. prof. *eng. mech*, Yale, 20-25, *assoc. prof*, 25- Civil Eng; Eng. Educ; Conn. Soc. Civil Eng. Structural mechanics; deflections of beams; indeterminate structures.

Laves, Dr. Kurt, 5611 Kenwood Ave, Chicago, Ill. **Astronomy*. Lyck, Germany, Aug. 24, 66. Königsberg, 86-87; Ph.D, Berlin, 91. Asst, Royal Observatory, Berlin, 92-93; docent *astron*, Chicago, 93-97, instr, 97-01, asst. prof, 01-08, *assoc. prof*, 08- A.A; Math. Soc; Astron. Soc; Astron. Gesell. Lunar equation and the solar parallax; effective potential forces; Jacobi's partial differential equation; Maupertius' principle; graphic method to determine orbits of spectroscopic binaries; cases of libration in the system of small planets; the system Saturn, Hyperion and Titan; problems of 3 bodies in spectroscopic systems; theory of satellites; orbits of binary stars.

Lavis, Fred, 921 Bergen Ave, Jersey City, N. J. *Engineering*. England, Jan. 8, 71. St. Luke's Middle Class Sch, Torquay, Eng. *Ry. and highway eng*, 89- Lecturer, Rensselaer, Yale, Princeton. Civil Eng; Ry. Eng. Economics of highway location and of railway location and construction.

Law, J(ohn) Eugene, 2620 Foothill Boulevard, Altadena, Calif. *Ornithology*. A.B, Stanford, 00. Cashier, First Nat. Bank, Hollywood, Calif, 03-11, pres, 11-14; Hollywood Savings Bank, 11-14; *curator osteol, museum vert. zool, California*, 19- Sci. exped, Chiricahua Mountains, Ariz, 13, 19, 21. A.A; mem. Ornith. Union; Soc. Mammal; Cooper Ornith. Club (pres, south. div, 05, 13-15, v. pres, 16, sec'y, 06-12, business manager, 07-26, pres, board governors, 25); West. Bird Banding Ass. (organizer, pres, 25-27); Calif. Acad. Mammalogy; herpetology.

Lawall, Prof. Cha(rls) E(imer), West Virginia University, Morgantown, W. Va. *Mining engineering*. Catasaqua, Pa, Nov. 21, 91. E.M, Lehigh, 14, M.S, 21. Mining engineer, Bethlehem Steel Co, 16-18, research engineer, 19-20; instr. geol, Lehigh, 20-21; *prof. mining eng, head dept. and director mining exten, West Virginia*, 24- Min. and Metal. Eng; Coal Min. Inst; W. Va. Acad. (sec'y, min. and geol. sect); W. Va. Coal Min. Inst. (v. pres, 25). Mining methods in West Virginia.

LaWall, Dean Charles H(erbert), 636 Race St, Philadelphia, Pa. *Pharmacy, Chemistry*. Allentown, Pa, May 7, 71. Ph.G, Phila. Col. Pharmacy, 93, Ph.M, 05; hon. Phar.D, Pitts-

burgh, 19; hon. Sc.D, Susquehanna, 20. *Instr. pharmacy, Phila. Col. Pharmacy*, 00-05, *assoc. prof*, 05-18, *prof. and dean*, 18- Prof, Wagner Inst, 08-24; chemist, Pa. Dairy and Food Dept, 04-; Pa. State Pharmacy Examining Board, 04-; Pa. Health Commission, 05-18; food inspection chemist and *assoc. referee medicinal plants*, U. S. Dept. Agr, 07-12. Sec'y, committee of revision, U. S. Pharmacopœia, 10-18, chairman, 18-20, sec'y, 20. A.A; Chem. Soc; Pharmaceut. Ass. (pres, 19); Am. Med. Ass; fel. Pub. Health Ass; Franklin Inst; fel. Royal Soc. Arts. Pharmaceutical and food chemistry.

Lawrence, Prof. Ernest O(rlando), Yale University, New Haven, Conn. *Physics*. Canton, S. Dak, Aug. 8, 01. A.B, South Dakota, 22; A.M, Minnesota, 23; Ph.D, Yale, 25. Nat. Research Council fellow *physics*, Yale, 25-27, *asst. prof*, 27- A.A; Physical Soc. Photoelectric effect in vapors; critical potentials; thermionic emission theory.

Lawrence, Prof. Henry E(dmund), University of Rochester, Rochester, N. Y. *Physics*. Sodus, N. Y, Aug. 2, 64. A.B, Rochester, 89; Cornell, 92-94; Sc.D, Colgate, 21. *Instr. physics*, Cornell, 92-94; Rochester, 94-95, *assoc. prof*, 95-01, *prof*, 01- A.A; fel. Physical Soc; Elec. Eng; Rochester Eng. Soc.

Lawrence, Dr. James N(elson), du Pont Rayon Co, Station B, Buffalo, N. Y. *Chemistry*. Attica, N. Y, May 25, 87. B.S, Syracuse, 09, M.S, 10; Ph.D, Wisconsin, 12. Chemist, Gen. Elec. Co, 12-13; asst. physical chemist, U. S. Bur. Mines, 13-15; chemist, U. S. Naval Eng. Exp. Sta, Annapolis, Md, 15-16; *research chemist*, Nat. Aniline and Chem. Co, 17-25; *du Pont Rayon Co*, 25- Lieut. and capt, C.W.S, 17-18. Chem. Soc. Dyes and intermediates; fuels; gas calorimetry; non-ferrous alloys; explosability of coal dust; war gases; rayon.

Lawrence, Prof. William E(vans), 236 N. 25th St, Corvallis, Oregon. *Plant ecology, Botany*. Randolph Co, Ind, April 15, 83. B.S, Earlham, 04; Chicago, 05-06, 07. Instr. bot, Mich. State Col, 06-09; Okla. Agr. and Mech. Col, 09-10; *Oregon Col*, 10-15, asst. prof, 15-20, *assoc. prof. plant ecol*, 20- Asst. pathologist, U. S. Dept. Agr, 22. A.A; Bot. Soc; Ecol. Soc; West. Soc. Nat. Economic botany; plant successions and distribution; principal stock-poisoning plants of Oregon; ecological features of Oregon.

Lawrie, Dr. James W(right), 400 W. 9th St, Wilmington, Del. *Organic chemistry*. Paisley, Scotland, April 27, 81. B.S, Chicago, 04, Ph.D, 06. Research asst, Dr. J. Stieglitz, Chicago, 06-07; Miner-Lawrie Laboratories, 07-08; chief chemist, Int. Harvester Co, 08-09; Pullman Co, 09-10; German-Am. Chem. Works, 11-12; Wm. F. Jobbins, Inc, 13-18; *research chemist, E. I. du Pont de Nemours and Co*, 19- Chem. Soc. (sec'y, Milwaukee sect, 12, v. chairman, Del. sect, 25, senator, 26); Soc. Test. Mat. Modern painting and fermentation glycerin; butyl alcohol and acetone by fermentation.

Laws, Prof. F(rank) A(rthur), Massachusetts Institute of Technology, Cambridge, Mass. *Electrical engineering*. North Bridgewater,

- Mass, May 28, 67. B.S. Mass. Inst. Tech, 89. Asst. physics, *Mass. Inst. Tech.*, 89-91, instr, 91-94, elec. measurements, 94-97, asst. prof, 97-02, elec. testing, 02-06, assoc. prof, 06-13, prof. elec. eng, 13-21, *elec. measurements*, 21- Elec. Eng; Nat. Elec. Light Ass; Am. Acad. Applied electricity; electrical measurements; commercial measuring instruments for electrical work.
- Lawson, Prof. Andrew C(owper)**, University of California, Berkeley, Calif. **Geology*. Anstruther, Scotland, July 25, 61. B.A. Toronto, 83, M.A. 85, hon. D.Sc. 23; Ph.D. Hopkins, 88. Geologist, Can. Geol. Surv, 82-90; *prof. miner. and geol. California*, 90- U. S. Assay Commission, 16; advisory committee on seismol, Carnegie Inst, 21-; chairman div. geol. and geog, Nat. Research Council, 23-24. Ed, 'Bul,' dept. geol. California. Nat. Acad; A.A. (mem. exec. committee, Pacific div, 16); Geol. Soc. (v. pres, 08, pres, 26); Soc. Econ. Geol; Seismol. Soc. (pres, 09); Min. Eng; Philos. Soc; Am. Acad. Archean geology; petrography; geology of California; economic geology; geomorphology; seismology.
- Lawson, Dr. George McL(ean)**, Middle Haddam, Conn. *Bacteriology*. Middle Haddam, May 26, 98. Bates, 15-19; M.D. Yale, 24. Intern pediatrics, New Haven Hosp, 23-25, asst. res, 25; *instr. bacter.*, *Harvard Med. Sch.*, 25- Nat. Research Council fellow, 25-27. Pertussis; influenza.
- Lawson, Prof. Paul B(owen)**, 635 Maine St, Lawrence, Kans. *Entomology*. Sitapur, India, Aug. 18, 88. B.S. Oskaloosa, 09; M.S. Kansas, 17, Ph.D. 19. *Instr. entom. Kansas*, 16-20, asst. prof, 20-21, assoc. prof, 21-22, *prof.*, 22-, *asst. dean col. lib. arts and sciences*, 23- A.A.; Entom. Soc; Ass. Econ. Entom; Kans. Acad. Systematic work on Homoptera, Cicadellidae, Membracidae and Cicadidae.
- Lawton, Dr. Ellis E(arle)**, Shifflet, Cumber and Co, Syracuse, N. Y. *Physics*. Jacks Reefs, N. Y, May 4, 80. Cornell, 98-99; B.S. Rochester, 02; A.M. Yale, 05, Ph.D. 06. Instr. mil. sch, Ill, 02-03; asst. physics, Yale, 04-07; assoc. prof. physics and astron, Colby, 07-09; prof. physics, Denison, 09-13; assoc. prof. elec. eng, Syracuse, 13-18; Willard Storage Battery Co, 16-20; Van Wheel Corp, 20-24; *Shifflet, Cumber and Co*, 24- Assoc. mem. Physical Soc; Eng. Educ; Syracuse Tech. Club (sec'y, 14-16, pres, 16). Light.
- Laybourn, R(oss) L(eonard)**, State Board of Health Laboratories, Jefferson City, Mo. *Bacteriology*. Marion, Kans, Nov. 6, 92. B.S. Washburn, 16; M.S. Iowa Col, 17. Teaching fellow bacter, Iowa Col, 16-17, instr, 19; bacteriologist, State Board Health Laboratories, Iowa, 19-20, asst. director and chief div. bacter, 20-24; *chief laboratories*, Mo. *State Board Health*, 25- Bacteriologist in charge, Red Cross Lab, Kans, 17-18; instr, army lab. sch, Yale, 18-19. A.A.; Soc. Bact; fel. Pub. Health Ass. Serology; fermentations of *Bacillus coli*; diphtheria bacillus.
- Lazier, Dr. Wilbur A(rthur)**, 1001 Gilpin Ave, Wilmington, Del. *Chemistry*. Rochelle, Ill, March 28, 00. B.S. Illinois, 22; M.S. Wisconsin, 23, Ph.D. 25. *Research chemist*, *Exp. Sta. E. I. du Pont de Nemours and Co*, 25- Chem. Soc. Heterogeneous catalysis as applied to the reactions of organic chemistry.
- Leach, Prof. J(ulian) G(ilbert)**, University Farm, St. Paul, Minn. *Plant pathology*. Somerville, Tenn, Nov. 16, 94. B.S. Tennessee, 17; Shevlin fellow, Minnesota, 17-18, M.S. 18, Ph.D. 22. Agent, U. S. Dept. Agr, 16-17; asst. plant path, Minnesota, 18-19; acting head dept. bot, Colo. Agr. Col, 19-20; *asst. prof. plant path*, *Minnesota*, 20- A.A.; Phytopath. Soc.
- Leake, Prof. Chauncey D(epew)**, University of Wisconsin, Madison, Wis. *Physiology*, *Pharmacology*. Elizabeth, N. J, Sept. 5, 96. B.Litt, Princeton, 17; M.S. Wisconsin, 20, Ph.D. 23. Instr. physiol, *Wisconsin*, 20-23, asst. prof. *pharmacol.*, 23-25, *assoc. prof.*, 25- C.W.S., U.S.A. 18, O.R.C. Physiol. Soc; Soc. Pharmacol; Hist. Sci. Soc. Hematology; anesthesia; history of medicine.
- Learn, Prof. C(larence) D(elbert)**, Colorado Agricultural College, Ft. Collins, Colo. *Botany*. Clermont, Iowa, Sept. 30, 75. B.S. Upper Iowa, 09; Mo. Bot. Garden, 09-10; A.M. Cornell, 12. Teaching fellow bot, Washington (St. Louis), 09-10; asst, Cornell, 10-12; instr, Okla. Agr. and Mech. Col, 12-15, *asst. prof.*, 15-20; *Colo. Agr. Col*, 20- Summer, asst, bot. lab, Purdue Exp. Sta, 10. A.A.; Bot. Soc; fel. Iowa Acad. Mycology; plant diseases.
- Leary, Prof. Daniel Bell**, University of Buffalo, Buffalo, N. Y. *Psychology*, *Education*. New York, N. Y, June 16, 86. A.B. Columbia, 09, A.M. 15, Ph.D. 19. Prof. educ, Tulane, 16-18; *head dept. psychol. and educ*, *Buffalo*, 19- Ethics and philosophy in the light of the newer psychological knowledge of human nature; tests and measurements; correlations of physical and mental traits; reduction of Freudian concepts to standard psychological bases.
- Leary, Dr. Timothy**, 416 Huntington Ave, Boston, Mass. *Pathology*; *Bacteriology*. Waltham, Mass, 70. M.D. Harvard, 95; hon. A.M. Tufts, 07. First res. asst. pathologist, Boston City Hosp, 95-97; asst. prof. *path. and bacter.*, *Tufts*, 97-00, *prof.*, 00- Assoc. med. examiner, Suffolk Co, Mass, 08, med. examiner, 10- Trustee, Forsyth Infirmary for Children. Ass. Path. and Bact; Soc. Bact; Am. Med. Ass; Mass. Medico-Legal Soc. (past pres); Boston Soc. Med. Sci; Boston Med. Library Ass. Etiology of cancer; regeneration and process of repair; vaccine therapy; serum therapy; focal infection.
- Leathers, Dr. A(delbert) L(ewellyn)**, 161 Gunson St, East Lansing, Mich. *Zoology*. Barnard, Maine, March 23, 81. Ph.B. Wesleyan, 07; fellow, Clark, 11-12; Ph.D. Cornell, 16. Asst. biol, Michigan, 07-08; prof, Leander Clark, 09-10; instr, Northwestern, 13-15; prof, Olivet, 16-18; assoc. prof. zool, N. Dak. Col, 18-21; asst. prof, N. Y. State Col. Forestry, Syracuse, 22; biol, Akron, 23-24; *pres*, *All Leathers Biol. Supply Co*, 24- Mich. Biol. Surv, 08. Walker prize, 17. A.A. Fish; embryology; aquatic biology.

- Leathers, Dr. Waller S(mith)**, Vanderbilt University, Nashville, Tenn. *Medicine*. Near Charlottesville, Va, Dec. 4, 74. Grad, Virginia, 92, M.D., 95; Hopkins, 96; LL.D., Mississippi, 24; Chicago, 98, 01, 02, 07; biol. lab, Long Island, 97; Woods Hole, 00; Harvard, 06. Asst. prof. biol., Mississippi, 95-96; head dept. science, Miller Sch., Va., 96-97; prof. biol. and geol., South Carolina, 97-99; biol., Mississippi, 99-03, physiol., 03-10, histol. and hygiene, 10-24, dean med. sch., 04-24; *prof. prev. med. and pub. health, Vanderbilt, 24-* Director pub. health, Miss., 10; exec. officer, Miss. State Dept. Health, 17-24. A.A.; fel. Am. Med. Ass. (sec'y, sect. prev. and indust. med. and pub. health, 20-23, chairman, 23); South. Med. Ass. (pres, 22, sec'y, sect. trop. diseases and pub. health, 13-17); fel. Pub. Health Ass; Tuber. Ass; Miss. Med. Ass. (pres, 18); Royal Sanit. Inst; fel. Soc. Med. Officers Health Eng.
- Leavenworth, Charles S(tanley)**, 1625 Whitney Ave, New Haven, Conn. *Biochemistry*. Hamden, Conn, July 21, 79. Ph.B., Yale, 02. *Asst. physiol. chem, Yale, 04-07; protein chem, Conn. Exp. Sta, 08-* Protein chemistry.
- Leavenworth, Prof. F(rancis) P**, University of Minnesota, Minneapolis, Minn. *Astronomy*. Mt. Vernon, Ind, Sept. 3, 58. A.B., Indiana, 80, A.M., 87; Cincinnati Observatory, 80-82. Asst, Cincinnati Observatory, 80-20; observatory, Virginia, 82-87; director observatory, Haverford, 87-92; asst. prof. *astron, Minnesota, 92-97, prof, 97-27, emer, 27-* Astron. Soc. Double star measurements; discovery of nebulae; stellar parallax; astronomical photography; position of Eros; parallax of sun from photographic plates of Eros; photographic measurements on ring nebula of Lyra.
- Leavenworth, Prof. William Stowell**, Jacksonville, Ill. *Chemistry*. Brattleboro, Vt, July 28, 62. B.S., Hamilton, 89, M.S., 92; Harvard, 89, 90; Chicago, 99, 01. Asst. chem, Hamilton, 88-89; *prof. chem. and physics, Ripon, 89-03; chem, Olivet, 03-18; Maryville, 18-19; Ill. Col, 19-* Acting prin, Vt. State Nor. Sch, Castleton, 92. A.A.; Chem. Soc; fel. Inst. Chem. The marble region of New England; a method of analyzing the inorganic acids; some derivatives of wood tar; methods of sewage disposal; new Tennessee phosphate deposit; dicyandiamide as a stabilizer of explosives.
- Leavitt, C(harles) W(ellford)**, 285 Madison Ave, New York, N. Y. *Civil engineering*. Riverton, N. J, March 13, 71. Gunnery Sch. (Conn); Pa. Mil. Acad, Cheltenham. In charge construction ry, Caldwell, N. J, 91-92; Roseland, N. J, 92; with N. Y. Suburban Land Co, 93-95; engineer, Essex Fells, N. J, 95-96; asst. engineer in charge construction, E. Jersey Water Co, 96-97; *consulting civil engineer, New York, 97-* Chief engineer, Commission, Palisades Interstate Park; consulting engineer, Camden County Park; Board Additional Water Supply, New York; city planner, Camden, N. J, Lakeland, Arcadia and West Palm Beach, Fla. Civil Eng; Inst. Consulting Eng. (pres, 23); Soc. Landscape Architects; N. Y. Archit. League.
- Leavitt, Clyde**, Board of Railway Commissioners for Canada, Ottawa, Ont, Can. *Forestry*. Elk Rapids, Mich, March 1, 78. A.B., Michigan, 01, M.S.F., 04. U. S. Forest Service, 04-12; chief forester, Commission of Conservation of Can, 12-21; *chief fire inspector, Board Ry. Commissioners for Can, 12-* Soc. Foresters; Can. Soc. Forest Eng. (pres, 16, sec'y, 18-20, treas, 24-). Forest protection and conservation.
- Leavitt, Dr. R(obert) G(reenleaf)**, State Normal School, Trenton, N. J. *Botany*. North Parsonfield, Maine, Sept. 28, 65. A.B., Harvard, 89, A.M., 98, Ph.D., 04. Science master, de Veaux Sch., N. Y, 90-91; head master, Concord Home Sch, Mass, 91-93; teacher physics, Williston Sem, Mass, 93-97; asst. bot., Harvard and Radcliffe, 97-99; investigator, Ames Bot. Lab, 99-08; *head dept. biol. hygiene, N. J. State Nor. Sch, Trenton, 08-* Summers, instr., Harvard, 03-07. New Eng. Bot. Club. Roots of vascular cryptogams, monocotyledons and angiosperms; absorption of water vapor by plants; homeocesis; Drosera; geographic distribution of nearly related species; Eria in the Philippine Islands; health training for teachers; biological education.
- LeBaron, Capt. J(ohn) Francis**, Amparo Villa, Essex, Mass. *Civil engineering, Geology*. Boston, Mass, Sept. 28, 47. Mass. Inst. Tech; Lowell Inst. Asst. and chief engineer, Fitchburg Ry, 71-77; chief archeol. exped, Fla, 77-78; asst. engineer, U.S.A., 80-84, 90; acting chief engineer and gen. supt, Nicaragua Canal surveys and construction, 87-90; chief engineer, Am. Honduras Co, 98-02; pres, Moccasin Falls Ginseng Co, 02-05; consulting engineer, U. S. and Nicaragua Co, and chief engineer, Great Cent. Ry. of Nicaragua, 05-07; consulting and chief engineer, Sumas Develop. Co, B. C, 08-09; *consulting engineer, 09-* U. S. deputy surveyor, 80-00; asst. engineer, Fla. Ship Canal Surv, 83; commissioner, Nicaragua Canal Co. to Nicaragua Govt, 89; engineer, corporations, canals and railways; consulting engineer, La Laz and Los Angeles mines, Nicaragua, C. A. A.A.; Civil Eng. (founder, 82, sec'y, 82-88, director, 86-96); Min. Eng; Soc. Mil. Eng; Ass. Eng; Franklin Inst; Mass. Audubon Soc; Cleveland Eng. Soc. Isthmian canals; archeology; agricultural engineering and tropical agriculture; economic geology; woods of Central America; medicinal plants; anti-teredo woods in sea water; rainfall; temperature; magnetic declinations.
- Lebensohn, Dr. James E(lzar)**, 25 E. Washington St, Chicago, Ill. *Ophthalmology*. Nov. 5, 93. B.S., Chicago, 14, M.S., 15, fellow, 17, M.D., Rush Med. Col, 17; Cornell; Paris; Vienna. Resident, Cook Co. Hosp, Chicago, 20-21; ophthalmologist and otolaryngologist, U. S. Veterans Hosp, Ill, 21-24; *dept. ophthalm. sch. med, Loyola*. Attending ophthalmologist, Mt. Sinai Hosp, Chicago; asst. ophthalm. surgeon, Ill. Charitable Eye and Ear Infirmary; visiting ophthalmologist, Frances Willard Hosp. A.A.; Am. Med. Ass; fel. Col. Surg; Chicago Ophthalm. Soc; Chicago Oto-Laryngol. Soc; Chicago Soc. Hist. Med. Monocular myopia; retinal determination of blood-pressure; history of spectacles; orbital osteomata; paralysis of divergence; mumps of lacrimal glands.

- LeBlanc, Prof. T(homas) J(ohn)**, Eden and Bethesda Avenues, Cincinnati, Ohio. *Biometry, Statistics*. Sheboygan, Mich, June 28, 94. A.B, Michigan, 17, M.S.(P.H.), 20; fellow, Rockefeller Inst, 20; C.P.H, Hopkins, 22, Sc.D, 24. Asst. statistician, U. S. Pub. Health Service, 24-25; *assoc. prof. prev. med, Cincinnati, 25-* Medal, yellow fever work, citizens of Vera Cruz. Yellow fever; vital statistics.
- Le Clerc, Dr. J(oseph) Arthur**, U. S. Department of Commerce, Washington, D. C. *Chemistry*. Ware, Mass. B.S, Worcester, 95; Ph.D, Halle, 03. Asst. chemist, Sewage Purification Works, Worcester, Mass, 95; N. Y. Exp. Sta, Geneva, 95-01; *physiol. chemist, bur. chem, U. S. Dept. Agr, 03-19; chief chemist, Miner-Hillard Milling Co, 19-21; special trade commissioner, Dept. Commerce, 21-22, grain specialist, 22-* Jury awards, Paris Expos, 00; La. Purchase Expos, 04; Panama-Pacific Expos, 15. Chevalier, Mérite agricole, 97. A.A; Chem. Soc. (sec'y, Wash. sect, 07-10, pres, 12); Wash. Acad. Chemistry and physiology of plants; cereal chemistry; international trade in wheat and flour; rice trade of the Far East.
- Le Compte, T(homas) R(obert)**, Mellon Institute, Pittsburgh, Pa. *Chemistry*. Cambridge, Md, June 11, 86. A.B, Western Maryland; M.S, Louisiana; Ph.D, Columbia. Instr, Louisiana, 12-15; junior chemist, bur. animal indust, U. S. Dept. Agr, 15-18; instr, Brooklyn Polytech, 18-24; *indust. fellow, Mellon Inst, 24-* Asst, Columbia. Chem. Soc. Charcoal adsorption; action of various charcoals on iron oxide sols and on ferric chloride and hydrochloric acid solutions; the technology of felt hat manufacture.
- LeConte, Prof. Joseph N(isbet)**, 19 Hillside Court, Berkeley, Calif. *Mechanical engineering*. Oakland, Calif, Feb. 7, 70. B.S, California, 91; M.M.E, Cornell, 92. Instr. *mech. eng, California, 92-00, prof, 00-* Mech. Eng. Experimental and applied mechanics; exploration of Sierra Nevada Mountains; experimental hydraulics.
- LeCount, Dr. E(dwin) R(aymond)**, 5757 Kenwood Ave, Chicago, Ill. **Pathology*. Fond du Lac, Wis, April 1, 68. Carroll, 87-88; M.D, Rush Med. Col, 92; Hopkins Hosp, 93-94; Pasteur Inst, Paris, 96; Berlin, 05. Resident, Cook Co. Hosp, 92, 93; *prof. path, Rush Med. Col, Chicago, 92-* Attending pathologist, Cook Co, Presb, St. Luke's, St. Elizabeth's and St. Anthony's Hospitals. A.A; Ass. Path. and Bact. (past pres); Ass. Cancer Research (past pres); Soc. Bact; Am. Med. Ass. Pathology; the relationship between tumors and chronic inflammation; carcinoma of the Fallopian tubes; 'Plimmer's bodies'; lymphoma; hypernephroma; Christian Fenger as pathologist; focal necrosis in tuberculosis; tuberculosis of the mammary gland; cholesterol giant-cells; aneurisms of the heart; primary carcinoma of the lung; the rôle of endothelioma in inflammation; cirrhosis of the liver; the inhibition of hemolysis by cholesterol; the amino-acids of feathers; parathyroid infection with purpura hemorrhagica; systematic blastomycosis; blastomycotic lesions of the central nervous system; fibrino-purulent blastomycotic meningitis; secondary intrathoracic osteosarcomas; Rocky Mountain spotted fever; fat embolism; the causes of coma; influenzal pneumonia; heat stroke; fracture of the cranial bones and concomitant brain injury; edema of the brain.
- Ledyard, Edgar M(adison)**, P. O. Box 1785, Salt Lake City, Utah. *Agronomy, Entomology, Geography*. Salem, Mich, May 10, 75. B.S, Philippines, 13; M.S, California, 15. Prin. and supt, pub. schools, Mich, 97-04; head dept. science, high schools, P. I, 04-08; dept. zool. and entom, col. agr, Philippines, 09-14, acting dean, 12-13; *director agr. dept, U. S. Smelting, Ref. and Mining Co. and other smelting companies, 15-* Lecturer, Santo Tomas, Manila, P. I, 07-08; sci. asst, 'Albatross,' 08-09; in charge insect collections, Michigan, 11-12; consulting agriculturist, Amalgamated Sugar Co, 18-19. A.A; Ass. Econ. Entom. Soc. Agron; Ass. Sugar Beet Agr; fel. Am. Geog. Soc; fel. Utah Acad. Animal life of the Philippines; beans; lung worms in Angora goats; effect of smelting on agricultural conditions; geographic distribution of animals.
- Lee, Prof. Burton James**, 128 E. 73d St, New York, N. Y. *Surgery*. New Haven, Conn, Feb. 4, 74. Ph.B, Yale, 94; M.D, Columbia, 98. *Clin. prof. surg. med. col, Cornell, 18-* Surg. Ass; Col. Surg; Clin. Surg. Soc; Radium Soc; Radiol. Soc; Interurban Surg. Soc; N. Y. Surg. Soc. Diseases of the breast; carcinoma.
- Lee, Charles H(amilton)**, 58 Sutter St, San Francisco, Calif. *Civil engineering*. Oakland, Calif, Feb. 1, 83. B.S, California, 05. Asst. engineer, Los Angeles Aqueduct Bur, 07-12; consulting hydraulic engineer, 12-17; pres. and exec. mem, Calif. State Water Commission, 19-21; *consulting engineer, 21-* Lieut. and capt, C.Eng, 17-19. Civil Eng; Water Works Ass; Meteor. Soc. Ground water hydrology; precipitation; evaporation; stream flow.
- Lee, Prof. Frederic S(chiller)**, 437 W. 59th St, New York, N. Y. **Physiology*. Canton, N. Y, June 16, 59. A.B, St. Lawrence, 78, A.M, 81, LL.D, 18; Ph.D, Hopkins, 85; Leipzig, 85-86. Instr. biol, St. Lawrence, 86-87; *physiol. and histol, Bryn Mawr, 87-88, assoc, 88-91; demonstrator physiol, Columbia, 91-95, adjunct prof, 95-04, prof, 04-11, Dalton prof, 11-20, research prof, 20-* Jesup lecturer, Columbia, 11; Cutler lecturer, Harvard, 18; Parker lecturer, Union Theol. Sem, 22; consulting physiologist, U. S. Pub. Health Service, 17-; special mission to investigate indust. conditions, Europe, 18. Board editors, 'Am. Jour. Physiol,' 98-14; 'Columbia Univ. Quarterly,' 00-20. Trustee, Columbia Univ. Press, 07-20; board managers, N. Y. Bot. Garden, 03, v. pres, 21-23, pres, 23- N. Y. State Commission on Ventilation. A.A. (sec'y, K, 02-04, v. pres, 18-20); Soc. Nat; Physiol. Soc. (sec'y and treas, 94-04, pres, 17); Soc. Exp. Biol. (pres, 08-10); assoc. fel. Am. Med. Ass; fel. Pub. Health Ass; Harvey Soc. (treas, 05-07, pres, 12-14); assoc. fel. N. Y. Acad. Med; fel. N. Y. Zool. Soc; fel. N. Y. Acad; Vt. Bot. Club; Ass. Int. de l'Inst. Marey (v. pres, 22-). Phototaxis; sense of

equilibrium; physiological properties of muscle; muscle fatigue; physiological action of atmospheric conditions; industrial physiology.

Lee, H(enry) Atherton, Experiment Station, Hawaiian Sugar Planters' Association, Honolulu, Hawaii. *Plant pathology*. Conn, Jan. 5, 94. B.S. California, 15, M.S. 16. Pathologist, bur. plant indust., U. S. Dept. Agr., 16-20; mycologist, Bur. Science, P. I., 20-23; director sugar cane investigations, Philippine Sugar Ass., 23; *pathologist, Exp. Sta. Hawaiian Sugar Planters' Ass.*, 23- Chairman board publications, Pan-Pacific Research Inst. A.A.; Phytopath. Soc.; Bot. Soc.; Hawaiian Bot. Soc. (pres, 25). Sugar cane diseases.

Lee, Dr. I(ra) E(iver), E. I. du Pont de Nemours and Co, Wilmington, Del. *Chemistry*. Alamo, Ind, July 10, 83. A.B. Indiana, 11, fellow, 11-12, A.M., 12; Ph.D. Cornell, 15. Asst. chem, Cornell, 12-14; chief chemist, Am. Refrigeration Co, 14-15; instr. chem, Rochester, 15-18; *research chemist, E. I. du Pont de Nemours and Co*, 18- Chem. Soc. Binary systems; intermediates for dyes; accelerators; flotation agents; solvents.

Lee, Lasley, Ohio State University, Columbus, Ohio. *Engineering*. Carbondale, Pa, Jan. 2, 87. B.S. Mass. Inst. Tech., 10. *District engineer, U. S. Geol. Surv.*, 21- Civil Eng; Columbus Eng. Club. Water resources of Ohio and northern Kentucky.

Lee, Dr. Marguerite T(houron), 20 W. 72d St, New York, N. Y. *Biology*. Brooklyn, N. Y., Oct. 20, 71. B.S. Cornell, 94; Ph.D., Columbia, 14. Teacher *biol. Girls' High Sch, Brooklyn*, N. Y., 94-06, head dept, 06- A.A.; N. Y. Acad. Biochemistry.

Lee, Dr. Milton O., Ohio State University, Columbus, Ohio. *Physiology*. Conneaut, Ohio, Sept. 8, 01. A.B. Ohio State, 21, A.M., 23, Ph.D., 26; Woods Hole, 21. *Instr. physiol. Ohio State*, 21- Instr. Iowa Col, 25. A.A.; Ohio Acad. Experimental zoology; general and insect physiology; endocrinology.

Lee, Dr. Oliver J(ustin), 1921 Oxford St, Rockford, Ill. *Astronomy*. Montevideo, Minn., Dec. 16, 81. A.B. Minnesota, 07; fellow, Yerkes Observatory and Chicago, 10-12, M.S., 11, Ph.D., 13. Computer, Yerkes Observatory, 07-10, asst., 12-14, instr. practical astron., 14-23, asst. prof., 23-26; *retired*, 26. Summers, lecturer, Minnesota, 08-10. Exec. mem, Yerkes Observatory total solar eclipse exped, Calif., 23, Mich., 25. Director sch. navigation, U. S. Shipping Board, Chicago, 17-19. A.A.; Astron. Soc.; fel. Royal Astron. Soc. Astrometry; solar physics; stellar spectroscopy and parallaxes; radial velocities with orbits; correlation between solar phenomena; proper motions of stars.

Lee, Dr. R(ichard) Edwin, Allegheny College, Meadville, Pa. *Chemistry*. Philadelphia, Pa, Sept. 9, 76. B.S. Mt. Union, 98, M.S., 02; Cornell, 01; A.M. Harvard, 05; Sc.D., N. Y. Univ., 10. *Prof. chem. Mt. Union*, 02-07; *Allegheny*, 07- A.A.; Chem. Soc.; Pub. Health Ass.; Royal Soc. Arts. Qualitative analysis of zinc and calcium groups; thermometric lag;

fermentation tubes; brasses, bronzes and babbitt metals; phosphor-tin; raw and pasteurized milk; solution densities; application of mass law to disinfection; prevention of segregation in brasses and bronzes.

Lee, Dr. Roger I(rving), 270 Commonwealth Ave, Boston, Mass. *Medicine*. Peabody, Mass., Aug. 12, 81. A.B. Harvard, 02, M.D., 05. Med. intern, Mass. Gen. Hosp., 05-07; asst. med., Harvard Med. Sch., 07-12, instr., 12-14, prof. hygiene, Harvard, 14-24; *practising physician*, 24- Physician to out-patients, Mass. Gen. Hosp., 08-12, visiting physician, 12-20, asst. chief med. service, 20-24. Pub. Health Council, Mass. A.A.; Am. Med. Ass.; Am. Physicians; Soc. Clin. Invest; Pub. Health Ass. (treas., 19-23); Climat. Ass. Internal medicine; hygiene.

Lee, S(tark) O(lan) Ivan, 2684 Boulevard, Jersey City, N. J. *Chemistry, Mineralogy*. Madison, Ohio, April 17, 88. B.S. Brooklyn Polytech., 11. Research chemist, Colgate and Co, 11-13; chemist, Tagliabue and Co, 13; path. research chemist, Crocker Lab, Columbia, and St. Luke's Hosp., 13-17; tech. adviser, Great Am. Chem. Products Co, 17-19; chemist, Antoine Chiris and Co, 19-20; chem. director, T. M. and G. Chem. Co, 20-23; chem. research and automotive engineer, Van Dyk and Co, and Boyce and Veeder, 23-26; *chem. research engineer, Pan-Org. Corp.*, 26- Ed-in-chief, 'Polytech. Eng.' 11. Fel. Miner. Soc.; N. Y. Acad.; N. Y. Chemists Club; N. Y. Miner. Club; Newark Miner. Soc. Organic, pathological and bio chemistry; terpenes; rare elements; aromatic chemicals; microchemical analysis; selenium and tellurium dyes; colloidal gold; oxidase stain; foaming inhibitors; mercury poisoning; manganotantalite; fuel research; anti-freeze solutions; corrosion; automotive development.

Lee, Prof. Thomas G(eorge), University of Minnesota, Minneapolis, Minn. *Histology, Embryology*. Jacksonville, N. Y., Nov. 27, 60. B.S. M.D. Pennsylvania, 86; B.S. Harvard, 92. Asst. histol. and embryol., Pennsylvania, 84-86; lecturer histol. and embryol. and director lab, Yale, 86-91; asst. histol., Radcliffe, 91-92; *prof. histol. and embryol. and director lab, Minnesota*, 92-09, anat. and director inst. anat., 09-13, *comp. anat.*, 13- Assoc. ed., 'Anat. Record.' Int. Cong. Anat., Brussels, 10; Int. Zool. Cong. Graz, 10. A.A.; Soc. Nat. (sec'y, cent. branch); Ass. Anat.; Soc. Zool.; Am. Med. Ass.; Minn. Acad.; fel. Minn. Acad. Med.; Anat. Gesell. Human and vertebrate embryology; the embryology of *Spermophilus tridecemlineatus* and other rodents; the placentation and morphology of *Citellus*, *Geomys*, *Dipodomys* and other mammals.

Lee, Prof. Walter Estell, 905 Pine St, Philadelphia, Pa. *Surgery*. Philadelphia, July 22, 79. M.D. Pennsylvania, 02. *Prof. surg. sch. med. Pennsylvania*. Am. Med. Ass.; Surg. Ass.; Ass. Thoracic Surg.; Phila. Acad. Surg.; Phila. Col. Physicians; Phila. Pediat. Soc. Anesthesia; germicidal agents; military surgery; postoperative pulmonary complications and massive collapse of the lungs; intestinal obstruction; surgical treatment of burns.

- Leech, Dr. Paul Nicholas**, American Medical Association, 535 N. Dearborn St, Chicago, Ill. *Chemistry*, Oxford, Ohio, Aug. 12, 89. A.B., Miami, 10; M.S., Chicago, 11, Ph.D., 13. Research asst, Chicago, 11-13; chemist, *Am. Med. Ass.*, 13-24, *director chem. lab.*, 24- Chem. Soc. (councilor, 22-, chairman, Chicago sect, 26); assoc. fel. Am. Med. Ass. (director, sci. exhib, 22-); Chicago Chemists Club (trustee, 25-). Formic acid; molecular rearrangements; medicinal chemistry.
- Leeds, Morris E(vans)**, 4901 Stenton Ave, Philadelphia, Pa. *Physics*, Philadelphia, March 6, 69. A.B., Haverford, 88; Berlin, 92-93. Queen and Co, Phila., 89-99; Morris E. Leeds and Co, 99-03; *pres*, *The Leeds and Northrup Co*, 03-A.A.; Physical Soc; Elec. Eng; Franklin Inst; Phila. Acad. Electrical and heat measuring apparatus.
- Lees, Dr. James H(enry)**, State House, Des Moines, Iowa. *Geology*, Yorkshire, Eng, July 26, 75. A.B., Coe, 01; fellow, Iowa, 02-03, M.S., 03; fellow, Chicago, 03-04, Ph.D., 15. Asst. geol, Chicago, 04-06; *asst. state geologist*, *Iowa Geol. Surv.*, 06- Summer, instr, Colorado, 04, Chicago, 05. A.A.; Geol. Soc; Iowa Acad. (sec'y, 14-23); Iowa Conservation Ass. Physiography of Iowa; Pleistocene of Iowa.
- Lefavour, Dr. Henry**, Simmons College, Boston, Mass. **Physics, Education*. Salem, Mass, Sept. 4, 62. A.B., Williams, 83, Ph.D., 86, LL.D., 02; Berlin, 88-90; LL.D., Tufts, 05. Instr, Williston Sem, 83-84; physics and math, Williams, 84-88, *prof. physics*, 88-02, *dean*, 97-02; *pres*, *Simmons (Mass)*, 02- A.A.; Am. Acad.
- Leffmann, Dr. Henry**, Franklin Institute, Philadelphia, Pa. **Chemistry*. Philadelphia, Sept. 9, 47. A.M., Cent. High Sch. Phila., 65; M.D., Jefferson Med. Col., 69; hon. Ph.D., Wagner Free Inst, 74; D.D.S., Pa. Col. Dental Surg, 84. *Prof. chem*, *Wagner Free Inst*, 75-; Pa. Col. Dental Surg, 84-99; *Woman's Med. Col. of Pa*, 88- Port physician, Phila., 84-87, 91-92; lecturer, Phila. Col. Pharmacy. Chem. Soc; Franklin Inst; British Soc. Pub. Analysts. Food chemistry.
- Lefschetz, Prof. S(olomon)**, 190 Prospect St, Princeton, N. J. **Mathematics*. Moscow, Russia, Sept. 3, 84. M.E., Ecole Centrale, Paris, 05; Ph.D., Clark, 11. Westinghouse Elec. and Mfg. Co, 07-11; *instr. math*, Nebraska, 11-13; Kansas, 13-16, *asst. prof*, 16-20, *assoc. prof*, 20-23, *prof*, 23-24; visiting *prof*, *Princeton*, 24-25, *assoc. prof*, 25- Bordin prize, French Acad, 19; Bocher prize, Am. Math. Soc, 24. Nat. Acad; Math. Soc; Math. Ass; Soc. math. de France; Circolo Mat. di Palermo. Algebraic geometry; analysis situs; multiple periodic functions.
- Lehenbauer, Prof. P(hilip) A(ugustus)**, University of Nevada, Reno, Nev. *Plant physiology*. Hannibal, Mo, Nov. 1, 83. A.B., Westminster (Mo), 07; A.M., James Millikin, 09; Ph.D., Illinois, 14. Asst. prof. bot, Nevada, 14-17; Illinois, 17-23; *prof. bot. and hort*, *Nevada*, 23- A.A.; Soc. Plant Physiol; Bot. Soc; Phytopath. Soc; Soc. Hort. Sci; Pomol. Soc. Growth of plants in relation to temperature, humidity and soil moisture.
- Lehman, Dr. S(amuel) G(eorge)**, North Carolina State College, Raleigh, N. C. *Botany*. Defiance Co, Ohio, March 25, 87. B.S., Ohio (Athens), 15; M.S., N. C. State, 17; Ph.D., Washington (St. Louis), 23. Instr. bot, N. C. State, 15-19, *asst. plant pathologist*, *Exp. Sta.*, 19-25, *assoc. plant pathologist*, 25-26, *prof. plant path. and plant pathologist*, 26- A.A.; Bot. Soc; Phytopath. Soc; Ass. South. Agr. Workers (chairman, phytopath. sect, 26-); N. C. Acad. Mycology; pathology; physiology; plant diseases.
- Lehmann, Prof. Emil W**, University of Illinois, Urbana, Ill. *Agricultural engineering*. Oldenburg, Miss, April 19, 87. B.S., Miss. Agr. and Mech. Col, 10; E.E., Agr. and Mech. Col. Texas, 13; B.S., Iowa Col, 14, A.E., 19; Cornell; Wisconsin. Instr. physics, Agr. and Mech. Col. Texas, 10-13; instr. and asst. prof. agr. eng, Iowa Col, 14-16; *assoc. prof. and prof*, Missouri, 16-20; *prof. farm mech. and head dept*, *Illinois*, 21- Summer, instr, Illinois, 19. Agr. eng. ed, 'Successful Farming', 20-21. Elec. Eng; Agr. Eng. (pres, 21). Farm mechanics; septic tanks; crop drying and storage; use of electricity in agriculture.
- Lehmer, Prof. D(errick) N(orman)**, 2736 Regent St, Berkeley, Calif. **Mathematics*. Somerset, Ind, July 27, 67. A.B., Nebraska, 93, A.M., 96; Ph.D., Chicago, 00. Head master, Worthington Mil. Acad, 96-97; *instr. math*, *California*, 00-04, *asst. prof*, 04-10, *assoc. prof*, 10-18, *prof*, 18- A.A.; Math. Soc; Math. Ass; Circolo Mat. di Palermo. Theory of numbers; synthetic geometry; construction of table of smallest divisors of all numbers less than ten millions by new method.
- Lehnerts, Edward M**, Hunter College, New York, N. Y. *Geography, Geology*. Winona, Minn, March 29, 73. B.S., Pennsylvania, 02; A.M., Minnesota, 08. Instr. geog, Minn. State Nor. Sch, Winona, 96-98, *prof*, 98-07; *asst. prof. geog. and geol*, Minnesota, 07-18; lecturer geog, Teachers College, Columbia, 18-21; *assoc. prof. geol*, *Hunter*, 21- Director, Am. Bur. Geog, 00-02. Ed., 'Jour. Geog.', 02-05. Physical geography; commercial geography; the teaching of geography; physical and economic geography of the upper Mississippi Valley; geology of northern New York.
- Lehr, Dr. (Anna) Marguerite (Marie)**, 81 Mal-low Hill Road, Catonsville, Md. *Mathematics*. Baltimore, Md, Oct. 22, 98. A.B., Goucher, 19; M. Carey Thomas fellow, Bryn Mawr, at Rome, 21, Am. Ass. Univ. Women fellow, 23-24, Ph.D., 25. Reader *math*, *Bryn Mawr*, 19-21, *instr*, 24- Math. Soc. Plane algebraic curves.
- Lehrman, Dr. Alexander**, College of the City of New York, New York, N. Y. *Chemistry*. Brooklyn, N. Y., Aug. 31, 96. B.S., Col. City of N. Y., 18; A.M., Columbia, 20, Ph.D., 25. Instr. chem, *Col. City of N. Y.*, 18- Research asst, Harriman Research Lab, Roosevelt Hosp, 18-19. Chem. Soc. Phase rule; biochemical analysis; photographic chemistry; the determination of uric acid in blood; ternary systems.

Lehrman, Dr. L(eo), 460 W. 149th St, New York, N. Y. *Organic chemistry*. New York, July 3, 00. B.S., Col. City of N. Y., 21; A.M., Columbia, 23, Ph.D., 26. *Dept. chem., Col. City of N. Y.*, 21-; *N. Y. Univ.*, 21, 25- Exten. dept, Columbia, 23-25. Composition of corn starch.

Leib, Prof. D(avid) D(eitch), 358 Mohegan Ave, New Haven, Conn. *Mathematics*. Allen, Pa., Oct. 28, 79. A.B., Dickinson, 03, A.M., 05; fellow, Hopkins, 08-09, Ph.D., 09. Instr. math., Pennington Sem, N. J., 03-06; Sheffield Sci. Sch., Yale, 09-16; asst. prof. math. and physics, *Conn. Col. for Women*, 16-17, *prof. math.*, 17-A.A.; Math. Soc.; Math. Ass. Geometry; invariants; statistics.

Leiby, Dr. R(owland) W(illis), State Department of Agriculture, Raleigh, N. C. *Entomology*. Allentown, Pa., Sept. 29, 92. B.S., Muhlenberg, 12; Ph.D., Cornell, 21. Asst. entom., Cornell, 12-15; asst. entomologist, *N. C. State Dept. Agr.*, 15-25, *chief entom.*, 25- Trustee, Lenoir-Rhyne Col. A.A.; Entom. Soc.; Ass. Econ. Entom.; N. C. Acad. (sec'y, 19-21). Economic entomology; insect polyembryony.

Leichsenring, Prof. Jane M(arie), 1455 Fulham St, St. Paul, Minn. *Nutrition*. Winnetka, Ill., Nov. 2, 92. B.S., Illinois, 19, M.S., 21, Ph.D., 24. Asst. physiol., Illinois, 19-24; *asst. prof. nutrition, Minnesota*, 24- Catalase; mineral metabolism; vitamins.

Leidy, Dr. Joseph, 1713 Walnut St, Philadelphia, Pa. *Medicine*. A.B., Pennsylvania, A.M., M.D., 87. Asst. demonstrator path., histol. and morbid anat., Pennsylvania, 88, anat., 90. Physician, Pa. Hosp., 87-89; hospitals, Phila. Jury of awards and official delegate, First Int. Cong. Hygiene, Paris, 00. Officier de l'Instruction Pub., 00. Med. director and instr. gas defense, U.S.A., 17, lieut. col., M.R.C. A.A. (exec. committee, sect. N); Soc. Bact.; Ass. Anat.; Soc. Trop. Med.; Acad. Nat. Sci.; Phila. Col. Physicians; Phila. Acad. Intestinal flora and fauna; general pathology and hygiene; parasites.

Leifson, Prof. Sigmund W(aldemar), University of Nevada, Reno, Nev. *Physics*. Fessenden, N. Dak., 97. B.S., N. Dak. Col., 22; Ph.D., California, 25. Teaching fellow, California, 22-25; instr. *physics, Nevada*, 25-26, *asst. prof.*, 26- Physical Soc.; Optical Soc. Absorption spectra in Schumann region.

Leigh, Dr. Townes R(andolph), University of Florida, Gainesville, Fla. *Chemistry*. Panola Co., Miss., Oct. 26, 80. B.S., Iuka, 01; A.B., Lebanon, 02; Harvard, 03; LL.D., Connor, 08; fellow, Chicago, 14-15, Ph.D., 15. Head dept. *chem.*, Ouachita, 07-09; Woman's Col. of Ala., 09-14; asst. prof., Carleton, 15-17; *head dept.*, Georgetown Col. (Ky.), 17-20; *Florida*, 20-, *dean col. pharmacy*, 23- Anthrop. investigator prehistoric Indian towns. Major, C.W.S., O.R.C. Chem. Soc. (chairman, Fla. sect., 23-25); hon. mem. Ala. Anthrop. Soc.; fel. London Soc. Letters and Sci. Chlorimido-esters; chlorimido-benzil; smoke screen.

Leighton, Alan, Cottage City, Md. *Chemistry*. Concord, N. H., March 26, 90. B.S., New Hampshire, 12; Cornell, 12-14. Asst. chem.,

Cornell, 13-14; junior chemist, Bur. Mines, Denver, 14-16; research chemist, Goodyear Rubber Co., 16-17; asst. chemist, Bur. Mines, Pittsburgh, 17-20; *physical chemist, dairy research lab, bur. dairy indust., U. S. Dept. Agr.*, 20- Chem. Soc. Photochemistry; colloid chemistry; dust inflammability; ice cream.

Leighton, Prof. Henry, 937 Ramsay Ave, Wilkesburg, Pa. *Geology*. Canandaigua, N. Y., 84. A.B., Cornell, 06. Instr. geol., Cornell, 06-08; asst. econ. geologist, N. Y. Geol. Surv., 08-10; instr. *econ. geol.*, Pittsburgh, 10-12, asst. prof., 13, *prof.*, 14- A.A.; Soc. Econ. Geol.; Pa. Acad. Economic geology; history of clay-working industries; testing of clays; gypsum deposits; Carboniferous stratigraphy.

Leighton, Prof. J(oseph) A(lexander), Ohio State University, Columbus, Ohio. *Psychology*. Orangeville, Ont., Can., Dec. 2, 70. B.A., Trinity (Can.), 91; fellow, Cornell, 91-94, Ph.D., 94; Episcopal Theol. Sch. and Harvard, 94-96, B.D., 96; Tübingen, Berlin and Erlangen, 96-97; LL.D., Hobart, 13. Prof. philos. and psychol., Hobart, 97-10; *prof. philos. and head dept., Ohio State*, 10- Visiting prof., Stanford, 25; examiner, Trinity (Can.), 93-95. Program committee, Sixth Int. Cong. Philos., 25-26. A.A.; Psychol. Ass.; Philos. Ass. (v. pres, 05). Logic; epistemology; problems of individuality and personality in logic, psychology, education and social philosophy.

Leighton, Marshall O(ra), National Savings and Trust Building, Washington, D. C., or 2 Rector St, New York, N. Y. *Engineering*. Corinna, Maine, May 1, 74. B.S., Mass. Inst. Tech., 96. Supt. health, Montclair, N. J., 96-02; res. hydrographer, U. S. Geol. Surv., 02-03, chief div. hydro-econ., 03-06, chief hydrographer, 06-13; *consulting engineer*, 13- V. pres, East. Tenn. Development Co.; sanit. engineer and consulting expert, 00; North. N. J. Flood Commission, 03-; Passaic River Flood Commissioner, 05; consulting hydrographer, U. S. Inland Waterways Commission, 07. Explorations, Mex. and Ecuador, 23-25. Civil Eng.; Mech. Eng.; Wash. Soc. Eng. Hydraulics; water power; sewage pollution in metropolitan area; irrigation; drainage; Passaic floods of 1902 and 1903; flood prevention in Ohio Valley; public utility of water powers and their governmental regulation.

Leighton, Dr. Morris M(organ), State Geological Survey, Urbana, Ill. *Geology*. Near Wellman, Iowa, Aug. 4, 87. A.B., Iowa, 12, M.S., 13; fellow, Chicago, 13-15, Ph.D., 16. Instr. geol., Washington (Seattle), 15-16; acting prof., Iowa State Teachers Col., 16-17; asst. prof., Washington (Seattle), 17-18; acting prof., Ohio State, 18-19; asst. prof., Illinois, 19-23; geologist, Ill. *Geol. Surv.*, 19-23, *chief*, 23- Geologist, Wash. Geol. Surv., 17-18; summers, instr., Washington (Seattle), 16, Chicago and Iowa, 16. Sedimentation committee, and div. of states relations, Nat. Research Council. A.A.; fel. Geol. Soc.; Ass. Petrol. Geol.; Min. Eng.; West. Soc. Eng.; Ill. Soc. Eng.; fel. Iowa Acad.; Ill. Acad. Physiography; the Pleistocene.

- Leighty, Dr. Clyde E(vert)**, 50 N. Clarendon Ave, Clarendon, Va. *Agronomy*. Lawrence Co, Ill, May 7, 82. A.B, Ill. Wesleyan, 04; Ph.D, Cornell, 12. Soil analyst, Ill. Exp. Sta, 05-06; expert grain standardization, *U. S. Dept. Agr.*, 06-07, asst, 07-09, *agronomist in charge east. wheat investigations*, 12- A.A. Plant breeding.
- Leighty, Wilbur R(oy)**, 1307 Farragut St, N. W, Washington, D. C. *Chemistry*. Lawrenceville, Ill, March 31, 87. B.S, Ill. Wesleyan, 10; M.S, George Washington, 24. Asst. chem, Ill. Exp. Sta, 10-13, first asst, 13-16, assoc, 16-20; *asst. biochemist, bur. plant indust, U. S. Dept. Agr.*, 21- Soil fertility.
- Leim, Dr. A(lexander) H(enry)**, University of Toronto, Toronto, Ont, Can. *Marine biology*. Stirton, Ont, Nov. 10, 97. B.A, Toronto, 19, Ph.D, 24. *Asst. director, Can. Biol. Board, Atlantic Biol. Sta, St. Andrews, N. B.*, 24- A.A; Fisheries Soc; Ecol. Soc; Royal Inst. Can. Atlantic species of the Spirontocaris; life history of the shad; egg and larval stages of marine and fresh-water species.
- Leith, Dr. C(harles) K(enneth)**, University of Wisconsin, Madison, Wis. **Geology*. Trempealeau, Wis, Jan. 20, 75. B.S, Wisconsin, 97, Ph.D, 01; LL.D, Kenyon, 26. Asst. prof. *geol, Wisconsin*, 02-03, *prof.*, 03- Asst. U. S. Geol. Surv, 00-05; professional lecturer, Chicago, 05-17. Mineral adviser, U. S. Shipping Board, War Trade Board, War Industries Board and Am. Commission to Negotiate Peace, Paris. Nat. Acad; A.A; Geol. Soc; Soc. Econ. Geol. (pres, 25); Min. and Metal. Soc; Min. Eng; Philos. Soc; Am. Acad; Lake Superior Min. Inst; Wis. Archeol. Soc; Wis. Hist. Soc; Wis. Acad; Wash. Acad; Can. Min. Inst. Precambrian, structural, metamorphic and economic geology; geology of the United States iron districts and origin of iron ores.
- Leland, Dean O(ra) M(iner)**, University of Minnesota, Minneapolis, Minn. *Astronomy, Geodesy, Civil engineering*. Grand Haven, Mich, June 28, 76. B.S.(C.E), Michigan, 00, C.E, 20. U. S. Gen. Land Office, 98-99, 00, 03; U. S. Coast and Geod. Surv, 00-03; instr. civil eng, Cornell, 03-06, asst. prof. geod. and astron, 06-16, prof, 16-20, head dept. topog. and geod. eng, 11-20; *dean col. eng. and archit. and sch. chem, Minnesota*, 20- Eng. supervisor, J. G. White Eng. Corp, 20. Chief of party, Alaska Boundary Surv, 04-11; mem, Costa Rica-Panama boundary arbitration commission, 11-13. Capt, major and lieut. col, C.Eng, 17-19, col, C.Eng.R, 22- A.A; Civil Eng; Ass. Eng; Soc. Mil. Eng; Eng. Educ; Astron. Soc. Least squares; technical education.
- LeMay, Prof. Clifford J(oseph), S.J.**, St. Mary's College, St. Mary's, Kans. *Physics*. Amherstburg, Ont, Can, Feb. 24, 88. Detroit, 11-12; A.M, St. Louis, 19. *Prof. physics*, Creighton, 19-20; St. Louis, 20-26; *St. Mary's Col.*, 26-
- Lemon, Prof. Harvey B(ace)**, University of Chicago, Chicago, Ill. **Physics*. Chicago, April 23, 85. A.B, Chicago, 06, M.S, 11, Ph.D, 12. Instr. *physics, Chicago*, 12-17, asst. prof, 17-22, *assoc. prof.*, 22- Summers, research asst, Yerkes Observatory, 05, 06, 08. Physical Soc. Spectroscopy of line structure and intensity distribution in hydrogen; polarization Brace spectrophotometer; adsorption of gases by carbon; continuous spectrum of hydrogen; spectra of nebulium; comet-tail spectra.
- Lemp, Hermann**, 479 Lincoln Ave, Glen Rock, N. J. *Electrical engineering*. Switzerland, Aug. 8, 62. Electrician, Edison Lab, 81-82; elec. engineer, Schuyler Elec. Light Co, 83-87; Thomson H. Elec. Co, 87-89; chief engineer, Thomson Elec. Welding Co, 89-95; elec. engineer, Gen. Elec. Co, Lynn, Mass, 95-11; Erie, Pa, 11-12, works engineer, 12-25; *consulting engineer*, 25- Elec. Eng; Welding Soc. Electrical welding; oil engine design; incandescent lamp, arc and dynamo manufacture; automatic locomotive control.
- Lendall, Prof. H(arry) N(elson)**, Rutgers University, New Brunswick, N. J. *Engineering*. Essex, Mass, July 13, 78. B.S, C.E, Tufts. Practising engineer, 06-09; instr. civil eng, Pennsylvania, 09-12; instr, asst. prof, assoc. prof. and *prof. munic. and sanit. eng, Rutgers*, 12- Consulting engineer. Eng. Educ; Water Works Ass; New Eng. Water Works Ass. Hydraulics; municipal and sanitary engineering.
- Leng, Charles William**, Public Museum, Staten Island, N. Y. *Entomology*. Staten Island, April 6, 59. B.S, Brooklyn Polytech, 77. Pres, John S. Leng's Son and Co, 88-19; *director, Pub. Museum, Staten Island*, 19- Research assoc, Am. Museum Nat. Hist, 11-, expeditions to Labrador, Newfoundland, Fla, Porto Rico and Cuba. A.A; fel. Entom. Soc; Ass. Mus; N. Y. Entom. Soc. (pres, sec'y, 11-); Staten Isl. Inst. (sec'y, 81-85, 17-); Staten Isl. Bird Club (sec'y, 19-); Brooklyn Entom. Soc. (hon. pres, 23-). Coleoptera; Rhynchophora of northeastern America; Lampyridae of West Indies.
- Lengfeld, Dr. Felix**, 1507 Gough St, San Francisco, Calif. **Chemistry*. San Francisco, Feb. 18, 63. Ph.G, California, 80, 84-86; Hopkins, 86-88, fellow, Ph.D, 88; Zurich, Liège and Munich, 88-90. Prof. chem, S. Dak. Sch. Mines, 90-91; instr, California, 91-92; docent, instr. and asst. prof, Chicago, 92-01; *consulting and mfg. chemist*, 01- A.A; Chem. Soc. Organic and inorganic chemistry.
- Lenher, Prof. Victor**, 1718 Summit Ave, Madison, Wis. **Chemistry*. Belmond, Iowa, July 13, 73. Dickinson, 90; certificate in chem, Pennsylvania, 93, Ph.D, 98. Asst. chem, California, 93-96; Columbia, 98-00; asst. prof. gen. and theoret. chem, *Wisconsin*, 00-04, assoc. prof. *chem.*, 04-07, *prof.*, 07- Instr, evening high sch, N. Y, 99-00. Chairman sub-committee on selenium and tellurium, Nat. Research Council, 19-25. Major, C.W.S. A.A; Chem. Soc. (past chairman, Wis. sect, councilor); Franklin Inst; Wis. Acad. Inorganic chemistry; rare elements; geochemistry. [Died June 12, 27.]
- Lennes, Prof. N(els) J(ohann)**, University of Montana, Missoula, Mont. *Mathematics*. Norway, June 15, 74. B.S, Chicago, 98, M.S, 03, Ph.D, 07. Instr. *math.*, Mass. Inst. Tech, 07-10; Columbia, 10-13; *prof. and head dept.*,

- Montana*, 13- Head dept. math, Chautauqua, 08-13. Math. Soc; Math. Ass. Analysis situs; foundations of mathematics; projective geometry; mathematical education.
- Lenox, Prof. L(ionel) R(emon),** Stanford University, Calif. *Chemistry*. Brooklyn, N. Y., March 8, 65. Ph.B, Columbia, 88. Instr. chem, Lehigh, 88-91; *Stanford*, 92-93, asst. prof, 93-94, assoc. prof. *anal. chem*, 94-96, *prof*, 96- Chemist, bur. ordnance, U.S.N, 91-92. Chem. Soc.
- Lenzen, Dr. V(ictor) F,** University of California, Berkeley, Calif. *Physics*. San Jose, Calif, Dec. 14, 90. B.S, California, 13; Ph.D, Harvard, 16, Sheldon traveling fellow, Paris and Cambridge, 16-17; California, 19-21. Instr. *physics*, *California*, 21-25, *asst. prof*, 25- Physical Soc; Philos. Ass. The logic of science.
- Leonard, Prof. A(rthur) G(ray),** University of North Dakota, Grand Forks, N. Dak. *Geology*. Clinton, N. Y, March 15, 65. A.B, Oberlin, 89, A.M, 95; Ph.D, Hopkins, 98. Prof. geol. and biol, Western, 94-96; asst. state geologist, Iowa Geol. Surv, 96-97; asst. prof. geol, Missouri, 99-00; asst. state geologist, Iowa Geol. Surv, 00-03; *prof. geol, North Dakota, and state geologist*, 03- Field asst, U. S. Geol. Surv, 05-07. A.A; Geol. Soc; Iowa Acad. Coal fields of North Dakota and Montana; Cretaceous and Tertiary formations of Montana and North Dakota; glacial deposits and Pleistocene drainage in North Dakota.
- Leonard, Prof. Clifford S(hattuck),** Yale University, New Haven, Conn. *Pharmacology, Toxicology*. Springfield, Mass, Nov. 2, 94. Ph.B, Yale, 15, M.S, 17; Ph.D, Wisconsin, 20. Research chemist, E. I. du Pont de Nemours and Co, 17-18; Am-Scandinavian Foundation fellow, Stockholm, 20-21; research instr. pharmacol, Wisconsin, 21-22; assoc. pharmacologist, U. S. Pub. Health Service, 22-23; Nat. Research Council fellow *med*, Yale, 23-25, instr, 25-26, *asst. prof*, 26- Second lieut, Sanit.C, 18-19. A.A; Chem. Soc; Wis. Acad. Chemotherapy; organic syntheses; analytical methods; pharmacology of arsenic, bismuth, sulfur compounds and tartrates; mechanism of heavy metal toxicities; nephrotoxicities.
- Leonard, Emery C(larence),** Smithsonian Institution, Washington, D. C. *Botany*. Champaign Co, Ohio, Jan. 9, 92. A.B, Wittenberg Col, 15; A.M, Ohio State, 17. *Botanist, U. S. Nat. Museum*, 18- Biol. exped, Haiti, 20, bot. collecting trip, 25-26. Fern Soc; Sullivant Moss Soc; Wash. Biol. Soc. The Astereae of Ohio; new plants from the Dominican Republic; North American Scutellaria; flora of Hispaniola; mosses of the District of Columbia and vicinity.
- Leonard, Dr. Frederick C(harles),** University of California at Los Angeles, Los Angeles, Calif. *Astronomy*. Mount Vernon, Ind, March 12, 96. B.S, Chicago, 18, fellow, 18-19, M.S, 19; fellow, California, 21, Ph.D, 21. Teaching fellow astron, California, 19-20; instr. math, *California at Los Angeles*, 22, astron, 22-27, *asst. prof*, 27- Instr, Chicago, 18; prof, Westlake Junior Col, Los Angeles, 24; lecturer, exten. div, California, 24-, summers, instr, California at Los Angeles, 24, Yerkes Observatory eclipse exped, Denver, 18. A.A; Astron. Soc; Pacific Astron. Soc; British Astron. Ass; fel. Royal Astron. Soc. Discovery, measurement and spectra of visual double stars; statistics of double stars; spectral parallaxes of visual double stars; variable stars; novae.
- Leonard, Dr. G(eorge) F(erree),** 63 N. Fifth Ave, Highland Park, N. J. *Bacteriology*. Lexington, N. C, Sept. 19, 79. A.B, North Carolina, 07; M.D, George Washington, 12. N. C. State Dept. Health, 12-14; U. S. Pub. Health Service, 14-15; *research and biol. lab, E. R. Squibb and Sons*, 15- Mayor, Highland Park, 24-26. Am. Med. Ass; Soc. Bact; New Brunswick Sci. Soc. The effect of freezing on diphtheria toxin antitoxin mixture; scarlet fever; preparation and clinical application of scarlet fever antitoxin.
- Leonard, Dr. Heman Burr,** University of Arizona, Tucson, Ariz. *Mathematics*. Detroit, Mich, Aug. 22, 72. B.S, Michigan, 95; Ph.D, Colorado, 06. Prof. *math*, Wesleyan (Ill), 01-03; instr, Oregon, 06-09, asst. prof, 09-12, *prof*, 12-14; *Arizona*, 15- A.A; Math. Soc; Eng. Educ. Linear associative algebra; the definition of reducibility and the factoring of composite hypercomplex number systems; properties of the characteristic equations of hypercomplex number systems.
- Leonard, Dr. M(ortimer) D(emarest),** care of Florida Agricultural Supply Co, Orlando, Fla. *Entomology, Plant pathology*. Brooklyn, N. Y, June 23, 90. B.S, Cornell, 13, Ph.D, 21. Asst. exten. entomologist, N. Y. State Col. Agr, Cornell, 13-18, exten. entomologist, 19-21; asst. prof. entom, Pa. State, 18-19; director field service div, Bowker Chem. Co, 21-23; acting state entomologist, N. Y, 23-24; ed, 'N. Y. State List Insects,' Cornell, 24-25; *entomologist and plant pathologist, Florida Agr. Supply Co*, 25- Emergency exten. specialist, bur. entom, U. S. Dept. Agr, 19, asst. entom, 20, collaborator, 23-24. Mem, Okefinokee exped, Cornell, 12. A.A; Entom. Soc; Ass. Econ. Entom; Phytopath. Soc; Wash. Entom. Soc; N. Y. Entom. Soc. Control of fruit and vegetable insects; vegetable garden insects; fire blight transmission by sucking insects; Rhagionidae; commercial and systematic entomology; life histories of Hemiptera; entomological extension.
- Leonian, Dr. Leon H(atchig),** West Virginia University, Morgantown, W. Va. *Plant pathology*. Van, Armenia, Feb. 27, 88. B.S, Kentucky, 16; M.S, Michigan, 17, Ph.D, 22. Asst. research horticulturist, S. C. Exp. Sta, 17-18; asst. prof. bot. and plant path, N. Mex. Col. and Exp. Sta, 18-22; asst. plant pathologist, W. Va. Exp. Sta, 22, asst. prof. *plant path, West Virginia*, 23-26, *assoc. prof*, 27- A.A; Bot. Soc; Phytopath. Soc. Fusarium and Phytophthora diseases of peppers; Valsa cankers of apples; physiology of reproduction in Valsa leucostoma; Pycnidia formation in Sphaeropsidales; physiology and mutations in Phytophthora; physiology and mutations in Fusarium.
- Lepkovsky, Dr. Samuel,** 112 N. Orchard St, Madison, Wis. *Zoology*. Poland, Feb. 12, 99.

- Wisconsin, 20, M.S., 23, Ph.D., 25. Asst. agr. chem, *Wisconsin*, 19-22, instr, 22-25, *research zool.*, 25- Summers, sci. research asst, Bur. Fisheries, 25-27. Experimental zoology; carbohydrate and nitrogen metabolism in plants; relation of light and antirachitic vitamin to chickens; chemical properties of the anti-scorbutic vitamin; changes in blood composition of fish when subjected to asphyxiation; blood chemical changes in rabbits when immunized against specific antigens.
- Leroy, Dr. Louis**, 1304 Union St, Memphis, Tenn. *Medicine*. Chelsea, Mass, Sept. 15, 74. M.D., *Medico-Chirurg.* Col. Phila, 96; B.S., Nashville, 00. *Prof. path. and bacter.* Vanderbilt, 96-06; *theory and practice of med.* Tennessee, 06- State bacteriologist, Tenn, 96-10; city bacteriologist, Nashville, 00-04; lecturer, Harvey Med. Col. and Illinois, 00-02; pathologist, Nashville City Hosp, 00. Pres, Tenn. State Board Health, 10-11; trustee, Oakville Mem. Tuber. Hosp. Am. Med. Ass. Pathology; bacteriology; smallpox; tuberculosis; pellagra; hookworm; meningitis; malaria.
- Leshner, C(arl) E(uгене)**, 247 Breeding Ave, Ben Avon, Pa. *Engineering*. La Junta, Colo, 85. Met.E, Colo. Sch. Mines, 08. Geologist, U. S. Geol. Surv, 10-19; ed, 'Coal Age,' 20-23; asst. to pres, *Pittsburgh Coal Co.*, 23-27, *exec. v. pres.*, 27- Engineer, U. S. Coal Commission, 22-23. Chief bur. statist, U. S. Fuel Ad, 17-19. Min. and Metal. Eng. Production and distribution of coal; economics.
- Lesinsky, Dr. Joseph**, 412 Manning Boulevard, Albany, N. Y. *Chemistry*. Las Cruces, N. Mex, April 15, 69. Ph.B., Yale; Ph.D., M.A., Bern. Instr. chem. and quiz master physics and chem, N. Y. Col. Pharmacy, 96; *Nat. Chem. Co.*, 00-15; research chemist, E. R. Squibb and Sons, 15. Chem. Soc; N. Y. Chemists Club; Berlin Chem. Gesell. Inorganic and analytical chemistry; rare earths.
- Lesley, J(ames) W(yvill)**, Citrus Experiment Station, Riverside, Calif. *Plant breeding*. Leeds, Eng, May 8, 88. B.A., Cambridge, 10, diploma agr, 11, M.A., 19, fellow, 19-21. Asst. plant breeding, Cambridge, 19-21; *asst.* *Citrus Exp. Sta.*, California, 22- Lecturer, Mills, 19. A.A.; Genetic Ass. Genetics of the potato; cytogenetics and breeding of the tomato.
- Lesley, Dr. Margaret M(ann) (Mrs. James W)**, Riverside, Calif. *Cytology*. Detroit, Mich, June 16, 91. A.B., Oregon, 15; A.M., California, 18, Goewey fellow, 19-21, Ph.D., 21. Asst. zool, California, 18-19, genetics, 21-24, instr, 24-26. A.A.; West. Soc. Nat. Genetics; heredity.
- Leslie, Prof. E(ugene) H(endricks)**, University of Michigan, Ann Arbor, Mich. *Chemical engineering*. Ottawa, Ill, Aug. 28, 92. B.S., Illinois, 13; Ph.D., Columbia, 16. Chief chemist, Gen. Petrol. Corp, 16-18; asst. to pres, U. S. Indust. Alcohol Co, 18-20; assoc. prof. *chem. eng.* Michigan, 20-24, *prof.*, 24- Chem. Soc; Chem. Eng; Soc. Chem. Indust; Petrol. Inst; Soc. Test. Mat. Petroleum; motor fuels; hydrocarbon reactions; gas.
- Leslie, William Russel**, Dominion Experimental Station, Morden, Man, Can. *Horticulture*. Saskatoon, Sask, March 26, 91. B.S.A., Manitoba, 16. Hort. div, Cent. Exp. Farm, Ottawa, 16; plant specialist in charge, North. Ont. Plant Breeding Sta, 17-21; *supt.* *Dominion Exp. Sta.*, Morden, 21- A.A.; Soc. Hort. Sci; Pomol. Soc. Plant breeding of hardy fruits and vegetables.
- Lester, Dr. H(orace) H(ardy)**, 16 Cliff St, Arlington Heights, Mass. *Physics*. Shelburn, Ind, 84. A.B., Minnesota, 06; A.M., Washington (Seattle), 12; fellow, Princeton, 12-14, Ph.D., 15. Instr. physics, Princeton, 14-15; Washington (Seattle), 15-17; physicist, Westinghouse Lamp Co, 20-21; asst. prof, Case, 21-22; *research physicist*, *Watertown Arsenal*, 22- Radio laboratorian, Puget Sound Navy Yard, 17-20. Henry Marion Howe medalist, 25. Physical Soc; Soc. Test. Mat; Soc. Steel Treat. Index of refraction of water; thermionics; radiography of metals; defects in cast steel; elastic properties of iron crystals in steel; distribution of carbon in steel; X-ray metallography.
- Lester, Prof. O(liver) C(larence)**, 1061 11th St, Boulder, Colo. *Physics*. Morris Co, Kans, Nov. 3, 73. A.B., Central (Mo), 97; A.M., Yale, 02, Loomis fellow, 03-04, Ph.D., 04. Prof. Latin and Greek, Hendrix, 97-98; asst. prof, Central (Mo), 98-01; *asst. physics*, Yale, 02-04, instr, Sheffield Sci. Sch, 04-07; *prof.* *Colorado*, 07-, *dean grad. sch.*, 19- Director research, Colo. Carnotite Co, 19-21. A.A.; fel. Physical Soc; Math. Soc; Soc. de Physique. Spectroscopy; atomic theory; radioactivity.
- Leuba, Dr. James H(enry)**, Bryn Mawr, Pa. **Psychology, Philosophy*. Neuchâtel, Switzerland, April 9, 68. B.S., Neuchâtel, 86; Ph.D., Clark, 95. *Prof. psychol.* *Bryn Mawr*, 98- A.A.; Psychol. Ass. Social psychology; psychology of religion; belief in God and immortality; religious mysticism.
- Leuck, Dr. Gerald J(ohn)**, 2319 Sherman Ave, Evanston, Ill. *Organic chemistry*. Wisner, Nebr, March 3, 00. B.S., Nebraska, 21, A.M., 22; Ph.D., Northwestern, 24; Marburg and Col. de France, 24-25. Asst, Nebraska; *research chemist*, *Miner Laboratories*, 25- Research fellow, Northwestern. Chem. Soc; Chicago Pub. Health Inst. Benzyl esters; organic mercury derivatives; furfural and its derivatives; rubber vulcanization accelerators.
- Leukel, R(obert) W(hilmer)**, 205 Linworth Place, S. W, Washington, D. C. *Plant pathology*. Brillion, Wis, Oct. 2, 88. B.S., Wisconsin, 18, M.S., 21. Sci. asst, *office cereal investigations*, *bur. plant indust.* *U. S. Dept. Agr.*, 19-20, asst. pathologist, 20-25, *assoc. pathologist*, 25- Phytopath. Soc; Wash. Bot. Soc. Nematode disease of cereals caused by *Tylenchus tritici*; infection of barley by *Helminthosporium gramineum*; control of cereal diseases.
- Leukel, Dr. W(alter) H(erman) A(nthony)**, University Experiment Station, Gainesville, Fla. *Agriculture*. Potter, Wis, Feb. 17, 86. B.S.A., Wisconsin, 16, Ph.D., 25. Prin. and instr, high

- sch, Wis, 10-12, 12-14; Calif, 16-18; Ill, 19-22; asst. *grass and forage crop investigations*, *Exp. Sta. Florida*, 25-27, *assoc. agronomist*, 27-Utilization and deposition of reserve foods in alfalfa plants; grass and forage crops.
- Leuschner, Prof. A(rmin) O(tto)**, 1816 Scenic Ave, Berkeley, Calif. **Astronomy*. Detroit, Mich, Jan. 16, 68. Grad, Royal Friedrichs and Wilhelms Gym, Cassel, Germany, 86; A.B, Michigan, 88; California and Lick Observatory, 88-92; Ph.D, Berlin, 97; hon. Sc.D, Pittsburgh, 00; Michigan, 13. Instr. math, *California*, 90-92, asst. prof, 92-94, astron. and geod, 94-98, assoc. prof. and director students' observatory, 98-07, *prof. astron*, 07-, *dean grad. div*, 13-18, 20- Exec. sec'y and acting chairman div. physical science, Nat. Research Council, 18; chairman committee on comets, Int. Astron. Union; mem. Geophys. Union. Order of the North Star, Sweden, 24. Watson gold medal, Nat. Acad, 16. Major, C.W.S., 18-19. Nat. Acad; A.A. (v. chairman, A, 17); Astron Soc; Math. Soc; Seismol. Soc; Ass. Prof. (pres, 23-25); Philos. Soc; Pacific Astron. Soc. (pres, 08); Wash. Acad; Astron. Gesell. Theoretical astronomy; perturbations of the Watson asteroids; improvement in the methods of determining preliminary orbits of comets and planets; perturbations of the Heecuba group of minor planets.
- Levene, Dr. P(hoebus) A(aron Theodore)**, 129 E. 82d St, New York, N. Y. **Chemistry*. Petrograd, Russia, Feb. 25, 69. M.D, Imp. Mil. Med. Acad, St. Petersburg, 91; Berlin; Marburg; Bern; Munich; Columbia. Assoc. chem, N. Y. State Path. Inst, 96-05; chemist, Saranac Lab. for Study Tuber, N. Y, 00-02; Herter lecturer path. chem, Univ. and Bellevue Hosp. Med. Col, 05-06; asst. chem, *Rockefeller Inst*, 05-07, *mem*, 07- Nat. Acad; A.A; Soc. Nat; Physiol. Soc; Soc. Biol. Chem; Chem. Soc; Soc. Exp. Biol; Philos. Soc; N. Y. Chemists Club; Chem. Gesell; Soc. de Chim. biol; Soc. chim. de France; Upsala Royal Soc. Sci; assoc. Soc. Royale des Sci. Méd. et Nat. Bruxelles. Chemistry of proteins, nucleins, carbohydrates and lipoids; stereochemistry; hexosamines; mucoproteins.
- Leverett, Frank**, 1724 S. University Ave, Ann Arbor, Mich. **Geology*. Denmark, Iowa, March 10, 59. B.S, Iowa Col, 85. Instr. nat. science, Denmark Acad, Iowa, 80-83; field asst, *U. S. Geol. Surv*, 86-90, asst. geologist, 90-01, *geologist*, 01-; *lecturer glacial geol*, *Michigan*, 09- A.A; Geol. Soc; Philos. Soc; Forestry Ass; Am. Geog. Soc; Wis. Acad; Iowa Acad; Mich. Acad; Wash. Acad; Wash. Geol. Soc. Glacial geology; physiography; water resources; glacial deposits of Europe; glacial investigations in the upper Mississippi and Great Lakes regions, and the Ohio Valley.
- Levi, Dr. Louis E(manuel)**, Pfister and Vogel Leather Co, Milwaukee, Wis. *Chemistry*. Buffalo, N. Y, Jan. 12, 62. Cornell, 83; Ph.D, Göttingen, 87. Asst. to Prof. Victor Meyer, Göttingen, 86-87; instr. chem, Mass. Inst. Tech, 88-90; chief chemist, Schoelkopf and Co, 97-03; Pfister and Vogel Leather Co, 03-26. Chem. Soc. (past chairman, leather sect); Soc. Chem. Indust; Leather Chem. Ass. (past pres). Derivatives of thiophene and anthranol; biophene; leather analysis and manufacture.
- Levin, Dr. Isaac**, 119 W. 71st St, New York, N. Y. *Physiology, Pathology*. Sagor, Russia, Nov. 1, 66. M.D, St. Petersburg Imp. Mil. Med. Acad, 90. Assoc. path, Columbia, 09-15; *clin. prof. cancer research*, *Univ. and Bellevue Hosp. Med. Col*, 15-; *director*, *New York Cancer Inst.* A.A; Physiol. Soc; Ass. Path. and Bact; Am. Med. Ass; Soc. Exp. Biol; Ass. Cancer Research; Radium Soc; Harvey Soc; N. Y. Acad. Med. Fat and protein absorption; physiology of the thyroid and adrenals; etiology of tumors; function of the spleen; hemolysis; function of the kidney capsule; fat necrosis and acute pancreatitis; transplantation of blood-vessels; experimental cancer; arteriosclerosis; assimilation of food in different segments of the gastro-intestinal tract; biological action of X-rays and radium; crown gall and other parasitic diseases of plants.
- Levine, Dr. Arthur A**, 608 Michigan St, Pullman, Wash. *Chemistry*. Sweden, Aug. 15, 91. A.B, Augustana Col; Shevlin fellow, Minnesota, 22-23, Ph.D. Prof. chem, Wartburg Col, 16-17; head dept. science, Minnesota, 17-22; *instr. chem*, *Wash. Col*, 24- Chem. Soc; Northwest Sci. Ass. Phenolic oxidation; organic boron compounds.
- Levine, Dr. B(enjamin) S(amuel)**, U. S. Veterans Bureau Hospital No. 32, Washington, D. C. *Bacteriology, Chemistry*. Yekaterinoslav, Russia, 87. B.S, Trinity, 12; M.S, Brown, 13, Ph.D, 15. Bur. chem, U. S. Dept. Agr, 15-21; director clin. lab, U. S. Pub. Health Service, 21-23; *U. S. Veterans Bur*, 23-26, *clin. laboratorian and expert*, 26- Teacher, R. I. Sch. Design; instr. sch. med, Marquette, 23; prof, Carroll Col, 24; expert chemo-physiologist, Waukesha Co, Wis, 21-26. A.A; Chem. Soc; Soc. Bact; Leather Chem. Ass. Cotton fiber; mildew resistance of textiles; toxicity of insoluble soaps to micro-organisms; bacteriology of manufacture of leather; technic in basal metabolic rate determination in N-P patients; fragility of R. B. cells in psychoneuroses; the percentile relationship of the various acidities in the gastric juice; apparatus for obtaining blood; urinary pathology in the psychoneuroses; basal metabolism and the psychoneuroses.
- Levine, Dr. Harold**, 39 W. 38th St, New York, N. Y. *Physiological chemistry*. Middletown, Conn, Dec. 30, 00. B.S, Wesleyan, 22; Ph.D, Yale, 26. Asst. physiol. chem, Yale, 23-26; *asst. director in charge nutritional div*, *Food Research Laboratories, Inc*, 26- Chem. Soc. A metabolism cage for use with small animals; ketosis in the rat; growth of rats on high fat diets; vitamin chemistry and assaying.
- Levine, Dr. Max**, Iowa State College, Ames, Iowa. *Bacteriology*. Poland, April 4, 89. B.S, Mass. Inst. Tech, 12; Ph.D, Iowa, 22. Research asst, Mass. Inst. Tech, 12-13; instr, *Iowa Col*, 13-14, asst. prof, 14-18, assoc. prof, 19-24, *prof. sanit. and tech. bacter*, 24- Lieut. and capt, Sanit.C, 18-19, major, Sanit.R.C, 22. Soc. Bact; Pub. Health Ass. (committee, standard methods, 17); Water Works Ass. Intestinal

- group of bacteria; purification of creamery wastes.
- Levine, Dr. Michael**, 1646 University Ave, New York, N. Y. *Botany, Physiology*. Mohilev, Russia, April 16, 86. B.S., Col. City of N. Y., 06; A.M., Columbia, 10, Ph.D., 13. Research physiol. and bot., Columbia, 07-16; biologist, *Montefiore Hosp.*, 16-24, in charge cancer research lab, 24-26, *biologist, med. research laboratories*, 26- A.A.; Bot. Soc.; Phytopath. Soc.; Soc. Exp. Biol.; Ass. Cancer Research; Torrey Bot. Club; N. Y. Acad.; Bot. Gesell. Cytology of the Boleti; chromosome number in *Drosera*; development of lamellae in fungi; cytology of the crown gall and animal cancer; cytology of the pathological conditions induced by radium and X-rays in animals and plants.
- Levine, Dr. Moses (ben) N(aphtali)**, University of Minnesota College of Agriculture, St. Paul, Minn. *Phytopathology*. Ludza, Latvia, June 23, 86. B.S., Minnesota, 15, M.S., 16, Ph.D., 24. Asst. plant path., Minnesota, 15-17; Kansas Col., 17; agent *cereal disease investigations, bur. plant indust., U. S. Dept. Agr.*, 17, field asst., 17-18, asst. pathologist, 19-24, *assoc. pathologist*, 24- In charge irrig. and path. truck crop investigations, U. S. Dept. Agr. and Minn. Exp. Sta., 14; summer, asst., Minn. Exp. Sta., 15; plant quarantine inspector, fed. hort. board, U. S. Dept. Agr., 16-17. A.A.; Phytopath. Soc.; Genetic Ass.; Crop Protection Ass.; Minn. Mycol. Soc. Cereal rusts and smuts; physiologic specialization; morphologic idiosyncrasies and genetic nature of rust pathogens; environment and the predisposition of grain crops.
- Levine, Dr. Samuel A(ibert)**, 270 Commonwealth Ave, Boston, Mass. *Medicine*. Poland, Jan. 1, 91. A.B., Harvard, 11, M.D., 14. *Assoc. med.*, Peter Bent Brigham Hosp, Boston, 14-15; asst., Rockefeller Hosp, New York, 15-17; *assoc., Peter Bent Brigham Hosp*, 19-, *instr., Harvard Med. Sch.*, 20- Am. Physicians; Soc. Clin. Invest. Clinical medicine; action of drugs on the heart.
- Levine, Prof. Victor E(manuel)**, Creighton University, Omaha, Nebr. *Biochemistry*. Russia, Aug. 4, 91. A.B., Col. City of N. Y., 09; A.M., Columbia, 11, Ph.D., 14. Asst. biochem., Columbia, 14-16, instr. chem. hygiene, 16-17; org. chem., Fordham, 15-16; director chem. lab., Beth Israel Hosp, 16-17; asst. prof. biochem., *Creighton*, 18-20, *prof. biochem. and nutrition and head dept.*, 20- Summer, lecturer, Hunter, 16. A.A.; Chem. Soc. (v. chairman, Omaha sect, 24, chairman, 25); Pharmaceut. Ass.; Soc. Exp. Biol.; Soc. Bact.; Ass. Study Int. Secretions; Pub. Health Ass.; Bot. Soc.; fel. Am. Geog. Soc.; Nebr. Acad.; fel. N. Y. Acad. (sec'y, sect. astron., physics and chem., 16-18); fel. Royal Soc. Arts; fel. Am. Inst. Philos. Studies, Gt. Britain. Nutrition; biological and nutritional aspects of the rare elements; dietary problems in disease.
- Levy, Dr. Ernest O(oleman)**, City Hall, Tampa, Fla. *Sanitary science*. Richmond, Va., Aug. 11, 68. Richmond, 84-87; M.D., Med. Col. of Va., 90; Mass. Inst. Tech., 03-04. Prof. histol., path. and bacter., Med. Col. of Va., 97-00; director lab., City Water Dept., Richmond, 04-06, city bacteriologist, 05-06, chief health officer, 06-17; director pub. welfare, 19-24; prof. prev. med., Med. Col. of Va., 24-25; *city health officer, Tampa*, 25- Major, M.C., 18. Pub. Health Ass. (sec'y, sect. munic. health officer, 08-17, pres, 23); Am. Med. Ass. Municipal public health.
- Levy, Dr. Harry**, University of Illinois, Urbana, Ill. *Mathematics*. Boston, Mass., Jan. 9, 02. A.B., Harvard, 20, A.M., 23; J.S.K. fellow, Princeton, 22-24, Ph.D., 24. Instr. math., Harvard, 20-22, Nat. Research Council fellow, 24-27; *asst. prof., Illinois*, 27- Math. Soc.; Math. Ass.; Circolo Mat. di Palermo. Riemann geometry; geometry of paths.
- Levy, Dr. Robert L(ouis)**, 31 E. 72d St, New York, N. Y. *Medicine*. New York, Oct. 14, 88. A.B., Yale, 09; M.D., Hopkins, 13. Asst. med., Hopkins, 13-16; physiol., Harvard Med. Sch., 16; instr. med., Hopkins, 16-18; assoc., Rockefeller Inst., and res. physician, Hosp, 19-22; *asst. prof. clin. med., col. physicians and surg., Columbia, and asst. visiting physician, Presb. Hosp.*, 22- Am. Physicians; Soc. Clin. Invest.; Soc. Pharmacol. Physiology; pharmacology; internal medicine.
- Levy, Prof. Sophia H(azel)**, University of California, Berkeley, Calif. *Mathematics*. Alameda, Calif., Dec. 12, 88. B.S., California, 10, fellow, 12-14, Ph.D., 20. Watson asst. astron., *California*, 10-14, asst. to dean grad. div., 14-18, 20-21, research assoc. theoret. astron., 20-21, instr. math., 21-24, *asst. prof.*, 24- A.A.; Math. Soc.; Math. Ass. Theoretical astronomy.
- Lewis, Dr. Albert B(uell)**, Field Museum, Chicago, Ill. *Anthropology*. Clifton, Ohio, June 21, 67. A.B., Chicago, 94; fellow, Nebraska, 97-99; Ph.D., Columbia, 06. Asst. instr., Nebraska, 99-02; asst., *Field Museum*, 07-08, *asst. curator*, 08- Summers, asst., Chicago, 94-97. S. Pacific exped., Melanesia and New Guinea, 09-13. A.A.; Anthropol. Ass. (councilor, 19); Ethnol. Soc. Melanesian ethnology.
- Lewis, Dr. D(ean) D(eWitt)**, Johns Hopkins Hospital, Baltimore, Md. *Medicine*. Kewanee, Ill., Aug. 11, 74. A.B., Lake Forest, 95; M.D., Rush Med. Col., 99; Sc.D., Cincinnati, 20; LL.D., Lake Forest, 21. Asst. anat., Chicago, 00-02, instr. *surg.*, Rush Med. Col., 02-06, asst. and assoc. prof., 06-19, *prof.*, 19-25; *sch. med., Hopkins, and surgeon-in-chief, Johns Hopkins Hosp.*, 25- Prof., Chicago, 20-25; prof. and director surg. research, Illinois, 24-25; attending surgeon, Presb. Hosp., Ill., 06-25; Univ. Illinois Hosp., 25; senior surgeon, St. Luke's Hosp., 25. Ed., 'Archives of Surgery.' Am. Med. Ass.; Surg. Ass.; Ass. Anat.; Soc. Clin. Surg.; Physiol. Soc.; South. Surg. Ass.; West. Surg. Ass.; Interurban Surg. Soc.; Chicago Path. Soc. Elastic tissue of the human larynx; the hypophysis of man.
- Lewis, Prof. E(xum) P(ercival)**, University of California, Berkeley, Calif. **Physics*. Washington Co., N. C., Sept. 15, 63. B.S., George Washington, 88; Ph.D., Hopkins, 95; Berlin, 98-00.

Asst. *physics*, Hopkins, 91-95; instr. *California*, 95-96, asst. prof., 96-02, assoc. prof., 02-08, *prof.*, 08- Instr. George Washington, 91-95. Crocker eclipse exped., 07-08, 18. A.A. (v. pres, B, 15, pres, Pacific div, 23); Physical Soc. (councilor, 05, ed, 'Review,' 15-17, sec'y, Pacific Coast div, 16-). Spectroscopy; electric discharge through gases; photo-electric effect. [*Died Nov. 17, 26.*]

Lewis, Prof. Francis J(ohn), University of Alberta, Edmonton, Alta, Can. *Botany*. London, Eng, 75. D.Sc. Liverpool. Demonstrator bot., Liverpool, 00-05, lecturer geog. bot., 05-12; *prof. bot.*, Alberta, 12- Cuthbert Peek award, Royal Geog. Soc, 05; Neill gold medal, Royal Soc. Edinburgh, 10. Bot. Soc; Royal Soc. Can; British Ass; Royal Soc. Edinburgh; London Linnean Soc. Pleistocene plant deposits in northwestern Europe; geographical distribution of vegetation; ecology.

Lewis, Dr. Frederic T(homas), Harvard Medical School, Boston, Mass. **Embryology*. Cambridge, Mass, March 18, 75. A.B, Harvard, 97, A.M, 98, M.D, 01. Austin teaching fellow, *Harvard Med. Sch.*, 01-02, instr. histol. and embryol., 02-06, asst. prof. *embryol.*, 06-15, *assoc. prof.*, 15- Ed, 'Am. Naturalist,' 07; assoc. ed, 'Anat. Record,' 08-21. A.A; Ass. Anat. (v. pres, 14-16); Am. Acad; Boston Soc. Nat. Hist. (v. pres, 26-). Development of the vena cava inferior and other veins; development of the lymphatic system and of the digestive tract; the tetrakaidecahedral form of vegetable and animal cells.

Lewis, Dr. Garland E(dison), Roessler and Hasslacher Chemical Co, Niagara Falls, N. Y. *Chemistry*. Broken Bow, Nebr, Dec. 17, 80. Ph.G, Nebraska, 13, Ph.D, 16. Asst. prof. chem, Nebraska, 16-17; Rutgers, 17-18; *research chemist*, Roessler and Hasslacher Chem. Co, 18-

Lewis, Dr. Gilbert Newton, University of California, Berkeley, Calif. **Chemistry*. Weymouth, Mass, Oct. 23, 75. Nebraska, 90-93; A.B, Harvard, 96, A.M, 98, Ph.D, 99; Leipzig and Göttingen, 00-01; hon. D.Sc, Liverpool, 23. Teacher, Phillips Acad, 96-97; instr. chem, Harvard, 99-00, 01-06; in charge weights and measures, Bur. Govt. Laboratories, P. I., 04-05; asst. prof. physicochem. research, Mass. Inst. Tech, 07-08, assoc. prof., 08-11, prof., 11-12, acting director research lab, 07-09; *prof. chem. and dean col. chem.*, California, 12- Major, lieut. col, chief defense div, gas service, U.S.A., and chief training div, C.W.S. D.S. medal; Chevalier, Légion d'honneur. Nat. Acad; A.A; Physical Soc; Chem. Soc; Philos. Soc; Am. Acad; hon. fel. Royal Inst; hon. mem. London Chem. Soc. Thermodynamic theory and its application to chemistry; free energy tables; equilibrium in numerous reactions; electrode potentials of the common elements; properties of solutions and the activity of ions; distribution of thermal energy; specific heat of electrons; the principle of relativity and non-Newtonian mechanics; application of four-dimensional vector analysis to electromagnetic theory; the geometry of the space time manifold of relativity; ultimate rational units; calculation of Stefan's constant; the structure of the atom and the molecule and

the theory of valence; entropy of elements; third law of thermodynamics; magneto-chemical theory; law of entire equilibrium; rates of chemical reactions; theory of photons.

Lewis, Harold M(ac Lean), 130 E. 22d St, New York, N. Y. *Engineering*. Red Hook, N. Y., Aug. 8, 89. A.B, Williams, 09; C.E, Rensselaer, 12. Design and construction, water supply and sewerage systems, N. Y, Mo. and Germany, 12-15; landscape and city planning projects, N. Y, 15-17, 19-20; chief asst, physical surv, *Regional Plan of New York and Its Environs*, 21-24, *exec. engineer*, 24- Nat. Conf. City Planning. Lieut. and capt, C.Eng, 17-19. Civil Eng. (sec'y, N. Y. sect, 22-26, director, 26-); Soc. Terminal Eng; City Planning Inst. Highway traffic in New York and its environs; transit and transportation; city planning.

Lewis, Prof. H(arry) F(letcher), Cornell College, Mount Vernon, Iowa. *Chemistry*. Denver, Colo, May 27, 91. B.S, Wesleyan, 12, M.S, 13; fellow, Illinois, 14-17, Ph.D, 16. Pharmaceut. research chemist, Illinois, 16-17; instr. chem, Grinnell, 17; asst. org. chemist, color lab, bur. chem, U. S. Dept. Agr, 17-18; assoc. prof. chem, Maine, 18-19; research chemist, Nat. Aniline and Chem. Co, 19-21; *prof. chem.*, Cornell (Iowa), 21- Chem. Soc. (assoc. chairman, Iowa sect, 23, chairman, 24); fel. Iowa Acad. (chairman, chem. sect, 25). Organic chemistry; mechanism of alkylations and the Wurtz-Fitting reaction; anthraquinone; condensations with alkylene dibromides; chemical education.

Lewis, Prof. Howard B(ishop), University of Michigan, Ann Arbor, Mich. *Physiological chemistry*. Southington, Conn, Nov. 8, 87. A.B, Yale, 08, Ph.D, 13. Asst. *physiol. chem.*, Yale, 11-13; instr. Pennsylvania, 13-15; assoc, Illinois, 15-17, asst. prof., 17-19, assoc. prof., 19-22; *prof.*, Michigan, 22- Chemist, Conn. Hosp. for Insane, 11. A.A; Physiol. Soc; Chem. Soc. (sec'y, 20, chairman, div. biochem, 21); Soc. Biol. Chem; Soc. Exp. Biol. Nutrition; hydantoin, uric acid and sulphur metabolism; inulin as a food; hippuric acid synthesis; amino acid synthesis in the animal organism.

Lewis, Dr. I(saac) M(cKinney), University of Texas, Austin, Texas. *Botany*. Rensselaer, Ind, Sept. 21, 78. A.B, Indiana, 06, A.M, 07, Ph.D, 09. Instr. *bot.* New Hampshire, 08-09; Texas, 09-12, adjunct prof, 12-14, assoc. prof., 14-19, *prof.*, 19- A.A; Bot. Soc; Phytopath. Soc; Soc. Bact; Micros. Soc; Ind. Acad; Texas Acad. (sec'y, 11-). Bacterial diseases of plants; cytology of gymnosperms; water and soil bacteria.

Lewis, Mrs. Isabel M(artin), 1921 Park Road, N. W, Washington, D. C. *Astronomy*. Old Orchard Beach, Maine, July 11, 81. A.B, Cornell, 03, A.M, 05. Astron. computer for Prof. Simon Newcomb, 05-09; *asst. astronomer*, 'Nautical Almanac' Office, U. S. Naval Observatory, 09- Astron. Soc. Solar eclipses; popular astronomy.

Lewis, Prof. I(vey) F(oreman), University, Va. **Botany*. Raleigh, N. C, Aug. 31, 82. A.B, North Carolina, 02, M.S, 03; Ph.D, Hopkins,

08. Prof. biol, Randolph-Macon, 05-06, 08-12; asst. prof. bot, Wisconsin, 12-14; *prof.*, Missouri, 14-15; *biol.*, Virginia, 15- Sci. asst, Bur. Fisheries, 06, investigator, 09; holder, Smithsonian table, Naples Zool. Sta, 08; teaching staff, Woods Hole, 07, 10-27. Walker prize, Boston Nat. Hist. Soc, 09. A.A; Bot. Soc. (sec'y, 22-26).
- Lewis, J(ames) O(gier)**, Dunn-Lewis Oil Recovery Co, Kennedy Building, Tulsa, Okla. *Geology.* San Jose, Calif, Jan. 21, 86. A.B, Stanford, 16. Oil geologist and engineer, 09-14; petrol. engineer, U. S. Bur. Mines, 14-19, chief petrol. technologist, 19-20; *mem.*, *Dunn-Lewis Oil Recovery Co; consulting engineer*, 21-Min. and Metal. Eng; Ass. Petrol. Geol. Recovery of oil and gas.
- Lewis, Dr. John R(oberts)**, University of Wisconsin, Madison, Wis. *Chemistry.* Spanish Fork, Utah, June 22, 95. A.B, Brigham Young, 19; M.S, Utah, 20; Ph.D, Wisconsin, 24. Asst. chem, Brigham Young, 17-18; Utah, 19-20; *Wisconsin*, 20-23, *instr.*, 24- Chem. Soc. Viscosity of liquids containing dissolved gases.
- Lewis, Prof. J(oseph) Volney**, Rutgers University, New Brunswick, N. J. *Geology.* Rutherford Co, N. C, Sept. 14, 69. B.E, North Carolina, 91; B.S, Harvard, 93; Hopkins, 93-94; Columbia. Asst. geologist, N. C. Geol. Surv, 91-96; *prof. geol.*, Clemson, 96-04; *Rutgers*, 04-, *curator geol. museum*, 13-14, *director*, 14- Geologist, N. J. Geol. Surv, 05-; field asst, U. S. Geol. Surv, 91, 02, 18; summers, *prof.*, S. C. State Sch. for Teachers, 00-02. Geol. Soc; Soc. Econ. Geol. (sec'y and treas, 20, treas, 23-); Min. Eng; Min. and Metal. Soc. Peridotites of North Carolina; Newark formation; copper ores; building stones of New Jersey; mining and petroleum geology; pillow lavas; zeolites.
- Lewis, Dr. Julian H(erman)**, 5200 Wabash Ave, Chicago, Ill. *Pathology.* Shawneetown, Ill, May 26, 91. A.B, Illinois, 11, A.M, 12; Ph.D, Chicago, 15, M.D, Rush Med. Col, 17. *Instr. path.*, Chicago, 17-23, *asst. prof.*, 23-; *mem.*, *Sprague Mem. Inst.*, 17- Pathologist, Provident Hosp, 19. Ricketts prize, 15; Benjamin Rush medal, 17. Soc. Exp. Path; Ass. Path. and Bact; Chicago Path. Soc; Chicago Inst. Med; Chicago Internal Med. Soc. Immunity; cancer.
- Lewis, Nolan D(on) C(arpentier)**, St. Elizabeth's Hospital, Washington, D. C. *Pathology, Psychiatry.* Coudersport, Pa, 89. M.D, Maryland, 14; Hopkins, 14-18, fellow, 17. Pathologist, Md. Gen. Hosp, 14; pathologist and clinical director, Crownsville State Hosp, 15-17; director lab, Phipps Psychiatric Clinic, Hopkins, 18; neuropathologist, Surgeon-General's office, 18-19; pathologist, *St. Elizabeth's Hosp.*, 12-22, *director clin. psychiatry*, 23-; *prof. exp. path.*, *George Washington*, 20-24, *clin. psychiat.*, 25- Lecturer, Naval Med. Sch, Washington, 19-22. A.A; Psychopath. Ass; fel. Psychiat. Ass; Genetic Ass; Ass. Research Nervous and Mental Diseases; Ass. Study Int. Secretions; Chem. Soc; D. C. Soc. Nervous and Mental Diseases (pres, 25); Wash. Psychopath. Ass. (pres, 26). General pathology; neuropathology; clinical psychiatry.
- Lewis, Ollie L(ee)**, 1101 Euclid St, N. W, Washington, D. C. *Physics.* West Liberty, Ky, Feb. 14, 85. A.B, George Washington, 17, M.S, 20. Teacher, sch, Ky, 03-08; observer and meteorologist, U. S. Weather Bur, 08-20; master computer, Ordnance Bur. Ballistics, 20-21; as-soc. physicist, eng. div, Air Service, 21-24; *patent examiner*, U. S. Patent Office, 24- Meteor. Soc. Aerology; aerodynamics; aerostatics; meteorology.
- Lewis, Dr. Paul A(din)**, Rockefeller Institute, Princeton, N. J. **Pathology.* Chicago, Ill, April 14, 79. Wisconsin; M.D, Pennsylvania, 04. House officer path, Boston City Hosp, 04-05; research asst, antitoxin lab, Mass. State Board Health, 05-08; Austin teaching fellow comp. path, Harvard Med. Sch, 06-08; asst. path, Rockefeller Inst, 08-09, assoc, 09-10; asst. prof. path, Pennsylvania and director, Henry Phipps Inst, 10-23; *assoc. mem. dept. animal path.*, *Rockefeller Inst.*, 23- A.A; Am. Physicians; Ass. Path. and Bact; Soc. Exp. Path; Soc. Exp. Biol; Soc. Pharmacol. Bacteriology of diarrhoeas of infancy; pneumonia; pathological lesions accompanying immunization of horses; effects of repeated injections of foreign protein; hemolysis; anaphylaxis; epidemic anterior poliomyelitis; tuberculosis.
- Lewis, Prof. Robert C(urtis)**, University of Colorado School of Medicine, Denver, Colo. *Biochemistry.* Stratford, Conn, March 3, 88. Ph.B, Yale, 09, Ph.D, 12. Research physiologist, Gen. Mem. Hosp, New York, 12-14; asst. biochemist, U. S. Pub. Health Service, 14-16; asst. prof. biochem. and physiol, *Colorado*, 16-17, *prof.*, 17-18, *biochem.*, 18- A.A; Chem. Soc; assoc. Am. Med. Ass; Soc. Exp. Biol. Metabolism; blood chemistry.
- Lewis, Dr. Warren Harmon**, Johns Hopkins University, Baltimore, Md. **Anatomy, Cytology.* Suffield, Conn, June 17, 70. B.S, Michigan, 94; M.D, Hopkins, 00. Asst. zool, Michigan, 94-96; anat, *Hopkins*, 00-01, *instr.*, 01-03, assoc, 03-04, assoc. prof, 04-13, *prof. physiol. anat.*, 13- Research assoc, Carnegie Institution, 19- A.A; Soc. Nat; Ass. Anat; Physiol. Soc; hon. mem. Gand Med. Soc. Development of the arm, eye, ear, muscular system and head in man; experimental embryology and cytology; tissue culture; blood cells; heart muscle; tumors.
- Lewis, Mrs. Warren H. (Margaret A. Reed)**, Johns Hopkins University School of Medicine, Baltimore, Md. *Physiology.* Kittanning, Pa, Nov. 9, 81. Woods Hole, 00; A.B, Goucher, 01; Bryn Mawr, 01-03, fellow, 08-09; Paris and Berlin, 08. Preparator zool, Columbia, 03-06; asst, Barnard, 03-06, *instr.*, 06-10; anat. and physiol, training sch. for nurses, Hopkins Hosp; *collaborator*, *Carnegie Institution.* Lecturer, N. Y. Med. Col, 04-05. Tissue cultures; Bacillus typhosus; heart muscle of chick embryo; origin of the epithelioid cells; relation of white blood cells to tumors; chicken sarcoma.
- Lewis, Prof. W(arren) K(endall)**, Massachusetts Institute of Technology, Cambridge, Mass. **Chemical engineering.* Laurel, Del, Aug. 21,

82. B.S. Mass. Inst. Tech, 05; Ph.D. Breslau, 08. Research assoc. applied chem. Mass. Inst. Tech, 08-09; chemist, W. H. McElwain Co, 09-10; *prof. chem. eng. Mass. Inst. Tech.*, 10- Chem. Soc; Chem. Eng; Leather Chem. Ass; Am. Acad; British Inst. Chem. Eng. Distillation; flow of heat.
- Lewis, Dr. W(elcome) B(abcock)**, 367 Champion St, Battle Creek, Mich. *Biochemistry*. Adams Center, N. Y., June 14, 83. B.S. Alfred, 07; M.D. Illinois, 12. Asst. lab, *Battle Creek Sanitarium*, 07-08, *chief chemist, physiol. laboratories*, 12- Am. Med. Ass; Soc. Clin. Path; Chem. Soc. Hydrogen-ion concentration of physiological liquids; calcium deficiencies; glucose tolerance and its alterations in various conditions.
- Lewis, Wilfred**, Rose Lane, Haverford, Pa. *Mechanical engineering*. Philadelphia, Pa, Oct. 16, 54. B.S. Mass. Inst. Tech, 75. Wm. Sellers and Co, 75-78, draftsman and design engineer, 78-86, asst. engineer, 86-00; *pres, Tabor Mfg. Co*, 00- Lecturer, Franklin Inst. John Scott medal, Franklin Inst; Phila. Eng. Club prize. A.A; Mech. Eng. (past v. pres); Franklin Inst; Phila. Eng. Club (past pres). Gearing; belting; counterbalancing; molding machines for foundry use.
- Lewis, Dr. W(inford) Lee**, Institute of American Meat Packers, 509 S. Wabash Ave, Chicago, Ill. **Chemistry*. Gridley, Calif, May 29, 78. A.B. Stanford, 02; A.M. Washington (Seattle), 04; fellow, Chicago, 06-08, Ph.D, 09. Asst. chemist, U. S. Dept. Agr, 08-09; instr. chem. Northwestern, 09-12, asst. prof, 13-17, assoc. prof, 17-19, prof. and chairman dept, 19-24; *director dept. sci. research, Inst. Am. Meat Packers*, 24- Chairman sub-committee on organic arsenicals, Nat. Research Council, mem. div. chem. and chem. technol. Capt, C.W.S, 17-19, lieut. col, C.W.S.R. A.A; Chem. Soc. (councilor-at-large, chairman, Chicago sect, 19-21); Chicago Chemists Club (pres, 25). Sugars; sanitation; organic arsenicals.
- Lewton, Frederick L(ewis)**, 113 Chestnut Ave, Takoma Park, D. C. *Botany*. Cleveland, Ohio, March 17, 74. Rollins, 88-90; Drexel, 92-95; A.B. George Washington, 22. Chem. asst, test. dept, Baldwin Locomotive Works, 95; instr. chem. and qual. anal, Drexel Inst, 95-04; curator, Phila. Museums, 00-04; sci. asst. bot, U. S. Dept. Agr, 04-08, asst. botanist, 08-12; *curator div. textiles, U. S. Nat. Museum*, 12- Econ. botanist, Phila. Commercial Museum, 96-00. Ass. Mus; Phila. Acad; Wash. Bot. Soc; Wash. Acad. Industrial chemistry; classification of vegetable exudates; plant breeding; taxonomy of cotton; terminology and technology of textile industries.
- Libbey, Prof. William**, Princeton University, Princeton, N. J. *Physiography*. Jersey City, N. J., March 27, 55. A.B. Princeton, 77, A.M. Sc.D, 79. Asst. prof. *physical geog, Princeton*, 80, *prof. and director, E. M. Museum of Geol*, 83- Officier d'Acad. A.A; Soc. Nat. (v. pres); Geol. Soc; Ass. Geog; Am. Geog. Soc. (for. cor. sec'y); Philos. Soc; cor. mem. Phila. Acad; Phila. Geog. Soc. (v. pres); cor. mem. N. Y. Acad; cor. mem. Boston Soc. Nat. Hist; N. Y. Hist. Soc; N. J. Hist. Soc; Alaskan Hist. Soc; fel. Royal Geog. Soc; fel. London Geol. Soc; hon. mem. Liverpool Geog. Soc; Soc. de Géog; Soc. géol. de France; cor. mem. Soc. de Géog. de Genève. Oceanography; Hawaiian volcanoes; Alaskan and Greenland glaciers; the Jordan valley. [Died Sept. 6, 27.]
- Libby, Prof. C(larence) E(arl)**, New York State College of Forestry, Syracuse, N. Y. *Chemistry*. Benton, Maine, Nov. 14, 92. B.S. Maine, 16. Paper technologist, R. A. Pettingill Co, Ill, 16-18; research chemist, Aetna Explosives Co, Pa, 18-19; chief chemist, Bayless Mfg. Co, 19-20; *prof. pulp and paper mfg, N. Y. State Col. Forestry, Syracuse*, 20- Chem. Soc; Ass. Pulp and Paper Indust; Soc. Test. Mat. Chemistry of pulp and paper making.
- Libby, Dr. Walter**, 494 Huron St, Toronto, Ont, Can. *History of science*. Port Hope, Ont, March 2, 67. B.A. Victoria (Can), 87; M.A. Toronto, 02; Leipzig, Berlin, Munich, Paris, 02-04; Ph.D, Clark, 05; Oxford, 15-16. Asst. prof. educ. Northwestern, 05-12; prof. hist. educ. Carnegie Inst. Tech, 13-15, hist. science, 16-17; lecturer hist. med, Pittsburgh, 17-21, hist. science, 18-24. Summers, lecturer, Chicago, 06, Illinois, 08. A.A; Hist. Sci. Soc; hon. mem. Toronto Hist. Med. Soc. History of medicine; relation of the development of sciences to contemporary civilization.
- Libman, Dr. Earl E(manuel)**, 805 S. Lynn St, Champaign, Ill. *Physics, Mathematics, Chemistry*. Chicago, Ill, Jan. 21, 94. B.S. Illinois, 16, M.S, 20, Ph.D, 22. Instr. ceramic chem, Illinois, 17-22, math, 22-25, *Nat. Research Council fellow physics*, 25- A.A; Physical Soc; Chem. Soc; Math. Soc; Math. Ass. Surface tension; high temperatures; phase rule and melting points; vector analysis; quaternions.
- Libman, Dr. E(manuel)**, 180 E. 64th St, New York, N. Y. *Pathology, Medicine*. New York, Aug. 22, 72. A.B. Col. City of N. Y, 91; M.D. Columbia, 94; Berlin and Vienna, 96-97, 10; Berlin, 03; Hopkins, 06. House physician, *Mt. Sinai Hosp*, 94-96, assoc. pathologist, 98-23, adjunct visiting physician, 03-14, attending physician, 14-20, physician, 20-25, *consulting physician*, 25-; *prof. clin. med, Columbia*, 09- Consulting physician, Hosp. for Deaf Mutes; Beth David Hosp. A.A; Am. Med. Ass; Am. Physicians; Ass. Path. and Bact; Soc. Clin. Invest; Tuber. Ass; Ass. Immunol; Harvey Soc; fel. N. Y. Acad. Med; N. Y. Path. Soc. (pres, 08); Int. Ass. Med. Mus. Clinical medicine; streptococcus intestinal infection; precipitation in serum-sugar media; sarcoma of the small intestine; paracolon infections; systematic and otitic infections; blood transfusion; endocarditis; the valvular disease; diseases of the coronary arteries; growth of bacteria in the presence of carbohydrate and serum.
- Lichtenberg, Lt. Col. Chester**, 1170 Waverly Place, Schenectady, N. Y. *Electrical engineering*. New York, N. Y., Aug. 27, 84. E.E. Columbia, 06. Asst. to Prof. M. I. Pupin, 06;

- testing dept, *Gen. Elec. Co.*, 07-08, *eng. dept.*, 09-17, 20- C.Eng, U.S.A., 17-20. Elec. Eng; Franklin Inst. Light; electricity; oil and air circuit breakers; high speed motion pictures; searchlights; automatic stations; supervisory systems; telemetering systems.
- Lichtenthals, Dr. Robert A(rthur)**, 901 Beacon St, Boston, Mass. *Biochemistry*. Near Clemmonsville, N. C., May 16, 81. B.S., North Carolina, 02, M.S., 04; Yale, 14-15; Sc.D., Jefferson Med. Col., 18. Asst. geol. and miner, North Carolina, 01-03; chemist, instr. chem. and miner. and acting prof. physics, Florida, and Exp. Sta., 04-06; research chemist, Pa. State Inst. Animal Nutrition and Agr. Exp. Sta., 06-09; research chemist and instr. geol. R. I. State Col. and Exp. Sta., 09-14; instr. biochem, Jefferson Med. Col., 15-18; research biochemist, MacAndrews and Forbes Co., N. J., 18-19; assoc. prof. biochem, sch. med, Pennsylvania, 20-22; research assoc. biochem, Jefferson Med. Col., 22-23; assoc. prof. biochem, physiol. and bacter, Phila. Col. Osteopath, 23-26; *research biochemist*, *Harvard Med. Sch.*, 26- A.A.; Chem. Soc.; Physiol. Soc. Phila.; London Soc. Chem. Indust. Physics; geology; mineralogy; chemistry; physiology; radioactivity of thorium; animal nutrition; enzymes.
- Lichthardt, George H(enry) P(hilip)**, 2309 L St, Sacramento, Calif. *Chemical engineering*. Sacramento, Calif., March 17, 77. Ph.G., California, 96; LL.B., Hamilton. City chemist, Sacramento, 09-15; chemist, S. Pacific Ry., 18-21; testing engineer, purchasing dept, Calif., 21; *chem. testing engineer*, *Calif. Highway Commission*, 22- Analyst, U. S. Geol. Surv. water investigation; instr., Sacramento Night High Sch.; Dept. of Justice investigations, U.S.A., 17-19. Capt., C.W.S.R., 19- Int. Cong. Applied Chem., 12. Chem. Soc. (past pres, Sacramento chap); Electrochem. Soc.; Pharmaceut. Ass.; Soc. Mil. Eng.; Calif. Pharmaceut. Ass. (past pres); London Chem. Soc. Colloidal silver; identification test for vanilla; pour test for lubricating oils; a new constant for linseed oil; corrosion factors with relation to iron and steel culverts.
- Lichty, Prof. D(avid) M(artin)**, 922 Olivia Ave, Ann Arbor, Mich. *Chemistry*. Goodville, Pa., July 10, 62. B.S., Pa. State Nor. Sch., 87; M.S., Michigan, 91; Ph.D., Heidelberg, 06. Asst. anal. chem, *Michigan*, 88-90, instr. inorg. chem., 91-07, asst. prof. *gen. chem.*, 07-14, *assoc. prof.*, 14- A.A.; Chem. Soc.; Mich. Acad. Rate of esterification of halogen substituted acids; decomposition of oxalic acid in concentrated sulphuric acid; sulphur trioxide; sulphuric acid; action of insoluble oxides, hydroxides and carbonates of metals on ammonium chloride.
- Lichty, Dr. John A(lden)**, Clifton Springs, N. Y. *Medicine*. Myersdale, Pa., Feb. 26, 66. Ph.B., Mt. Union, 90, Ph.M., 93, Ph.D., 24; M.D., Pennsylvania, 93. Assoc. prof. med, Pittsburgh, 09-23; med. chief, Mercy Hosp., 10-23; Columbia Hosp., 06-24. Trustee, Clifton Springs Sanitarium, 12-; Rochester Theol. Sem., 12; Mt. Union Col., 23; State Board Charities, 13-21. Gastro-Enterol. Ass.; Climat. Ass.; Col. Physicians.
- Lidbury, F(rank) A(ustin)**, 33 Sugar St, Niagara Falls, N. Y. **Chemistry*. Middewich, Eng., March 14, 79. Manchester, 95-99, M.Sc.; London, 99-00; Physik-Chem. Inst., Leipzig, 00-01. Demonstrator chem, Manchester, 02-03; chemist, *Oldbury Electrochem. Co.*, 03-05, works manager, 05-22, *pres.*, 22- Chem. Soc.; Electrochem. Soc. (pres, 14); Chem. Eng.; Elec. Eng.; Mech. Eng.; Min. Eng.; Soc. Chem. Indust.; Faraday Soc.; Buffalo Eng. Soc. (pres, 17).
- Liddell, Dr. H(oward) S(cott)**, Cornell University Medical College, Ithaca, N. Y. *Physiology*. Erie, Pa., Nov. 9, 95. A.B., Michigan, 17, A.M., 18; Sage fellow, Cornell, 18-19, Ph.D., 23. Asst. psychol., Michigan, 17-18; instr. physiol., *med. col.*, Cornell, 18-24, Nat. Research Council fellow zool., 24-26, *asst. prof. physiol.*, 26- A.A.; Physiol. Soc.; Soc. Exp. Biol. Effects of thyroidectomy on growth, heat regulation, neuromuscular function and conditioned reflexes.
- Lieb, Prof. Charles C(hristian)**, Columbia University, New York, N. Y. *Pharmacology*. New York, April 19, 80. A.B., Columbia, 02, M.D., 06. Asst. prof. *pharmacol.*, *Columbia*, 11-20, *prof.*, 20- Soc. Pharmacol.; Soc. Exp. Biol.; Physiol. Soc.; Am. Med. Ass.
- Lieb, J(ohn) W(illiam)**, Edison Co, Irving Place and 15th St, New York, N. Y. *Electrical engineering*. Newark, N. J., Feb. 12, 60. M.E., Stevens, 80, Eng.D., 21. Draftsman, Brush Elec. Co., 80; Edison Elec. Light Co., 81, asst. exp. dept., Edison Machine Works, 82, electrician, Edison Elec. Illum. Co., 82-83, chief electrician, director and chief engineer, Italian Edison Co., 83-94, Edison Elec. Illum. Co., 94, *v. pres.* and *gen. manager*, N. Y. *Edison Co.*, *pres.*, *Elec. Test. Laboratories*. Director elec. corporations. Grand officer, Order of the Crown, Italy. A.A.; Elec. Eng. (past pres); Nat. Elec. Light Ass. (past pres); Mech. Eng. (past v. pres); Civil Eng.; Franklin Inst.; Am. Geog. Soc.; N. Y. Acad.; N. Y. Elec. Soc.; British Inst. Elec. Eng.; Ass. Electrotech. Ital.; hon. mem. Ital. Soc. Eng. and Archit. Management of utility corporations.
- Liebovitz, Dr. Sidney**, 31 W. 89th St, New York, N. Y. *Chemistry*. New York, Dec. 4, 87. A.M., Columbia, 12; fellow, Clark, 13-14; Ph.D., Pittsburgh, 15. Consulting chemist, 15-18; *pres.*, Atriken Chem. Works, 19-27; *v. pres.* and *treas.*, *Balinross Chem. Co.*, 27- C.W.S., U.S.A., 18-19. Chem. Soc. Physical chemistry; catalysis; chemical dynamics.
- Liebowitz, Dr. Benjamin**, 75 Leonard St, New York, N. Y. *Physics*. New York, Feb. 20, 90. E.E., Columbia, 11, fellow, 13-14, Ph.D., 15. *Independent research and develop. indust. eng.*, 15- With Thos. A. Edison, 17. Fel. Physical Soc.; Mech. Eng.; Soc. Automotive Eng.
- Life, Prof. Andrew C**, 2531 6th Ave, Los Angeles, Calif. *Botany, Biology*. July 30, 69. A.B., A.M., Indiana. Instr. bot., Washington (St. Louis), 05-08; asst. prof. *bot.*, *Southern California*, 08-11, *assoc. prof.*, 11-15, *prof.*, 15- A.A.; Pacific Soc. Nat. Germination of spores; physiology of pollen.

- Life, Prof. Frank M.** University of Arizona, Tucson, Ariz. *Physics*. Grant Co, Ind, Sept. 1, 70. B.S., De Pauw, 96; Chicago. Tutor math. and asst. physics, De Pauw, 94-96; head dept. science, Soule Col, 96-97; head dept. science and prof. physics, Marion Col, 97-12; Muncie Nat. Inst, 12-14, dean, 14-16; director educ, Winona, 17; asst. prof, assoc. prof. and prof. physics and head dept, *Arizona*, 19-26, *dean col. letters, arts and sciences*, 26- Ind. rep, Am. Mining Cong, Oregon, 04. Chief div. imports, bur. war trade intelligence, War Trade Board, 17-19. A.A. (chairman, physical sciences sect, southwest. div); Ass. Eng; fel. Royal Soc. Arts. Science education; the nature of magnetism; relation of research to science in secondary schools.
- Light, Prof. George H(eyser)**, 801 Base Line, Boulder, Colo. *Mathematics*. Bedington, W. Va, March 19, 75. A.B., Princeton, 99, A.M., 00; Ph.D., Yale, 16. Adjunct prof. math, Ga. Tech, 01-05; instr, Purdue, 05-13; *Colorado*, 16-17, asst. prof, 17-18, assoc. prof, 18-20, *prof*, 20- Math. Soc; Math. Ass. (treas, Rocky Mountain sect, 17-). Calculus of variations; intrinsic geometry.
- Light, Prof. S(ol) F(elity)**, University of California, Berkeley, Calif. *Zoology*. Elm Mills, Kans, May 5, 86. A.B., Park Col, 08; A.M., Philippines, 13; M.S., Princeton, 25; Ph.D., California, 26; Proctor fellow, Princeton, 14-15; Goewey fellow, California, 26. Instr. *zool*, Philippines, 12-14, instr, asst. prof, assoc. prof. and prof, 15-22; prof. and head dept, Univ. Amoy, China, 22-24; assoc, *California*, 25-26, *asst. prof*, 26- Lecturer, California, 25. A.A.; Soc. Sci. and Arts China; Royal Asiatic Soc. Philippine Scyphomedusae and Alcyonaria; termites of the Philippines and China; Protozoa of termites; termite hosts.
- Lilienthal, Prof. Howard**, 52 E. 82d St, New York, N. Y. *Surgery*. Albany, N. Y, Jan. 9, 61. A.B., Harvard, 83, M.D., 87. *Prof. clin. surg, med. col, Cornell*, 17- Consulting surgeon, Bellevue and Mt. Sinai hospitals. Lieut. col, M.C. Surg. Ass; N. Y. Surg. Soc. (past pres). Surgery of the thorax.
- Lillie, Prof. Frank R(attray)**, University of Chicago, Chicago, Ill. **Zoology, Embryology*. Toronto, Ont, Can, June 27, 70. B.A., Toronto, 91, D.Sc, 20; Clark, 91-92; Ph.D., Chicago, 94. Reader embryol, Chicago, 93-94; instr. *zool*, Michigan, 94-99; prof. *biol*, Vassar, 99-00; asst. prof. *zool*, *Chicago*, 00-02, assoc. prof. *embryol*, 02-06, *prof. and chairman dept*, 06- Asst. director, Woods Hole, 00-08, director, 08-26. Managing ed, 'Biol. Bul'; ed, 'Jour. Exp. Zool'; 'Jour. Morphol.' Nat. Acad; A.A. (v. pres, F, 15); Soc. Nat. (v. pres, 14, pres, 15); Soc. Zool. (pres, 05-08, cent. branch, 05); Ass. Anat; Philos. Soc; Soc. Exp. Biol; cor. mem. Phila. Acad; Soc. *biol. de Paris*; Soc. Belge de Biol. Early history of ovum; fertilization of ovum; physiology of development; heredity; biology of sex.
- Lillie, Prof. Ralph S(tayner)**, University of Chicago, Chicago, Ill. **Physiology, Zoology*. Toronto, Ont, Can, Aug. 8, 75. B.A., Toronto, 96; Michigan, 96-97; Ph.D., Chicago, 01; Naples Zool. Sta., 04-05. Instr. *physiol. and histol*, Nebraska, 02-03, adjunct prof, 03-05; instr. *physiol*, Harvard, 05-06; Johnston scholar, Hopkins, 06-07; instr. *physiol. and zool*, Pennsylvania, 07-11, asst. prof, 11-13; prof. and head dept. *biol*, Clark, 13-20; biologist, Nela Research Lab, 20-24; *prof. gen. physiol, Chicago*, 24- Investigator, Woods Hole, 01-, trustee. A.A.; Soc. Nat; Physiol. Soc; Soc. Zool; Soc. Exp. Biol; Soc. Biol. Chem; Am. Acad. Histology and development of nephridia; oxidation in cells; physiology of protoplasmic contractility; stimulation; cell-division; artificial parthenogenesis; osmotic pressure of colloids; physiology of growth processes; protoplasmic transmission; salt-action; anesthesia.
- Lincoln, Prof. A(zariah) T(homas)**, 203 Maple Ave, Northfield, Minn. *Chemistry*. Montfort, Wis, June 25, 68. B.S., Wisconsin, 94, M.S., 98, fellow, 98-99, Ph.D., 99. Research asst. physical chem, Cornell, 99-00; instr. *chem*, Cincinnati, 00-01; Illinois, 01-03, asst. prof, 03-08; Rensselaer, 08-12, *prof*, 12-21; *Carleton Col*, 21- A.A.; Chem. Soc; Electrochem. Soc. Solution of silicates of the alkalis; dissociative power of solvents; electrical conductivity of non-aqueous solutions; physical reaction and the mass law; ternary system, benzene, acetic acid and water; determination of phosphates in natural waters; vapor pressure of solutions; colloids; electrolytic corrosion of brasses; ternary mixtures; analytical chemistry; physical chemistry.
- Lincoln, Prof. Francis Church**, South Dakota School of Mines, Rapid City, S. Dak. *Geology, Mining*. Boston, Mass, Sept. 8, 77. B.S., Mass. Inst. Tech, 00; E.M., N. Mex. Sch. Mines, 04; A.M., Columbia, 06, fellow, 06-07, Ph.D., 11. Assayer, Butterfly-Terrible Gold Mining Co, Colo, 00-01; prof. *geol*, N. Mex. Sch. Mines, 01-02, *chem. and metal*, 02-04; asst. supt, Ruby Gold and Copper Co, Mex, 04; Ariz. Gold and Copper Co, 05; asst. physics, Columbia, 06; prof. *geol. and miner*, Mont. Sch. Mines, 07-10; consulting mining engineer, 10-11; assoc. mining engineer, 11-12, asst. prof, 12-13; res. mining engineer, Bolivian Develop. and Explor. Co, 13-14; director, Mackay Sch. Mines, Nevada, 14-23; *prof. mining, S. Dak. Sch. Mines*, 23- State ore sampler, Nev, 17-20. A.A.; Min. Eng. Economic geology; mineral resources; sampling, milling and preparation of ores and economic minerals.
- Lincoln, Frederick C(harles)**, 114 Maple Ave, Takoma Park, D. C. *Biology*. Denver, Colo, May 5, 92. High sch. Curator ornith, Colo. Museum Nat. Hist, 13-19; asst. biologist, *biol. surv, U. S. Dept. Agr*, 20-24, *assoc. biologist*, 24- Leader, Colo. Biol. Surv, 13-17; ornith. expeditions, Ariz, 16, S. C, 17, La, 19, N. Dak, 21, Ill, 22, 26, Michigan, 23-25. Lieut, Sig.R.C. Ornith. Union; Wilson Ornith. Club; Cooper Ornith. Club; Soc. Mammal; Game Protective Ass; Wash. Biol. Soc. (treas, 20-); Baird Ornith. Club (sec'y, 27-); Wash. Biol. Field Club (sec'y, 23-); Soc. Ornith. del Plata. Ornithology; ecology.

Lincoln, Paul M(artyn), Cornell University, Ithaca, N. Y. *Electrical engineering*. Norwood, Mich., Jan. 1, 70. Western Reserve, 88-89; M.E., Ohio State, 92. Brush Elec. Co, 92; Westinghouse Elec. and Mfg. Co, 92-95; elec. supt, Niagara Falls Power Co, 95-02; elec. engineer, Westinghouse Elec. and Mfg. Co, 02-19; consulting elec. engineer, Lincoln Elec. Co, 19-22; *director sch. elec. eng.*, Cornell, 22- Elec. Eng. (pres, 14); Mech. Eng; Eng. Educ.

Lind, Dr. S(amuel) C(olville), University of Minnesota, Minneapolis, Minn. **Chemistry*. McMinnville, Tenn, June 15, 79. A.B., Washington and Lee, 99; B.S., Mass. Inst. Tech, 02; Ph.D., Leipzig, 05; Paris, 10; Radium Inst, Vienna, 11. Asst. chem, Mass. Inst. Tech, 02-03; instr. gen. and physical chem, Michigan, 05-12, asst. prof, 12-15; chemist, radioactivity, U. S. Bur. Mines, 13-18, physical chemist, 18-23, chief chemist, 23-25; assoc. director fixed nitrogen research lab, U. S. Dept. Agr, 25-26; *director sch. chem.*, Minnesota, 26- A.A.; Chem. Soc; Electrochem. Soc; Min. Eng; Wash. Acad. Radioactivity; radium extraction and measurement; influence of radiation on chemical action; kinetics of chemical reactions; relation of gaseous ionization to chemical action; photochemistry.

Lindenthal, Dr. G(ustav), Metuchen, N. J. *Civil engineering*. Brünn, Austria, May 21, 50. Govt. Col, Brünn, hon. D.Ing, 20; private study, Vienna, 70; hon. D.Ing, Dresden, 11. Asst. engineer, Vienna, 70-72; ry, Switzerland, 72-74; Centennial Expos, Phila, 74-77; Atlantic and Great West. Ry, 78-81; *consulting engineer*, Pittsburgh, 81-91; *New York*, 91- Chief engineer, Monongahela Bridge Co, 81-89; chief engineer and pres, N. River Bridge Co, N. Y., 90-01; commissioner bridges, N. Y., 02-03; designer, Hell Gate arch bridge; new Ky. River high bridge; Queensborough cantilever bridge; Scootsville continuous girdle bridge. Rowland prize, Civil Eng, 83. A.A.; Cleveland Eng. Club; Can. Civil Eng; British Inst. Civil Eng; Berlin Soc. Mech. Eng; cor. mem. Austrian Civil Eng. and Archit. Soc. Long-span bridges; foundations; submarine tunnels; railways; harbor piers and lighthouses.

Lindgren, J(usta) M(orris), Urbana, Ill. *Chemistry*. Moline, Ill, July 28, 79. A.B., Illinois, 02, A.M., 07. Chemist, State Water Surv, Ill, 03-07; *chemist in charge applied chemistry testing work*, Illinois. Chem. Soc. Analytical chemistry; coals.

Lindgren, Prof. W(aldemar), Massachusetts Institute of Technology, Cambridge, Mass. **Geology*. Kalmar, Sweden, Feb. 14, 60. M.E., Sch. Mines, Freiberg, 83; Sc.D., Princeton, 16. Asst. geologist, North. Transcontinental Surv, 83; chemist, Gregory Smelting Works, Mont, 84; asst. geologist, U. S. Geol. Surv, 84-95, geologist, 95-11, in charge investigations metal deposits and metal statistics, 07-11, chief geologist, 11-12; *Rogers prof. econ. geol.*, Mass. Inst. Tech, 12- Assoc. prof, Stanford, 98; lecturer, Mass. Inst. Tech, 08-11. Nat. Acad; A.A.; Geol. Soc. (pres, 24); Min. Eng; Min. and Metal. Soc. (pres, 20); Am. Acad; Philos. Soc;

Wash. Acad. Economic geology of metallic ores; mineral deposits.

Lindley, Dr. Ernest H(iram), University of Kansas, Lawrence, Kans. **Psychology, Philosophy*. Paoli, Ind, Oct. 2, 69. A.B., Indiana, 93, A.M., 94, LL.D., 22; Ph.D., Clark, 97; Jena, Leipzig and Heidelberg, 97-98; Harvard, 04-05; LL.D., Iowa, 23. Instr. philos, Indiana, 93-98, assoc. prof. psychol, 98-02, prof, 02-17; pres, Idaho, 17-20; *chancellor*, Kansas, 20- Summers, instr, Clark, 96, 99, 01. A.A.; Psychol. Ass; Religious Educ. Ass. Motor and mental automatisms; psychology of invention; arithmetical prodigy; psychology of pedagogy of leadership; relations of mental hygiene to practical ethics.

Lindquist, Prof. Theodore, 103 Elm St, Ypsilanti, Mich. *Mathematics*. Andover, Ill, Aug. 11, 75. A.B., Lombard, 97; M.S., Northwestern, 99; Ph.D., Chicago, 11. Prof. math, Mt. Morris, 97-98; instr. physics and math, Kansas Col, 99-01; math, high sch, Ill, 01-03; prof, N. Dak. Sch. Science, 03-07; instr, Michigan, 07-12; prof, Lombard, 12-14; head dept, Kans. State Teachers Col, Emporia, 14-23; *prof*, Mich. State Nor. Col, 23- Math. Ass; Mich. Math. Teachers Ass. The teaching of mathematics; engineering mathematics; modern arithmetic; junior high school mathematics.

Lindsay, Dr. George Allan, 609 Hill St, Ann Arbor, Mich. *Physics*. Wyandotte, Mich, Nov. 1, 79. A.B., Michigan, 05, A.M., 08, Ph.D., 13. Instr. physics, Washington (St. Louis), 07-12; *Michigan*, 13-20, *asst. prof*, 20- Assoc. Physical Soc; Astron. Soc. Structure of matter; X-rays.

Lindsay, Dr. R(obert) B(ruce), Yale University, New Haven, Conn. *Physics*. New Bedford, Mass, Jan. 1, 00. A.B., M.S., Brown, 20; Ph.D., Mass. Inst. Tech, 24; Am-Scandinavian Foundation fellow, Denmark, 22-23. Instr. physics, Mass. Inst. Tech, 20-22; *Yale*, 23-27, *asst. prof*, 27- A.A.; Physical Soc; Math. Soc. Atomic theory; the Bohr atom.

Lindsey, Dr. A(rthur) W(ard), P. O. Box 782, Granville, Ohio. *Zoology, Entomology*. Council Bluffs, Iowa, Jan. 11, 94. A.B., Morningside, 16; M.S., Iowa, 17, fellow, 17-19, Ph.D., 19. Curator, Barnes Collection N. Amer. Lepidoptera, 19-21; asst. prof. biol, Morningside, 21-22; *prof. zool.*, Denison, 22- Summers, bur. entom, U. S. Dept. Agr, 16-18. A.A.; Entom. Soc; fel. Iowa Acad; Ohio Acad. Classification of Lepidoptera of North America and Hesperioidea of the world; taxonomy.

Lindsey, Dr. J(oseph) B(ridgeo), Massachusetts Agricultural Experiment Station, Amherst, Mass. *Chemistry*. Marblehead, Mass, Dec. 26, 62. B.S., Mass. Col, 83; Ph.D., Göttingen, 91; Zurich, 91-92. Chemist, L. B. Darling Fertilizer Co, 85-89; asst. chemist, Mass. Exp. Sta, 83-85, assoc. chemist, 92-94; Hatch Exp. Sta, Mass. Col, 95-07; *chemist*, Mass. Exp. Sta, 07-, *v. director*, 10-, *Goessmann prof. agr. chem. and head dept*, Mass. Col, 11- A.A.; Chem. Soc; Soc. Animal Production; Dairy Sci. Ass.

Lindsey, Prof. Louis, 201 Scottholm Blvd, Syracuse, N. Y. *Astronomy*. Dryden, N. Y., Dec. 12,

77. A.B., Syracuse, 06, A.M., 09, Ph.D., 11. Dickinson Sem., 06-07; instr. *applied math*, Syracuse, 11-13, asst. prof., 13-20, assoc. prof., 20-25, *prof.*, 25- Nautical Almanac, U. S. Naval Observatory. Math. Soc.; Math. Ass. Definite comet orbits.
- Lindstrom, Prof. E(rnest) W(alter)**, Iowa State College, Ames, Iowa. *Genetics*. Chicago, Ill., Feb. 5, 91. A.B., Wisconsin, 14; Ph.D., Cornell, 17. Asst. and investigator plant breeding, Cornell, 14-17; asst. prof. *genetics*, Wisconsin, 19-22; *prof. and head dept*, Iowa Col., 22-Lieut. A.S., 17-19. A.A.; Soc. Nat.; Bot. Soc.; Soc. Agron.; fel. Iowa Acad. Corn breeding; inheritance in tomatoes.
- Lineback, Dr. Paul E(uгене)**, Emory University, Atlanta, Ga. *Anatomy*. Winston-Salem, N. C., Oct. 25, 80. A.B., Drake, 07, M.D., 11; A.M., Harvard, 22. Prof. anat., Drake, 11-12; teaching fellow, Harvard Med. Sch., 14-16; *prof. micros. anat. sch. med.*, Emory, 16- Summers, Chicago, 17, 20. A.A.; Ass. Anat. Human anatomy; the colon in man; the retina of two eyes of the same individual; arterial structure in relation to area of organ supplied.
- Linebarger, C(harles) E(lijah)**, 1101 Pratt Boulevard, Chicago, Ill. **Physical chemistry*. Plainfield, Ill., Feb. 21, 67. A.B., Northwestern, 88; Tübingen, 89-90; Paris, 90-91, 93-94; Göttingen, 92-93. *Teacher*, N. Div. High Sch., Chicago, 91-92, S. Div. High Sch., 94-96, *Lake View High Sch.*, 96- The properties of solutions; surface tension of liquids; improvements in the steam calorimeter; the specific heats of solid elements; educational apparatus.
- Lineburg, Prof. Bruce**, Lake Forest College, Lake Forest, Ill. *Biology*. Strasburg, Va. Southwest. Nor. Sch., Pa.; A.B., Ohio, 15; A.M., Hopkins, 23, Adam T. Bruce fellow, 23-24, Ph.D., 24. Asst. prof. *biol.*, Lake Forest, 24-25, *prof.*, 25- Soc. Zool.; Soc. Parasitol. Animal behavior; life history and behavior of the honeybee.
- Linehan, Prof. Paul H(enry)**, 346 Convent Ave., New York, N. Y. *Mathematics*. Boston, Mass., Jan. 15, 79. A.B., Harvard, 02; Ph.D., Columbia, 16. Tutor *math.*, Col. City of N. Y., 03-12, instr., 12-16, asst. prof., 16-26, *assoc. prof.*, 26- Asst. director evening session, Col. City of N. Y., 16-26, assoc. director, 26-27, director, 27- A.A.; Math. Soc.; Math. Ass. Equilong geometry.
- Linfield, Dean F(rederick) B(loomfield)**, Montana State College, Bozeman, Mont. *Agriculture*. Twillingate, Newfoundland, July 18, 66. B.S.A., Ont. Agr. Col., 91. Instr. dairying, Ont. Agr. Col., 92-93; prof. live stock and dairying, Utah Col. and Exp. Sta., 93-02; agr., Mont. Col. and agriculturalist, Exp. Sta., 02-04, *director*, 04-, *dean col. agr.*, 14- A.A.; Genetic Ass. Dairying; animal husbandry.
- Ling, Dr. Charles J(oseph)**, Allegheny College, Meadville, Pa. *Physics*, *Astronomy*. Auburn, N. Y., Dec. 8, 67. B.S., Cornell, 90; A.M., Denver, 00, Ph.D., 02. Prof. nat. science, La. State Nor. Sch., 90-92; instr. high schools, Colo., 92-06; *prof. physics and astron.*, Allegheny, 06- Summers, instr., Denver, 03, director, Allegheny, 25-27. A.A.; Physical Soc.; Optical Soc. Strong solutions with special reference to change of density with temperature; maximum density; freezing and boiling points; observations of Eros, minor planets and comets; light efficiency and life of incandescent lamps.
- Ling, Prof. G(eorge) H(erbert)**, University of Saskatchewan, Saskatoon, Sask., Can. **Mathematics*. Wallacetown, Ont., Jan. 15, 74. B.A., Toronto, 93; A.M., Columbia, 94, Ph.D., 96. Instr. *math.*, Wesleyan, 96-01; tutor, Columbia, 01-05, instr., 05-09, adjunct prof., 09; *prof.*, Saskatchewan, 09-, *dean arts*, 11-, acting pres., 19-20, director summer sch., 20- Summer, in charge math., Cincinnati, 00. A.A.; Math. Soc.; Math. Ass. Tidal theory; theory of groups; search for simple groups; hyper-algebra.
- Linhart, Dr. George A(ugustus)**, Riverside, Calif. *Physical chemistry*. Bohemia, 84. A.B., Cent. High Sch., Phila., 06; B.S., Pennsylvania, 09; A.M., Yale, 11, Ph.D., 13. Asst. instr. chem., Yale, 10-12; instr. high sch., Conn., 13; teaching fellow, Washington (Seattle), 14; California, 15-18, instr. soil chem. and bacter., 19-20; educ. research in co-ordination of curriculum, high sch., Calif., 20-23; *sch. dist.*, *Riverside*, 23- Chem. Soc. Mercury; electrolytes; purification of water; free energy of biological processes; soil structure.
- Link, Dr. George K(onrad) K(arl)**, University of Chicago, Chicago, Ill. *Plant pathology*. Mt. Clemens, Mich., March 14, 88. B.S., Chicago, 10, Ph.D., 16; A.M., Nebraska, 12. Asst. bot., Kansas Col., 10-11; adjunct prof. agr. bot., Nebraska, 11-13, asst. prof., 13-14, assoc. prof., 14-17, prof. plant physiol., 17-19; pathologist, bur. plant indust., U. S. Dept. Agr., 17, specialist market path., 20-22; *assoc. prof. plant path.*, Chicago, 24- A.A.; Bot. Soc.; Phytopath. Soc. Potato diseases; immunity; market and transit diseases.
- Link, Mrs. George K. K. (Dr. Adeline DeSale)**, University of Chicago, Chicago, Ill. *Chemistry*. Omaha, Nebr., Jan. 4, 92. A.B., Vassar, 14; Ph.D., Chicago, 17. Asst. prof. chem., Lawrence, 17-21; *instr.*, Chicago, 21-, *dean*, 25- Chem. Soc. Physico-organic chemistry; physiological chemistry.
- Link, Dr. Henry C(harles)**, Lord and Taylor, New York, N. Y. *Psychology*. Buffalo, N. Y., Aug. 27, 89. A.B., Yale, 13, A.M., 15, Ph.D., 16. Indust. psychologist and director educ., Winchester Repeating Arms Co., 17-19; director educ., U. S. Rubber Co., 19-23; *asst. advertising manager*, Lord and Taylor, 23- Lecturer, Harvard, Yale, Bur. Indust. Research; chairman, Committee on Psychol. Tests and Rating Scales in Industry. Psychol. Ass. Applied industrial psychology; industrial fatigue; control of education in industry.
- Link, Dr. Karl Paul**, University of St. Andrews, St. Andrews, Scotland. *Chemistry*. Laporte, Ind., Jan. 31, 01. B.S., Wisconsin, 22, fellow, 22-25, M.S., 23, Ph.D., 25. *Int. Educ. Board fellow chem.*, St. Andrews, Scotland, 25- Agricultural and bio chemistry; carbohydrate metabolism in germinating cereal grains; drying of plant tissue.

- Linn, Prof. A(lvin) F(rank)**, Wittenberg College, Springfield, Ohio. *Chemistry, Mineralogy*. Springfield, Sept. 23, 64. A.B. Wittenberg, 84, A.M., 87; fellow, Hopkins, 88, fellow by courtesy, 91-92, Ph.D., 92. *Prof. nat. science, Wittenberg, 88-91, chem. and miner, 92-* Lecture asst., Hopkins, 87-88. A.A.; Chem. Soc. Sulphon-phthalein and derivatives; method for determination of nitric acid; electrical deposition of lead; electrical separation of lead and manganese; phosphides of metals; constitution of hematopylin.
- Linsley, Prof. Earle G(arfield)**, Chabot Observatory, Oakland, Calif. *Astronomy*. Colo., June 19, 82. A.B. Colgate, 04; M.S. California, 08; Harvard, 11-12. Instr. Calif. Col., 04-08; geog., California, 08-11; asst., Harvard, 11-12; *prof. geog. and geol, Mills, 12-20, astron, 20-, director, Chabot Observatory, 22-* A.A.; Am. Geog. Soc.; Pacific Astron. Soc.; Calif. Acad.; Royal Astron. Soc.; British Astron. Ass.; Soc. astron. de France; Soc. Belge d'Astron.
- Lint, Dr. H(enry) Clay**, Texas Gulf Sulphur Co., 41 E. 42d St., New York, N. Y. *Agronomy*. Ada, Kans., Oct. 20, 90. B.S., Kansas Col., 12; fellow, Rutgers, 13-16, M.S., 15, Ph.D., 16. Chemist and bacteriologist, Alphano Corp., 16-22; *agr. research, Texas Gulf Sulphur Co, 22-* A.A. Soil biology; plant pathology.
- Linton, Prof. Edwin**, University of Pennsylvania, Philadelphia, Pa. **Zoology*. East Bethlehem, Pa., March 14, 55. A.B., Washington and Jefferson, 79; Yale, 81-82, Ph.D., 90. Teacher, pub. sch., 73-74; instr. math, *Washington and Jefferson, 79-81, prof. biol. and geol, 82-20, emer. prof, 20-*; hon. fellow zool., Missouri; parasitol., med. dept., Georgia; *research fellow zool, Pennsylvania, 26-* Asst. sci. research, Bur. Fisheries, Woods Hole, 82-87, 89, 98-00, 03-; Yellowstone Park, 90; Beaufort, N. C., 01-02; Bermuda, 03; Tortugas, 06-08. Silver medal, Paris Expos., 00. A.A.; Soc. Nat.; Soc. Zool.; Ga. Acad.; Phila. Acad.; Wash. Acad. Entozoa of fishes; helminth parasites of fishes and birds; food of young marine fishes.
- Linton, Dr. Ralph**, Field Museum of Natural History, Chicago, Ill. *Anthropology*. Philadelphia, Pa., Feb. 27, 93. A.B., Swarthmore, 15; A.M., Pennsylvania, 16; Ph.D., Harvard, 25. Ethnologist, Ill., 16-17; archeologist, Bishop Museum, Honolulu, 20-21; *asst. curator, N. Am. ethiol, Field Museum Nat. Hist, 22-26, oceanic and Malayan ethnol, 26-* Asst., Chicago, 23. Excavations, Sch. Am. Archeol., N. Mex., 13, Guatemala, 14; for univ. museum, Pennsylvania, in N. J., 15; for Ill., 16; Bur. Am. Ethnol., in Colo., 19; Bishop Museum exped., Marquesas, Tuamotus and Tahiti, 20-21; capt., Marshall Field exped., Madagascar, 26-27. F.D., U.S.A., 17-19. Anthropol. Ass. (sec'y-treas., cent. sect., 23, councilor, 25). Material culture and archeology of the Marquesas; Polynesian culture areas; migrations; ethnology of Madagascar.
- Linton, Robert**, 1151 S. Broadway, Los Angeles, Calif. *Mining, Metallurgy*. Hudson, Ohio, May 29, 70. Hon. A.M., Washington and Jefferson, 02; Berlin Polytech. Mining engineer, 90-92; asst. to chairman, Am. Window Glass Co., 04-06; mining engineer, 06-18; pres., N. Butte Mining Co., 18-23; *v. pres. and gen. manager, Pacific Clay Products, 23-* Mem. Hoover Committee on Elimination of Waste in Industry, 20. Silver medal, W. Pa. Eng. Soc. A.A.; Min. and Metal. Eng. (chairman, indust. relations committee); Min. and Metal. Soc.; Civil Eng.; Ceramic Soc.; British Min. and Metal. Inst.; British Ceramic Soc. Glass and ceramics; cyaniding silver ores; mining.
- Linnville, Clarence P(hilander)**, Calco Chemical Co., Boundbrook, N. J. *Metallurgy, Chemistry*. Urbana, Ohio, March 29, 79. B.S., Ohio State, 00, fellow, 00-02, A.M., 02. Instr. metal, Pa. State, 03-06, asst. prof., 06-07, assoc. prof. in charge dept. metal. eng., 07-12; supt. blast-furnace, J. E. Thropp, 12-13; metallurgist, Am. Smelting and Ref. Co., 13-24; *metallurgist and chemist, Calco Chem. Co, 24-* Lecturer, sch. dental and oral surg., Columbia, 21-24. Min. and Metal. Eng.; Chem. Soc.; Inst. Chem.; Eng. Educ.; N. J. Chem. Soc. Blast-furnace phenomena; arsenic; nickel; cobalt; electrolytic tin; bismuth; sulphuric acid; nitric acid; beta naphthol.
- Lipman, Prof. C(harles) B(ernard)**, University of California, Berkeley, Calif. *Plant physiology*. Russia, Aug. 17, 83. B.S., Rutgers, 04, M.S., 09; M.S., Wisconsin, 09; Ph.D., California, 10. Instr. soil bacter., *California, 09-10, asst. prof. soils, 10-12, assoc. prof, 12-13, prof. soil chem. and bacter, 13-21, plant nutrition, 21-, dean grad. div, 23-* Carnegie Corp. Board rev. stomatol. research, at California. A.A.; Bot. Soc.; Soc. Bact.; Ecol. Soc.; Chem. Soc.; Soc. Exp. Biol. Physiology of the higher plants and bacteria; electrolytes in relation to living cells; nitrogen fixation by green plants; physiology of azotobacter; plant physiology in relation to colloidal chemistry and soil fertility; bacteria in the sea; calcium carbonate precipitation in the sea.
- Lipman, Dr. Jacob G(oodale)**, Rutgers University, New Brunswick, N. J. *Soil chemistry, Bacteriology*. Friedrichstadt, Russia, Nov. 18, 74. B.S., Rutgers, 98, hon. Sc.D., 23; A.M., Cornell, 00, Sage fellow, 01, Ph.D., 03. Asst. chemist, *N. J. Exp. Sta, 98-99, soil chemist and bacteriologist, 01-, director, 11-*; instr. agr. chem., *Rutgers, 02-06, asst. prof. agr, 06-07, assoc. prof, 07-10, prof. soil chem. and bacter, 10-13, agr, 13-, dean agr, 15-* Lecturer, Illinois and Cornell, 06; Tennessee, 09, 10; Iowa Col., 10; Nebraska, 11; Columbia, 20. Ed-in-chief, 'Soil Science,' 16-; asst. ed., 'Jour. Soc. Agron'; assoc. ed., 'Jour. Agr. Research'; 'Annales sciences agron'; 'Pa. Farmer'; ed., 'Agr. Series,' John Wiley and Sons. Chairman fertilizer committee, Nat. Research Council. Investigator nitrate div., ordnance dept., U.S.A., 19. Pres., Int. Cong. Soc. Soil Sci., Washington, D. C., 27. A.A. (sec'y, O, 20); Chem. Soc.; Soc. Agron. (past v. pres, pres, 19); Agr. Chem.; Soc. Bact.; Pub. Health Ass.; Am. Acad.; Acad. Polit. Sci.; Wash. Acad.; Int. Soc. Soil Sci. (pres, 24-27); Swedish Royal Acad. Agr.; Czecho-Slovakian Nat. Acad. Agr. Nitrification; denitrification; chemistry of decay; physiology of nitrogen fixation; availability of organic soil nitro-

gen; ammonification; chemical and bacteriological effect of liming; utilization of nitrogen in fertilizer materials; bacteria in relation to country life.

Lippincott, J(oseph) B(arrow), 543 Petroleum Securities Building, Los Angeles, Calif. *Hydraulic engineering*. Scranton, Pa, Oct. 10, 64. Dickinson Col, 80-82; A.B. Kansas, 86, C.E. 14. Santa Fé Ry. System, 86-88; topographer, U. S. Geol. Surv, 88-92; asst. engineer, Bear Valley Irrig. Co, 92; irrig. investigations, Calif, 93-94; hydrographer, U. S. Geol. Surv, 95-02, supervising engineer, Pacific Coast dist, reclamation service, 02-06; asst. chief engineer, Los Angeles aqueduct, 06-13; *consulting engineer*, 13- Civil service commissioner, Los Angeles, 04, park commissioner, 10-; supervising engineer, U. S. Housing Corp, Pa, 18. James R. Croes medal, Soc. Civil Eng, 14. Ass. Eng; Civil Eng. (past pres, South. Calif. sect.). Storage of water on Gila River, Arizona, and King's River, California; development and application of water in southern California; Californian hydrography; water supply of Santa Barbara County, California.

Lippincott, Prof. William A(dams), University of California, Berkeley, Calif. *Poultry husbandry*. Jacksonville, Ill, July 3, 82. A.B, Ill. Col, 03; B.S. Iowa Col, 11; M.S. Wisconsin, 17, Ph.D, 20. Supt. poultry farm, Iowa Col, 08-09, asst. poultry husbandry, 09-11, asst. prof. animal husbandry, 11-12; *prof. poultry husbandry*, Kansas Col, 12-23; *California*, 23-A.A; Soc. Zool; Poultry Sci. Ass. (v. pres, 25-); Int. Ass. Poultry Husbandry (hon. sec'y, 19-22). Poultry genetics.

Lippincott, Prof. William (Leroy), Clemson College, S. C. *Chemistry*. Almond, N. Y, Oct. 12, 93. B.Ch, Cornell. *Prof. chem. and research chemist*, Clemson, 20- A.A; Chem. Soc.

Lipscomb, Prof. G(uy) F(leming), University of South Carolina, Columbia, S. C. *Chemistry*. Demopolis, Ala, Feb. 4, 84. B.S. Ala. Polytech, 08; M.S. Ph.D, Princeton, 16. Asst. prof. chem, Clemson, 11-12, *prof*, 16-20; *South Carolina*, 20- Capt, C.W.S, 17-19. Chem. Soc. Agricultural, physical and electro chemistry; calomel standard cell; double salts in standard cells; borax and moisture in fertilizer materials; sulfur in pyrite ore; the vitality, life and germination of the cotton seed; catalytic oxidation of organic compounds.

Lisse, Prof. M(artin) W(illiam), 222 S. Atherton St, State College, Pa. *Biophysical chemistry*. Bridgeton, N. J, June 2, 91. B.S. Pa. State, 14; M.S. Washington (Seattle), 16. Teaching fellow, Washington (Seattle), 14-16; instr, Northwestern, 16-17; asst. prof. chem. agr, Pa. State, 17-26, *assoc. prof. biophysical chem*, 26- Chem. Soc. Decay of wood; cataphoresis of bacteria.

List, Geo(rge) M(illon), 506 W. Myrtle St, Fort Collins, Colo. *Entomology*. Southport, Ind, April 14, 85. B.S. Purdue, 09; M.S. Colo. Agr. Col, 25. *Chief deputy state entomologist*, Colo, and asst. entomologist, Colo. *Exp. Sta*, 13- Chairman, West. Plant Quarantine Board, 24-26. Entom. Soc; Ass. Econ. Entom; Soc. Parasitol; Wash. Biol. Soc. Economic ento-

mology; Cimicidae; temperature and codling moth activity.

Littell, Capt. Frank B(owers), U. S. Naval Observatory, Washington, D. C. **Astronomy*. Scranton, Pa, Feb. 21, 69. Ph.B, Wesleyan, 91, hon. Sc.D, 19; A.M, George Washington, 94. Computer, U. S. Naval Observatory, 91-96; teacher, high sch, Pa, 96-97; computer, U. S. Naval Observatory, 97-98, asst. astron, 98-01; *prof. math*, U.S.N, 01- U. S. eclipse exped, Ga, 00, Sumatra, 01, 26, Spain, 05, Los Angeles, 25. Washington-Paris longitude by radio, 13-14, world longitude, San Diego, 26. A.A; Astron. Soc; Wash. Acad; Wash. Philos. Soc; Royal Astron. Soc; Soc. astron. de France; Soc. Astron. de Mex. Transit circle observations of sun, moon, planets and stars; vertical circle observations of declinations of standard stars; photographic zenith tube observations for variation of latitude; transatlantic longitude by radio-signals.

Little, Dr. Arthur D(ehon), 30 Charles River Road, Cambridge, Mass. **Chemistry*. Boston, Mass, Dec. 15, 63. Mass. Inst. Tech, 81-84; hon. Ch.D, Pittsburgh, 18. *Eng. chemist*, Boston, 86-; *pres*, Arthur D. Little, Inc, 09-; *Petrol. Chem. Corp*, 24- Life mem. corp, Mass. Inst. Tech; div. eng. and indust. research, Nat. Research Council; v. chairman, Eng. Foundation Board; chairman advisory committee, Nat. Expos. Chem. Indust; chairman committee on econ. fuel and raw mat, Am. sect, Int. Chamber of Commerce. Sig.C. and C.W.S, U.S.A. A.A; fel. Chem. Soc. (pres, 12-14); Chem. Eng. (pres, 19); Electrochem. Soc; Mech. Eng; Petrol. Inst; Am. Acad; Eng. Inst. Can; London Soc. Chem. Indust; London Inst. Petrol. Technol. Engineering chemistry; utilization of industrial wastes; chemistry of cellulose, paper making and fiber treatment; gas and petroleum; processes in chrome tanning; electrolytic manufacture of chlorates; artificial silk; smoke filters; motor-spirit; gas enrichment.

Little, Pres. C(larence) C(ook), University of Michigan, Ann Arbor, Mich. **Genetics*. Brookline, Mass, Oct. 6, 88. A.B, Harvard, 10, M.S, 12, Sc.D, 14; LL.D, New Hampshire, 24, Albion, 25. Research asst. genetics, Harvard, 10-13, research fellow biol, Cancer Commission, 13-19; research assoc. sta. for exp. evolution, Carnegie Inst, 19-22, asst. director, 21-22; *pres*, Maine, 22-25; *Michigan*, 25- Sec'y corp, Harvard Col, 10-12, asst. dean, 16-17; trustee, Noble and Greenough Sch, Boston, 15-A.A; Soc. Nat; Soc. Zool; Eugenics Soc. (director); Harvey Soc; Soc. Cancer Research; Soc. Exp. Biol; Galton Soc; N. Y. Acad. Med. Heridity of color in mice; inheritance of susceptibility or non-susceptibility to cancer; modification of germ plasm.

Little, Dr. Ernest, Rutgers University, New Brunswick, N. J. *Chemistry*. Johnstown, N. Y, June 9, 88. B.S. Rochester, 11, M.S, 13; A.M, Columbia, 18, Ph.D, 24. Asst. physics and math, Rochester Mechanics Inst, 09-10; instr. chem, Rochester, 11-14; Pratt Inst, 14-18; *prof. anal. chem*, Rutgers, 18-, *prof. chem*, N. J. Col. Pharmacy, 18-, dean, 26- Summers,

- instr, Columbia. Chem. Soc; Leather Chem. Ass; N. J. Chem. Soc. (board governors, 23-); New Brunswick Sci. Soc. (pres, 25). Analytical chemistry; chemistry of leather.
- Little, Prof. H(omer) P(ayson)**, Clark University, Worcester, Mass. *Geology*. Columbia, Conn, Aug. 3, 84. A.B., Williams, 06; fellow, Hopkins, 09-10, Ph.D, 10. Instr. geol. Colby, 10-12, asst. prof, 12-14, assoc. prof, 14-15, prof, 15-20; exec. sec'y, div. geol. and geog, Nat. Research Council, 20-22; *prof. geol. and dean col, Clark, 22-* Lecturer, Bangor Theol. Sem, 13, 16, 19. Summer, instr, Hopkins, 21, U. S. Geol. Surv, 07, Maryland Geol. Surv, 08, 09, 10. A.A.; Geol. Soc. Coastal plain of Maryland; Pleistocene of central Maine; peneplains of the Front Range; administration.
- Little, Prof. Noel C(harlton)**, 8 College St, Brunswick, Maine. *Physics*. Brunswick, Dec. 25, 95. A.B., Bowdoin, 17; A.M., Harvard, 20, Ph.D, 23. Instr. *physics, Bowdoin, 19-21*, asst. prof, 21-26, *prof, 26-* Summer, instr, Harvard, 24. Radio Eng. Electric oscillations; vacuum tubes; galvanomagnetic and thermomagnetic effects.
- Littlefield, Dr. Max**, University of Iowa, Iowa City, Iowa. *Geology*. Cherokee, Iowa, July 1, 00. A.B., Iowa, 21, M.S, 23, Ph.D, 25. *Research asst, Iowa, 22-* Asst. geologist, Ill. Geol. Surv, 23-25. Molding sands of Illinois; sedimentation.
- Littlehales, G(eorge) W(ashington)**, Hydrographic Office, Navy Department, Washington, D. C. *Hydrographic engineering*. Near Pottsville, Pa, Oct. 14, 60. Grad, U. S. Naval Acad, 83; C.E., George Washington, 88. Asst, U. S. *Hydrog. Office, 85-00, hydrog. engineer, 00-*; prof. nautical science, George Washington, 13-27. Consulting hydrographer, dept. terrestrial magnetism, Carnegie Inst, 04-06. Assoc. ed, 'Int. Jour. Terrestrial Magnetism,' 96-00. Delegate, Int. Hydrog. Conf, London, 19; Int. Research Council, Brussels, 19. Geophys. Union (v. pres, 26-); Int. Union Geod. and Geophys. (v. pres, 22-); Pan-Pacific Sci. Cong, Tokyo, 26. A.A.; Ass. Geog. (v. pres, 07); Naval Eng; Philos. Soc. (pres, 05). Oceanography; hydrography; terrestrial magnetism; astronomy applied to aerial and marine navigation.
- Littleton, Dr. Jesse T(albot), Jr**, Corning Glass Works, Corning, N. Y. *Physics*. Belle Haven, Va, July 7, 87. A.B., Southern (Ala), 06; fellow, Tulane, 06-08, A.M, 08; Wisconsin, 08-09, Ph.D, 11. Asst. physics, Southern (Ala), 05-06; Wisconsin, 09-11; instr, Michigan, 11-13; *chief physical lab, Corning Glass Works, 13-* A.A.; Physical Soc; Optical Soc; Elec. Eng. Optical constants of metals, alloys and steels; mechanical and physical properties of glass.
- Littleton, Dr. Leonidas R(ossier)**, Emory, Va. *Chemistry*. Belle Haven, Va, Aug. 1, 89. A.B., Southern (Ala), 07, 07-08; fellow, Tulane, 08-10, A.M, 10; fellow, Illinois, 10-12, Ph.D, 12. Asst. science, Southern (Ala), 07-08; instr. chem, Grinnell, 12-13; prof, Emory and Henry, 13-17; asst. chemist, Picatinny Arsenal, 17-18; chief chemist, Mathieson Alkali Works, 18-19; chemist, Nat. Aniline and Chem. Co, 19-22; *prof. chem, Emory and Henry, 22-* Chairman chem. educ, Va. Senate, 25- A.A.; Chem. Soc; Va. Acad. Rearrangements in the camphor series; high explosives; filtration; application of physical chemistry to problems in analytical chemistry.
- Litzenberg, Dr. J(enning) C(rawford)**, University of Minnesota, Minneapolis, Minn. *Obstetrics, Gynecology*. Waubeek, Iowa, April 6, 70. B.S., Minnesota, 94, M.D, 99. Instr. obstet, *Minnesota, 01-07*, asst. prof, 07-10, assoc. prof. *gynec. and obstet, 10-14, prof, head dept. and chief, Univ. Hosp, 14-*, chief staff, Univ. Dispensary, 10-26. Asst. physical director, Minnesota, 97-08. Fel. Ass. Obstet, Gynec. and Abdom. Surg; fel. Gynec. Soc. (committee for maternal health, v. pres. and counselor, 20); fel. Col. Surg; Am. Med. Ass; Minn. Acad. Med; Hennepin Co. Med. Soc. (pres, 17). Ectopic gestation; sterility; pathology of interstitial pregnancy; basal metabolism in sterility; missed abortion.
- Livermore, K(enneth) C(arter)**, Honeoye Falls, N. Y. *Agriculture*. Watertown, Mass, Jan. 3, 86. B.S., Cornell, 09. Instr. farm crops, Cornell, 09-10, investigator, 10, asst. prof. farm management, 10-11, prof, 13-20; *pedigreed seed grower, 20-* Agricultural surveys; business analysis of successful farms.
- Livesay, Prof. Thayne M(iller)**, University of Hawaii, Honolulu, Hawaii. *Psychology, Education*. McCune, Kans, Sept. 29, 94. A.B., Pacific (Oregon), 17; A.M., Washington (Seattle), 21; Stanford, 21-24. Teacher, high schools, Oregon and Wash, 19-20; field worker achievement tests, Stanford, 21-22, reader secondary educ, 22-23; *prof. psychol. and educ, Hawaii, 24-* Summers, lecturer, Hawaii Nor. Sch, 25-27. Territorial elementary and secondary course of study committees, Hawaii. U.S.N. Radio Service, 17-19. A.A.; Nat. Soc. Study Educ; Hawaiian Acad. Educational measurement, psychology and administration.
- Livingston, Dr. A(lfred) E(rwin)**, University of Pennsylvania, Philadelphia, Pa. *Pharmacology*. Frost, Ohio, Dec. 6, 83. B.S., Ohio (Athens), 10, M.S, 11; Ph.D, Cornell, 14. Instr. physiol, Cornell, 11-14; junior pharmacologist, U. S. Dept. Agr, 14-16; assoc. physiol, col. med, Illinois, 16-18; assoc. pharmacologist, hygienic lab, U. S. Pub. Health Service, 18-21; *asst. prof. pharmacol, sch. med, Pennsylvania, 21-* Soc. Pharmacol; Physiol. Soc. Internal secretions; oil of Chenopodium; benzylalcohol; mercury fulminate; tricresol; carvacrol, renal function; blood flow.
- Livingston, Dr. Burton E(dward)**, Johns Hopkins University, Baltimore, Md. **Plant physiology*. Grand Rapids, Mich, Feb. 9, 75. B.S., Michigan, 98; Ph.D, Chicago, 01. Asst. bot, Michigan, 95-98; instr, high sch, Ill, 98-99; asst. plant physiol, Chicago, 99-04, assoc, 04; soil expert, bur. soils, U. S. Dept. Agr, 05-06; mem, staff bot. research, desert lab, Carnegie Inst, 06-09; *prof. plant physiol, Hopkins, 09-*, *director plant physiol. lab, 13-* Field work, Mich. Geol. Surv, 01; collaborator, bur. forestry, U. S. Dept. Agr, 02; Carnegie research

- asst. 04. Managing ed, 'Physiol. Researches,' 13-23; ed-in-chief, 'Bot. Abstracts,' 18-20. Nat. Research Council, 17-18, committee on for. relations, 20- Walker prize, Boston Soc. Nat. Hist, 03. A.A. (v. pres, G, 18, permanent sec'y, 20-); Soc. Nat; Bot. Soc. (v. pres, 08); Soc. Plant Physiol. (v. pres, 25); Ecol. Soc; Am. Acad. Physical aspects of plant physiology; chemical stimulation; plant distribution; relation of soils to plant growth; water relations of plants; salt nutrition of plants.
- Livingston, Prof. D(ouglas) C(lermont),** Oregon Agricultural College, Corvallis, Oregon. *Geology.* London, Eng, June 12, 77. Stanford, 05; B.Sc, McGill, 06. Eng. and geol. work, 06-11; assoc. and prof. mining eng, Idaho, 11-14, *prof. geol.* 14-20; *Oregon Col.* 20- Field geologist, Bur. Mines and Geol, Idaho and Oregon. Geology and ore deposits of Idaho and eastern Oregon; structural geology of eastern Oregon, western Idaho and Oregon coast range.
- Lloyd, E(dwin) Russell,** Box 652, Roswell, N. Mex. *Geology.* Lloydsville, W. Va, Nov. 3, 82. A.B, Ohio Wesleyan, 05; Rhodes scholar, Oxford, 05-08, B.A, 08, Burdette Coutts scholar, 08-10; fellow, Chicago, 09-11. Junior geologist, U. S. Geol. Surv, 11-12, asst. geologist, 12-13, assoc. geologist, 13-18; chief geologist, Sinclair Wyoming Oil Co, 19-21; Mid-Kansas Oil and Gas Co, 21-23; Marine Oil Co, 23-24; N. Y. Oil Co, 24-25; consulting geologist, 26-27; *dist. geologist, Roxana Petroleum Corp.* 27- Geologist, Sinclair Cent. Am. Oil Corp, 17-18. V. chairman coal sect, Land Classification Board, 15-17. Geol. Soc; Ass. Petrol. Geol; Min. Eng. Petroleum geology; stratigraphy.
- Lloyd, Prof. Everton A,** University of British Columbia, Vancouver, B. C, Can. *Poultry husbandry.* Aurora, Ont, 87. B.S.A, Saskatchewan, 13. *Prof. poultry husbandry and head dept, British Columbia.* Poultry Sci. Ass; Can. Soc. Tech. Agr. Feeding for egg production; poultry farm management; cost of egg production.
- Lloyd, Prof. Francis E(mnest),** McGill University, Montreal, Que, Can. **Botany.* Manchester, Eng, Oct. 4, 68. Lafayette, 87-89; A.B, Princeton, 91, A.M, 95; Munich, 98; Bonn, 01. Instr. biol, Williams, 91-92; prof, Pacific, 92-97; adjunct prof, Teachers Col, Columbia, 97-06; staff mem, desert lab, Carnegie Inst, 06; cytologist, Ariz. Exp. Sta, 07; director dept. investigation, Continental-Mexican Rubber Co, 07-08; *special expert, U. S. Rubber Co.* 08, 18-; prof. bot, Ala. Polytech. Inst, 08-12; *MacDonald prof, McGill.* 12- Ed, 'Plant World,' 05-; assoc. ed, 'Am. Rev. Trop. Agr.,' 09- Botanist, Lumholtz Mexican exped, 90. A.A. (sec'y, G, 02-07); Bot. Soc; Soc. Plant Physiol; fel. N. Y. Acad; Torrey Bot. Club (assoc. ed, 'Bul,' 98-02, treas, 02-06); hon. mem. Phila. Col. Pharmacy; fel. Royal Soc. Can; fel. London Linnean Soc. Embryology, anatomy and morphology; transpiration and physiology of stomata; rubber culture; botanical pedagogics; general physiology; fluorescent pigments; reproduction in Spirogyra; Vampyrella.
- Lloyd, Prof. Howard H(untley),** Goucher College, Baltimore, Md. *Chemistry.* Baltimore, Aug. 1, 92. A.B, Hopkins, 12, Ph.D, 15. Research asst. chem, Hopkins, 15-16; instr, *Goucher*, 16-17, assoc. prof. and acting head dept, 17-19, *prof. and head dept.* 19- Lecturer, Hopkins, 16-17. A.A; Chem. Soc. Electrical conductance of alcoholic solutions.
- Lloyd, Prof. John Uri,** The Lloyd Library, 309 W. Court St, Cincinnati, Ohio. **Chemistry, Pharmacy.* West Bloomfield, N. Y, April 19, 49. Phar.M, Phila. Col. Pharmacy, 90; Ph.D, Ohio (Athens), 97; LL.D, Wilberforce; Sc.D, Cincinnati, 16, Phar.D, Cincinnati Col. Pharmacy, 20, M.D, Eclectic Med. Col, Cincinnati, 21. Prof. pharmacy, Cincinnati Col. Pharmacy, 83-87, chem, Eclectic Med. Inst, 78-87, pres, 96-04; *senior mem, Lloyd Brothers, Pharmacists, Inc.* Pres, Lloyd Library Bot. and Pharmacy. Assoc. ed, 'Pharmaceut. Rev'; 'Eclectic Med. Jour.' Gold medals, Pharmaceut. Ass, 82, 92, 99; Remington honor medal, 20. A.A; Chem. Soc; hon. mem. Pharmaceut. Ass. (pres, 87); hon. mem. Eclectic Med. Ass; Franklin Inst; Royal Soc. Arts; Soc. acad. d'Hist. int. Plant chemistry and pharmacy; alkaloids; glucosids and proximate principles; precipitates in fluid extracts; phenomena of capillarity; phytochemistry as applied to medicine; superstition and folk-lore of northern Kentucky; pharmacy of plant products; alkaloidal affinities with hydrous aluminum silicate.
- Lloyd, Prof. J(ohn) W(illiam),** Agricultural Experiment Station, Urbana, Ill. *Horticulture.* St. Charles, Ill, Feb. 19, 76. B.S, Wheaton, 97; B.S.A, Cornell, 99, M.S.A, 03; Ph.D, California, 17. Instr. hort, *Illinois*, 99-02, olericulture, 02-03, asst. prof, 03-09, assoc. prof, 09-11, *prof. and chief in olericulture, Exp. Sta.* 11- Soc. Hort. Sci. (v. pres, 13); Pomol. Soc. Spraying, fertilizing and marketing of fruits and vegetables; culture of vegetables; cooperative marketing.
- Lloyd, Dr. M(orton) G(ithens),** U. S. Bureau of Standards, Washington, D. C. *Electrical engineering.* Beverly, N. J, Sept. 10, 74. B.S, Pennsylvania, 96, Tyndale fellow, 96-99, Ph.D, 00, E.E, 08; Harvard, 97-98; Berlin, 98-99. Instr. physics, Pennsylvania, 99-02; asst, Bur. Standards, 02-04, asst. physicist, 04-08, assoc. physicist, 08-10; tech. ed, 'Elec. Rev. and West. Electrician,' 10-17; assoc. elec. engineer, *Bur. Standards*, 17, *elec. engineer in charge safety sect.* 18- Edward Longstreth medal, 10. Eng. Council, 23-24. Int. Elec. Cong, St. Louis, 04. Elec. Eng; Ass. Eng; Illum. Eng. Soc. (v. pres, 16-18); Soc. Safety Eng. (v. pres, 22); Ass. Labor Legis; Franklin Inst. (v. pres, physics sect, 02); East. Ass. Elec. Inspectors; Wash. Acad; Wash. Philos. Soc; hon. mem. Int. Ass. Munic. Elec. Effects of self-induction and capacity in alternating current circuits; thermomagnetic and galvanomagnetic effects in Bi and Te; effect of wave form upon induction meters, core loss and ratio of transformers, incandescent lamps and hysteresis; effect of phases of harmonics upon quality of sound; measurement of hysteresis and eddy currents;

- magnetic hysteresis in rotary field; regulation of public utilities; accident prevention lightning.
- Lloyd, Prof. Stewart J (oseph)**, University, Ala. *Chemistry*. Hamilton, Ont, Can, Sept. 12, 81. B.A, Toronto, 04; M.S, McGill, 06; Ph.D, Chicago, 10. Demonstrator *chem*, McGill, 04-06; asst, Chicago, 08-09; assoc. prof, *Alabama*, 09-11, *prof. and director lab*, 11- Chem. Eng; Electrochem. Soc. Physical and metallurgical chemistry; radioactivity.
- Lloyd-Jones, Dr. Orren**, 5802 Blackstone Ave, Chicago, Ill. *Genetics*. Hillside, Wis, 85. B.S, Wisconsin, 08, M.S, 11, Ph.D, 13; Chicago, 22, M.D, Rush Med. Col, 27. Asst. exp. breeding, Wisconsin, 11-13; asst. prof. animal husbandry, Iowa Col, 13-14, assoc. prof, 14-15; director, Sippy Farms, 18-22. A.A; Soc. Nat; Soc. Zool. Pigmentation inheritance in pigeons and swine; heredity in hybrid cattle.
- Lobeck, Prof. Armin Kohl**, University of Wisconsin, Madison, Wis. *Geology*. New York, N. Y, Aug. 16, 86. A.B, Columbia, 11, A.M, 13, Ph.D, 17. Instr. bot, Phila. Col. Pharmacy, 11-14; *geol*, Columbia, 16-18; asst. prof, *Wisconsin*, 19-23, *assoc. prof*, 23- Physiog. study, P. R, 16-17; with Am. Geog. Soc, 17-18; Am. Commission to Negotiate Peace, Paris, 18-19. Geol. Soc; Ass. Geog; fel. N. Y. Acad. Physiography of Porto Rico and the United States.
- Lochhead, Dr. A (llan) Grant**, Central Experimental Farm, Ottawa, Ont, Can. *Bacteriology*. Galt, Ont, June 21, 90. B.A, McGill, 11, M.Sc, 12, Ph.D, 19. Lecturer bacter, Macdonald Col, 18-19; bacteriologist-chemist, Can. Milk Products, Toronto, 19-21; Malt Products Co, 21-22; lecturer biochem, Alberta, 22-23; *Dominion agr. bacteriologist*, Dept. Agr, Ottawa, 23- A.A; Soc. Bact; Can. Soc. Tech. Agr. Agricultural bacteriology; decomposition of cellulose; microbiology of frozen soils; dairying.
- Lochte, Prof. H (arry) L (ouis)**, University of Texas, Austin, Texas. *Chemistry*. Fredericksburg, Texas, Oct. 18, 92. Grad, Southwest. Texas State Nor. Sch; A.B, Texas, 18; fellow, Illinois, 21-22, Ph.D, 22. Teacher, high schools, 11-16; asst. and tutor, Texas and Illinois, 16-22; instr. *chem*, Texas, 22-23, *adjunct prof*, 23- Chem. Soc. Organic and analytical chemistry.
- Locke, Dr. Arthur (Preston)**, St. Luke's Hospital, Chicago, Ill. *Chemistry*. Mitchell, S. Dak, Dec. 12, 97. A.B, Morningside, 18; Ph.D, Chicago, 22. Asst. prof. chem, Morningside, 20-21; Carnegie fellow, Coastal Lab, 23-24; *Coman fellow*, Chicago, at St. Luke's Hosp, 24- A.A; Chem. Soc. Immuno-chemistry; purification of immune serums; nature and origin of immune hemolysin; asymmetric synthesis.
- Locke, Dr. Augustus**, 788 Mills Building, San Francisco, Calif. *Geology*. North Adams, Mass, Aug. 22, 83. A.B, Harvard, 04, B.S, 05, M.E, 09, Sheldon fellow, 10-11, Sc.D, 13. Field worker, Secondary Enrichment Investigation, 13-15; *consulting mining geologist*, 15- Soc. Econ. Geol; Min. and Metal. Eng. Mining geology; secondary enrichment of copper ores; leached outcrops as guides to copper ore.
- Locke, Prof. Charles E**, Massachusetts Institute of Technology, Cambridge, Mass. *Mining engineering*. Milton, N. H, Aug. 29, 74. B.S, Mass. Inst. Tech, 96. Engineer, Sweetwater Coal Mining Co, 96-97; private asst. to Prof. Robert H. Richards, 97-01; instr. mining eng. and metal, *Mass. Inst. Tech*, 01-05, asst. prof, 05-19, *assoc. prof. mining eng. and ore dressing*, 19- Min. Eng. Ore dressing.
- Locke, Dr. Edwin A (llen)**, 311 Beacon St, Boston, Mass. *Medicine*. Halifax, Mass, Oct. 15, 74. Ph.B, Brown, 96, A.M, 97; M.D, Harvard, 01. Asst. instr, asst. prof. and *clin. prof. med*, *Harvard Med. Sch*, 03- Visiting physician, Boston City Hosp; chief staff, Boston Consumptives' Hosp; assoc. director, Sharon Sanatorium. Assoc. Am. Physicians; Soc. Clin. Invest; Tuber. Ass; Climat. Ass; Interurban Clin. Club; Int. Bur. for Tuber. Internal medicine.
- Lockwood, Prof. E (dwin) H (oyt)**, 51 Sheldon Terrace, New Haven, Conn. *Mechanical engineering*. New Canaan, Conn, Oct. 31, 66. Ph.B, Yale, 88, M.E, 92, Ph.D, 01. Designing engineer, 89-95; instr. *mech. eng*, *Sheffield Sci. Sch*, Yale, 92-01, asst. prof, 01-24, *assoc. prof*, 24- A.A; Mech. Eng; Heat. and Vent. Eng; Automotive Eng; Conn. Acad.
- Lodewick, J (ohn) Elton**, New York State College of Forestry, Syracuse, N. Y. *Forestry*. Saratoga Springs, N. Y, Dec. 30, 96. B.S, Syracuse, 19, M.S, 20. *Instr. biol*, Maine, 20-22; *wood tech*, N. Y. State Col. Forestry, *Syracuse*, 22- A.A; Soc. Foresters; Bot. Soc. Seasonal growth in trees; structure of American woods.
- Lodge, R (ichard) W (alley)**, Redlands, Calif. *Mining, Metallurgy*. Boston, Mass, Jan. 14, 57. Mass. Inst. Tech, 79. Asst. mining and metal, Mass. Inst. Tech, 79-80; mining in the west, 80-82; asst. mining and metal, Mass. Inst. Tech, 82-83; head chemist, N. Chicago Rolling Mill Co, 83-85; chemist, Sloss Iron and Steel Co, Ala, 87; instr. mining and metal, Mass. Inst. Tech, 89-94, asst. prof, 95-07; *consulting engineer*, 07- A.A; Min. Eng; Forestry Ass.
- Lodholz, Prof. Edward**, University of Pennsylvania, Philadelphia, Pa. *Physiology*. Philadelphia, 75. M.D, Pennsylvania, 97; Göttingen, 03; Bonn, 10, 11, 12, 14. Asst. demonstrator *physiol*, *Pennsylvania*, 01-02, demonstrator, 03-12, asst. prof, 12-20, *prof*, 20- A.A; Physiol. Soc; Am. Med. Ass; Phila. Col. Physicians. Physiology of the nerves.
- Loeb, Dr. Hanau W (olf)**, 1402 S. Grand Blvd, St. Louis, Mo. *Anatomy, Laryngology*. Philadelphia, Pa, Aug. 25, 65. A.B, Missouri, 83, A.M, 86; M.D, Columbia, 88; LL.D, St. Louis, 22. *Prof. nose and throat diseases*, Marion-Sims Col. Med, 90-04; *sch. med*, *St. Louis*, 04-, *dean*, 13- Ed, 'Annals of Otol, Rhinol. and Laryngol,' 98- Sec'y, Am. Board Otol. Major, M.C, 17-18, col, M.R.C, 19- Ass. Anat; Laryngol. Ass; Am. Med. Ass; Otol. Soc; Laryngol, Rhinol. and Otol. Soc. Anatomy of the accessory sinuses of the nose; operative and military surgery of the nose, throat and ear.

- Loeb, Prof. Leo**, Washington University Medical School, St. Louis, Mo. **Pathology*. Mayen, Germany, Sept. 21, 69. Heidelberg, Berlin, Zurich, Basel and Freiburg, 89-96; Staats-examen, 96; M.D., Zurich, 97; research fellow, McGill, 03. Adjunct prof. path, Illinois, 00-01; exp. pathologist, N. Y. State Path. Lab., Buffalo, 02; asst. demonstrator path, Pennsylvania, 03, asst. prof. exp. path, 04-10; director path. dept, St. Louis Skin and Cancer Hosp, 10-15; *prof. comp. path, Washington (St. Louis)*, 15-24, *path, 24-* A.A.; Soc. Nat; Ass. Path. and Bact. (pres, 14); Soc. Exp. Path. (v. pres, 16-18); Physiol. Soc; Ass. Anat; Soc. Exp. Biol; Am. Physicians; Ass. Cancer Research (pres, 11); Am. Med. Ass. (chairman, sect. path. and physiol, 11); Philos. Soc; Wash. Acad. Sci; for. mem. Zent. mit. Erforsch. Krebskrankheit. Thrombosis and blood coagulation; tissue and tumor growth; experimental production of maternal placenta; physiology of sexual organs; venom of heloderma; analysis of cell death; pathology of circulatory organs, kidneys, stomach and thyroid gland; edema; homoiotoxins; experimental cell fibrin tissue.
- Loeb, Prof. Leonard B(enedict)**, University of California, Berkeley, Calif. **Physics*. Zurich, Switzerland, Sept. 16, 91. California, 10; Columbia, 11; B.S., Chicago, 12, Ph.D, 16. Asst. *physics*, Chicago, 14-16; asst. physicist, Bur. Standards, 16-17; asst, Manchester (Eng), 19; Nat. Research Council fellow, Chicago, 19-23; asst. prof, *California*, 23-25, *assoc. prof, 25-* Cooperating expert, Int. Critical Tables, 25-26. Second lieut. A.S, 17-19. A.A; fel. Physical Soc; fel. Optical Soc; Wash. Philos. Soc; Physik. Gesell; Soc. de Physique. Mobilities of gaseous ions; deflection of alpha particles by light atoms; formation of ions; electron mobilities; phosphorescence of zinc sulfides; surface catalysis; vane radiometer; ranges of alpha particles; kinetic theory of gases.
- Loehwing, Prof. Walter Ferdinand**, University of Iowa, Iowa City, Iowa. *Plant physiology*. Chicago, Ill, Nov. 25, 96. Certificate, Pasteur Inst, 19; B.S., Chicago, 20, M.S., 21, Ph.D, 25. Prof. chem, head dept. and dean, Northeast. Okla. Junior Col, 20-23; *asst. prof. plant physiol, Iowa, 25-* Capt. C.W.R.S. A.A; Soc. Plant Physiol; Bot. Soc; Chem. Soc. Plant chemistry; soil fertility; plant nutrition.
- Loevenhart, Dr. Arthur S(olomon)**, University of Wisconsin, Madison, Wis. **Physiology, Chemistry, Pharmacology*. Lexington, Ky, Dec. 29, 78. B.S., Ky. State, 98, M.S., 99; M.D., Hopkins, 03. Asst. physiol. chem, Hopkins, 03-04, *assoc. physiol. chem. and pharmacol, 04-* 06, *assoc. prof, 06-08; prof. pharmacol. and toxicol. col. med, Wisconsin, 08-* Chief pharmacol. sect, research div, C.W.S. A.A; *assoc. mem. Am. Physicians; Soc. Biol. Chem; Soc. Exp. Biol; Soc. Pharmacol. (treas, 09-13, pres, 19-21); Physiol. Soc; Chem. Soc; hon. mem. Harvey Soc. Induced oxidations; catalysis; enzyme action; biological oxidation antiseptics; mechanism of enzyme action; pharmacological action of substances which increase and interfere with biological oxidation; relation of oxidation to functional activity; relation of chem-*
- ical constitution to pharmacological action in local anesthetic series and antisyphilitic drugs; chemotherapy of neurosyphilis and trypanosomiasis.
- Loewenstein, Dr. Louis C(entennial)**, 180 Riverside Drive, New York, N. Y. *Mechanical and electrical engineering*. Mora, N. Mex, June 17, 76. B.S., Pennsylvania, 97, E.E, 02; Ph.D, Berlin, 99; Charlottenburg. Foos Gas Engine Co; N. Y. Shipbuilding Co; Wm. Cramp and Sons; Elec. Storage Battery Co; Vulcan Schiffbau Werke, Germany; instr. mech. and marine eng, Lehigh, 03-07; engineer, steam turbine dept, Gen. Elec. Co, Lynn, Mass, 07-21; *consulting engineer, 22-* Lecturer, Columbia, Harvard, Mass. Inst. Tech. A.A; Mech. Eng; Elec. Eng. Steam turbines; centrifugal pumps; marine engines; thermodynamics; gas and mercury turbines.
- Loftin, U(lphian) C(arr)**, Tlahualilo Agricultural Co, Tlahualilo, Dgo, Mex. *Entomology*. Mt. Olive, N. C, July 2, 90. B.S., N. C. State, 10; M.S., Florida, 13. Asst. entomologist, Fla. Exp. Sta, 10-13; asst, bur. entom, U. S. Dept. Agr, 13-17, fed. hort. board, 18-21; *entomologist and field manager, Tlahualilo Agr. Co, 21-* A.A; Ass. Econ. Entom; Fla. Entom. Soc. Sugar-cane insects; Cuban parasites of sugar-cane moth borer; pink boll worm of cotton.
- Logan, Prof. J(ohn) F(remont)**, Queen's University, Kingston, Ont, Can. *Biochemistry*. Amherst, N. S, Dec. 12, 84. B.A., Acadia, 13, M.A., 14; A.M., Yale, 16; Ph.D, McGill, 23. *Asst. prof. biochem, McGill, 24-25; Queen's (Can), 25-* Conf. Biol. Chem. Protein matter of bile; protein of fish muscle.
- Logan, Lloyd**, Johns Hopkins University, Baltimore, Md. *Engineering*. Wallace, N. S, Can, June 16, 90. Mass. Inst. Tech; Royal Tech. Col, Glasgow; Columbia; Pittsburgh. Eng. and indust. companies, 10-20; exp. div, The Koppers Co. Laboratories, Mellon Inst, 20-26; *research assoc. gas eng, Hopkins, 26-* C.E.F. A.A; Mech. Eng; Chem. Soc. Control of industrial processes by light-sensitive means; gas purification.
- Logan, Prof. W(illiam) N(ewton)**, Bloomington, Ind. *Geology, Mineralogy*. Barbourville, Ky, Nov. 4, 69. A.B., A.M., Kansas, 96; fellow, Chicago, 98-00, Ph.D, 00. Supt, schools, Kans, 96-98; prof. geol. and miner, St. Lawrence, 00-03; geol. and mining eng, Miss. Agr. and Mech. Col. and geologist, Exp. Sta, 03-16, dean sch. science, 13-16; *assoc. prof. econ. geol. and miner, Indiana, 16-19, prof, 19-* Geologist, Miss. Geol. Surv, 03-16; mem, Kans, Miss, N. Y. and Ind. Geol. Surveys; state geologist, Ind, 19- A.A; Geol. Soc; Kans. Acad; Miss. Acad; fel. Ind. Acad; fel. Royal Soc. Arts. Paleontology and geology of Kansas and Wyoming; geology of Maine, New York, Mississippi and Indiana; kaolin, coal, petroleum and building stones of Indiana.
- Logsdon, Prof. Mayme Irwin**, University of Chicago, Chicago, Ill. *Mathematics*. Elizabethtown, Ky, Feb. 1, 87. B.S., Chicago, 13, A.M., 15, Ph.D, 21. Prof. math. and dean women, Hastings, 13-17; instr, Northwestern, 17-19;

- Chicago*, 21-25, dean, 23-25, *asst. prof. math*, 25- Int. Educ. Board fellow, Rome, 25-26. A.A.; Math. Soc; Math. Ass; Ill. Acad. Algebra; algebraic geometry; hermitian forms; plane cubics of genus one; elliptic functions.
- Logue, Charles H(ayes)**, 123 Clarke St, Syracuse, N. Y. *Engineering*. Cleveland, Ohio, July 4, 75. Chief engineer, R. D. Nuttall Co, 98-10; assoc. ed, 'Am. Machinist,' 10-12; *consulting engineer*, Gen. Motors Corp, 12-25, 25- Gold medal, Panama-Pacific Expos. Mech. Eng. (committee on strength of gears); Automotive Eng; Syracuse Technol. Club. Spherical gearing; limiting gear design; elementary gearing.
- Löhnis, Dr. F(elix)**, University of Leipzig, Leipzig, Germany. *Bacteriology*. Dresden, Germany, Aug. 3, 74. Jena and Halle, 95; Ph.D., Leipzig, 01. Instr. bacter. Leipzig, 03-11, prof, 11-14; soil biologist, U. S. Dept. Agr, 14-25; *prof. and director inst. agr. bacter. and soil science*, Leipzig, 25- A.A.; Soc. Bact; Soc. Agron. Agricultural bacteriology; micro-organisms in soil, manure and dairy products; life history of bacteria.
- Lohr, Prof. W(illiam) S(hannon)**, 624 Parsons St, Easton, Pa. *Civil engineering*. Centre Hall, Pa, Oct. 29, 87. B.S, Pennsylvania, 09, C.E, 24. Draftsman, Am. Bridge Co, Pa, 08; instr. civil eng, Pennsylvania, 09-12; Lafayette, 12-15; Pennsylvania, 15-16; concrete engineer, Austin Co, 17-19; engineer, John H. Wickersham, 16-17, 19-20; *assoc. prof. civil eng*, Lafayette, 20- Detailer, Lewis F. Shoemaker and Co, 11. Civil Eng. Structural materials; strength of concrete columns; glare reduction by glass.
- Lomanitz, Dr. S(ebastian)**, 234 Terminal Arcade Building, Oklahoma City, Okla. *Agricultural chemistry*. Lodz, Poland, Dec. 27, 82. B.S, Agr. and Mech. Col. Texas, 08, M.S, 22; fellow, Rutgers, 23-24, Ph.D, 24. Chemist, Cent. Agr. Sta, Mex, 11-15; director, State Sch. Agr, Yucatan, 16; asst. chemist, Texas Exp. Sta, 16-17, 18-22; *chemist*, Trop. Plant Research Foundation, 25-26; *Gen. Laboratories*, 26- Govt. commission, Vera Cruz, Mex, to study system of agr. educ, U. S, 15. A.A.; Chem. Soc. Plant physiology; soil microbiology; production of sugar cane in Cuba.
- Lombard, Dr. Robert H(amilton)**, Norton Co, Worcester, Mass. *Chemistry*. Ashburnham, Mass, Dec. 3, 87. B.S, Mass. Inst. Tech, 10; Ph.D, Columbia, 15. Asst. physical chem, Mass. Inst. Tech, 10-11; chem, Columbia, 11-12, instr, 12-15; chemist, geophys. lab, Carnegie Inst, 15-27; *physical chemist*, Norton Co, 27- Manufacturer optical glass, W. I. B, 17-18. A.A.; Chem. Soc; Wash. Acad. Conductivity of aqueous solutions; vapor density of ammonium and phosphorus halids; dissociation pressure of copper and iron sulphids; optical glass; Buchner cyanid process.
- Lombard, Prof. Warren P(limpton)**, 805 Oxford Road, Ann Arbor, Mich. *Physiology*. Newton, Mass, May 29, 55. A.B, Harvard, 78, M.D, 81; Leipzig, 83-84; Harvard, Hopkins and Columbia, 85; hon. Sc.D, Hobart, 10. Asst. *physiol*, Columbia, 86-88; asst. prof, Clark, 89-92; prof, Michigan, 92-23, *emer. prof*, 23- A.A.; Soc. Nat; Physiol. Soc. (pres, 19-21); Soc. Exp. Biol; Soc. Royale des Sci. Méd. et Nat. Bruxelles; cor. mem. Soc. Belge de Biol. Reflexes; nerve-muscle; fatigue; circulation in man; action of two joint muscles; periodicity in fatigue; nature of knee-jerk; changes in body weight; effect of age on endurance; the tickle sense; capillary pressure in human skin; duration of systole in human heart.
- Long, Dr. Alfred George**, Sioux Falls, S. Dak. *Public health*. Winnipeg, Man, Can, 86. M.D, Manitoba, 08; C.P.H, Harvard and Mass. Inst. Tech, 22. Bacteriologist, Winnipeg Gen. Hosp, 08-16; Minn. State Board Health, 16-18; asst. prof. path. and acting director pub. health lab, North Dakota, 18-21; director lab, Ind. State Board Health, 22-24; *pathologist*, Sioux Falls Clinic, 24- Eli Lilly and Co, 24-25. A.A.; Soc. Bact; Pub. Health Ass. Preventable diseases; water supply.
- Long, Bayard**, 250 Ashbourne Road, Elkins Park, Pa. *Botany*. Philadelphia, Pa, Sept. 22, 85. M.S, Pennsylvania, 08. Assoc. curator *herbarium*, Phila. Bot. Club, 10-13, *curator*, 14-; *research assoc. bot*, Acad. Nat. Sciences, Phila. A.A.; Fern Soc; Torrey Bot. Club; New Eng. Bot. Club; Phila. Bot. Club; Phila. Acad. Phytogeography and taxonomy of flowering plants and ferns.
- Long, David D(aniel)**, 85 E. Park Lane, Atlanta, Ga. *Soils*. Abbottstown, Pa, Dec. 6, 87. B.S.A, Pa. State, 09. Scientist, soil surv, U. S. Dept. Agr, 09-11; in charge soil surv, Ga. Col. Agr, 11-20; soil specialist, soil improvement committee, Sanitary Fertilizer Ass, 21-24; *director agr. research and service dept*, Int. Agr. Corp, 24- A.A.; Ass. Soil Surv. Workers; Soc. Agron; Int. Soc. Soil Sci. Soil classification, fertility and adaptation; fertilizers.
- Long, Dr. Esmond R(ay)**, University of Chicago, Chicago, Ill. *Pathology*. Chicago, June 16, 90. A.B, Chicago, 11, Ph.D, 19, M.D, 26; Trudeau fellow, Saranac Lab, 17-18, 20. Asst. path, Chicago, 11-13; asst. desert lab, Carnegie Inst, 14-15; instr. path, Chicago, 19-21, asst. prof, 21-23, *assoc. prof*, 23- Ed. staff, 'Jour. Outdoor Life.' A.A.; Ass. Path. and Bact; Soc. Biol. Chem; Tuber. Ass. (chairman, path. sect, 25); Chicago Path. Soc; Chicago Inst. Med. Chemical pathology; purin metabolism; metabolism of succulent plants; chemistry of tubercle bacillus; tuberculin; immunity in tuberculosis.
- Long, Dr. Frances (Louise)**, Laboratory of Plant Physiology, Carnegie Institution, Tucson, Ariz. *Botany*. Madison, Nebr. A.B, B.S, Nebraska; A.M, Ph.D, Minnesota. *Ecol. investigations*, lab. plant *physiol*, Carnegie Institution, 14- A.A.; Ecol. Soc; Chem. Soc. Plant ecology; experimental pollination; histology of laticiferous plants; photosynthesis.
- Long, Prof. J(ames) S(cott)**, Lehigh University, Bethlehem, Pa. *Chemistry*. York, Pa, Aug. 11, 92. Ch.E, Lehigh, 14, M.S, 15; Ph.D, Hopkins, 22. Asst. chem, Lehigh, 14-15, instr, 15-17, asst. prof, 17-20, *assoc. prof. inorg*.

- chem*, 20- Consulting chemist, Chester Enameling Co, 14- Chem. Soc. (chairman, Lehigh Valley sect, 25). Chemical calculations; elementary experiments on non-metals; molecular weight changes in oils.
- Long, Prof. Joseph A(braham)**, University of California, Berkeley, Calif. *Zoology*. Lebanon, Pa, March 4, 79. B.S. Harvard, 04, A.M., 05, Ph.D., 08. Austin teaching fellow bot, Harvard, 04-05, asst. zool. 01-04, 05-07; instr, *California*, 08-14, asst. prof. *embryol*, 14-20, *assoc. prof*, 20- A.A.; Soc. Zool; West. Soc. Nat; Calif. Acad. Maturation of the egg of the mouse; sexual physiology of the rat.
- Long, Dr. W(illiam) H(enry)**, Korber Building, Albuquerque, N. Mex. *Forest pathology*. Navarro Co, Texas, March 7, 69. A.B. Baylor, 88; A.M. Texas, 00, Ph.D., 16; Cornell. Prof. nat. sciences, Baylor, 88-92; Burleson, 92-99; asst. bot, Texas, 00-01; prof, North. Texas State Nor. Col, 01-09; *forest pathologist, bur. plant indust, U. S. Dept. Agr*, 11-, *in charge path. lab, Albuquerque*. Ed, 'Exp. Sta. Record,' 10-11. A.A.; Phytopath. Soc; Ecol. Soc; Texas Acad; Wash. Bot. Soc. Agricultural botany; taxonomic mycology; plant pathology; deterioration in timber caused by fungi.
- Longcope, Dr. Warfield T(heobald)**, Johns Hopkins Hospital, Baltimore, Md. **Medicine*. Baltimore, March 29, 77. A.B. Hopkins, 97, M.D., 01. Res. pathologist, Pa. Hosp, Phila, 01-04, director, Ayer Clin. Lab, 04-11; instr. med, Pennsylvania, 05-08, asst. prof. applied med, 08-11; *assoc. prof. practice of med, Columbia*, 11-14, Bard prof; *prof. med, sch. med, Hopkins, physician-in-chief, Hopkins Hosp.* Assoc. attending physician, Presb. Hosp, 11-14, med. director, 14- A.A.; Am. Physicians; Soc. Clin. Invest. (pres, 19, 20); Harvey Soc. (pres, 19-20); Soc. Exp. Path; Soc. Exp. Biol; Tuber. Ass; Am. Med. Ass; N. Y. Acad. Med; N. Y. Path. Soc. The lymph glands; bone marrow; blood; autolysis; bacteriology of pneumococcus and paratyphoid infections; aortic insufficiency; cardiac hypertrophy; chronic protein intoxication; serum disease; protein hypersensitiveness in man.
- Longden, Prof. A(ladine) C(ummings)**, Knox College, Galesburg, Ill. **Physics*. Leesville, Ohio, Feb. 19, 57. A.B. De Pauw, 81, A.M., 84; Ph.D., Columbia, 00. Instr. physics and chem, Mass. State Nor. Sch, Westfield, 88-97; *physics*, Wisconsin, 00-01; *prof, Knox*, 01- A.A.; Physical Soc; Ill. Acad; Soc. Belge d'Astron. Electrical resistance of thin films; carbon resistances; the percentage bridge; selenium interference rings; methods of comparing standard cells; determination of *g*; motion of Foucault pendulum; a double percentage bridge.
- Longley, Dr. A(lbert) E(dward)**, 216 Green Ave, Aurora Hills, Alexandria, Va. *Botany*. Paradise, N. S. Can, March 12, 93. B.S. Acadia, 20; A.M. Harvard, 22, Ph.D., 23. Asst. biol, Acadia, 17-20; Austin teaching fellow bot, Harvard, 20-23, asst, Radcliffe, 23; *asst. botanist, bur. plant indust, U. S. Dept. Agr*, 23- Bot. Soc; Wash. Bot. Soc. Cytology of rubus, crataegus, zea and citrus.
- Longley, Prof. W(illiam) H(arding)**, Goucher College, Baltimore, Md. **Zoology*. Paradise, N. S. Can, Oct. 27, 81. B.A. Acadia, 01; A.M., Yale, 08, Ph.D., 10. Asst. biol, Yale, 07-10, instr, 10-11; biol, *Goucher*, 11-14, *assoc. prof. bot*, 11-14, *prof*, 14-19, *biol*, 19- In administrative charge, Tortugas Lab, Carnegie Inst, 24- A.A.; Soc. Nat; Soc. Zool. Mammalian cytology; biological significance of color and color-pattern of tropical reef-fishes; the food of fishes; mimicry in insects.
- Longley, Prof. W(illiam) R(aymond)**, Yale University, New Haven, Conn. *Mathematics*. Noblesville, Ind, Oct. 28, 80. A.B. Butler, 02; B.S. Chicago, 03, M.S. 05, Ph.D., 06; hon. A.M., Yale, 20. Acting prof. *math*, Butler, 03-04; instr, *Sheffield Sci. Sch, Yale*, 06-09, asst. prof, 09-20, *prof*, 20- Math. Soc. (ed, 'Bul,' 26-); Math. Ass. Periodic orbits; theory of implicit functions and applications; differential equations.
- Longwell, Prof. Chester R(ay)**, Yale University, New Haven, Conn. *Geology*. Spalding, Mo, Oct. 15, 87. A.B. Missouri, 15, A.M., 16; fellow, Yale, 19-20, Ph.D., 20. Instr. *geol, Yale*, 16-17, asst. prof, 20-26, *assoc. prof*, 26- Asst. and assoc. geologist, U. S. Geol. Surv, 20- Capt, F.A., 17-19. A.A.; Geol. Soc. Mountain structure; the Muddy and Virgin Mountains and the Las Vegas quadrangle of Nevada; thrust structure in the Basin Ranges; Glen Canyon section of the Colorado Plateau; Black Hills Rim, Wyoming; the Connecticut Valley.
- Longyear, Prof. B(urton) O(range)**, 628 Elizabeth St, Fort Collins, Colo. *Botany, Forestry*. Leslie, Mich, July 16, 68. Registered pharmacist, Mich; B.S. Mich. State Col, 03, M.F., 25. Instr. bot, Mich. State Col, 94-04, botanist, Exp. Sta, 03-04; asst. bot. and hort, *Colo. Agr. Col*, 04-08, *assoc. prof. bot. and forestry*, 08-10, prof, 10-14, *assoc. prof. forestry*, 15-; state forester, 10-14; *acting horticulturist, Exp. Sta*, 09- Mich. Acad. (v. pres, 03); hon. mem. Detroit Mycol. Club. Mycology; fungous diseases of plants; Rocky Mountain wild flowers; evergreens, trees and shrubs of Colorado.
- Lonsdale, Dr. John T(ipton)**, University of Texas, Austin, Texas. *Geology*. Dale, Iowa, Nov. 8, 95. A.B. Iowa, 17, M.S., 21; Ph.D., Virginia, 24. Asst. Iowa, 20-21; asst. prof. geol, Virginia, 21-24; asst. prof. Oklahoma, 24-25; *assoc. geologist, bur. econ. geol, Texas*, 25-27, *geologist*, 27- Field asst, Iowa Geol. Surv, 14; Colo. Geol. Surv, 15; asst. geologist, Va. Geol. Surv, 21-24; temporary field geologist, Okla. Geol. Surv, 24-25. A.A.; Miner. Soc; Min. Eng; Iowa Acad; Okla. Acad. Effect of heat on properties of minerals; igneous rocks and ore deposits of northeastern Virginia; geology of Texas and Beaver counties, Oklahoma; igneous rocks of Texas coastal plain; Texas minerals and meteorites.
- Looker, Prof. C(loyd) D(elson)**, 1428 W. Second Ave, Columbus, Ohio. *Chemistry*. Yatesville, Ohio, Aug. 19, 89. B.S. Ohio State, 18, M.S., 20, Ph.D., 23. Teacher, prin. and supt, schools, 08-15; instr. *chem, Ohio State*, 18-25, *asst. prof*, 25- Chem. Soc. The oxidation of organic

compounds with neutral and alkaline potassium permanganate; photo-synthesis in the presence of different wave lengths of light.

Loomis, Dr. A (Ibert) G (eyer), Bureau of Mines, Pittsburgh, Pa. *Chemistry*. Lexington, Mo, Feb. 17, 93. A.B, Missouri, 14, A.M, 15, fellow, 15-16; teaching fellow, California, 17-18, Ph.D, 19. Instr.-chem, Illinois, 19-20; asst. prof, Missouri, 20; *physical chemist, cryogenic lab, helium div, U. S. Bur. Mines*, 21- Nat. Research Council fellow, 21-22; lecturer, George Washington, 23-25. Cooperating expert, Int. Critical Tables. Chem. Soc; Wash. Acad. Sci. Liquid ammonia systems; properties of matter at low temperatures.

Loomis, Alfred L (ee), Tuxedo Park, N. Y. *Physics*. New York, N. Y, Nov. 4, 87. A.B, Yale, 09; LL.B, Harvard, 12. Major, U.S.A., 17-19, in charge exp. and develop. work, Aberdeen Proving Grounds. Franklin Inst. Physical and biological effects of high frequency sound waves; Aberdeen chronograph.

Loomis, Prof. E (Imer) H (oward), Princeton University, Princeton, N. J. **Physics*. Vermilion, N. Y, May 24, 61. A.B, Colgate, 83, Sc.D, 11; Ph.D, Strassburg, 93. Instr. physics and chem, Colgate Acad, 83-90; *physics, Princeton*, 94-97, asst. prof, 97-00, *prof*, 00- A.A; Physical Soc. Freezing-points of dilute aqueous solutions; densities and electrical conductivities of various electrolytes; freezing-points of some benzene derivatives.

Loomis, Prof. F (rancis) W (heeler), New York University, New York, N. Y. *Physics*. Parkersburg, W. Va, Aug. 4, 89. A.B, Harvard, 10, A.M, 13, Ph.D, 17. Instr, Harvard, 13-15; research lab, Westinghouse Lamp Co, 17, 19-20; asst. prof. *physics, N. Y. Univ*, 20-22, *assoc. prof*, 22- Capt, ordnance dept, 17-19. A.A; Physical Soc. Thermal properties of ammonia; heat of vaporization of mercury; isotope effect in hydrogen chloride spectrum; theory of iodine fluorescence.

Loomis, Prof. F (rederic) B (rewster), Amherst College, Amherst, Mass. **Geology*. Brooklyn, N. Y, Nov. 22, 73. A.B, Amherst, 96; Ph.D, Munich, 99. Instr. biol, *Amherst*, 99-03, *assoc. prof*, 03-08, *prof. comp. anat*, 08-17, *geol*, 17- A.A; Geol. Soc; Paleont. Soc. (pres, 20); Am. Acad; Conn. Acad. Cretaceous fishes; Jurassic stratigraphy; shell heaps of Maine; extinct animals of Patagonia; rhinoceroses of lower Miocene; origin of Wasatch deposits; Wasatch and Wind River rodents and primates; Eocene and Miocene vertebrates; common rocks and minerals; evolution of the horse.

Loomis, Leverett Mills, California Academy of Sciences, San Francisco, Calif. *Ornithology*. Roseville, Ohio, Oct. 13, 57. Curator dept. ornith, Calif. Acad. Sciences, 94-12, director museum, 02-12. Fel. Ornith. Union. Migration of birds; Tubinares.

Loomis, Dr. N (athaniel) Edward, Standard Oil Co, Box 276, Elizabeth, N. J. *Physical chemistry*. Grand Rapids, Wis, March 16, 88. B.S, Beloit, 08; M.S, Syracuse, 09; Hopkins, 09, fellow, 10-11, Ph.D, 11. Asst. chem, Syracuse,

08-09; instr, Bowdoin, 11-12, asst. prof, 12-14; instr. physical chem, Purdue, 14-15, asst. prof, 15-18; chief chemist, Wood River Refinery, Standard Oil Co. of Ind, 18; *director exp. div, develop. dept, Standard Oil Co. of N. J*, 18- Expert chem, U. S. Dept. Agr, 09-10. Chem. Soc; Chem. Gesell. Lead silicates; calomel and hydrogen electrodes; application of hydrogen electrode to the study of organic compounds.

Loomis, Dr. W (alter) E (arl), University of Arkansas, Fayetteville, Ark. *Horticulture*. Makanda, Ill, June 12, 98. B.S, Illinois, 21; M.S, Cornell, 22, Ph.D, 24. Asst. Illinois, 21; Cornell, 21-24; Nat. Research Council fellow, 24-25; *asst. prof. hort, Arkansas*, 25- C.Eng, U.S.A, 17-19. Soc. Hort. Sci. Plant chemistry and physiology; transplanting of vegetable plants; defecation of alcoholic plant extracts; chemical changes in seedling celery; dormancy and rest period in Irish potatoes; moisture and nitrogen relations in the development of the sweet potato.

Looney, Dr. Joseph M (ichael), Jefferson Medical College, Philadelphia, Pa. *Biochemistry*. Somerville, Mass, April 3, 96. A.B, Harvard, 16, M.D, 20. Instr. biochem, Harvard Med. Sch, 20-22; director research lab, Sheppard and Enoch Pratt Hosp, 22-26; *assoc. prof. physiol. chem, Jefferson Med. Col. and chem. pathologist, Jefferson Hosp*, 26- A.A; Soc. Biol. Chem; Chem. Soc; Soc. Exp. Biol; Am. Med. Ass; Psychiat. Ass; Phila. Physiol. Soc. Estimation of tyrosine tryptophane and cystine in proteins; preparation of flexible collodion membranes; estimation of cystine in urine; creatine content of the blood, and muscle tension; undetermined nitrogen of blood and depressions; calcium level of blood and changes caused by parathyroid extracts; the chemistry of mental disorders.

López Domínguez, F (rancisco) A (ntonio), W. R. Grace and Co, Lima, Peru. *Agricultural chemistry*. Manati, P. R, Jan. 17, 90. Nor. diploma, Porto Rico, 09; B.S, Louisiana, 13. Instr. science, Porto Rico, 13-15, *prof. chem*, 15-17; chief div. chem, Insular Exp. Sta, P. R, 17-21, 23-27, special research chemist, 22-23, acting director, 24-25, director, 25-27; *sugar cane technologist, W. R. Grace and Co*, 27- Factory supt, Vannina Sugar Co, 21-22; lecturer, Inst. Univ. José de Diego, hon. mem. board directors. Chem. Soc; Ass. Sugar Tech. P. R. (sec'y, 22-24, 25-, treas, 24, pres, 27). Soil chemistry; chemical composition of citrus trees; effect of fertilizers on plant growth and ash composition; sugar cane chemistry; soil analysis.

Lord, Dr. Edwin Chesley Estes, Cosmos Club, Washington, D. C. *Geology, Petrography*. Brooklyn, N. Y, May 7, 68. Ph.D, Heidelberg, 94; M.S, Harvard, 01. Asst. geologist, U. S. Geol. Surv, 95-97; *prof. geol. and miner*, Hamilton, 99-00; Austin teaching fellow miner. and petrog, Harvard, 00-01; *petrographer, U. S. Dept. Agr*, 01- Wash. Geol. Soc. Geology and petrography of Germany and the United States; chemical and mineralogical properties of blast furnace and converter slags; relation of mineral composition and rock structure to the physical properties of road materials; disperse colloids

in bituminous road materials; composition and preservation of concrete.

Lord, Prof. Frederic P(omeroy), 39 College St, Hanover, N. H. *Anatomy*. Hanover, Dec. 28, 76. A.B., Dartmouth, 98, M.D., 03. Demonstrator anat, Iowa, 04-09, instr., 09-11; *prof. anat. and histol.*, Dartmouth, 11- Praetising physician, 04-10. Med. director, Y. M. C. A., U.S.A., 18, 19. Ass. Anat. Joint of human jaw; muscles of mastication.

Lord, Dr. F(rederick) T(aylor), 305 Beacon St, Boston, Mass. *Medicine*. Bangor, Maine, Jan. 16, 75. A.B., Harvard, 97, M.D., 00. Asst. *clin. med.*, *Harvard Med. Sch.*, 05-09, *instr.*, 09- House officer, Mass. Gen. Hosp., 00-01, physician to out-patients, 03-12, visiting physician, 12- Am. Red Cross Commission, Serbia, 17. Am. Physicians; Soc. Clin. Invest; Am. Med. Ass. Flies and tuberculosis; tuberculin; diseases of the bronchi, lungs and pleura; respiratory infections; pneumonia.

Lord, Prof. Richard C(ollins), Kenyon College, Gambier, Ohio. *Chemistry*. Covington, Ky, Jan. 4, 82. A.B., A.M., Washington and Lee, Howard Houston fellow, 02-04, Ph.D., 04. Chief chemist, Louisville and Nashville Ry, 04-12; chemist, Foy Paint Co, 12-15; chemist and manager, Gracilf Chem. Co, 15-22; asst. *prof. chem.*, *Kenyon*, 22-27, *prof.*, 27-, *registrar*, 24- A.A.; Chem. Soc. (pres, Louisville sect, 11); Soc. Test. Mat. Magnesium chlorid; salines; cobalt double salts.

Lorenz, Dr. C(harles) F(rederick), Westinghouse Research Laboratory, Bloomfield, N. J. *Physics*. Burlington, Iowa, March 1, 75. B.S., Iowa, 97, fellow, 97-98, M.S., 98; Chicago, 99-00; Ph.D., Hopkins, 09. Instr. physics, Iowa, 00-06; lecturer, Queen's (Can), 08-10; assoc. physicist and *physicist*, Nela Research Lab, 10-20; *Westinghouse Research Lab*, 20- A.A.; Physical Soc. Flame conduction; radiation.

Lorenz, Prof. W(illiam) F(rederick), University of Wisconsin, Madison, Wis. *Neuropsychiatry*. New York, N. Y., Feb. 15, 82. A.B., N. Y. Univ, M.D., 03. Senior asst. physician, Manhattan State Hosp, N. Y., 07-10; clin. director, Wis. State Hosp, 10-13; special expert, U. S. Pub. Health Service, 13-15; *director*, *Wis. Psychiat. Inst.*, 15-; assoc. *prof.* nervous and mental diseases, *Wisconsin*, 15-19, *prof. neuropsychiatry*, 19- Pres, Wis. State Board Control, 24-25. Major, M.C. and commanding officer, Field Hosp. No. 127, 17-19. Am. Med. Ass; Psychiat. Soc; Cent. Psychiat. Ass; Milwaukee Neur. Soc. Mental diseases; therapy of neuro-syphilis.

Loring, John Alden, Owego, N. Y. *Ornithology*. Cleveland, Ohio, March 4, 71. Owego Free Acad. Biol. surv, U. S. Dept. Agr, 91-97; curator animals, N. Y. Zool. Park, 97-01; Denver Zool. Park, 08-09; field naturalist, Roosevelt-Smithsonian exped, Africa, 09-10. Ornith. Union; Cooper Ornith. Club; Soc. Mammal; Biol. Soc; Audubon Soc. Oology; mammalogy.

Lory, Pres. Cha(rlie)s A(lfred), Fort Collins, Colo. *Physics*. Sardis, Ohio, Sept. 25, 72. B.S., Colorado, 01, M.S., 02, LL.D., 09; Sc.D., Denver, 14; LL.D., Colo. Col, 24. Prin, high sch, Colo,

02-04; acting *prof.* physics, Colorado, 04; *prof.*, *Colo. Agr. Col.*, 05-07, physics and elec. eng, 07-09, *pres.*, 09- Pres, Colo. Conf. Social Workers, 23. Colo. Council of Defense, 17-18. A.A.; Eng. Educ; Ass. Agr. Exp. Sta. (v. pres, 09, 17, 18, pres, 19); Ass. Adv. Agr. Teaching; Ass. West. Agr. Colleges (pres, 15); Colo. Educ. Ass. (pres, 25). College organization.

Losh, Dr. Hazel Marie, Mt. Wilson Observatory, Pasadena, Calif. *Astronomy*. Blanchester, Ohio, Aug. 28, 98. A.B., Ohio Wesleyan, 20; fellow, Detroit Observatory, 21-24; A.M., Michigan, 22, Ph.D., 24. Asst. Perkins Observatory, 20-21; instr. astron, Smith, 24-25; *Mt. Wilson Observatory*, 25- A.A.; Astron. Soc; Pacific Astron. Soc; fel. Royal Astron. Soc. Astrophysics; solar astronomy.

Lothrop, Prof. Alfred P(eirce), Oberlin College, Oberlin, Ohio. *Chemistry*. Leominster, Mass, June 25, 84. A.B., Oberlin, 06, A.M., 07; Ph.D., Columbia, 09. Asst. biochem, Columbia, 08-09, instr., 09-12, assoc, 12-14; asst. *prof.*, Queen's (Can), 14-16, *prof.*, 16-25; assoc. *prof. chem.*, *Oberlin*, 25-26, *prof.*, 26- A.A.; Chem. Soc; Soc. Biol. Chem. Organic and bio chemistry; saliva in its relation to dental diseases; salivary mucin and mucinates; nutrition.

Lothrop, Prof. Howard A(ugustus), 101 Beacon St, Boston, Mass. *Surgery*. Sharon, Mass, 64. A.B., Harvard, 87, A.M., M.D., 90. *Prof. surg.*, *Harvard Med. Sch.*, and *surgeon-in-chief*, *Boston City Hosp*, 96- Surgeon, L. I. Hosp, 97-00; Mt. Sinai Hosp, Boston, 98; Boston Dispensary, 98-01; consulting surgeon, Arlington Hosp, 10- Warren prize, 99. Surg. Ass; Col. Surg; Am. Med. Ass. Anatomy.

Lothrop, Dr. S(amuel) K(irkland), Harvard, Mass. *Anthropology*. Milton, Mass, 92. A.B., Harvard, 15, Ph.D., 21. Andover-Pecos exped, 15; Carnegie Inst. exped, Tulum, 16, 22; Peabody Museum exped, Central Am, 17; Museum Am. Indian Heye Foundation exped, Ketchikan, 23; Central Am. exped, 24-26; Tierra del Fuego and La Plata expeditions, 25. Anthropol. Ass; Archeol. Inst; Maya Soc; Wash. Acad; Royal Anthropol. Soc. Middle American archeology and ethnology.

Lotka, Dr. Alfred J(ames), 254 Hancock St, Brooklyn, N. Y. *Physics*. Lemberg, Austria, March 2, 80. B.Sc., Birmingham (Eng), 01, D.Sc., 12; Leipzig, 01-02; A.M., Cornell, 09. Asst. chemist, Gen. Chem. Co, 02-08; asst. physics, Cornell, 08-09; asst. examiner, U. S. Patent Office, 09-11; asst. physicist, Bur. Standards, 09-11; ed, 'Sci. Am. Supplement,' 11-14; chemist, Gen. Chem. Co, 14-19; *supervisor math. research*, *Metropolitan Life Ins. Co*, 24- A.A.; Physical Soc; Chem. Soc; fel. Statist. Ass; Math. Soc; Pub. Health Ass; Econ. Ass; Ecol. Soc; Wash. Acad. Physical biology.

Loud, Dr. Frank H(erbert), P. O. Box 1006, Colorado Springs, Colo. *Astronomy*, *Mathematics*. Weymouth, Mass, Jan. 26, 52. A.B., Amherst, 73; Clark, 90-01; A.M., Harvard, 99; Ph.D., Haverford, 00. Instr. math, Amherst, 73-76; *prof. astron. and math.*, *Colo. Col.*, 77-07, *emer. prof.*, 07- Instr, Smith, 79. Astron. Soc; Math. Soc; West. Ass. for Stellar Photog.

- (sec'y). Fragments of the theory of curves; logarithmic computation.
- Louderback, Prof. Geo(rge) D(avis)**, University of California, Berkeley, Calif. **Geology*. San Francisco, Calif, April 6, 74. A.B, California, 96, Ph.D, 99. Asst. miner, California, 97-00; prof. geol. and physics, Nevada, 00-03, *geol*, 03-06; asst. prof, *California*, 06-07, assoc. prof, 07-17, *prof*, 17-, dean col. letters and science, 20-22. Research asst, Carnegie Inst, 03-05. In charge cooperative war mineral investigations in Calif. for U. S. Bur. Mines, U. S. Geol. Surv. and State Council Defense, 18-19. Committee sedimentation, Nat. Research Council, 20-. In charge Standard Oil geol. exped, China, 14-15, Philippine Islands, 16-17; Chinese Govt, 15-16. A.A; fel. Geol. Soc. (sec'y, Cordilleran sect, 06-14, chairman, 20); Soc. Econ. Geol; Ass. Petrol. Geol; Miner. Soc; Seismol. Soc. (sec'y, 06-10, pres, 14); Min. Eng; Am. Geog. Soc; Wash. Acad; Calif. Acad. West coast stratigraphy; mineralogy; physiographic and structural geology; sedimentation; basin range structure; physical history of Pacific Coast, China and the Philippine Islands.
- Lougee, Prof. F(lora) Marion**, Keuka College, Keuka Park, N. Y. *Chemistry*. North Parsonfield, Maine, May 6, 92. A.B, Bates, 14; A.M, Illinois, 21, Ph.D, 24. Teacher, high sch, 14-18; instr. *chem*, Illinois, 19-24; *prof*, *Keuka Col*, 24- C.W.S, U.S.A, 18-19. A.A; Chem. Soc. Selenium compounds as spray materials.
- Lough, Prof. James E(dwin)**, New York University, New York, N. Y. *Psychology*. Eaton, Ohio, June 24, 71. A.B, Miami, 91, A.M, 94, hon. Pd.D, 13; A.B, Harvard, 94, A.M, 95, Ph.D, 98. Teacher, pub. schools, Ohio, 91-93; instr. psychol, Radcliffe, 94-98; Harvard, 96-98; Wellesley, 97-98; *prof*, Wis. State Nor. Sch, Oshkosh, 98-01; *physiol. and exp. psychol*, *sch. of pedag*, N. Y. Univ, 01-, sec'y, 02-16, director summer sch, 04-22, *dean extra-mural div*, 03- A.A; Psychol. Ass; Philos. Ass. Physiological basis of intensity of sensations; mental development of school children; habit formation and control.
- Loughlin, Dr. G(erald) F(rancis)**, U. S. Geological Survey, Washington, D. C. **Geology*. Hyde Park, Mass, Dec. 11, 80. B.S, Mass. Inst. Tech, 03; Ph.D, Yale, 06. Asst. geol, Mass. Inst. Tech, 03-04; Yale, 05-06; instr, Mass. Inst. Tech, 06-12; assoc. geologist, U. S. Geol. Surv, 12-17, geologist, 17-26, *senior geologist in charge sect. metalliferous deposits*, 26- Instr, Tufts, 07-08; Boston, 08-09; field asst, U. S. Geol. Surv, 03; Conn. Nat. Hist. and Geog. Surv, 04-06. A.A; Geol. Soc; Min. Eng; Wash. Acad; Wash. Geol. Soc. Economic geology; metalliferous deposits; rock products.
- Lounsbury, W(illiam) C(otton)**, 1518 Tower Ave, Superior, Wis. *Chemistry, Engineering*. Brooklyn, N. Y, Feb. 13, 80. B.S, Mass. Inst. Tech, 04. Asst. to Prof. L. P. Kinnicutt, Worcester, 04-05; sci. asst, U. S. Dept. Agr, 05; chemist and supt, water works, Superior, Wis, 06-12; gen. supt, *Superior Water, Light and Power Co*, 12-18, *gen. manager*, 18- A.A; Water Works Ass; Pub. Health Ass; New Eng.
- Water Works Ass; Wis. Soc. Eng; Wis. Elec. Ass. (pres, 19-). Iron removal from ground waters; water supply.
- Love, Prof. Clyde E(iton)**, University of Michigan, Ann Arbor, Mich. *Mathematics*. Bancroft, Mich, Dec. 21, 82. A.B, Michigan, 05, A.M, 08, Ph.D, 13. Instr. *math, Michigan*, 05-13, asst. prof, 13-20, assoc. prof, 20-25, *prof*, 25- Math. Soc; Math. Ass. Integral, linear differential and linear difference equations.
- Love, Prof. Harry H(ouser)**, 112 The Parkway, Ithaca, N. Y. *Plant genetics*. Taylorville, Ill, March 19, 80. B.S, Ill. Wesleyan, 04, A.M, 06; Illinois, 06-07; Ph.D, Cornell, 09. Asst. chem, Illinois, 04-05, *plant breeding*, 05-07; *Cornell*, 08-09, asst. prof, 09-11, *prof*, 11- A.A; Soc. Nat; Soc. Agron. Plant and cereal breeding.
- Love, Prof. J(ames) L(ee)**, Gastonia, N. C. *Mathematics*. Gastonia, Dec. 30, 60. Ph.B, North Carolina, 84; Hopkins, 84-85; A.M, Harvard, 90. Asst. prof. math, North Carolina, 85-89; instr, Harvard, 90-01, asst. prof, 01-11. Sec'y faculty, North Carolina, 87-89; summers, sec'y, Lawrence Sci. Sch. and clerk, Harvard, 00-06, chairman, 06-09. A.A; Math. Soc. Geometry; calculus.
- Lovejoy, Prof. A(rthur) O(ncken)**, Johns Hopkins University, Baltimore, Md. *Philosophy*. Berlin, Germany, Oct. 10, 73. A.B, California, 95, LL.D, 24; A.M, Harvard, 97; Paris, 98-99. Asst. prof. *philos*, Stanford, 99-00, assoc. prof, 00-01; *prof*, Washington (St. Louis), 01-08; Missouri, 08-10; *Hopkins*, 10- Lecturer, Columbia, 07-08, California, 22. A.A; Philos. Ass. (pres, 15); West. Philos. Ass. (pres, 08); Ass. Prof. (pres, 19). Eighteenth century philosophy; history of the theory of evolution; meaning of the psycho-physical distinction; eighteenth century evolutionists.
- Loveland, Dr. George A(ndrew)**, U. S. Weather Bureau, Boston, Mass. *Meteorology*. Norwich, Vt, Oct. 9, 63. B.S, New Hampshire, 82, Sc.D, 24; LL.B, N. Y. Univ, 86; A.M, Nebraska, 08. Observer, U. S. Weather Bur, 82-88, *sect. director climate and crop service*, Nebr, 88-24, *New Eng*, 24- Instr, Nebraska, 00-07, asst. prof, 07-13, *prof*, 13-24. A.A; Nebr. Acad. Humidity in living rooms; cold waves; distribution of water vapor in air; influence of climate on the raising of winter wheat; climate of Nebraska.
- Lovell, Prof. Alfred H(enry)**, 3000 Geddes Road, Ann Arbor, Mich. *Electrical engineering*. Hamilton, Ont, Can, July 13, 84. B.S, Michigan, 09, M.S, 14. *Consulting engineer*, 09-; instr. *elec. eng, Michigan*, 10-13, asst. prof, 13-16, assoc. prof, 16-19, *prof*, 19- C.Eng, U.S.A, 17-18. Elec. Eng; Soc. Mil. Eng. Elements of electric traction; electrolysis; power plant design; single phase motor design.
- Lovering, Dr. T(homas) S(eward)**, U. S. Geological Survey, Washington, D. C. *Geology*. St. Paul, Minn, May 12, 96. E.M, Minnesota, 21, M.S, 22, Ph.D, 23. Instr. geol, Minnesota, 22-24; Arizona, 24-25; asst. geologist, U. S. Geol. Surv, 25- Yale exped, Newfoundland

and Labrador, 20. Min. and Metal. Eng; Chem. Soc. Metalliferous deposits; leaching of iron ores; polished surfaces of the carbonate gangue minerals; solution and precipitation of SiO_2 in cold water; organic precipitation of copper in cold solutions; theory of failure of materials.

Lovett, Pres. E(dgar) O(dell), Rice Institute, Houston, Texas. **Mathematics, Celestial mechanics*. Shreve, Ohio, April 14, 71. A.B., Bethany (W. Va.), 90, B.S., A.M., 92; A.M., Ph.D., Virginia, 95; Ph.D., Leipzig, 96; fellow by courtesy, Hopkins, 97; LL.D., Drake, 98, Tulane, 11, Baylor, 20. Instr. math, West Ky. Col., 90-92; astron., Virginia, 92-95; lecturer, Chicago, 97; instr. math, Princeton, 97-98, asst. prof., 98-00, prof., 00-05, astron., 05-08; *pres, Rice Inst*, 08- Trustee, Rice Inst; mem., C. R. B. Educ. Foundation. A.A. (v. pres, 08); Math. Soc. (assoc. ed., 'Bul.', 97-02); Astron. Soc.; Philos. Soc.; fel. Royal Astron. Soc.; London Math. Soc.; Soc. math. de France; Circolo Mat. di Palermo. The theories of Sophus Lie and celestial mechanics; applications of the theory of periodic orbits; integrals of the problem of n bodies.

Loving, Prof. R(obert) E(dward), University of Richmond, Richmond, Va. *Physics*. Wilmington, Va., April 20, 74. A.B., Richmond, 96, A.M., 98; fellow, Hopkins, 01-02, Ph.D., 05; Cornell, 19-20. Prof. *physics*, Cornell (Iowa), 06-07; instr., Missouri, 07-08; *prof, Richmond*, 08- Assoc. physicist, Bur. Standards, 17. A.A.; Physical Soc.; Optical Soc.; assoc. Chem. Soc.; Va. Acad. (pres, 26). Electrical discharge.

Low, Prof. Albert H., 911 E. 13th Ave, Denver, Colo. *Chemistry*. Chelsea, Mass., June 27, 55. B.S., Mass. Inst. Tech, 76; hon. Sc.D., Colo. Sch. Mines, 22. Asst. quant. lab, Mass. Inst. Tech; assayer and chemist, Calif. Smelter, Leadville, Colo; Am. Smelter; Boyd's Smelter, Boulder; chief assayer, U. S. Mint, Denver; assayer and chemist, Boston and Colo. Smelting Works; *mem. firm, Von Schuls and Low, Denver*; prof. chem, Colo. Sch. Mines; *private research*, 26- Assoc. ed., 'Jour. Indust. and Eng. Chem.', 08- Chem. Soc.; Soc. Chem. Indust; West. Ass. Tech. Chem. and Metal. Metallurgical chemistry; improvements in analytical methods; poisonous minerals in drinking water; azo colors in butter; technical ore analysis.

Low, A(lbert) P(eter), 154 McLaren St, Ottawa, Ont, Can. *Geology*. Montreal, Que., May 24, 61. B.A.S., McGill, 82; LL.D., Queen's (Can), 07. Geologist, *Can. Geol. Surv*, 82-06, director, 06-08, *deputy minister mines*, 08- Royal Geog. Soc. explor, Labrador, 96. A.A.; Geol. Soc.; Royal Geog. Soc. Geology of Labrador and northern Canada.

Low, Wilson H(enry), Pan-American Petroleum Co, Wilmington, Calif. *Chemistry*. Chelsea, Mass., Nov. 15, 64. B.S., Mass. Inst. Tech, 86. Chemist, Penobscot Chem. Fiber Co, 86-87; N. K. Fairbanks Co, 87-93; mfg. chemist, Ill, 93-95; assayer and chemist, Colo, 95-98; head chemist, Cudahy Packing Co, Nebr, 98-20; with Show and Low, 20-21; West. Chemicals, Inc, Nev. and Ariz, 23-25; *in charge caustic soda recovery plant, Pan-Am. Petrol. Co*, 25-

Experimental chemist. Chem. Soc. (pres, Nebr. sect, 09); Soc. Test. Mat; London Soc. Chem. Indust. Deposits of volcanic ash in western Nebraska and adjacent states; fats; soaps; glues; meat products; oil refining; glycerol.

Lowater, Dr. F(rances), Wellesley College, Wellesley, Mass. *Physics*. Stoke-sub-Hamdon, Eng. Univ. Col, Nottingham, 89-91, 92-93; Newnham Col, Cambridge, 91-92; fellow, Bryn Mawr, 96-97, Ph.D., 06; B.S., London, 00, Ph.D., 23. Asst. demonstrator *physics*, Bryn Mawr, 94-98, acting sec'y, 98-99, demonstrator, 99-10; acting assoc. prof, West. Col, 10-11; prof, Rockford, 11-15; instr, *Wellesley*, 15-18, asst. prof, 18-21, *assoc. prof*, 21- Summers, research asst, Yerkes Observatory, 11, 13, 15, 16, 18, 20. Physical Soc; fel. Royal Astron. Soc; fel. London Physical Soc. Spectroscopy; the absorption spectrum of sulphur dioxide; stellar wave length of λ 468 and other lines in the spectrum of 10 Lacertoe; spectrographic observations of Mira Ceti; R Leonis, T Cephei and R Serpentis.

Lowber, Dr. J(ames) W(illiam), 1706 Brazos St, Austin, Texas. *Geography, Anthropology*. Chaplin, Ky, Aug. 30, 47. A.B., Butler, 71, A.M., 74; Ph.D., Syracuse, 80; LL.D., South Kentucky, 89; Sc.D., Wooster, 97; Litt.D., National Univ, 97. Pres, Columbia (Ky), 80-82; chancellor, Texas Christian, 93-98; *pastor, Cent. Christian Church, Austin*, 98- Chapel lecturer, Texas, 97-09. A.A.; Math. Soc; fel. Am. Geog. Soc; Econ. Ass; Polit. Sci. Ass; Anthropol. Ass; Sociol. Soc; fel. Royal Geog. Soc; fel. Royal Astron. Soc; fel. Royal Meteor. Soc; fel. Royal Scottish Geog. Soc; Royal Asiatic Soc; fel. Royal Soc. Arts; fel. Soc. Antiq. Scot; Soc. astron. de France; life mem. French Acad. Int. Hist; Circolo Mat. di Palermo. Astronomy; the philosophy of human progress; thought and religion; the history of science, philosophy and civilization; comparative civilization; the highest culture and Christianity.

Lowe, Charles W(illiam), University of Manitoba, Winnipeg, Man, Can. *Botany*. Birmingham, Eng, Jan. 2, 85. B.Sc., Birmingham, 14, research scholar, 14, M.Sc., 15; Manitoba, 17. *Lecturer bot, Manitoba*, 16- Research medal, Manitoba Nat. Hist. Soc, 23. Bot. Soc; Ecol. Soc; Can. Forestry Ass; Manitoba Nat. Hist. Soc. (pres, 25); Winnipeg Sci. Club. Fresh-water algae of the Canadian Arctic and of central Canada.

Lowe, Prof. E(phraim) N(oble), University, Miss. *Geology*. Crystal Springs, Miss, May 5, 64. Ph.B., Mississippi, 84; M.D., Tulane, 92; Chicago, 04, 05, 06. Asst. biol. and geol, Mississippi, 04-06, acting prof. geol, 06-08, prof, 08-09; *director, Miss. Geol. Surv*, 09-; *prof. geol, Mississippi*, 24- Asst. state geologist, Miss, 08-09. A.A.; Ass. State Geol; Ass. Petrol. Geol; Am. Geog. Soc; Torrey Bot. Club. Plants of Mississippi in their relations to soils and geological structure; geology and mineral resources of Mississippi.

Lowe, Prof. John N(icholas), Marquette, Mich. *Zoology*. Princeton, Wis, Oct. 14, 85. A.B.,

- Ripon, 10, A.M. 12; Ph.D, Wisconsin, 15. Instr. biol., Ripon, 10-12; asst. zool., California, 12-13; instr., Wisconsin, 14-17; *assoc. prof. biol.*, Texas Col., 17-19; *North. State Teachers Col.*, 19-Summer, sci. asst., N. J. Commission, 14; Wis. Conservation Commission, 11-16; field agent, bur. entom., U. S. Dept. Agr., 18; biol. adviser, Mich. Conservation Commission, 25- Lieut., Sanit.C., 18. A.A.; Ornith. Union; Soc. Mammal; Ecol. Soc.; Wis. Acad. Birds of Green Lake County, Wisconsin; reactions of pigment cells to chemical stimuli; parasitic copepod of the brook trout; chromatophores of the brook trout; rate of growth of fresh-water fishes.
- Lowell, Dr. Frances E(rma)**, 3447 Euclid Ave, Cleveland, Ohio. *Psychology*. Minneapolis, Minn., Oct. 12, 86. A.B., Minnesota, 15, A.M., 17, Ph.D., 19. Teacher, schools, Minn., 04-09, 15-16; research asst., State Sch. for Feeble-minded, 17-18; instr. psychol., Minnesota, 18-20; pub. sch. psychologist, Rochester, N. Y., 20-21; head dept. psychol., Indianapolis Nor. Sch., 21-22; *assoc. prof.*, De Pauw, 22-25; *clin. psychologist*, *Board Educ.*, Cleveland, 25-Summer, psychopathologist, Fergus Falls Insane Hosp., 15. A.A.; Psychol. Ass. Child psychology; anatomical and mental age; the intelligence of school children; school placement on the basis of mental age.
- Lowenstein, A(rthur)**, 1017 First National Bank Building, Chicago, Ill. *Chemistry*. Philadelphia, Pa., Sept. 17, 82. A.B., Cincinnati, 03, hon. Sc.D., 25. Chemist, cement lab., B. and O. Ry., 03; chief chemist, Morris and Co., 04-14, tech. director, 14-16; consulting chem. engineer, 16-18; v. pres., Wilson and Co., 18-26; *business consultant*, 26- A.A.; Chem. Soc. (treas., Chicago sect., 08-10, chairman, 12, counselor, 11, 12, 16, 17); Chem. Eng.; N. Y. Chemists Club. Analytical methods; fats and oils; fertilizers; foods; anhydrous ammonia; packing house by-products; glue machinery.
- Lower, Dr. William E(dgar)**, Euclid Ave. and 93d St., Cleveland, Ohio. *Surgery*. Canton, Ohio, May 6, 67. M.D., Western Reserve, 91. *Assoc. prof. genito-urinary surg.*, *Western Reserve*. Assoc. surgeon, Lakeside Hosp.; visiting surgeon, Lutheran Hosp.; director surg., Mt. Sinai Hosp.; acting asst. surgeon, U.S.A., P. I., 00. Commanding major, M.R.C. and asst. surg. director, Lakeside Base Hosp. Unit, 17, commanding officer, 17-18, Lieut. col., 18. A.A.; Am. Med. Ass.; fel. Surg. Ass.; fel. Col. Surg.; Ass. Genito-Urinary Surg. (pres, 22); Clin. Soc. Genito-Urinary Surg. (pres, 22); Interurban Surg. Soc.; Urol. Ass. (pres, 14); Soc. Clin. Surg.; Ohio Med. Soc. (pres, 15); South. Surg. Ass.; Cleveland Acad. Med. (pres, 09); Soc. Int. de Chirurg. Urol. Anoci-association; surgical shock; the shockless operation through anoci-association; urology.
- Loweth, C(harles) F(rederick)**, Room 802, Union Station, Chicago, Ill. *Civil engineering*. Cleveland, Ohio, March 3, 57. Oberlin; hon. C.E., Wisconsin, 15; E.D., Rose, 26. Construction, Cleveland, Lorain and Wheeling Ry., 77; consulting engineer, ry. companies, 83-01; *chief engineer*, *S. St. Paul Belt Ry. and Davenport, Rock Island and N. W. Ry.*; *engineer bridges and buildings*, *Chicago, Milwaukee and St. Paul Ry.*, 10- Eng. div., Nat. Research Council; Eng. Council, 18-20. Washington Award Commission; John Fritz Medal Board Award. Civil Eng. (past director and v. pres, pres, 23); West. Soc. Eng. (past pres); Ry. Eng. (past treas., director); Soc. Test. Mat.; St. Paul Civil Eng. Soc. (past pres).
- Lowie, Dr. Robert H(arry)**, University of California, Berkeley, Calif. **Anthropology*. Vienna, Austria, June 12, 83. A.B., Col. City of N. Y., 01; Ph.D., Columbia, 08. Asst., dept. anthrop., Am. Museum Nat. Hist., 08-09, asst. curator, 09-13, *assoc. curator*, 13-21; *assoc. prof. anthrop.*, *California*, 17-18, 21-25, *prof.*, 25- Expeditions, plains Indians, Lake Athabaska and southwest. U. S. Ed., 'Am. Anthropologist.' A.A.; Anthropol. Ass.; Ethnol. Soc. (sec'y, 10-19); Folk-Lore Soc. (pres, 16); cor. mem. Soc. Américanistes de Paris. Plains Indian ethnography; kinship terminology; social organization, religion and mythology of primitive tribes.
- Lowrey, Dr. Lawson G(entry)**, 145 E. 57th St, New York, N. Y. *Psychiatry*. Centralia, Mo., Dec. 23, 90. A.B., Missouri, 09, A.M., 10; M.D., Harvard, 15, fellow, 15-16. Asst. anat., Missouri, 09-10; prof. anat. and histol., Utah, 10-11; asst. prof. anat., Missouri, 11-12; teaching fellow histol. and embryol., Harvard, 12-14, asst. neuropath., 16-18, instr. neuropath. and psychiat., 18-20; asst. director, Psychopathic Hosp. and asst. prof. psychiat., Iowa, 20-23; director child guidance clinic 2, Nat. Committee for Mental Hygiene, Cleveland, 23-27; *director*, *Inst. Child Guidance*, 27- Lecturer, Western Reserve, 24-26, Smith, 26; pathologist, Danvers State Hosp., 14-17; chief med. officer, psychopathic dept., Boston State Hosp., 17-20. A.A.; Psychiat. Ass.; Ass. Orthopsychiat.; fel. Am. Med. Ass.; Ass. Anat.; Ass. Path. and Bact.; Cent. Neuropsychiat.; Boston Soc. Psychiat. and Neur. Anatomy; neuropathology; social psychiatry; pathology of mental diseases.
- Lowry, Dr. E(rwin) F(oster)**, 581 Celeron St, Pittsburgh, Pa. *Physics*. Ridgeway, Mich., Jan. 22, 91. A.B., Ohio Wesleyan, 14, A.M., 16; Ph.D., Ohio State, 23. Instr. physics, Ohio Wesleyan, 14-16; Pittsburgh, 16-20; Ohio State, 20-23; *research engineer*, *Armstrong Cork Co.*, Pa., 23-25; *Westinghouse Elec. and Mfg. Co.*, 25- Physical Soc. Infra-red spectroscopy; thermionics.
- Lowry, Dr. Homer H(iram)**, Bell Telephone Laboratories, 463 West St, New York, N. Y. *Chemistry*. Peking, China, Oct. 6, 98. A.B., Ohio Wesleyan, 18; du Pont fellow, Princeton, 18-20, A.M., 19, Ph.D., 20. *Chem. research*, West. Elec. Co., 20-25, *Bell Telephone Laboratories*, 25- Chem. Soc. Gas adsorption by charcoal.
- Lowry, Prof. P(hilip) R(osemond)**, University of New Hampshire, Durham, N. H. *Entomology*. Senecaville, Ohio, Sept. 24, 96. B.S., Ohio State, 20, M.S., 21. *Asst. entomologist*, Ohio Exp. Sta., 20-21; *N. H. Exp. Sta.* and *asst. prof. econ. entom.*, *New Hampshire*, 21- A.A.; Entom. Soc.; Ass. Econ. Entom.; Ecol. Soc.; Ohio Acad. Life histories, habits and control of economic insects.

- Lowsley, Dr. Oswald Swinney**, 32 E. 65th St., New York, N. Y. *Surgery*. Santa Barbara, Calif., Sept. 4, 84. A.B., Stanford, 05; M.D., Hopkins, 12. *Director, Brady Foundation for Urol.* N. Y. *Hosp.*, 17— Asst. visiting urologist, Bellevue Hosp., 17—; consulting urologist, Ruptured and Crippled Hosp., 17—; instr., Univ. and Bellevue Hosp. Med. Col. Am. Med. Ass; Urol. Ass; fel. Col. Surg; N. Y. Acad. Med. Anatomy; urological surgery; arthritis; regional anesthesia as applied to urological surgery; surgery of the kidney and of the prostate gland.
- Lowy, Prof. Alexander**, University of Pittsburgh, Pittsburgh, Pa. *Chemistry*. March 31, 89. B.S., Columbia, 11, M.S., 12, Ph.D., 15. Asst. electrochem, Columbia, 12—15; teacher and indust. research, 15—18; asst. prof. *org. chem*, Pittsburgh, 18—21, *prof.*, 21— Chem. Soc; Electrochem. Soc. Organic electrochemistry; dyes and intermediates.
- Loy, Dr. S(ylvester) K(ine)**, Standard Oil Co., Casper, Wyo. *Chemistry*. Hamburg, Pa., Aug. 18, 79. A.B., Franklin and Marshall, 05; Ph.D., Hopkins, 10. Instr. chem, Simmons, 10—11; prof. research chem, Wyoming, 11—18; *chief petrol. chemist*, Standard Oil Co. of Ind., 18— Research chemist, Colgate and Co, 11; consulting chemist, U. S. Bur. Mines, 20— Chem. Soc. Petroleum and its products; poisonous plants of the Wyoming range.
- Lubben, Dr. R(enke) G(ustav)**, Francetas, Jackson County, Texas. *Mathematics*. Gresham, Nebr., March 7, 98. A.B., Texas, 21, Ph.D., 25. Tutor, Texas, 21—22, instr. math, 22—26, Nat. Research Council fellow, Göttingen, 26—27. Math. Soc; Math. Ass. The double elliptic case of the Lie-Reimann-Helmholtz-Hilbert problem of the foundations of geometry; separations of plane pointsets by curves; limiting sets in abstract spaces.
- Lubin, Dr. Grace**, 2401 Eutaw Place, Baltimore, Md. *Chemistry, Plant physiology*. New York, N. Y., May, 00. A.B., Bryn Mawr, 21, A.M., 22, Pres. M. Carey Thomas European fellow, Univ. Col. London, 22—23; Ph.D., Hopkins, 25. *Nat. Research Council fellow chem. and fellow by courtesy*, Hopkins, 25— Asst., Hopkins, 26—27. A.A.; Chem. Soc. Physical chemistry; evaporation rates from capillary surfaces; movement of water in plants.
- Lubs, Dr. Herbert A(ugust)**, 23½ Ziegler Tract, Penns Grove, N. J. *Chemistry*. Savannah, Ga., Dec. 20, 91. A.B., Newberry, 10; Ph.D., Hopkins, 14. Org. chemist, U. S. Dept. Agr., 14—19; *research chemist*, E. I. du Pont de Nemours and Co, 19— Chem. Soc. Tautomerism; bacterial metabolism; indicators; coal-tar dyes and intermediates.
- Lucas, Francis F(erdinand)**, 245 Rutledge Ave., East Orange, N. J. *Metallurgy*. Glens Falls, N. Y., Aug. 7, 84. *Bell Telephone Laboratories*, 02— Lecturer, Case, Henry Marion Howe medal, Soc. Steel Treat, 24; medal, Royal Photog. Soc, 26. Min. and Metal. Eng. (iron and steel committee); Soc. Steel Treat; Soc. Test. Mat; Franklin Inst. Technical microscop. copy and metallography; materials engineering; high power and ultra-violet metallography.
- Lucas, Dr. Frederic A(ugustus)**, American Museum of Natural History, New York, N. Y. **Zoology*. Plymouth, Mass., March 25, 52. Hon. Sc.D., Pittsburgh, 09. Osteology, U. S. Nat. Museum, 82—87, asst. curator, 87—93, curator div. comp. anat., 93—04, acting curator vert. fossils, 01—04; curator-in-chief museums, Brooklyn Inst., 04—11; director, *Am. Museum Nat. Hist.*, 11—23, *hon. director*, 23— Commission to investigate condition of fur seal herd, Pribilof Islands, 96, 97. Prize, museum, Brooklyn Inst., 08. Soc. Nat; fel. Ornith. Union; Ass. Mus. (v. pres, 07, pres, 09); Nat. Ass. Audubon Societies; hon. mem. Calif. Acad; life mem. N. Y. Zool. Soc; N. Y. Acad; Wash. Biol. Soc; Gt. Britain Mus. Ass; for. mem. London Zool. Soc. Osteology and divisions of birds; museum administration.
- Lucas, George L(atimore)**, Board of Transportation, 49 Lafayette St., New York, N. Y. *Civil engineering*. New York, Jan. 5, 77. C.E., Columbia, 98. Asst. engineer, Board Rapid Transit Ry. Commissioners, 00—04; res. engineer, Castlegould, 05; asst. engineer, Board Rapid Transit Ry. Commissioners and Pub. Service Commission, 06—22, div. engineer, 23—24; *chief exec. officer*, Transit Commission, New York, 25— Div. engineer, Board Transportation; in charge, N. Y. branch, building materials sect, W. I. B., 18. Civil Eng. (director, 27—); Soc. Test. Mat; N. Y. Soc. Munic. Eng.
- Lucas, Prof. Howard J**, California Institute, Pasadena, Calif. *Chemistry*. Marietta, Ohio, 85. A.B., Ohio State, 07, A.M., 08; fellow, Chicago, 09—10. Asst. chem, Ohio State, 07—09; U. S. Dept. Agr., 10—12; Govt. of P. R., 12—13; instr. chem, Calif. Inst., 13—15, *assoc. prof.*, 15— A.A.; Chem. Soc; Genetic Ass. Organic chemistry; halogenated phenols; electron displacement; substitution in benzene ring; addition to olefine bonds; butylenes; catalytic oxidation.
- Lucas, Prof. J(ames) B(urleigh)**, Virginia Polytechnic Institute, Blacksburg, Va. *Chemistry*. Riner, Va., March 30, 88. B.S., Va. Polytech, 10, M.S., 13; Illinois, 14—15. Asst. chem, Va. Polytech, 11—14; Illinois, 14—15; prof. inorg. chem. and physics, Davis and Elkins, 15—16; instr. chem, Va. Polytech, 16—19, *assoc. prof.*, 19— A.A.; Chem. Soc. Rare earths.
- Lucasse, Dr. Walter W(illiam)**, University of Pennsylvania, Philadelphia, Pa. *Physical chemistry*. Kalamazoo, Mich., March 9, 95. A.B., Kalamazoo Col., 17; A.M., Clark, 20, Ph.D., 21. Junior gas chemist, U. S. Bur. Mines, 18; instr. chem, Worcester, 21—22; *Pennsylvania*, 22—27, *asst. prof.*, 27— A.A.; Chem. Soc. Conductance; electromotive force; transference.
- Luck, Prof. J(ohn) J(enning)**, University of Virginia, University, Va. *Mathematics*. Roanoke, Va., Dec. 24, 83. A.B., Virginia, 02, A.M., 03, Ph.D., 08. Asst. math, Virginia, 05—06, instr. 06—09; Vanderbilt, 09—13, asst. prof., 16; adjunct prof, Virginia, 16—19, *assoc. prof.*, 19—23, *prof.*, 23— A.A.; Math. Soc; Math. Ass; Va. Acad. The normal structure forms of non-

integrable groups of seven parameters; space curves on cylinders and cones.

Lucke, Dr. Baldwin, University of Pennsylvania, Philadelphia, Pa. *Pathology*. Hesse, Germany, Nov. 3, 89. M.D., Medico-Chirurg. Col. Phila, 12; D.P.H., Pennsylvania, 16. Res. physician, Phila. Gen. Hosp, 12-14; asst. instr. *path.*, *Pennsylvania*, 14-19, instr, 19-20, asst. prof, 20-27, *assoc. prof.*, 27- Asst. pathologist, Univ. and Phila. Gen. Hosp, 14-27, visiting pathologist, 27- Major, M.R.C. A.A; Soc. Exp. Path; Ass. Path. and Bact; Am. Med. Ass; Soc. Exp. Biol; Phila. Path. Soc; Phila. Physiol. Soc; Phila. Col. Physicians; Int. Ass. Med. Mus. Pathological anatomy; pathology and bacteriology of influenza; tissue changes produced by mercury, the arsenicals, iodides and bismuth; aneurysms; vital staining; physiological and pathological swelling of cells; elastic properties of blood vessels; pathology of the diaphragm; kinetics of osmosis in living cells.

Lucke, Prof. Charles E(dward), 845 West End Ave, New York, N. Y. *Mechanical engineering*. New York, June 20, 76. B.S., Col. City of N. Y, 95; M.S., N. Y. Univ, 98; Ph.D., Columbia, 02; Cornell, 01. *Prof. mech. eng.*, *Columbia*. Mech. Eng; Soc. Refrig. Eng; Eng. Educ; Automotive Eng; Inst. Consulting Eng; Marine Eng. and Naval Archit; Franklin Inst. Fuels; thermodynamics; refrigeration; power generations; heat transmission.

Luckey, Dr. Bertha M(usson), Board of Education Building, Cleveland, Ohio. *Psychology*. Ontario, Calif, Jan. 2, 90. A.B., Nebraska, 10, fellow, 11-12, A.M., 12, Ph.D., 16; Göttingen, 12-14. Asst. org. chem, Nebraska, 09-10; teacher and psychologist, pub. schools, Nebr, 16-17; *chief examiner in charge psychol. clinic*, *Board Educ.*, *Cleveland*, 17- A.A; Psychol. Ass; Eugenics Soc; Ohio State Teachers Ass. Atypical children; the day nursery and the child; racial differences in mental ability.

Luckey, George P(aul), Hamilton Watch Co, Lancaster, Pa. *Aeronautics*. Ontario, Calif, April 4, 91. A.B., Nebraska, 10, A.M., 12; Göttingen, 12-14. Staff, Mt. Wilson Observatory, 15-16; Charles F. Brush fellow, Nela Research Lab, 16-17; research engineer, research lab, Westinghouse Elec. and Mfg. Co, 17, 19; *physicist*, eng. div, A.S., McCook Field, 20-27, chief instrument and navigation branch and asst. chief equipment sect; *Hamilton Watch Co.*, 27- Experiments, Naval Exp. Sta, New London, and second lieut, A.S, 18. A.A; Physical Soc. Aeronautical instruments and equipment; sun spot phenomena; electric arcs; temperature measurement and electrical characteristics; quantitative spectroscopic determination of small amounts of lead in copper.

Luckey, Dr. G(eorge) W(ashington) A(ndrew), 1401 Fairmount St, N. W, Washington, D. C. *Psychology*, *Education*. Decatur, Ind, Feb. 11, 55. A.B., Stanford, 94; A.M., Clark, 95; Ph.D., Columbia, 00; Göttingen, 12-13. Supt. schools, Ind. and Calif, 78-92; prof. educ, Nebraska, 95-06, head prof, 06-18, dean grad. sch. educ, 14-18; specialist for. educ. systems, U. S. Bur. Educ, 20-25. Ed, child study dept, 'North-

west. Monthly,' 96-99. Delegate, Int. Peace Conf, Geneva, 12. A.A; Psychol. Ass; Nat. Educ. Ass. (sec'y, child study dept, 98, pres, 03, v. pres, 09); Nat. Council Educ; Soc. Sci. Educ; Physical Educ. Ass; Sch. Hygiene Ass; West. Philos. Ass; Nebr. Acad. (treas, 18-20); Calif. State Teachers' Ass. (v. pres, 91); Nebr. State Teachers Ass. (pres, 15); Nebr. Child Study Ass. (chairman, exec. committee, 96-06). Psychology and education; indirect color vision; professional training of secondary teachers in the United States; child study; history of education; educational systems and school conditions in Latin America; a world bureau of education.

Luckhardt, Prof. Arno B(enedict), University of Chicago, Chicago, Ill. **Physiology*. Chicago, Aug. 26, 85. B.S., Chicago, 06, fellow, 07-08, M.S., 08, Ph.D., 11, M.D., Rush Med. Col, 12. Asst. bacter, *Chicago*, 08-09, *physiol.*, 09-11, *assoc.*, 11-12, instr, 12-14, *asst. prof.*, 14- Acting chairman *physiol.*, *Chicago*, 17-19. A.A; Physiol. Soc. (councilor, 23-25, 26-); Soc. Exp. Biol; Am. Med. Ass. (chairman, sect. *physiol.* and *path.*, 22); Hist. Sci. Soc; Chicago Internal Med. Soc; Chicago Inst. Med; Chicago Soc. Med. Hist; hon. mem. Chicago Soc. Anesthetists; Kaiserliche Akad. der Naturforscher. Physiology of the stomach; gastrin and gastrin bodies; parathyroid physiology; pancreatic secretion; ethylene anesthesia.

Luckiesh, M(atthew), National Lamp Works, General Electric Co, Cleveland, Ohio. **Physics*. Maquoketa, Iowa, Sept. 14, 83. B.S., Purdue, 09; E.E., Iowa Col, 11, Sc.D., 26; M.S., Iowa, 12. Instr. physics, Iowa, 09-10; research physicist, Nela Research Lab, *Gen. Elec. Co.*, 10-19, *director* applied science, 20-24, *lighting research lab.*, 24- Chairman committee on camouflage, Nat. Research Council. Longstreth medal, Franklin Inst. Physical Soc; Optical Soc; Elec. Eng; Illum. Eng. Soc. (pres, 25); Nat. Elec. Light Ass. Heterochromatic photometry; visual acuity in lights of different spectral character; artificial daylight; phosphorescence; glare; visibility; fundamentals of light, color, lighting and vision; psychophysiology optics; ultraviolet radiation; therapy.

Luden, Dr. Georgine (M), Mayo Clinic, Rochester, Minn. *Pathology*. Amsterdam, Holland, 75. M.D., Munich, 12; Ph.D., Minnesota, 20. Cancer research, Mayo Clinic, 14-19, volunteer fellow, Mayo Foundation, 19, first asst. path. research, *Mayo Clinic*, 20-21, *cancer research*, 21-23, *assoc.*, 23- A.A; Am. Med. Ass; Ass. Cancer Research; Ass. Study Int. Secretions; Int. Ass. Med. Mus; Int. Ass. Med. Women. Cholesterol; biochemical aspects of malignant growth.

Ludlow, J(acob) L(ott), 434 Summit St, Winston-Salem, N. C. *Engineering*, *Sanitation*. Spring Lake, N. J, Dec. 20, 62. C.E., Lafayette, 85, M.S., 88. *Practising munic. sanit. and hydraul. engineer*, 88- Eng. board rev, Sanit. Dist. of Chicago, 24-25. Civil Eng; Inst. Consulting Eng; Pub. Health Ass; Water Works Ass. Municipal engineering; sewerage of cities and towns; public water supplies; means of promoting and preserving public health; sanitation in cities, towns, schools and homes.

- Ludwig, Dr. C(linton) A(lbert)**, Clemson College, S. C. *Botany*. Windfall, Ind. Oct. 20, 86. B.S.A. Purdue, 12, M.S.A., 14; Cole fellow, Michigan, 16-17, Ph.D., 17. Asst. bot. Illinois, 12-13; Ind. Exp. Sta., 13-15; Michigan, 15-16; instr. Lawrence, 17-18; asst. pathologist, bur. plant indust., U. S. Dept. Agr., 19; *assoc. botanist and plant pathologist, S. C. Exp. Sta.*, 20- U.S.A., 18. A.A.; Bot. Soc.; Phytopath. Soc.; Crop Protection Inst.; Ind. Acad.; S. C. Acad. Plant rusts; effect of illuminating gas on bacteria and fungi; cotton anthracnose; physiology of the cotton plant.
- Ludy, Prof. L(ewellyn) V.**, Purdue University, Lafayette, Ind. *Mechanical engineering*. Millgrove, Ind., Jan. 26, 75. B.S., Purdue, 98, M.E., 00. Instr. eng. Purdue, 99-02, applied mech., 02-04, asst. prof. mech. eng., 04-06, assoc. prof., 06-11; *prof. steam and gas eng.*, Wisconsin, 11-12; *exp. eng. Purdue*, 12- Inspector, Carnegie Steel Co, Pa; expert, bur. forestry, U. S. Dept. Agr. A.A.; Mech. Eng.; Eng. Educ.; Ind. Eng. Soc.; Ind. Acad. Physical characteristics of cast iron; wind pressure on geometrical solids; strength of glued joints; automobiles; gas and steam engines; steam turbines and power plants.
- Luedde, Prof. W(illiam) H(enry)**, 314 Metropolitan Building, St. Louis, Mo. *Ophthalmology*. Warsaw, Ill., Aug. 13, 76. M.D., Washington (St. Louis), 00; Sorbonne; Kiel. Clin. asst., 08-12; *prof. ophthal. and director dept. St. Louis*. Chief ophthalmologist, St. Mary's Group of Hospitals; consulting ophthalmologist, St. Louis City Hosp. and St. John's Hosp. Director for prevention of blindness, Mo. Commission for the Blind; assoc. mem. Nat. Committee for Prevention of Blindness, N. Y. Oculist, Mo. Baptist Sanit., U. S. Marine Hosp. and U. S. Veterans' Hosp. No. 92. A.A.; Acad. Ophthal. and Oto-Laryngol.; Am. Med. Ass.; Ophthal. Soc.; Ass. Mil. Surg.; St. Louis Acad.; Soc. française d'Ophthal. Bacteriology of conjunctiva; mechanism of accommodation; clinical use of electro magnets; microscopic study of conjunctival circulation; treatment and pathology of vernal conjunctivitis; etiology and treatment of ocular tuberculosis; development of vision in strabismus convergent; operative treatment of glaucoma.
- Luginbill, Dr. Philip**, European Corn Borer Research Station, Monroe, Mich. *Entomology*. Columbus Grove, Ohio, Oct. 16, 84. B.S.A., Ohio State, 10; A.M., South Carolina, 17; Ph.D., George Washington, 24. *Div. cereal and forage insects, bur. entom. U. S. Dept. Agr.*, 10-, *in charge field sta.*, Columbia, S. C., 12-26, *Monroe, Mich.*, 26- A.A.; Entom. Soc.; Ass. Econ. Entom.; Ohio Acad. Life histories of cereal and forage insects; Phyllophaga.
- Lukens, Dr. Herman T(yson)**, 330 Webster Ave., Chicago, Ill. *Pedagogy*. Philadelphia, Pa., Jan. 29, 65. A.B., Pennsylvania, 85, A.M., 88; Berlin, Halle, Leipzig, Paris and Jena, 88-91; Ph.D., Jena, 91. Teacher, high sch., Ill., 91-94; fellow and docent, Clark, 94-96; docent pedag., 96-98; head training teacher, Pa. State Nor. Sch., California, 98-07; teacher, Francis W. Parker Sch., Chicago, 07- Summer, lecturer,
- Clark, 95, Bryn Mawr, 96-97. A.A.; Soc. Sci. Educ. Children's drawings; early language development; course of study; sense impression.
- Lukens, Prof. Hiram S(tanhope)**, University of Pennsylvania, Philadelphia, Pa. *Chemistry*. Philadelphia, Sept. 30, 85. B.S., Pennsylvania, 07, Ph.D., 13. Instr. chem., Pennsylvania, 07-13, asst. prof., 13-21, *prof.*, 21- Chem. Soc. (councilor, 26, chairman, Phila. sect., 24); Electrochem. Soc.; hon. mem. Electro-Platers Ass. Inorganic and electro chemistry.
- Lull, Prof. Richard S(wann)**, Yale University, New Haven, Conn. **Paleontology, Zoology*. Annapolis, Md., Nov. 6, 67. B.S., Rutgers, 93, M.S., 96, hon. Sc.D., 18; Ph.D., Columbia, 03; hon. A.M., Yale, 11. Asst. prof. zool., Mass. Col., 94-02, assoc. prof., 02-06; asst. prof. vert. paleont., Yale, 06-11, *prof.*, 11-23, *paleont.*, 23- Div. entom., U. S. Dept. Agr., 93; summers, prof., Auburn Theol. Sem., 15-18; lecturer, Lancaster Theol. Sem., 23-24; California, 25; assoc. curator, Peabody Museum, 06-20, curator, 20-26, director, 22- Field parties, Am. Museum Nat. Hist., 99, 02. Soc. Nat.; Paleont. Soc. (treas., 11-22, pres., 25); Ass. Mus. (councilor, 23-); Geol. Soc.; Am. Acad.; Conn. Acad. Vertebrate paleontology; organic evolution; Dinosauria; evolution.
- Lund, Dr. E(lmer) J(ulius)**, University of Texas, Austin, Texas. **Physiology*. Springfield, Minn., Dec. 13, 84. Ph.B., Hamline, 10; Bruce fellow, Hopkins, 11-14, Ph.D., 14. Instr. zool., Pennsylvania, 14-15; asst. and assoc. prof., Minnesota, 15-26; *prof. physiol. Texas*, 26-; *prof. gen. physiol. Puget Sound Biol. Sta.*, 20- Ed., 'Biol. Abstracts.' A.A.; Soc. Zool.; Soc. Exp. Biol. Production of light by living organisms; general physiology of the Protozoa; organic polarity and the nature of cell correlation; origin and function of bioelectric currents.
- Lundell, Dr. Gustav E. F.**, U. S. Bureau of Standards, Washington, D. C. *Chemistry*. Brooklyn, N. Y., Jan. 11, 81. A.B., Cornell, 03, Ph.D., 09. Instr. chem., Northwestern, 03-06; instr. and asst. prof., Cornell, 06-17; *chemist, Bur. Standards*, 17- Chem. Soc.; Ceramic Soc.; Soc. Test. Mat. Analytical chemistry; volumetric standards; analysis of rocks, ores and metallurgical products.
- Lundgren, Dr. Leonard**, City Hall, San Francisco, Calif. *Engineering, Education*. Chicago, Ill., Dec. 3, 83. B.S., Northwestern, 04, C.E., 07; M.S., Iowa, 08; Cambridge, 19; Ph.D., Columbia, 23. Asst. physics, Northwestern, 01-04; ry. construction, 04-06; instr., Iowa, 06-08; project engineer, Philippine Govt., 08-12; acting prof., Stanford, 12-13; dist. engineer, U. S. Forest Service, 13-17; *director adult and vocational educ. pub. schools, San Francisco*, 23- Capt., C.Eng., 17-23. Soc. Civil Eng.; Calif. Teachers Ass. Irrigation; water power; adult and vocational education; part-time education.
- Lundin, C. A. Robert**, Alvan Clark and Sons Co., Cambridge, Mass. *Astronomy*. Cambridge, July 6, 80. *Manager, Alvan Clark and Sons Co.* A.A.; Astron. Soc.; fel. Royal Astron. Soc.
- Lundteigen, A(ndreas)**, Union City, Mich. *Chemistry*. Norway, 62. B.S., Christiania, 85; Mil.

- Acad, Christiania, 86. Asst. chemist, D. Fisher, Milwaukee, Wis, 87-89; chief chemist, West. Portland Cement Co, 89-99; chief chemist and supt, *Peerless Portland Cement Co*, 99-10, supt, 10-; *managing engineer*, *Ash Grove Lime and Portland Cement Co*, 10- Chem. Soc; Chem. Eng; Soc. Test. Mat.
- Lungren, E(rnest) A.**, Colorado Agricultural College, Fort Collins, Colo. *Botany*. Denver, Colo, May 23, 99. B.S, 21, M.S, 23. Field asst, U. S. Dept. Agr, 21-23, asst. plant pathologist, bur. plant indust, 23-26; *asst. instr. Colo. Col. A.A.*; *Phytopath. Soc.* Stem rust; smut.
- Lunn, Dr. A(rthur) C(onstant)**, University of Chicago, Chicago, Ill. **Mathematical physics*. Racine, Wis, Feb. 19, 77. A.B, Lawrence, 98; fellow, Chicago, 99-01, A.M, 00, Ph.D, 04. Instr. math. and astron, Wesleyan, 01-02; as-*soc. applied math, Chicago*, 02-03, instr, 03-10, asst. prof, 10-17, assoc. prof, 17-23, *prof, 23-A.A.*; *Physical Soc.* (assoc. ed, 'Rev,' 18-20); *Math. Soc.*; *Math. Ass.*; *Astron. Soc.*; *Circolo Mat. di Palermo*. Differential equations of dynamics; thermodynamics; electromagnetic theory; theory of relativity; geophysical theory; theory of optical instruments; relativity and the quantum problems.
- Lupton, Charles T(homas)**, 617 Gilpin St, Denver, Colo. *Geology*. Mt. Pleasant, Ohio, Feb. 28, 78. A.B, Oberlin; LL.B, LL.M, National Univ. Geologist, U. S. Geol. Surv, 07-16; *Cosden Oil and Gas Co*, 16-19; chief geologist, *Frantz Corp*, 19-20; *consulting geologist*, 20-A.A.; *Geol. Soc.*; *Ass. Petrol. Geol.*; *Min. and Metal. Eng.*; *Rocky Mt. Ass. Petrol. Geol.*; *Wash. Geol. Soc.* Coal, oil and gas deposits; gypsum deposits; general geology of the western states.
- Luver, Dr. Lea McIlvaine**, Mt. Kisco, N. Y. *Mineralogy*. Brooklyn, N. Y, Sept. 4, 64. C.E, Columbia, 87, Ph.D, 94. Tutor and assoc. prof. miner, Columbia, 87-25; *retired*, 25. Sec'y, auxiliary committee, *Teachers Col*, Columbia, 94-95; research assoc, *Am. Mus. Nat. Hist*, 26. A.A. The relative effects of frost and the sulphate of soda tests on building stones; simplified scheme for the optical recognition of minerals in thin rock sections; area and nature of the 'augen-gneiss,' etc, at Bedford, N. Y; fusion of minerals with oxy-gas blowpipe.
- Lurie, Dr. E(li)**, 19 Short St, Brookline, Mass. *Physical chemistry*. Russia, Feb. 6, 01. B.S, Mass. Inst. Tech, 22, du Pont fellow, 24-25, Ph.D. 25. Equilibrium pressures of ammonia in mixtures of ammonia and nitrogen; equilibrium in chemical systems.
- Lush, Dr. Jay L(aurence)**, Agricultural Experiment Station, College Station, Texas. *Genetics*, *Animal husbandry*. Shambaugh, Iowa, Jan. 3, 96. B.S, Kansas Col, 16, fellow, 17-18, M.S, 18; Ph.D, Wisconsin, 22. Asst. genetics, Wisconsin, 19-21; *animal husbandman*, *Texas Exp. Sta*, 21- *Genetic Ass.* (advisory committee); *Soc. Animal Production*. Sex-control; Mendelism among domestic animals; wool and mohair production; the body shape of beef cattle and their utility as meat producers.
- Lusk, Prof. Graham**, 1030 Fifth Ave, New York, N. Y. **Physiology*. Bridgeport, Conn, Feb. 15, 66. Ph.B, Columbia, 87; Ph.D, Munich, 91; hon. A.M, Yale, 97, Sc.D, 08; LL.D, Glasgow, 23. Instr. asst. prof. and *prof. physiol.*, med. sch, Yale, 91-98; Univ. and Bellevue Hosp. Med. Col, 98-09; *med. col. Cornell*, 09- *Sci. director*, Russell Sage Inst. Path; *Inter-Allied Food Commission*, 18. Nat. Acad; A.A; Soc. Nat; *Physiol. Soc.*; *Philos. Soc.*; *Soc. Biol. Chem.* (pres, 14); *Soc. Exp. Biol.* (pres, 14); *Harvey Soc.* (pres, 05-07); hon. fel. *Physiol. Soc. Gt. Britain*; fel. *Royal Soc. Edinburgh*; hon. fel. *Physiol. Gesell. Berlin*; *Halle Acad. der Naturforscher*; assoc. mem. *Soc. Royale des Sci. Med. et Nat. Bruxelles*; cor. mem. *Vienna Imp. Med. Soc.* Animal and clinical calorimetry; carbohydrates in the body; diabetes; phlorhizin diabetes; hippuric acid; metabolism in diabetes; dietetic value of skim-milk; the science of nutrition.
- Lusk, Ralph G(ordon)**, Harvard University, Cambridge, Mass. *Geology*. Manchester, Iowa, July 14, 96. Sc.B, Denison, 22; Chicago, 22-23. Field asst, U. S. Geol. Surv, 22-23, junior geologist, 24; instr, Denison, 23-24; asst. *geol. Harvard*, 24-25, Austin teaching fellow, 25-26, *instr*, 26- *Field geologist*, *Tenn. Geol. Surv*, 25-26. U.S.N, 18. A.A; *Paleont. Soc.*; *Ohio Acad. Dynamic and structural geology*; oil and gas resources of Colorado and Tennessee. [*Died July, 27.*]
- Lute, Anna M(aude)**, Colorado Agricultural College, Fort Collins, Colo. *Botany*. Colorado. A.B, B.S, Nebraska, 06, fellow, 07-10. *Seed analyst*, *Colo. Agr. Col.* A.A; *Bot. Soc.*; *Ass. Official Seed Analysts* (pres, 25). Seeds; grasses.
- Luther, Dr. Flavel S(weeten)**, 129 N. Hill Ave, Pasadena, Calif. *Mathematics*, *Mechanics*. Brooklyn, Conn, March 26, 50. A.B, Trinity (Conn), 70, A.M, 73, Ph.D, 96, LL.D, 04. Teacher, schools; prof. math, Racine, 76-81; Kenyon, 82-83; Trinity (Conn), 83-04, pres, 04-19. Consulting engineer, *Pope Mfg. Co*, 96-99. Mech. Eng. Strength of materials; coefficient of expansion of various steels at high temperatures.
- Lutjeharms, Dr. Dolly C(ora)**, University of Utah, Salt Lake City, Utah. *Botany*. Alma, Nebr, Feb. 23, 96. A.B, Nebraska, 19; A.M, California, 20, Ph.D, 23. Asst. bot, Nebraska, 18-19; California, 19-21, teaching fellow, 21-23; instr. bot, Utah, 23-26, asst. *prof*, 26- *Summers*, field asst, *Carnegie Inst*, 18-22. Bot. Soc; *Ecol. Soc.*; *Calif. Bot. Soc.* Plant ecology; morphology; ecological variations in vegetation; climatic and plant relationships.
- Lutman, Prof. B(enjamin) F(ranklin)**, 111 N. Prospect St, Burlington, Vt. *Plant pathology*. Joplin, Mo, Sept. 26, 79. A.B, Missouri, 06; A.M, Wisconsin, 07, Ph.D, 09. Asst. *plant path*, *Vt. Exp. Sta*, 09-, acting prof. bot, Vermont, 10, *prof. plant path*, 10- A.A; Bot. Soc; *Phytopath. Soc.* Cytology of smuts and *Closterium*; Bordeaux mixture; senility in plants; potato diseases.
- Lutz, Prof. Brenton R(eid)**, 49 Laurel St, Melrose, Mass. *Physiology*. Woodlawn, N. S. Can,

- June 2, 90. B.S. Boston, 13, A.M., 14, fellow, 14-15, Ph.D., 17; Harvard, 14-16. Teaching fellow physiol., Harvard, 15-17; instr. biol., Boston, 14-22, exp. physiol., 19-21, *asst. prof. physiol.*, 21-, *biol.*, 22- Physiologist, Sanit.C, U.S.A., 18-19, capt, Sanit.R.C., 25- A.A.; Physiol. Soc; Boston Soc. Nat. Hist. Blood pressure; reflex thresholds; effects of low oxygen tension; vasomotor responses; blood alkali.
- Lutz, Dr. Frank E(ugene)**, American Museum of Natural History, New York, N. Y. **Zoology*. Bloomsburg, Pa, Sept. 15, 79. A.B., Haverford, 00; A.M., Chicago, 02, Ph.D., 07. Res. investigator, sta. for exp. evolution, Carnegie Institution, 04-09; *asst. curator*, *Am. Museum Nat. Hist.*, 09-16, *assoc. curator*, 16-21, *curator*, 21-Ed, 'Bul.' and 'Memoirs,' Am. Museum Nat. Hist., 17- A.A.; Soc. Nat.; Soc. Zool; fel. Entom. Soc; fel. N. Y. Acad. Ecology; variation, heredity and assortive mating; geographic distribution; evolution and entomology; economic work against mosquitoes; outdoor education.
- Lutz, Dr. Robert E(liot)**, New York University, New York, N. Y. *Organic chemistry*. Boston, Mass, March 24, 00. A.B., Harvard, 21, A.M., 22, Ph.D., 25. *Asst. chem.*, Harvard, 20-24, *physiol.*, Harvard Med. Sch., 24-25; *instr. org. chem.*, N. Y. Univ., 25- Chem. Soc. Unsaturated 1, 4-diketones; irreversible organic reductions; determination of small amounts of zinc; normal occurrence of zinc in biologic materials.
- Luyten, Dr. Willem J(acob)**, Harvard College Observatory, Cambridge, Mass. *Astronomy*. Semarang, Netherlands East Indies, March 7, 99. Amsterdam; Ph.D., Leiden, 21. *Asst. Observatory*, Leiden, 20-21; fellow, Lick Observatory, 21-22, Martin Kellogg fellow, 12-23; *astronomer*, *Harvard Col. Observatory*, 23-Lick Observatory eclipse exped, Ensenada, Baja Calif, 23. Astron. Soc; Ass. Variable Star Observers; Am. Acad; Royal Astron. Soc; Nederland. Vereen. voor Weer en Sterrekunde. Variable stars; stellar spectroscopy and statistics.
- Lyall, Dr. Harold W(illiam)**, J. N. Adam Memorial Hospital, Perrysburg, N. Y. *Bacteriology*. Lawrence, Mass, March 23, 88. A.B., Brown, 08, A.M., 09, Ph.D., 14. Bacteriologist, R. I. State Board Health, 08-10; *assoc.*, Hoagland Lab, Brooklyn, 10-13, *asst. director*, 13-14; bacteriologist, research lab, Dept. Health, New York, 14-18; N. Y. State Dept. Health, 19-20; director lab, Tuber. League, Pittsburgh, 20-25; *asst. prof. bacter.*, sch. med, Pittsburgh, 22-25; *research bacteriologist*, J. N. Adam Mem. Hosp., 25- Bacteriologist, R. I. Shellfish Commission, 09; L. I. Col. Hosp., 10-14; summers, research, N. Y. State Hosp. for Incipient Tuber, 12-14. Sanit.C, U.S.A., 18-19. Soc. Bact; Pub. Health Ass. Blood cultures in pneumonia; typhoid meningitis; secondary infection in tuberculosis; streptococci; chronic non-tuberculous lung infections; epidemiology of influenza; Griffith method for isolating tubercle bacilli; immunity reactions in tuberculosis.
- Lyford, C(hauncey) A(llan)**, East Aurora, N. Y. *Chemistry*. Worcester, Mass, May 1, 80. B.S., Worcester, 03; fellow, Clark, 03-08, A.M., 06. Instr. chem., Clark, 08-11; *asst. prof. geol.*, Middlebury, 11-16; chem., St. Lawrence, 16-17; Case, 17-18; *chem. engineer*, *Nat. Aniline and Chem. Co.*, 18- Interaction of aldehyde and peroxids.
- Lyle, Prof. William T(homas)**, Washington and Lee University, Lexington, Va. *Engineering*. Utica, N. Y., Jan. 10, 75. C.E., Princeton, 96. Eng. Corps, Essex Co. Park Commission, 97-00; *munic. contracting*, 01-02; *instr. and asst. prof. eng.*, Pennsylvania, 02-07; *asst. prof. and prof.*, Lafayette, 07-18; civil engineer, Taylor-Wharton Iron and Steel Co., 18-19; lecturer, Rice Inst., 19-21; *prof. civil eng.*, *Washington and Lee*, 21- Civil Eng. City planning; park engineering; genealogy.
- Lyman, Prof. E(lmer) A(delbert)**, State Normal College, Ypsilanti, Mich. *Mathematics, Astronomy*. Manchester, Vt, July 27, 61. A.B., Michigan, 86, 92-95; LL.D., Berea, 18. Prin, high sch, Kans. and Ohio, 86-90; *instr. math.*, Michigan, 90-98; *prof.*, *Mich. State Nor. Col.*, 98-, prin, 99-02. Trustee, Berea. A.A.; Math. Soc. Plane and spherical trigonometry; computation tables; advanced arithmetic; plane and solid geometry; elementary algebra.
- Lyman, Prof. J(ohn) F(ranklin)**, 200 Arden Road, Columbus, Ohio. *Chemistry*. Mesopotamia, Ohio, 81. B.S., Mass. Col., 05; Ph.D., Yale, 09. *Assoc. prof. agr. chem.*, *Ohio State*, 09-15, *prof.*, 15- A.A.; Chem. Soc. Agricultural and bio chemistry; animal nutrition; metabolism of fats and purins.
- Lyman, Dr. Richard E(oswell)**, 47 E. South Temple St, Salt Lake City, Utah. *Hydraulic engineering*. Fillmore, Utah, Nov. 23, 70. B.S. (C.E.), Michigan, 95, M.C.E., 03; Ph.D., Cornell, 05. Instr. civil eng., Utah, 95-03, *prof.*, 03-22; *consulting civil engineer*, 95- Chief engineer, irrig. and power companies; v. chairman, Utah Road Commission, 09-18; Utah Water Storage Commission; Columbia Basin Board Engineers, U. S. Reclamation Service, 24-25; Eng. Board Rev, Sanit. Dist. of Chicago, 24-25. Croes medal, Soc. Civil Eng., 15. Civil Eng; Ass. Eng; Eng. Educ; Water Works Ass; Utah Soc. Eng; Utah Acad. The flow of water over weirs.
- Lyman, Prof. Richard S(herman)**, University of Rochester, Rochester, N. Y. *Internal medicine*. Hartford, Conn, Jan. 29, 91. A.B., Yale, 13; M.D., Hopkins, 21. Fellow med, Hopkins Hosp, 22-23, *asst. psychiatrist*, 23-24, *assoc.*, 24-25; *assoc. prof. med.*, *Rochester*, 25- Baltimore Med. Soc. Metabolism; clinical nerve physiology.
- Lyman, Dr. Rufus A(shley)**, 1649 S. 21st St, Lincoln, Nebr. *Pharmacy*. Table Rock, Nebr., April 17, 75. A.B., Nebraska, 97, A.M., 99, M.D., 03. Prof. physiol. and pharmacol. col. med, *Nebraska*, 04-08, director sch. pharmacy, 08-13, *dean col. pharmacy*, 13- A.A.; Am. Med. Ass; Pharmaceut. Ass; Nebr. Pharmaceut. Ass; Ass. Col. Pharmacy (pres, 17). Parasitology; cestodes of American rabbits; pharmaceutical education.

- Lyman, Dr. Theodore**, 105 Heath St, Brookline, Mass. **Physics*. Boston, Mass, Nov. 23, 74. A.B, Harvard, 97, A.M, 99, Ph.D, 00. Asst. *physics*, Harvard, 97-98, 99-01, instr, 02-07, asst. prof, 07-17, prof, 17-21, *Hollis prof*, 21-26, *emer*, 26- Nat. Acad; A.A; Physical Soc; Philos. Soc; Am. Acad; fel. Royal Geog. Soc. Phenomena connected with diffraction gratings; wave-lengths of extreme ultra-violet light discovered by Schumann; properties of light of extremely short wave length.
- Lynch, Dr. Clara J(ulia)**, Rockefeller Institute, New York, N. Y. *Zoology*. Canton, Ohio, March 6, 82. B.L, Smith, 03; A.M, Columbia, 12, Rockefeller fellow, 18-19, Ph.D, 19. Reader zool, Smith, 09-10, instr, 13-16; *asst, Rockefeller Inst*, 19-26, *assoc*, 26- A.A; Soc. Exp. Biol; Harvey Soc. Genetics; cancer.
- Lynch, Prof. Frank W(orthington)**, University of California Hospital, San Francisco, Calif. *Medicine*. Cleveland, Ohio, Nov. 5, 72. A.B, Western Reserve, 95; M.D, Hopkins, 99. Instr. and *assoc. med*, Hopkins, 00-04; instr. and asst. prof, Rush Med. Col, 05-15; *prof, California*, 15- Am. Med. Ass. (chairman, gynec. and obstet. sect, 24); Gynec. Soc. (v. pres, 23-26); Pacific Coast Surg. Soc; Chicago Gynec. Soc. (ed, 08-11, v. pres, 12, pres, 13). Obstetrics and gynecology.
- Lynch, Dr. Ruth (Jennings) Stocking (Mrs. Vernon)**, Johns Hopkins University, Baltimore, Md. *Zoology*. Elyria, Ohio, March 31, 87. A.B, Goucher, 10; fellow, Bryn Mawr, 11-12; fellow, Wellesley, 13-14; Ph.D, Hopkins, 15. Prof. biol, Agnes Scott Col, 15-16; acting prof, Wells, 16-17; asst. prof, Carnegie Inst. Tech, 17-18; instr. protozool, sch. hygiene and pub. health, Hopkins, 18-19; independent research, 19-20; asst. *zool*, Hopkins, 19-26, *instr*, 26- Statist. dept, U. S. Fuel Ad, 18. A.A; Soc. Zool. Genetics.
- Lynch, Prof. William A(loysius)**, 2105 University Ave, New York, N. Y. *Physics*. Brooklyn, N. Y, June 21, 92. A.B, N. Y. Univ, 14, M.S, 20, Ph.D, 23. Instr. *physics*, N. Y. Univ, 15-23, *asst. prof*, 23- Physical Soc. Dielectric constants; electrical oscillations.
- Lynde, Prof. Carleton J(ohn)**, Teachers College, Columbia University, New York, N. Y. *Physics*. Mitchell, Ont, Can, Sept. 1, 72. B.A, Toronto, 95; Ph.D, Chicago, 05. Science master, high sch, N. Y, 96-99; instr. *physics*, Univ. High Sch, Chicago, 99-06; *prof*, Washington and Jefferson, 06-07; Macdonald, 07-24; *Teachers Col, Columbia*, 24- Physical Soc. Household engineering.
- Lynn, Dr. E(ldin) V(erne)**, University of Washington, Seattle, Wash. *Pharmaceutical chemistry*. Hawarden, Iowa, Feb. 8, 86. A.B, Washington (Seattle), 09; A.M, Wisconsin, 10, Ph.D, 18. Instr. *physics*, Adelphia, 07-09; asst. chem, Wisconsin, 10-11, instr, 11-13; research chemist, Wyo. Exp. Sta, 13-14; instr. chem, Illinois, 14-15; asst. prof, Okla. Agr. and Mech. Col, 15-17; pharmaceut. chemist, bur. chem, U. S. Dept. Agr, 17; Wis. Pharmaceut. Exp. Sta, 17-18; research chemist, Parke, Davis and Co, 18-19; chemist, Consol. Chem. Products Co, 19-20; asst. prof. *pharmacol. and chem*, Washington (Seattle), 20-21, *assoc. prof*, 21- Chem. Soc. Organic and pharmaceutical chemistry.
- Lynn, Dr. George**, 743 Cherokee St, Pittsburgh, Pa. *Physical chemistry*. Ottawa, Kans, Aug. 28, 97. B.S, Kansas, 21, M.S, 22; Charles A. Coffin fellow, Yale, 24-25, Ph.D, 25. Asst. chem, Kansas, 20-22; Yale, 22-23, research asst, 25-26; *instr. chem*, Pittsburgh, 26- Chem. Soc. Electrochemistry; thermochemistry.
- Lyon, Prof. Charles J(ulius)**, Dartmouth College, Hanover, N. H. *Physiology*. Grand Gorge, N. Y, Oct. 27, 96. B.S, Middlebury, 18; A.M, Harvard, 20, Ph.D, 26. Instr. chem, Middlebury, 18-19; instr. math, Simmons, 19-20; *biol*, Dartmouth, 20-24, *asst. prof*, 24- Plant respiration.
- Lyon, D(orsey) A(lfred)**, U. S. Bureau of Mines, Washington, D. C. *Metallurgy*. Bureau Co, Ill, July 17, 71. A.B, Stanford, 98; A.M, Harvard, 02; Sc.D, Utah, 22. Prof. mining and metal, Washington (Seattle), 98-01; asst. state geologist, Wash. Geol. Surv, 00-01; U. S. Smelting Co, 02-03; instr. and asst. prof. metal, Stanford, 03-08; manager, Noble Elec. Steel Co, 08-11; consulting metallurgist, Electro-Metals Co, London, Eng, 11-12; metallurgist, U. S. Bur. Mines, 12-17, *supervisor*, *Exp. Stations*, 17-, *chief metallurgist*, 19-, *asst. director*, 23- Min. Cong; Min. and Metal. Soc; Min. and Metal. Eng; Chem. Soc; Electrochem. Soc; British Iron and Steel Inst. Electrometallurgy; the mineral deposits of the state of Washington; use of the electric furnace in the smelting of ores; smelting iron ores; crude petroleum as an agent in reducing iron ores.
- Lyon, Prof. E(lias) P(otter)**, University of Minnesota, Minneapolis, Minn. **Physiology*. Cambria, Mich, Oct. 20, 67. B.S, Hillsdale, 91, A.B, 92, hon. Sc.D, 24; Ph.D, Chicago, 97; hon. M.D, St. Louis, 10, LL.D, 20. Instr. biol, Bradley Inst, Ill, 97-00; asst. prof. physiol, Rush Med. Col, 00-04, Chicago, 01-04; prof, sch. med, St. Louis, 04-13, dean, 07-13; *dean med. sch. and head dept. physiol*, Minnesota, 13- Instr, Woods Hole, 97-09; dean med. work, Chicago, 01-04. A.A; Soc. Nat; Physiol. Soc; Soc. Exp. Biol; Ass. Med. Col. (pres, 13). Compensatory motions; equilibrium in animals; effect of lack of oxygen; the tropisms; enzymes of the egg before and after fertilization; physiology of shock; humidity as a physiological factor; medical education.
- Lyon, Dr. Harold L(loyd)**, Experiment Station, Hawaiian Sugar Planters' Association, Honolulu, Hawaii. *Botany*, *Forestry*. Hastings, Minn, Oct. 14, 79. B.S, Minnesota, 00, M.S, 01, Ph.D, 03. Instr. bot, Minnesota, 00-05, asst. prof, 05-07; asst. pathologist, *Exp. Sta*, *Hawaiian Sugar Planters' Ass*, Honolulu, 07-09, pathologist, 09-18, *in charge dept. bot. and forestry*, 18- A.A; Bot. Soc; Genetic Ass; Hawaiian Bot. Soc. (pres, 26); Hawaiian Acad. Plant morphology, embryology and phylogeny, pathology and breeding; tropical botany, forestry and agriculture.

Lyon, Dr. Irving Phillips, 531 Franklin St, Buffalo, N. Y. *Medicine*. Hartford, Conn, Jan. 12, 70. A.B., Yale, 93; M.D., Hopkins, 97. Instr. med., Buffalo, 99-07, lecturer, 07-14, asst. prof., 14-21, *assoc. prof.*, 21- Chief med. service, dispensary, Buffalo, 01-03, librarian, dept. med., 05-17; clin. assoc., N. Y. State Path. Lab., 00-03; asst. attending physician, Buffalo Gen. Hosp., 10-16, attending physician, 16-; Buffalo City Hosp., 18- Major, M.C., and chief med. service, base hosp., Camp Upton, U.S.A., 18-19. Ass. Path. and Bact. Internal medicine.

Lyon, Dr. M(arcus) W(ard), Jr., 214 LaPorte Ave, South Bend, Ind. *Zoology, Pathology*. Rock Island Arsenal, Ill., Feb. 5, 75. Ph.B., Brown, 97; M.S., George Washington, 00, M.D., 02, Ph.D., 13. Instr. bacter., N. C. Med. Col., 97-98; asst. prof. physiol., Howard, 03-04, 07-09, prof. bacter., 09-15; path. and bacter., George Washington, 15-17, vet. zool. and parasitol., 17-18; *pathologist, The Clinic*, 19- Aid, div. mammals, U. S. Nat. Museum, 98-06, asst. curator, 07-12; chief special agent for Smithsonian Inst., La. Purchase and Portland expositions. Pathologist, Walter Reed Gen. Hosp., 17-19. Lieut., M.R.C., 17, capt., 18-19, major, 19. A.A.; Ass. Path. and Bact.; Soc. Bact.; Soc. Mammal. (councilor, 19-); Soc. Parasitol.; Ecol. Soc.; Chem. Soc.; Am. Med. Ass.; Ind. Acad.; Wash. Acad.; Wash. Biol. Soc. (cor. sec'y, 04, rec. sec'y, 15-19); Wash. Biol. Field Club. Classification and geographic distribution of mammals; parasitology.

Lyon, Prof. T(homas) Lyttleton, Cornell University, Ithaca, N. Y. *Agronomy*. Pittsburgh, Pa., Feb. 17, 69. B.S.A., Cornell, 91, Ph.D., 04; Göttingen, 94. Instr. chem., Nebraska, 91-93; chemist, Nebr. Exp. Sta., 95; *prof. agr.*, Nebraska, 95-06; *exp. agron., Cornell*, 06- Assoc. director, Nebr. Exp. Sta., 99-06. Potts medal, Franklin Inst., 11. A.A.; Soc. Agron. (sec'y, 08, pres, 18); Chem. Soc. Transformations of nitrogen and accumulation of nitrates in soil; the influence of higher plants on bacterial processes in soil; composition of the drainage water obtained from lysimeters; removal of nutrients from soils by plants and drainage water.

Lyons, Dr. Edward, Parke, Davis and Co, Detroit, Mich. *Chemistry*. Russia, Oct. 24, 90. B.S., Washington and Lee, 12; Ph.D., Hopkins, 17. Washington and Lee, 14-15; U. S. Civil Service, 17-18; *chemist*, Hercules Powder Co., 18; Bogalusa Paper Co., 19; *Parke, Davis and Co*, 19- Organic chemistry.

Lyons, Prof. Robert E(dward), Bloomington, Ind. *Chemistry, Bacteriology*. Bloomfield, Ind., Oct. 24, 69. A.B., Indiana, 89, A.M., 90; Ph.D., Heidelberg, 94; Fresenius's Lab, Wiesbaden, Munich, Berlin and Joergensen's Inst., Copenhagen, 92-95. Instr. chem., Indiana, 89-91, *assoc. prof.*, 91-92; asst. to Prof. Krafft, Heidelberg, 95; *prof. chem. and head dept. col. arts and sciences, sch. med. and sch. dent, Indiana*, 95- Chemist, Ind. State Dept. Geol. and Nat. Resources, 98-; director biol. sta., Indiana, 00; prof., Col. Physicians and Surg., Indianapolis, 03-04; Med. Col. of Ind., 04-; special metallurgist, Guggenheim Explor. Co., Alaska, 11;

Shasta Dredging Co., 12-14. Chairman div. chem., Ind. State Council of Defense, 17-19. A.A.; Chem. Soc. (pres, Ind. sect., 07); Pub. Health Ass.; Sigma Xi (pres, 09); fel. Ind. Acad.; Chem. Gesell. Organic compounds of sulphur, selenium and tellurium; germicides and disinfectants; pathogenic yeasts; organic selenohydrides; condensation of ketones with chloroform and iodoform; method for quantitative estimation of selenium in organic compounds; mercury with organic radicals; substituted salols; composition and valuation of peats; platinum recovery from black sand concentrate; amalgamating platinum and rusty gold; recovery of used soap from laundry suds; cause and prevention of discoloration in canned hominy and sweet corn; coloring oolitic lime stone; oxidation of drying oils.

Lythgoe, Herman C(harles), Room 540, State House, Boston, Mass. *Chemistry*. Boston, May 21, 74. B.S., Mass. Inst. Tech., 96. Asst. chemist, Revere Rubber Co, Chelsea, Mass., 96-97; asst. analyst, *Mass. State Board Health*, 97-07, *analyst*, 07-, *director food and drug div*, 14- A.A.; Chem. Soc. (treas., N. E. sec., 06-23, 26-, v. chairman, 23, chairman, 25); Agr. Chem. (pres, 20); New. Eng. Food Control Officials (chairman, 20-25). Chemical composition of pure and adulterated foods; relation of food industries to food control legislation.

Lytle, Prof. Ernest B(arnes), University of Illinois, Urbana, Ill. *Mathematics*. Decatur, Ill., March 23, 75. B.S., Illinois, 01, A.M., 04; Ph.D., Yale, 08. Teacher, pub. schools, Ill., 95-97; instr. math, acad., Illinois, 01-03, acting prin., 03-04; instr. math., *Illinois*, 04-06, 08-10, *assoc.*, 10-20, *asst. prof. teaching of math*, 20- Math. Soc. Double limits; conditions under which functions may be represented by infinite series; iterated integrals; the teaching of mathematics.

M

van Maanen, Dr. A(driaan), Mt. Wilson Observatory, Pasadena, Calif. *Astronomy*. Sneek, Holland, March 31, 84. Groningen, 08-10; B.A., Utrecht, 06, M.A., 09, Ph.D., 11. Vol. asst., Yerkes Observatory, 11-12; *astronomer, Mt. Wilson Observatory*, 12- Collaborator, 'Physica,' Hemel en Dampkring, 21. Astron. Soc.; Pacific Astron. Soc.; fel. Royal Astron. Soc.; Soc. astron. de France; Wiskundig Genootschap; Astron. Gesell.; Ned. Vereen voor Weer en Sterrekunde; Amsterdam Acad.; Int. Astron. Union. Proper motions and parallaxes of stars and nebulae; magnetic field on the sun.

Maass, Prof. O(tto), McGill University, Montreal, Que., Can. *Physical chemistry*. New York, N. Y., July 8, 90. B.A., McGill, 11, M.Sc., 12; Ph.D., Harvard, 19; 1851 Exhib. scholar. *Prof. physical chem., McGill*. Fel. Royal Soc. Can. Effect of molecular attraction on physical and chemical properties; pure hydrogen peroxide.

Mabery, Prof. C(harles) F(rederic), Case School of Applied Science, Cleveland, Ohio. *Chemistry*. New Gloucester, Maine, Jan. 13, 50. B.S., Harvard, 76, Sc.D., 81, D.Eng. Asst. chem., Harvard, 75-83; instr., *Case*, 83-84, prof., 84-11, *emer. prof.*, 11- A.A. (sec'y, C, 87, v. pres, 06);

Chem. Soc; Philos. Soc; Am. Acad. Petroleum; electric smelting; organic chemistry; lubricants and lubrication. [Died June 26, 27.]

McAdams, Prof. W(illiam) H(enry), Massachusetts Institute of Technology, Cambridge, Mass. *Chemical engineering*. Cynthiana, Ky, March 15, 92. B.S., Kentucky, 13; M.S., Mass. Inst. Tech., 17. Asst. food chemist, Ky. Exp. Sta., 13; asst. anal. chem., Mass. Inst. Tech., 13-14; chem. engineer, Goodyear Tire and Rubber Co., 17; asst. prof. chem. eng., Mass. Inst. Tech., 19-23, assoc. prof., 23-27, prof., 27- C.W.S., U.S.A., 18-19. Chem. Soc. Distillation; flow of heat; flow of viscous liquids; absorption.

McAdie, Prof. Alexander (George), Blue Hill Observatory, Readville, Mass. *Meteorology, Climatology*. New York, N. Y., Aug. 4, 63. Col. City of N. Y., 76-81, A.M., 84; A.M., Harvard, 85; fellow, Clark, 90-91; hon. M.S., Santa Clara, 09. Prof. meteor., U. S. Weather Bur., 03-13; *Notch prof., Harvard*, 13- Hon. lecturer, California. Hodgkin medal, Smithsonian Inst., 95. Lieut. commander, U.S.N.R.F. A.A.; Seismol. Soc. (v. pres, 07, pres, 10); Ass. Geog.; Ecol. Soc.; Am. Acad.; Pacific Astron. Soc. (pres, 12); Wash. Acad.; fel. Royal Meteor. Soc. Aerography; atmospheric electricity.

McAfee, Dr. A(imer) M(cDuffie), P. O. Box 316, Port Arthur, Texas. *Chemistry*. Corsicana, Texas, Sept. 24, 86. A.B., Texas, 08; fellow, Columbia, 10-11, Ph.D., 11. Tutor chem., Texas, 08-10; chemist, Texas Co., 11-13; chief research chemist, *Gulf Ref. Co.*, 13-23, *supt. aluminum chlorid dept.*, 23- A.A.; Chem. Soc.; Soc. Chem. Indust.; Chem. Eng. Petroleum oils; manufacture of gasoline; aluminum chlorid.

McAllister, Dr. A(ddams) S(tratton), U. S. Bureau of Standards, Washington, D. C. *Electrical engineering*. Covington, Va., Feb. 24, 75. B.S., Pa. State, 98, E.E., 01; M.M.E., Cornell, 01, Ph.D., 05. Asst. and instr. physics, Cornell, 01-04, acting asst. prof. elec. eng., 04-05; assoc. ed., 'Elec. World,' 05-12, ed., 12-15; *engineer-physicist, Bur. Standards*, 21- Professorial lecturer, Pa. State, 09-14. Sec'y board army ordnance officers, 18. A.A.; Elec. Eng. (manager, 14-, v. pres, 17-18); Mech. Eng.; Illum. Eng. Soc. (pres, 14); Eng. Educ.; Electrochem. Soc. Illuminating engineering; application of the law of conservation in illumination calculations; concepts of relations and methods applied and simplified in electromagnetic calculations.

McAllister, Dr. Cloyd N(orth), Berea College, Berea, Ky. *Psychology*. St. Joseph, Mo., Dec. 18, 70. A.B., Yale, 92, Ph.D., 00. Instr. high sch., Mo., 92-97; asst. psychol., Yale, 00-03, instr., 03-06; prof., Mo. State Nor. Sch., Warrensburg, 06-12; *prof. educ. and dean nor. sch., Berea*, 13- A.A.; Psychol. Ass.; Ky. Acad. Movements used in writing; eye movements by photography.

McAllister, Prof. Frederick, University of Texas, Austin, Texas. *Botany*. Davison, Mich., Sept. 28, 76. A.B., Albion, 03; A.M., Beloit, 08; Ph.D., Wisconsin, 10. Instr. biol., Beloit, 04-09; asst. bot., Wisconsin, 09-10; instr., Cornell, 10-12; Texas, 12-14, assoc. prof., 14-24, prof., 24-

A.A.; Bot. Soc.; Wis. Acad. Cytology of plastids and allied cell structures.

McAllister, Prof. Lawrence E(arl), Shorter College, Rome, Ga. *Physics*. Bellaire, Ohio, Dec. 11, 92. A.B., Oberlin, 16; Ph.D., Chicago, 22. Asst. instr. physics, Chicago, 19-22; *prof. and head dept., Shorter Col.*, 22- Research, U.S.A., 17-19. Physical Soc. Secondary electron emission from copper and copper oxide surfaces; electron theory; radio.

Macallum, Dr. (Archibald) Bruce, University of Western Ontario Medical School, London, Ont., Can. *Biochemistry*. Cornwall, Ont., July 8, 85. B.A., Toronto, 07, M.B., 09, M.D., 10, fellow, 15-16, Ph.D., 19; Beit mem. fellow, London, 13-14. Austin teaching fellow, Harvard Med. Sch., 09-12; lecturer biochem., Toronto, 14-15; research chemist, Synthetic Drug Co., 16-24; *prof. biochem., med. sch., Western Ontario*, 24- Soc. Biol. Chem.; Chem. Soc.; fel. Can. Inst. Chem.; fel. London Chem. Soc.; London Soc. Biol. Chem.; London Soc. Chem. Indust. Industrial chemistry; urine analysis; relation of vitamins to growth.

Macallum, Prof. A(rchibald) B(yron), McGill University, Montreal, Que., Can. *Physiological chemistry*. Belmont, Ont., 58. B.A., Toronto, 80, fellow, 84-87, M.B., 89, M.A., 00, D.Sc., 23; Ph.D., Hopkins, 88; LL.D., Aberdeen, 06, McGill, 14; Sc.D., Yale, 07, Dublin, 08. Lecturer physiol., Toronto, 87-91, prof., 91-06, biochem., 06-17; administrative chairman, Advisory Council for Sci. and Indust. Research, Can., 16-21; *prof. biochem., McGill*, 20- Physiol. Soc.; Soc. Biol. Chem.; Soc. Exp. Biol.; Am. Physicians; Philos. Soc.; fel. Phila. Col. Physicians; fel. Royal Soc. Can.; Can. Inst. (pres, 95-98); British Ass. (local sec'y, 97, pres, physiol. sect., 10); fel. Royal Soc.; London Physiol. Soc.; hon. mem. Royal Philos. Soc. Glasgow. The chemistry of animal and vegetable cells; localization of phosphorus, iron, potassium and calcium in the cell; the salts of Medusae in relation to those of sea water; the distribution of chlorids in the cell and in the tissues; the oxydases in the cell; the composition of cellular and tissue fluids in the animal body; the inorganic composition of the secretions and excretions; the physical and chemical factors in heredity; the physical forces concerned in excretion, secretion and muscular contraction in cellular life; the inorganic composition of the blood plasma of vertebrates.

McAlpine, Dr. James G(eorge), Storrs Agricultural Experiment Station, Storrs, Conn. *Bacteriology*. Winsted, Conn., July 3, 93. A.B., Wesleyan, 16, A.M., 17; Ph.D., Yale, 24. *Asst. bacteriologist, Storrs Exp. Sta.*, 23- A.A.; Soc. Bact.; Pub. Health Ass. Animal diseases; infectious abortion in cattle.

McAlpine, Prof. R(oy) K(enneth), 926 Sylvan Ave., Ann Arbor, Mich. *Chemistry*. Piercetown, Ind., Aug. 12, 84. A.B., Michigan, 06, Ph.D., 21. Instr. anal. chem., Michigan, 11-21, *asst. prof.*, 21- Chem. Soc. Atomic weight of antimony.

MacArthur, Prof. C(harles) G(eorge), University of Buffalo, Buffalo, N. Y. *Biochemistry*,

- Pharmacology*. Buffalo, May 3, 83. Oberlin; Pennsylvania; Chicago; Heidelberg. Instr. chem, Illinois, 12-15; prof. biochem, Southern California, 15-16; *asst. prof. pharmacol, dept. med, Buffalo*, 23- Chem. Soc. Chemistry of the brain.
- MacArthur, Prof. John W(ood)**, University of Toronto, Toronto, Ont, Can. *Biology*. Buffalo, N. Y., Sept. 2, 89. A.B. Oberlin, 10; A.M. Wabash, 12; fellow, Chicago, 13-14, Ph.D, 21. Instr. geol. and zool. Wabash, 11-12; *asst. zool*, Chicago, 15, *assoc*, 15-16; instr. anat. col. med. Illinois, 17-18; exp. biol. Toronto, 19-23, *asst. prof. genetics and prof, Ont. Agr. Col*, 23- A.A.; Soc. Zool.; Genetic Ass. Genetics of the Solanums, Aquilegias, radish and other root crops; genetics of poultry and man; mortality and population studies with *Daphnia*; physiological gradients.
- McArthur, Dr. Lewis L**, 220 E. Walton Place, Chicago, Ill. *Medicine*. Boston, Mass, Jan. 23, 58. Santa Clara; M.D. Rush Med. Col, 80; Heidelberg, 81; Vienna, 82. *Prof. clin. surg, Post-Grad. Med. Sch; Rush Med. Col, Chicago*. Senior attending surgeon, St. Luke's and Michael Reese Hospitals, Chicago, 87- Am. chairman, Int. Surg. Cong, Brussels. Am. Med. Ass; Surg. Ass. (past pres); Clin. Surg. Soc; Chicago Med. Soc. (past pres). Opsonins; tuberculosis; thyroid gland.
- McAtee, W(aldo) L(ee)**, U. S. Department of Agriculture, Washington, D. C. *Ornithology, Entomology*. Jalapa, Ind, Jan. 21, 83. A.B. Indiana, 04, A.M, 06. Curator museum, Indiana, 01-04; *asst. biologist, U. S. Biol. Surv*, 04-, *in charge econ. ornith*, 16-, *in charge div. food habits research*, 21- Acting custodian Hemiptera, U. S. Nat. Museum, 20-; committee on land utilization, U. S. Dept. Agr, 22- Fel. Ornith. Union (treas, 20-); Entom. Soc; Cooper Ornith. Club; Wilson Ornith. Club; New Eng. Bot. Club; Wash. Biol. Soc. (cor. sec'y, 14-20); Wash. Entom. Soc; Wash. Biol. Field Club (sec'y, 09-11, v. pres, 11-). Applied ornithology; systematic entomology; ichthyology; local natural history; life histories of Urodela; food habits and methods of attracting birds; classification of Hemiptera; local names of birds and plants; selection theories.
- McBain, Prof. J(ames) W(illiam)**, Stanford University, Calif. *Chemistry*. Chatham, N. B. Can, March 22, 82. B.A. Toronto, 03; M.A. 04; Leipzig; Ph.D. Heidelberg, 08; hon. Sc.D. Brown, 23; Bristol, 27. Lecturer physical chem, Bristol, Eng, 06-19, Leverhulme prof, 19-26; *prof. chem, Stanford*, 26- Visiting prof, California, 26. Ed. board, 'Jour. Physical Chem.' Capt, T.F, 11-19. Chem. Soc. (councilor); fel. Inst. Chem; Faraday Soc. (councilor, v. pres, 26-); fel. Inst. Physics; fel. Royal Soc; Ass. Univ. Teachers Eng. (pres, 22-23). Physical and colloid chemistry.
- McBerty, F(rank) R(obert)**, Galion, Ohio. *Electrical engineering*. Sharon, Pa, Feb. 14, 68. High sch. Engineer, West. Elec. Co, 87-17; *pres, North Elec. Mfg. Co*, 17-; *tech. director, Coventry Automatic Telephones, Ltd*, 20- Medal, Int. Expos, Paris, 00; diploma, Lyons, 14; Fahie premium, 17. A.A.; fel. Elec. Eng; Electrochem. Soc; Math. Ass; British Inst. Elec. Eng. Telephony.
- McBride, Prof. George McCutchen**, 600 N. New Hampshire Ave, Los Angeles, Calif. *Geography*. Benton, Kans, Oct. 11, 76. A.B. Park Col, 98; Ph.D. Yale, 21. Teacher, Chile and Bolivia, 01-15; instr. geog, Wesleyan, 15-17; *asst. Spanish*, Yale, 16-17; librarian, Am. Geog. Soc. and *asst. ed, 'Geog. Rev.'* 17-19; research *assoc*, Am. Geog. Soc, 20-22; *lecturer and assoc. prof. geog, California at Los Angeles*, 22- Special lecturer, Clark, 22; Wisconsin, 23; Oklahoma, 23, 26. Summer, instr, Columbia, 23. Ass. Geog; Am. Geog. Soc; Meteor. Soc. Latin-American geography; agrarian Indian communities of Highland Bolivia; land systems of Mexico.
- McBride, Dr. J(ames) H(arvey)**, Pasadena, Calif. *Medicine*. Lafayette, Oregon, Jan. 23, 49. McMinnville, 59-62; M.D. N. Y. Univ, 73. Physician, hospitals, 72-95; founder, South. Calif. Sanitarium for Nervous Diseases, 05. A.A; Am. Med. Ass; Am. Acad. Med. (pres, 09); Psychiat. Ass; Neur. Ass. (pres, 18); hon. mem. Climat. Ass; Am. Geog. Soc; Royal Inst. Gt. Britain and Ireland. Physiology of the nervous system; therapeutics; action of nitrite of amyl on the cerebral circulation; localization of brain functions in the dog; epilepsy; vascular mechanism of the cerebellum.
- McBride, O(rville) C(lark)**, Bureau of Entomology, Box 491, Orlando, Fla. *Entomology*. Crane, Mo, June 29, 95. B.S. Missouri, 21, A.M, 22; Minnesota, 24-25. Asst. entom. and deputy state nursery inspector, Missouri, 21-22, instr. entom, 22-24; *asst. instr. entom. and econ. zool*, Minnesota, 24-25; junior entomologist, *bur. entom, U. S. Dept. Agr*, 25-26, *asst. entomologist*, 26- A.A; Entom. Soc. Economic entomology; insecticides; biology of citrus insects.
- McBride, Dr. R(obert) E(dwin)**, Veterans' Bureau, Las Cruces, N. Mex. *Medicine*. Thibodaux, La, Feb. 21, 73. M.D. Tulane, 96. *Med. officer, Veterans' Bur, Las Cruces*, 19- Contract surgeon, U.S.A, 18, major, M.C.R. A.A; Am. Med. Ass. General medicine.
- McBride, R(ussell) S(mith)**, Colorado Building, Washington, D. C. *Chemical engineering*. Minneapolis, Minn, May 5, 87. B.S. Minnesota, 08; A.M. Wisconsin, 09. Asst. chemist, Bur. Standards, 09-14, *assoc. chemist*, 14-18, *eng. chemist*, 18-20; *eng. rep*, McGraw-Hill Co, 20-21; *asst. ed, 'Chem. and Metal. Eng.'* 21-; *consulting chem. engineer*, 21- Dept. ed, 'Jour. Indust. and Eng. Chem'; 'Gas Record.' A.A; Chem. Eng; Chem. Soc; Gas Ass; Wash. Acad. Gas chemistry and engineering; public utilities; standards for chemical analysis; fuels.
- Macbride, Pres. Thomas H(uston)**, Iowa City, Iowa. **Botany*. Rogersville, Tenn, July 31, 48. A.B. Monmouth, 69; A.M, 72, LL.D, 12; hon. Ph.D. Lenox, 91; LL.D. Coe, 14. Prof. math. and modern languages, Lenox, 71-78; *asst. prof. nat. sciences, Iowa*, 78-84, *prof. bot*, 84-14, *pres*, 14-16, *emer. pres*, 16- Iowa Forestry Commission; Iowa State Conservation

- Commission; staff, Iowa State Geol. Surv. A.A. (v. pres, G); Geol. Soc; Paleont. Soc; Iowa Acad; Iowa Hist. Soc. (trustee); St. Louis Acad. Microscopical botany; fungi; diatoms; Pleistocene geology; Myxomycetes; sociology of early Iowa.
- McBryde, Dr. Charles N(eil)**, U. S. Bureau of Animal Industry, Ames, Iowa. *Bacteriology*. Albemarle Co, Va, Feb. 2, 72. B.S. South Carolina, 91; M.S. Va. Polytech, 92; M.D. Hopkins, 97; Ph.D. George Washington, 11. *Bacteriologist, bur. animal indust, U. S. Dept. Agr, 01-A.A.; Soc. Bact; Pub. Health Ass; Wash. Acad. Bacteriology of meats and meat-food products; etiology and prevention of swine cholera; diseases of domestic animals.*
- McCaffery, Prof. Richard S(tanislaus)**, University of Wisconsin, Madison, Wis. *Metallurgy*. New York, N. Y., June 2, 74. E.M. Columbia, 96. Practising engineer, 96-09; *prof. metal, Idaho, 09-14; Wisconsin, 14- Min. Eng. (iron and steel committee); Inst. Metals; Can. Min. Inst. Iron and steel metallurgy; slags.*
- McCall, Dr. A(rthur) G(illett)**, Maryland Experiment Station, College Park, Md. *Agriculture*. McGaw, Ohio, Nov. 11, 74. B.S.A. Ohio State, 00; fellow by courtesy, Hopkins, 14-15, Ph.D. 16. Scientist, bur. soils, U. S. Dept. Agr, 01-04; head dept. agron, Ohio State, 04-16; *in charge soil investigations, Md. Exp. Sta, 16- Head dept. agron, A.E.F. Univ. Beaune, 19. Chairman committee on sulphur fellowships and committee on salt nutrition, Nat. Research Council. A.A; Soc. Agron; Ecol. Soc. Physical properties of soils; broom corn culture; soil management; potassium of soils and green sands; adsorptive properties of soils; fertilizer requirements of soil types.*
- McCall, M(ax) A(dams)**, 1306 B St, S. W., Washington, D. C. *Agronomy*. Jamestown, Kans, Oct. 20, 88. B.S. Oregon Col, 10; M.S. Wash. Col, 22. Instr, high sch, Wash, 10-11; Oregon, 12-14; agron, Oregon Col, 11-12; co. agr. agent, Klamath Falls, Oregon, 14; dry land specialist and supt, Adams Branch Exp. Sta, Wash. Exp. Sta, 14-24; *agronomist in charge cereal agron, office cereal investigations, bur. plant indust, U. S. Dept. Agr, 24- A.A; Soc. Agron; Genetic Ass. Dry farm soil; crop physiology.*
- McCall, Prof. W(illiam) A(nderson)**, Teachers College, Columbia University, New York, N. Y. *Education*. Wellsville, Tenn, Jan. 9, 91. B.S. Cumberland, 11; A.B. Lincoln Mem. Univ, 13; A.M. Columbia, 14, Ph.D. 16. Instr. psychol. Lincoln Mem. Univ, 11-13; lecturer educ. psychol, *Teachers Col, Columbia, 16-17, instr. exp. educ, 17-18, asst. prof, assoc. prof. and prof, 19- Summers, instr, North Carolina, Peabody Col, Ala. Polytech. Contrib. ed, 'Jour. Educ. Research.' Psychol. investigator, N. Y. State Commission on Ventilation; director psychol. research, Nat. Ass. Advancement Educ, Peking, China; N. Y. State Commission on Literacy Tests for Voters; staff, Baltimore Sch. Surv; Newark All-year Sch. Enquiry. A.A; Psychol. Ass; Nat. Directors Educ. Research. Experimental education; educational and psychological measurements; statistical and experimental methods of research.*
- McCallie, Dr. J(ames) P(ark)**, Highland Park Station, Chattanooga, Tenn. *Astronomy, Mathematics*. James Co, Tenn, Aug. 9, 79. A.B. A.M. Virginia, 00, Ph.D. 03. Asst. astron, Virginia, 01-02; instr. math, Culver Mil. Acad, 03-05; *headmaster, McCallie Sch, 05- Instr, Tenn. State Inst, 03. A.A. Perturbations of Jupiter and Saturn.*
- McCallie, Dr. Joseph Madison**, 822 Berkeley Ave, Trenton, N. J. *Psychology*. Knoxville, Tenn, Feb. 18, 63. A.B. Tennessee, 87; Chicago, 95-96, summers, 96-98; Columbia, 99-00; Harvard, 02; Ph.D. Pennsylvania, 12. Supt. schools, Tenn. and Ill, 90-97; N. J., 01-03; prin, Franklin Sch, Trenton, N. J., 03-19; first asst. director educ. and parole, dept. institutions and agencies, N. J., 19-20; *director exten. educ, Trenton, 20-21, research, 21- A.A; Ass. Study Feeble-minded. Acuteness of hearing and vision; educational statistics.*
- McCallie, S(amuel) W(ashington)**, Department of Geology, Atlanta, Ga. *Geology*. Near Knoxville, Tenn, Aug. 2, 56. Ph.B. Tenn, Wesleyan, 84; Hopkins, 89-92. Instr. geol, Tennessee, 91-93; asst. state geologist, Ga, 93-08, *state geologist, 08- A.A; Geol. Soc; Min. Eng. Economic geology of Georgia; brown iron ores; mineral waters; marbles; gold phosphates; marls; road-building materials; coal.*
- MacCallum, Prof. W(illiam) G(eorge)**, Johns Hopkins University, Baltimore, Md. **Pathology*. Dunnville, Ont, Can, April 18, 74. B.A. Toronto, 94; M.D. Hopkins, 97. Res. house officer, Hopkins Hosp, 97-98, asst. res. pathologist, 99-00, res. pathologist, 01-09, asst. path. Hopkins, 99-00, assoc. prof, 02-08, prof. path. physiol. and lecturer forensic med, 08-09; *prof. path, Columbia, 09-17; path. and bacter, Hopkins, 17- Pathologist, Presb. Hosp, New York, 10-17. A.A; Soc. Exp. Path; Am. Physicians; Ass. Path. and Bact; Am. Med. Ass; Harvey Soc; Md. Med. and Chirurg. Faculty; N. Y. Acad. Med; Int. Ass. Med. Mus. (v. pres, 08); Path. Gesell; hon. mem. Soc. Med. Sverana Stockholm. Trematode parasites; malaria; pathological anatomy and bacteriology; anatomy of lymphatics; physiology of the thyroid and parathyroid; tetany; pancreas; diabetes; pathological physiology of the circulatory and respiratory systems; correlation of the organs of internal secretion; pneumonia; rheumatism; vaccinia; alastrim.*
- McC Campbell, Prof. C(harles) W(ilbur)**, Kansas State Agricultural College, Manhattan, Kans. *Animal husbandry*. Frankford, Kans, Feb. 1, 82. B.S. Kansas Col, 06, D.V.M., 10, B.S.A., 18. Asst. *animal husbandry, Kansas Col, 10-12, asst. prof, 12-16, assoc. prof, 16-18, prof, 18- A.A; Soc. Animal Production. Animal production.*
- McC Campbell, Prof. Eugene F(ranklin)**, Ohio State University, Columbus, Ohio. *Pathology, Bacteriology, Internal medicine*. Marysville, Ohio, April 15, 83. B.S. Chicago, 06, Ph.D. 11, M.D. Rush Med. Col, 12. Asst. bacter, Wisconsin, 05-06; pathologist, Minnequa Hosp, Pueblo,

- Colo, 06; prof. bacter, Ohio State, 06-12; exec. officer, Ohio State Dept. Health, 12-16; *prof. prev. med. and dean col. med, Ohio State, 16-* Am. Med. Ass; Ass. Path. and Bact; fel. Col. Physicians. Immunology; the ophthalmo-tuberculin reaction in cattle; quinin in tetanus; the toxicity of *Bacterium welchii*; general paralysis of the insane; metabolism in dementia praecox; the transformation of tissues; preventive medicine; typhus fever; infantile paralysis; bronchial asthma.
- McCann, Dr. Gertrude F(isher)**, 112 Berkeley St, Rochester, N. Y. *Pathology*. Tewksbury, Mass, Feb. 8, 89. A.B., Wellesley, 09; M.D., Cornell, 15. Fellow, Rockefeller Inst, 16-17; instr. path. col. physicians and surg, Columbia, 20-21. Contract surgeon, U.S.A., 18-19. Am. Med. Ass. Biochemistry; nutritional diseases.
- McCann, Dr. William S(harp)**, University of Rochester, Rochester, N. Y. *Medicine*. Cadiz, Ohio, July 6, 89. A.B., Ohio State, 11; M.D., Cornell, 15. Cabot fellow in charge lab. surg. research, Harvard Med. Sch, 16-17; instr. med, med. col, Cornell, 19-21; assoc. prof, sch. med, Hopkins, 21-24; *prof, sch. med, Rochester, 24-* Research fellow, Russell Sage Inst. Path, 19-21; adjunct asst. visiting physician, Bellevue Hosp, 19-21; assoc. physician, Hopkins Hosp, 21-24; physician-in-chief, Strong Mem. Hosp, 24- Capt, M.C, 17-19. Assoc. Am. Physicians; Soc. Clin. Invest. (v. pres, 24); Soc. Exp. Biol; Soc. Biol. Chem; Harvey Soc; N. Y. Acad. Med; Soc. de Chim. biol. Disorders of metabolism.
- McCarthy, E(dward) F(lorince)**, Box 1518, Asheville, N. C. *Forestry*. McLean, N. Y., 85. Grad, Cortland State Nor. Sch, 05; B.S., Michigan, 11, M.S., 16. Prin. pub. schools, N. Y., 05-08; forest asst, Caribou Nat. Forest, 11; faculty, N. Y. State Col. Forestry, Syracuse, 11-20; research specialist, Dom. of Can, 20-21; *silviculturist, U. S. Forest Service, 21-* Soc. Foresters; Can. Soc. Forest Eng. Trees; yellow birch and poplar; northern oaks; fire damage in southern Appalachian forests; forest fire weather; regeneration of cut-over land in Algoma, Ontario.
- McCarthy, Gerald R(aleigh)**, University of North Carolina, Chapel Hill, N. C. *Geology*. Ithaca, N. Y., Nov. 15, 97. A.B., Cornell, 21; Univ. Poitiers, 19; A.M., North Carolina, 24, Ph.D, 26. Instr. *geol*, Williams, 21-22; *North Carolina, 22-26, asst. prof, 26-* Summers, instr, Cornell, 21, Michigan, 26. Asst, N. C. Geol. Surv, 24. Laccoliths; colors of soils and minerals; mountain folding.
- McCarty, R(ichard) J(ustin)**, 3820 Warwick Boulevard, Kansas City, Mo. *Mathematics*. Clarksburg, W. Va, March 12, 51. Virginia, 71, C.E., 75. Locating engineer and acting chief engineer, Texas and St. Louis Ry, 78; gen. manager and chief engineer, Metropolitan Street Ry, Kansas City, Mo, 88-95; consulting engineer, 95-97; with Kansas City P. and G. Ry, and Kansas City South, Ry, 98-07; v. pres, Kansas City Southern Ry, 07-18; *retired*, 18. Civil Eng; Mech. Eng; Royal Societies Club, England. Plane trigonometry; practical philosophy; wisdom and purpose; work and play.
- MacCarty, Dr. William Carpenter**, 820 Third St, S. W., Rochester, Minn. *Pathology*. Louisville, Ky, June 10, 80. B.S., Kentucky, 00, M.S., 09; M.D., Hopkins, 04. Asst. pathologist, Königin Augusta Hosp, Berlin, 04-06; *surg. pathologist, assoc. director laboratories and clin. consultant, Mayo Clinic, and prof. path, Mayo Foundation, Minnesota, 07-* Ass. Path. and Bact; Soc. Clin. Path; Am. Med. Ass; Ass. Cancer Research; Minn. Path. Soc; Chicago Path. Soc; Chicago Med. Hist. Soc; Osler Med. Hist. Soc. (pres). Surgical pathology; histogenesis of neoplasms; clinicopathologic standardization; new terminology and classification of neoplasia and neoplasms; diagnosis and prognosis of neoplasms.
- McCaskey, H(iram) D(ryer)**, Bora Da Orchards, Central Point, Oregon. *Geology*. Fort Totten, N. Dak, April 10, 71. B.S., Lehigh, 93, M.S., 07. Chemist and assayer, B. and M. Con. C. and S. Mining Co, Mont, 93-95; instr. and head master, St. Thomas Hall, Miss, 95-98; instr. math, St. Matthew's Sch, Calif, 98-99; mining engineer and geologist, Mining Bur, Manila, 00-03, chief, 03-06; asst. geologist, *U. S. Geol. Surv, 07-10, geologist, 10-*, chief sect. metal resources, 12-19, in charge div. mineral resources, 15-19. Philippine delegate and v. pres, Int. Geol. Cong, Mexico City, 06. A.A; Geol. Soc; Min. Eng; Wash. Geol. Soc. Geology and mineral resources of the Philippines; mining geology and mineral resources of gold, silver, copper, lead, zinc and quick-silver deposits in United States.
- MacCaughy, Vaughan**, Berkeley, Calif. *Botany, Ecology*. Huron, S. Dak, July 7, 87. B.S.A., Cornell, 08. Asst. entom, Cornell, 05-08; head dept. nat. science, Territorial Nor. Sch, Hawaii, 08-10; prof. bot, Col. of Hawaii, 10-19; supt. pub. instruction, Hawaii, 19-23; *ed, 'Sierra Educ. News,' Calif. Council Educ, 23-* Visiting prof, Cornell, California; director, Pacific Coast Surv. Race Relations. Delegate, First Pan-Pacific Sci. Conf; chairman exec. committee, First Pan-Pacific Educ. Conf. A.A; Bot. Soc; Ecol. Soc. Hawaiian ecology and botany; education; school administration.
- McCaughy, Prof. William J(ohn)**, Ohio State University, Columbus, Ohio. *Mineralogy*. Philadelphia, Pa, June 21, 82. B.S., Pennsylvania, 06; Ph.D, George Washington, 12. Assayer, Bur. of Mint, Washington, 06-08; scientist, soil lab, bur. soils, U. S. Dept. Agr, 08-11; asst. prof. *miner, Ohio State, 11-16, prof, 16-* U. S. Assay Commission, 09. A.A; Miner. Soc; Chem. Soc; Min. Eng; Eng. Educ; Miner. Gesell. Microscopical determination of soil-forming minerals; microscopic examination of refractories, slags and non-metallic mineral products.
- McCauley, Dr. Geo(rge) V(est)**, Corning Glass Works, Corning, N. Y. *Physics*. Perryville, Mo, Nov. 5, 82. B.S., Northwestern, 08; Wisconsin, 08-09, A.M., 09, fellow, 09-11, Ph.D., 11. Instr. physics, Northwestern, 11-17; asst. physicist, Bur. Standards, 17-18; *with Corning Glass Works, 18-* Physical Soc; Ceramic Soc. Distribution of energy in the spectra of incandes-

cent metals as a function of absolute temperature; wave lengths of calcium arc in vacuo.

- McCausland, Prof. E(Imr) J(ames)**, University of Missouri, Columbia, Mo. *Civil and mining engineering*. Quincy, Wis., Jan. 9, 64. B.C.E., Cornell (Iowa), 92; M.C.E., Cornell, 97. Practising civil and mining engineer, Calif. Oregon and Mont., 88-96; instr. civil eng., Cornell, 97-00; prin. asst. engineer in construction of clearing yards, Chicago, 00-01; prof. civil eng. sch. mines and metal, Missouri, 01-02; asst. prof. mining and surv., Cornell, 02-08; prof. munic. eng., Washington (Seattle), 08-14; sanit. engineer, Wash. State Board Health, 09-14; *dean eng. faculty and director, Eng. Exp. Sta., Missouri, 14-* A.A.; Civil Eng.; Min. Eng.; Eng. Educ. Properties of reinforced concrete; elastic properties of specially treated steel; effect of low temperature on overstressed steel; tensile strength of reinforced concrete; effect of drifting punched and drilled holes in soft steel plates; economic design of wood stave conduits; treatment of sewage.
- McCay, Dr. Clive Maine**, Yale University, New Haven, Conn. *Physiological chemistry*. Winamac, Ind., March 21, 98. A.B., Illinois, 20; M.S., Iowa Col., 23; Stanford; Ph.D., California, 25. Instr. chem., Agr. and Mech. Col. Texas, 20-21; asst., Iowa Col., 21-23; California, 23-25; *Nat. Research Council fellow, Yale, 25-*
- McCay, Prof. L(eRoy) W(iley)**, Princeton, N. J. **Chemistry*. Rome, Ga., Aug. 9, 57. A.B., Princeton, 78, A.M., 81, Sc.D., 83; Freiberg, 78-81; Heidelberg, 82. Asst. anal. chem., Princeton, 83-86, instr., 86-89, asst. prof., 89-92, *prof. inorg. chem., 92-* A.A.; Chem. Soc.; Min. Eng.; Philos. Soc.; London Chem. Soc. Methods for determining arsenic; the sulpho and sulphoxy compounds of arsenic; the salts of trisulphoxy-arsenic acid; separation of arsenic, antimony and tin; the use of hydrofluoric acid in ordinary and in electrochemical analysis.
- McClatchy, Prof. Vivienne R(obison)**, 168 W. College Ave., Tallahassee, Fla. *Psychology*. Pilot Point, Texas, Feb. 18, 96. A.B., Texas, 19, A.M., 20; fellow, Chicago, 23-24, Ph.D., 24. Instr. *psychol.*, Texas, 20-23; *assoc. prof., Florida State, 24-* Research award, Gen. Educ. Board, 23-24. Psychol. Ass.; S. Soc. Philos. and Psychol. Learning process; distribution of effort; association; responses of local and general significance; linguistic abilities.
- McClellan, Dr. W(illiam)**, 68 Trinity Place, New York, N. Y. *Physics*. Philadelphia, Pa., Nov. 5, 72. B.S., Pennsylvania, 00, Ph.D., 03, E.E., 14. Asst. eng., Swarthmore, 90-91; instr., high sch., Pa., 91-98; physics, Pennsylvania, 00-05; engineer, Westinghouse, Church, Kerr and Co., 05-07; director, Campion-McClellan Co., 07-15; *mem. firm, Paine, McClellan and Campion, 15-*; *McClellan and Junkersfeld, Inc., N. Y., 22-* Phila. Rapid Transit Co., 00-05; chief engineer, N. Y. Pub. Service Commission, 10-13, 25-; v. pres., Cleveland Elec. Illum. Co., 19-21. Pres. Coolidge's Muscle Shoals Commission, 25. Elec. Eng. (pres., 21); Mech. Eng.
- McClelland, J(ames) F(arley)**, New York Trust Co., 100 Broadway, New York, N. Y. *Mining engineering*. Poughkeepsie, N. Y., March 3, 78. E.M., Columbia, 00; A.M., Yale, 10. Instr. geol. and mining, Wyoming, 00-01; mining, Columbia, 02-05; asst. prof., Stanford, 08, prof., 09-10; mining eng., Yale, 10-17; consulting engineer, Liberty Nat. Bank, 19-21; v. pres., Liberty Indust. Corp., 22; *asst. v. pres., New York Trust Co., 23-* Lecturer, Yale, 09. Ed-in-chief, specification sect., Sig.C, 17-18, chief production, Bur. Aircraft Production, 18-19. Min. Eng.
- McClenahan, Prof. Francis M(itchell)**, Monmouth College, Monmouth, Ill. *Geology, Physics*. Winterset, Iowa, Jan. 27, 76. A.B., Tarkio, 96; A.M., Yale, 01, 01-13, 15-16; Chicago, 97, 05. Instr., high sch., Pa., 96-99; asst. chem., Yale, 01-03; instr., Kansas Col., 03-05; prof., Maryville, 06-10, 11-17; Tarkio, 10-11; fellow, Mellon Inst., 16-18; consulting chemist, and private research, 19-24; *prof. geol. and physics, Monmouth, 24-* Chem. Soc. Structural formulae; development of fat in black walnut; Chilhowee iron ore deposits of Blount County, Tennessee; feldspars and kaolins as sources of alumina and potash; improvements in the production of aluminum; chemical economies.
- McClenahan, Howard**, The Franklin Institute, Philadelphia, Pa. *Physics, Electrical engineering*. Port Deposit, Md., Oct. 19, 72. E.E., Princeton, 95, M.S., 97; LL.D., Washington Col., 07. Instr. physics, Princeton, 97-02, asst. elec. eng., 99-02, asst. prof. physics, 02-06, prof., 06-25, dean col., 12-25; *sec'y., Franklin Inst., 25-* Trustee, Lincoln Univ. Officer, Order of the Crown, Belgium.
- McClendon, Prof. J(esse) F(rancis)**, University of Minnesota, Minneapolis, Minn. **Physiology, Biochemistry*. Lanette, Ala., Dec. 21, 80. B.S., Texas, 03, fellow, 03-04, M.S., 04; fellow, Pennsylvania, 04-06, Ph.D., 06. Asst. zool., Texas, 00-03; prof. biol., Randolph-Macon, 06-07; instr. zool., Missouri, 07-09; asst. histol., med. col., Cornell, 09-11, instr. anat., 11-14; *physiol., Minnesota, 14-16*, asst. prof., 16-17, *assoc. prof., 17-20, prof. physiol. chem., 20-* Asst., Woods Hole, 06-08; res. naturalist, San Diego Biol. Ass., 07. Major, O.R.C. A.A.; Soc. Biol. Chem.; Physiol. Soc.; Am. Med. Ass.; Soc. Exp. Biol.; Chem. Soc. Experimental zoology and physiology; cytology; embryology; taxonomy; *life history; animal behavior; hydrogen-ion concentration; alkaline reserve; metabolism; vitamins; electric conductivity at high frequency.*
- McClenon, Prof. R(aymond) B(enedict)**, Grinnell College, Grinnell, Iowa. *Mathematics*. Yankton, S. Dak., Aug. 4, 83. A.B., Yankton, 02; Ph.D., Yale, 05; Munich, 10; Columbia, 18. Instr. *math., Grinnell, 05-07*, asst. prof., 07-10, *assoc. prof., 10-18, prof., 18-* Assoc. ed., 'Am. Math. Monthly,' 19-23. A.A.; Math. Soc.; Math. Ass.; Hist. Sci. Soc. History of mathematics; elementary functions.
- McClintock, J(ames) A(lbertine)**, University of Tennessee, Knoxville, Tenn. *Plant pathology*. Chicago, Ill., Oct. 31, 89. B.S., Mich. State Col., 13; M.S., Wisconsin, 14. Agent, bur. plant indust., U. S. Dept. Agr., 13-14; plant pathologist, Va. Truck Exp. Sta., 15-18; botanist and

- plant pathologist, Ga. Exp. Sta., 18-22; *horticulturist and assoc. plant pathologist*, Tenn. Exp. Sta., 22- Summer, path. inspector, fed. hort. board, U. S. Dept. Agr., 15; exten. pathologist, Georgia, 18. A.A.; Phytopath. Soc; Soc. Hort. Sci. Diseases of fruits, vegetables and drug plants; plant selection and breeding for insect and disease resistance.
- McClintock, Prof. Jno. (John) T(homas)**, 230 Fairchild St, Iowa City, Iowa. *Physiology*. Burlington, Iowa, June 7, 73. A.B. Parsons, 94, Sc.D., 25; M.D., Iowa, 98; Leipzig; Berlin. Demonstrator anat. and path., Iowa, 98-01, *prof. physiol.*, 02-, *junior dean col. med.*, 13-A.A.; Am. Med. Ass; Soc. Exp. Biol. Biophysics; graphic recording of heart action; intestinal obstruction; blood pressure.
- McClintock, Prof. Norman**, 504 Amberson Ave, Pittsburgh, Pa. *Natural history*. Pittsburgh, June 13, 68. A.B. Yale, 91. A.A.; Ecol. Soc. Motion pictures of birds, mammals and invertebrates.
- MacClintock, Dr. Paul**, University of Chicago, Chicago, Ill. *Geology*. Aurora, N. Y., Feb. 2, 91. B.S. Chicago, 12, Ph.D., 20. Instr. *geol.* Chicago, 20-26, *asst. prof.*, 26- Geologist, Ill. Geol. Surv. A.A. Pleistocene and physiographic geology.
- McClung, Prof. C(larence) E(rwin)**, University of Pennsylvania, Philadelphia, Pa. **Zoology*. Clayton, Calif., April 5, 70. Ph.G. Kansas, 92, A.B., 96, A.M., 98, Ph.D., 03. Asst. prof. zool. Kansas, 97-00, assoc. prof., 00-06, prof., 06-12, head dept. zool. and curator vert. paleont. collections, 02-12; *prof. zool. and director lab.*, Pennsylvania, 12- Acting dean sch. med. Kansas, 02-06; mem. embryol. staff, Woods Hole, 03, 12-, trustee. Advisory board, Wistar Inst. Managing ed., 'Jour. Morphol.' Chairman div. biol. and agr. Nat. Research Council, 19-21, fellowship board biol. sciences. Nat. Acad.; A.A. (v. pres, F, 26); Soc. Nat. (pres, 26); Soc. Zool. (sec'y-treas, pres, cent. sect, 10, pres, 14); Union Am. Biol. Societies (pres); Ass. Anat.; Philos. Soc; Sigma Xi (pres, 20); Phila. Acad; Wash. Acad; Kans. Acad. Sex determination from a study of the germ cells of insects; spermatogenesis in insects; osteology of upper Cretaceous fish of Kansas; correlation between body characters and cell organization; upper Cretaceous fish of Kansas; phylogeny of chromosomes; variation in chromosome numbers; specific behavior of chromosomes.
- McClung, Prof. R(obert) K(ennings)**, University of Manitoba, Winnipeg, Man, Can. *Physics*. Elmira, Ont, Feb. 2, 74. B.A. McGill, 99, M.A., 01, D.Sc., 06; B.A. Cambridge, 03. Demonstrator *physics*, McGill, 99-01, senior demonstrator, 04-07; prof., Mt. Allison, 07-09; lecturer, Manitoba, 09-12, *asst. prof.*, 12- A.A.; fel. Physical Soc; fel. Royal Soc. Can. Energy required to produce ions; recombination of ions; ionization by X-rays; ionization from radium C; conduction of electricity through gases; radioactivity.
- McClure, Prof. C(harles) F(reeman) W(illiams)**, Princeton University, Princeton, N. J. **Comparative anatomy*. Cambridge, Mass, March 6,
65. A.B. Princeton, 88, fellow, 89, A.M., 92; Columbia, 90-01, hon. Sc.D., 08; Berlin, 93; Kiel, 95; Würzburg, 97. Instr. biol. Princeton, 91-95, asst. prof., 95-01, *prof. comp. anat.*, 01- Peary relief expd., 99. A.A.; Soc. Nat; Soc. Zool; Ass. Anat. (v. pres, 10, pres, 20); Philos. Soc; Anat. Soc. Gt. Britain and Ireland; Anat. Gesell. Primitive vertebrate brain; nerve cells of Mollusca; anatomy and development of blood vascular and lymphatic systems; edema.
- McColloch, Prof. J(ames) W(alker)**, Kansas State Agricultural College, Manhattan, Kans. *Entomology*. Anthony, Kans, April 14, 89. B.S. Kansas Col, 12, M.S., 23. Asst. entomologist, Kansas Col, 12-18, assoc. prof. *entom.* and assoc. entomologist, 18-25, *prof.*, 25- A.A.; Entom. Soc; Ass. Econ. Entom; Ecol. Soc; Micros. Soc; Kans. Acad. Soil and cereal crop insects; resistance of plants to insect injury; insect ecology.
- McCullum, Burton**, 35 Oxford St, Chevy Chase, Md. *Electrical engineering*. Redfield, Kans, June 1, 80. B.S. Kansas, 03. Test. engineer, Gen. Elec. Co, 04; operating engineer, Pacific Elec. Ry. Co, 05-06; Seattle Elec. Co, 06-07; asst. prof. elec. eng, Kansas, 07-09; elec. engineer, Bur. Standards, 09-26; *tech. director*, McCollum Geol. Explorations, Inc, 25- Elec. Eng; Physical Soc; Wash. Acad; Wash. Philos. Soc. Electrolytic corrosion; alternating current machinery; absolute measurements in electricity; geophysical explorations of subsurface geology.
- McCullum, Prof. E(lmer) V(erner)**, Johns Hopkins School of Hygiene and Public Health, Baltimore, Md. **Nutrition*. Redfield, Kans, March 3, 79. A.B. Kansas, 03, A.M., 04; Loomis fellow, Yale, 05-06, Ph.D., 06; Sc.D., Cincinnati, 20. Asst. chem. Kansas, 03-04; Yale, 06-07; instr. agr. chem, Wisconsin, 07-08, asst. prof., 08-10, assoc. prof., 10-13, prof., 13-17; *prof. and head dept. chem. hygiene, sch. hygiene and pub. health*, Hopkins, 17- Cutter lecturer, Harvard, 17-18. Howard N. Potts medal, Franklin Inst, 21; Isaac Ridgeway Trimble medal, Tri-State Med. Soc, 23; John Scott medal and purse, Phila, 24; Newell Sill Jenkins medal, Conn. State Dental Ass, 27. Nat. Acad; Chem. Soc; Soc. Biol. Chem. (pres, 27); Pub. Health Ass; hon. mem. Harvey Soc; hon. mem. Dietetic Ass; Life Exten. Inst; Acad. Polit. and Social Sci; hon. mem. Home Econ. Soc; Soc. de Chim. biol; cor. mem. Acad. Royale de Méd. de Belg; Akad. Naturforsch. Nutrition of animals with isolated and purified food substances; deficiency diseases; faulty diets.
- McComas, Prof. H(enry) C(lay)**, 109 Broadmead, Princeton, N. J. *Psychology*. Baltimore, Md, Dec. 21, 75. A.B. Hopkins, 97; A.M. Columbia, 98; Ph.D. Harvard, 10. Demonstrator *psychol.*, Princeton, 09-12, asst. prof., 12-19, *assoc. prof.*, 19- Capt, Sanit.C, 18-19. A.A.; Psychol. Ass. Applied psychology; types of attention; perception time; psychology of religion; physical condition and mental efficiency.
- McConnell, Ira Welch**, 61 Broadway, New York, N. Y. *Civil engineering*. Schell City, Mo, Oct. 17, 71. C.E. Cornell, 97. Instr. civil eng, Cor-

- nell, 98-00; contractor's supt, 00-02; prof. civil eng, Mo. Sch. Mines, 02-03; U. S. Reclamation Service, 03-09; v. pres. and gen. manager, Idaho Irrig. Co, 09-12; consultant, Stone and Webster, 12-17; asst. gen. manager, Am. Int. Shipbuilding Corp, 18-19; v. pres, *Dwight P. Robinson and Co, Inc*, 19- Civil Eng.
- McConnell, R(ichard) G(eorge)**, Rideau Club, Ottawa, Ont, Can. *Geology*. Chatham, Que, March 26, 57. B.A., McGill, 79. Geologist, Can. Geol. Surv, 80-14, deputy minister dept. mines, 14-21. Fel. Royal Soc. Can. (pres, sect. IV, 18). *Geology of western Canada*; *geology of the Yukon territory*.
- McConnell, Prof. W(allace) R(obert)**, 400 Race St, Oxford, Ohio. *Geography*. Ill, Oct. 4, 81. Diploma, West. Ill. State Teachers Col, Macomb, 08; A.B., Illinois, 12; A.M., Wisconsin, 17; Ph.D., Clark, 25. Asst. *geog*, Wis. State Teachers Col, Oshkosh, 13-14; head dept, Wis. State Teachers Col, Platteville, 15-18; *prof*, *Miami*, 18-Ed, 'McConnell Geog. Maps.' A.A.; Nat. Council Geog. Teachers (pres, 24); Cent. Ass. Sci. and Math. Teachers (chairman, *geog*. sect, 17); Oxford Sci. Club (pres, 23). *Industrial maps*; *geography of Cincinnati*.
- McCordock, Dr. Howard A(nderson)**, Johns Hopkins Hospital, Baltimore, Md. *Pathology, Bacteriology*. Brooklyn, N. Y, April 22, 95. B.S., 21, M.D., 23. Instr. path, Buffalo, and asst, Buffalo Gen. Hosp, 23-24; *Nat. Research Council fellow med*, *Hopkins*, 24- Paratyphoid group; tuberculosis; cancer.
- McCormack, Prof. Harry**, Armour Institute of Technology, Chicago, Ill. *Chemistry*. Spencer, Iowa, Sept. 7, 76. B.S., Drake, 96; M.S., Illinois, 99. Instr. chem, Drake, 94-96; high sch, Mo, 00-04; *chem. eng*, *Armour Inst*, 04-07, *prof*, 07- Consulting chem. engineer, Brunswick-Balke-Collender Co. Chem. Soc; Chem. Eng; Soc. Test. Mat; Electrochem. Soc. *Industrial chemistry*; *synthetic phenol and resorcinol*; *manganates and permanganates*; *metallic nitrides*.
- McCormack, Thomas J(oseph)**, La Salle, Ill. *Philosophy of science*. Brooklyn, N. Y, May 28, 65. A.B., Princeton, 84, A.M., 87, hon. M.S., 20; Leipzig, 84-85; Tübingen, 85; Columbia, 87; LL.B., Chicago Col. of Law, 90. Co-editor, 'Open Court' and 'Monist,' 88-03; *prin*, *La Salle-Peru Township High Sch*, 03-; *director*, *La Salle-Peru Oglesby Junior Col*, 24- Math. Soc; Philos. Soc. *Philosophy and history of science*; *history and theory of mechanics*; *philosophy of education*.
- McCotter, Prof. Rollo E(ugene)**, 1043 Ferdon Road, Ann Arbor, Mich. *Anatomy*. Vermontville, Mich, Jan. 23, 78. M.D., Michigan, 10. Instr. anat, Michigan, 09-13; *prof*, *Vanderbilt*, 13-14; *Michigan*, 14- Ass. Anat. *Comparative anatomy*.
- McCouch, Dr. G(rayson) P(revost)**, University of Pennsylvania, Philadelphia, Pa. *Physiology*. Chestnut Hill, Pa, Sept. 9, 88. A.B., Harvard, 11; M.D., Pennsylvania, 15. Intern, Univ. Hosp, *Pennsylvania*, 15-17, *instr. physiol*, *sch. med*, 20- Neurologist, U.S.N. Base Hosp. No. 5, 17-18. *Physiol. Soc*; *Phila. Physiol. Soc*; *Phila. Neur. Soc.* *Rôle of the pyramidal tract in spinal shock*; *tensile relations of antagonistic muscles in reflex action*; *proprioceptive impulses*.
- McCourt, Prof. W(alter) E(dward)**, Washington University, St. Louis, Mo. *Geology*. Brooklyn, N. Y, Feb. 2, 84. A.B., Cornell, 04, fellow, 04-05, A.M., 05. Asst. *geol*, Cornell, 02-04, instr, 05-06; *Washington (St. Louis)*, 06-07, asst. prof, 07-12, assoc. prof, 12-15, *prof*, 15-, *dean sch. eng. and archit*, 20- Geologist, N. Y. State Exp. Sta, 03; asst. geologist, N. Y. State Museum, 04; N. J. Geol. Surv, 04-06; geologist, Mo. Geol. Surv, 10-12; summers, in charge *geol. and geog*, Colorado, 13- A.A.; Min. Eng. *Building stone*; *peat*; *clay*; *the Rocky Mountains*; *environmental influences*.
- McCoy, Alex(ander) W(atts)**, 1020 Patterson Building, Denver, Colo. *Geology*. Independence, Mo, Feb. 6, 89. C.E., Missouri, 12, A.M., 14. Research asst, Eng. Exp. Sta, Missouri, 12-13; instr. *geol*, Oklahoma, 14-16; field geologist, Mex. Eagle Oil Co, 16; geologist, Marland Oil Co, 16-17; research geologist, Empire Gas and Fuel Co, 17-20; *consulting geologist*, 20-; *first v. pres*, *Marland Oil Co*, 24- A.A.; Geol. Soc; Min. Eng; Ass. Petrol. Geol; Petrol. Inst. *Artesian waters of Missouri*; *effects of capillarity on oil accumulation*; *oil-water emulsions*; *relation of former shore lines to present oil fields*; *paleogeography of mid-continent oil district*; *oil accumulation*.
- McCoy, Dr. G(eorge) W(alter)**, Hygienic Laboratory, Washington, D. C. **Medicine*. Cumberland Valley, Pa, June 4, 76. M.D., Pennsylvania, 98. Res. med. officer, City Hosp, Newark, N. J, 98-00; asst. surgeon, U. S. *Pub. Health Service*, 00-05, past asst. surgeon, 05-12, *surgeon*, 12-, *director*, U. S. Plague Lab, San Francisco, Calif, 08-11, U. S. Leprosy Investigation Sta, Hawaii, 11-15, U. S. *Hygienic Lab*, *Washington, D. C*, 15- Nat. Board Med. Examiners; committee on biol. products, U. S. Pharmacopœia Revision; Bur. for Protection Med. Research. Soc. Bact; Ass. Path. and Bact; Am. Med. Ass. (chairman, sect. pharmacol. and therapeut, 19); Ass. Immunol; Ass. Mil. Surg; Pub. Health Ass; Wash. Humane Soc; Soc. Trop. Med; Calif. Acad. Med; Phila. Path. Soc. *Prophylactic and curative serums and vaccines*; *plague*; *leprosy*; *influenza*.
- McCoy, Dr. Herbert N(ewby)**, 1623 Hyde Park Boulevard, Chicago, Ill. **Chemistry*. Richmond, Ind, June 29, 70. B.S., Purdue, 92, M.S., 93; fellow, Chicago, 96-98, Ph.D., 98. Tech. chemist, Chicago, 93-94; *prof. chem. and physics*, Fargo, 94-96; asst. chem, Chicago, 98-99; asst. prof, Utah, 99-01; instr, Chicago, 01-03, asst. prof, 03-08, assoc. prof, 08-11, *prof*, 11-17; v. pres, *Lindsay Light Co*, 17- Chem. Soc; fel. Chem. Eng; Electrochem. Soc; Physical Soc. *Quinazolin derivatives*; *molecular weight apparatus*; *equilibrium in carbonate solutions*; *secondary ionization constants*; *affinity constants of indicators*; *rare earths*; *organic amalgams*; *radioactivity*.
- McCrackan, Prof. Rob(er)t F(ranklin)**, Medical College of Virginia, Richmond, Va. *Biochemistry*. Butler, S. C, April 30, 82. B.S., Mil. Col.

- of S. C.; A.M., Columbia, 12. Bur. Educ., P. I., 06-09; asst. chem., Columbia, 09-12; instr. *Med. Col. of Va.*, 12-15, *assoc. prof. biochem.*, 15- Summers, prof., Richmond, 24-27. A.A.; Chem. Soc. (v. chairman, Va. sect., 22). Analytical chemistry; colorimetry; microestimation of nitrogen; colorimetric analysis of blood filtrates; manganese in urine; stability of ammonium sulphate.
- McCracken, Dr. (Mary) Isabel**, Stanford University, Calif. *Entomology*. Alameda Co., Calif. A.B., Stanford, 04, A.M., 05, Ph.D., 08; Paris, 13-14. Teacher, pub. schools, Calif., 90-00; asst. physiol. and entom., *Stanford*, 03-04, instr. *entom. and bionomics*, 04-09, asst. prof., 09-24, *assoc. prof.*, 24- Asst., Stanford, 01-04; summers, asst., Hopkins Biol. Lab., Pacific Grove, Calif., 02, Calif. asst. to U. S. entomologist, mosquito investigations, 03. A.A. Mosquitoes in California; inheritance in beetles and silkworms; reflexes in silkworms; bionomics; heredity; Cynipidae.
- McCrae, Prof. Thomas**, Jefferson Medical College, Philadelphia, Pa. *Medicine*. Guelph, Ont., Can., Dec. 16, 70. B.A., Toronto, 91, fellow, 92-94, M.B., 95, M.D., 03; Göttingen, 99. Instr. *med.*, Hopkins, 99-01, *assoc.*, 01-06, *assoc. prof.*, 06-12; *prof.*, *Jefferson Med. Col.*, 12- Res. physician, Hopkins Hosp., 01-04; Lumleian lecturer, Royal Col. Physicians, London, 24. Am. Physicians (sec'y, 17-25); Am. Med. Ass.; Philos. Soc.; British Med. Ass.; fel. Royal Col. Physicians London.
- McCreedy, Dr. E(dwin) Bosworth**, 905 Keenan Building, Pittsburgh, Pa. *Psychology*. Allegheny, Pa., June 6, 80. Lafayette; M.D., *Medico-Chirurg. Col. Phila.*, 03. *Paedologist*, South-Side Hosp.; *juvenile court*, *Allegheny Co.* A.A.; Am. Med. Ass.; Col. Physicians; Cong. Physicians; Psychopath. Ass.; Ass. Study Epilepsy. Mental and physical defects of development in children.
- McCreath, Andrew S.**, P. O. Box 426, Harrisburg, Pa. *Chemistry*. Ayr, Scotland, March 8, 49. Glasgow, 65-69; Göttingen, 69. Chief chemist, Pa. Steel Co., 70-74; Pa. Geol. Surv., 74-84; *practising anal. chemist*, 84-; *senior mem.*, *Andrew S. McCreath and Son*, 00- Commissioner, Topog. Geol. Surv., Pa. A.A.; Min. Eng.; Min. and Metal. Soc.; Philos. Soc.; British Iron and Steel Inst. Coal and iron resources of the southwest, Virginia and Kentucky.
- McCrorry, S(amuel) H(enry)**, U. S. Department of Agriculture, Washington, D. C. *Civil engineering*. Iowa City, Iowa, May 5, 79. B.S., Iowa, 04, C.E., 08; A.E., 26. *Practising engineer*, 04-06; *chief div. agr. eng. bur. pub. roads*, U. S. Dept. Agr., 07- *Civil Eng.*; Soc. Test. Mat.; Agr. Eng.; Wash. Soc. Civil Eng.
- McCrosky, Prof. Carl R(aymond)**, Syracuse University, Syracuse, N. Y. *Chemistry*. Rosewood, Ohio, March 16, 90. A.B., Ohio Wesleyan, 12; fellow, Ohio State, 13-15, A.M., 15, Ph.D., 18. Instr. high sch., Pa., 12-13; asst. instr. chem., Ohio State, 15-17; instr., Oregon Col., 17-18; Col. City of N. Y., 18-19; *assoc. prof. and prof. chem.*, *Syracuse*, 19- Chem. Soc. Inorganic chemistry.
- McCrudden, Dr. Francis H(enry)**, 520 Commonwealth Ave., Boston, Mass. *Biochemistry, Internal medicine*. Boston, Jan. 5, 79. B.S., Mass. Inst. Tech., 00; M.D., Harvard, 08; Wurzberg, 08-10; Munich, 13. Asst. biochem., Harvard Med. Sch., 06-08; Pharmacol., Wurzberg, 09-10; chief chem. lab., Rockefeller Inst. Hosp., 10-13; director laboratories, Robert Brigham Hosp., 13-20; asst. prof. applied therapeut., Tufts, 14-18, prof., 18-24; *asst. med. director*, *New Eng. Mutual Life Ins. Co.*, 24- Chief med. service, U. S. Pub. Health Service Hosp. No. 36, 20-23; visiting physician, House of the Good Samaritan, and physician to out-patients, Mass. Gen. Hosp., 23- Capt., M.C., 19. A.A.; Am. Med. Ass.; Soc. Biol. Chem.; Soc. Exp. Biol.; Ass. Study Int. Secretions; Therapeut. Soc.; Harvey Soc.; Cong. Int. Med. Pharmacology; metabolism in chronic diseases; effect of treatment on metabolism.
- McCubbin, W(alter) A(lex)**, Pennsylvania Bureau of Plant Industry, Harrisburg, Pa. *Botany*. Ont., Can. B.A., Toronto, 08, M.A., 09; Harvard, 10-11. Asst. bot., Toronto, 08-10; lecturer, Ont. Agr. Col., 11-12; asst. to Dominion botanist, in charge plant path. field lab., 12-19; *plant pathologist*, *Pa. Bur. Plant Indust.*, 19- A.A.; Phytopath. Soc.; Verein für angewandte Bot.; Soc. mycol. de France. Development of the Helvellaceae; fruit diseases.
- McCue, Dean C(harles) A(ndrew)**, University of Delaware, Newark, Del. *Horticulture*. Cass City, Mich., May 29, 79. B.S., Mich. State Col., 01, 03-04; Pennsylvania, 10-11, 12-13. Instr. hort., Mich. State Col. and asst. horticulturist, Exp. Sta., 03-07; prof. hort., *Delaware*, 07-20, *dean agr. and director agr. exten.*, 20-, horticulturist, *Exp. Sta.*, 07-20, *director*, 20- A.A.; Soc. Hort. Sci. (past pres); Pomol. Soc. Pomology; rôle of plant food elements in orchard fruits; inheritance in peaches.
- McCulloch, Dr. Irene A(gnes)**, 821 W. 102d Place, Los Angeles, Calif. *Zoology*. Frankfort, Kans., Sept. 13, 86. A.B., A.M., Kansas, 13; Ph.D., California, 16. Asst. zool., California, 13-16; acting chief, Occidental, 16-17; biol., Newcomb, Tulane, 17-24; *prof. zool.*, *Southern California*, 24- A.A.; Soc. Zool.; Soc. Parasitol.; Micros. Soc. Protozoology.
- McCulloch, Miss Lucia**, 1326 Euclid St., N. W., Washington, D. C. *Plant pathology*. Cincinnati, Ohio, Feb. 26, 73. B.S., Florida, 02. Asst. biol., Florida, 01-03; teacher, Fla. State Nor. Sch., 03-05; asst. sub-trop. lab., Miami, Fla., 05-06; teacher, high sch., Fla., 06-07; sci. asst., *lab. plant path. bur. plant indust.*, U. S. Dept. Agr., 07-09, *asst. pathologist*, 09- A.A.; Phytopath. Soc.; Soc. Bact. Bacterial diseases of plants.
- McCullough, E(rvin) W(esley)**, 3924 N. New Jersey St., Indianapolis, Ind. *Sanitary engineering*. St. Ansgar, Iowa. E.M., Met.E., Minnesota. Asst. prof. metal, Minnesota; director div. mining and metal, Republic Creosoting Co.; *consulting engineer*, *Sanit. District of Indianapolis*. Administrative board and assemblyman, Eng. Council. Major, Sanit.R. Min. and Metal. Eng.; Ass. Eng.; Chem. Soc.; Ind. Eng. Soc. (past pres, trustee). Concentra-

- tion of ores; garbage disposal; municipal wastes.
- McCullough, Prof. J(ames) C(aldwell)**, Oberlin College, Oberlin, Ohio. *Chemistry, Metallography*. Mansfield, Ohio, Aug. 15, 84. B.S, Case, 06, M.S, 10. Chemist, Dow Chem. Co, Mich, 06-07; instr. chem, Oberlin, 07-11, assoc. prof, 11-26, *prof, 26-* Chem. Soc. Physical chemistry; metallography; photography.
- MacCurdy, Prof. George Grant**, Yale University Museum, New Haven, Conn. **Anthropology*. Warrensburg, Mo, April 17, 63. A.B, Harvard, 93, A.M, 94; Vienna, 95-96; Paris, 96-97; Berlin, 97-98; Ph.D, Yale, 05. Prin, pub. schools, Mo, 87-91; instr. prehist. anthrop, Yale, 98-00, lecturer anthrop, 02-10, asst. prof, 10-23, *research assoc, 23-, curator anthrop. collection, 02-*; director, *Am. Sch. Prehist. Research*, 21-22, *24-* Supervisory board, Am. Year Book Corp. Delegate from Paris Anthropol. Soc, Int. Cong. Americanists, N. Y, 02; delegate from Yale, City of Mex, 10. A.A. (sec'y, H, 01, v. pres, 05, sec'y, 09-16); Anthropol. Ass. (sec'y, 03-16); Archeol. Inst; fel. Ethnol. Soc; Philos. Soc; Conn. Acad; Wash. Anthropol. Soc; Mo. Hist. Soc; Numis. and Antiq. Soc. Phila; Berlin Anthropol. Gesell; Soc. d'Anthropol. de Paris; Schweiz. Anthropol. Gesell; Soc. Ital. d'Anthropol. Rome; cor. mem. Portuguese Inst. Coimbra. Prehistoric archeology; physical anthropology; eolith problem; cranial characters of inhabitants of New Pomerania; skeletal remains from the Highlands of Peru; human origins; Chiriquian antiquities; antiquity of man in Europe.
- MacCurdy, Prof. H(ansford) (M)**, Alma College, Alma, Mich. *Biology*. Warrensburg, Mo, Oct. 3, 67. A.B, Ohio Wesleyan, 95; A.M, Harvard, 05, Ph.D, 06. Supt. and instr. schools, Mo, 95-04; *prof, Alma, 06-* A.A; Soc. Zool; Genetic Ass; Mich. Archeol. Soc; Mich. Acad. (v. pres, 09-25). Heredity; degeneration of the nerve cells in Cambarus; development of neurofibrillae and first movements in amphibian embryo; fauna and flora of the Alma, Michigan, area; effects of sunlight on the starfish *Asterias forbesi*; a case of sex-linked inheritance in man; nuclear reorganization and conjugation in *Arceella vulgaris*; mastodon remains in Gratiot County, Michigan.
- MacCurdy, Dr. W(illiam) H(arold)**, 2724 Maryland Ave, Baltimore, Md. *Physics*. Old Barns, N. S. Can, Aug. 1, 97. B.A, Dalhousie, 21, M.A, 22; 1851 Exhib. fellow, Princeton, 22-24, Ph.D, 25. Instr, Princeton, 24-25; *Nat. Research Council fellow, 25-* Physical Soc. Discharges in mercury vapor and helium; absorption, resonance and refractive index in excited helium.
- MacCurry, J(ohn) B(ruce)**, 26 Broadway Ave, Ottawa, Ont, Can. *Plant pathology*. Ottawa, Feb. 14, 94. B.S.A, Toronto, 18. Asst. in charge, Dominion Lab. Plant Path, Brandon, Man, 19; asst. plant path, St. Catharines, Ont, 19-21; officer-in-charge, Charlottetown, P. E. I, 21-23; *plant pathologist, Cent. Exp. Farm, Ottawa, 23-* Diseases of fruit and potato crops.
- McCutcheon, Dr. Morton**, Alden Park Manor, Germantown, Pa. *Pathology*. Philadelphia, Pa, June 2, 88. A.B, Pennsylvania, 10, M.D, 17. Instr. *path, sch. med, Pennsylvania*, 19-26, *asst. prof, 26-* Soc. Exp. Path; Soc. Exp. Biol; Phila. Path. Soc. (recorder, 24); Phila. Physiol. Soc. Locomotion of leucocytes; vital staining; tissue culture; cell volume.
- McCutcheon, Prof. Thomas P(otter), Jr**, University of Pennsylvania, Philadelphia, Pa. *Chemistry*. Philadelphia, July 27, 81. A.B, Pennsylvania, 03, Ph.D, 07. Instr. qual. anal, *Pennsylvania*, 04-07, inorg. chem, 07-10, asst. prof. chem, 10-18, *prof, 18-* A.A; Chem. Soc. Electro-analysis; preparation of colloidal solutions by electrolysis with Hg-kathode; Pt metals; preparation of optically active cobalt compounds.
- McDaniel, Prof. A(llen) B(oyer)**, 7 Grafton St, Chevy Chase, Md. *Civil engineering*. Exeter, N. H, Sept. 5, 79. B.S, Mass. Inst. Tech, 01. Instr. civil eng, Case, 06-07; prof, South Dakota, 07-12; asst. prof, Illinois, 12-16; head dept. gen. eng, Union, 16-18; acting prof. civil eng, George Washington, 18-20; expediting engineer, construction div, U.S.A, 18-19, prin. engineer, 19-20, development expert, 20-24; *sec'y and treas, The Research Service, Inc, and Newell, Corse and McDaniel, 24-* Structural engineer, Purdy and Henderson, 02-03; Fort Pitt Bridge Works, 03-05; asst. engineer, East River div, Pa. Tunnels, 05-06; pres, Mo. Valley Eng. Co, 09-11. Wason medal, Am. Concrete Inst, 16. A.A; Civil Eng; Eng. Educ; Eng. Ass. (v. pres, 20); Am. Geog. Soc. Industrial research; structural and hydraulic engineering.
- McDaniel, Eugenia (Inez)**, Michigan State College, East Lansing, Mich. *Entomology*. La Crosse, Kans, 84. A.B, Kansas, 08. Prin, high sch, Kans, 09-10; *dept. entom, Mich. State Col, 10-* Control of household and greenhouse insects; Coccidae; insect life history.
- MacDaniels, Dr. L(awrence) H(owland)**, 422 Chestnut St, Ithaca, N. Y. *Pomology*. Fremont, Ohio, Oct. 21, 88. A.B, Oberlin, 12; Ph.D, Cornell, 17. Asst. dendrol, Oberlin, 10-12; farm course and bot, *Cornell*, 12-13, instr. bot, 13-17, asst. prof. *pomol*, 20-23, *prof, 23-* Relief exped, Armenia and Syria. Bot. Raw Products Committee, 17; Bur. Aircraft Production, 18. A.A; Bot. Soc; Soc. Hort. Sci. Plant histology and anatomy; phloem development in ontogeny of woody angiosperms.
- McDermott, Frank A(lexander)**, Eastern Alcohol Corporation, Penns Grove, N. J. *Chemistry*. Washington, D. C, Aug. 3, 85. B.S, Pittsburgh, 13, M.S, 14. Chem. div, hygienic lab, U. S. Pub. Health Service, 06-11; indust. fellow, Mellon Inst, 11-15; research chemist, Corby Co, 15-18; research chemist and bacteriologist, E. I. du Pont de Nemours and Co, 18-26; *chief chemist, East. Alcohol Corp, 26-* A.A; Chem. Soc; Soc. Chem. Indust; Soc. Bact; Ass. Med. Progress; Del. Soc. Nat. Hist. Utilization of cull citrus fruits; biophotogenesis; yeast and other fermentations.
- McDiarmid, Dr. R(ichard) J(ohn)**, Dominion Observatory, Ottawa, Ont, Can. *Astronomy*.

- Fingal, Ont, Sept. 13, 85. B.A, Toronto, 10; fellow, Pittsburgh, 10-11, M.S, 11; fellow, Princeton, 12-15, Ph.D, 15. *Astronomer, Dominion Observatory*, 11-12, 15- Gold medal, Royal Astron. Soc. Can, 10. A.A; fel. Royal Astron. Soc. Can. (sec'y, Ottawa cent, 20-22, pres, 22-24); fel. Royal Astron. Soc. Variable stars of algol type; meridian circle observations.
- MacDill, Major Leslie**, McCook Field, Dayton, Ohio. *Aeronautical engineering*. Monmouth, Ill, Feb. 19, 89. A.B, Hanover, 09; A.M, Indiana, 11; Sc.D, Mass. Inst. Tech, 22. *Army officer*, 12-; *major, A.C*, 20-, *chief exp. eng. sect*, 23-24, 25- Aerodynamics.
- McDole, Prof. G(uy) R(aymond)**, University of Idaho, Moscow, Idaho. *Soils, Agronomy*. Evanston, Ill, April 16, 86. B.S, A.M, Nebraska, 11. Research asst. agr. chem, Nebr. Exp. Sta, 11-13; div. soils, Minn. Exp. Sta, 16-17, asst. soils chemist, 19-20, asst. prof. soil chem, Minnesota, 19-20; *assoc. prof. agron, Idaho, and soil technologist, Exp. Sta*, 20-U.S.A, 17-19. Soil physics and chemistry; glutaric acids; soil moisture; farming practices for the cut-over lands of northern Idaho.
- MacDonald, Arthur**, The Congressional Apartments, 100 E. Capitol St, Washington, D. C. *Psychology*. Caledonia, N. Y, July 4, 56. A.B, Rochester, 79; Union Theol. Sem, 83; Harvard, 83-85; Berlin, Paris, Zurich and Leipzig, 85-89. Docent criminol, Clark, 89-91; specialist, U. S. Bur. Educ, 92-03. Psychol. Ass; Soc. d'Hypnot. et Psychol. de Paris; Cong. del' Antrop. Crim; cor. Antwerp. Paedolog. School-diest. Psychological and anthropological study of children; modern man; mentality of nations; legislative ability; abnormal man; old age and death in man; mentality and anthropometrical tests; history as a science; psychophysical in connection with pathosocial studies.
- MacDonald, Dr. Carlos F(rederick)**, 15 E. 48th St, New York, N. Y. *Psychiatry*. Niles, Ohio, Aug. 29, 45. M.D, Bellevue Hosp. Med. Col, 69; hon. A.M, Union, 94; LL.D, N. Y. Univ, 17. Prof. mental diseases, *Univ. and Bellevue Hosp. Med. Col*, 87-98, *mental diseases and med. juris*, 98-05, *emer. prof*, 05- Pres, N. Y. Lunacy Commission, 89-06. Medico-Psychol. Ass. (pres, 14); N. Y. Acad. Med; N. Y. Psychiat. Soc. Mental disease.
- Macdonald, Charles**, Engineers Club, New York, N. Y. *Civil engineering*. Gananoque, Ont, Can, Jan. 26, 37. C.E, Rensselaer, 57; Queen's (Can), 80, LL.D, 94. Asst. engineer, Grand Trunk Ry, and in charge surveys and construction, Phila. and Reading Ry, 63-68; engaged in bridge construction, 70-00; mem. Union Bridge Co, 84-00. Trustee, Rensselaer. Civil Eng. (pres, 08-09). Bridge design.
- MacDonald, Dr. D(onald) F(rancis)**, Drawers 1 and 2, Syracuse, N. Y. *Geology, Engineering*. Pictou Co, N. S, Can, Oct. 4, 75. B.S, Washington (Seattle), 05; M.S, George Washington, 06; fellow, Chicago, 07-08; LL.D, St. Johns, 13. Junior geologist, U. S. Geol. Surv, 08; asst. geol, Chicago, 08-09; instr. geol. and chem, Tulane, 09-10; asst. geologist, U. S. Geol. Surv, 10-14, geologist, 14-17; min. eng, U. S. Bur. Mines, 17; in charge explorations, Panama and Costa Rica, Sinclair Cent. Am. Oil Corp, 17-19, oil geol, 18-26; *consulting geologist*, 26- Geologist, Isthmian Canal Commission, 11-13. A.A; fel. Geol. Soc; Wash. Geol. Soc; Wash. Acad. The geology of the Snoqualmie, Coeur d'Alene and Philipsburg quadrangles; economic features of northern Idaho and northwestern Montana; the Bohemia mining district, Oregon; the Weaver-ville-Trinity Center gold gravels; the Coffee Creek-Trinity Center quartz mines; engineering problems of the Panama Canal; the slides in Culebra Cut, Panama; earthquakes and the Panama Canal.
- McDonald, Dr. Ellice**, 308 Physicians' Building, 20th and Chestnut Sts, Philadelphia, Pa. *Surgery*. Fort Ellice, Can, Oct. 27, 76. B.A, McGill, 97, M.D, C.M, 01. Instr. surg, N. Y. Post-Grad. Med. Sch. and Hosp, 07-22; *asst. prof. gynec, grad. sch. med, Pennsylvania*, 22- Fel. Col. Surg; Am. Med. Ass; Chem. Soc; Electrochem. Soc; Phila. Path. Soc; N. Y. Path. Soc. Atomic theory of disease; diseases of women; atomic theory applied to cancer research; mental diseases of women.
- MacDonald, Prof. G(ilmour) B(yers)**, Iowa State College, Ames, Iowa. *Forestry*. Carleton, Nebr, March 9, 83. B.S, Nebraska, 07, M.F, 14. U. S. Forest Service, 07-10; *prof. forestry, Iowa Col*, 10- Soc. Foresters; Am. Acad; Iowa Conservation Ass. (sec'y, 14-). Forestry in Iowa.
- McDonald, Prof. James Francis**, Creighton University, Omaha, Nebr. *Physiology, Neurology*. Copenhagen, N. Y, 81. M.D, Syracuse, 11, B.S, 18. Asst. anat, Univ. and Bellevue Med. Col, 11-13; prof. and head dept, Fordham, 13-18; fellow, Mayo Foundation, 18-21; *prof. and head dept. physiol, Creighton*, 21- Lecturer, St. Mary's Hosp, Rochester, Minn, 19-21. A.A; Am. Med. Ass; Chem. Soc. Purine metabolism; referred pain; bacterial morphology; nervous and chemical control of ciliary motion; physiology of semicircular canals.
- McDonald, Prof. J(ohn) H(ector)**, University of California, Berkeley, Calif. *Mathematics*. Toronto, Ont, Can, Dec. 11, 74. B.A, Toronto, 95; Ph.D, Chicago, 00. *Prof. math, California*, 02- Math. Soc. Elliptic and hyperelliptic functions; differential equations; theory of numbers; invariants.
- Macdonald, R(obert), Jr**, University Club, Niagara Falls, N. Y. *Chemistry*. Baird, Texas, Dec. 4, 93. B.S, Virginia, 16, M.S, 17. Instr. physics, Virginia, 14-16; chemist, Aluminum Co. of Amer, 17; chief chemist and metallurgist, *Gen. Abrasive Co, Inc*, 17- Chem. Soc; Ceramic Soc. Artificial aluminous abrasives.
- McDonnell, C(urtis) C(riss)**, U. S. Department of Agriculture, Washington, D. C. *Chemistry*. Florence, Pa, Feb. 25, 75. B.S, Maryland, 95, Sc.D, 20. Asst. chemist, Clemson, 96-07; *bur. chem, U. S. Dept. Agr*, 07-11, *chief insecticide and fungicide lab*, 11-, *senior chemist*, 24- Chairman tech. committee on insecticides, Fed. Specifications Board, 24- A.A; Chem. Soc; Ass. Econ. Entom; Wash. Acad. Manufacture of starch from sweet potatoes; rice plant and prod-

- ucts; insecticides; arsenates of lead and calcium; hydrocyanic acid; fungicides; disinfectants; nicotine; Pyrethrum.
- McDonnell, Dr. H(enry) B(arnett)**, College Park, Md. *Chemistry*. Florence, Pa, Oct. 31, 63. B.S., Pa. State, 86, M.S., 09; M.D., Col. Physicians and Surg. Baltimore, 88; Hopkins, 91-92. Asst. chem. Pa. State, 84-85; Md. Col. Pharmacy, 87-88; Col. Physicians and Surg. Baltimore, 87-88; asst. chemist, Pa. Exp. Sta, 88-91; prof. agr. chem, Maryland, 91-92, chem, 92-22, dean sch. science, 14-21, *chemist, path. investigations, Md. Exp. Sta, 22-* State chemist, Md, 92-22. A.A.; Chem. Soc; Agr. Chem; Am. Med. Ass; Feed Control Officials (pres, 14). Generating of ozone and its use in diseases; foods and nutrition.
- McDonnell, Dr. M(ilton) E(arle)**, 910 Allegheny St, Hollidaysburg, Pa. *Bacteriology*. Florence, Pa, Feb. 26, 73. B.S., Pa. State, 93, M.S., 96; Ph.D., Kiel, 99. Asst. chemist and bacteriologist, Pa. Exp. Sta, 93-98; bacteriologist, *Pa. Ry. Co, 99-15*, asst. chief chemist, *Pa. System, 15-21, chief chemist, 21-* Special agent, Pa. Dept. Agr, 97-98; mem, U. S. Tech. Committee Standardization of Petrol, 18- A.A.; Chem. Soc; Soc. Test. Mat; Pub. Health Ass. Water examination and purification; disinfection; pathology; sanitation and chemistry applied to transportation.
- McDonough, Dr. Eduard J(oseph)**, 51 Deering St, Portland, Maine. *Histology*. Portland, Aug. 10, 67. A.B., Holy Cross, 89; M.D., Med. Sch. of Maine, 92. Instr. histol, Med. Sch. of Maine, 97-04, prof. obstet, 04-21; *pathologist, Maine Gen. Hosp, 96-*, *visiting physician, 02-* Ass. Anat; Am. Med. Ass; Am. Acad. Med.
- McDonough, F(rank) L(awrence)**, Niagara Spraker Co, Middleport, N. Y. *Entomology*. Millis, Mass, June 11, 88. B.S., Conn. Col, 11. Sci. asst, bur. entom, U. S. Dept. Agr, 13; *crop pest specialist, Niagara Sprayer Co. A.A.*; Entom. Soc; Ass. Econ. Entom. Crop pest control; dusting.
- MacDougall, Dr. D(aniel) T(rembly)**, Desert Laboratory, Tucson, Ariz. **Botany*. Liberty, Ind, March 16, 65. B.S., De Pauw, 90, A.M., 93, LL.D., 10; M.S., Purdue, 91, Ph.D., 97; Leipzig and Tübingen, 95-96. Instr. biol, Purdue, 90-93; bot, Minnesota, 93-95, asst. prof, 95-99; first asst. and director laboratories, N. Y. Bot. Garden, 99-04, asst. director, 04-05; *director lab. plant physiol, Carnegie Institution, 05-* Special agent, U. S. Dept. Agr. bot. explorations, Ariz, 91, Idaho, 92. Ed, 'Jour. N. Y. Bot. Garden,' 95-05. Advisory board, desert bot. lab, Carnegie Institution, 02-05. A.A. (sec'y, G, 00, gen. sec'y, 02, v. pres, 06, v. pres, Pacific div, 16); Soc. Nat. (pres, 10); Bot. Soc. (sec'y, 01); Soc. Exp. Biol; Torrey Bot. Club (assoc. ed, 'Bul,' 99-06); Ecol. Soc; Calif. Acad; Wash. Acad; cor. mem. Phila. Acad; Soc. d'Acclim. de France; for. mem. Hollandsche Maatschappe d. Wetenschappen. Irritability and general motor reactions of plants; curvatures and movements; symbiosis; nutrition and growth; influence of gases on plants; relation of light and darkness to growth and development; influence of temperature upon plants; relation of plants to climate; vegetation of American and African deserts; heredity and organic evolution; revegetation of Salton Basin; inductive influence of physical factors on plants; alterations in heredity induced by ovari treatment of seed-plants; water balance in succulents; Xeno-parasitism; the fundamental physical factors in growth; hydration and growth; reactions of biocolloids; origin of xerophytism and of succulence.
- MacDougall, Prof. M(ary) S(tuart)**, Agnes Scott College, Decatur, Ga. *Zoology*. Laurinburg, N. C, Nov. 7, 85. A.B., Randolph-Macon Woman's Col, 12; M.S., Chicago, 16; Dykman fellow, Columbia, 22-24, Ph.D., 25. *Head dept. science, Athens Col, 12-14; zool, Shorter Col, 14-17; Winthrop Col, 17-19; Agnes Scott Col, 19-* Asst, Barnard, Columbia, 22-23, Columbia, 23-24; research assoc, sch. hygiene, Hopkins, 26; summers, Marine Biol. Lab, 24- Ga. Acad. Protozoology; cytology; cytological observations on gymnostomatous ciliates; bird malaria; the neuromotor apparatus of chlamy-dodon.
- MacDougall, Prof. F(rank) H(enry)**, University of Minnesota, Minneapolis, Minn. *Physical chemistry*. Maxville, Ont, Can, Oct. 24, 83. B.A., Queen's (Can), 02, M.A., 03, 1851 Exhib. scholar, Leipzig, 05-07; Ph.D., Leipzig, 07. Instr. and asst. prof. chem, Agr. and Mech. Col. Texas, 07-12; assoc. prof, Calgary, 12-15; instr, *Minnesota, 15-17*, asst. prof, 17-19, as- soc. prof, 19-24, *prof, 24-* A.A.; Chem. Soc. Reaction velocity; equation of state for gases; specific heat of gases; thermodynamics; electrical conductance of inhomogeneous systems; surface tension.
- MacDougall, Prof. Robert**, 228 Midland Ave, Montclair, N. J. **Psychology*. Dewittville, Que, Can, June 12, 66. B.A., McGill, 90; A.M., Harvard, 93, Ph.D., 95; Berlin and Paris, 95-96. Instr. philos, Western Reserve, 96-97, assoc. prof. pedag, 97-98; instr. philos, Harvard, 98-01; *prof. anal. psychol, N. Y. Univ, 01-* Field staff, Can. Geol. Surv, 91-93. Assoc. ed, 'Psychol. Rev.' Speaker, Int. Cong. Science, St. Louis. A.A.; Soc. Nat; Psychol. Ass; Philos. Ass; Genetic Ass; fel. N. Y. Acad. (v. pres, sect. anthrop. and psychol, 06-08). Social psychology; sensory perception; attention; reaction; psychological esthetics; rhythms of common meters; number habit; time-sense; speech; reading; spelling.
- MacDougall, Prof. W(alter) B(yron)**, Urbana, Ill. *Botany*. Ypsilanti, Mich, Dec. 10, 83. A.B., Michigan, 11, Ph.D., 13. Instr. bot, *Illinois, 13-17*, assoc, 17-18, *asst. prof, 18-* A.A.; Bot. Soc; Ecol. Soc; Eugenics Soc; Ill. Acad. (treas, 24-27); British Mycol. Soc; British Ecol. Soc. Mycorrhizas; root growth of trees; mushrooms; symbiosis; ecology of forests; plant ecology.
- MacDougall, Prof. William**, Harvard University, Cambridge, Mass. **Psychology*. Lancashire, Eng, 71. D.Sc, Manchester; St. Thomas Hosp, London; M.B., Cambridge; M.A., Oxford; Göttingen. Fellow, St. John's Col, Cambridge, 98; reader, Univ. Col, London, 01; reader mental

- philos, Oxford, 04, fellow, Corpus Christi Col, 12; *prof. psychol, Harvard, 20-* Major, R.A.M.C, 15. Fel. Royal Soc. Social psychology; physiological psychology; behavior; body and mind; pagan tribes of Borneo; normal and abnormal psychology.
- MacDowell, C(harles) H(enry)**, 111 W. Jackson Boulevard, Chicago, Ill. *Agricultural chemistry*. Lewistown, Ill, Oct. 21, 67. Hon. Sc.D, Pittsburgh, 21. Organizer, fertilizer and by-product dept, *Armour and Co*, 87, dept. manager, 94, director, 20-23, *v. pres, 23-*, *pres, Armour Fertilizer Works, 10-* Chairman chem. committee, Chicago, 26. D.S. medal. Chevalier, Légion d'honneur; Commander, Crown of Belgium; Knight of the Crown, Italy. Director chem. div, War Industries Board, 17-18; assoc. econ. adviser, Am. Peace Commission, Paris, 19. A.A.; Chem. Soc; Min. and Metal. Eng; West. Soc. Eng. (pres, 21); Mil. Eng; Int. Soc. Soil Sci; Ass. Med. Progress; Ill. Acad; fel. Royal Soc. Arts. Fertilizers, including potash mining and recovery; phosphates; nitrogen fixation; aluminum.
- MacDowell, Dr. E(dwin) Carleton**, Cold Spring Harbor, N. Y. *Zoology*. New York, N. Y., Sept. 8, 87. A.B, Swarthmore, 09; M.S, Harvard, 11, Sc.D, 12. Instr. zool, Dartmouth, 12-13; biol, Yale, 13-14; *res. investigator, sta. for exp. evolution, Carnegie Institution, 14-* Soc. Nat; Soc. Zool; Soc. Exp. Biol. Comparative mycology of apes; size inheritance in rabbits; bristle inheritance in *Drosophila*; alcoholism in rats; influence of alcohol on prenatal mortality; sex ratio in mice.
- MacDuffee, Prof. C(yrus) C(olton)**, Ohio State University, Columbus, Ohio. *Mathematics*. Oneida, N. Y, June 29, 95. B.S, Colgate, 17; M.S, Chicago, 20, fellow, 20-21, Ph.D, 21. Instr. *math*, Colgate, 17-19; Princeton, 21-23, *asst. prof, 23-24; Ohio State, 24-* A.A.; Math. Soc; Math. Ass. (exec. committee, Ohio sect, 25-). Invariant theory; linear algebras; foundations of algebra.
- McDunnough, Dr. J(ames) H(alliday)**, Department of Agriculture, Ottawa, Ont, Can. *Entomology*. Toronto, Ont, May 10, 77. M.A, Queen's (Can); Ph.D, Berlin, 09. Curator, Barnes' Lepidoptera Collection, Decatur, Ill, 10-19; *chief div. systematic entom, entom. branch, Can. Dept. Agr, 19-* Ed, 'Can. Entomologist', 21- Fel. Entom. Soc. Taxonomic entomology; North American Lepidoptera and Ephemera.
- McEachron, K(arl) B(oyer)**, 23 Waverly St, Pittsfield, Mass. *Electrical engineering*. Hoo-sick Falls, N. Y, Nov. 17, 89. E.E, M.E, Ohio Northern, 13; M.S, Purdue, 20. Instr. elec. eng, Ohio Northern, 14-18; Purdue, 18-22, research asst, Eng. Exp. Sta, 18-20, research assoc, 20-22; *light arrester, eng. dept, Gen. Elec. Co, 22-* Elec. Eng; Eng. Educ; Ind. Acad. Corona; fixation of atmospheric nitrogen; high voltage and transient phenomena; the cathode ray oscillograph; determination of the time lag of needle gaps.
- McElfresh, Dr. W(illiam) E(dward)**, Williams College, Williamstown, Mass. *Physics*. Griggs-ville, Ill, Oct. 5, 67. A.B, Ill. Col, 88; A.B, Harvard, 95, A.M, 96, Ph.D, 00. Asst. *physics*, Harvard, 96-01, Austin teaching fellow, 01-02, instr, Radcliffe, 97-01; *Williams, 01-03*, asst. prof, 03-05, *Thomas T. Read prof, 05-* Research, Cavendish lab, Cambridge, 14. A.A; Physical Soc. Occlusion of hydrogen by palladium.
- McElroy, Dr. W(illiam) S(windler)**, University of Pittsburgh, Pittsburgh, Pa. *Biochemistry*. Pittsburgh, Sept. 26, 93. B.S, Pittsburgh, 14, M.D, 16. Asst. *physiol. and pharmacol, sch. med, Pittsburgh, 14-16*, instr. *physical chem, 16-19*, asst. prof, 20-21, *prof, 21-* Soc. Biol. Chem; Chem. Soc; Soc. Exp. Biol. Blood pigments; protein and iron metabolism; kidney functions; determination of reducing sugars.
- McElroy, Dr. C(larence) H**, Agricultural and Mechanical College, Stillwater, Okla. *Bacteriology, Veterinary medicine*. Tulsa, Okla, 86. B.S, Okla. Agr. and Mech. Col, 06; D.V.M, St. Joseph Vet. Col, 19. Instr. *vet. med. and physiol, Okla. Agr. and Mech. Col, 09*, asst. bacteriologist, 12-16, *assoc. prof. vet. med. and bacter, 21-*, dean *sch. sci. and lit. Vet. Med. Ass.* Hog cholera; the effect of protein ration on fertility of livestock; symptomatic anthrax.
- McElvain, Prof. S(amuel) M(arion)**, 1608 Adams St, Madison, Wis. *Organic chemistry*. Duquoin, Ill, Dec. 9, 97. B.S, Washington (St. Louis), 20; M.S, Illinois, 21, Ph.D, 23. Instr. *chem, Wisconsin, 23-25*, *asst. prof, 25-* Chem. Soc. Synthetic drugs; local anesthetics.
- Macelwane, Rev. James B(ernard), S.J**, St. Louis University, St. Louis, Mo. *Physics, Seismology*. Near Port Clinton, Ohio, Sept. 28, 83. A.B, St. Louis, 10, A.M, 11, M.S, 12, 15-18, 19-21; Ph.D, California, 23. Teacher, high sch, Ohio, 07-08; instr. *physics, St. Louis, 12-13*, asst. prof, 13-15, 18-19; geol. and in charge seismog. stations, California, 23-25; *prof. geophys. and director dept, St. Louis, 25-* Summers, asst. prof, Creighton, 17, St. Louis, 19, prof, Campion Col, 20, 21, dean, 21, 25. A.A; Physical Soc; Seismol. Soc. Change of period and velocities of elastic waves; relation of certain earthquakes to faults in California; epicenters of earthquakes; structure of the earth's interior.
- McEvoy, James**, 77 Toronto Arcade, Yonge St, Toronto, Ont, Can. *Geology*. Carleton Co, Ont, Feb. 2, 62. B.A.Sc, McGill, 83. Can. Geol. Surv, 85-00; geologist, land commissioner and chief engineer, Crow's Nest Pass Coal Co, and gen. supt, M. F. and M. Ry, 01-07; *consulting mining engineer, 08-* Can. Min. Inst; London Inst. Min. and Metal. Development of coal and oil properties.
- McEwan, Dr. Eula D(avis)**, University of Nebraska, Lincoln, Nebr. *Geology*. Milford, Ill. A.B, Indiana, 13, A.M, 14, Ph.D, 18; Columbia, 16-17. Paleobotanist, Smithsonian Inst, 17-18; instr. *geol, Northwestern, 18-19*; head dept, Simpson, 20-22; *asst. prof, Nebraska, 22-* A.A; Ass. Petrol. Geol; Paleont. Soc; fel. Iowa Acad. Brachiopoda.

- MacEwen, Prof. Ewen M(urchison)**, 315 Fairview Ave, Iowa City, Iowa. *Anatomy*. Greenwich, P. E. I. Can, Sept. 16, 85. B.S. Coe, 07; M.D. Iowa, 12, M.S. 15. Instr. *anat*, Iowa, 12-16, asst. prof, 16-20, *prof*, 20- Neuroanatomy; development of the tooth; neuroglia in gray matter; the seventh cranial nerve.
- McEwen, Dr. G(eorge) F(rancis)**, La Jolla, Calif. *Physics*, *Mathematics*. Manchester, Iowa, June 16, 82. A.B. Stanford, 08, Ph.D. 11. Asst. physics, Stanford, 07-10, applied math, 08-10, instr, 10-11; math, Illinois, 11-12; *oceanographer*, *Scripps Inst. of Oceanography*, 12-, asst. prof, California, 19-23, *assoc. prof. physical oceanog*, 23- Physicist, Marine Biol. Sta, San Diego, 08-11; in charge tide sta, U. S. Coast and Geod. Surv, La Jolla, 24- Committee, Pacific exploration, Nat. Research Council, 19; chairman, U. S. Nat. subcommittee on physical and chem. oceanog. of the Pacific, 25. U. S. delegate, Pan-Pacific Sci. Conf, Hawaii, 20, third Pan-Pacific Sci. Cong, Tokio, 26. Geophys. Union. Physical Soc; Math. Soc; Am. Geog. Soc. Applied mathematics; physical oceanography; statistical methods; measurement of viscosity; temperature, salinity and circulation in the Pacific Ocean.
- McEwen, Prof. R(obert) S(tanley)**, Oberlin College, Oberlin, Ohio. *Zoology*. Cleveland, Ohio, Jan. 6, 88. A.B. Western Reserve, 11, A.M. 12; Ph.D. Columbia, 17. Asst. *zool*, Columbia, 16-17; instr, *Oberlin*, 17, asst. prof, 19-25, *assoc. prof*, 25- Summer, instr, Rutgers, 18, Woods Hole, 22. Hosp. C, U.S.N.R.F., 17-18. A.A.; Soc. Zool; Ohio Acad. Light and gravity reactions of *Drosophila* and its mutants.
- Macey, Prof. Harold**, University Farm, St. Paul, Minn. *Bacteriology*. Hudson, N. Y., Jan. 23, 95. B.S. Cornell, 17. Asst. *prof. dairy bacter*, Minnesota, 19- A.A.; Soc. Bact; Dairy Sci. Ass. Dairy bacteriology; mycology.
- McFarland, Prof. David F(ord)**, Pennsylvania State College, State College, Pa. *Chemistry*, *Metallurgy*. Mansfield, Ohio, Aug. 1, 78. A.B. Kansas, 00, A.M. 01; fellow, Yale, 02-03, M.S. 03, Ph.D. 09. Instr. chem, Kansas, 00-03, asst. prof, 03-10; Illinois, 10-16, *assoc. prof. applied chem*, 16-20; *prof. metal. and head dept*, Pa. State, 20- Asst, Yale, 08-09. A.A.; Chem. Soc; Min. and Metal. Eng. Reactions of organic acid esters and chlorids in liquid ammonia solutions; pyrimidines and amidines; composition of natural gas; helium in natural gas; alloys of chromium, copper and nickel; steel and various non-ferrous alloys.
- McFarland, Dr. Elsie J(eanette)**, University of Oklahoma, Norman, Okla. *Mathematics*. St. Louis, Mo, 97. A.B. California, 17, A.M. 18, Ph.D. 20. Instr. math, Dominican Col, 22-24; California, 22-24; Mills Col, 24-25; *Oklahoma*, 25- Math. Soc; Math. Ass. Higher plane curves.
- MacFarland, Prof. F(rank) M(ace)**, 2 Cabrillo Ave, Stanford University, Calif. **Histology*. Centralia, Ill, June 10, 69. Ph.B. De Pauw, 89; A.M. Stanford, 93; Würzburg and Zurich, 94-96, Ph.D. Würzburg, 96. Prof. biol, Olivet, 89-92; instr. *histol*, Stanford, 92-94, asst. prof, 94-97, *assoc. prof*, 97-09, *prof*, 09-, director marine biol. lab, 10-18. A.A.; Ass. Anat; fel. Calif. Acad. (cor. sec'y, 26-). Cytology; opisthobranch Mollusca; invertebrate zoology; vertebrate spermatogenesis; Pacific coast Opisthobranchiata.
- McFarland, Prof. Frank T(heodore)**, University of Kentucky, Lexington, Ky. *Botany*. Sunbury, Ohio, May 12, 86. B.S.A. Ohio State, 12; M.S. Michigan, 16; Ph.D. Wisconsin, 21. Instr. *bot*, Kentucky, 12-13, asst. prof, 13-20, *assoc. prof*, 20-22, *prof. and head dept*, 22- Summers, asst, Michigan, 14, instr, 15. A.A.; Bot. Soc; Phytopath. Soc; Ecol. Soc; Fern Soc; Ky. Acad. Fungi; ferns.
- McFarland, Prof. Joseph**, 442 W. Stafford St, Philadelphia, Pa. *Pathology*, *Bacteriology*. Philadelphia, Feb. 9, 68. M.D. Pennsylvania, 89; hon. M.D. Medico-Chirurg. Col. Phila, 98; Sc.D. Ursinus, 14. Demonstrator path. histol. and lecturer bacter, Pennsylvania, 92-96; *prof. path. and bacter*, Medico-Chirurg. Col. Phila, 96-16; *path*, Pennsylvania, 16- Prof. Woman's Med. Col. of Pa, 12-15. Major, M.C. 17-20. Ass. Path. and Bact; Soc. Bact; Am. Med. Ass; fel. Col. Physicians; fel. Phila. Col. Physicians; Phila. Path. Soc. (pres, 08); Phila. Acad. Medical pathology and bacteriology; pathogenic bacteria and Protozoa; tumors; surgical pathology; general and medical biology; anomalies, diseases and treatment of the breast.
- McFarland, W(alter) M(artin)**, 85 Liberty St, New York, N. Y. *Marine and mechanical engineering*. Washington, D. C, Aug. 5, 59. Grad. U. S. Naval Acad, 79, post-grad, 23; Hopkins, 20. Asst. prof. mech. eng, Cornell, 83-85; asst. and prin. asst. to engineer-in-chief, U.S.N., 89-94, 97-98, chief engineer, 98, lieutenant, 99, resigned, 99; v. pres, Westinghouse Elec. and Mfg. Co, 99-10; *manager marine dept*, Babcock and Wilcox Co, 10- Lecturer, U. S. Naval War Col, 94; Cornell, 00-04; Columbia; Stevens. Personnel Board, U.S.N., 97. Pres, board trustees, Webb Inst. Naval Archit. Sec'y, div. marine eng, Int. Eng. Cong, Chicago, 93; delegate from U.S.N. to Int. Cong. Naval Archit. and Marine Eng, London, 97, 11. Naval Eng. (ed, 'Jour'); Mech. Eng. (past v. pres); Naval Archit. (past pres). Growth of economy in fuel; the commercial side of engineering; factory management; economics of production.
- Macfarlane, Prof. J(ohn) M(uirhead)**, University of Pennsylvania, Philadelphia, Pa. **Botany*. Kircaldy, Scotland, Sept. 28, 55. B.S. Edinburgh, 80, D.Sc. 83; LL.D. Pennsylvania, 20. Asst. bot, Edinburgh, 80; lecturer, St. George's Col. and Royal Vet. Col, 81-89; first asst, Edinburgh, 88; *prof. biol*, Pennsylvania, 92-93, *bot*, 93-20, *emer. prof*, 20-, director bot. garden, 96-20. Curator herbarium, Edinburgh, 84-88; univ. exten. lecturer, Phila, 91-92. Acting ed, Trans. Edinburgh Bot. Soc., 85-90; ed, 'Bot. Contrib.' Pennsylvania, 94- A.A.; Soc. Nat; Bot. Soc; Philos. Soc; Pa. Bot. Soc. (founder, 97, curator, 97-20); Phila. Acad; British Ass; Edinburgh Royal Soc; Edinburgh Bot. Soc. (acting sec'y, 85-90). Cell structure; insectivorous plants; plant hybrids; sensitive-plants; general histology; sensitive-plant

- movements; principles of evolution; hybrid rhododendrons; synchronism in plant structures; Nepenthaceae; Sarracenaceae; Cephalotaceae; causes and course of organic evolution; evolution and distribution of fishes; fishes the source of petroleum.
- Macfarlane, Dr. Wallace**, 1226 Matson Building, San Francisco, Calif. *Agronomy*. Silver Reef, Utah, Dec. 18, 86. B.S. Utah, 10; fellow, Illinois, 12-15, M.S., 13, Ph.D., 15. Asst. chemist, Utah Col., 10-12; asst. prof. agron., Okla. Agr. and Mech. Col., 16-17; agronomist, Arizona, 17; chemist, Hawaii Exp. Sta., 19-23; *sales manager*, North. Calif. Pacific Guano and Fertilizer Co., 25- Chem. Soc.; Soc. Agron.; Okla. Acad.; Hawaiian Chem. Ass. Soil fertility; pineapple wilt; papain.
- McGavack, Dr. John**, 561 W. 58th St, New York, N. Y. *Chemistry*. Waterford, Va., Feb. 10, 93. A.B., Hampden-Sidney, 13; research fellow, Hopkins, 19-20, Ph.D., 20. Asst. prin. high sch., W. Va., 13-16; asst. chem., Hopkins, 16-17, physical chem., 20; *research chemist*, U. S. Rubber Co., 20- C.W.S., U.S.A., 17-19. Chem. Soc. Physical and colloidal chemistry; adsorption of sulphur dioxide by the gel of silicic acid; chlorine and the rubber molecule.
- MacGee, Dr. A(lfred) Ernest**, 1501 Neil Ave, Columbus, Ohio. *Engineering*. Toledo, Texas, Oct. 17, 98. B.S., Louisiana, 21, M.S., 22; Ph.D., Ohio State, 25. Engineer and draftsman, Westcott Eng. Co., 19-20; asst. instr. chem., Louisiana, 20-22; Ohio State, 22-23; instr., Case, 23-24; *research engineer*, U. S. Bur. Mines, 25-Summer, instr., Louisiana, 22. Chem. Soc.; Chem. Eng.; Ceramic Soc. Chemical and ceramic engineering; vegetable decolorizing carbons; rare sugars, specific heats and thermal reactions; physical properties of abrasives; expansion and elasticity of ceramic products; air expansion apparatus.
- McGee, Dr. Anita Newcomb**, 1954 Columbia Road, Washington, D. C. *Anthropology*. Washington, Nov. 4, 64. Geneva and Berlin, 82-85; M.D., George Washington, 92. Acting asst. surgeon, U.S.A. as supt. army nurse corps, 98-00; supervisor nurses, Japanese Army, 04; lecturer hygiene, California, 11. Mem. corp., Woods Hole. Imp. Order of Sacred Crown, Japan. A.A. (sec'y, H, 97); Ass. Mil. Surg. Heredity in man; population growth.
- McGee, Dr. J(ohn) M(erritt)**, 842 S. Durbin St, Casper, Wyo. *Physical chemistry*. St. Cloud, Minn., Jan. 30, 88. A.B., Washington (Seattle), 09, A.M., 11; A.M., Columbia, 14; Ph.D., California, 19. Teaching fellow, California, 16-19; staff mem., lab. plant physiol., Carnegie Institution, 19-24; *research chemist*, Standard Oil Co. of Ind., 24- Chem. Soc. Preparation and properties of sodium amide; plant respiration and photosynthesis; petroleum and its products.
- McGeoch, Prof. John A(lexander)**, Washington University, St. Louis, Mo. *Psychology*. Argyle, N. Y., Oct. 9, 97. A.B., Westminster, 18; A.M., Colo. Col., 19; Ph.D., Chicago, 26. Instr. psychol., Washington (St. Louis), 20-22, asst. prof., 22-26, *assoc. prof.*, 26- A.A. Intelligence tests; learning; comparative psychology.
- McGeorge, W(illiam) T(homas)**, Hawaiian Sugar Planters' Association Experiment Station, Honolulu, Hawaii. *Soil chemistry*. Rosedale, Kans., July 27, 86. B.S., Kansas; M.S., George Washington. Chemist, Swift and Co., 09; asst. chem., office of exp. sta., U. S. Dept. Agr., 10-15, bur. chem., 15-19; *assoc. chemist*, Exp. Sta., Hawaiian Sugar Planters' Ass., 20-25; *assoc. prof. agr. chem.*, Arizona, and *assoc. chemist*, Exp. Sta., 26; *Hawaiian Sugar Planters' Ass.*, 27- Chem. Soc. Soil fertility; agricultural chemistry.
- McGhee, Prof. J(oseph) L(ewellyn)**, Emory University, Ga. *Chemistry*. Philadelphia, Tenn., Sept. 6, 73. A.B., Emory and Henry, 03; fellow, Hopkins, 10-11, Ph.D., 11. Prof. chem. and head dept., Emory and Henry, 08-13; Southwestern (Texas), 13-17; Florida, 17-20; *biochem*, Emory, 20- Osmotic pressure; osmosis.
- McGill, Dr. Caroline**, 58 W. Quartz St, Butte, Mont. *Anatomy*. Mansfield, Ohio, 79. A.B., Missouri, 04, A.M., 05, fellow, 05-06, Ph.D., 08, Sarah Berliner fellow, 09; M.D., Hopkins, 14. Instr. anat., Missouri, 06-11; *practising physician*. Ass. Anat. Zoology; histogenesis and histology of smooth and striated muscle.
- McGill, Prof. J(ohn) T(homas)**, Vanderbilt University, Nashville, Tenn. *Chemistry*. Monroe Co., Tenn., Oct. 13, 51. B.S., Vanderbilt, 79, fellow, 79-81, Ph.D., 81, Ph.G., 82; Berlin, 85-86. Instr. chem., Vanderbilt, 81-86, adjunct prof., 86-00, prof. *org. chem.* and dean dept. pharmacy, 00-19, *emer. prof.*, 19- Pres., Am. Conf. Pharmaceut. Faculties, 07. A.A.; Chem. Soc.; Tenn. Acad. (sec'y-treas., 26-).
- McGill, Dr. William J(ames)**, 1272 Davis Ave, Whiting, Ind. *Organic chemistry*. Saginaw, Mich., April 15, 94. B.S., Michigan, 19, Stearns fellow, 19, M.S., 20, Ph.D., 24. Instr., Michigan, 20-24; chief chemist, Tri-State Baking Co., Mich., 24-25; *research chemist*, Standard Oil Co. of Ind., 25- Chem. Soc. Pharmaceutical chemistry; chemistry of free radicals; higher aliphatic hydrocarbons.
- MacGillivray, Dr. John H(enry)**, Agricultural Experiment Station, West Lafayette, Ind. *Horticulture*. Ithaca, N. Y., Jan. 27, 99. B.S., Illinois, 21, M.S., 22; Ph.D., Wisconsin, 25. Asst. olericulture, Illinois, 21; veg. gardening, Cornell, 22-23; research asst. bot., Wisconsin, 24-25; olericulture, *Purdue Exp. Sta.*, 25-27, *assoc. tomato quality studies*, 27- A.A.; Soc. Plant Physiol.; Soc. Hort. Sci.; Ind. Acad. Vegetable gardening; nutrition of the tomato plant.
- McGinnis, Prof. C(laude) S(tonecliffe)**, 129 Washington Lane, Wyncote, Pa. *Physics*. Indianapolis, Ind., Oct. 12, 81. B.S., Mass. Inst. Tech., 06; Ph.D., Pennsylvania, 11. Asst. physics, Mass. Inst. Tech., 06-08; instr., Pennsylvania, 08-11; *prof. physics and elec. eng.*, New Brunswick, 11-20; *physics*, Temple, 20- Sound.
- McGinty, Dr. Daniel A(rthur)**, 1024 Hill St, Ann Arbor, Mich. *Physiology*. Goltry, Okla., June 20, 96. A.B., Denver, 20, A.M., 21; Ph.D., Michigan, 24. Asst. chem., Denver, 19-21; research asst. physiol. chem., Illinois, 21-22; instr., Michi-

- gan, 22-24, *physiol. med. sch.*, 24-26, *asst. prof.*, 26- *Physiol. Soc. Intermediary metabolism of amino acids; lipase activities; chemical regulation of respiration.*
- McGinty, Prof. R(upert) A(lonzo)**, Colorado Agricultural College, Fort Collins, Colo. *Plant physiology.* West Point, Ga, May 2, 86. B.S., Ala. Polytech, 13; Lackland fellow, Mo. Bot. Garden, 18-19; A.M., Washington (St. Louis), 19. Instr. hort, Colo. Agr. Col, 13-14, *asst. prof.*, 14-16, *assoc. prof.*, 16-20; field manager, Colo. Packing Corp, 20-21; *assoc. prof. hort, Colo. Agr. Col.*, 21- A.A.; Soc. Hort. Sci. Diastase activity in potato tubers.
- McGlannan, Dr. Alexius**, 115 W. Franklin St, Baltimore, Md. *Surgery.* Baltimore, July 24, 72. B.S., 89; M.D., 95; A.M., 10; LL.D., 25. *Asst. surg. and assoc. prof. surg. path, Col. Physicians and Surg.* Baltimore, 02-13; *prof. surg, Maryland*, 13- *Col. Surg.*; Am. Med. Ass; Gastro-Enterol. Ass; S. Surg. Ass; Md. Med. and Chirurg. Faculty (v. pres, 14); Baltimore City Med. Soc. (pres, 23). Therapeutics.
- McGlone, Dr. Bartgis**, 42d St. and Chester Ave, Philadelphia, Pa. *Physiology.* Baltimore, Md, Oct. 19, 81. A.B., Hopkins, 02, Ph.D., 07. Student asst, U. S. Weather Bur, 01-02; instr. biol. and geol, Ill. Wesleyan, 03-04, *prof.*, 04-05; *asst.*, Hopkins, 05-06; *prof. biol.*, St. John's (Md.), 07-12; *physiol.*, Col. Physicians and Surg, Baltimore, 12-15; Maryland, 15-25; *research, Pennsylvania*, 25- *Sci. asst.*, Bur. Fisheries, 07-08. A.A. Echinodermata; embryology; experimental embryology; body temperature; changes in form of red blood cells.
- McGrath, Prof. Bernard Francis**, Elks Club, Milwaukee, Wis. *Surgery.* Amesbury, Mass, 69. A.B., Georgetown, 94, M.D., 95; Harvard, 06. Visiting surgeon, Beverly Hosp, Mass, 99-09; director exp. surg, supervisor autopsies and *asst. pathologist*, Mayo Clinic, 09-15; *prof. surg. principles and director surg. lab, Marquette*, 16- Major and commanding officer, Gen. Hosp. 109, O.R.C. Am. Med. Ass; fel. Col. Surg. Surgery; pathology; medical education; hospital standardization.
- McGregor, E(rnest) A(lexander)**, Lindsay, Calif. *Entomology.* Everett, Mass, Dec. 1, 80. A.B., Stanford, 08, A.M., 09. *Asst. to curator of herbarium*, Stanford, 06-09; *asst. and assoc. entomologist, bur. entom.*, U. S. Dept. Agr, 10- Field asst. to sec'y, Calif. State Board Health. A.A; Entom. Soc; Ass. Econ. Entom. Polyclads; Sierra spermatophytes; South Carolina plants; pests of the cotton plant; Mallophaga; Tetranychids; Japanese Salmonidae; citrus pests.
- McGregor, Prof. J(ames) H(oward)**, Columbia University, New York, N. Y. **Zoology.* Belaire, Ohio, July 23, 72. B.S., Ohio State, 94; fellow, Columbia, 95-97, A.M., 96, Ph.D., 99. *Asst. zool.*, Ohio State, 94-95; *Columbia*, 97-99, tutor, 99-04, lecturer, 04-06, instr, 06-07, adjunct prof, 07-14, *assoc. prof.*, 14-24, *prof.*, 24- Instr, Woods Hole, 99-06; *assoc.*, Am. Museum Nat. Hist, 16- A.A; Soc. Nat; Soc. Zool; Anthropol. Ass; Galton Soc; Paleont. Soc. Vertebrate morphology; spermatogenesis; vertebrate paleontology; morphology and relationships of the Phytosauria; South American Proganosauria; evolution of vertebrates; Pleistocene races of man.
- McGregor, Richard C(rittenden)**, Bureau of Science, Manila, P. I. *Ornithology.* Sydney, Australia, Feb. 24, 71. A.B., Stanford, 98. Recorder and deck officer, U. S. Str. 'Pathfinder,' 99-01; *ornithologist, Bur. Science, P. I.*, 01-; *assoc. ed.*, 'Philippine Jour. Science,' 19-; *lecturer, Philippines*, 19- Lecturer, Stanford, 27- Hopkins exped, Panama, 96; Anthony exped, Lower California, 97. Fel. Ornith. Union; Cooper Ornith. Club; Nat. Ass. Audubon Societies; Soc. Mammal; Wilson Ornith. Club; Wash. Biol. Soc; Austral. Ornith. Union. Fishes and birds; distribution of Philippine birds.
- McGregory, Prof. J(oseph) F(rank)**, Colgate University, Hamilton, N. Y. *Chemistry, Mineralogy.* Wilbraham, Mass, April 11, 55. A.B., Amherst, 80, A.M., 83, hon. Sc.D., 05; Göttingen, 80-81, 83-84; Heidelberg, 90-91, 96, 10-11. Instr. chem, Amherst, 81-83; *prof. chem. and miner, Colgate*, 84-09, *chem.*, 09- A.A; Chem. Soc; fel. London Chem. Soc; Chem. Gesell.
- McGuigan, Prof. Hugh**, University of Illinois College of Medicine, Chicago, Ill. *Pharmacology, Physiology.* Lisburn, Ireland, March 29, 74. B.S., N. Dak. Col, 98; Michigan, 00-01; fellow, Chicago, 02-05, Ph.D., 05, M.D., 08; Heidelberg, 08-09. *Asst. prof. chem.*, N. Dak. Col, 98-02; *asst. biochem. and pharmacol.*, Chicago, 02-05; *asst. prof. pharmacol.*, Washington (St. Louis), 06-08, acting *prof. physiol. and pharmacol.*, 09-10; *prof. pharmacol.*, Northwestern, 10-17; *pharmacol. and therapeut. col. med.*, Illinois, 17- Aid, bur. chem, U. S. Dept. Agr, 00- A.A; Soc. Pharmacol; Col. Physicians; Soc. Biol. Chem; Physiol. Soc; Chem. Soc; Am. Med. Ass; Chicago Inst. Med. Experimental pharmacology; biochemistry; blood sugar; strychnine action; glycosuria; heavy metals.
- McGuire, Dr. Edgar R(obinson)**, 622 Delaware Ave, Buffalo, N. Y. *Surgery.* Mt. Forest, Ont, Can, Aug. 13, 77. *Prof. surg, Buffalo.* Surgeon, Buffalo Gen. Hosp; surgeon-in-chief, Buffalo City Hosp. A.A; Col. Surg; Surg. Ass; Am. Med. Ass; Int. Surg. Soc. Abdominal and cranial surgery.
- McGuire, Grace M(ary)**, Roosevelt Hospital, New York, N. Y. *Chemistry.* Brooklyn, N. Y., Dec. 8, 93. B.S., Syracuse, 15; A.M., Columbia, 22. *Chemist, Harriman Research Lab, Roosevelt Hosp*, 15- Chemist, path. lab, Roosevelt Hosp, 16-17. A.A; Chem. Soc. Creatinin; enzymes; meat spoilage.
- McGuire, James W(illiam)**, U. S. Coast and Geodetic Survey, Washington, D. C. *Geography.* Nashville, Ark, Nov. 4, 66. Booneville Acad; private col. courses, Ark. Topog. field and office work, C.Eng, U.S.A., 98-00; topog. draftsman, U. S. Coast and Geod. Surv, 01-23, *rep. on U. S. Geog. Board*, 19-, *cartographic engineer*, 24- U. S. Tariff Commission, 22. Capt, C.Eng, 17; chief cartographer and technical adviser of inquiry commission, advisory to Pres. Wilson, 17-18. Staff asst, Cong. Joint Commission of Reclassification, 19-20. A.A.

Geographic dictionary of the Virgin Islands; theory and practice of cartography, physical hydrography and maritime exploration; historical and linguistic research in geographic names and terminology; atlas of aboriginal America.

McGuire, Dr. Stuart, 2304 Monument Ave, Richmond, Va. *Surgery*. Staunton, Va, Sept. 16, 67. M.D, Virginia, 91; LL.D, Richmond, 16. *Pres, Med. Col. of Va.* Surgeon, St. Luke's and other hospitals. Lieut. col, M.C, 17-19. Surg. Ass; South. Med. Ass. (past pres). Principles of surgery.

McHargue, Prof. J(ames) S(pencer), 411 Transylvania Park, Lexington, Ky. *Chemistry*. Boreing, Ky, Jan. 29, 78. B.S, Kentucky, 06, M.S, 14; George Washington, 07-08; Ph.D, Cornell, 21. Teacher, schools, Ky, 98-02; asst. chemist, Ky. Exp. Sta, 06; Bur. Standards, 06; hygienic lab, U. S. Pub. Health Service, 00-08; chemist, Ky. Geol. Surv, 08-12; *research chemist, Ky. Exp. Sta, 12-* A.A; Chem. Soc; fel. Inst. Chem; Soc. Biol. Chem; Agr. Chem; Soc. Agron; Soc. Plant Physiol; Ky. Acad. Agricultural chemistry; elements necessary for the growth of plants; occurrence of manganese, copper, zinc, nickel, cobalt, boron and iodine in rocks, soils, plants and animals.

McHatton, Prof. T(homas) H(ubbard), University of Georgia, Athens, Ga. *Horticulture*. Brooklyn, N. Y, Nov. 12, 83. B.S, Spring Hill, 03, Sc.D, 07; B.S, Mich. State Col, 07, M.Hort, 22; Cornell, 07; Iowa, 10. *Prof. hort, Georgia, and horticulturist, Exp. Sta, 08-* Hort. ed, 'South. Ruralist,' 08- Lieut. col, C.W.S.R; capt, aviation production, 18. A.A. (councilor, 26); Soc. Hort. Sci. (v. pres, 23, 27); Pomol. Soc. (exec. committee, 22); Ass. South. Agr. Workers (chairman, hort. sect, 27); Nat. Pecan Growers (second v. pres, 26); Ga. Hort. Soc. (treas, 11, sec'y, 12, pres, 25); Ga. Acad. Pomology; canning; education; economic entomology.

McHenry, Prof. M(artin) J(osiah), 414 Clifton St, Conway, Ark. *Chemistry*. Jacksonville, Ark, Oct. 13, 88. A.B, Hendrix Col, 09; M.S, Chicago, 13; Ph.D, Iowa, 25. *Prof. chem, Scarritt-Morrisville Col, 09-11; Hendrix Col, 11-* Chem. Soc. Analytical chemistry; electro-metric titrations.

Macht, Dr. David I(srael), 3420 Auchentoroly Terrace, Baltimore, Md. *Pharmacology*. Moscow, Russia, Feb. 14, 82. A.B, Hopkins, 02, M.D, 06; Berlin, Munich and Vienna, 06-07; LL.B, Hamilton, 15; Harvard; hon. Phar.D, Maryland, 24. Instr. med. and asst. pharmacol, Hopkins, 08-18, *lecturer pharmacol. and therapist. and pharmacologist, Brady Inst, 18-* Soc. Pharmacol; Pharmaceut. Ass; Am. Med. Ass; Chem. Soc; Physiol. Soc; Am. Physicians; Soc. Exp. Biol; Psychol. Ass; Bot. Soc; Oriental Soc. Experimental therapeutics; carbolie acid poisoning; alkaloids; benzyl benzoate; benzyl alcohol; absorption of drugs; food poisons; pharmacology of the ureter, corpus luteum and ovaries; prostate internal secretion; pharmacology of opium, cocaine, atropin, homatropin; assay of digitalis; monoxide poisoning; bio-

physics of the ultra-violet ray; biological and biochemical effects of polarized light.

McIndoo, Dr. N(orman) E(ugene), U. S. Department of Agriculture, Washington, D. C. *Entomology*. Lyons, Ind, April 11, 81. A.B, Indiana, 06, fellow, 08-09, A.M, 09; fellow, Pennsylvania, 09-11, Ph.D, 11. Asst, Indiana, 05-06; teacher, high sch, Wis, 06-08; *entomologist, bur. entom, U. S. Dept. Agr, 11-* Collector fish, Cuba, Indiana, 05. A.A; Entom. Soc; Ass. Econ. Entom; Soc. Zool; Wash. Entom. Soc. Insect behavior; sense organs and histology of insects; physiological effects of insecticides.

MacInnes, Dr. Duncan A(rthur), Rockefeller Institute, New York, N. Y. *Physical chemistry*. Salt Lake City, Utah, March 31, 85. B.S, Utah, 07; M.S, Illinois, 09, Ph.D, 11. Instr. chem, Illinois, 11-14, assoc, 14-17; asst. prof. physical chem. research, Mass. Inst. Tech, 17-21, assoc. prof, 21-26; *assoc. mem, Rockefeller Inst, 26-* Chem. Soc; Electrochem. Soc; Physical Soc; Am. Acad. Solution of electrolytes; electro-chemistry.

MacIntire, Dr. W(alter) H(oge), Agriculture Experiment Station, Knoxville, Tenn. *Chemistry*. Wilmington, N. C, May 19, 85. B.S, N. C. State, 05; M.S, Pa. State, 09; Ph.D, Cornell, 16. Chemist, N. C. State Board Health, 05-07; asst. chemist, inst. animal nutrition, Pa. State, 07-08, asst. and assoc. agron, 08-12; *soil chemist, Tenn. Exp. Sta, 12-* Chem. Soc; Soc. Agron; Agr. Chem. (referee, 11-13, 15-26, v. pres, 26, pres, 27). Soil chemistry; soil constituents and their conservation; lysimeter investigations.

McIntosh, Prof. Arthur C(lem), South Dakota State School of Mines, Rapid City, S. Dak. *Biology*. Paoli, Ind, Jan. 12, 01. A.B, Indiana, 21; fellow, Ohio Wesleyan, 21-22; A.M, Colorado, 23. Instr. *biol, Colorado, 22-23; head dept, S. Dak. Sch. Mines, 23-* Summers, *biol. field work, Black Hills, 24-26; prof, State Teachers Col. Mo, 27. Black Hills flora, birds and insects.*

Macintyre, Dr. Alfred E(dgar), 21 Cliff St, Ottawa, Ont, Can. *Chemistry*. Glasgow, Scotland, Sept. 24, 63. Royal Tech. Col, Scotland, 88; Ph.D, Jena. Provincial assayer, N. B, Can, 90-96; prof. physics and chem, Morrin Col, 96-00; chief chemist, Dept. Militia and Defence, Can. and Lindsay Arsenals, 03-19; *chief explosives chemist, explosives div, Can. Dept. Mines, 19-* Asst. supt. and supt, Lindsay Arsenal, 18-19. Chem. Soc; Soc. Chem. Indust. (v. pres, 25); Can. Inst. Chem; London Chem. Soc. Camphor derivatives; amines.

McIver, Dr. Monroe A(nderson), Massachusetts General Hospital, Boston, Mass. *Surgery*. Gulf, N. C, Oct. 15, 90. A.B, North Carolina, 12; M.D, Harvard, 17. Asst. trop. med, *Harvard Med. Sch, 19-20, asst. surg, 20-22, Nat. Research Council fellow physiol, 22-23, instr. surg, 23-*; res. surgeon, *Mass. Gen. Hosp, 20-22, assoc. surg, 23-* Wolbach-Todd Typhus Research Unit, Poland, 20. Lieut, M.C, 18-19. Am. Med. Ass; Soc. Exp. Biol; Soc. Clin. Invest; Halsted Club. Experimental physiology.

- McJunkin, Prof. F(rank) A(dam)**, Euclid Ave. and Kingshighway, St. Louis, Mo. *Pathology*. Jan. 20, 82. M.D., Michigan, 06, A.M., 12. Instr. bacter, Michigan, 08-09; prof, Utah, 09-11; asst, path. lab, Boston City Hosp, 12-14; prof. path, Marquette, 14-20; *assoc. prof, Washington (St. Louis)*, 20- Ass. Path. and Bact; Soc. Exp. Path; Soc. Exp. Biol; fel. Col. Physicians; Ass. Med. Mus; Ass. Anat. Clinical microscopy and chemistry; local action of lead; effect of ethyl alcohol on the liver; origin of phagocytic mononuclear leucocytes; technical pathological methods; acid-fast property of tubercle bacilli.
- Mack, Prof. Edward, Jr.**, Ohio State University, Columbus, Ohio. *Physical chemistry*. Goldsboro, N. C., May 10, 93. Centre Col., 09-11; A.B., Princeton, 13, A.M., 14, Ph.D., 16. Instr. West Virginia, 15-17; asst. prof, Ohio State, 19-25, *prof. physical chem*, 25- Lieut., capt. and major, C.W.S., 17-19. Chem. Soc. Vapor pressure; diffusion coefficients; the size and shape of typical organic and inorganic molecules; X-ray examination of crystals.
- Mack, Dr. E(dward) L(awrence)**, Douglaston Laboratories, Inc, Douglaston, L. I., N. Y. *Chemistry*. Vergennes, Vt., Aug. 27, 90. B.S., Union, 12; Ph.D., Cornell, 16. Asst. chem, Cornell, 12-16; asst. alloy chemist, U. S. Bur. Mines, 16-24; *v. pres, Douglaston Laboratories, Inc*, 24- Chem. Soc; Electrochem. Soc. Electrochemistry; electrometallurgy.
- Mackall, Prof. Colin M(ackenzie)**, George Washington University, Washington, D. C. *Organic chemistry*. Baltimore, Md., Dec. 26, 84. A.B., Virginia, 09, B.S., 10; M.S., George Washington, 13; fellow, Hopkins, 19-20, Ph.D., 20; Paris, 19; Am. Field Service fellow, Toulouse, and Col. of France, 20-22. Asst. chem, Virginia, 07-09; asst. chemist, bur. chem, U. S. Dept. Agr., 10-11; prof. chem, Univ. of South, 11-16; chemist, Edgewood Arsenal, 22-23; *prof. chem*, St. John's (Md.), 23-25; *George Washington*, 25-, *head dept*, 26- Delegate, Int. Union Pure and Applied Chem, 21, 26. Capt. C.A.C., 17, major, C.W.S., 18, chief, second army. Chem. Soc; Md. Ass. Chem. Teachers (pres, 24); D. C. Ass. Chem. Teachers (v. pres, 25-26, pres, 26-); Soc. chim. de France; Soc. de Chim. physique; Soc. de Chim. indust. Derivatives of anthraquinone; aliphatic thio-ethers; dithioethers and thio-ether sulfonic acids; constant temperature oven.
- MacKay, Dr. A(lexander) H(oward)**, 61 Queen St., Dartmouth, Halifax Co., N. S., Can. *Biology, Education*. Dalhousie, N. S., May 19, 48. B.A., Dalhousie, 73, LL.D., 92; B.Sc., Halifax, 80; LL.D., St. Francis Xavier, 05. Prin. Pictou Acad., 73-89; Halifax Acad., 89-91; supt. educ, N. S., 91-26. Lecturer, Dalhousie, 91-10; pres, Summer Sch. Sci., Atlantic provinces, Can., 87; governor, Dalhousie, 88- Ed. 'Educ. Rev.' (St. John, N. B.), 87-91. Geog. and Biol. Boards, Can. A.A.; Phytopath. Soc; Bot. Soc; Acad. Polit. Sci; Religious Educ. Ass. (v. pres, 08); Can. Educ. Ass. (pres, 95-98); Royal Soc. Can. (pres, biol. sect, 00); Can. Bot. Club (sec'y, 91-11); N. S. Educ. Ass. (pres, 74-76); N. S. Inst. (pres, 00); British Philos. Inst; British
- Ass; Int. Ass. Bot. The flora of Nova Scotia; Diatomaceae; freshwater sponges; seasonal phenomena in flora and fauna of Canada; phenology of Canada; the simplification of English spelling, weights and measures; standardization of English pronunciation.
- MacKay, Dr. Bertram R(eid)**, Geological Survey, Ottawa, Ont., Can. *Geology*. Cornwall, Ont. B.S., Queen's (Can), 08; Ph.D., Chicago, 20. Asst. miner, Queen's (Can), 09-10; topographer, Can. Geol. Surv., 10-15, geologist, 15-20. Lecturer, Chicago, 17; geologist, Whitehall Petrol. Corp., 20- Can. Min. Inst. Physiography; classification of topographic forms; placer gold deposits; Blanche River landslides.
- MacKay, Dr. C(harles) A(lexander)**, University of Saskatchewan, Saskatoon, Sask., Can. *Physics*. Truro, N. S., 93. B.A., Dalhousie, 13, M.A., 21; 1851 Exhib. fellow, 22-24; Ph.D., Princeton, 25. Instr. *physics*, Princeton, 23-24; Harvard, 24-25; *prof, Saskatchewan*, 25- Ionization potentials of gases.
- MacKay, Prof. G(eorge) J(ames)**, Queen's University, Kingston, Ont., Can. *Metallurgy*. Bruce, Co., Ont., Dec. 29, 73. B.Sc., Queen's (Can), 07. Lecturer mining and metal, Queen's (Can), 07-10; asst. metallurgist, East Rand Proprietary, S. Africa, 10-13; tech. sec'y, Can. Dept. Mines, Ottawa, 14-16; asst. director tech. educ, Ont., 16-18; *prof. metal, Queen's (Can)*, 18- Min. and Metal. Eng; Can. Inst. Min. and Metal; assoc. Inst. Min. and Metal. Gt. Britain. Metallurgy of gold and silver.
- MacKay, G(eorge) M(oir) Johnstone**, General Electric Company, Schenectady, N. Y. *Physics*. Pictou, N. S., Can., July 29, 83. B.A., Dalhousie, 05, M.A., 06, 1851 Exhib. scholar; Mass. Inst. Tech., 06-08, M.S., 08. Instr. chem, Dalhousie, 08-09; chemist, Sydney Cement Co., 09-10; *research engineer, Gen. Elec. Co*, 10- A.A.; Physical Soc; Elec. Eng; Chem. Soc; N. S. Inst. Chemistry; theory of solution; luminosity; dielectrics; electronics; insulation.
- McKay, Prof. M(arion) B(ertice)**, 107 N. 31st St., Corvallis, Oregon. *Plant pathology*. Humphreys, Mo., July 14, 87. B.S., Okla. Agr. and Mech. Col., 11; M.S., Wisconsin, 15. Sci. asst, bur. plant indust, U. S. Dept. Agr., 12-16; asst. plant pathologist, *Oregon Exp. Sta*, 16-18, assoc. plant pathologist, 18-24, *plant pathologist*, 24- A.A.; Bot. Soc; Phytopath. Soc. Diseases of sugar beets, potatoes, tomatoes and bulbs.
- MacKay, Dr. T(homas) C(alvin)**, 3812 Alton Place, Washington, D. C. *Physics*. Dartmouth, N. S., Can., Aug. 17, 72. B.A., Dalhousie, 93; A.M., Harvard, 99, Ph.D., 03. Austin teaching fellow, Harvard, 00-01; instr. physics, California, 04-09; demonstrator, Dalhousie, 09-10; prof, Mt. Allison, 10-11; physics and math, N. Mex. Sch. Mines, 11-17; research engineer, Westinghouse Elec. and Mfg. Co., 17-18; asst. prof. physics, Carnegie Inst. Tech., 18-23; *junior patent examiner, U. S. Patent Office*, 23- Fel. Physical Soc; N. Mex. Sci. Ass. (chairman, 13); N. Mex. Educ. Ass. (sec'y, sci. sect, 14, mem. educ. council, 15-16). Conductivity of electro-

lytes; wireless telegraphy; Hall effect; change of specific inductive capacity with temperature.

McKay, Mrs. Venus (Pool), 107 N. 31st St, Corvallis, Oregon. *Botany, Plant pathology*. Table Rock, Nebr, May 8, 82. B.S., Nebraska, 04, M.S., 08. Research asst. agr. bot, Nebr. Exp. Sta., 06-11; asst. plant path, bur. plant indust, U. S. Dept. Agr., 11-16. A.A.; Phytopath. Soc. Nebraska and Colorado potato diseases; leaf spot of the sugar beet.

McKeag, Prof. Anna Jane, Wellesley College, Wellesley, Mass. *Education*. West Finley, Pa., March 13, 64. A.B., Wilson, 95; Ph.D., Pennsylvania, 00; hon. fellow, Clark, 03-04; LL.D., Lafayette, 12. Teacher, schools, 81-92; instr. philos., Wilson, 92-94, prof., 94-02; instr. educ., Wellesley, 02-03, assoc. prof., 03-09, prof., 09-12; pres., Wilson, 12-15; *prof. hist. and principles educ., Wellesley*, 15- A.A.; Psychol. Ass; Soc. Col. Teachers Educ; New Eng. Ass. Col. Teachers Educ. (pres, 11, 17, 26); New Eng. Ass. Colleges and Secondary Schools (pres, 24). The sensation of pain and the theory of the specific sense energies.

McKee, Prof. Clyde, Montana State College, Bozeman, Mont. *Agronomy*. Mission Creek, Nebr, June 8, 89. B.S., Kansas Col, 10. Sci. asst. agron, U. S. Dept. Agr., 11-13; asst. prof. farm crops, Iowa Col, 13-17, assoc. prof., 17-21; *prof. agron. and agronomist, Mont. Col*, 21-; *v. dean agr*, 27- Summer, acting prof., Iowa Col, 21. Soc. Agron. (fourth v. pres, 24, sec'y, west. branch, 23, pres, 24). Furrow drill for sowing winter wheat in central Montana; flax-wheat mixtures under irrigation.

McKee, Prof. Ralph H(arper), Columbia University, New York, N. Y. **Chemical engineering*. Clinton, Mo, June 20, 74. A.B., Wooster, 95, A.M., 97; fellow, Chicago, 99, Ph.D., 01; LL.D., Carthage Col, 24. Asst. chem., Wooster, 94-95; prof. chem. and math., Carthage, 95-98; instr. chem., Lake Forest, 00-01, prof., 01-09; Maine, 09-16; assoc. chem. eng., Columbia, 17-18, *prof*, 18- Director, U. S. Ordnance Sch. of Explosives Mfg, 18-19. Perkin medal committee, 06, 07, 20, 21. A.A.; Chem. Eng; Chem. Soc. (councilor and chairman, N. Y. sect, 20); Eng. Educ; Ass. Pulp and Paper Indust; Soc. de Chim. indust. Oxygen ethers of ureas; adsorbent carbons; sulphur dioxide; synthetic electrolytic process; paper pulp; shale oil.

McKee, Roland, U. S. Department of Agriculture, Washington, D. C. *Agronomy, Horticulture*. Marysville, Kans, Dec. 13, 80. B.S., Kansas Col, 00, 04-05. Asst. hort. and pomol., Kansas Col, 04-05; sci. asst. hort, bur. plant indust, U. S. Dept. Agr., 06-13, asst. agrostologist, 13-19, agronomist, 19-24, *horticulturist*, 24- A.A.; Soc. Agron; Genetic Ass; Agr. Hist. Soc; Wash. Bot. Soc. Orchard green manure crops; forage crops; foreign seed and plant introduction; legumes.

McKee, Dr. S(amuel) Hanford, 158 Crescent St, Montreal, Que, Can. *Pathology, Bacteriology*. Fredericton, N. B., Oct. 11, 74. B.A., New Brunswick, 96; M.D., C.M., McGill, 00. House surgeon, Royal Victoria Hosp, Montreal, 00-02; voluntary clin. asst. to Prof. Axenfeld, Frei-

burg, 03-05; asst. and assoc. oculist, *Montreal Gen. Hosp*, 06- Demonstrator and lecturer, McGill, 09-; oculist, Montreal Maternity Hosp, 06-14; Alexander Hosp. C.E.F., 14-19; decorated with C.M.G. Ophthal. Soc; Acad. Ophthal. and Otolaryngol. (councilor); Ass. Path. and Bact; Montreal Medico-Chirurg. Soc. (sec'y, 08-24, pres, 24). Bacteriology of the conjunctiva; ophthalmology.

McKeehan, Dr. L(ouis) W(illiams), Sloane Laboratory, Yale University, Cambridge, Mass. **Physics*. Minneapolis, Minn, March 31, 87. U. S. Naval Acad, 03-05; B.S., Minnesota, 08, M.S., 09, Ph.D., 11; Cambridge, 11-12. Instr. physics, Minnesota, 09-15, asst. prof., 15-18, assoc. prof., 18-19; technician, bur. ordnance, U.S.N., 19-21; research physicist, West. Elec. Co, 21-25, Bell Telephone Laboratories, 25-27; *prof. physics and director, Sloane Lab, Yale*, 27- Asst. physicist, Bur. Standards, 17-18. Committee on X-rays and radioactivity, Nat. Research Council, 23- Lieut, U.S.N.R., 18-22, lieut. commander, 25- A.A.; fel. Physical Soc; Optical Soc; Elec. Eng; Min. and Metal. Eng; Soc. Test. Mat. (committee on X-ray metallog, 24-, committee on magnetic analysis, 27-); Franklin Inst; Wash. Philos. Soc; Wash. Acad. Slow motion of spheres in gases; scattering of cathode and beta rays; actinium emanation; submarine mines; X-rays and crystal structure of metals and alloys; ferromagnetism; radioactivity.

Mackell, Prof. J(ames) F(rancis), Prairieeton Road, Terre Haute, Ind. *Physics*. Montgomery, Ind, Jan. 24, 88. A.B., Ind. State Nor. Sch., 15; A.M., Minnesota, 21. *Prof. physics, Ind. State Nor. Sch*, 24- Influence of the earth's potential-gradient upon measurements of the mean ionic density of the atmosphere by the Ebert ion-counter.

McKellar, Peter, Fort William, Ont, Can. *Mining, Geology*. Middlesex Co, Ont, April 27, 38. Pub. schools. Mines explorer; in charge party under Dr. R. Bell, Can. Geol. Surv, 69-70; supt, Huronian Gold Mine, 82-84; supt, exploration and development works, Toronto and West. Mines Development Co, Seine River and Lake of the Woods dist, 97-98. Geol. Soc; fel. London Geol. Soc; London Soc. Arts. Correlation of the Animikie and Huronian rocks of Lake Superior; pot holes on the north shore of Lake Superior; gold-bearing veins of Bag Bay, Lake of the Woods.

McKelvey, Prof. J(oseph) V(ance), 2117 Graeber St, Ames, Iowa. *Mathematics*. Dover, Wis, July 23, 80. Ph.D., Cornell, 09. Instr. math., Cornell, 09-17; asst. prof., Iowa Col, 19-20, assoc. prof., 20- Lieut. and capt, U.S.A., 17-19. Math. Soc; Math. Ass. Algebraic curves.

McKenna, Dr. Charles F(rancis), 155 W. 91st St, New York, N. Y. *Chemistry*. New York, June 4, 61. A.B., St. Francis Xavier, 79, A.M., 80; Ph.B., Columbia, 83, Ph.D., 94. Chemist, companies, 85-93; director, Lab. Physical Test, 93-95; chemist, Passaic Zinc Co, 95-97; *consulting chemist*, 97- Chemist, Munic. Explosives Commission, New York, 02-04. Chem. Soc. (past chairman, N. Y. sect); Chem. Eng. (v. pres, 09, pres, 10); Soc. Chem. Indust. (chairman,

- N. Y. sect, 10); N. Y. Chemists Club (pres, 14); Int. Ass. Test. Mat. Metallurgy.
- Mackenzie, Pres. A(rthur) Stanley**, Dalhousie University, Halifax, N. S., Can. **Physics*. Pictou, N. S., Sept. 20, 65. B.A., Dalhousie, 85; fellow, Hopkins, 90, Ph.D., 94; hon. D.C.L., King's Col. (Can), 12; LL.D., Queen's (Can); McGill, Mt. Allison, Western Ontario. Tutor math, Dalhousie, 87-89; lecturer physics, Bryn Mawr, 91, assoc, 92-94, assoc. prof, 94-97, prof, 97-05; Dalhousie, 05-10; Stevens, 10-11; *pres*, Dalhousie, 11- Council for Sci. and Indust. Research, A.A.; Physical Soc; Philos. Soc; fel. Royal Soc. Can. Attraction of crystals; vibration of rods in liquids; heat conduction; spectrum analysis; alpha rays; secondary radiations; effect of Becquerel rays on chemical reactions.
- MacKenzie, Dr. Donald**, East Orange, N. J. *Physics*. Weatherford, Texas, Dec. 20, 87. A.B., Hopkins, 08, A.M., 11, Ph.D., 14. Asst. astron, Hopkins, 14-17; assoc. physicist, Bur. Standards, 18-20; *research engineer*, West. Elec. Co, 20- Ensign, Nat. Naval Vols, 17-18. Physical Soc. Engineering physics; internal combustion engines; velocity of flame propagation in gas engine cylinders; energy distribution in speech.
- McKenzie, Dr. Fred(erick) F(rancis)**, University of Missouri, Columbia, Mo. *Animal husbandry*. Lulu Island, B. C., Can, May 31, 00. B.S.A., British Columbia, 21; A.M., Missouri, 23, Ph.D., 25. *Agent animal husbandry*, U. S. Dept. Agr, 23-; *instr*, Missouri, 25- Pacific Int. Livestock Expos, 19. Lieut, Royal Sch. Inf, B. C., 18. Soc. Animal Production; Can. Soc. Tech. Agr; Int. Ass. Agr. Missions. The normal oestrous cycle and the specific effect of nutrients on fecundity and fertility in the sow; age and plane of nutrition in the breeding of swine.
- Mackenzie, Dr. George M(iner)**, Presbyterian Hospital, New York, N. Y. *Medicine*. Lawrenceville, N. J., Aug. 15, 85. A.B., Columbia, 07, M.D., 13. Assoc. path, Columbia, 16-17, *instr. med*, 19-21, assoc, 21-23, asst. prof, 23-26, *assoc. prof*, 26- Asst. visiting physician, Presb. Hosp, 22- Lieut, M.C., U.S.N.R., 17-19. A.A.; Ass. Path. and Bact; Soc. Clin. Invest; Am. Physicians; Harvey Soc. (sec'y). Infectious diseases; anaphylaxis; immunity; protein sensitization.
- Mackenzie, Kenneth G(erard)**, Texas Co, 17 Battery Place, New York, N. Y. *Chemistry*. New York, Feb. 4, 87. Ph.B., Yale, 07, M.S., 09. Asst. instr. chem, Yale, 07-08; research chemist, N. Y. Test Lab, 08-10; chemist, Nairn Linoleum Co, N. J., 10-11; *consulting chemist*, Texas Co, 11- Chemist, Conn. Exp. Sta, 08. A.A.; Chem. Soc. (exec. committee, N. Y. sect; Soc. Chem. Indust. (exec. committee, Am. sect); Soc. Test. Mat. (exec. committee, v. chairman, committee on petrol. products and lubricants); Min. Eng; Automotive Eng. (lubricants div); Petrol. Tech; Gas Inst; Nat. Fire Protection Ass; N. Y. Chemists Club (past pres); Franklin Inst. (committee on science and the arts); fel. London Chem. Soc; Chem. Gesell; Soc. de Chim. indust. Organic chemistry; pyrimidins; linseed oil and its oxidation products; petroleum and asphalt.
- Mackenzie, Kenneth K(ent)**, 615 Prospect St, Maplewood, N. J. *Botany*. Brooklyn, N. Y., Oct. 13, 77. Board managers, N. Y. Bot. Garden. A.A.; Bot. Soc; Ecol. Soc; Fern Soc; Torrey Bot. Club; New Eng. Bot. Club; London Linnean Soc. Systematic botany, especially Carex.
- Mackenzie, Prof. Marion**, 4816 Florence Ave, West Philadelphia, Pa. *Botany*. Philadelphia. B.S., Pennsylvania, 05, Ph.D., 09. *Prof. biol*, Constantinople Col, 11-12; *Temple*, 12- Lecturer, Wagner Free Inst. A.A.; Bot. Soc; Pa. Bot. Soc. (v. pres). Araceae.
- McKenzie, Dr. R(obert) Tait**, 2014 Pine St, Philadelphia, Pa. *Anatomy*, *Physical training*. Almonte, Ont, Can, May 26, 67. B.A., McGill, 89, M.D., C.M., 92, LL.D., 23; M.P.E., Springfield Training Sch, 13. House surgeon, Montreal Gen. Hosp, 93; ship surgeon, Beaver Line steamships, 94; med. director physical training, McGill, 95-04, asst. demonstrator anat, 94, demonstrator, 96, lecturer, 04; *prof. physical educ. and director dept*, Pennsylvania, 04-, *prof. physical therapy*, 07- Lecturer, Montreal Art Ass, 99-03; Harvard, 00-01. Olympic course, La. Purchase Expos, 04. Inspector physical training, British Army, and med. officer in command, Heaton Park, 16; major, R.A.M.C., 15-19. Physical Educ. Ass. (pres, 12-15); Directors Physical Educ. (pres, 01, 04-09); Soc. Research in Physical Educ; Phila. Col. Physicians. Facial expression in violent effort; anatomical characteristics of athletes; treatment of scoliosis and other deformities by exercise; the type of figure in the American college athlete as compared with Greek ideals of stature and measurements; exercise in education and medicine; sculpture of athletic types; reclaiming the maimed in war.
- Mackeown, Dr. S(amuel) S(tuart)**, 615 S. Mentor Ave, Pasadena, Calif. *Physics*. New York, N. Y., Dec. 3, 95. A.B., Cornell, 17, Ph.D., 23. Lab. asst, Bur. Standards, 17-18, asst. physicist, 19; with West. Elec. Co, 19-20; *instr. physics*, Cornell, 20-23; Nat. Research Council fellow, Calif. Inst, 23-26, *asst. prof. elec. eng*, 26- Second lieut, Sig.C, 18-19. Hall effect and specific resistance in cathodically deposited films of gold; electrical current from cold terminals in high vacuum due to intense electrical fields.
- McKibben, Prof. Frank P(ape)**, Black Gap, Pa. *Civil engineering*. Fort Smith, Ark, Nov. 13, 71. Arkansas, 87-90; B.S., Mass. Inst. Tech, 94. Asst. engineer, New Bedford Bridge, Mass, 98; Boston Elevated Ry, 99-01; Mass. Ry. Commission, 01-07; assoc. prof. civil eng, Mass. Inst. Tech, 06-07; prof, Lehigh, 07-19; Union, 19-26. Civil Eng; Soc. Test. Mat; Eng. Educ; Pa. Eng. Soc. Structural engineering; reinforced concrete.
- McKibben, Prof. Paul S(tilwell)**, University of Western Ontario Medical School, London, Ont, Can. *Anatomy*. Granville, Ohio, March 14, 86. B.S., Denison, 06; fellow, Chicago, 07-08, Ph.D., 11. Asst. anat, Chicago, 08-11, assoc, 11-12,

instr, 12-13; *prof. and head dept, med. sch, Western Ontario, 13-* A.A; Ass. Anat; fel. Royal Soc. Can. The nervus terminalis, eye-muscle nerves and peripheral olfactory apparatus of Amphibia; cerebrospinal fluid pressure and brain bulk; lymphatics.

Mackie, D(avid) B(arclay), State Department of Agriculture, Sacramento, Calif. *Entomology*. Boston, Mass, May 22, 83. Pub. schools. Park commission, Mass, 03-06; aid zool, Smithsonian Inst, 06-08; agr. inspector, Philippine Service, 09-11, asst. entomologist, 11-13, entomologist, 13-18; field deputy, *Calif. State Dept. Agr.*, 18-19, field entomologist, 19-20, chief quarantine officer, 20-21, *entomologist*, 21- Collaborator, bur. entom. U. S. Dept. Agr. Ass. Econ. Entom; Genetic Ass; Crop Protection Inst. Gaseous insecticides; migratory locusts; coconut pests and destructive rats of the Philippine Archipelago; control of insects affecting stored tobacco; application of vacuum fumigation to food products and nursery stock; bulb pests; the tuber moth.

Mackie, Prof. W(illiam) W(ylie), 56 Shasta Road, Berkeley, Calif. *Agronomy*. San Francisco, Calif, July 24, 73. B.S, California, 03, M.S, 16. U. S. Forest Service, 02; bur. soils, U. S. Dept. Agr, 03-10; director, Yaquin Valley Exp. Sta, Mex, 10-16; *prof. agron, California*, 17- Expert and collaborator, office cereal investigations, U. S. Dept. Agr, 17- Exped, Turkestan, 12. A.A; Soc. Agron; Phytopath. Soc; Genetic Ass; Am. Geog. Soc; Calif. Bot. Soc. Cereal breeding; oak leaves for forage; liquid and dust fungicides; alkali reclamation; cereal smuts and rusts; lima bean, cotton, wheat, oats and sesame breeding.

McKinley, Prof. Earl Baldwin, College of Physicians and Surgeons, 437 W. 59th St, New York, N. Y. *Bacteriology*. Emporia, Kans, Sept. 28, 94. A.B, Michigan, 16, M.D, 22. Asst. bacter, Michigan, 19-20, bacter. and physiol. chem, 20-21, instr. physiol. chem, 21-22; asst. prof. path. and bacter, Baylor, 22-23, prof. bacter. and chairman dept, 23-24; Nat. Research Council fellow med, Pasteur Inst, Brussels, 24-25; asst. prof. bacter, col. physicians and surg, Columbia, 25-26, *assoc. prof.*, 26- Soc. Bact; fel. Am. Med. Ass; Soc. Exp. Biol. Immunology; ultramicroscopic viruses.

McKinley, Prof. J(ohn) C(harnley), 1611 E. River Road, Minneapolis, Minn. *Neuropathology*. Duluth, Minn, Nov. 8, 91. B.S, Minnesota, 15, A.M, 17, M.D, 19, Ph.D, 21. Asst. prof. neuropath, med. sch, Minnesota, 21-25, *assoc. prof.*, 25- Am. Med. Ass. Fasciculation of the sciatic nerve; pathology of acute epidemic encephalitis and of postencephalitic paralysis agitans; experimental poliomyelitis.

McKinney, H(arold) H(all), U. S. Department of Agriculture, Washington, D. C. *Plant pathology*. Cherryvale, Kans. B.S.A, Mich. State Col, 18; fellow, Wisconsin, 18-19, M.S, 19. Supt, fruit ranch, 10-14; *plant pathologist, bur. plant indust, U. S. Dept. Agr.*, 19- Plant physiology; agronomy; potato scab disease; footrot diseases of wheat; virus diseases of plants.

McKinney, Prof. Thomas E(mery), University of South Dakota, Vermillion, S. Dak. *Mathematics*. Hebron, W. Va, April 26, 64. A.B, Marietta, 87, A.M, 90; Hopkins, 89-90, 95-96; fellow, Chicago, 96-97, Ph.D, 05. Instr. math, Marietta, 87-89, prof. math. and Lee lecturer astron, 90-06; assoc. prof. math, Wesleyan, 06-08; *prof. South Dakota*, 08-09, *math. and astron*, 09- Lick eclipse exped, Spain, 05. A.A; Math. Soc; Math. Ass; assoc. New Eng. Math. Teachers. Continued fractions; theory of equations; vital statistics.

Mackintosh, R(oger) S(herman), 2153 Doswell Ave, St. Paul, Minn. *Horticulture*. Lincoln, Mass, Feb. 18, 72. Grad, Minn. Sch. Agr, 90; B.Agr, Minnesota, 02; M.S, Iowa Col, 10. Asst. hort, Minn. Exp. Sta, 97-03; prof, Ala. Polytech, horticulturist, Exp. Sta, and state horticulturist, 03-10; asst. hort, Iowa Col, 09-10; Pa. State, 10-11; instr, high sch, Minn, 11-13; *specialist agr. exten, Minnesota*, 13- A.A; Soc. Hort. Sci; Minn. State Hort. Soc. (pres, 18-20, sec'y, 20-).

Macklin, Prof. C(harles) C(lifford), University of Western Ontario Medical School, London, Ont, Can. *Anatomy*. Tolmorden, Ont, Oct. 23, 83. James H. Richardson fellow, Toronto, 12-13, M.B, 14, M.D, 18, M.A, Ph.D, 23. Asst. anat, Hopkins, 14-15, instr, 15-17, assoc, 17-18; assoc. prof, Pittsburgh, 18-19; assoc, Hopkins, 19-20, assoc. prof, 20-21; *prof. histol. and embryol, med. sch, Western Ontario*, 21- Summers, acting assoc. prof, Stanford, 20, Woods Hole, 15- A.A; Ass. Anat; fel. Royal Soc. Can; British Ass; Anat. Soc. Gt. Britain and Ireland. Development of skull; development and repair of bone; vital staining of phagocytes; amitotic cell division; calcification by vital dyes; madderized bone as material for bone grafts; brain repair; anatomy and physiology of the bronchi; X-ray studies on bronchial movements; cyclopia.

Macklin, Prof. Theodore, University of Wisconsin, Madison, Wis. *Agricultural economics*. Nanking, China, Nov. 10, 89. B.S.A, Iowa Col, 11; Ph.D, Wisconsin, 17. Exten. lecturer, Iowa Col, 11-12; land specialist, Doheny Research Foundation, 17-18; instr, asst. prof. and *prof. agr. econ*, Kansas Col, 15-19; *Wisconsin*, 19- Marketing; cooperative business organization.

McKnight, Charles, International Nickel Co, 67 Wall St, New York, N. Y. *Metallurgy*. Sept. 16, 91. B.S, Princeton; M.E, Pittsburgh. Steel mills, 08-16; asst. open hearth supt, metallurgist and works manager, Carbon Steel Co, 19-22; *develop. and research dept, Int. Nickel Co*, 22- Fed. Specifications Board. Major, F.A, U.S.A, 16-19. A.A; Min. and Metal. Eng; Soc. Steel Treat. (chairman, N. Y. chap); Soc. Test. Mat. (sec'y, committee A-9 and sub-committee A-1). Alloy steels.

MacLachlan, Dr. W(illiam) W(att) G(raham), 200 S. Craig St, Pittsburgh, Pa. *Medicine*. Guelph, Ont, Can, June 2, 85. M.D.C.M, McGill, 07; Strassburg, 12. Intern, Montreal Gen. Hosp, 07-10; pathologist, Mercy Hosp, Pittsburgh, 10-16; lecturer path, sch. med, Pittsburgh, 10-12, *asst. prof.*, 12-19, *med.*, 18- Am.

- Med. Ass; Ass. Path. and Bact; assoc. Am. Physicians. Internal medicine; pathology of tonsil; melanism pigmentation; melanin; pneumonia; aneurysm.
- McLaine, Leonard S(eptimus)**, Canadian Department of Agriculture, Ottawa, Ont, Can. *Entomology*. Manchester, Eng, June 27, 87. B.S, Boston and Mass. Col, 10; fellow, Mass. Col, 10-12, M.S, 12. Deputy state nursery inspector, Mass, 12-13; field officer, *entom. branch, Can. Dept. Agr*, 13-19, *chief div. for. pests suppression*, 19- Sec'y destructive insect and pest act advisory board, Can. Dept. Agr, 22- A.A; Ass. Econ. Entom; Can. Field Nat; Ont. Entom. Soc. Insect pest legislation; suppression of outbreaks of foreign pests.
- McLane, J(ohn) W(allace)**, U. S. Department of Agriculture, Washington, D. C. *Biophysics*. Boonesborough, Iowa, Sept. 17, 68. B.S, Illinois, 01. Asst, bur. soils, *U. S. Dept. Agr*, 02-07, *bur. plant indust*, 07-21, *asst. biophysicist*, 22- A.A; Soc. Agron; Am. Geog. Soc. Soil physics in relation to plant growth; moisture equivalent and agricultural possibilities of soils; malnutrition of citrus trees; water requirement of crop plants.
- MacLaren, Dr. J(ohn) D(ice)**, University of Oregon, Eugene, Oregon. *Physiology*. Toronto, Ont, Can, Sept. 16, 60. B.S, M.S, B.D, Kansas, 86; Hopkins, 88-90; M.D, Columbia, 96. Prof. biol, Wyoming, and director, U. S. Exp. Sta, 90-92; practising physician, N. Y, 96-08; prof. physiol, Oklahoma, 08-10; Oregon, 10-19; *retired*, 19. A.A; Am. Med. Ass; Okla. Acad; Kans. Acad; British Ass. Pogonomyrmex occidentalis; Thysanotoma actinoides; pollination; ecology; diphtheria; the functions of lymphoid tissues; lymph nodes and tonsils.
- MacLaren, Prof. Malcolm**, 38 Washington Road, Princeton, N. J. *Electrical engineering*. Annapolis, Md, June 21, 69. A.B, Princeton, 90, E.E, 92, A.M, 93. Westinghouse Elec. and Mfg. Co, 93-98; Westinghouse Co, Ltd, London, 98-00; chief elec. engineer, British Westinghouse Elec. and Mfg. Co, 00-04; ry. eng. dept, Westinghouse Elec. Mfg. Co, 04-08; *prof. elec. eng, Princeton*, 08- Col, Eng.R.C. Elec. Eng; Inst. Elec. Eng. Power generation and distribution.
- MacLaren, Dr. Murray**, 75 Coburg St, St. John, N. B, Can. *Surgery*. Richibucto, N. B. B.A, New Brunswick, 80, LL.D, 20; M.B, C.M, Edinburgh, 84, M.D, 88; Vienna. Consulting surgeon, Gen. Pub. Hosp, St. John, N. B; prin. med. officer, Dist. No. 8, 08-12; v. pres, N. B. div, Can. Red Cross, 19-21; *mem, Parliament*, 21- Can. rep, Advisory Council on Artificial Lines Ministry Pensions, Eng; Interallied Council Surgeons; Interallied Committee Disabled Soldiers. Delegate, Can. Branch, Empire Parliamentary Ass, S. African Tour, 24. Officer commanding, Dist. No. 1, Can. Gen. Hosp, 14-16; deputy director med. supplies, O.M.F.C, 16-19. Gen. service and victory medals; long service decoration. Fel. Col. Surg; fel. Surg. Ass; St. John Ambulance Ass. (pres, Dominion Council, 24); Royal Col. Surg. England.
- McLarty, H(arold) R(oss)**, Field Laboratory of Plant Pathology, Summerland, B. C, Can. *Plant pathology*. Ridgetown, Ont, Oct. 5, 91. M.A, McMaster, 20; fellow, Illinois, 21. Plant disease investigator, *Can. Dept. Agr*, 20-21, *pathologist in charge field lab. plant path*, 21- Bursary, Can. Research Council. A.A; Phytopath. Soc; Can. Soc. Tech. Agr. Diseases of fruit trees.
- McLaughlin, Dr. A(rlan) J(oseph)**, U. S. Public Health Service, Washington, D. C. *Sanitation*. London, Ont, Can, June 26, 72. M.D, Detroit Med. Col, 96. Asst. surgeon, *U. S. Pub. Health Service*, 00-05, passed asst. surgeon, 05-12, *surgeon*, 12-, *asst. surgeon gen*, 18- Mass. State Commissioner Health, 15-17. Pub. Health Ass. (pres, 22); Am. Med. Ass; Ass. Mil. Surg. Asiatic cholera; infant mortality in the Philippines; water pollution and typhoid fever.
- McLaughlin, Dean B(enjamin)**, Sproul Observatory, Swarthmore, Pa. *Astronomy*. Brooklyn, N. Y, Oct. 25, 01. A.B, Michigan, 23, M.S, 24. Asst. astron, Michigan, 22-24; *instr. astron. and math, Swarthmore*, 24- Sproul Observatory total solar eclipse exped, Sumatra, 26. A.A; Astron. Soc. Spectroscopy; orbits and rotation of Algol variable stars; photometry of variable stars.
- McLaughlin, Dr. Donald H(amilton)**, Harvard University, Cambridge, Mass. *Mining engineering, Geology*. San Francisco, Calif, Dec. 15, 91. B.S, California, 14; A.M, Harvard, 15, Sheldon traveling fellow, 16, Ph.D, 17. Geologist, Secondary Enrichment Investigation, 15-17; Cerro de Pasco Copper Corp, Peru, 19-20, chief geologist, 20-25; *prof. mining eng, Harvard*, 25- Delegate, third Pan-Am. Cong. Lieut, Inf, 17-19. Fel. Geol. Soc; fel. Soc. Econ. Geol; Min. and Metal. Eng; Soc. de Ingenieros del Peru. Bornite ores of copper; geology of Peruvian Cordillera.
- McLaughlin, Prof. George D(unlap)**, University of Cincinnati, Cincinnati, Ohio. *Chemistry*. Center Co, Pa, Aug. 23, 87. Hon. M.S, Cincinnati, 24. Chief chemist, Leas and McVitty, Inc, Pa, 07-11; Kullman, Salz and Co, 12-19; research assoc. physiol, *Cincinnati*, 19-20, *prof. leather research and director research lab, Tanners Council*, 20- A.A; Chem. Soc. (chairman, Cincinnati sect, 25); Leather Chem. Ass; Chem. Eng; fel. Royal Soc. Arts; British Inst. Philos. Studies; Kolloid Gesell. Chemistry and bacteriology of animal skin; physical and physiological chemistry of proteins and animal fats.
- McLaughlin, Dr. H(enry) M(ax)**, Iowa State College, Ames, Iowa. *Chemistry*. Wilkesville, Ohio, Oct. 28, 85. B.S, Ohio (Athens), 14; A.M, Ohio State, 15; Ph.D, Iowa Col, 24. Asst. chem, Ohio State, 14-15; Iowa Col, 15-17; Chicago, 17-18; *instr, Iowa Col*, 18- A.A; Chem. Soc. (sec'y, Ames sect, 23); Iowa Acad. Inorganic and physical chemistry; surface tension; catalysis; effect of pressure on, and equilibrium in chemical reactions.
- McLaughlin, Dr. Laura (Ida)**, 2830 25th St, N. E, Washington, D. C. *Chemistry*. Toledo, Ohio, 83. A.B, Nebraska, 04; M.S, Chicago, 16, Ph.D,

23. Prof. chem, Ill. Woman's Col, 09-22; instr. home econ, Chicago, 23-24; *nutrition chemist, bur. home econ, U. S. Dept. Agr, 24-A.A.*; Chem. Soc.; Home Econ. Ass. Nutrition; chemistry of foods; urinary organic acids; creatinine; basal metabolism of children.
- MacLean, Prof. Alexander**, University of Toronto, Toronto, Ont, Can. *Geology*. London, Ont, Sept. 22, 83. B.A., Toronto, 08. *Lecturer geol, Toronto, 10-*, asst. prof, 20-23, *assoc. prof, 23-* Soc. Econ. Geol.; Can. Geol. Surv.; Can. Inst. Min. and Metal. Lignite fields; Kirkland Lake gold fields.
- McLean, Prof. Forman T(aylor)**, Rhode Island State College, Kingston, R. I. *Forestry*. Colts Neck, N. J, June 27, 85. Ph.B, Yale, 07, M.F, 08; Ph.D, Hopkins, 15. With U. S. Forest Service, 08-15; instr. bot, col. agr, Philippines, 15-17, asst. prof, 17-18, *assoc. prof, 18-20, prof, 20-21*; *plant physiologist, exp. sta, R. I. Col, 23-* A.A.; Bot. Soc. Plant physiology; ecology; growth of plants in relation to habitats; photosynthesis; agricultural climatology; aluminum, iron and manganese in relation to soil acidity.
- McLean, Dr. Franklin C(hambers)**, University of Chicago, Chicago, Ill. *Physiology, Medicine*. Maroa, Ill, Feb. 29, 88. B.S, Chicago, 07, M.S, 11, Ph.D, 15, M.D, Rush Med. Col, 10. Prof. pharmacol, Oregon, 11-14; asst. res. physician, hosp, Rockefeller Inst, 14-16; prof. *med.* and director, Peking Union Med. Col, 16-24; *prof, Chicago, 24-* A.A.; Am. Physicians; Soc. Biol. Chem; Soc. Pharmacol; Physiol. Soc; Soc. Exp. Biol; Soc. Clin. Invest; Harvey Soc. Nephritis; edema.
- McLean, Dr. Harry C(harles)**, 227 Lawrence Ave, New Brunswick, N. J. *Soils*. Kans, Oct. 2, 85. B.S, Kansas Col, 08; M.S, Rutgers, 16, Ph.D, 18. Asst. soil analysis, Kansas Col, 09-10; asst. soil chemist, *N. J. Exp. Sta, 10-16, chemist, soil research, 16-* Soil chemistry and bacteriology; colloidal behavior of soils; soil fertility.
- MacLean, Prof. N(eil) B(ruce)**, University of Manitoba, Winnipeg, Man, Can. *Mathematics*. Burgoyne, Ont, April 14, 83. B.A, Toronto, 06, fellow, 06-07, M.A, 08; Ph.D, Chicago, 23. Staff, Dominion Observatory, Ottawa, 06; lecturer *math, Manitoba, 07-10, prof. and head dept. math. and astron, 10-* C.E.F, 15-19; from capt. to lieut. col, C.O.T.C, 20- D.S.O, 18. Math. Soc; Math. Ass; fel. Royal Astron. Soc. Can. Projective differential geometry.
- McLearn, Dr. F(rank) H(arris)**, Geological Survey, Ottawa, Ont, Can. *Geology*. Halifax, N. S, Feb. 27, 85. B.E, Dalhousie, 07; Ph.D, Yale, 17. Field asst, *Can. Geol. Surv, 13*, temporary asst. geologist, 14-20, *assoc. invert. paleontologist, 20-27, invert. paleontologist, 27-* Fel. Geol. Soc. Stratigraphy; Silurian and Mesozoic paleontology.
- McLellan, Miss Mary Ella**, 945 Pine St, San Francisco, Calif. *Ornithology*. Victoria, B. C, Can, Oct. 15, 88. *Asst. curator dept. ornith. and mammal, Calif. Acad, 22-* Collector, Samoa and Mex. Assoc. Ornith. Union; Soc. Mammal; Cooper Ornith. Club; Wash. Biol. Soc. Marine mammals; neotropical birds.
- McLendon, C(larence) A(lbertis)**, Waynesboro, Ga. *Agriculture, Chemistry*. Bishopville, S. C, May 3, 83. B.S, Clemson, 08. Asst. botanist and plant pathologist, S. C. Exp. Sta, 08; botanist and plant pathologist, Ga. Exp. Sta, 08-14; field pathologist, S. C. Exp. Sta, 14-16; expert cotton breeding, Ga. State Board Entom, 16-20; agronomist, soil improvement committee, S. Fertilizer Ass, 20; manager, Humphrey Coker Seed Co, 20; seedsman, 20-25; *plant breeder and manager, Neely Pedigreed Seed Co, 26-* A.A. Mendelian inheritance in cotton hybrids; maintaining purity of cotton varieties; cooperative cotton breeding for boll-weevil conditions, and wilt and anthracnose resistance.
- McLennan, Prof. J(ohn) C(unningham)**, University of Toronto, Toronto, Ont, Can. *Physics*. Ingersoll, Ont, April 14, 67. B.A, Toronto, 92, LL.D, 19, Ph.D, 00; Cambridge, 98-99; D.Sc, Manchester, 19; Liverpool, 23. Asst. demonstrator *physics, Toronto, 92-99*, demonstrator, 99-02, *assoc. prof, 02-07, prof, 07-*, *director physical lab, 04-* Sci. adviser, British Admiralty, 19. A.A; fel. Physical Soc; fel. Royal Soc. Can. (pres, 24); fel. London Physical Soc; fel. Royal Soc. Electrical conductivity of gases; radioactivity; magnetism; spectroscopy and low temperature investigations with liquid hydrogen and liquid helium; penetrating radiations at the surface of the earth and their properties.
- Macleod, Prof. Annie Louise**, Vassar College, Poughkeepsie, N. Y. *Chemistry*. Nova Scotia, Can, 83. B.A, McGill, 04, M.S, 05, Ph.D, 10. *Assoc. prof. chem, Vassar, 19-24, prof. and director euthenics, 24-* A.A. Organic chemistry; euthenics.
- MacLeod, D(onald) J(ohn)**, Laboratory of Plant Pathology, Fredericton, N. B, Can. *Botany, Plant pathology*. Dunvegan, Ont, June 30, 94. B.A, Queen's (Can), 21, M.A, 23. *Pathologist-in-chief, Lab. Plant Path, Can, 24-* Nat. Research Council Can. studentship, Queen's (Can), 21-23. A.A; Soc. Bact; Phytopath. Soc; Can. Soc. Tech. Agr; Ass. Econ. Biol. England; Soc. mycol. de France; Soc. de Path. veg. et d'Entom. agr; Soc. Linnean de Lyon; Urol. Gesell; Verein für angewandte Bot.
- MacLeod, Dr. Florence L(ouise)**, 541 W. 124th St, New York, N. Y. *Chemistry*. Cambridge, Mass, Oct. 25, 96. B.S, Simmons, 19; A.M, Columbia, 21, Ph.D, 24. Asst. chem, *Columbia, 21-24, research asst. food chem, 19-21, 25-* Fellow, Nat. Research Council, 24-25. A.A; Chem. Soc. Calcium content of the body in relation to age, growth and food; fat-soluble vitamin in growth and reproduction.
- MacLeod, Prof. Grace**, Teachers College, Columbia University, New York, N. Y. *Nutrition*. Rothesay, Scotland, Aug. 6, 78. B.S, Mass. Inst. Tech, 01; A.M, Columbia, 14, Ph.D, 24. Teacher, schools, Mass, 01-10; chem. and physics, Pratt Inst, 10-17; asst. ed, 'Jour. Indust. and Eng. Chem,' 17-19; instr. and *asst. prof. nutrition, Teachers Col, Columbia, 19-* A.A; Soc. Biol. Chem; Chem. Soc; Soc. Exp.

- Biol. Utilization of calcium; efficiency of proteins; basal metabolism.
- MacLeod, Prof. Hector J(ohn)**, University of Alberta, Edmonton, Alta, Can. *Electrical engineering*. New London, P. E. I., May 6, 87. B.Sc., McGill, 14; M.Sc., Alberta, 16; A.M., Ph.D., Harvard, 21. Lecturer *elec. eng.*, Alberta, 14-16, assoc. prof., 21-24, *prof.*, 24-Major, C.E.F. and Royal Artil., 16-19. Assoc. Elec. Eng; Physical Soc. Losses in dielectrics.
- MacLeod, Prof. J(ohn) J(ames) R(ichard)**, University of Toronto, Toronto, Ont., Can. **Physiology*. Dunkeld, Scotland, Sept. 6, 76. M.B., Ch.B., Aberdeen, 98; Anderson scholar, 98-00, LL.D., 25; Leipzig, 98-99; D.P.H., Cambridge, 02; D.Sc., Toronto, 23. Demonstrator physiol., London Hosp., 99-02, lecturer biochem., 02; Mackinnon research scholar, Royal Soc., 01-03; *prof. physiol.*, Western Reserve, 03-18; *Toronto*, 18-Cameron prize, Edinburgh, 23; Nobel prize with F. G. Banting, 24. A.A.; Physiol. Soc. (pres., 21-23); Soc. Exp. Biol.; Soc. Biol. Chem.; Am. Physicians; fel. Phila. Col. Physicians; fel. Royal Soc. Can.; Royal Can. Inst. (pres); hon. fel. Toronto Acad. Med.; fel. Royal Soc.; London Physiol. Soc.; Halle Akad. der Naturforscher; cor. mem. Bologna Med. Chirurg. Soc. The causation of caisson disease; biochemistry of carbamates; physiological glycosuria; respiratory center; lactic acid metabolism.
- McLester, Dr. James (Somerville)**, 930 S. 20th St., Birmingham, Ala. *Medicine*. Tuscaloosa, Ala., Jan. 25, 77. A.B., Alabama, 96; M.D., Virginia, 99; Göttingen; Freiburg; Berlin; Munich. Intern., Phila. Polyclinic Hosp., 99-01; *prof. med.*, Alabama. A.A.; Am. Med. Ass. (sec'y, sect. practice of med., chairman, 20); Am. Physicians; Soc. Clin. Invest.; Climat. and Clin. Soc. Diseases of metabolism.
- MacMahon, A(ndrew) M(erritt)**, 1156 E. 56th St., Chicago, Ill. *Physics*. Marshalltown, Iowa, Dec. 3, 93. A.B., Iowa, 16, M.S., 17. Instr. *physics*, Wisconsin, 19; asst., Chicago, 19-21; instr., Rice Inst., 21-25; *fellow*, Chicago, 25-A.S., U.S.A., 18-19. A.A.; Physical Soc.; Optical Soc. Action of Röntgen and gamma rays upon selenium crystals; conduction of electricity in solids; dispersion of X-rays; quantum theory.
- McMaster, Dr. LeRoy**, Washington University, St. Louis, Mo. *Chemistry*. Mt. Pleasant, Md., March 26, 79. Ph.B., Dickinson, 01, A.M., 02; fellow, Hopkins, 05-06, Ph.D., 06. Instr. *chem.*, Dickinson, 01-04; *Washington (St. Louis)*, 06-10, asst. prof., 10-12, assoc. prof., 12-14, *prof.*, 14-22, *Eliot prof.*, 22-, *head dept.*, 14- Asst. author, 'Carnegie Memoirs.' Chem. Soc.; London Soc. Chem. Indust. Organic and physical chemistry; synthesis of fumaric and maleic acids; hydrogenation; neutral ammonium salts of organic acids; the formation of alcoholates; conductivity and viscosity of salts in solution; detection of ozone, nitrogen peroxid and hydrogen peroxid in gas mixtures; acid carbonates of calcium and barium; transformation of nitriles into amids by hydrogen peroxid; action of hydroxylamine on fumaric nitrile; acetic acid in white lead; isophenolphthalein.
- McMeen, Samuel G(roenendyke)**, 683 S. Los Robles Ave., Pasadena, Calif. *Electrical engineering*. Eugene, Ind., Nov. 28, 64. Chief engineer, Cent. Union Telephone Co., 96-02; telephone engineer, West. Elec. Co., 02-04; *consulting engineer*, 04- Pres. elec. companies, 12-20. Elec. Eng; Mech. Eng. Electrical communication; telephony; radio telephony.
- MacMillan, Dr. Daniel P(eter)**, Board of Education, Chicago, Ill. *Psychology*. Antigonish, N. S., Can., July 3, 70. B.A., Acadia, 95; Cornell, 95-96; fellow, Chicago, 96-98, Ph.D., 00; M.D., Ill. Med. Col., 09; M.D., Chicago Med. Sch., 23. Asst. *dept. child study and pedag. investigation, pub. schools*, Chicago, 00-02, *director*, 02- Summers, lecturer, Chicago, 05-07. A.A.; Psychol. Ass; fel. Am. Med. Ass; West. Philos. Ass. The psychology of normal and subnormal children; deaf children; types of learning in relation to types of intelligence; education and the manual arts.
- MacMillan, Dr. H(oward) G(ove)**, P. O. Box 747, Greeley, Colo. *Plant pathology*. Schaghticoke, N. Y., June 24, 90. Ph.B., Brown, 12; M.S., Wisconsin, 13, Ph.D., 19. *Pathologist, bur. plant indust.*, U. S. Dept. Agr. A.A.; Bot. Soc.; Phytopath. Soc.; Ecol. Soc.; Soc. Bact.; Meteor. Soc.; Soc. de Path. veg. Potato diseases.
- MacMillan, Dr. W(illiam) D(uncan)**, University of Chicago, Chicago, Ill. **Mathematics, Astronomy*. La Crosse, Wis., July 24, 71. A.B., Fort Worth, 98; A.M., Chicago, 06, Ph.D., 08. Assoc. math. and astron., Chicago, 08-09, instr. *astron.*, 09-12, asst. prof., 12-19, assoc. prof., 19-24, *prof.*, 24- Major, ordnance dept., 18- A.A.; Astron. Soc.; Math. Soc.; Math. Ass; fel. Royal Astron. Soc.; Soc. astron. de France. Elliptic functions; periodic orbits; real and implicit celestial mechanics; cosmology; statics and the dynamics of a particle.
- McMiller, Prof. Paul R.**, 715 Seventh St., S. E., Minneapolis, Minn. *Soils*. Unity, Wis., May 3, 87. B.S., Minnesota, 11, M.S., 15. *Asst. prof. soils*, Minnesota, 23-, *asst. soils chemist*, *Exp. Sta.*, 12- A.A.; Soil Surv. Ass; Soc. Agron; Int. Soc. Soil. Sci. Glacial soil; soil surveys.
- McMillin, Prof. Frederick A(nsten)**, 3118 N. 14th St., Tacoma, Wash. *Chemistry*. Palmyra, Mich., Jan. 23, 91. A.B., Willamette, 16, M.S., 17; Washington (Seattle), 20-23. Head dept. science, high sch., Wash., 19-20; instr. *chem.*, Washington (Seattle), 20-23; *prof.*, Idaho Tech. Inst., 23-24; *asst. prof.*, *Puget Sound*, 24-Chemist, U.S.N., 17-18. Chem. Soc. Diazo reactions with reference to dye and explosive properties.
- McMinn, Prof. H(oward) E.**, Mills College, Calif. *Botany*. Richmond, Ind., Aug. 19, 92. A.B., Earlham, 14; A.M., California, 16. *Prof. biol.*, Pacific (Oregon), 14-15; Whittier, 17-18; *bot.*, Mills, 18- Summers, instr., California, 16, 20. Calif. Bot. Soc. (sec'y); Calif. Acad. Ceanothus; trees; shrubs; vines.
- McMullen, Prof. Lynn B(anks)**, University of Kentucky, Lexington, Ky. *Physics, Chemistry, Education*. Arcadia, Ind., Jan. 28, 75. B.S., De Pauw, 97; Chicago, 08; A.M., Columbia, 19;

- Ph.D, 27. Teacher, high sch, Ind, 97-08; head dept. physics and chem, N. Dak. State Nor. Sch, Valley City, 08-19; director training sch, Colo. State Teachers Col, 19-20; pres, North. Ariz. Nor. Sch, 20-25; *prof. elementary educ, Kentucky, 25-* Lecturer, Nor. Sch. of North Am. Gym. Union; assoc, Teachers Col, Columbia, 24-25. N. Dak. Acad. (sec'y and v. pres); Ind. Acad. (sec'y); Ind. Sci. Teachers Ass. (pres); N. Dak. Sci. Teachers Ass. (pres). Practical applications of physics and the science curriculum in the grades.
- McMurphy, James (Ira Wilson)**, Stanford University, Calif. *Botany*, Ill, 71. A.B, Stanford, 08, A.M, 09. Instr. and asst. prof. *bot, Stanford, 12-26, assoc. prof, 26-* A.A.; Phytopath. Soc. Phytopathology; mycology.
- McMurrich, Prof. J(ames) Playfair**, University of Toronto, Toronto, Ont, Can. **Animal morphology*. Toronto, Oct. 16, 59. Upper Canada; B.A, Toronto, 79, M.A, 81; Ph.D, Hopkins, 85; LL.D, Michigan, 12, Cincinnati, 23. Prof. biol, Ont. Agr. Col, 82-84; instr. mammalian anat, Hopkins, 84-86; prof. biol, Haverford, 86-89; docent and asst. prof. animal morphol, Clark, 89-92; *prof. biol, Cincinnati, 92-94; anat, Michigan, 94-07; Toronto, 07-, dean sch. grad. studies, 22-* Instr. Woods Hole, 87-91, trustee, 92-96; mem, advisory board, Wistar Inst; Can. Biol. Board; N. A. Commission on Fisheries Investigations. A.A. (pres, 22); Soc. Nat. (pres, 07); Soc. Zool. (sec'y, 90-93); Ass. Anat. (pres, 08); Philos. Soc; Phila. Acad; fel. Royal Soc. Can. (pres, 22); fel. Royal Micros. Soc; cor. mem. London Zool. Soc. Vertebrate morphology and embryology; history of science.
- McMurry, Prof. K(enneth) C(harles)**, University of Michigan, Ann Arbor, Mich. *Geography*. Normal, Ill, Oct. 18, 94. A.B, Wisconsin, 15; Ph.D, Chicago, 22. Field asst, U. S. Geol. Surv, 17-18; instr, Chicago, 18-19; geographer, Tenn. Geol. Surv, 19-20; instr. *geog, Michigan, 20-21, asst. prof, 21-25, assoc. prof. and head dept, 25-* Summers, lecturer, Columbia, 21, Iowa, 22. Ass. Geog; Mich. Acad. (chairman, committee on conservation, 25-). Regional and economic geography of North America.
- McNair, Geo(rge) T(homas)**, University of Kansas, Lawrence, Kans. *Embryology*. Rawlins, Wyo, Oct. 5, 91. B.S, Coe, 16; M.S, Chicago, 21; Kansas. Teacher, high sch, Iowa, 16-21; instr. zool, Carleton, 21-22; *prof. biol. sciences, Okla. Col. for Women, 22-26; zool, Kansas, 26-* A.A.; Wilson Ornith. Club; Okla. Acad. Invertebrate animal behavior.
- McNair, James B(irtley)**, Field Museum of Natural History, Chicago, Ill. *Chemistry*. Hazleton, Pa, March 18, 89. Pomona, 12-13; A.B, California, 16, A.M, 17; Pennsylvania, 18; Chicago, 22-25. Asst. zymol, California, 14-15, biochem, 15-16; asst. research chemist, Nev. Exp. Sta, 17; asst. chemist, bur. chem, U. S. Dept. Agr, 19; chemist in charge, Chem. Econ. Co, 20; chemist, dairy div, bur. animal indust, U. S. Dept. Agr, 20-21; asst, fishery food lab, Bur. Fisheries, 21-22; asst. chemist, bur. internal revenue, U. S. Treasury Dept, 22; assoc. econ. bot, *Field Museum Nat. Hist, 25-26, asst. curator, 26-* M.R.C, U.S.A, 18-19, lieut, Q.M.O.R.C, 19, capt, C.W.R.S, 23. A.A. Economic botany; analysis of biological products; poisonous plants; citrus by-products.
- MacNair, Dr. Walter A(rcher)**, Johns Hopkins University, Baltimore, Md. *Physics*. Houghton, Mich, April 29, 01. B.S, Colgate, 20; A.M, Hopkins, 24, Ph.D, 25. Asst. physicist, Bur. Standards, 21-22; instr. math. and physics, Mich. Col. Mines, 22-23; *Nat. Research Council fellow physics, Hopkins, 25-* A.A.; Physical Soc. Magneto-optics of resonance radiation; fine structure of spectrum lines.
- McNairn, Prof. W(illiam) Harvey**, 415 Brunswick Ave, Toronto, Ont, Can. *Geology*. Toronto, Sept. 3, 74. B.A, Toronto, 99, M.A, 00, Ph.D, 16; M.A, McMaster, 10. Asst. *geol. and miner, Toronto, 00-02; lecturer, McMaster, 09-19, prof, 19-* Twelfth Int. Geol. Cong, Toronto, 12. A.A; Can. Inst. Physical crystallography; origin of etch figures.
- MacNaughton, Prof. E(dgar)**, 187 College Ave, West Somerville, Mass. *Mechanical engineering*. Argyle, N. Y, May 4, 87. M.E, Cornell, 11. Student engineer, Gen. Elec. Co, 11-14; designer, Boston Elevated Co, 15; instr. *mech. eng, Tufts, 14, 16-18; assoc, Illinois, 18-19; asst. prof, Tufts, 19-22, prof, 22-* Mech. Eng; Eng. Educ. Steam power plant engineering.
- MacNeal, Prof. W(ard) J**, N. Y. Post-Graduate Medical School, New York, N. Y. *Bacteriology*. Fenton, Mich, Feb. 17, 81. A.B, Michigan, 01, Ph.D, 04, Rockefeller fellow, 03-04, 05-06, M.D, 05. Asst. bacter, Michigan, 01-03, instr. histol, 05-06; anat. and bacter, West Virginia, 06-07; asst. chief bacter, Ill. Exp. Sta, 07-11; asst. prof. bacter, Illinois, 08-11; lecturer *path. and bacter, N. Y. Post-Grad. Med. Sch, 11-12, prof, 12-*, asst. director laboratories, 12-15, director, 15- Board trustees, N. Y. Post-Grad. Med. Sch, 20-24, v. chairman med. board, 24- Ill. State Pellagra Commission, 09-12; Robert M. Thompson Pellagra Commission, 12-17; Am. Trench Fever Commission, 18. Lieut. col, M.R.C, 17-19, col, 24. A.A; Soc. Bact. (councilor, 13); Soc. Exp. Biol. (councilor, 25-); Ass. Path. and Bact; Am. Med. Ass; Tuber. Ass; Soc. Parasitol; Soc. Exp. Path; Soc. Trop. Med; Pub. Health Ass; Soc. Cancer Research (councilor, 25-); Harvey Soc; N. Y. Acad. Med; N. Y. Path. Soc. (pres, 22-24, trustee, 24-). Trypanosomes; Romanowsky stain; polychrome methylene blue; intestinal bacteria; coccidioidal granuloma; contagious abortion; tuberculosis of cattle; influence of saltpeter upon health; pellagra; trench fever; influenza; cancer; abdominal inflammations; syphilis; spleen structure.
- McNeil, Prof. H(iram) C(olver)**, 1210 Decatur St, N. W, Washington, D. C. *Chemistry*. Winchester (Emerald), Ohio, Oct. 2, 66. B.S, Denison, 96, M.S, 00; Harvard, 96; Chicago, 98-99, 01; Ph.D, George Washington, 05. Instr. chem, Denison, 96-98; prof, Shurtleff, 99-04; chemist, Columbus Pharmacol Co, 05-07; bur. chem, U. S. Dept. Agr, 07-14, Bur. Standards, 14-18; *prof. chem, George Washington,*

- 18— Research chemist, Mariner and Hoskins, Ill, 99; U. S. Geol. Surv, 04-05; lecturer, George Washington, 10-18. A.A.; Chem. Soc. Silicates; moisture determination; litharge; fractional crystallization; analytical separations.
- McNeill, Prof. Jerome**, Thonotosassa, Fla. *Biology*. Laurel, Ohio, Sept. 25, 57. Antioch; B.S., Indiana, 86; Stanford, 99-00; Chicago, 09. Prin. high sch, Ill, 86-90; prof. biol, Arkansas, 90-99; Palmer, 02-04; biol. and chem, Florida State, 04-14. Field agent, U. S. Dept. Agr, 90-91. Calif. Acad; Wash. Entom. Soc; Cambridge Entom. Soc; Davenport Acad. (curator entom). Systematic entomology; homology of venation of wings of Orthoptera; Orthoptera of the United States.
- MacNeish, Prof. H(arris) F(ranklin)**, 185 Lake View Ave, Scarsdale, N. Y. *Mathematics*. Roberts, Ill, Sept. 8, 79. B.S., Chicago, 02, M.S., 04, fellow, 05-06, Ph.D., 09. *Instr. math*, Univ. High Sch, Chicago, 02-08; Princeton, 08-10; Yale, 10-16; De Witt Clinton High Sch, New York, 16-18; *Col. City of N. Y.*, 18— *Math. Soc*; *Math. Ass.* Calculus of variations; projective geometry; certain dual configurations in *n*-space; hyperspace geometry.
- McNicholas, H(arry) J(ohn)**, U. S. Bureau of Standards, Washington, D. C. *Physics*. Plymouth, Wis, Oct. 29, 92. A.B., Ripon Col, 15; A.M., Hopkins, 24, Ph.D., 26. Lab. asst, *Bur. Standards*, 15-17, asst. physicist, 17-20, *assoc. physicist*, 20— *Physical Soc*; *Optical Soc*; *Wash. Philos. Soc.* Optics; colorimetry; reflectometry; spectrophotometry; the transmission and reflection of light.
- MacNider, Dr. William de B(erniere)**, University of North Carolina, Chapel Hill, N. C. *Pharmacology*. Chapel Hill, June 25, 86. M.D., North Carolina, 03; Chicago; Western Reserve. Asst. biol, *North Carolina*, 99-00, anat, 00-02, clin. diagnosis, 02-05, prof. *pharmacol*, 05-18, Kenan prof, 18-24, *Kenan research prof*, 24— A.A.; *Soc. Pharmacol.* (assoc. ed, 'Jour,' treas. and counselor); fel. Am. Med. Ass; fel. Col. Physicians; Ass. Path. and Bact; *Soc. Exp. Path*; *Physiol. Soc*; *Soc. Exp. Biol.* (ed, board); *Soc. Biol. Chem*; Ass. Anesthetists; Nat. Anesthesia Research Soc. (research committee); Elisha Mitchell Sci. Soc. (pres); N. C. Med. Soc. (pres, 25); N. C. Acad. Pharmacology of the kidney; experimental nephritis; acid-base equilibrium of the blood in nephritis; toxicity of uranium; toxic effect of general anesthetics; nephropathy in the dog.
- MacNutt, Prof. Barry**, Bethlehem, Pa. *Physics*. *Electrical engineering*. Fort McHenry, Md, June 15, 78. E.E., Lehigh, 97, M.S., 98. Instr. physics and elec. eng, *Lehigh*, 99-06, asst. prof. *physics*, 06-09, assoc. prof, 09-15, *prof*, 15—, *director curriculum eng. physics*, 23— Asst. to U.S.A. inspector ordnance, Bethlehem Steel Works, 98-99. A.A.; *Physical Soc*; *Electrochem. Soc*; assoc. Elec. Eng; Eng. Educ; Meteor. Soc; *Optical Soc*. Polarization of electrolytic cells; electro-metallurgy of iron ores; the copper voltmeter; telephonic apparatus; ignition apparatus for internal combustion engines; carburetion; telephone receivers; micro-
phonic devices for determining the elastic limit; non-ferrous magnetic alloys; electro-magnetic balances.
- McNutt, Prof. G(eorge) W(illiam)**, 2823 Leek St, Ames, Iowa. *Veterinary anatomy*. Algona, Iowa, 94. D.V.M., Iowa Col, 17. Instr. vet. path, *Iowa Col*, 19-20, *vet. anat*, 20-26, *assoc. prof*, 26— *Ass. Anat*; *Vet. Med. Ass*; Iowa Vet. Ass. Oestrous cycle in the domestic cow; paranasal sinuses and abdominal viscera of the ox.
- Macomber, Dr. Donald**, Harvard University Medical School, Boston, Mass. *Medicine*, *Physiology*. Boston, Jan. 26, 85. A.B., Harvard, 06, M.D., 09. Asst. *obstet*, *Harvard*, 13, *research fellow*, 26— *Fel. Col. Surg*; fel. Am. Med. Ass; fel. Boston Obstet. Soc. Physiology of reproduction; sterility; fertility.
- Macomber, Prof. George S(tanley)**, Quaker Road, Orchard Park, N. Y. *Electrical engineering*. Perry, N. Y., May 28, 77. M.E., Cornell, 00. Electrician, Perry Elec. Tel. Co, N. Y., 94-96; asst, eng. dept, Cent. Dist. and Printing Tel. Co, Pa, 00; instr. elec. eng. and physics, Washington (St. Louis), 01-02; elec. eng, Cornell, 02-05; engineer in charge test. lab, Stromberg Carlson Co, N. Y., 05-06; asst. prof. elec. eng, Cornell, 06-14; elec. engineer, N. Y. State Pub. Service Commission, 14-15; senior tel. and tel. engineer, Interstate Commerce Commission, 15-17; assoc. physicist and assoc. elec. engineer, Bur. Standards, 17-19; consulting engineer, 19-20; director, Pub. Utilities, Buffalo, 20-26; *consulting engineer*, 26— A.A.; Elec. Eng; Eng. Educ; Wash. Soc. Eng. Telephony; the telephone cable; telephonic apparatus; automatic telephony; natural gas; public utilities regulation.
- Macoun, W(illiam) T(errill)**, Central Experimental Farm, Ottawa, Ont, Can. *Horticulture*. Belleville, Ont, 69. High sch. *Central Exp. Farm, Ottawa, Can*, 87—, *curator arboretum and bot. garden*, 95—, *horticulturist*, 98—; *Dominion horticulturist*, 10— *Soc. Hort. Sci.* Apples; plums; bush-fruits; potatoes; cross breeding of fruits to improve hardiness and quality.
- McPhedran, Dr. Alexander**, 151 Bloor St, W, Toronto, Ont, Can. *Medicine*. Ontario. M.B., Toronto, 76, LL.D., 19. *Prof. med. and clin. med*, *Toronto*, 98-18, *emer. prof.* Am. Physicians (pres, 19); Can. Med. Ass. (pres, 07); fel. Royal Soc. Can; British Med. Ass; cor. mem. Medico-Chirurg. Soc. Edinburgh. Internal medicine.
- MacPhee, Prof. E(arle) D(ouglas)**, University of Toronto, Toronto, Ont, Can. *Psychology*. Millstream, N. B. M.A., Edinburgh, 19, B.Ed., 20. Lecturer *psychol*, Acadia, 20-21; *asst. prof*, Alberta, 21-24; *Toronto*, 24— *Research*, Can. Nat. Committee for Mental Hygiene. A.A. Educational psychology; intelligence; mental hygiene.
- McPhee, Dr. Hugh C(urtis)**, U. S. Department of Agriculture, Washington, D. C. *Genetics*. Hastings, Maine, Dec. 5, 96. B.S., Maine, 18, M.S., 21; M.S., Harvard, 22, Sc.D., 23. Sci. aid, Maine Exp. Sta, 19-21; assoc. animal husband-

man genetics, bur. animal indust, U. S. Dept. Agr, 23-26, animal husbandman, 26- A.A.; Soc. Animal Production. Animal genetics; sex in plants; inbreeding in animals.

McPherson, Dr. A(rchibald) T(urner), U. S. Bureau of Standards, Washington, D. C. Chemistry. Marceline, Mo, Feb. 22, 95. A.B, Trinity, 14; A.M, Texas, 16; Ph.D, Chicago, 23. Prof. chem, Ewing Christian Col, India, 19-21; assoc. chemist, Bur. Standards, 23- Chem. Soc. Organic chemistry; electrical constants of rubber; submarine cable insulation.

McPherson, Prof. Margaret W(illcox), Kensington, Md. Organic chemistry. Chicago, Ill, March 21, 98. A.B, Mt. Holyoke, 19; Ph.D, Chicago, 24. Asst. prof. chem, Okla. Col. for Women, 22-23. Synthetic drugs; derivatives of α -phenyl butyric acid.

McPherson, Prof. William, Ohio State University, Columbus, Ohio. *Chemistry. Xenia, Ohio, July 2, 64. B.S, Ohio State, 87, M.S, 90, Sc.D, 95; Ph.D, Chicago, 99. Instr, high sch, Ohio, 87-92; asst. prof. chem, Ohio State, 93-95, assoc. prof, 95-97, prof, 97-, dean grad. sch, 11- Chief chemist, Ohio Dairy and Food Commission, 07-12; collaborating chemist, bur. chem, U. S. Dept. Agr, 08-17. Chem. Soc. rep, exec. committee, Nat. Research Council. Capt, major and lieut. col, C.W.S, 17-18. A.A. (sec'y, C, 01, v. pres, 09-15); Chem. Soc. (v. pres, Columbus sect, 09-11, councilor-at-large, 23-26, exec. committee); Ohio Acad. Hydroxyazo compounds; constitution of organic compounds.

McQuarrie, Dr. Irvine, University of Rochester, Rochester, N. Y. Experimental medicine. Utah, 91. Grad, Utah State Nor. Sch, 11; A.B, Utah, 15; Thompson scholar, California, 16-18, Ph.D, 18; research fellow, Hooper Foundation, 18; M.D, Hopkins, 21. Asst. path, California, 18-19; res. house officer, Henry Ford Hosp, 21-22, physician in charge nutrition clin, 22-24, pediatrician-in-chief, 25-26; instr. pediat, Yale, 24; asst. prof. sch. med, Rochester, 26- A.A.; Soc. Exp. Biol; Chem. Soc; Wayne Co. Med. Soc. Pediatrics; kidney function; antipyretics and the serum proteins; blood volume; isoagglutination in puerperal eclampsia; hydrogen-ion concentration of spinal fluid; the effect of cod-liver oil on the photographic plate; hemophilia; toxicity of bile; infant nutrition; metabolism in epilepsy.

MacRae, Dr. Duncan, Guggenheim Brothers, 3771 Tenth Ave, New York, N. Y. Physical chemistry. Fayetteville, N. C, March 7, 91. B.S, North Carolina, 09, 09-10; Summer Sch. of South, 10; Columbia, 11; Ph.D, Mass. Inst. Tech, 17. Asst. chem, North Carolina, 08-10; teacher science, Richmond Co. Acad, Ga, 10-12; asst. theoret. chem, Mass. Inst. Tech, 12-13, instr. inorg. chem, 13-15; chief chemist, eng. dept, Westinghouse Lamp Co, 17-18; research chemist, research lab, Westinghouse Lamp Co, 19-25; manager research laboratories, Guggenheim Bros, 25- Capt, C.W.S, 18-19. Chem. Soc. (reporter, N. C. sect, 10); Electrochem. Soc. (board directors, 25-27). Specific heat of

organic liquids; vapor pressure of yellow phosphorus; tungsten filament lamps; radio tubes.

McRae, Prof. J(ohn) A(lexander), Queen's University, Kingston, Ont, Can. Organic chemistry. Beaverton, Ont, Jan. 24, 90. M.A, Queen's (Can), 09, fellow, 09-11; Ph.D, Manchester, 21. Asst, Toronto, 11-12; lecturer chem, Queen's (Can), 12-15, asst. prof, 15-22, assoc. prof, 22-26, prof, 26- Fel. Inst. Chem. Gt. Britain and Ireland; fel. London Chem. Soc. Hydrogen cyanide addition to unsaturated compounds; condensation of aldehyde ketones with substances containing an active methylene group; synthesis of alkylidenecyanoacetic acids; preparation of alkyl and aryl-succinic acids.

McTaggart, Dr. Alexander, McGill University, Montreal, Que, Can. Agronomy. Waimate, N. Z, April 13, 83. B.S.A, Toronto, 12; M.S.A, Cornell, 13, Ph.D, 21. Dept. agr, N. Z. Civil Service, 01-08, agriculturist, N. Z. Dept. Agr, 13-19; asst. instr. agron, Cornell, 19-22; asst. prof, McGill, 22- N. Z. Army, 18-19. Can. Soc. Tech. Agr. Soils; forage crop breeding; culture problems.

McTaggart, Prof. H(enry) A(llen), 39 Chaplin Crescent, Toronto, Ont, Can. Physics. Kemptville, Ont, Oct. 1, 76. Ph.D, Toronto; M.A, Cambridge. Lecturer, asst. prof. and assoc. prof. physics, Toronto. Physical Soc; Cambridge Philos. Soc; Royal Soc. Can. Electrification at liquid surfaces.

McVay, T(homas) N(ewkirk), University of Illinois, Urbana, Ill. Ceramics. Hawkins, Pa, 91. B.S, Illinois, 14, M.S, 26. Ceramic engineer, Clinton Paving Brick Co, Ind, Streator Brick Co, Ill, Basic Products Co, W. Va, and Lacon Clay and Coal Co, Ill, 14-22; instr. ceramic eng, Illinois, 22-26, assoc, 26- Ceramic Soc; British Ceramic Soc. Raw materials; cements; gypsum plasters; burning.

McWhorter, Frank P(aden), Virginia Truck Experiment Station, Norfolk, Va. Plant pathology. Nashville, Tenn, April 20, 96. B.S, Vanderbilt, 17; fellow, Chicago, 18-20, M.S, 20. Teaching fellow geol, Vanderbilt, 16-17; field asst, plant disease surv, 18; assoc. prof. bot, Philippines, 20-21, acting head dept. plant path, 21-22; plant pathologist, Va. Truck Exp. Sta, 22- A.A.; Bot. Soc; Phytopath. Soc. Ecology of cryptogams; protozoan diseases of plants; parasitic phanerogams; vegetable pathology.

McWhorter, Dr. Golder Lewis, 1526 W. 103d St, Chicago, Ill. Surgery. Iowa, Sept. 23, 88. B.S, Chicago, 11, M.D, Rush Med. Col, 13; fellow, Minnesota, 14-17, Ph.D, 17. Instr. surg, Rush Med. Col, 17-24, asst. clin. prof, Chicago, 24- Am. Med. Ass; fel. Col. Surg. Abdominal surgery; the bile ducts.

Macy, Dr. Icie G(ertrude), Merrill-Palmer School, 71 Ferry Ave, E, Detroit, Mich. Physiological chemistry. Gallatin, Mo, July 23, 92. A.B, Central Col. for Women, 14; B.S, Chicago, 16; A.M, Colorado, 18; Pi Beta Phi fellow, 18-19; Susan Rhoda Cutler fellow, 19-20; Ph.D, Yale, 20. Asst. chem, Colorado, 16-17, physiol. chem, sch. med, 17-18; asst. biochemist, West. Pa. Hosp, Pittsburgh, 20-21; instr, California, 21-

- 23; in charge nutrition research, *Merrill-Palmer Sch.*, 23- Chem. Soc; Soc. Biol. Chem; Conf. Biochem; Home Econ. Ass. Nutrition; physiological value and toxicity of cotton seed products; calcium and magnesium content of the human fetus; antiscorbutic properties of desiccated fruit juices; vitamin content of human milk.
- Macy, Prof. Rudolph**, Edgewood Arsenal, Md. *Chemistry*. New York, N. Y., April 20, 98. B.S., N. Y. Univ, 20, M.S., 21, Ph.D., 23. Instr. chem, Maine, 23-25, asst. prof, 25-27; *assoc. chemist, Chem. Warfare Service*, 27- Chem. Soc. (sec'y, Maine sect, 24-26). Phase rule.
- Maddison, Miss Isabel**, Martin's Dam, Wayne, Pa. *Mathematics*. Reading, Eng. Girton, Cambridge, 89-92, math. tripos (wrangler), 92; Bryn Mawr, 92-93, fellow, 93-94, Ph.D., 96; B.Sc., London, 93; Göttingen, 94-95; B.A., Trinity (Dublin), 05. Asst. sec'y to pres, *Bryn Mawr*, 95-96, sec'y, 96-04, reader in math, 96-04, *assoc.*, 04-, *asst. to pres.*, 04-, recording dean, 10-26. Math. Soc; London Math. Soc. Theory of singular solutions of differential equations of the first order.
- Madrill, Dr. J(ames) D(avis)**, 1701 Connecticut Ave, Washington, D. C. *Actuarial science*. Reno, Nev, April 13, 80. A.B., California, 03, fellow, Lick Observatory, 03-07, Ph.D., California, 07. Astronomer in charge, Int. Latitude Observatory, Ukiah, Calif, 07-12; instr. math, California, 12-13; investigator actuarial dept, Travelers Ins. Co, 13-17; actuary, U. S. Bur. Efficiency, 17-18; supt, Fed. Board Vocational Educ, 18-20; actuary, Pa. Manufacturers Ass. Casualty Ins. Co, 20-25; consulting actuary, 20-27; mem, Board Actuaries, U. S. Civil Service Retirement Fund, 21-25; actuary, Hartford Accident and Indemnity Co, 25-26; *v. pres. and gen. manager, Union Labor Life Ins. Co*, 27- A.A.; Astron. Soc; fel. Casualty Actuarial Soc. (exam. committee, 17, 18, 24-27, educ. committee, 18); Math. Soc; Pacific Astron. Soc. (joint ed, 07-12); Ass. Cost Accountants; Int. Cong. Actuaries; fel. Royal Astron. Soc; Astron. Gesell. Micrometry; photometry; orbits; astro-physics; variable stars; variation of latitude; insurance theory and practice; occupational diseases; retirement pensions; war risk insurance; vocational rehabilitation of the disabled.
- Madorsky, Dr. Samuel L(eo)**, 2728 Evergreen Ave, Chicago, Ill. *Chemistry*. Novo-Bykhov, Russia, Feb. 28, 91. B.S., Chicago, 19, Ph.D., 23. *Gathmys Research Corp*, 23- Chem. Soc. Atomic structure; metallurgy.
- Madson, B(en) A(dolph)**, University Farm, Davis, Calif. *Agronomy*. Jewell Junction, Iowa, March 19, 87. B.S.A., Iowa Col, 07; Illinois, 10; Chicago, 25-26. Asst. chemist, Iowa Exp. Sta, 07-09; *asst. prof. agron, California*, 10-, *chief div. agron*, 27- A.A.; Soc. Plant Physiol; Soc. Agron. Plant physiology.
- Maes, Dr. Urban**, 1671 Octavia St, New Orleans, La. *Surgery*. New Orleans, Oct. 12, 78. M.D., Tulane, 00. *Prof. clin. surg, sch. med, Tulane*, 19- Visiting surgeon, Charity Hosp; senior surgeon, Touro Infirmary. Col. M.R.C. Surg. Ass; fel. Col. Surg; Am. Med. Ass. (sec'y, surg. sect, 21-24, chairman, 24); Clin. Surg. Soc; Ass. Thoracic Surg; S. Surg. Ass; Orleans Parish Med. Soc. (pres, 25). General surgery.
- Maeser, Dr. Sherwin**, Utah Agricultural College, Logan, Utah. *Chemistry*. Beaver, Utah, Aug. 7, 88. A.B., Brigham Young, 09; Ph.D., California, 21. *Assoc. prof. chem, Utah Col*, 21- Chem. Soc.
- Magath, Dr. Thomas Byrd**, Mayo Clinic, Rochester, Minn. *Parasitology*. Oxford, Ga, Jan. 28, 95. Ph.B., Emory, 13; fellow, James Millikin, 13-14, M.S., 14; fellow, Illinois, 16-17, Ph.D., 17, M.D., 19. Asst. zool, Illinois, 14-16, instr. anat, col. med, 17-19; asst. and *assoc. prof. clin. bacter. and parasitol, Minnesota*, and *consulting physician, Mayo Clinic*, 19- Summer, teacher, Ill. State Nor. Univ, 14; sci. investigator, Bur. Fisheries, 17. Capt, M.R.C. A.A.; Soc. Parasitol; Ass. Anat; fel. Am. Med. Ass; Soc. Clin. Path; Soc. Exp. Biol; Soc. Zool; Micros. Soc. Clinical pathology.
- Magie, Prof. W(illiam) F(rancis)**, Princeton University, Princeton, N. J. **Physics*. Elizabeth, N. J., Dec. 14, 58. A.B., Princeton, 97, A.M., 82; Ph.D., Berlin, 85. Asst. and instr. *physics, Princeton*, 79-85, asst. prof, 85-90, *prof*, 90- A.A.; Physical Soc. (v. pres, 09-11, pres, 11-13); Philos. Soc. Capillarity; specific heats of solutions; heats of dilution.
- Magistad, Dr. O(scar) C(onrad)**, University of Arizona, Tucson, Ariz. *Soils*. Forestville, Wis, Sept. 8, 00. B.S., Wisconsin, 22, Nat. Fertilizer Ass. fellow, 22-24, M.S., 23, Ph.D., 24. Soil chemist, Tela Ry. Co, 24-27; *assoc. prof. agr. chem, Arizona*, 27- Summers, Wis. Soil Surv, 19, bur. soils, U. S. Dept. Agr, 20. A.A.; Ass. Soil Surv. Workers; Soc. Agron; Chem. Soc; Int. Soc. Soil Sci. Tropical soils; banana and soil relationships; fertilizers.
- Magness, Dr. J(ohn) R(obert)**, 5 Valley View Ave, Takoma Park, Washington, D. C. *Plant physiology*. Amity, Oregon. B.S., Oregon Col, 14, M.S., 16; Ph.D., Chicago, 23. Asst. hort. research, Oregon Col, 14-17; *physiologist*, Marble Lab, Inc, Pa, 21-22; *bur. plant indust, U. S. Dept. Agr*, 22- A.A. Physiological aspects of fruit production and storage.
- Magnusson, Prof. C(arl) Edward**, University of Washington, Seattle, Wash. *Electrical engineering*. Harris, Minn, Sept. 29, 72. B.E.E., Minnesota, 96, M.S., 97, E.E., 05; fellow, Wisconsin, 99-00, Ph.D., 00. Teacher, high sch, Minn, 00-01; prof. physics, New Mexico, 01-04; *assoc. prof. elec. eng, Washington (Seattle)*, 04-05, *prof*, 05-, *dean col. eng. and director, Eng. Exp. Sta*, 17- Consulting engineer, Am. Nitrogen Products Co, 17-18. Am. committee, World Power Conf, London, 24. A.A.; Physical Soc; fel. Elec. Eng; Civil Eng; Eng. Educ; Math. Soc. Anomalous dispersion of cyanin; dimensional equations and conservation of energy; electrolytic corrosion in reinforced concrete; visual sensations in a magnetic field; artificial transmission line with variable line constants; induction heater; trunk transmission lines; hydro-electric power in Washington; alternating currents; electric transients.

Magnusson, Prof. J(ohn) P(eter), Augustana College, Rock Island, Ill. *Physical chemistry*. Sweden, Dec. 12, 72. A.B. Gustavus Adolphus, 98; A.M. Minnesota, 03; fellow, Wisconsin, 03-04; Ph.D. Cornell, 06. Instr. high schools, Minn. and Mich, 98-03; physical chem, Cornell, 05-06; *prof. chem, Augustana, 06-* A.A.; Chem. Soc.; Physical Soc.; Ill. Acad. Measurement of vapor pressures; equilibria in gaseous systems; purification of rare earths; chemical composition; colloids.

Magoon, Dr. C(harles) A(lden), U. S. Department of Agriculture, Washington, D. C. *Bacteriology*. St. Albans, Maine, Oct. 14, 83. A.B. Bates, 10; Mass. Inst. Tech, 10-11; Shevlin fellow, Minnesota, 15-16; Ph.D. American Univ, 24. Asst. bacteriologist and chemist, Boston Biochem. Lab, 11-13; assoc. prof. bot, Wash. Col. and asst. bacteriologist, Exp. Sta, 13-15, assoc. prof. bact. and bacteriologist, 16-18; *office hort. investigations, bur. plant indust, U. S. Dept. Agr, 18-* A.A.; Soc. Bact. Food canning.

Magruder, E(gbert) W(atson), F. S. Royster Guano Company, Norfolk, Va. *Chemistry*. Keswick, Va, Oct. 25, 68. A.B. Hampden-Sidney, 91; grad, Virginia, 92; Hopkins, 92-97. Asst. chemist, Miss. Agr. and Mech. Col, 97-00; *chief chemist, Va. State Dept. Agr, 00-15*; *F. S. Royster Guano Co, 15-* State chemist, Va, 10-15; lecturer and asst. prof, Med. Col. of Va, 12-15. Chemist, Va. Oyster Commission, 13-14; board visitors, Va. Polytech, 19-22. A.A.; Chem. Soc.; Agr. Chem.; fel. Va. Chemists Club (pres, 07, 13). Fertilizer chemistry.

Magruder, Prof. W(illiam) T(homas), 2034 Iuka Ave, Columbus, Ohio. *Mechanical engineering*. Baltimore, Md, April 22, 61. M.E. Stevens, 81, E.D, 21; Hopkins, 86-87. Designer, Campbell Printing Press and Mfg. Co, 81-86; chief chemist, B. and O. Ry, 87; instr. *mech. eng, Vanderbilt, 87-88*, adjunct prof, 88-96; *prof, Ohio State, 96-* Chief of machinery, Tenn. Expos, 96. A.A. (sec'y, D, 99-00, 02-07); Mech. Eng. (chairman, gas power sub-committee, 19, v. pres, 25-27); Eng. Educ. (councilor, 99-02, 07-11, v. pres, 05, sec'y, 06, pres, 12, councilor); Ohio Soc. Mech. Eng. (pres, 05-07); Columbus Eng. Club (pres, 04). Gas engines; materials of construction.

Mahin, Prof. Edward G, University of Notre Dame, Notre Dame, Ind. *Chemistry*. Lafayette, Ind, Aug. 16, 76. B.S. Purdue, 01, M.S. 03; fellow, Hopkins, 07, Ph.D, 08. Asst. chem, Purdue, 01-03, instr, 03-06, assoc. prof, 08-14, *prof. anal. chem, 14-25*; *anal. chem. and metal, Notre Dame, 25-* Consulting chem. engineer, Mich. Smelting and Ref. Co. Contrib. ed, 'Jour. Chem. Educ,' 25- Summers, metallographist, U. S. Naval Eng. Exp. Sta, 17-19. A.A.; Chem. Soc.; Min. and Metal. Eng.; Soc. Steel Treat; Ind. Acad; British Iron and Steel Inst; British Inst. Metals. Metallurgy; London purple; conductivity and viscosity of organic solutions; aluminates; non-metallic inclusions in iron and steel; sulphur trioxide; failure of metals under stress.

Mahood, Dr. S(amuel) A(rthur), Tulane University, New Orleans, La. *Chemistry*. Platte Co,

Nebr, May 18, 84. B.S. Nebraska, 10, A.M, 11; Ph.D. Cornell, 17. Asst. chem, Nebraska, 08-10; head dept, high sch, Nebr, 10-11; instr, Lawrence, 11-12; asst, Cornell, 12-13, instr. org. chem, 13-17; senior research chemist, forest products lab, U. S. Forest Service, and lecturer forest products, Wisconsin, 17-20; *assoc. prof. chem, Tulane, 20-* A.A.; Chem. Soc. (pres, La. sect, 24-26); New Orleans Acad. Organic chemistry; cellulose; essential oils; halogen derivatives of phenolphthalein; chemistry of furfural.

Mahr, H(ermann) W(illiam), E. I. du Pont de Nemours and Company, Wilmington, Del. *Chemistry*. Cleveland, Ohio, May 22, 85. Fellow, Mass. Inst. Tech, 07-08, B.S. Chemist, Haffenreffer and Co, 08-11; chief eng. chemist, Cent. Testing Lab, Board Estimate and Apportionment, New York, 11-16; night supt, Monsanto Chem. Works, Mo, 16-18; supervisor processes, production and indigo and dye intermediates, *E. I. du Pont de Nemours and Co, 18-24*, supt. lead tetraethyl manufacture, 24-25, asst. to production manager, dyestuffs div, 25-26, *supt. indigo manufacture, 26-* Chem. Soc. (sec'y-treas, S. Jersey sect, 22, chairman, 23, councilor, 24). Organic chemistry; dyestuffs and intermediates; testing of greases, asphalt and building brick; elimination of odor and dust from garbage reduction plants.

Maier, Cha(rles) G(eorge), U. S. Bureau of Mines, Berkeley, Calif. *Metallurgy*. Sharon, Pa, Dec. 19, 93. B.S. Mass. Inst. Tech, 14; M.S. Utah, 22. Asst. metal. engineer, Carborundum Co, 14-16; asst. consulting chemist, Phelps Dodge Corp, 16-21; assoc. prof. and asst. director research, Utah, 22-23; assoc. metallurgist, *U. S. Bur. Mines, 23-25, metallurgist, 25-* Min. and Metal. Eng.; Chem. Soc.; Electrochem. Soc. Copper smelter slags; vapor pressures of metallic chlorides; chemical transformations of oil shale; reduction equilibria of metallic oxides.

Malley, R(oyal) D(avis), 323 Springdale Ave, East Orange, N. J. *Electrical engineering*. Lynn, Mass, 80. B.S. Mass. Inst. Tech, 04. Assoc. physical chem, Mass. Inst. Tech, 04-14; *chief engineer, Cooper Hewitt Elec. Co, 16-*, *factory manager, 20-* Elec. Eng.; Physical Soc.; Chem. Soc. Thermodynamics; electrical conduction in gas and vapors.

Mailiard, Joseph, 1815 Vallejo St, San Francisco, Calif. *Ornithology, Mammalogy*. Bordentown, N. J, Dec. 30, 57. California, 68. Curator birds and mammals, *Calif. Acad. Sciences, 19-27*, emer. curator, 27- A.A.; fel. Ornith. Union; hon. mem. Cooper Ornith. Club (pres, 05, 06, 15); Soc. Mammal; Fisheries Soc; Wash. Biol. Soc.; Calif. Acad. Geographic distribution and habits of birds.

Mains, Dr. E(dwin) B(utterworth), Purdue University, Lafayette, Ind. *Botany*. Coldwater, Mich, March 31, 90. A.B. Michigan, 13, fellow, 15, Ph.D, 16. Asst. botanist, *Exp. Sta, Purdue, 16-17, assoc. botanist, 17-*; agent cereal investigations, bur. plant indust, U. S. Dept. Agr, 18-25; *assoc. prof, Purdue, 25-* A.A.; Bot. Soc.; Phytopath. Soc; Soc. Plant Physiol; Genetic

- Ass; Ind. Acad. Physiology, biology and taxonomy of Uredinales; rust resistance.
- Maizlish, Prof. I(srael)**, Centenary College, Shreveport, La. *Physics*. B.S, M.S, Mass. Inst. Tech, 19; Iowa; Ph.D, Minnesota, 23. Asst. instr. Mass. Inst. Tech, 18-19; faculty, Iowa, 19-20; Reed Col, 20-21; Minnesota, 21-23; Lehigh, 23-24; *prof. and head dept. physics, Centenary Col*, 25- A.A; Physical Soc; Math. Soc; Math. Ass; Optical Soc; Ass. Prom. Med. Sci; Franklin Inst. Electrodynamics; X-rays.
- Major, Prof. C(harles) C(urtis)**, Iowa State College, Ames, Iowa. *Mechanical engineering*. Lehman, Pa, Jan. 4, 69. M.E, Bloomsburg Nor. Sch, 91; M.E, Cornell, 98. Asst. chief engineer, Swift and Co, Mo, 98-99; instr. mech. eng, Cornell, 99-01; California, 01-03; head sch. applied science, Oklahoma, 04-05; asst. prof. mech. drawing, Ohio State, 05-07; mech. engineer, Midgley Mfg. Co, 07-08; *assoc. prof. mech. eng, Iowa Col*, 08- Summers, engineer, indust. concerns. Mech. Eng.
- Major, Dr. David R**, Indiana University, Bloomington, Ind. *Psychology, Philosophy*. Frankfort, Ind, March 26, 66. B.S, Wabash, 90; Ph.D, Cornell, 96; higher diploma educ, Teachers Col, Columbia, 99; LL.B, Indiana, 16. Prin, high sch, Ind, 90-92, 96-98; acting prof. pedag, Nebraska, 99-00; asst. educ, Teachers Col, Columbia, 00-01; prof, Ohio State, 01-14. West. Philos. Soc. Teleology in Kant's philosophy; psychology of infancy; consciousness; perception.
- Major, Dr. Ralph Hermon**, University of Kansas, Kansas City, Kans. *Internal medicine*. Liberty, Mo, Aug. 24, 84. A.B, William Jewell, 02; Leipzig, Munich, Heidelberg and Chicago, 03-06; M.D, Hopkins, 10; Munich, 12-13. Asst. med, Hopkins, 11-13; instr. path, Stanford, 13-14; *prof, Kansas*, 14-18, *med*, 21- Am. Med. Ass; Am. Physicians; Ass. Path. and Bact; Climat. and Clin. Soc; Kansas City Acad. Med. Endocarditis; anaphylaxis; nephritis; empyema; diabetes; arterial hypertension.
- Major, T(homas) G(rant)**, Central Experimental Farm, Ottawa, Ont, Can. *Plant pathology*. Cannington, Ont, May 8, 98. Khaki Univ. of Can, Eng, 19; B.S.A, McGill, 21, M.Sc, 22. Asst. bot, McGill, 22-23; *tobacco specialist, Cent. Exp. Farm*, 23- *Phytopath. Soc*; Can. Soc. Tech. Agr. (ed. board, 'Sci. Agr,' 25-); Quebec Soc. Protect. Plants. Disinfection of the tobacco seed; sterilization of tobacco seedbed soils with chemical preparations and with steam; Thielavia root-rot of tobacco.
- Malcolm, C(harles) W(esley)**, 1443 Rosemont Ave, Chicago, Ill. *Engineering*. Roseville, Ill, Oct. 13, 79. B.S, Illinois, 02, C.E, 06. Instr. civil eng, Illinois, 02-06, *assoc*, 06-07, asst. prof. structural eng, 07-13; *pres, Geyser Elec. Co*, 13- *Assoc. Civil Eng*; Eng. Educ. Graphic statics; structural engineering.
- Maleev, Dr. V(ladimir) L(eonidas)**, 1232 N. Orange Drive, Hollywood, Calif. *Engineering*. Tiflis, Russia, Feb. 20, 79. M.E, Imp. Tech. Col, Moscow, 02, D.A.M, 12. Instr. mech. eng, Polytech. Inst, St. Petersburg, 02-05; *assoc.* prof. mech. eng, Tech. Inst. Tomsk, 06-13, prof, 13-17; prof. and pres, State Polytech Inst, Omsk, 17-19; *designing and consulting mech. engineer, West. Machinery Co, Los Angeles*, 20- A.A; Mech. Eng; Russian Eng. Soc. of Los Angeles (pres, 24-27); Verein Ing; Russian Imp. Tech. Soc. A two-cycle oil engine; heat entropy; diagrams for internal combustion engines; testing steam turbines.
- Malisoff, W(illiam) M(arias)**, 2080 Grand Concourse, New York, N. Y. *Physical chemistry*. March 14, 95. B.S, 15, Ch.E, Columbia, 18, A.M, 19, Alumni fellow; Ph.D, N. Y. Univ, 25. Instr, Columbia, 16-18; N. Y. Univ, 24-25; *consultant and private research lab, New York*, 19-24, 25- Chem. Soc. Theory of solubility; methane; ethylene; mutual solubility; electrode phenomena; the study of analogy; the conservation principle; intuitive foundations of science.
- Malleis, O(tto) O(scar)**, Mellon Institute, Pittsburgh, Pa. *Chemistry*. Halstead, Kans, July 9, 89. A.B, Kansas, 12, M.S, 13. Asst, Kans. State Water Surv. Lab, 12; chemist, St. Louis, Iron Mt. and South. Ry, 13-16; *The Koppers Co, Mellon Inst*, 16-17, fellow, 17-21, asst. chief chemist, 21-25, *chief chemist*, 25- Chem. Soc. (sec'y, gas and fuel div, 24-); Ceramic Soc; Gas Ass; Soc. Test. Mat. Reactions of formamidines; coal carbonization; coke; gas; by-products.
- Mallinckrodt, E(dward), Jr**, 16 Westmoreland Place, St. Louis, Mo. *Chemistry*. St. Louis, Nov. 17, 78. A.B, Harvard, 00, A.M, 01. *V. pres, Mallinckrodt Chem. Works*, 05- A.A; Chem. Soc; Mech. Eng; Franklin Inst.
- Mallmann, Prof. W(alter) L(eRoy)**, Michigan State College, East Lansing, Mich. *Bacteriology*. Chicago, Ill, Oct. 29, 95. B.S, Mich. State Col, 18, M.S, 24. *Asst. prof. and research asst. bacter, Mich. State Col*, 18- Soc. Bact. Agglutination studies of bacteria pullorum; bacteriophage.
- Mallory, Dr. F(rank) B(urr)**, Boston City Hospital, Boston, Mass. **Pathology*. Cleveland, Ohio, Nov. 12, 62. A.B, Harvard, 86, A.M, M.D, 90; fellow, Prague and Freiburg, 93-94. Asst. histol, Harvard Med. Sch, 90-91, path, 91-93, instr, 94-96, asst. prof, 96-01, *assoc. prof*, 01-19; *pathologist, Boston City Hosp.* Consulting pathologist, United Fruit Co. Ed-in-chief, 'Am. Jour. Path.' A.A; Ass. Path. and Bact. (treas, 11-); Am. Physicians; Ass. Cancer Research; Am. Med. Ass; Soc. Exp. Biol; Social Sci. Ass; Am. Acad; Int. Ass. Med. Mus. Actinomycosis; typhoid fever; epidemic cerebro-spinal meningitis; diphtheria; necrosis of the liver; histological and pathological technique; pathologic histology; dural endothelioma; measles; scarlet fever; cirrhosis; hemochromatosis; chronic poisoning with copper; tumors.
- Mally, Prof. Fred(erick) W(illiam)**, San Antonio, Texas. *Plant breeding*. Des Moines, Iowa, Nov. 30, 68. B.S, Iowa Col, 87, M.S, 89. Asst. to state entomologist, Ill, 89-90; asst. entomologist, U. S. Dept. Agr, 90-92; prof. entom, Agr. and Mech. Col. Texas, 99-03; *state entomologist, Texas*, 09-; *co. agent, Webb Co*,

- 15-26, *Bezar Co*, 26- A.A.; Texas Hort. Soc. (pres); Texas Truck Growers Ass. (pres); Texas Acad; Iowa Acad. Injurious insects; boll weevil of cotton; plant breeding; pink root of onions.
- Malmberg, Dr. C(onstantine) F(rithiof)**, Northern Normal and Industrial School, Aberdeen, S. Dak. *Psychology*. DeKalb, Ill, Aug. 13, 84. A.B, Bethany, 03; Columbia, 06-07; Yale, 07-08; fellow, Iowa, 11-13, Ph.D, 14. Instr. educ. and English, Gustavus Adolphus, 08-11, prof. educ. psychol, 13-15; head dept. psychol. and educ, Thiel, 15-18; educ. director mental cases, Fed. Board for Vocational Educ, 19-22; *head dept. psychol. and director bur. research, North. Nor. and Indust. Sch*, 22- Sanit.C, U.S.A, 18. Psychol. Ass. Psychology of musical sounds; educational tests.
- Malone, Prof. Edward F(all)**, University of Cincinnati, Cincinnati, Ohio. *Anatomy*. Nashville, Tenn, April 4, 80. A.B, Vanderbilt, 03; M.D, Hopkins, 07; Berlin, 07-10. Asst. prof. anat, *Cincinnati*, 10-15, assoc. prof, 15-18, *prof. histol*, 18-25, *anat*, 25- A.A; Ass. Anat. Distribution, histology and function of mammalian brain cells; nervous anatomy.
- Malott, Dr. Clyde A(rnett)**, Indiana University, Bloomington, Ind. *Geology*. Atlanta, Ind, Sept. 10, 87. A.B, Indiana, 13, A.M, 15, Ph.D, 19. Instr, high sch, Ind, 15; tutor *geol*, *Indiana*, 15-16, instr, 16-17, asst. prof, 18-20, assoc. prof, 20-23, *prof*, 23- Summers, field asst, Okla. Geol. Surv, 16, staff, Ind. Geol. Surv, 19-25. A.A; Geol. Soc; Ind. Acad. Physiography of Indiana; glacial geology; subterranean drainage; stratigraphy of the Mississippian and Pennsylvanian in Indiana.
- Maltby, Dr. Margaret E(liza)**, Barnard College, New York, N. Y. **Physics, Physical chemistry*. Bristolville, Ohio, Dec. 10, 60. A.B, Oberlin, 82, A.M, 91; B.S, Mass. Inst. Tech, 91, fellow, 93-95; Ph.D, Göttingen, 95; Ass. Col. Alumnae fellow, 95-96; Clark, 99-00. Instr. physics, Wellesley, 89-93, in charge dept, 96; instr. physics and math, Lake Erie, 97-98; asst. to pres, Physik. Tech. Reichsanstalt, Charlottenburg, 98-99; instr. chem, *Barnard, Columbia*, 00-03, adjunct prof. *physics*, 03-10, *assoc. prof*, 10- A.A; Physical Soc. Electricity; measurement of high electrolytic resistances; measurement of periods of rapid electrical oscillations; conductivity of very dilute solutions of certain salts; radioactivity.
- Malte, Dr. M. O**, Victoria Memorial Museum, Ottawa, Ont, Can. *Botany*. Skillinge, Sweden, March 8, 80. B.A, 98, M.S, 03, Ph.D, 10. Agrostologist, Can. Dept. Agr, Ottawa, 12-21; *chief botanist, Nat. Herbarium, Can. Dept. Mines*, 21- Bot. Soc; Breeders Ass; Linnean Soc. Agrostology; systematic botany; the Flora of Canada.
- Mance, Prof. G(rover) C(leveland)**, 302 Aiken Ave, Rock Hill, S. C. *Geography, Geology*. Pine Bush, N. Y, Feb. 5, 83. B.S, Colgate, 06, 11-12; fellow, Indiana, 13-15, A.M, 14, Ph.D, 15. Prof. chem, Rochester (Ind), 06-08; teacher, high sch, Ill, 08-11; prin, Ky, 15-16; *prof. geol*, St. Lawrence, 16-22; *geog. and geol*, *Winthrop Col*, 22- Summer, Syracuse, 21. A.A; Ill. Acad; Ind. Acad; S. C. Acad. (founder, pres, 23-25, permanent sec'y, 25-). Economic geology; quarrying.
- Mandel, Dr. Arthur R(udolph)**, 43 W. 88th St, New York, N. Y. *Pathology*. Boston, Mass, June 7, 76. Col. City of N. Y, 94-97; Bellevue Med. Col, 98-02, Lusk fellow, 02; M.D, Munich, 04. Asst. chem, N. Y. Univ, 97-02; *prof. applied path, Univ. and Bellevue Hosp. Med. Col*, 02- Pathologist and visiting physician, St. Vincent Hosp, 02- Soc. Exp. Biol; Am. Med. Ass; Harvey Soc; N. Y. Path. Soc. Physiological chemistry; diabetes; metabolism of fever.
- Mandel, Prof. John A(lfred)**, 338 E. 26th St, New York, N. Y. *Physiological chemistry*. Stockholm, Sweden, Oct. 18, 65. Berlin; Sc.D, N. Y. Univ, 01; hon. D.Agr, Berlin, 23. Adjunct prof. chem. and physiol. chem, *Univ. and Bellevue Hosp. Med. Col*, 97-98, *prof*, 98- Asst. prof, Col. City of N. Y, 98-99. A.A; Physiol. Soc; Soc. Biol. Chem; Chem. Soc; assoc. fel. N. Y. Acad. Med; Chem. Gesell. Origin of glycuronic acid in the animal body; nucleic acid and glucethionic acid of the mammary glands; nucleic acids and their cleavages.
- Mandelbaum, M(alvin) R(obert)**, 2 Grace Court, Brooklyn, N. Y. *Chemistry*. Brooklyn, Jan. 26, 00. A.B, Columbia, 18, Ch.E, 21, Ph.D, 23. *Chemist, Gray Indust. Laboratories and Gray Processes Corp*, 23-; *chief chemist, Gray Processes Corp*, 25- Chem. Soc.
- Maneval, Prof. W(illis) E(dgar)**, University of Missouri, Columbia, Mo. *Botany*. Liberty, Pa, Feb. 5, 77. Ph.B, Bucknell, 02, M.S, 03; fellow, Hopkins, 11-12, Ph.D, 12. Acting prof. biol, Roanoke, 97-10; Randolph-Macon, 12-14; instr. bot, Virginia, 14-15; *Missouri*, 15-17, *asst. prof*, 17- Staff, biol. lab, Cold Spring Harbor, 12-14; collaborator, bur. plant indust, U. S. Dept. Agr. A.A; Phytopath. Soc; Bot. Soc. Development of Magnolia and Liriodendron; distribution of parasitic fungi; spores of fungi, especially rusts.
- Maney, Thomas J(oseph)**, Iowa Agricultural Experiment Station, Ames, Iowa. *Horticulture*. Geneva, N. Y, April 24, 88. B.S, 12. Asst, *pomol. sect, Iowa Exp. Sta*, 12-15, asst. chief, 15-17; *chief*, 17- Soc. Hort. Sci; Pomol. Soc. Pomology; potato culture; effect of chemicals on potato tubers; grape pruning and distribution; orchard stocks; orchard soil culture; cold storage of apples.
- Mangelsdorf, Dr. P(aul) C(hristoph)**, Texas Agricultural Experiment Station, College Station, Texas. *Genetics*. Atchison, Kans, July 20, 99. B.S, Kansas Col, 21; M.S, Harvard, 23, Sc.D, 25. Asst. geneticist, Conn. Exp. Sta, 21-27; *agronomist, Texas Exp. Sta*, 27- Genetics and morphology of maize and small grains.
- Manges, Dr. Morris**, 72 E. 79th St, New York, N. Y. *Medicine*. New York, May 10, 65. A.B, Col. City of N. Y, 84, A.M, 87; M.D, Columbia, 87; Berlin and Vienna, 88-89. *Prof. clin. med*, N. Y. Polyclinic Med. Sch, 98-08; *Univ. and*

- Bellevue Hosp. Med. Col.*, 11— Visiting physician, Mt. Sinai Hosp, 98— *Am. Med. Ass.*; *Climat. Ass.*; *Gastro-Enterol. Ass.*; *fel. N. Y. Acad. Med.*; *N. Y. Path. Soc.* Clinical medicine.
- Mangum, Prof. Charles S(taples)**, 409 E. Franklin St, Chapel Hill, N. C. *Anatomy*. Greensboro, N. C, July 14, 70. A.B, North Carolina, 91; M.D, Jefferson Med. Col, 94. *Prof. physiol. and mat. med.*, *North Carolina*, 96–06, *anat.*, 06— A.A.; *Ass. Anat.* Neuro-anatomy; embryology.
- Manheimer, Dr. Wallace A(aron)**, 1950 Andrews Ave, New York, N. Y. *Sanitation*. New York, Feb. 13, 87. A.B, Col. City of N. Y, 08; A.M, Columbia, 12, Ph.D, 14. *Head dept. physical education*, *Evander Childs High Sch.*, 10—; *research lab.*, *Dept. Health*, New York, 15— *Pub. Health Ass.*; *Soc. Bact.*; *Ass. Prom. Hygiene* and *Pub. Baths* (sec'y and ed, 'Jour'). *Bacteriology*; public health; water disinfection; school and swimming pool sanitation.
- Manley, Dr. O(rville) T(itus)**, Warren, Ohio. *Medicine*. Garrettsville, Ohio, Nov. 20, 74. B.L, Hiram, 98; Ohio State, 93–94; M.D, Cleveland Col. Physicians and Surg, 00. *House surgeon*, *St. Alexis Hosp.*, Cleveland, 99–00; *demonstrator exp. med.*, *Western Reserve*, 15–20; *surgeon*, *Warren City Hosp.*, 14— A.A.; *Am. Med. Ass.*; *Cleveland Med. Library Ass.* *Surgery*; tissue transplantation; ductless glands; secretory innervation of the thyroid gland; tumor; cancer.
- Mann, Dr. Albert**, U. S. National Museum, Washington, D. C. *Botany*. Hoboken, N. J, June 30, 53. A.B, A.M, Wesleyan, 79, Sc.D, 24; Ph.D, Munich, 94. *Prof. bot.*, *Ohio Wesleyan*, 94–00; *expert*, U. S. Dept. Agr, 06–19; *Carnegie Institution*, 19— *Prof.*, *George Washington*, 07–09. *Wash. Bot. Soc.*; *Wash. Biol. Soc.*; *Royal Micros. Soc.* Diatoms.
- Mann, Dean A(lbert) R(ussell)**, New York State College of Agriculture, Ithaca, N. Y. *Agriculture*. Hawkins, Pa, Dec. 26, 80. B.S.A, Cornell, 04; A.M, Chicago, 16. Sec'y, registrar and ed, *N. Y. State Col. Agr.*, *Cornell*, 09–15, *prof. rural social organization*, 15–16, acting dean, 16–17, *dean*, 17—; *N. Y. Exp. Sta.*, *Geneva*, 23—; *dean*, *N. Y. State Col. of Home Econ.*, 25— *European director agr. educ.*, *Int. Educ. Board*, 24–26. *Trustee*, N. Y. State Sch. Agr, Alfred, Morrisville, Delhi, Cobleskill, Farmingdale and Canton. A.A.
- Mann, Prof. Charles A(ugust)**, University of Minnesota, Minneapolis, Minn. *Chemical engineering*. Milwaukee, Wis, June 5, 86. B.S, Wisconsin, 09, M.S, 11, Ph.D, 15. *Instr. chem. eng.*, *Wisconsin*, 11–16; *prof.*, *Iowa Col.*, 16–19; *chem. eng. and chief div.*, *Minnesota*, 19— *Consulting chem. engineer*. *Chem. Soc.* (chairman, Ames sect, 18, Minn. sect, 22); *Electrochem. Soc.*; *Chem. Eng.*; *Eng. Educ.*; *Wis. Acad.* *Chemistry* of saw palmetto berries and corn cobs; lead from sulphate residues; plating iron with tungsten; electrochemical oxidation of toluene to benzaldehyde; mechanism of lithopone formation.
- Mann, Dr. O(charles) R(iborg)**, American Council on Education, 26 Jackson Place, Washington, D. C. **Physics*. Orange, N. J, July 12, 69. A.B, Columbia, 90, fellow, 90–92, A.M, 91, John Tyndall fellow, 92–95; Ph.D, Berlin, 95; hon. Sc.D, Lafayette, 18. *Instr. physics*, Chicago, 96–02, *asst. prof.*, 02–07, *assoc. prof.*, 07–14; *research expert*, *eng. educ.*, *Carnegie Foundation*, 14–18; *consulting expert educ.*, U. S. War Dept, 18–25; *director*, *Am. Council on Educ.*, 23— D.S. medal, 19. A.A. (sec'y, L, 08, 10); *Eng. Educ.*; *Management Ass.* *Induced magnetism*; *optics*; *history and teaching of science*; *education*.
- Mann, Dr. Frank Charles**, Mayo Foundation, Rochester, Minn. **Surgery, Physiology*. Decatur, Ind, 87. A.B, Indiana, 11, M.D, 13, A.M, 14. *Teaching fellow physiol.*, *Indiana*, 09–12, *instr. surg.*, 13–14; *assoc. prof. exp. surg. and path.*, *Mayo Foundation*, *Minnesota*, 17–21, *prof.*, 21—, *director div.*, *Mayo Clinic*, 21— *Ass. Thoracic Surg.*; *Physiol. Soc.*; *Soc. Exp. Path.*; *Soc. Pharmacol.*; *Soc. Exp. Biol.*; *Minn. Path. Soc.* *Experimental surgery*, *physiology and pathology*; *surgical shock*; *peptic ulcer*; *physiology of the spleen and liver*; *physiology and pathology of the gall bladder*; *formation of bile pigment*.
- Mann, P(aul) B(lakeslee)**, Evander Childs High School, 184th St. and Creston Ave, New York, N. Y. *Biology*. Potsdam, N. Y, 76. A.B, Cornell, 02, A.M, 03. *Head dept. science*, *high sch.*, N. Y, 99–01; *asst. zool.*, *Cornell*, 02–03; *teacher biol.*, *sch.*, Pa, 03–04; *instr.*, *Morris High Sch.*, New York, 04–14; *head dept.*, *Evander Childs High Sch.*, 14— *Summers*, *asst. prof.*, *Cornell*, 08–10; *reader bot.*, *Col. Entrance Exam. Board*, 11, *zool.*, 12–22, *biol.*, 17—, *examiner zool.*, 14–16, 18—; *naturalist*, *Sea Pines Camp*, 20—; *lecturer and assoc. in educ.*, *Am. Museum Nat. Hist.* A.A.; *N. Y. Biol. Teachers Ass.* *Spiracular cleft in ganoid fishes*; *respiration in Rana*; *mental hygiene*.
- Mann, Dr. William M**, U. S. National Museum, Washington, D. C. **Entomology*. Helena, Mont, July 1, 86. A.B, Stanford, 11; Sc.D, Harvard, 15, *Sheldon traveling fellow*, 15–16. *Specialist in ants*, *bur. entom.*, U. S. Dept. Agr, 17— *Hon. curator Hymenoptera*, U. S. Nat. Museum; *director*, *Nat. Zool. Park*, 25. *Entomologist*, *Stanford exped.*, *Brazil*, 11; *expeditions*, *Cuba and Haiti*, 12; *Mexico*, 13; *Turkey in Asia*, 14; *South Sea Islands*, 15–16; *Smithsonian-Chrysler exped.*, *Africa*, 26. *Entom. Soc.*; *Soc. Mammal.*; *Soc. Parasitol.*; *Ornith. Union*; *Pacific Coast Entom. Soc.*; *Wash. Entom. Soc.*; *Cambridge Entom. Club* (sec'y, 11–14). *Classification*, *behavior and geographical distribution of ants*; *tropical insect life*; *ant guests*.
- Mannhardt, Prof. L(eonhard) Alfred**, Explorers Club, 47 W. 76th St, New York, N. Y. *Zoology*. Crete, Nebr, May, 28, 93. Ph.B, Yale, 15; M.S, N. Y. Univ, 21. *Asst. zool.*, *Yale*, 15–16; *instr.*, *N. Y. Univ.*, 17–19, *asst. prof. in charge biol.*, *Wash. Square Col.*, 19–25, *assoc. prof. and chairman dept.*, 25—, *asst. director col. med.*, *dental col. and evening div.*, 22–24. *Nicaragua exped.*, *Am. Museum Nat. Hist.*, 16; *N. Y. Univ. paleont. exped.*, *S. Dak.*, 23. *Paleont. Soc.*; *Soc. Mammal.*; *Micros. Soc.*; *fel. N. Y. Acad.*
- Manning, Prof. Henry P(arker)**, Brown University, Providence, R. I. **Mathematics*. Woodstock, Conn, Oct. 3, 59. A.B, Brown, 83, A.M,

- 86; fellow, Hopkins, 90-91, Ph.D, 91. Teacher, 83-89; instr. math, Brown, 91-95, asst. prof. pure math, 95-06, assoc. prof, 06-20; *retired*. Assoc. ed, 'Am. Math. Monthly,' 19-22. A.A; Math. Soc; Math. Ass; Circolo Mat. di Palermo. Geometry of four dimensions; relativity; Egyptian mathematics.
- Manning, Paul D(e) V(ries)**, 1505 Ramona Ave, S. Pasadena, Calif. *Engineering*. Omaha, Nebr, May 4, 93. A.B, Stanford, 16; M.S, Calif. Inst, 17; Brigham fellow, Columbia, 24, Ph.D, 27. Research engineer, Chile Explor. Co, N. Y, 19-20; Int. Coal Products Corp, and Bregreat Corp. of Amer, N. Y, 20-23; teaching staff, dept. chem. eng, Columbia, 24-25; consulting chem. engineer, N. Y, 24-25; supt. research and develop, Inyo Chem. Co, Cartago and Los Angeles, asst. plant manager, Cartago, 25-26; *consulting chem. engineer*, Barton, *Manning and Warner*, 26- Teaching fellow, Calif. Inst, 16-17, research fellow, 17-18. Asst. ed, 'Chem. and Metal. Eng', 26- Research chemist, nitrate div, ordnance dept, U.S.A, 18-19. Chem. Soc; Electrochem. Soc. (past sec'y and pres); Chem. Eng. Fixation of nitrogen; origin of petroleum and oil shale; absorption; dye intermediates and electrochemistry.
- Manning, Dr. Van H(artrog)**, 88 Ascan Ave, Forest Hills, N. Y. *Engineering*. Horn Lake Depot, Miss, Dec. 15, 61. Hon. D.Eng. Pittsburgh, 19. Civil engineer, U. S. Geol. Surv, 85-10; administrative asst, U. S. Bur. Mines, 10-11, asst. director, 11-15, director, 15-20; research, Am. Petrol. Inst, 20-21; *private work*, 21-A.A; Ass. Petrol. Geol; Chem. Soc; Min. and Metal. Eng; Min. Cong; Petrol. Inst; Soc. Test. Mat; Coal Min. Inst; Min. and Metal. Soc; Eng. Club N. Y; Inst. Petrol. Technologists London.
- Manning, Prof. W(illiam) A(lbert)**, Stanford University, Calif. **Mathematics*. Salem, Oregon, Dec. 5, 76. A.B, Willamette, 00; A.M, Stanford, 02, Ph.D, 04; Paris, 04-05. Asst. math, *Stanford*, 00-02, instr. applied math, 02-04, asst. prof, 04-13, assoc. prof, 13-21, *prof*, 21-25, *math*, 25- Math. Soc. Groups of permutations; structural engineering.
- Manns, Dr. A(lbert) G(eorge)**, Oconomowoc, Wis. *Chemistry*. Allegheny, Pa, June 5, 60. Ph.G, Chicago Col. Pharmacy, 80; B.S, Illinois, 85; Ph.D, Berlin, 88. Chemist, Ill. Exp. Sta, 88-90; instr. chem, Chicago Col. Pharmacy, 90-93; *chief chemist*, Armour and Co, Chicago, 93-07; *Albert Trostel and Sons Co*, 07- Chem. Soc.
- Mansfield, G(eorge) S(ogers)**, U. S. Geological Survey, Washington, D. C. **Geology*. Gloucester, Mass, Aug. 30, 75. B.S, Amherst, 97, A.M, 01; Harvard, 04, Ph.D, 06. Teacher, high sch, Ohio, 97-03; Austin teaching fellow, Harvard, 04-06, instr. geol, 06-09; asst. prof, Northwestern, 09-13; junior geologist, U. S. Geol. Surv, 10-12, assoc. geologist, 12-13, *geologist*, 13-, in charge sect. non-metals, 22- Summers, instr, Harvard, 06, in charge, Harvard geol. course in Montana, 07-09; in charge, Harvard Seismog. Sta, 08-09. Nat. Research Council, 24-, chairman committee on tectonics, 25-A.A. (sec'y, E, 25-); Geol. Soc; Soc. Econ. Geol; Ass. Geog. (councilor, 22-25); Min. and Metal. Eng; Wash. Acad; Wash. Geol. Soc. (treas, 20-22). Conglomerates; physiography; phosphates in Idaho and Wyoming; nitrates in Oregon and California; coal and mineral resources in southeastern Idaho; sulphur in New Mexico; green sands in New Jersey; stratigraphy and structure of the northern Rocky Mountains.
- Manson, Prof. E(dmund) S(ewall)**, Jr, Ohio State University, Columbus, Ohio. *Astronomy*. Scituate, Mass, Dec. 1, 75. B.S, Mass. Inst. Tech, 97, M.S, 98. Computer, Lowell Observatory, 99-01; asst, Harvard Col. Observatory, 02-07; instr. *astron*, Ohio State, 07-08, asst. prof, 08-09, assoc. prof, 09-23, *prof*, 23- A.A; Astron. Soc; Math. Soc; Math. Ass; fel. Royal Astron. Soc.
- Manson, Dr. Marsden**, 2905 Regent St, Berkeley, Calif. *Geology*, *Climatology*. Leewood, Va, Feb. 14, 50. Grad, Va. Mil. Inst, 70, C.E, 77; Ph.D, California, 93. Asst. prof. physics and chem, Va. Mil. Inst, 75-77; asst. engineer, Calif. State Eng. Dept, 78-80; U. S. Eng. Dept, 80-82; chief engineer, Board Harbor Commission, San Francisco, 83-92; consulting engineer, Calif. Commission Pub. Works, 93-94; pres, Dept. Highways, 95-99; mem, Board Pub. Works, San Francisco, 00-04, city engineer, 08-13; *consulting engineer*. A.A; Civil Eng; Calif. Acad; fel. Royal Geog. Soc. Dynamic and glacial geology; climatology; evolution of climates.
- Manter, Dr. H(arold) W(infred)**, University of Nebraska, Lincoln, Nebr. *Parasitology*. Anson, Maine, June 18, 98. A.B, Bates, 22; A.M, Illinois, 23, Ph.D, 25. Asst. zool, Illinois, 23-24; instr. parasitol, Louisiana, 25-26; *asst. prof. zool*, Nebraska, 26- A.A; Soc. Parasitol; Micros. Soc.
- Manter, Prof. J(erauld) A(rmington)**, Connecticut Agricultural College, Storrs, Conn. *Entomology*. Londonderry, N. H, Dec. 30, 89. B.S, New Hampshire, 12. Instr. *entom*, Conn. Col, 12-25, *asst. prof*, 25- A.A; Entom. Soc; Ass. Econ. Entom. Poultry lice; bean weevil; insect pests.
- Manuel, Prof. Herschel T(hurman)**, University of Texas, Austin, Texas. *Educational psychology*. Ind, Dec. 24, 87. A.B, De Pauw, 09; A.M, Chicago, 14, 14-15; Clark, 15-16; Ph.D, Illinois, 17. Prin. and supt, pub. schools, 09-13; director educ. research, Western (Colo), 19-25; *assoc. prof. psychol. of educ*, Texas, 25- Psychol. examiner and educator, U.S.A, 17-19. Education; talent in drawing.
- Manville, Dr. Ira A(lbert)**, University of Oregon, Eugene, Oregon. *Physiology*. O'Neil, Nebr, July 15, 89. A.B, Oregon, 13, A.M, 22, M.D, 23. Instr. embryol, Oregon, 12-13, *physiol*, 21-24, *assoc*, 24- Physiological action of vitamin A; pathology of vitamin A deficiencies.
- Manwaring, Dr. Wilfred H(amilton)**, Stanford University, Calif. **Experimental pathology*. Ashland, Va, Sept. 14, 71. B.S, Michigan, 95; M.D, Hopkins, 04; fellow, Chicago, 04-05; traveling fellow, Rockefeller Inst, at Berlin, 07-08; Frankfort a/M, 08-09; Lister Inst, London,

- 09-10. Asst. path, Chicago, 04-06; assoc. prof. path. and bacter, Indiana, 05-07; asst, Rockefeller Inst, 10-13; *prof. bacter. and exp. path, Stanford, 13-* Lecturer, sch. med, Washington (St. Louis), 20-21. A.A.; Soc. Exp. Path; Ass. Path. and Bact; Soc. Bact; Soc. Exp. Biol; Soc. Immunol. (pres, 26). Functional pathology; immunology.
- Mapelsden, Harold H(astings)**, 103 Woodland Ave, Schenectady, N. Y. *Physics*. New York, N. Y., April 13, 82. M.E, Stevens, 03. *Testing and flow meter departments, Gen. Elec. Co. East. N. Y. Soc. Eng.* Flow of fluids in pipes; specific heat of steam.
- Marañon, Prof. Joaquin M(ejorada)**, University of the Philippines, Manila, P. I. *Botany*. Mandurriao, Iloilo, P. I., Oct. 22, 91. *Phar.G*, Philippines, 14, B.S, 16; fellow, Michigan, 20-23, M.S, 21, Sc.D, 23. Instr. pharmaceut. chem, Philippines, 16-19, *asst. prof. pharmaceut. chem. and bot. and biochemist, Bur. Science, 24-* A.A.; Bot. Soc; Mich. Acad; Philippine Pharmaceut. Ass; Philippine Sci. Soc. Diseases of plants; resistance to mildew in *Oenothera*; physiologically active constituents of Philippine medicinal plants.
- Marbaker, Dr. Edward E(llsworth)**, 5708 Forbes St, Pittsburgh, Pa. *Chemistry*. Trenton, N. J., June 28, 88. B.S, Cent. High Sch. Phila, 06; B.S, Pennsylvania, 10, Ph.D, 14. Asst. chemist, Westinghouse Lamp Co, 10-12, chief chemist, 14-17; Alexander Bros, 17-19, chief engineer, 19-20; chief chemist, Cleveland wire div, Nat. Lamp Works, Gen. Elec. Co, 20-21; indust. fellow, *Mellon Inst*, 21-23, *senior indust. fellow, 23-* Chem. Soc; Franklin Inst; Ceramic Soc. Tungsten; molybdenum; argon; leather chemistry; matches; zinc refractories.
- Marbut, Prof. C(urtilis) F(letcher)**, U. S. Department of Agriculture, Washington, D. C. *Soils*. Lawrence Co, Mo, July 19, 63. B.S, Missouri, 89, LL.D, 16; A.M, Harvard, 94. Asst. geologist, Mo. Geol. Surv, 90-95; instr. geol, Missouri, 95-97, asst. prof, 97-99, prof, 99-13; in charge soil surv, *bur. soils, U. S. Dept. Agr*, 10-24, *chief div. soil surv, 24-* Lecturer, Clark director, Mo. Geol. Surv, 05-13; special agent, bur. soils, U. S. Dept. Agr, 09-10; pedologist, Crude Rubber Surv, Amazon Valley, 23; soil studies, Am. Geog. Soc, Cent. Brazil and Argentina, 24. Nat. Research Council, 19-; chairman, Int. Committee on Classification and Mapping of Soils. Int. Cong. Soil Specialists, 24-27. Soc. Agron; Geol. Soc; Ass. Geog. (pres, 24); Int. Soc. Soil Sci. Physical geography and geology of Missouri; pedology.
- Marcellus, F(rancis) N(athan)**, Ontario Agricultural College, Guelph, Ont, Can. *Poultry husbandry*. Morewood, Ont, Aug. 25, 85. B.S.A, 11; B.V.Sc, V.S, 25. Lecturer poultry, Iowa Col, 11-12; director poultry exten, *Ont. Agr. Col*, 12-19, *prof. poultry, 22-* Poultry Sci. Ass. (director, 22-).
- March, Prof. H(erman) W(illiam)**, 1825 Summit Ave, Madison, Wis. *Mathematics*. Ocheyedan, Iowa, Dec. 14, 78. A.B, Michigan, 04, A.M, 05; Ph.D, Munich, 11. Asst. astron, Michigan, 02-05; instr. physics, Princeton, 05-06; *math, Wisconsin*, 06-09, asst. prof, 11-20, *assoc. prof, 20-* A.A; Math. Soc. Diffraction of waves of wireless telegraphy; integral representation of arbitrary functions; elastic plates.
- Marckworth, O(tto) S(tanley)**, care of D. L. Auld Co, 5th Ave. and 5th St, Columbus, Ohio. *Chemistry*. Clifton, Cincinnati, Ohio, Dec. 30, 79. Cincinnati; B.S, Ohio State, 01. Asst. chemist, Carnegie Steel Co, 01-02; N. Y. Underground Ry. Co, 02; director, Ohio Test. Lab, 02; state chemist, Ohio, 03-14; *director research and develop, D. L. Auld and Co, 14-* Managing assoc, The Vitrocell Co. A.A; Chem. Soc; Soc. Chem. Indust; Agr. Chem. Agricultural chemistry; food products.
- Marcovitch, S(imon)**, University of Tennessee, Knoxville, Tenn. *Entomology*. Russia, Dec. 12, 90. B.S, Cornell, 14; M.S, Minnesota, 16. Asst. entomologist, Minnesota, 14-17; biologist, Nat. Farm Sch, Pa, 17-19; asst. entomologist, *Exp. Sta, Tennessee, 19-24, entomologist, 24-* A.A; Entom. Soc; Ass. Econ. Entom; Ecol. Soc. Strawberry insects; plant lice and light exposure; insecticides; fluosilicates; seed-infesting chalcis-flies; weed-attacking insects.
- Marcus, Prof. Alexander**, College of the City of New York, New York, N. Y. *Physics*. Russia, 88. B.S, Col. City of N. Y, 10; Columbia, 12-15. Asst. physicist, Bur. Standards, 11-14; instr. *physics, Col. City of N. Y*, 14-25, *asst. prof, 25-* A.A; Physical Soc. Theoretical and experimental electrophysics.
- Marden, Prof. J(ohn) W(esley)**, Westinghouse Lamp Co, Bloomfield, N. J. *Chemistry*. Saginaw, Mich, May 11, 87. B.S, Ill. Wesleyan, 09; Illinois, 09-10; fellow, N. Y. Univ, 10-12, M.S, 11, Sc.D, 12; Minnesota, 12-13. Asst. chem, Ill. Wesleyan, 07-09; Illinois, 09-10; instr, Minnesota, 12-13; analyst, S. Dak. Food and Drug Dept, 13-14; instr. chem, Missouri, 14-16, asst. prof, 16-18; metallurgist, U. S. Bur. Mines, 18-19; assoc. prof. chem, Missouri, 19-20; *research chemist, Westinghouse Lamp Co, 20-* Chem. Soc. (chairman, Missouri sect, 16-18, counselor, 18); Electrochem. Soc. Physical and analytical chemistry; equilibrium in cobalt amines; extractions by immiscible solutions; thermal value of fats and oils; drying agents; zirconium; thorium; vanadium.
- Marie-Victorin, Prof. Fr**, University of Montreal, Montreal, Que, Can. *Botany*. Kingsey Falls, Que, April 3, 85. D.Sc, Montreal, 22. *Prof. and head dept. bot, Montreal, 21-* Sci. exped. north. and east. Que. Royal Soc. Can; Soc. bot. de France. Systematic botany; phytogeography; ecology.
- Marine, Dr. David**, Montefiore Hospital, New York, N. Y. *Experimental medicine*. White-lisburg, Md, 80. A.B, Western Maryland, 00, A.M, 06; M.D, Hopkins, 05. Pathologist, Lakeside Hosp, Cleveland, 05-06; demonstrator, instr, asst. prof. and assoc. prof. *exp. med*, Western Reserve, 06-20; *director lab, Montefiore Hosp, 20-* Ass. Path. and Bact; Soc. Exp. Path; Physiol. Soc; Soc. Exp. Biol. Physiology and pathology of the ductless glands.
- Mark, Clara G(ould)**, 270 S. State St, Westerville, Ohio. *Geology*. Franklin Furnace, Ohio,

- Jan. 23, 82. A.B. Ohio State, 06, A.M., 10, fellow, 11-13. Instr. geol. Mt. Holyoke, 10-11; Ohio State, 13-17; Ohio Wesleyan, 20-21. A.A.; Paleont. Soc.; Fern Soc.; Sullivant Moss Soc.; Ohio Acad. Botany; Ohio Carboniferous paleontology; Ohio mosses and Pteridophytes.
- Mark, Dr. E(dward) L(aurens)**, 109 Irving St., Cambridge, Mass. **Zoology*. Hamlet, N. Y., May 30, 47. A.B. Michigan, 71, LL.D., 96; Ph.D., Leipzig, 76; LL.D., Wisconsin, 04. Instr. math. Michigan, 71-72; asst. astronomer, Northern Boundary Surv., 72-73; instr. zool. *Harvard*, 77-83, asst. prof., 83-86, prof. *anat.*, 85-21, *emer. prof.*, 21-, director zool. lab., 00-21, *Bermuda Biol. Sta.*, 03- Ed, 'Contrib. Zool. Lab.', *Harvard*, 83-21; 'Contrib. Bermuda Biol. Sta.', 03- Delegate, Int. Cong. Zool., Cambridge, 98, Graz, 10. Nat. Acad.; A.A. (v. pres, 02, 04); Soc. Nat. (pres, 04); Soc. Zool. (pres, 96); Ass. Anat.; Philos. Soc.; Am. Acad. (chairman, pub. committee, 02-09); corp. mem. Boston Soc. Nat. Hist.; fel. London Soc. Biol. Chem.; Zool. Gesell.; life mem. Anat. Gesell.; for. mem. Bohemian Royal Soc. Sci.; Belgian Soc. Zool. and Malacol.; Cuban Nat. Hist. Soc. Anatomy and histology of arthropods; maturation, fertilization, etc. of mollusks; trichinae in swine; development and embryology of Lepidosteus; cytology in heredity.
- Mark, Dr. Kenneth L(amartine)**, 39 Pilgrim Road, Boston, Mass. *Physical chemistry*. Leipzig, Germany, Aug. 27, 74. A.B. *Harvard*, 98, A.M., 00, Ph.D., 03. Asst. chem., *Harvard*, 97, 99-03; instr. *Simmons (Mass)*, 03-06, asst. prof., 06-14, assoc. prof., 14-16, *prof.*, 16- Capt. Sanit. C, 18. Chem. Soc. (sec'y, northeast. sect., 08-09, pres, 26). Expansion of gases by heat.
- Markle, Prof. M(illard) S**, Earlham, Ind. *Botany*. Hagerstown, Ind., Nov. 26, 83. B.S., Earlham, 10; M.S., Chicago, 13, fellow, 14-15, Ph.D., 15. Asst. biol., *Earlham*, 09-10, instr., 10-12, asst. prof., 12-15, *prof. bot.*, 15-18, *biol.*, 18-Summers, asst. prof., Cornell, 20-22. A.A.; fel. Ind. Acad. Ecology; plant reproduction; peat bogs; plant associations; microtechnique.
- Markley, Prof. Alton L(eFever)**, Skidmore College, Saratoga Springs, N. Y. *Chemistry*. Bellingham, Wash., July 19, 96. B.S., Wash. Col., 19; M.S., Cornell, 21, Ph.D., 23. Asst. food and agr. chem., Cornell, 19-23; *prof. and head dept. chem.*, *Skidmore*, 23- A.A.; Chem. Soc. Food chemistry; presence of lipase in milk; physicochemistry of milk; preservation of cider; freezing point diagram of the system phenol-water.
- Markley, Prof. Joseph L(ybrand)**, Geddes Ave. and Oxford Road, Ann Arbor, Mich. *Mathematics*. East Nantmeal, Pa., Oct. 6, 59. A.B., Haverford, 85, A.M., 86; Morgan fellow, *Harvard*, 87-89, Ph.D., 89; Göttingen, 95-97. Instr. math., *Harvard*, 89-90; *Michigan*, 90-95, asst. prof., 95-04, junior prof., 04-07, *prof.*, 07-, chairman dept., 22-26. Math. Soc. (asst. ed., 'Bul.', 98); Math. Ass. Bessel's functions; theory of functions.
- Markley, K(lare) S(tephen)**, U. S. Department of Agriculture, Washington, D. C. *Biochemistry*. Philadelphia, Pa., Dec. 16, 95. B.S., George Washington, 24, M.S., 25. Chemist,
- Bethlehem Steel Co., 16-17; Wharton Steel Co., 17-19; chief chemist, Valley Mould and Iron Corp., 20-21; *asst. biochemist, bur. chem. and soils, U. S. Dept. Agr.*, 21- A.A.; Chem. Soc. Soil organisms; mosaic disease of spinach and cabbage; polypeptides and free amino acids in cereals; boric acid for the absorption of ammonia; condensation reactions of aldehydes and hydantoins; addition compounds of nickel complexes; organic arsenic compounds.
- Marks, Dr. Henry K(ingdon)**, Guaranty Trust Co., Paris, France. *Neurology*. San Francisco, Calif., June 27, 82. A.B., Stanford, 03; M.D., *Harvard*, 07; Berlin, Paris, Munich, 10-13. House physician, Mass. Gen. Hosp., 09; asst. path., Rockefeller Inst., 10-11; senior house physician, Nat. Hosp. for Paralyzed and Epileptics, London, Eng., 12. Soc. Immunol. and Hematol. Vasomotor studies; nature of complement; poliomyelitis; the finer pathological alterations of nerve fibers.
- Marks, Prof. Lionel S(imeon)**, 192 Brattle St., Cambridge, Mass. *Mechanical engineering*. Birmingham, Eng., Sept. 8, 71. Diploma, eng., Mason Col., Eng., 91; B.S., London, 92; M.M.E., Cornell, 94. Instr. *mech. eng.*, *Harvard*, 94-00, asst. prof., 00-09, *prof.*, 09- Chairman motive power sect., Nat. Research Council, 18. Consulting engineer, Bur. Aircraft Production, 18. A.A.; Mech. Eng.; Am. Acad. Steam engines; gas engines; properties of coal; explosions of gaseous mixtures; new gas engine cycles; fuels; mechanical refrigeration.
- Marks, L(ouis) B**, 103 Park Ave., New York, N. Y. *Illuminating engineering*. New York, Jan. 25, 69. Col. City of N. Y., 83-88; B.S., M.E., Cornell, 89, M.M.E., 90. Expert and manager, Washington Carbon Co., Pa., 90-93; *consulting illum. engineer*, 93- Non-res. lecturer, Hopkins, 10. A.A.; Elec. Eng.; Illum. Eng. Soc.; Soc. int. des Elec. Electric light carbons; invention and development of the enclosed arc lamp; lighting and photometry; design of illumination.
- Marlatt, Dr. C(harles) L(ester)**, 1521 16th St., N. W., Washington, D. C. **Entomology*. Atchison, Kans., Sept. 26, 63. B.S., Kansas Col., 84, M.S., 86, Sc.D., 22. Asst. entom., Kansas Col., 87-88; asst. entomologist, *bur. entom.*, U. S. Dept. Agr., 89-94, first asst. and asst. chief entomologist, 94-25, *assoc. chief entomologist*, 25-; *chairman fed. hort. board*, 12- Ed, 'Jour. Agr. Research,' 13-27. Entomological explorations, China. A.A. (sec'y, F, 99); Ass. Econ. Entom. (past sec'y, pres, 99); Wash. Entom. Soc. (past sec'y, pres, 97); Wash. Acad.; Wash. Biol. Soc.; Kans. Acad. Economic entomology; plant quarantine; subtropical insects; Coccidae; collections in China, Japan and other eastern countries; introduction of foreign beneficial insects.
- Marmer, H(arry) A(aron)**, U. S. Coast and Geodetic Survey, Washington, D. C. *Geophysics*. Proskurof, Ukraine, June 21, 85. B.S., Rutgers, 07. Tidal computer, U. S. Coast and Geod. Surv., 07-20, *asst. chief div. tides and currents*, 20-, *chief tidal mathematician*, 24- Geophys. Union. A.A.; Ass. Geog.; Wash. Philos. Soc. (rec. sec'y, 25). Tides; physical oceanography;

mean sea level; tidal datum planes; relation of current to wind.

Marquardt, J(ulius) C(harles), N. Y. Agricultural Experiment Station, Geneva, N. Y. *Dairying*. La Crosse, Wis, Jan. 4, 94. B.S, Wisconsin, 17; M.S. Cornell, 26. Asst. *dairying*, California, 17-20, assoc. 20-21; *asst. research*, N. Y. *Exp. Sta. Geneva*, 21- The chemistry and physics of cheese making; the chemistry, physics and bacteriology of milk clarification and filtration.

Marquette, Prof. W(illiam) George, Pleasantville, N. Y. *Botany*. Watertown, Wis, Feb. 4, 82. Ph.G, Northwestern, 99; B.S, Wisconsin, 03, Ph.D, 07. Asst. prof. bot, Wisconsin; assoc. prof, Columbia, 11-18; *sci. manager*, Carl Zeiss, Inc, 20- Cellular physiology.

Marriott, R(obert) H(enry), 1470 E. 18th St, Brooklyn, N. Y. *Physics*. Richwood, Ohio, Feb. 19, 79. B.S, Ohio State, 01. Radio engineer, indust. institutions, 02-12; radio inspector, U. S. Dept. Commerce, 12-15; expert radio aid, Navy Dept, 15-25; *consulting engineer*, 25- Elec. eng. advisory board, Washington (Seattle), 16- A.A; fel. Radio Eng. (pres, 12, board direction, 12-); Wireless Inst. (pres, 09-12); fel. Elec. Eng. Radio range variation; radio shadows.

Marriott, Prof. Ross W, 213 Lafayette Ave, Swarthmore, Pa. *Mathematics, Astronomy*. Paxton, Ill, Dec. 30, 82. A.B, Indiana, 06; A.M, Swarthmore, 07; Ph.D, Pennsylvania, 11. Instr. *math*, Swarthmore, 07-10, asst. prof, 10-22, assoc. prof, 22-27, *prof*, 27- Research ballistician, Exp. Sta, E. I. du Pont de Nemours and Co, 18. Swarthmore eclipse expeditions, 23, 25, 26. A.A; Math. Soc; Math. Ass; Astron. Soc; fel. Royal Astron. Soc. Comets; the Hartmann test; the orders of the group of isomorphisms of the group of order p4; photographic measures of double stars.

Marriott, Prof. (Williams) McKim, Washington University School of Medicine, St. Louis, Mo. *Pediatrics*. Baltimore, Md, March 5, 85. B.S, North Carolina, 04; M.D, Cornell, 10. Asst. chem, North Carolina, 02-04; *physiol. chem*, Cornell, 04-07; instr. *biochem*, Washington (St. Louis), 10-14; assoc. *pediat*, Hopkins, 14-17; *prof*, Washington (St. Louis), 17-, *dean sch. med*, 23- Assoc. ed, 'Am. Jour. Diseases Children.' *Pediat. Soc.* (councilor, 23-); Am. Med. Ass; Am. Physicians; Col. Physicians (regent, 26-); Soc. Clin. Invest. (councilor, 22-25); Soc. Biol. Chem; Soc. Exp. Biol; hon. mem. Harvey Soc. Cystinuria; methods for blood analysis; nutrition and metabolic disturbances of infants; acidosis; rickets; nephritis; tetany; anhydremia; hydrocephalus.

Marsh, Dr. C(harles) Dwight, 1882 Monroe St, N. W, Washington, D. C. *Biology*. Hadley, Mass, Dec. 20, 55. A.B, Amherst, 77, A.M, 80, hon. Sc.D, 27; Ph.D, Chicago, 04. Teacher, high schools, 78-83; *prof. chem. and biol*, Ripon, 83-89, *biol*, 89-04, acting pres, 00-01, dean, 00-04; *prof. biol*, Earlham, 04-05; *physiologist in charge investigations of poisonous plants*, bur. plant indust, U. S. Dept. Agr, 05-15, *bur. animal indust*, 15- Lecturer, Milwaukee Med. Col, 03-

04. Sec'y, board commissioners, Wis. Nat. Hist. Surv, 97-99, biologist, 97-04. A.A; Soc. Nat; Wash. Acad; Wash. Biol. Soc; Wash. Bot. Soc; Wis. Acad. (pres, 97-99). Plankton; copepods; poisonous plants and their effects.

Marsh, Rev. D(aniel) B(rand), Parry Sound, Ont, Can. *Physics*. Walter's Falls, Ont, Nov. 5, 58. Toronto, 84-91; Ph.B, Wisconsin, 96, Sc.D, 97. *Presb. minister*, 91-; *pastor*, St. Andrew's *Presb. Church*, Parry Sound, 25- Dominion Govt. eclipse exped, Labrador, 05; chief, Bermuda Govt. eclipse exped, Conn, 25. Astron. Soc; Royal Astron. Soc. Can; fel. Royal Astron. Soc; fel. Soc. Astron. de Mex; Soc. Belge d'Astron. Mechanics; solar physics; vibration; solar and planetary photography; stethophone.

Marsh, Franklin W(inter), 5711 Colorado Ave, N. W, Washington, D. C. *Bacteriology*. Cambridge, Mass, June 27, 92. B.S, 15. *Chemist and bacteriologist*, U. S. Dept. Agr, 16- Carbon dioxide production of soils; soil dispersoids.

Marsh, Prof. H(erbert) E(ugene), 618 E. Fern Ave, Redlands, Calif. *Physics*. Hillsdale, Mich, July 25, 74. B.S, Mich. State Col, 08; A.M, California, 25. Instr. *physics*, Mich. State Col, 09-10, eng, 10-12; *prof. physics and eng*, Redlands, 12- A.A; Physical Soc; Optical Soc. Theory of the radiometer.

Marsh, Horace Wilmer, Pratt Institute, Brooklyn, N. Y. *Mathematics*. Susquehanna Co, Pa, Aug. 24, 63. A.B, Lafayette, 89, A.M, 93; Columbia, 97-02. Prin, Talladega, 89-91; *prof. Latin and Anglo-Saxon*, Emporia, 92-95; *head dept. math. and English*, Pratt Inst, 96- Summer, lecturer, California, 14. A.A. Industrial and technical mathematics; teaching of mathematics.

Marsh, Dr. H(oward) D(aniel), College of the City of New York, New York, N. Y. *Psychology*. Bloomington, Ill, March 30, 71. A.B, Ohio Wesleyan, 01, A.M, 02, traveling fellow, 06-07; Ph.D, Columbia, 05. Instr. *philos*, Ohio Wesleyan, 05-06; *Col. City of N. Y*, 07-17, *asst. prof*, 17- A.A; Psychol. Ass; Soc. Psychical Research. The diurnal course of efficiency; psychology of religion.

Marsh, Millard C(aleb), Springville, N. Y. *Biology*. Groton, N. Y, Dec. 23, 72. B.S, Cornell, 97; M.S, George Washington, 05. Asst. Bur. Fisheries, 97-07, Alaska salmon agent, 07-11, naturalist, Alaska seal fisheries, 11-12; *biologist*, State Inst. for Study of Malignant Diseases, Buffalo, N. Y, 12- A.A; Soc. Exp. Biol; Ass. Cancer Research; Fisheries Soc. Ichthyology; bacteriology; fish and fur seal diseases; salmon fisheries; water pollution; cancer.

Marsh, Prof. Robert P(rice), Gilliland Apartments, Gettysburg, Pa. *Biology*. N. J, March 20, 89. B.S, N. Y. Univ, 21; M.S, Rutgers, 23, Ph.D, 24. Acting head *dept. biol*, Gettysburg, 24-25, *head*, 25- A.A; Bot. Soc; Soc. Plant Physiol. The rôle of iron in plant metabolism.

Marshall, Dr. A(braham) I(ncoln), 847 Central Parkway, Schenectady, N. Y. *Physical chemistry*. Victoria, B. C, Can, Oct. 11, 96. B.A, British Columbia, 18; M.A, Toronto, 20; 1851 Exhib. research fellow, London, 20-22, Ph.D,

22. Instr. physical chem, Princeton, 22-26; *research chemist, Gen. Elec. Co.*, 26- Chem. Soc. Electrodeposition of zinc; thermochemistry; mechanism of gas reactions; photochemistry; influence of cathode rays on gas reactions.
- Marshall, Dr. Collins**, 2507 Pennsylvania Ave, N. W, Washington, D. C. *Pathology*. Carlisle, Pa, April 28, 56. M.D, Howard, 83. *Prof. path, Howard*, 90- Am. Med. Ass.
- Marshall, Prof. E(li) K(ennerly), Jr**, Johns Hopkins University School of Medicine, Baltimore, Md. **Pharmacology, Physiology*. Charleston, S. C, May 2, 89. B.S, Charleston, 08; Ph.D, Hopkins, 11, M.D, 17. Asst. physiol. chem, Hopkins, 11-13, assoc, 13-14, pharmacol, 14-17, assoc. prof, 17-19; *prof*, Washington (St. Louis), 19-21; *physiol. sch. med, Hopkins*, 21- A.A; Chem. Soc; Soc. Biol. Chem; Soc. Pharmacol; Physiol. Soc. Physiological chemistry; urea determinations; kidney function; urinary secretion; the heart and circulation.
- Marshall, Dr. Harry Taylor**, University of Virginia, Charlottesville, Va. *Medicine*. Baltimore, Md, May 19, 75. A.B, Hopkins, 94, M.D, 98. Intern, Hopkins Hosp, 98-99; fellow path, Hopkins, 99-00, asst, 00-03, instr. med. and pediat, 03-06; pathologist, Bur. Science, P. I, and prof. path, col. med, Philippines, 06-08, sec'y and registrar, med. sch, 06-07; *Walter Reed prof. path. and bacter, Virginia*, 08-Summers, recorder, U. S. Coast and Geod. Surv, 92-94, intern, Thomas Wilson sanitarium, 98, 03; special pathologist, bur. plant indust, U. S. Dept. Agr, 03, summer, 04; traveling fellow, Rockefeller Inst, 01-02; Va. Tuber. Commission, 15-16; Va. State Board Health, 16-24. A.A; fel. Am. Med. Ass; Ass. Path. and Bact. (councilor, 19-26, sec'y, 21, pres, 22); Soc. Bact; Tuber. Ass. (director, 19-21); Va. Tuber. Ass. (director, 16-18).
- Marshall, Dr. Henry Rutgers**, 7 W. 43d St, New York, N. Y. **Psychology, Esthetics*. New York, July 22, 52. A.B, Columbia, 73, A.M, 75; L.H.D, Rutgers, 03; hon. Sc.D, Hobart, 10. *Architect*, 78- Lecturer, Columbia, 94, 04; Yale, 99, 06; Princeton, 15-17; Union Theol. Sem. Jury awards, Pan-Am. Expos, 01; N. Y. Art Commission, 02-04, exec. sec'y, 19. Int. Cong. Arts and Sciences, St. Louis, 04. A.A; Soc. Nat; Psychol. Ass. (pres, 07); Philos. Ass; fel. Inst. Archit. (pres, N. Y. chap, 02-04). Pain, pleasure and esthetics; instinct and reason; theory of feeling; consciousness; mind and conduct.
- Marshall, Prof. John A(Ibert)**, 21 Santa Monica Way, San Francisco, Calif. *Biochemistry*. Chicago, Ill, 84. B.S, California, 07, M.S, 15, D.D.S, 16, Ph.D, 17. Instr. biochem, California, 16-17, assoc. prof. *biochem. and dental path*, 19-25, *prof*, 25- Assoc. ed, 'Jour. Dental Research.' Capt, ordnance dept, 17-19. A.A; Am. Med. Ass; Soc. Exp. Biol; Am. Dental Ass; Int. Fed. Dentaire. Relation of saliva and of experimental diets to dental caries; military explosives.
- Marshall, Dr. M(ax) S(kidmore)**, Michigan State Department of Health, Lansing, Mich. *Bacteriology*. Lansing, Dec. 20, 97. B.S, Mass. Col, 20; A.M, Michigan, 22, Ph.D, 25. Research asst. bacter, Michigan, 20-22, teaching asst, 22-23; *research bacteriologist, bur. laboratories, Mich. State Dept. Health*, 23- Second lieut, U.S.A, 17-19. A.A; Soc. Bact; Pub. Health Ass; Mich. Acad. Clarification of milk; d'Herelle's bacteriophage; surface tension; scarlet fever.
- Marshall, Dr. M(elville) J(ohnston)**, University of British Columbia, Vancouver, B. C, Can. *Chemistry*. Kingston, Ont, Oct. 19, 91. B.Sc, McGill, 14, M.Sc, 16; du Pont fellow, Mass. Inst. Tech, 19-20, Ph.D, 21. Demonstrator chem, McGill, 14-17; research chemist, Can. Electro-Products Co, and acting chief chemist, Shawinigan Laboratories, 17-19; asst. prof. chem, *British Columbia*, 21-27, *assoc. prof*, 27- Chemical composition of adipocere; adsorption of gases in solids; diffusion of gases through solids; decomposition of formaldehyde; distillation.
- Marshall, R(obert) B(radford)**, 3157 18th St, Washington, D. C. *Geography*. Amelia Co, Va, May 22, 67. George Washington. Topographer, *U. S. Geol. Surv*, 89-04, geographer, 04-08, *chief geographer*, 08-, supt, nat. parks, 15-16. Commissioner to change boundary, Yosemite Nat. Park, Calif. Ass. Geog; Civil Eng; Wash. Geol. Soc. Topographic maps; topographic map of the United States.
- Marshall, Prof. Roy E(dgar)**, Michigan State College, East Lansing, Mich. *Pomology*. Arlington, Nebr, Feb. 28, 90. B.S, Nebraska, 13; M.S, Oregon Col, 15. Instr. hort, Nebraska, 13; teaching fellow, Oregon Col, 13-15, instr. pomol, 15-16; asst. horticulturist, Va. Polytech, 16-17, horticulturist, 17-20; *assoc. prof. hort. and research assoc, Mich. State Col*, 20- Soc. Hort. Sci. (asst. sec'y, 20-24). Storage of fruits and vegetables; orchard nutrition; plum pollination; pruning fruit trees; sap of raspberries.
- Marshall, Dr. Ruth**, Rockford College, Rockford, Ill. *Zoology*. Big Spring, Wis, Dec. 24, 69. B.S, Wisconsin, 92, M.S, 00; fellow, Nebraska, 06-07, Ph.D, 07. Teacher, high schools, Wis, 92-09; *head dept. biol*, Rockford, 09-14; Lane Tech. Sch, Chicago, 16-20; *Rockford*, 20- A.A; Soc. Zool; Micros. Soc; Wis. Acad; Ill. Acad. Systematic zoology; Hydracarina.
- Marshall, Stewart M(cCulloch)**, 40 W. 40th St, New York, N. Y. *Engineering*. Centralia, Pa, June 13, 79. B.S, Pennsylvania, 00, M.E, 10. Instr, Pennsylvania, 00-02; with Cambria Steel Co, Pa, 02-14; chief engineer, Southwark Foundry and Machine Co, Pa, 15-16; *partner and consulting engineer, Perin and Marshall, New York*, 16- Mech. Eng; Min. and Metal. Eng; Chem. Soc; Elec. Eng; Iron and Steel Inst; British Iron and Steel Inst; Verein Deutscher Eisenhüttenleute.
- Marshall, Prof. William**, 1017 State St, Lafayette, Ind. *Mathematics*. Southfield, Mich, April 5, 69. B.S, Michigan, 97, M.S, 98; Göttingen, 06-07; Ph.D, Zurich, 08. Instr. math, Michigan, 00-08; asst. prof, *Purdue*, 08-10, assoc. prof, 10-17, prof, 17-21, *head dept*, 21- Math. Soc. Cylinder functions.

- Marshall, W(illiam) C(rosby)**, Yale Club, New York, N. Y. *Engineering*. Avon, Conn, Sept. 21, 70. Ph.B, Yale, 90, M.E, 94, C.E, 00; Ecole des Beaux Arts and Ecole du Genie Maritime, Paris, 06-07. Civil engineer, Berlin Iron Bridge Co, 90-93; asst. mech. and civil eng, Yale, 94-96, instr. drawing and descrip. geom, 96-02, asst. prof, 02-12, machine design, 12-13; consulting engineer, Fed. Sugar Ref. Co, 13-15; research engineer, Remington Arms Co, 15-17; trade commissioner, U. S. Bur. Commerce, 19; mech. engineer, Nat. Spun Silk Co, 19-20; consulting engineer, 20-21; chief engineer, U. S. Hoffman Machinery Co, 21-22; Trexler Co, 22-23; plant engineer, Richard Hellman, Inc, 23-24; manager, Yale Grad. Placement Bur, 25-26. Capt, ordnance dept, 17-19. Mech. Eng; Automotive Eng. Descriptive geometry; machine design; automobiles.
- Marshall, Prof. W(illiam) S(tanley)**, 139 E. Gilman St, Madison, Wis. *Entomology*. Milwaukee, Wis, Dec. 14, 66. B.S, Swarthmore, 88; Pennsylvania, 88-89; Ph.D, Leipzig, 92. Instr. biol, Wisconsin, 93-98, asst. prof. zool, 98-05, assoc. prof. entom, 05- A.A; Soc. Zool; Entom. Soc; Wis. Acad. Anatomy and embryology of insects.
- Marsters, Prof. V(ernon) F(reeman)**, 123 Railway Exchange Building, Kansas City, Mo. *Geology, Geography*. B.A, Acadia, 86; Cornell, 88-89; A.M, Harvard, 98; Columbia, 03-05. Instr. geol, Cornell, 89-91; prof. geol. and geog, Indiana, 91-03; geologist, Republic of Peru, 05-11; consulting and mining geologist, N. Y. and Honduras Mining Co, 11-17; consulting geologist, 17- A.A; Geol. Soc; Min. Eng; Ass. Petrol. Geol; Petrol. Inst; Seismol. Soc; Boston Soc. Nat. Hist; Soc. de Ing. Lima; fel. London Geol. Soc. Petrography; economic geology; geology of non-metallic deposits; petroleum deposits of southern Peru; petroleum geology; mid-continental and Rocky Mountain provinces of the United States.
- Marston, Prof. A(nson)**, Iowa State College, Ames, Iowa. *Civil engineering*. Winnebago, Ill, May 31, 64. Berea, 84; C.E, Cornell, 89. Ry. and bridge engineer, 89-92; prof. civil eng, Iowa Col, 92-19, col. engineer, 98-12, dean eng. div, 04-; consulting engineer, 92- State highway commissioner, 04- Nat. Research Council, 19- Major, C.Eng, 17-18, lieutenant col, 18, col, O.R.C, 24. Civil Eng; Eng. Educ; Soc. Test. Mat; West. Soc. Civil Eng; Iowa Eng. Soc; Iowa Acad. Stresses by polarized light; tests of brick and stone; fire streams; sewage purification; water-towers; statistics of public roads and water works; ground water flow; drains; theory of loads on pipes in ditches and culverts; testing drain pipes and sewer tile; history of engineering; theory of depreciation of industrial property.
- Marston, Frank A(lwyn)**, Metcalf and Eddy, Staller Building, Boston, Mass. *Civil engineering*. Worcester, Mass, Sept. 21, 85. B.S, C.E, Worcester, 07. Res. engineer, L. D. Thorpe, Boston, 07; asst. engineer and designing engineer, Metcalf and Eddy, 07-20, partner, 20- V. chairman, Council Affiliated Tech. Soc, Boston. Civil Eng; Water Works Ass; Soc. Munic. Improv; Concrete Inst; New Eng. Water Works Ass; Boston Soc. Civil Eng. (director, 22, v. pres, 24, pres, 27). Sewerage, sewage disposal; rainfall; water works construction and operation.
- Marston, Dr. William M(oulton)**, Columbia University, New York, N. Y. *Psychology*. Cliftondale, Mass, May 9, 93. A.B, Harvard, 15, LL.B, 18, Ph.D, 21. Asst. psychol, Radcliffe, 15; prof. legal psychol, American Univ, 22-23; psychologist, Staten Isl. Sch. Surv, Texas Penitentiaries Surv. and Nat. Committee for Mental Hygiene, 24; asst. prof. psychol, Tufts, 25-26; lecturer, Columbia and N. Y. Univ, 27-; consulting psychologist. Second lieutenant, psychol. div, U.S.A, 18-19. A.A; Psychol. Ass. Blood pressure and reaction time symptoms of deception; legal psychology; systolic blood pressure emotional studies; theory of emotions and of consciousness; sex differences; clinical analysis of normal emotions.
- Martel, Prof. R(omeo) E(aoul)**, California Institute, Pasadena, Calif. *Civil engineering*. Iberville, Que, Can, March 4, 90. B.S, Brown, 12. Instr. civil eng, R. I. Col, 13-14; Mechanics Inst, 14-15; with Sayles Finishing Plants, Saylesville, R. I, 15-18; instr. civil eng, Calif. Inst, 18-20, asst. prof, 20-21, assoc. prof, 21- With Atchison, Topeka and Santa Fe Ry, Texas, 18; consulting engineer, bridge construction, Pasadena, 21-25; summer, res. engineer, Calif. Highway Commission, 21. Civil Eng.
- Martin, Dr. Bertha E(dith)**, Shorter College, Rome, Ga. *Zoology*. North Hatfield, Mass, Feb. 3, 87. A.B, Mt. Holyoke, 09; Ph.D, Chicago, 15. Asst. prof. zool, Wheaton, 15-21; assoc. prof, Mt. Holyoke, 21-22; prof. biol, Lindenwood, 22-27; Shorter, 27- Vertebrate embryology; comparative anatomy.
- Martin, Dr. C(harles) F(erdinand)**, 3504 Mountain St, W, Montreal, Que, Can. *Medicine*. Montreal, Oct. 14, 68. B.A, McGill, 88, M.D, C.M, 92; Göttingen, 93; Prague and Paris, 94. Res. physician, Montreal Gen. Hosp, 92-93; demonstrator path, McGill, 94-96, lecturer, 97-98, lecturer med, 98-99, asst. prof. med. and clin. med, 99-07, prof, 07-, dean med. faculty, 23- Physician, Royal Victoria Hosp, Montreal; consulting physician, Montreal Baby and Foundling Hosp. Am. Physicians. Value of tuberculin; Hodgkin's disease and leukemia; sarcomatosis; congenital dilatation of the large intestine; condition of the urine in infants; diseases of the stomach; purin bodies in nephritis; pleurisy in life insurance; medical education.
- Martin, Prof. Emilie N(orton)**, South Hadley, Mass. *Mathematics*. Elizabeth, N. J, Dec. 30, 69. A.B, Bryn Mawr, 94, fellow, 95-96, Mary E. Garrett fellow at Göttingen, 97-98, Ph.D, 01. Teacher math, sch, Pa, 00-02; instr, Mt. Holyoke, 03-11, assoc. prof, 11-25, prof, 25- Private tutor, 99-02. Collaborator, 'Revue Semestrielle des Pub. Math,' 99-02. A.A; Math. Soc; Math. Ass. Imprimitive substitution groups of degree fifteen and the primitive substitution groups of degree eighteen.
- Martin, Prof. E(rnest) G(ale)**, Stanford University, Calif. *Physiology, Biology*. Minneapolis, Minn, Nov. 16, 76. Ph.B, Hamline, 97; fellow,

- Hopkins, 02-03, Ph.D, 04. Asst. biol, Hamline, 94-95; physiol, Hopkins, 03-04; instr. anat. and physiol, Purdue, 04-06; *physiol*, Harvard Med. Sch, 06-10, asst. prof, 10-16; *prof*, Stanford, 16- Physiologist, Vt. State Board Health; research physiologist, U. S. Pub. Health Service. Capt, Sanit.C. A.A; Physiol. Soc; Soc. Exp. Biol; Am. Acad; West. Soc. Nat. Influence of blood salts on the heart; induction shocks; vasomotor reflexes; human electrocutaneous sensitivity; reactions of decerebrate young animals; strength of voluntary muscles in human beings; industrial fatigue; salt antagonisms in brine organisms; effects of cold on neuromuscular functioning.
- Martin, Prof. F(ernando) W(ood)**, Randolph-Macon College, Lynchburg, Va. *Chemistry*. Volga, W. Va, May 5, 63. B.S, Ill. Wesleyan, 86; Ph.D, Syracuse, 93; Leipzig, 97-98. *Prof. nat. science*, Chaddock, 86-90; Fort Worth, 90-92; *chem. and geol*, Randolph-Macon, 93- A.A; Chem. Soc. The garnet group of silicates.
- Martin, George C(urtis)**, 3126 38th St, Washington, D. C. *Geology*. Cheshire, Mass, July 18, 75. B.S, Cornell, 98; Ph.D, Hopkins, 01. Special asst. paleont, Phila. Acad, 97; asst. geologist, Md. Geol. Surv, 98-01, geologist, 01-04; asst. paleont, Hopkins, 01-04, instr, 03-04; asst. geologist, U. S. Geol. Surv, 04-06, paleontologist, 06-09, geologist, 09-24; *consulting geologist*, 24- Geol. Soc; Ass. Petrol. Geol; Wash. Geol. Soc. Tertiary paleontology; stratigraphy and economic geology of the Appalachian region; geology, petroleum and coal of Alaska; petroleum of Mexico.
- Martin, G(eorge) Hamilton, II**, U. S. Department of Agriculture, Washington, D. C. *Botany*. Burlington, Iowa. B.S.F, Washington (Seattle), 13; M.S, Wash. Col, 16; Harvard, 16-17. Instr. bot, Wash. Col, 14-16; asst, Harvard, 17; teaching fellow, Washington (Seattle), 17-18; *asst. pathologist, plant disease surv, bur. plant indust, U. S. Dept. Agr*, 18- A.A; Phytopath. Soc; West. Soc. Nat; Wash. Bot. Soc. Parasitic fungi and their hosts; underground stems; diseases of forest and shade trees; ornamental and miscellaneous plants; rose diseases.
- Martin, Dr. Geo(rge) W**, 49 S. College St, Washington, Pa. *Biology*. Lagro, Ind, Jan. 23, 67. B.S, Wabash, 87, 90-91; Ph.D, Indiana, 92; Woods Hole, 93, 94, 95; Cornell, 02. Prin, high sch, Ind, 87-90; asst. biol, Indiana, 91-92; *prof*, high sch, Ind, 92-99; biol, Vanderbilt, 99-16; *prof. biol*, Monmouth, 16-23; *Washington and Jefferson*, 23- State entomologist, Tenn, 01-06; plant pathologist, U. S. Dept. Agr, 18-23, summer, research, bur. entom, 25. A.A; Ass. Econ. Entom; Tenn. Hort. Soc. (founder, past sec'y-treas); Ill. Acad; Pa. Acad; Wash. Entom. Club. Organology and organography of Aster and Solidago; morphology and cytology of algae; agricultural production; the Japanese beetle and brown rot diseases.
- Martin, Prof. George W(illard)**, University of Iowa, Iowa City, Iowa. *Botany*. Brooklyn, N. Y, Oct. 27, 86. Litt.B, Rutgers, 12, M.S, 15; Chicago, 15-16, Ph.D, 22; Sorbonne, 19. Instr. bot, Mass. Col, 16-17; asst. prof, Rutgers, 19-23; Iowa, 23-26, *assoc. prof*, 26- A.A; Bot. Soc; Phytopath. Soc. Mycology; marine ecology.
- Martin, Dr. H(arry) M(athias)**, University of Nebraska, Lincoln, Nebr. *Animal pathology, Parasitology*. York Co, Pa, March 26, 92. D.V.M, Pennsylvania, 16; A.M, Nebraska, 23, Ph.D, 27. Instr. vet. science and asst. animal diseases, Wyoming, 17-18; *asst. prof. animal path. and hygiene, and asst. sta. veterinarian, Nebraska*, 18- A.A; Soc. Parasitol; Vet. Med. Ass; Int. Ass. Med. Mus. Hemorrhagic septicemia; tuberculosis; *Ascaris lumbricoides*.
- Martin, Prof. Howard H(anna)**, University of Cincinnati, Cincinnati, Ohio. *Geography*. Little York, Ill, March 17, 92. B.S, Pennsylvania, 22; A.M, George Washington, 23; Chicago; Columbia. Lecturer geog, Columbia, 24-25; *asst. prof. Cincinnati*, 25- Geographer, City of Cincinnati Resource Surv, 25- Diplomatic service, Am. Peace Mission, Paris, 18-19. Economic and regional geography; Ohio River transportation.
- Martin, James C(harles)**, University of California, Berkeley, Calif. *Chemistry*. St. Andrews, Que, Can, May 7, 92. B.S, California, 15. Chemist, Arthur Lachman Co, 16-17; asst. agr. chem, *California*, 17-18, instr, 18-22, plant nutrition, 22-25, *asst. chemist, Exp. Sta*, 25- Chem. Soc. The underlying factors influencing soil fertility as evidenced by the chemical composition of the soil solution.
- Martin, Dr. James C(ook)**, Room 1560, 81 New St, New York, N. Y. *Geology*. Nashville, Tenn, Jan. 26, 87. St. Lawrence, 04-06; Ph.B, Brown, 08; Columbia, 08-09; A.M, Princeton, 12, fellow, 12-13, Ph.D, 13, Jacobus fellow, 13-14. Asst. geol, Brown, 09-10; R. I. Nat. Resources Surv, 09-10; geol, Princeton, 11-12; asst. curator systematic and applied geol, U. S. Nat. Museum, 13-19; *assoc. geologist, U. S. Geol. Surv*, 19-21; *Standard Oil Co. of N. J*, 21- Precambrian, tectonic and oil geology.
- Martin, Dr. John H(olmes)**, U. S. Department of Agriculture, Washington, D. C. *Agronomy*. Petersburg, N. Dak, June 10, 93. B.S, Oregon Col, 14; M.S, Maryland, 21; S. Dak. Col; Ph.D, Minnesota, 26; George Washington. Research asst, Oregon Exp. Sta, 14; sci. asst, office cereal investigations, *bur. plant indust, U. S. Dept. Agr*, 14-19, asst. agronomist, *assoc. agronomist and agronomist*, western wheat investigations, 19-25, *agronomist in charge grain sorghum and broomcorn investigations*, 25- A.A; Soc. Agron; Agr. Hist. Soc; Chem. Soc. Classification, taxonomy, adaptation, physiology and disease resistance of wheat and other cereals.
- Martin, Prof. J(ohn) N(athan)**, 507 Welsh Ave, Ames, Iowa. *Botany*. Bowling Green, Ind, 75. A.B, Indiana, 07; Ph.D, Chicago, 13. Head dept. biol, Manchester, 07-09; *prof. morphol. and cytol, Iowa State*, 11- A.A; Bot. Soc; Iowa Acad. Plant morphology and physiology; physiology of pollen and seed setting; comparative morphology of Leguminosae.
- Martin, Prof. J(oseph) Holmes**, Kentucky Experiment Station, Lexington, Ky. *Poultry hus-*

- bandry*. Chicago, Ill, June 25, 95. B.S, Purdue, 17; M.S, Kentucky, 24; fellow, Wisconsin, 25-26. Asst. poultry, *Kentucky*, 17-20, asst. prof, 20-22, *assoc. prof. in charge poultry husbandry*, 22- Assoc. ed, 'South. Agriculturist,' 20- Poultry Sci. Ass; Genetic Ass; Ky. Acad. Calcium metabolism in poultry; inheritance of certain characters in poultry.
- Martin, Dr. Laura H.** 3114 Dumbarton Ave, Washington, D. C. *Geology*. Chicago, Ill, 84. A.B, Vassar, 06; M.S, Chicago, 11, Ph.D, 16; Bryn Mawr fellow, 12-13. Teacher, high sch, Ill, 08-10; instr. geol, Wellesley, 11-12; exten. lecturer, Columbia, and asst, Barnard, 14-16; instr, Smith, 16-18, asst. prof, 19-22; asst. to geographer, Inst. Politics, 23-27. Summer, instr, Oregon, 17. Geol. exped, Alaska, 13. Int. Geol. Cong, Toronto, 13. Canteen work, Y. M. C. A, U.S.A, 18-19. Fel. Am. Geog. Soc; Eistophos Sci. Club. Geography; physiography; geographic factors in agriculture; marine terraces; glaciers of Mt. Jefferson; geology of Stonington, Connecticut, area; League of Nations map.
- Martin, Col. Lawrence**, Library of Congress, Washington, D. C. **Geology, Geography*. Stockbridge, Mass, Feb. 14, 80. A.B, Cornell, 04, Ph.D, 13; A.M, Harvard, 06. Asst. geol, Cornell, 04-05; Wisconsin, 06-07, instr, 07-08, asst. prof, 08-13, *assoc. prof*, 13-17; lieut, N.A, 17, capt, 18, major, 18-20, gen. staff corps, 18-20, *lieut. col, M.I, O.E.C, U.S.A, 21-*, instr. topog, Ft. Sheridan, 17-18, map expert, Army War Col. and gen. headquarters, 18; Commission to Negotiate Peace, 18-19; on duty, mil. intelligence div, War Dept, 20; drafting officer and geographer, State Dept, 20-24; *chief div. maps, Library of Congress, 24-* Gilman Mem. lecturer, Hopkins, 20-21; lecturer, Georgetown, 21-23; Clark, 22-23; Foreign Service Sch, State Dept, 25. Field asst, U. S. Geol. Surv, 03-05, geol. aid, 06-07, junior geologist, 08-24; geologist, Wis. Geol. Surv, 08-17; geographer, Inst. Politics, Williams, 21-27. Past assoc. ed, 'Jour. Geog.' and 'Bul. Am. Geog. Soc'; contrib. ed, 'Geog. Rev.', 22-; counselor, 'Econ. Geog.', 25- Am. Geog. Soc. exped, Alaska, 05; Nat. Geog. Soc. exped, 09, 10, 11; guide, Int. Geol. Cong. excursions, 13; mem, Harbord Mission, 19. U. S. Geog. Board, 21-, chairman exec. committee, 24-; Nat. Research Council, 17-18, 23- Int. Commission des Glaciers; Int. Commission de l'Atlas des Formes du Relief Terrestre. Gold medal and Malte-Brun prize, Soc. de Géog. de Paris, 18; officer, Order of the Crown of Italy, 22. Geol. Soc; Ass. Geog; Wash. Geol. Soc; Phila. Geog. Soc; Wis. Acad; Vienna Geog. Gesell; Geog. Soc. of Hungary. Glacial geology; seismology; physiography and regional geography of the Lake Superior region and Wisconsin; glaciers of Alaska; geography of military and international affairs and foreign trade; boundaries; cartography.
- Martin, Prof. Lillian J(ane)**, Shreve Building, San Francisco, Calif. **Psychology*. Olean, N. Y, July 7, 51. A.B, Vassar, 80; Göttingen, 94-98; Würzburg, 07; Bonn, 08, 12, hon. Ph.D, 13; Munich, 14. Teacher, high sch, Ind, 80-89; v. prin. and head dept. science, Girls' High Sch, San Francisco, 89-94; asst. prof. *psychol*, Stanford, 99-09, *assoc. prof*, 09-11, *prof*, 11-16, *emer. prof*, 16-; *consulting psychologist*, San Francisco, 16-; *psychopathologist and chief mental hygiene clinic*, San Francisco Polyclinic, and Mt. Zion Hosp, 16- Clin. psychologist, Exp. Psychol. Cong. A.A. (v. pres, H, 14); Psychol. Ass; Calif. Soc. Mental Hygiene (pres, 17-21). Analysis of sensible discriminations; esthetics; suggestion in normal psychology; the projection method; the unconscious; personality as revealed by mental images; mental hygiene; training of emotions; applied psychology; mental training of the pre-school age child.
- Martin, Prof. Louis A(dolphe), Jr**, Stevens Institute of Technology, Hoboken, N. J. *Mathematical physics, Engineering*. Hoboken, Nov. 5, 80. M.E, Stevens, 00; A.M, Columbia, 03. Instr. math, physics and chem, Hoboken Acad, 00-02; math. and mech, Stevens, 03-06, asst. prof, 06-07, acting prof. *mech*, 07-08, *prof*, 08-, *dean junior class*, 10-19, *senior class*, 19- Instr, Cooper Union, 00-01; Stevens, 00, 02; lecturer, Mechanics' Inst, N. Y, 01-02. A.A; Math. Soc; Eng. Educ; Mech. Eng. Statics; kinematics and kinetics; mechanics of materials; applied statics; hydraulics; thermodynamics.
- Martin, Prof. M(elvin) A(lbert)**, Tulane University, New Orleans, La. *Psychology*. Petersburg, Va, Oct. 18, 71. A.B, Richmond, 98; Chicago, 98-00; A.M, Columbia, 05, Ph.D, 15. Prof. math, Woman's Col. of Richmond, 96-98, philos. and physics, 00-04, *psychol. and educ*, 05-13; asst. *psychol*, Columbia, 14-16; prof. *psychol. and educ*, Converse Col, 16-23; *prof. psychol. and head dept, Newcomb Col, Tulane, 23-* Summers, prof, Virginia, 11-15, Asheville Sch, 19; lecturer, U. S. Training Camp for Women, 20-22; The Manor, 20-23. Psychol. Ass. Experimental psychology; transfer-effects of practice; permanence of practice-effects.
- Martin, Prof. R(obert) Earl**, 835 Clewell St, Bethlehem, Pa. *Physics*. Monroe Co, Ind, Aug. 18, 94. A.B, Indiana, 17; M.S, Lehigh, 21; Ph.D, Indiana, 25. Instr. *physics*, Lehigh, 18-21, *asst. prof*, 21- A.A; Physical Soc; Ind. Acad. The luminous intensity of an electric spark as a function of the chemical composition of electrodes; the effect of light on the thermal conductivity of selenium; depth of light action in selenium.
- Martin, Prof. Thomas Adams**, Berea, Ky. *Mathematics*. Commercial Point, Ohio, Aug. 19, 60. B.S, Ohio (Athens), 95; A.M, Ohio Wesleyan, 98; Michigan, 03-04; A.M, Yale, 12. Tutor math, Ohio (Athens), 95-96; supt, schools, Ohio, 96-03; prof. *math*, Ohio Northern, 05-08; asst. prof, Mt. Union, 08-10; prof, East Texas Nor. Sch, 10-15; asst. prof, Norwich, 17-21; *prof, Berea, 21-* Math. Ass. Differential equations.
- Martin, Dr. Thomas L(ysons)**, Brigham Young University, Provo, Utah. *Agronomy*. Lancashire, Eng, Nov. 21, 85. A.B, Brigham Young, 12; Ph.D, Cornell, 19. Prin. schools, Wyo. and Utah, 12, 17, 19-20; instr. soils, Cornell, 17-19; soil investigator, Utah-Idaho Sugar Co, 20-21; *prof. agron, Brigham Young, 21-* Utah Acad. (v. pres. and acting pres, 25, pres, 26). Soil

- technology; decomposition of green manures and wheatstraw; soil flora.
- Martin, Dr. Walton**, 228 E. 49th St, New York, N. Y. *Anatomy, Surgery*. Staten Island, N. Y., Feb. 4, 69. Ph.B, Yale, 89; M.D, Columbia, 92. Demonstrator anat, Columbia, 97-02, instr. surg, 01-10, assoc, 10, prof. clin. surg, 10-18, assoc. prof. surg, 18- Attending surgeon, St. Luke's Hosp. A.A; Ass. Anat; Surg. Ass; Col. Surg; Ass. Thoracic Surg; N. Y. Surg. Soc; N. Y. Acad. Med; Int. Soc. Surg. Factors influencing infection; bone cavities; chronic empyema; staphylococcus infections; bacteria in the blood stream; control of infection in war wounds; foreign bodies in the tissues; fibro-epithelial tumors of the lips; form and relation of the spleen; gall bladder surgery; septicemia.
- Martin, Dr. William H(ope)**, New Jersey Agricultural Experiment Station, New Brunswick, N. J. *Plant pathology*. Carlisle, Pa, June 3, 90. A.B, Maine, 15; M.S, Rutgers, 17, Ph.D, 18. Instr. plant physiol, Maine, 14-15; asst, Rutgers, 15-18, assoc. plant pathologist, N. J. *Exp. Sta*, 19-23, *plant pathologist*, 23- A.A; Phytopath. Soc; Soc. Agron. Plant physiology; tomato diseases; influence of Bordeaux mixture on transpiration; soil acidity; potato scab.
- Martin, Prof. W(illiam) H(oward)**, University of Toronto, Toronto, Ont, Can. *Physical chemistry*. St. Mary's, Ont, Dec. 16, 89. B.A, Toronto, 13, Ph.D, 22. *Lecturer chem*, Toronto, 19-22, *asst. prof*, 22- Fel. Royal Soc. Can. The scattering of light, principally in liquids.
- Marvel, Dr. Carl S(hipp)**, University of Illinois, Urbana, Ill. *Organic chemistry*. Near Waynesville, Ill, Sept. 11, 94. A.B, Ill. Wesleyan, 15; Ph.D, Illinois, 20. Instr. *chem*, Illinois, 20-21, assoc, 21-23, *asst. prof*, 23- A.A; Chem. Soc. Synthetic organic chemistry; organic mercury derivatives; the identification of organic compounds.
- Marvin, Prof. Cha(rls) F(rederick)**, U. S. Weather Bureau, Washington, D. C. **Physics, Meteorology, Mechanical engineering*. Putnam, Ohio, Oct 7, 58. M.E, Ohio State, 83. Instr. physical and mech. laboratories, Ohio State, 78-83; prof. meteor, U. S. *Weather Bur*, 91-13, *chief*, 13- Nat. Advisory Committee Aeronaut. Knight, First Class, Order of St. Olav, Norway; medals, Columbian Expos, 93, Omaha, 98, Paris, 00. A.A; Wash. Acad; Wash. Philos. Soc. Constants of psychrometric formula; the Robinson anemometer; use of kites for upper air explorations; solar radiation; seismology; evaporation; simplification of the calendar; leap year rules and calendar accuracy.
- Marvin, Dr. H(arold) M(yers)**, New Haven Hospital, New Haven, Conn. *Internal medicine*. Jacksonville, Fla, Aug. 11, 93. A.B, Davidson Col, 14; M.D, Harvard, 18. Intern, Peter Bent Brigham Hosp, Boston, 18-19; district physician, Near East Relief, Alexandropol, Armenia, 19-20; asst. med, Mass. Gen. Hosp. and Harvard Med. Sch, 20-21; instr, Yale, 21-23, *asst. prof*, 23- Soc. Clin. Invest. Heart disease.
- Marvin, Prof. H(enry) H(oward)**, University of Nebraska, Lincoln, Nebr. *Physics*. Grinnell, Iowa, Aug. 14, 84. B.S, Grinnell, 06; fellow, Columbia, 09-11, Ph.D, 12. Instr. *physics*, high sch, Iowa, 06-08; Mass. Inst. Tech, 11-12; asst. prof, Tufts, 12-17, head dept, 17-19; *prof*, Nebraska, 19-, *head dept*, 22- A.A; Physical Soc; Nebr. Acad. Absorption and dispersion in infra-red.
- Marvin, R(ichard) H(ale)**, Johns Hopkins University, Baltimore, Md. *Electrical engineering*. Brooklyn, N. Y., Oct. 27, 79. M.E, Stevens, 03; M.S, Union, 14; Hopkins. Gen. Elec. Co, 03-14; elec. engineer, R. Thomas and Sons Co, 14-25; *research fellow*, Hopkins. A.A; Elec. Eng. High voltage engineering.
- Marvin, Dean W(alter) T(aylor)**, 43 College Ave, New Brunswick, N. J. *Psychology, Philosophy*. New York, N. Y., April 28, 72. A.B, Columbia, 93, 95-97; Jena, 93-94; Halle; Ph.D, Bonn, 98. Asst. philos, Columbia, 98-99; instr. and asst. prof. *philos. and psychol*, Western Reserve, 99-05; asst. prof, Princeton, 05-10; *prof*, Rutgers, 10- A.A; Philos. Ass; Psychol. Ass. Theory of knowledge; educational psychology.
- Marx, Prof. Cha(rls) D(avid)**, Stanford University, Calif. *Civil engineering*. Toledo, Ohio, Oct. 10, 57. Real-Gym, Karlsruhe, 76; C.E, Cornell, 78; Polytech, Karlsruhe, 81; LL.D, California, 18; Dr.Eng, Karlsruhe, 26. Instr. civil eng, Polytech, Karlsruhe, 81; leveler, transitman and draftsman, B. H. T. and W. Ry, 81-82; U. S. asst. engineer, Mo. River Improv, 82-83; Miss. River Improv, 83-84; asst. prof. *civil eng*, Cornell, 84-90; prof, Wisconsin, 90-91; *Stanford*, 91-25, *emer. prof*, 25- Chief inspector pub. improvements, Rochester, N. Y; prin. asst. engineer, East Side Trunk Sewer, Rochester, N. Y; consulting engineer; in charge irrig. investigations, Salinas Valley; chairman, Calif. State Water Commission, 12-15. *Civil Eng.* (past pres); Eng. Educ; West. Soc. Eng; Pacific Coast Tech. Soc; Wis. Acad. Hydraulics.
- Marx, Prof. Guido H(ugo)**, Stanford University, Calif. *Engineering, Education*. Toledo, Ohio, March 29, 71. M.E, Cornell, 93. Instr. mech. eng, *Stanford*, 95-97, asst. prof, 97-99, assoc. prof, 99-09, *prof. machine design*, 09- Lecturer, New Sch. for Social Science, 20- A.A; Mech. Eng. Machine design.
- Maryott, Dr. Carlton H(oward)**, University of Georgia, Augusta, Ga. *Chemistry*. Berlin, N. Y., June 11, 81. A.B, Brown, 04; Ph.D, Yale, 11. Instr. *chem*, Yale, 06-09; *prof*, Baylor, 11-14; Georgia, 14- A.A; Chem. Soc.
- Masius, Dr. Morton**, 52 Fruit St, Worcester, Mass. *Physics, Physical chemistry*. Egg Harbor City, N. J., Oct. 6, 83. Ph.D, Leipzig, 08; fellow, Harvard, 08-09. Instr. *physics*, Worcester, 09-15, asst. prof, 15-19, *prof*, 19- Physical Soc. Adsorption; thermodynamics; radiation; electrical measuring instruments.
- Mason, Arthur C(harles)**, P. O. Box 340, Honolulu, Hawaii. *Entomology*. Warren, Mich, March 12, 91. B.S, Mich. State Col, 13; M.S, Florida, 15. *Asst. entomologist*, Fla. Exp. Sta, 13-15; State Plant Board, Fla, 15-17; *bur. entom*, U. S. Dept. Agr, 17- A.A; Entom. Soc; Ass. Econ. Entom; Fla. Entom. Soc; Ha-

- waiian Entom. Soc. Thysanoptera; citrus insects; camphor thrips; fruit flies.
- Mason, Dr. C(lyde) W(alter)**, Cornell University, Ithaca, N. Y. *Microscopy*. Watertown, S. Dak. June 17, 98. A.B. Oregon, 19; Ph.D. Cornell, 24. Asst. chem. Oregon, 17-20; *chem. micros*, Cornell, 20-23, *instr*, 23- Chem. Soc. Chemical microscopy; structural colors; microscopic qualitative analysis; microscopical methods.
- Mason, Dr. Edward C(harles)**, 506 Holland Building, Springfield, Mo. *Internal medicine*. Baltimore, Md. Oct. 30, 91. A.B. Drury, 14; M.D. Cincinnati, 20, Ph.D. 21. Teaching fellow org. chem. St. Louis, 15-17; assoc. pharmacol. and physiol. Chicago, 17-19; asst. prof. pharmacol. Cincinnati, 19-21; fellow med. Mayo Clinic, Minn. 21-22, med. staff, 22-23; *med. research*, *Henry Ford Hosp*, 23- Fel. Col. Physicians; fel. Soc. Clin. Path. Metabolic disorders; pharmacology.
- Mason, Dr. J(ohn) Alden**, University Museum, Philadelphia, Pa. *Anthropology*. Germantown, Pa. Jan. 14, 85. A.B. Pennsylvania, 07; Ph.D. California, 11. Asst. curator, Mex. and S. Am. archeol. Field Museum Nat. Hist. 17-24; Mex. and Cent. Am. archeol. Am. Museum Nat. Hist. 24-26; *curator*, *Am. sect. Univ. Museum*, *Phila*, 26- Pa. rep. Int. Sect. Mex. Archeol. exped, Jalisco, 11-13; investigator, Can. Geol. Surv. exped, Great Slave Lake, 13; mem. P. R. Insular Surv. 14-15; research fellow, California exped, Salinan Indians, 16; investigator, Southwest. Soc. exped, Papago Indians, 18; Field Museum exped, Colombia, 22-23. A.A.; Anthropol. Ass. (councilor, 27); Ethnol. Soc. (treas, 25); Folk-Lore Soc; Southwest Soc. Archeology, ethnology, linguistics and folk-lore of Latin America.
- Mason, Dr. Karl E(rnest)**, Vanderbilt University, Nashville, Tenn. *Zoology*. Kingston Village, N. S. Can. May 30, 00. B.A. Acadia, 21; Ph.D. Yale, 25. Asst. zool. Yale, 21-25; Nat. Research Council fellow, 25-27; *instr. anat. med. sch.*, *Vanderbilt*, 27- Summer, research, Nat. Tuber. Ass. 25. A.A. Thyroid and metamorphosis; nutritional deficiencies and testicular infection and degeneration in tuberculosis.
- Mason, Pres. Max**, University of Chicago, Chicago, Ill. **Mathematics*. Madison, Wis. Oct. 26, 77. B.L. Wisconsin, 98; Ph.D. Göttingen, 03. Instr. math. Mass. Inst. Tech. 03-04; asst. prof. Sheffield Sci. Sch. Yale, 05-08; assoc. prof. Wisconsin, 08-10, prof. math. physics, 10-25; *pres*, *Chicago*, 25- Lecturer, Harvard, 11. Div. physical sciences, Nat. Research Council, 18- Research staff, U.S.N. Exp. Sta. 17-19. A.A. (v. pres, B, 20); Math. Soc; Physical Soc; Math. Verein. Differential equations; calculus of variations; electromagnetic theory; submarine detection devices; acoustical compensators.
- Mason, Mayne S(eguine)**, American Telephone and Telegraph Co, 195 Broadway, New York, N. Y. *Electrical engineering*. Buda, Ill. June 3, 90. B.S. Illinois, 11, fellow, Eng. Exp. Sta. 11-13, M.S. 13. Student engineer, Gen. Elec. Co, 13-15; instr. elec. eng. and physics, Rutgers, 15-17, acting prof. physics, 17; fellow, Mellon Inst, 19; Westinghouse Elec. Int. Co, 20-21; *dept. develop. and research*, *Am. Tel.*
- and Tel. Co*, 21- Lieut. A.S. 17-18. Elec. Eng. Telephone engineering.
- Mason, Dr. P(reston) W(alter)**, U. S. Department of Agriculture, Washington, D. C. *Entomology*. Warren, Mich. April 12, 89. B.S. Mich. State Col, 12; M.S. Purdue, 17; Ph.D. George Washington, 25. Asst. entom. Mich. State Col, 09-12; Purdue, 12-17, asst. prof. 17-18; *bur. entom.*, *U. S. Dept. Agr*, 18- A.A.; Entom. Soc; Ass. Econ. Entom; Wash. Entom. Soc. Aphidae.
- Mason, Prof. S(ilas) C(heever)**, U. S. Experimental Date Gardens, Indio, Calif. *Botany*. Greensboro, Vt. April 19, 57. B.S. Kansas Col, 90, M.S. 93. Prof. hort. and forestry, Kansas Col, 93-97; Berea, 97-06; *horticulturist*, *bur. plant indust.*, *U. S. Dept. Agr*, 07- Detailed by sec'y of agr. to study the date palm in the Nile Valley, 13-14, 21-22; consulting expert date culture, Sudan Govt, 24-25. A.A.; Bot. Soc; Wash. Acad; Wash. Bot. Soc. Distribution of forest trees; arboriculture; date palm.
- Mason, Prof. Tho(mas) E(dward)**, 103 Waldron St, Lafayette, Ind. *Mathematics*. Boone Grove, Ind. Oct. 1, 83. A.B. Indiana, 05, A.M. 12, fellow, 11-14, Ph.D. 14. Instr. and assoc. prof. *math*, *Purdue*, 14-27, *prof*, 27- A.A.; Math. Soc; Math. Ass; Ind. Acad. Difference equations; number theory.
- Mason, Prof. Thomas W(illiam)**, 135 W. Prospect Ave, State College, Pa. *Chemistry*. Wilkes-Barre, Pa. Jan. 30, 84. B.S. Pa. State, 08, M.S. 12. Instr. chem. Mich. State Col, 08-09; prof. St. Olaf, 09-10; *assoc. prof. anal. chem*, *Pa. State*, 11- Consulting and anal. chemist. Chem. Soc. Analytical chemistry.
- Mason, Prof. William P(itt)**, Rensselaer Polytechnic Institute, Troy, N. Y. **Chemistry*. New York, N. Y. Oct. 12, 53. C.E. Rensselaer, 74, B.S. 77; M.D. Albany Med. Col, Union, 81; Pasteur Inst, Paris, 95; LL.D. Lafayette, 08; hon. Sc.D. Union, 17. Asst. chem. *Rensselaer*, 75-82, *prof. anal. chem*, 82-93, *chem*, 93- U. S. Assay Commission, 96. A.A. (sec'y, C, 95, v. pres, 97); Chem. Soc; Chem. Eng; Inst. Consulting Eng; Philos. Soc; Pub. Health Ass; Water Works Ass. (pres, 09); New Eng. Water Works Ass; Franklin Inst; Wash. Acad; British Sanit. Inst; hon. mem. Ass. gén. des Ingénieurs. Potable water; water for city supply; purification of water; water analysis.
- Massey, Prof. A(rthur) B(allard)**, Virginia Polytechnic Institute, Blacksburg, Va. *Botany*, *Plant pathology*. Miller's School, Va. Jan. 10, 89. B.S. N. C. State, 09; Chicago, 13. Instr. bot. Clemson, 10-13; asst. prof. Ala. Polytech, and Exp. Sta. 13-18; *assoc. prof. plant path. and bacter.*, *Va. Polytech*, 25-, Exp. Sta. 18-25. A.A.; Phytopath. Soc.
- Massey, Prof. L(ouis) M(elville)**, Cornell University, Ithaca, N. Y. *Plant pathology*. West Point, Iowa, Aug. 25, 89. A.B. Wabash, 12; Ph.D. Cornell, 16. Asst. *plant path*, *Cornell*, 12-14, *instr*, 14-16, asst. prof. 16-18, 19-22, *prof. and head dept*, 22- Plant pathologist, U. S. Dept. Agr, 18-19; Boyce Thompson Inst, 25. A.A.; Bot. Soc; Phytopath. Soc; Soc. Plant Physiol; Ecol. Soc. Diseases of florists' crops; disease resistance.

- Masson, Prof. H(enry) J(ames)**, New York University, New York, N. Y. *Chemical engineering*. New York, Dec. 24, 91. Ch.E, Columbia, 14, A.M, 16; M.S., N. Y. Univ, 15, Ph.D, 18. Instr. *chem. eng.* Columbia, 15-17; *asst. prof.*, N. Y. Univ, 17- Chem. Eng. Carbon black; printing ink; artificial silk; rubber dust collection; thermal decomposition; petroleum.
- Mast, Prof. S(amuel) O(ttmar)**, Johns Hopkins University, Baltimore, Md. **Biology*. Wash-tenaw Co, Mich, Oct. 5, 71. B.S., Michigan, 99; Ph.D, Harvard, 06; M.Pd, Mich. Nor. Col, 10. Prof. biol, Hope, 99-08; assoc. prof. biol. and prof. bot, Goucher, 08-11; assoc. prof. and *prof. zool.*, Hopkins, 11- Johnston research scholar, Hopkins, 07-08, special lecturer, 08-09. Cartwright prize, Columbia, 09. A.A.; Soc. Nat; Soc. Zool; Physiol. Soc; Phila. Acad. General physiology; reactions in lower organisms; experimental zoology; animal behavior.
- Masters, Carl L.**, Southern Dyestuffs Corporation, Nitro, W. Va. *Chemistry, Plant pathology*. Fryburg, Pa, July 25, 90. B.S., Cornell, 14. Asst, Cornell, 14-16; supt. chemist, Heller and Merz Co, 16-20; with *South. Dyestuffs Corp.*, 20-, *pres. and gen. manager*, 24- A.A.; Bot. Soc; Chem. Soc. Coal-tar intermediates; dyestuffs; azo dyes.
- Matas, Dr. Rudolph**, Tulane University School of Medicine, New Orleans, La. *Surgery*. Bonnet Carré, La, Sept. 12, 60. M.D., Tulane, 80; LL.D., Washington (St. Louis), 15; hon. Sc.D., Pennsylvania, 25; LL.D., Alabama, 26. Demonstrator anat, Tulane, 85-94, *prof. surg.*, 94-; emer. prof., New Orleans Polyclinic, 95. Visiting surgeon, Charity Hosp, 81-; chief surg. div, Touro Infirmary, 04- Lecturer, Post-Grad. Med. Sch, Chicago, 93; Jerome Cochran lecturer, Ala. State Med. Soc, 11; Mutter lecturer, Phila. Col. Physicians and Surg, 16; John Thompson Hodgen lecturer, St. Louis Surg. Soc, 21. Hon. pres, Pan-Am. Med. Cong, Washington, 95, v. pres. for La, 96. Rapporteur on Vascular Surg, Int. Med. Cong, London, 13. Henry Bigelow medallist, Boston Surg. Soc. A.A.; fel. Ass. Anat; fel. Am. Med. Ass. (chairman, surg. sect, 08); Surg. Ass. (pres, 09); Soc. Clin. Surg. (v. pres, 08-10); Soc. Exp. Biol; fel. Col. Surg. (pres, 25-26); Ass. Cancer Research; Ass. Control Cancer; Tuber. Ass; Ass. Thoracic Surg. (pres, 20); S. Surg. Ass. (pres, 11); fel. New Orleans Acad; Orleans Parish Med. Soc; New Orleans Med. Surg. Ass. (pres, 95); La. Med. Soc. (pres, 94); cor. mem. Soc. Chirurg. de Paris; hon. mem. Royal Acad. Med. Barcelona, Spain. Anatomical, experimental, statistical and chemical studies of surgery; surgical diseases of the vascular system; the cure of aneurism.
- Mateer, Dr. Florence (Edna)**, Laboratory School, Columbus, Ohio. *Psychology*. Lancaster, Pa, Dec. 6, 87. Pennsylvania, 12-13; A.M, Clark, 14, Ph.D, 16. Teacher, pub. schools, 06-10; research asst, psychol. lab, N. J. Training Sch. for Feeble-Minded Boys and Girls, 11-13; psychologist, Mass. Sch. for Feeble-Minded, 16-18; psycho-clinician, Ohio Bur. Juvenile Research, 18-21; *Lab. Sch., Columbus, and clin. practise*, 21- Psychologist, Que. Immigration Sta, 14; Peterboro Sch, 18; lecturer, Worcester Special Schools, Mass, 17-18. A.A.; Psychol. Ass; Ass. Clin. Psychol; Ass. Social Hygiene; Ohio Acad. Clinical psychology; conditioned reflexes; differential diagnosis.
- Mateer, H(orace) N(elson)**, College of Wooster, Wooster, Ohio. *Biology, Medicine*. Gettysburg, Pa, Dec. 12, 55. A.B., Princeton, 77, A.M, 80; M.D., Pennsylvania, 83; Ph.D, Wooster Col, 87. *Prof. biol.*, Wooster Col, 86- A.A.; Am. Med. Ass.
- Matheny, Dr. W(illiam) A(lderman)**, Ohio University, Athens, Ohio. *Biology*. Athens Co, Ohio, Feb. 20, 82. Ph.B., Ohio (Athens), 08; A.M, Clark, 09, Ph.D, 11. Asst. bot, Clark, 08-11; *prof. civic biol. and bot.*, Ohio (Athens), 11- Lecturer. A.A. Civic biology; plant pathology; physiological effects of alcohol.
- Mather, Prof. Kirtley F(letcher)**, Harvard University, Cambridge, Mass. **Physiography, Geology*. Chicago, Ill, Feb. 13, 88. B.S., Denison, 09; Ph.D, Chicago, 15. Instr. and asst. prof. geol, Arkansas, 11-14; assoc. prof., Queen's (Can), 15-17, prof. paleont, 17-18; geol, Denison, 18-24; assoc. prof. physiog, Harvard, 24-27, *prof. geol.*, 27-, *chairman dept. geol.*, 25- Junior geologist, asst. geologist, assoc. geologist and geologist, U. S. Geol. Surv, 11-; petrol. geologist, Bolivia and Argentina, 19-20; senior fellow seismol, Eng. Econ. Foundation. Capt, C.Eng, O.R.C. A.A.; Geol. Soc; Ass. Petrol. Geol; Paleont. Soc; Seismol. Soc; Min. Eng; Ohio Acad. (pres, 23); fel. Royal Geol. Soc. Quaternary geology of San Juan Mountains, Colorado; geology of the Alaska peninsula; oil and gas resources of Oklahoma, Kentucky, Colorado, the maritime Provinces and Bolivia; the physiography of North and South America.
- Mather, Prof. William T(ylor)**, University of Texas, Austin, Texas. *Physics*. Amherst, Mass, Sept. 2, 64. A.B., Amherst, 86, A.M, 91; Hopkins, 95-96, fellow, 96-97, Ph.D, 97. Instr, Leicester Acad, Mass, 86-87; Williston Acad, 87-93; consulting chemist, Boston, 93-94; asst. *physics*, Hopkins, 97-98; assoc. prof, Texas, 98-07, *prof.*, 07- A.A.; Physical Soc. Relative velocities of silver ions.
- Mathers, Prof. Frank C(urry)**, Indiana University, Bloomington, Ind. *Chemistry*. Bloomington, Feb. 12, 81. A.B., Indiana, 03, A.M, 05; fellow, Cornell, 06-07, Ph.D, 07. Instr. *chem.*, Indiana, 03-07, asst. prof, 07-13, assoc. prof, 13-23, *prof.*, 23- Chem. Soc; Electrochem. Soc. Atomic weight and chemistry of indium; the electro-deposition of metals from perchlorate baths; effect of addition agents in the electro-deposition of various metals; electrolytic preparation of fluorine gas; the effect of the conditions of formation and treatment upon the properties of lime and lime products.
- Matheson, Prof. Robert**, Cayuga Heights, Ithaca, N. Y. *Entomology*. West River, N. S. Can, Dec. 20, 81. B.S.A., Cornell, 06, M.S, 07, Ph.D, 11. Instr. entom, S. Dak. Col, 07-08, prof, 08-09; asst. biol, Cornell, 09-10, instr, 10-12; prof. zool. and entom, N. S. Agr. Col, 12-13; asst. prof. *entom.* and asst. entomologist, Cornell, 14-23, *prof.*, 23- State entomologist, S. Dak, 08-09. A.A.; Entom. Soc; Ass. Econ. Entom;

- Soc. Parasitol; Ont. Entom. Soc; N. S. Inst. Parasitic Arthropoda; insects in relation to disease and as vectors of pathogenic organisms.
- Mathews, Prof. A(lbert) P(rescott)**, University of Cincinnati, Cincinnati, Ohio. **Physiological chemistry*. Chicago, Ill, Nov. 26, 71. B.S. Mass. Inst. Tech, 92; Cambridge, 95; Marburg, 95-97; Ph.D, Columbia, 98. Asst. biol. Mass. Inst. Tech, 92-93; physiol. Harvard Med. Sch, 98-99; instr, med. sch, Tufts, 98-99, asst. prof, 99-00; instr, Harvard, 00-01; asst. prof. *physiol. chem*, Chicago, 01-03, assoc. prof, 04-05, prof, 05-19; *head dept, Cincinnati*, 19-Head dept. physiol. Woods Hole, 04-16. A.A; Soc. Nat; Physiol. Soc; Chem. Soc; Soc. Biol. Chem; Ecol. Soc; Wash. Acad; British Biochem. Soc; Soc. de Chim. biol; for. mem. Accad. dei Lincei. Morphology of fertilization process; physiology of secretion; chemistry of spermatozoa; chemical relations of nerves; relation between potential of ions and pharmacological action; nature of toxic and antitoxic action; the nature of stimulation in nerves; changes in protoplasm by mechanical shock; protoplasmic respiration; molecular cohesion.
- Mathews, Prof. Clarence W(entworth)**, 660 S. Limestone St, Lexington, Ky. *Horticulture*. Lawrence, Mass, Feb. 10, 61. B.S, Cornell, 91, fellow, 91. *Prof. hort. and bot*, Ky. State, 92-13; *hort, Kentucky*, 13- A.A; Pomol. Soc; Soc. Hort. Sci.
- Mathews, Prof. Edward B(ennett)**, Johns Hopkins University, Baltimore, Md. **Petrography*. Portland, Maine, Aug. 16, 69. A.B, Colby, 91; fellow, Hopkins, 93-94, Ph.D, 94. *Instr. miner. and petrog*, Hopkins, 94-95, assoc, 95-99, assoc. prof, 99-04, *prof, 04-*, *chairman geol. dept*, 17-Field asst, U. S. Geol. Surv, 91-94; asst. state geologist, Md, 98-17, state geologist, 17-; director, Md. State Weather Service, 17-; exec. officer, Md. State Board Forestry, 17-25. *Chairman div. geol. and geog*, Nat. Research Council, 19-22. A.A; Geol. Soc. (treas, 19-); Soc. Econ. Geol; Min. and Metal. Eng; Am. Acad; Wash. Geol. Soc; Wash. Acad; Md. Hist. Soc. Igneous and metamorphic rocks, especially of the Piedmont Plateau; crystalline rocks of northern and central Maryland.
- Mathews, Ferdinand Schuyler**, 17 Frost St, Cambridge, Mass. *Botany, Ornithology*. New Brighton, N. Y, May 30, 54. Cooper Inst, 73; Italy, 87. Artist, L. Prang and Co, Boston, 80-90; *bot. artist, Gray Herbarium, Harvard*, 04- *Lecturer, Ornith. Union; New Eng. Bot. Soc.* American wild flowers and wild birds; evolution of color in flowers; the nature and character of music of wild birds.
- Mathews, Prof. Hubert Berton**, South Dakota Agricultural College, Brookings, S. Dak. *Physics*. Eagle Corners, Wis, April 10, 68. B.S, S. Dak. Col, 92, M.S, 99; Nebraska, 92; Michigan, 93-95; Wisconsin, 99. Asst. chem. and physics, S. Dak. Col, 92-96, *prof. physics*, 96-99, physics and elec. eng, 99-09, *physics*, 09-, v. pres, 04-06, v. *dean faculty*, 18-, acting dean eng, 23-25.
- Mathews, Dr. John A(lexander)**, Crucible Steel Co, P. O. Box 11, Grand Central Station, New York, N. Y. **Metallurgy*. Washington, Pa, May 20, 72. B.S, Washington and Jefferson, 93, M.S, 96, hon. Sc.D, 03; A.M, Columbia, 95, fellow, 97-98, Ph.D, 98, Barnard fellow, 00-03, at Royal Sch. Mines, London, 00-01. *Instr. chem*, Columbia, 98-00; metallurgist and asst. manager, Sanderson Bros. Steel Co, 02-08; pres. and gen. manager, Halcumb Steel Co, 08-20; pres, *Crucible Steel Co*, 20-23, v. *pres. and director research*, 23- *Carnegie research scholar*, British Iron and Steel Inst, 01-02. *Chairman committee on alloy steels*, Nat. Research Council. *Carnegie gold medal*, London, 02. *Committee of aircraft engine forgings*, Bur. Aircraft Production, 18. A.A; Chem. Soc; Electrochem. Soc; Soc. Test. Mat; Min. and Metal. Eng. (chairman, iron and steel committee); Min. Eng; Iron and Steel Inst; hon. mem. Soc. Steel Treat; British Iron and Steel Inst. *Chemistry*; ferrous metallurgy; electric furnace steel processes; alloy steels; permanent magnetism.
- Mathews, Prof. J(oseph) Howard**, University of Wisconsin, Madison, Wis. **Chemistry*. Aurora, Wis, Oct. 15, 81. B.S, Wisconsin, 03, A.M, 05; A.M, Harvard, 06, Ph.D, 08. Asst. physical chem, Wisconsin, 05; instr. physical and indust. chem, Case, 06-07; *physical chem, Wisconsin*, 08-11, asst. prof, 11-17, assoc. prof, 17-19, *prof*, 19-, *chairman dept. chem. and director course*, 19- *Capt. Ordnance R.C*, major, ordnance dept, 18, lieutenant, C.W.R.S, 26- A.A; Chem. Soc; Wis. Acad; Franklin Inst. Compressibility and other properties of organic liquids; heats of vaporization; viscosity and lubrication; osmosis; phase rule; photochemistry; thermal chemistry of colloids; thermodynamical behavior of mixed solvents.
- Mathewson, Prof. C(hampton) H(erbert)**, Yale University, New Haven, Conn. *Metallurgy*. Essex, Conn, Oct. 7, 81. Ph.B, Yale, 02; Ph.D, Göttingen, 06. Asst. chem, Mass. Inst. Tech, 02-04, instr, 06-07; chem. and metallurg, Yale, 07-11, asst. prof, 11-19, *prof. metal. and metallurg*, 19- *Min. and Metal. Eng; Chem. Soc; Soc. Test. Mat; Soc. Steel Treat; Eng. Educ*; London Inst. Metals. Non-ferrous metallography; effect of cold work and annealing on the structure of metals; crystallographic fragmentation in zinc.
- Mathewson, Dr. Chester A(rthur)**, 593 S. 17th St, Flushing, N. Y. *Biology, Education*. Cincinnati, Ohio, Dec. 11, 78. B.S, A.M, M.Ed, Ph.D, Columbia; Cincinnati; Yale; Wisconsin. Asst, U. S. Forest Service, 03; asst. biol, Teachers Col, Columbia, 05-06; instr, High Sch. of Commerce, New York, 07-10; Maxwell Training Sch. for Teachers, 10-20; director lectures, Brooklyn Teachers' Ass, 20-21; head dept. biol, Cleveland Sch. of Educ, 21-22; *lecturer biol, N. Y. Univ*, 23-; *head dept. science, Maxwell Training Sch. for Teachers, Brooklyn*, 22- *Lecturer, St. John's Col*, 15; Dominican Inst, 21; Kindergarten Training Sch, N. Y. Univ, 24. A.A; Nature Study Soc. (past pres, N. Y. chap); Federation Biol. Chemists; Nat. Council Geog. Teachers; N. Y. Ass. Biol. Teachers (past pres); N. Y. Soc. Exp. Study Educ; Cincinnati Bot. Soc. (past pres). Plant embryology; biochemistry.

- Mathewson, Dr. E(dward) P(ayson)**, University of Arizona, Tucson, Ariz. *Metallurgy*. Montreal, Que, Can, Oct. 16, 64. B.App.Sc, McGill, 85, D.Sc, 20, hon. LL.D, 22. Instrument man and geologist, Dominion Can. Geol. Surv, 85-86, assayer, chemist, asst. supt. and supt, 86-89, metallurgist, 89-97; tech. staff, M. Guggenheim's Sons, U. S, Mex. and Chile, 97-02; manager, Washoe Reduction Works, Anaconda Copper Min. Co, Mont, 02-16; gen. manager, British Amer. Nickel Corp, 16-18; director and consulting metallurgist, Am. Smelting and Refining Co, 18-19; consulting metallurgist, New York, 19-26; *prof. admin. min. indust, Arizona, 26-* Manager, Int. Smelting and Refining Co, Utah and Ind, 10-13. A.A.; Electrochem. Soc; Min. and Metal. Eng. (pres, 23); Min. and Metal. Soc; Soc. Chem. Indust; London Min. and Metal. Inst; Can. Inst. Min. and Metal; Japan Min. Indust. Soc. (hon). Non-ferrous metallurgy; blast furnaces and reverberatories for smelting lead and copper ores.
- Mathewson, Prof. L(ouis) C(lark)**, Dartmouth College, Hanover, N. H. *Mathematics*. Mendon, Mich. A.B, Albion, 10, A.M, 11; Ph.D, Illinois, 14. Instr. math, high sch, Iowa, 11; *Dartmouth, 14-17, asst. prof, 18-* A.A; Math. Soc; Math. Ass; N. H. Acad. The group of isomorphisms in the theory of finite groups.
- Mátos, Rev. Walter A(ntonio)**, 309 College Ave, Swarthmore, Pa. *Astronomy, Mathematics*. Philadelphia, Pa, Oct. 31, 74. A.B, Cent. High Sch. Phila, 93. *Rector, Trinity Church, Swarthmore, 98-*; *vol. observer, Sproul Observatory, 15-* Astron. Soc; Meteor. Soc; fel. Royal Astron. Soc; British Astron. Ass. Physics; theory of light; molecular theory; radioactivity.
- Matson, Dr. George Charlton**, 1534 E. 17th Place, Tulsa, Okla. *Geology*. B.S, Doane, 00; A.M, Cornell, 03; fellow, Chicago, 04-06, Ph.D, 20. Asst. geol, Cornell, 01-03; asst. geologist and geologist, U. S. Geol. Surv, 06-16; Mex. Gulf Oil Co. and Gulf Ref. Co. of La, 16-17; Gypsy Oil Co. and S. Am. Gulf Oil Co, 17-21; *v. pres. and gen. manager, Schermerhorn Oil Co, 21-* A.A; fel. Geol. Soc; Min. and Metal. Eng; Ass. Petrol. Geol. Petroleum geology and engineering.
- Matteson, W(allace) G(eorge)**, P. O. Box 376, Center Moriches, L. I, N. Y. *Geology*. Pattersonville, N. Y, April 2, 89. B.S, Syracuse, 09; E.M, Colo. Sch. Mines, 11. Geologist, Int. Construction Co, 11; asst. chief surveyor, Santa Gertrudis Mining Co, 12; chief engineer, Mazapil Copper Co, 12; mine boss, Cananea Consol. Copper Co, 13; instr. miner. and petrol, Lehigh, 13-16; petrol. geologist, Empire Gas and Fuel Co, 16-18; *consulting petrol. geologist, 18-* A.A; Ass. Petrol. Geol; Min. and Metal. Eng. Economic geology; common features of the world's greatest silver mines; oil prospecting in the Gulf coast country; secondary intrusive origin of the Gulf coastal plain salt domes; oil; gas.
- Matthes, Francois E(mile)**, U. S. Geological Survey, Washington, D. C. **Geomorphology, Geology*. Amsterdam, Holland, March 16, 74. B.S, Mass. Inst. Tech, 95. Draftsman, city engineer's office, Rutland, Vt, 95-96; field asst, *U. S. Geol. Surv*, 96-98, asst. topographer, 98-99, topographer, 99-07, topog. inspector, 07-13, assoc. geologist, 13-17, *geologist, 17-* Austin teaching fellow, Harvard, 04-05; lecturer, Michigan, 11. Field investigations, Calif. State Earthquake Investigation Commission, 06. Chevalier, Order Leopold II, 19. A.A; Geol. Soc; Ass. Geog. (treas, 13-20); Soc. Mil. Eng; assoc. Civil Eng; Wash. Acad; Wash. Geol. Soc. (sec'y, 09-11). Glacial geology; geomorphology and glaciology of Yosemite Valley region, and southern Sierra Nevada, California; topographic delineation.
- Matthes, G(erard) H(endrik)**, 47 W. 76th St, New York, N. Y. *Hydraulics*. Amsterdam, Holland, March 16, 74. B.S, Mass. Inst. Tech, 95. Div. engineer, Pa. Water Supply Commission, 14-15; engineer, Miami Conservancy District, 15-20; U. S. asst. engineer in charge Tenn. River Surv, 20-23; *consulting engineer*, Fairchild Aerial Surveys, Inc, 23-25; *private practice, 25-* Mass. Inst. Tech. astron. exped, Sumatra, 01. Civil Eng; Soc. Mil. Eng; fel. Am. Geog. Soc. Flood control, irrigation; water power; aerial surveys.
- Matthew, Dr. W(illiam) D(iller)**, University of California, Berkeley, Calif. **Paleontology*. St. John, N. B, Can, Feb. 19, 71. B.A, New Brunswick, 89; Ph.B, Columbia, 93, A.M, 94, Ph.D, 95. Asst. paleont, Am. Museum Nat. Hist, 95-98, asst. curator, 99-01, assoc. curator, 02-10, curator, 10-22, curator-in-chief div. earth sciences, 22-27, acting curator geol, 25-26; *prof. paleont. and head dept, California, 27-* Field asst, Can. Geol. Surv, 89; N. Y. Geol. Surv, 93; U. S. Geol. Surv, 02; field exped, Am. Museum Nat. Hist, 94-26. A.A; Soc. Nat; Geol. Soc. (v. pres, 22); Paleont. Soc. (treas, 09, v. pres, 11, pres, 22); Philos. Soc; Soc. Mammal. (v. pres, 19, 24, pres, 26); fel. N. Y. Acad; N. Y. Zool. Soc; cor. mem. N. B. Nat. Hist. Soc; fel. Royal Soc; cor. mem. London Zool. Soc; Paleont. Gesell. Tertiary mammalia of western United States; evolution and migrations of Tertiary vertebrates; West Indian and Mongolian fossil mammals; paleovolcanic rocks; Cenozoic vertebrates; paleogeography and correlation.
- Matthews, C(harles) D(esmond)**, 119 Hillsboro St, Raleigh, N. C. *Horticulture*. Moberly, Mo, Feb. 29, 92. B.S.A, Missouri, 14. Exp. horticulturist, N. C. *Exp. Sta*, 15-18, *acting chief div. hort, 18-*, *chairman dept. hort, N. C. State, 18-* Soc. Hort. Sci; Pomol. Soc. Pruning; culture of peaches, apples and pecans; Irish and sweet potatoes.
- Matthews, Fred E(lwood)**, 216 Leonia Ave, Leonia, N. J. *Engineering*. Templeton, Mass, March 11, 75. B.S, Kansas, 99, E.E, 08. Refrig. engineer, Swift Packing Co, 00-06; gen. manager, Automatic Refrig. Co, Conn, 08-10; indust. engineer, Paris, 13-14; research work, mech. refrig, 15-17; *consulting refrig. engineer, 19-* Eng. div, Nat. Research Council. Asst. cold storage methods, U.S.A, 17-19. Mech. Eng; Refrig. Eng. (past director, pres, 20); N. J. Soc. Eng. The technology of mechanical refrigeration; refrigerating apparatus; fluid pressure apparatus.

- Matthews, Dr. J(oseph) Merritt**, 52 E. 41st St, New York, N. Y. *Chemistry*. Philadelphia, Pa, June 9, 74. B.S. Pennsylvania, 95, fellow, 96-98, Ph.D, 98. Prof. chem. and dyeing, Phila. Textile Sch, 98-07; *consulting expert, textile chem*, 07- Ed, 'Color Trade Jour.' A.A.; Chem. Soc. (v. pres, 01); Soc. Chem. Indust; Franklin Inst; Royal Soc. Arts; British Soc. Dyers and Colorists. Textile chemistry; compounds of halides of rare earths with various amido bodies; indigo dyeing; properties of indigo-red; mercerization of cotton; chemistry of wool fiber; shade compounding with dye-stuffs; chemistry of textile fibers.
- Matthews, Norris W(ilson)**, 609 E. 33d St, Baltimore, Md. *Chemistry*. Baltimore, Sept. 10, 98. B.Ch, 25. Chemist, Davison Chem. Co, Md, 17-20; gold platinum and palladium refiner, Baltimore Copper Works, 20-22; *first asst. chemist, Am. Sugar Ref. Co*, 22- A.A.; Chem. Soc; fel. Inst. Chem; Md. Acad. Sugar analysis.
- Mattill, Dr. Helen I(sham)**, Smallwood, Brighton Station, Rochester, N. Y. *Chemistry*. Titusville, Pa, July 14, 81. A.B, Cornell, 03, fellow, 05-06, Ph.D, 06. Asst. chem, Columbia, 03-04; lab. asst, Bur. Standards, 06-07; instr, Illinois, 07-11, assoc, 11-12; instr. nutrition, California, 18-19. Chem. Soc. Inorganic chemistry; hydronitric acid; steel analysis.
- Mattill, Prof. Henry A(ibrigt)**, University of Rochester, Rochester, N. Y. *Physiological chemistry*. Glasgow, Mo, Nov. 28, 83. A.B, Western Reserve, 06, A.M, 07; fellow, Illinois, 08-10, Ph.D, 10. Asst. chem, Illinois, 06-08; asst. prof. physiol. and physiol. chem, Utah, 10-11, assoc. prof, 11-12, prof, 12-15; asst. prof. nutrition, California, 15-19; *prof. biochem, Rochester*, 19- Major, Sanit.C. A.A.; Soc. Biol. Chem; Physiol. Soc. Influence of water drinking at meals, fasting and bathing on metabolism; nutrition; diet and reproduction.
- Mattimore, H(oratio) S(eymour)**, Pennsylvania State Department of Highways, Harrisburg, Pa. *Engineering*. Albany, N. Y. High sch. Asst. N. Y. Geol. Surv, 00-04; *material engineer*, N. Y. State Highway Commission, 07-19; *Pa. State Dept. Highways*, 19- Chairman committee on character and use of road material, highway research board, Nat. Research Council; committees on standardization of road materials, Am. Eng. Standards Committee. Civil Eng; Soc. Test. Mat. (chairman, committee on road materials, 24-26); Ass. State Highway Officials (chairman, committee on tests and investigations); Pa. Acad. Concrete materials; highway materials.
- Mattoon, W(ilbur) R(eed)**, U. S. Forest Service, Washington, D. C. *Forestry*. Harwich, Mass, Aug. 14, 75. A.B, Wesleyan, 99; M.F, Yale, 04. Forest asst, U. S. Forest Service, 04-07, forest inspector, 07-09, forest supervisor, 09-12, forest examiner, 12-22, *exten. forester*, 22- Soc. Foresters (pres, Wash. sect, 18); Ecol. Soc. Life history, reproduction, growth and yield of forest trees.
- Matz, Julius**, Central Fortuna, Fortuna, P. R. *Plant pathology*. Russia, 86. B.S, Mass. Col,
13. Asst. plant path, Fla. Exp. Sta, 13-18; chief dept. bot. and plant path, Insular Exp. Sta, P. R, 18-22; agr. research, Ingenio Porvenir, San Pedro de Macoris, D. R, 22-24; *sugar cane path. and agr. investigation, Guanica Centrale and Cent. Aguirre*, P. R, 24- Agent, bur. plant indust, U. S. Dept. Agr, 18. A.A; Phytopath. Soc. Diseases of pecan, fig, sugar cane and citrus fruits.
- Mauchly, Dr. S(ebastian) J(acob)**, Carnegie Institution, Washington, D. C. *Physics*. Swanton, Ohio, July 9, 78. Ohio State; Chicago; A.B, Cincinnati, 11, fellow, 11-13, Ph.D, 13. Instr. and head dept, high schools, Ohio, 05-14; assoc. physicist, *dept. terrestrial magnetism, Carnegie Institution*, 14-19, *chief sect. terrestrial elec*, 19- Chief, Carnegie Institution solar eclipse exped, Lakin, Kans, 18. Geophys. Union. A.A; Physical Soc; Wash. Acad. (board editors, 'Jour,' 25-26); Wash. Philos. Soc. (rec. sec'y, 19-21). Electrical conduction through gases; earth currents; atmospheric electricity.
- Maury, Miss Antonia C(oetana de P. P)**, Harvard Observatory, Cambridge, Mass. *Astro-physicis*. Cold Spring, N. Y, March 21, 66. A.B, Vassar, 87. Asst, *Harvard Observatory*, 89-96, 18- Instr, Gilman Sch, Cambridge, Mass, 91-94. Astron. Soc; Royal Astron. Soc. Classification of stellar spectra; spectroscopic binaries.
- Maury, Dr. Carlotta J(oaquina)**, 50-A Locust Hall Ave, Yonkers, N. Y. *Paleontology*. Hastings-on-Hudson, N. Y, Jan. 6, 74. Radcliffe, 91-93; Ph.B, Cornell, 96, Schuyler fellow, 98; Paris, 99-00; Ph.D, Cornell, 02. Asst. paleont, Columbia, 04-06; La. Geol. Surv, 07-09; lecturer geol, Barnard, Columbia, 09-12; prof. zool, Cape of Good Hope, 12-15; *paleontologist, Brazil Surv*, 18- Sarah Berliner fellow, 17. A.A; fel. Geol. Soc; cor. mem. Phila. Acad. The Tertiary of western Europe and of the southern United States; the molluscan fauna of New York; Pleistocene fauna of Cayuga Basin; Tertiary Mollusca of Florida and Porto Rico; recent and Quaternary Mollusca of the Gulf coast; Miocene and lower Eocene of Trinidad Island; Santo Domingan fossils and sections; Tertiary fossils of Brazil; stratigraphy of Venezuela; Miocene of Cuba; Silurian of Brazil.
- Maveety, D(onald) J(ohn)**, 85 Ninth Ave, New York, N. Y. *Chemical engineering*. Hillsdale, Mich, Aug. 23, 94. B.S, Purdue, 17, Ch.E, 22; Yale, 17-18. Metal. research, Utah Copper Co, 17-18; *chemist and production engineer, Nat. Biscuit Co*, 19- Chemist, Bur. Aircraft Production, 18-19. Chem. Soc. Baking technology.
- Maver, William, Jr**, 30 Church St, New York, N. Y. *Electrical engineering*. Forfar, Scotland, Oct. 12, 51. Private schools. Elec. expert, West. Union Telegraph Co, 80-84; elec. engineer, B. and O. Telegraph Co, 84-87; with West. Union Telegraph Co, 88; elec. engineer, Safety Insulated Wire and Cable Co, 89-90; electrician, Consol. Telegraph and Elec. Subway Co, New York, 89-96; elec. expert, N. Y. Heat, Light and Power Co, 93-97; *proprietor, Maver Publishing Co*. Fel. Elec. Eng; N. Y. Elec. Soc. The quadruplex; practical systems

- of electrical telegraphy; wireless telegraphy and telephony.
- Mavor, Prof. James W(att)**, Union College, Schenectady, N. Y. *Zoology*. Glasgow, Scotland, Dec. 13, 83. B.A., Cambridge, 05; A.M., Harvard, 10, Ph.D. 13. Lecturer science and math, King's Col. (Can), 06-07; instr. zool., Syracuse, 10-11; teaching fellow, Harvard, 12-13; instr., Wisconsin, 13-16; asst. prof. *biol.*, Union, 16-21, assoc. prof., 21-24, *prof.*, 24- Sci. investigator, Can. Biol. Board, Dept. Naval Service; curator biol. sta, Georgian Bay, 13; marine biol. sta, St. Andrews, 14. Can. fisheries exped, Gulf of St. Lawrence and Atlantic waters of Can, 15. A.A.; Soc. Zool.; Soc. Exp. Biol.; Marine Biol. Ass; Wis. Acad. Protozoology; embryology; economic fishes; Myxosporidia; hemoflagellates; corals; growth of fishes; oceanography; X-rays; genetics.
- Mawdsley, Dr. J(ames) B(uckland)**, Canadian Geological Survey, Ottawa, Ont, Can. *Geology*. Sienna, Italy, July 22, 94. B.Sc., McGill, 21; M.S., Princeton, 23, Ph.D. 24. Asst. geologist, *Can. Geol. Surv.*, 24-25, *assoc. geologist*, 25- Can. Inst. Min. and Metal. Precambrian and igneous geology.
- Maxfield, Dr. Francis N(orton)**, Ohio State University, Columbus, Ohio. *Psychology*. Sandwich, Mass, Aug. 29, 77. A.B., Haverford, 97; Ph.D., Pennsylvania, 12. Teacher, schools, 97-01; head master, Oakwood Sem, N. Y., 01-03; master science and math. and v. prin, Friends' Sch, Pa, 03-12; instr. psychol., Pennsylvania, 12-14, asst. prof., 14-18, asst. director psychol. clinic, 13-18; psychologist, pub. sch. clinic, Newark, N. J., 18-20; director special educ, Pa. State Dept. Pub. Instruction, 20-25; *prof. psychol.*, Ohio State, 25- Consultant, psychol. clinic, Pennsylvania, 22- Pa. Commission for Blind, 23-25; trustee, Pa. Sch. for Social and Health Work, 22-25. Nat. Conf. Social Work. A.A.; Psychol. Ass; Ass. Study Feeble-minded; Pub. Health Ass; Ohio Acad. Clinical psychology; mental hygiene; child psychology.
- Maximow, Prof. Alexander A(lexandrovitch)**, University of Chicago, Chicago, Ill. **Histology, Embryology, Pathology*. St. Petersburg, Russia, Jan. 22, 74. M.D., Imp. Mil. Acad. Med, St. Petersburg, 99; D.Sc., Trinity (Ireland), 12. Prof. histol. and embryol. and head dept, Imp. Mil. Acad. Med, 03-22; *prof. anat.*, Chicago, 22- Normal, pathological and experimental histology and embryology; tissue cultures.
- Maxon, Dr. William R(alph)**, U. S. National Museum, Washington, D. C. **Botany*. Oneida, N. Y., Feb. 27, 77. Ph.B., Syracuse, 98, Sc.D., 22. Aid crypt. bot, *div. plants*, U. S. Nat. Museum, 99-05, asst. curator, 05-14, *assoc. curator*, 14- A.A.; Bot. Soc; Fern Soc. (pres, 00, 01, 19-); Wash. Acad; Wash. Bot. Soc. Taxonomy of Pteridophyta, especially of tropical America.
- Maxson, Prof. Ralph N(elson)**, State University, Lexington, Ky. *Chemistry*. Westerly, R. I., Dec. 2, 79. B.S., R. I. Col, 02; Ph.D., Yale, 05. Asst. chem, Yale, 04-05; instr. gen. chem, Pa. State, 05-06; asst. prof., *Kentucky*, 06-08, *prof. inorg. chem.*, 08- Contrib. ed, 'Jour. Chem. Educ.' Inorganic chemistry.
- Maxstadt, F(rancis) W(illiam)**, 107 S. Meredith Ave, Pasadena, Calif. *Physics*. Chicago, Ill., Oct. 26, 92. M.E., Cornell, 16; M.S., Calif. Inst., 25. Designer, Otis Elevator Co, 16-17; asst. engineer, Interborough Rapid Transit Co, N. Y., 17-19; experimenter, Thomas A. Edison Lab, 19-20; *with Calif. Inst.*, 20- Thermionic rectifier; special A. C. generator.
- Maxwell, Allan D(ouglas)**, University of California, Berkeley, Calif. *Astronomy*. Woodland, Calif., Jan. 31, 01. A.B., California, 23, 23-26. James M. Goewey fellow astron, *California*, 26- Pacific Astron. Soc. Orbits of minor planets and comets.
- Maxwell, Dr. H(arold) L(ee)**, Purdue University, Lafayette, Ind. *Chemistry*. Cottage Hill, Iowa, Feb. 3, 92. B.S., 16, A.M., 17, Ph.D., 24. Instr. chem, Cornell (Iowa), 16-17; Iowa Col, 18-26; *assoc. prof. chem. eng.*, *Purdue*, 26- Base Hosp. Lab, U.S.A., 17-18. Chem. Soc; fel. Iowa Acad; Ind. Acad. Physical chemistry; metallography; paints; paint films.
- Maxwell, Dr. S(amuel) S(teen)**, University of California, Berkeley, Calif. *Physiology*. Manor Cunningham, Ireland, Aug. 4, 60. B.S., Amity, 86, M.S., 88; Hopkins, 89-90; fellow, Chicago, 95-96, Ph.D., 96. Instr. math, Amity, 86-87, prof. nat. science, 87-89; Monmouth, 90-92, biol, 92-94, 96-02; asst. *physiol.*, Harvard, 02-03, instr, 03-05; *California*, 05-07, asst. prof., 07-10, *assoc. prof.*, 10-22, *prof.*, 22-27, *emer. prof.*, 27- Summer, instr, Chicago, 96. A.A.; *Physiol. Soc*; Soc. Exp. Biol. Physiology of invertebrate nervous system; voluntary control of smooth muscle; physiology of muscular contraction and of ciliary movement; physiology of cerebral cortex; nature of nerve conduction; equilibrium functions of the labyrinth.
- May, Dr. Charles H(enry)**, 698 Madison Ave, New York, N. Y. *Ophthalmology*. Baltimore, Md, Aug. 7, 61. Col. City of N. Y., 75-77; M.D., Columbia, 83. Lecturer ophthal, N. Y. Polyclinic, 87-90; asst. surgeon, N. Y. Ophthal. and Aural Inst, 87-94; chief eye clinic and instr. ophthal, Columbia, 92-03. Ophthal. surgeon, hospitals. Co-editor, 'Annals of Ophthal,' 92-04; 'Ophthalmology,' 04; 'Am. Jour. Ophthal,' 15-23; ed, 12th edition, 'Manual Diseases of the Eye.' Ophthal. Soc; Col. Surg; Am. Acad. Ophthal; Am. Med. Ass; fel. N. Y. Acad. Med. Operations and diseases of eye; relining of socket; ophthalmoscope; illumination for self-luminous ophthalmoscope.
- May, Prof. C(larence) E(arl)**, Indiana University, Bloomington, Ind. *Chemistry*. Bloomington, March 3, 84. A.B., Indiana, 04, A.M., 05; fellow, Columbia, 07-08, Ph.D., 08. Asst. chem, *Indiana*, 03-05, instr, 05-08, asst. prof., 08-12, *assoc. prof.*, 14-26, *prof.*, 26- Asst. ed, 'Chem. Abstracts,' 07. Chem. Soc; Soc. Chem. Indust. Organic and bio chemistry.
- May, David W(illiam)**, Mayaguez, P. R. *Agriculture*. Barry, Mo, April 22, 68. B.S.A., Missouri, 94, M.S.A., 96. Asst. agr, Missouri, 96-98; sci. asst, U. S. Dept. Agr, 99-01; animal husbandman, Ky. Exp. Sta, 01-04; *director*, P. R. Exp. Sta, 04- Trustee, Univ. Porto Rico,

- 07-24. Animal husbandry; agronomy; tropical agriculture.
- May, Dr. James V(ance)**, Boston State Hospital, Dorchester Center, Boston, Mass. *Psychiatry*. Lawrence, Kans, July 6, 73. A.B. Kansas, 94; M.D. Pennsylvania, 97. Res. physician, Phila. Hosp, 97-98; acting asst. surgeon, U.S.A., 00-02; asst. physician, Binghamton State Hosp, N. Y., 02-11; supt, Matteawan State Hosp, N. Y., 11; mem, N. Y. State Hosp. Commission, 12-16; supt, Grafton State Hosp, Mass, 16-17; *Boston State Hosp*, 17- Nat. Committee for Mental Hygiene. Lieut. capt. and major, M.E.C., 11-17. Am. Med. Ass; Psychiat. Ass; Mass. Psychiat. Soc. Mental diseases.
- May, Prof. Mark Arthur**, Syracuse University, Syracuse, N. Y. *Psychology*. Jonesboro, Tenn, Aug. 12, 91. A.B. Maryville, 11; Ph.B. Chicago, 12; A.M. Columbia, 15, Ph.D., 17. *Prof. psychol*, Syracuse, 19- Inst. educ. research, Teachers Col, Columbia, 24-27; director personnel research, Syracuse, 27- Lieut. Sanit.C., 18-19. A.A.; Psychol. Ass. Personality and character tests; character education; statistics; social psychology; personnel research.
- May, Dr. Raoul M(ichel)**, Laboratoire d'Anatomie comparée, Sorbonne, Paris, 5e, France. *Zoology*. Hermosillo, Sonora, Mex, Sept. 1, 00. A.B. Stanford, 21; Hopkins, 21-22; A.M. Harvard, 23, Ph.D., 24. Parker fellow, Harvard, at Paris, 24-25; fellow, *Am. Field Service*, Paris, 25- A.A.; Soc. Zool; Entom. Soc; Hist. Sci. Soc. Experimental morphology and embryology; physiology of the nervous system.
- Mayberry, Howard R(oss)**, 711 Monroe St, Ann Arbor, Mich. *Psychology*. Somerton, Ohio, Oct. 21, 96. B.S. Ohio (Athens), 18, Ph.D., 27. Instr. psychol, Ohio (Athens), 18-19; research asst, Iowa, 19-21; *instr. psychol*, Chicago, 21-24; *Michigan*, 24- Summer, professorial lecturer, Emory, 24; exten. lecturer, Michigan, 25-26. A.A.; Mich. Acad. Experimental psychology of space perception; child psychology and anthropometry; testimony and legal evidence.
- Mayerson, Dr. H(ymen) S(amuel)**, Tulane University, New Orleans, La. *Physiology*. Providence, R. I, Sept. 10, 00. A.B. Brown, 22; Ph.D. Yale, 25. Asst. biol, Brown, 21-22; *physiol*, Yale, 22-25, *instr.* sch. med, 25-26; *Tulane*, 26- L. I. Biol. Ass. The physiological action of darkness, daylight and carbon arc radiation.
- Mayhew, Prof. Roy L(ewis)**, Louisiana State University, Baton Rouge, La. *Biology*. Washington, Iowa, July 3, 90. B.S. Iowa Wesleyan, 14; A.M. James Millikin, 17; Ph.D. Illinois, 24. Prof. biol. and head dept, Cent. Wesleyan, 17-20; prof. *zool.* and head dept. biol, Des Moines, 24-26; *asst. prof*, *La. State Univ*, 26- A.A.; Soc. Parasitol; Iowa Acad. Vertebrate morphology; parasitology.
- Maynard, Charles J(ohnson)**, West Newton, Mass. *Ornithology*. West Newton, May 6, 45. Pub. schools. *Instr. econ. bird study*, Mass. Col. Six exploring expeditions to Bahamas. Boston Soc. Nat. Hist; Newton Soc. Nat. Hist. Sponges; Cerionidae; anatomy of birds; vocal organs of talking birds; evolution and recession of species.
- Maynard, J(ulian) Lewis**, University of Minnesota, Minneapolis, Minn. *Organic chemistry*. Cincinnati, Ohio, April 9, 96. Charlotte Elizabeth Proctor fellow, Princeton, 22; A.B. Cincinnati, 23. Asst. chem, Cincinnati, 16-17; Minnesota, 18-20; chief chemist, intermediate lab, Pub. Health Inst, Chicago, 23; asst. chem, Princeton, 21-22; *instr.* *Minnesota*, 23- Research chemist, C.W.S., U.S.A., 18. A.A.; Chem. Soc. Organic compounds of mercury; qualitative analysis of the metals.
- Maynard, Dr. L(eonard) A(mby)**, New York State College of Agriculture, Ithaca, N. Y. *Agricultural chemistry*. Hartford, N. Y., Nov. 8, 87. A.B. Wesleyan, 11; fellow, Cornell, 14-15, Ph.D., 15. Asst. chem, Iowa Exp. Sta., 11-12; R. I. Exp. Sta., 12-13; asst. prof. *animal husbandry*, N. Y. State Col. Agr, Cornell, 15-19, *prof*, 20- Lieut. capt. and major, 17-19. A.A.; Chem. Soc; Soc. Exp. Biol; Soc. Animal Production. Animal nutrition.
- Maynard, Dr. Poole**, Atlanta, Ga. *Geology*. Baltimore, Md, Feb. 15, 83. A.B. Hopkins, 05, Ph.D., 09. Asst. geol, Hopkins, 05-08; asst. state geologist, Ga. Geol. Surv, 09-12; consulting geologist, City of Georgia Ry, 12-24; *industrial geologist*, 24- Md. and Va. Geol. Surveys, 05-09; U. S. Geol. Surv, 07. Fel. Geol. Soc; Paleont. Soc; Min. Eng; Ceramic Soc; Electrochem. Soc; Ass. Pulp and Paper Indust. Buckingham-Fluvanna slate district of Virginia; Corrigan formation of Maryland; limestones, slates and cements of Georgia; stratigraphy of northwest Georgia; white rock phosphates of Tennessee; paleontology of the lower Devonian deposits of Maryland; commercial minerals of Georgia and Alabama.
- Mayne, Dr. Bruce**, Room 118, Court House, Memphis, Tenn. *Medical entomology*. London, Eng, July 25, 82. B.S. California, 08, M.S., 10; certificate, London Sch. Trop. Med; D.P.H., Georgia, 25. Field asst. entom, California, 06-07; tech. asst, plague lab, U. S. Pub. Health Service, 08-10; entomologist, Vet. Corps, Bur. Science, P. I., 10-14; *biologist*, U. S. Pub. Health Service, 14-, *assoc. sanitarian and assoc. entomologist*. Demonstrator, London Sch. Trop. Med; lecturer, Philippines, Tennessee, U. S. Pub. Health Service, Georgia. Nat. Malaria Commission. A.A. Bionomics of insects affecting the health of man; infectivity of insects relative to transmission of bubonic plague, trypanosomiasis, anthrax and malaria; insect-borne diseases.
- Mayo, Dr. Charles Horace**, Rochester, Minn. *Surgery*. Rochester, July 19, 65. M.D. Northwestern, 88, A.M., 04, LL.D., 21; LL.D., Maryland, 09, Kenyon, 16, Edinburgh, 25, Queen's (Ireland), 25; Sc.D. Princeton, 17, Pennsylvania, 25; M.Ch. Trinity (Ireland), 25. *Surgeon*, *Mayo Clinic (St. Mary's Hosp)*, 12-; *prof. surg. med. sch.* *Minnesota*, and *grad. sch.* *Mayo Foundation*. Health officer, Rochester, 12-; founder, Mayo Foundation, Minnesota, 15. Sci. delegate in U. S. 'Gaceta Med. Española.' Elector, Hall of Fame, 20. D.S. medal, 20. Légion d'honneur,

- 25; officier de l'Instruction pub, 25. Col. and chief consultant, M.C., 17-19, brig-gen, M.O.R.C., 21- Pres, surg. sect, Int. Cong. Tuber, Washington, 08; pres, Clin. Cong. Surg., 14-15. A.A.; Surg. Ass; fel. Col. Surg. (regent, 13-, pres, 24); Am. Med. Ass. (pres, 16); Soc. Clin. Surg. (pres, 11); Ass. Mil. Surg; Int. Soc. Sci; Nat. Dental Ass; West. Surg. Ass. (pres, 04); S. Surg. Ass; Minn. Med. Ass. (pres, 05); Int. Soc. Surg; hon. mem. Ass. Surg. Gt. Britain and Ireland; fel. Royal Soc. Med; fel. Royal Col. Surg. England; fel. Royal Col. Surg. Ireland; hon. mem. Royal Acad. Med. Ireland; hon. mem. Royal Acad. Med. Madrid; hon. mem. Serbian Med. Soc; hon. mem. Peruana de Cirujia; hon. mem. Faculty El Inst. Med. Balenciano.
- Mayo, Dr. M(arion) J(udson)**, Harris Teachers College, St. Louis, Mo. *Psychology*. Prestonsburg, Ky, March 1, 71. A.B., Lebanon, 94; fellow, N. Y. Univ, 01-03, A.M., Pd.D., 04; Ph.D., Columbia, 13. Prof. math, E. Texas Nor. Col, 94-01; teacher psychol, Pa. State Nor. Sch, Stroudsburg, 03-04; *teacher math, high schools*, N. Y., 05-16; *psychol, Harris Teachers Col*, 16- Psychol. Ass. Race psychology; educational psychology.
- Mayo, Dr. William J(ames)**, Mayo Clinic, Rochester, Minn. *Surgery*. Le Sueur, Minn, June 29, 61. M.D., Michigan, 83, A.M., 99, Sc.D., 08; M.D., Dublin; Sc.D., Harvard, Leeds, Columbia; LL.D., Toronto, 06, Maryland, 07, Pennsylvania, 12, McGill, Pittsburgh. *Surgeon and chief staff, Mayo Clinic (St. Mary's Hosp)*. Regent, Minnesota, 07; founder, Mayo Foundation, 15. Gold medal, Nat. Inst. Social Sciences; Henry Jacob Bigelow medal, Boston Surg. Soc; D.S. medal, 19. Col. and chief consultant, surg. services, U.S.A., 17-19, brig-gen, M.O.R.C., 21. Cong. Physicians and Surg. (pres, 25). A.A.; Surg. Ass. (pres, 13); Soc. Clin. Surg. (pres, 11); fel. Col. Surg. (pres, 17-20); Am. Med. Ass. (pres, 05); Minn. Med. Soc. (pres, 95-11); fel. Royal Col. Surg; fel. Royal Soc. Med; fel. Royal Col. Surg. Ireland; hon. mem. Ass. Surg. Gt. Britain and Ireland; fel. Edinburgh Royal Col. Surg; hon. mem. Edinburgh Medico-Chirurg. Soc; hon. mem. Soc. nat. de Chirurg. de Paris; hon. mem. Roma Reale Accad. Med; cor. mem. Bologna Medico-Chirurg. Soc; Copenhagen Med. Soc; hon. mem. Serbian Med. Soc; hon. mem. Soc. Peruana de Cirujia; hon. mem. Soc. Cirujia de Buenos Aires; hon. mem. Acad. N. de Med. Mex; hon. mem. Acad. N. de Med. Buenos Aires; hon. mem. Soc. de Cirujia de Guadalajara.
- Mazyck, W(illiam) G(aillard)**, Equitable Building, Charleston, S. C. *Conchology*. Cordesville, S. C. Oct. 12, 46. Ry. work, 62-64; librarian, Charleston Library Soc, 65-68; ry. work, 69-95; *sec'y and treas, Equitable Fire Ins. Co*, 95- Hon. curator conchol, Charleston Museum, 06- Elliott Soc. (sec'y and treas); S. C. Huguenot Soc. (v. pres, 27-). Pulmonata geophila; Pulmonata; Mollusca of South Carolina; local history.
- Mead, Dr. A(lbert) D(avis)**, 283 Wayland Ave, Providence, R. I. *Zoology, Comparative anatomy*. Swanton, Vt, April 15, 69. A.B., Middlebury, 90, Sc.D., 16; A.M., Brown, 91; Clark, 91-92; Ph.D., Chicago, 95; Sc.D., Pittsburgh, 12. Instr. *comp. anat*, Brown, 95-96, assoc. prof, 96-00, *prof*, 00-, v. *pres*, 26- R. I. Commission of Inland Fisheries; Biol. Board, 08- Prizes, Int. Fishery Cong, 08. A.A.; Soc. Nat. (sec'y, 00, 01); Soc. Zool; Am. Acad; cor. mem. Seefischerei Verein. Embryology; fertilization and cleavage of egg; natural history of marine invertebrates; rate of growth of marine invertebrates; artificial culture of marine food animals.
- Mead, Brian**, Humble Oil and Refining Co, Houston, Texas. *Chemistry*. Totnes, Eng, Aug. 31, 96. Am. fellow, Imp. Col. Sci, 21; M.S., Mass. Inst. Tech, 22. Research assoc. applied chem, Mass. Inst. Tech, 23-26, instr. applied colloid chem, 24-26; *Humble Oil and Ref. Co*, 26- Chem. Soc; Inst. Chem; assoc. London Inst. Chem. Colloid chemistry; oxidation of oils, rubber and benzaldehyde; antoxidation; emulsions.
- Mead, Prof. Cyrus D(eWitt)**, University of California, Berkeley, Calif. *Education*. Spencer, Ind, Nov. 4, 75. Ph.B., De Pauw, 98; fellow, Columbia, 10-12, A.M., 12, Ph.D., 14. Teacher and prin, schools, 99-04; prin, Ind. Sch. for Feeble-Minded Youth, 04-10; asst. prof. *elementary educ*, Cincinnati, 12-18; *assoc. prof, California*, 18- Nat. Conf. Educ. Method. Nat. Soc. Study Educ; Soc. Col. Teachers Educ. The relation of physical and mental traits; the learning process in arithmetic; spelling, writing, English and reading.
- Mead, Dr. Elwood**, Bureau of Reclamation, Department of the Interior, Washington, D. C. *Irrigation engineering*. Patriot, Ind, Jan. 16, 58. B.S., Purdue, 82, M.S., 84, hon. D.Eng, 04; C.E., Iowa Col, 83; LL.D., Michigan, 25. Prof. irrig. eng, Colo. Agr. Col, 83-85, 86-88; asst. state engineer, Colo, 85-86; state engineer, Wyo, 88-98; chief irrig. investigation, U. S. Dept. Agr, 98-07; chairman, State Water Supply Commission, Victoria, Australia, 07-15; consulting engineer, Dept. Interior, 15-19; prof. rural institutions, California, and chairman, State Land Settlement Board, 15-23; commissioner reclamation, bur. reclamation, Dept. Interior, 23-24. Prof, California, 99-06. Civil Eng; Eng. Educ. Irrigation engineering; irrigation laws; rural development.
- Mead, Prof. G(eorge) H(erbert)**, University of Chicago, Chicago, Ill. *Philosophy*. South Hadley, Mass, Feb. 27, 63. A.B., Oberlin, 83; A.B., Harvard, 88. Instr. *philos*, Michigan, 91-93, asst. prof, 93-94; *Chicago*, 94-02, assoc. prof, 02-07, *prof*, 07- A.A.; Psychol. Ass. Relation of philosophy to the natural sciences; social psychology; the social nature of intelligence.
- Mead, H(arold) T(upper)**, Yale University, New Haven, Conn. *Zoology*. Bakersfield, Vt, Nov. 1, 81. A.B., Yale, 07; M.S., Chicago, 13. Prof. biol. and geol, Dak. Wesleyan, 13-16; instr. micros. anat, Colorado, 17-18; *prof. zool*, Tulane, 18-25; *asst, Yale*, 25- A.A.; Ass. Anat; Micros. Soc; S. Dak. Acad; La. Entom. Ass; New Orleans Acad; New Orleans Zool. Ass. (director, 19-25). The intestine of amphibians; Arthropoda; interstitial glands of mammals.

- Mead, Miss Margaret**, American Museum of Natural History, New York, N. Y. *Anthropology*. Philadelphia, Pa., Dec. 16, 25. A.B., Barnard, 23; A.M., Columbia, 24. Asst. to Prof. W. F. Ogburn, Barnard, Columbia, 23-25; Nat. Research Council fellow, and assoc., Bishop Museum, Honolulu, 25-26; *asst. curator ethol*, *Am. Museum Nat. Hist.*, 26- Anthrop. Ass; Ethnol. Soc. Cultural stability in Polynesia; psychological tests and linguistic ability.
- Mead, Prof. W(arren) J(udson)**, University of Wisconsin, Madison, Wis. **Geology*. Plymouth, Wis., Aug. 5, 83. B.S., Wisconsin, 06, A.M., 08, Ph.D., 26. Asst. instr., asst. prof., assoc. prof. and *prof. geol*, *Wisconsin*, 06- A.A.; Geol. Soc.; Soc. Econ. Geol.; Min. Eng. Metamorphic, economic and structural geology.
- Meade, Prof. DeVoe**, University of Maryland, College Park, Md. *Agriculture*. Clyde, N. Y., Aug. 26, 86. B.S., Pa. State, 11; Ph.D., Cornell, 18. Agriculturist, high sch., Minn., 11-12; in charge dairy and animal husbandry departments, N. Y. State Sch. Agr., Alfred, 12-14; instr. animal husbandry, Cornell, 14-18; *prof. and head dept*, *Maryland*, 18-25, *dairy and animal husbandry*, 25- Soc. Animal Production. Breeding; genetics; farm management.
- Meade, George P(eterkin)**, Colonial Sugars Co., Gramercy, La. *Chemistry*. Cumberland, Md., Dec. 26, 83. B.S., N. Y. Univ., 05, Ch.E., 21. Chief chemist, Nat. Sugar Refinery, 06-09; chief chemist and asst. supt., Colonial Sugar Co., 09-13; supt., Cardenas Refinery, and director control lab., Cuban-Am. Sugar Co., 13-22, manager, 22-23; *gen. supt.*, *Colonial Sugars Co.*, 23-Eighth Int. Cong. Applied Chem. (sugar committee). A.A.; Chem. Soc.; Chem. Eng.; N. Y. Chemists Club. Sugar analysis and refining; action of disinfectants on sugar solutions; Hess-Ives tint-photometer; youthful achievements of great scientists.
- Meade, Richard K(iddler)**, 10 W. Chase St., Baltimore, Md. *Chemistry*. Charlottesville, Va., Nov. 28, 74. Virginia, 92-94; B.S., Lafayette, 99, hon. M.S., 08. Chemist, Longdale Iron Co., 96-97; instr. chem., Lafayette, 97-02; chief chemist, Edison Portland Cement Co., 02-03; Dexter Portland Cement Co., 03; ed., 'The Chem. Engineer,' 04-10; director, Meade Test Laboratories, 07-11; v. pres., Fuller Eng. Co., 09-11; gen. manager, Tidewater Portland Cement Co., 11; *consulting chem. engineer*, 13- Chem. Soc. (sec'y, Lehigh Valley sect., 98-); Chem. Eng. (auditor, 08, v. pres., 14); Mech. Eng. (v. pres., Baltimore sect., 24); Electrochem. Soc. Methods of volumetric analysis; technical analysis and chemistry of Portland cement; chemical composition of and causes of the setting of hydraulic cements; potash; lime; hydrated lime; barium compounds; designing and building chemical plants.
- Meader, Dr. F(red) M(arlin)**, Department of Health, Detroit, Mich. *Preventive medicine*. North Haverhill, N. H., Jan. 28, 76. B.S., Wesleyan, 02, M.S., 05; M.D., Hopkins, 09. Instr. path. and bacter., Syracuse, 09-10, asst. prof., 10-11, assoc. prof., 11-12, prev. med. and hygiene, 12-14; director div. communicable diseases, N. Y. State Dept. Health, 14-20; assoc. epidemiol. sch. hygiene and pub. health, Hopkins, 20; *director med. services*, *Dept. Health*, *Detroit*, 20- Major, M.C., 17-19. Am. Med. Ass; Soc. Bact; Pub. Health Ass. Public health; carriers of disease; bactericidal properties of sunlight.
- Meakins, Prof. J(onathan) C(ampbell)**, Royal Victoria Hospital, Montreal, Que., Can. *Medicine*. Hamilton, Ont., May 16, 82. M.D., C.M., McGill, 04; LL.D., Edinburgh, 27. Asst. med., Hopkins, 06-07; res. pathologist, Presb. Hosp., 07-10; asst. physician, Royal Victoria Hosp., 10-11; lecturer med. and path., McGill, 11-19, director exp. med., 13-19; Christison prof. therapist, Edinburgh, 19-24; *prof. med. and director dept*, *McGill*, *physician-in-chief*, *Royal Victoria Hosp.*, and *director univ. clinic*, 24- Am. Physicians; Soc. Clin. Invest; fel. Royal Soc. Can; British Physiol. Soc; fel. Edinburgh Royal Col. Physicians; fel. Royal Soc. Edinburgh. Clinical medicine.
- Means, A(ian) H(ay)**, 5522 Kenmore Ave., Chicago, Ill. *Geology, Mining engineering*. Peru, Ill., Jan. 22, 90. B.S., Mass. Inst. Tech., 13, M.S., 14. Asst. to Dr. W. Lindgren, 15; geologist, Tonapah Co., 17; Am. Smelting and Ref. Co., 15-16, 19-21; Int. R. C. A., 22-23; Premier Gold Mining Co., Ltd., 23-24; Abangarez Gold Fields, Costa Rica, 24-25; chief geologist, North. Peru Mining and Smelting Co., 25-26. Min. and Metal. Eng; Min. and Metal. Soc. Economic geology; mineralogy; tourmaline bearing gold quartz veins of Michipicoten district, Ontario; ore deposits of Red Cliff, Colorado; mineral occurrences of the Tintie district, Utah.
- Means, C(harles) M(errill)**, 2329 Oliver Building, Pittsburgh, Pa. *Electrical engineering*. Punxsutawney, Pa., Sept. 29, 69. Private tutors. Elec. engineer, Pa. Ry., 88-97; Rochester and Pittsburgh Coal and Iron Co., 97-99; Jefferson Traction Co., 99-00; Rochester and Pittsburgh Coal and Iron Co., 00-11; *consulting engineer*, Randolph-Means Co., 11-17; *Charles M. Means Co.*, 17- Consulting elec. engineer, U. S. Bur. Mines; Pa. Dept. Mines. Elec. Eng. Electricity in coal mining.
- Means, Dr. James H(oward)**, 15 Chestnut St., Boston, Mass. *Medicine*. Dorchester, Mass., June 24, 85. A.B., Harvard, 07, M.D., 11. H. P. Walcott fellow, Harvard, 13-16, teaching fellow med., *Harvard Med. Sch.*, 16-18, instr., 19-21, asst. prof., 21-24, *Jackson prof. clin. med.*, 24-; assoc. med., *Mass. Gen. Hosp.*, 17-24, *chief med. services*, 24- From lieut. to major, M.C., 17-19. A.A.; Am. Med. Ass; Am. Physicians; Soc. Clin. Invest; Tuber. Ass; Ass. Mil. Surg; Gorgas Mem. Inst. Trop. and Prev. Med; Mass. Med. Soc; Boston Soc. Nat. Hist. Respiratory metabolism in disease; functional pathology of the respiratory and circulatory systems; diseases of the thyroid gland.
- Means, Prof. Karl S(tone)**, Milligan College, Milligan College, Tenn. *Chemistry*. Morristown, Ind., Jan. 2, 92. A.B., Butler, 14; fellow, Indiana, 14-15, A.M., 15; Ph.D., Chicago, 24. Instr. chem., high sch., Ind., 16-17; asst. prof., Butler, 17-20; asst., Chicago, 20-22; asst. prof.,

- Mich. Col. Mines, 22-26; *prof.*, *Mulligan Col.*, 26-Chem. Soc. Electro-deposition of antimony; saponification of ethyl formate.
- Means, Philip Ainsworth**, Stockbridge, Mass. *Anthropology*. Boston, Mass, April 3, 92. A.B., Harvard, 15, A.M., 16. Asst. Yale exped, Peru, 14-15; *hon. collaborator archeol.*, *U. S. Nat. Museum*, 16-; special investigator, Peru, Wonalancet Cotton Co, 19-20; director, Nat. Museum Archeol., Lima, Peru, 20-21; *assoc. anthrop.*, *Peabody Museum, Harvard*, 21- A.A.; *Anthrop. Ass.*; *Am. Geog. Soc.*; *N. Y. Cortes Soc.* (councilor); *Royal Anthropol. Inst.*; *Royal Geog. Soc.*; *London Royal Inst.*; *Lima Geog. Soc.* History, anthropology and sociology of the Hispanic-American countries; races in Peru.
- Means, Tho(ma)s H(erbert)**, 216 Pine St, San Francisco, Calif. *Geology*. Waterford, Va., Nov. 15, 75. B.S., George Washington, 98, M.S., 01. In charge west. div. soil surv., U. S. Dept. Agr., 99-01, soil surv., 02, alkali land reclamation, 03-04, engineer soils, U. S. Reclamation Service, 04-07, project engineer, 08-10; *practising agr. engineer*, 10- A.A.; *Civil Eng.* Agricultural geology; drainage of irrigated districts; agricultural engineering.
- Mears, Dr. Brainerd**, Williams College, Williamstown, Mass. *Chemistry*. Amherst, Mass., Jan. 17, 81. A.B., Williams, 03, A.M., 05; fellow, Hopkins, 07-08, Ph.D., 08. Asst. chem., Williams, 03-06; instr., Illinois, 08-09; *Williams*, 09-10, asst. prof., 10-17, *prof.*, 17- A.A.; *Chem. Soc.*; *Electrochem. Soc.*; *Chem. Gesell.* Osmotic pressure.
- Mease, R(alph) T(heodore)**, 1010 Sigsbee Place, N. E., Washington, D. C. *Chemistry*. Onset, Pa., Jan. 31, 95. A.B., 20. Asst. chemist, div. chem., *Bur. Standards*, 24- Rubber and asbestos materials.
- Mecklin, Prof. John M(offatt)**, Dartmouth College, Hanover, N. H. *Psychology*. Winona, Miss., Jan. 21, 71. A.B., Southwestern Presbyterian, 90, A.M., 92; *Union Theol. Sem.* (Va.), 92-94; B.D., Princeton, 96; Berlin; Marburg; Munich; Ph.D., Leipzig, 99; *Am. Sch. Classical Studies*, Athens, 99-00; fellow, Hopkins, 00-01; *hon. LL.D.*, Southwestern, 25. Instr., Lafayette, 01-02; *prof.* Greek, Washington and Jefferson, 02-05; *philos.*, Lafayette, 05-13; Pittsburgh, 13-19; *sociol.*, *Dartmouth*, 19- Summers, lecturer, Columbia, 14, Indiana, 19. A.A.; *Sociol. Soc.*; *West. Philos. Ass.* Social psychology and ethics; psychology of religion; race friction; survival value of Christianity.
- Meckstroth, G(ustav) A(dolph)**, University of Illinois, Urbana, Ill. *Plant pathology*. New Knoxville, Ohio, Aug. 10, 89. A.B., Ohio State, 14, A.M., 15. Asst. bot. Pa. State, 16-17; sci. asst. plant path., bur. plant indust., U. S. Dept. Agr., 17-20, asst. pathologist, 20-25; *pathologist*, *Ill. State Dept. Agr.*, 25- A.A.; *Phytopath. Soc.* Fusarium disease of potatoes and wilt of watermelons.
- Medalia, Dr. Leon S(amuel)**, 78 Bay State Road, Boston, Mass. *Pathology*. Palestine, Turkey, Dec. 5, 81. M.D., Tufts, 05. Instr. path. and bacter., Tufts, 05-10; *research and private practise*. Major, M.C., and chief lab. and infectious disease service, 17-19, lieut. col., M.B.C. A.A.; *Am. Med. Ass.*; *Pub. Health Ass.*; *Soc. Bact. Bacteriology*; hemolytic streptococcus and puerperal septicemia; therapeutic immunization; tubercle bacillus; pyorrhea; influenza; meningitis; pneumonia; hydrogen-ion concentration.
- Medes, Prof. Grace**, University of Minnesota Medical School, Minneapolis, Minn. *Physiological chemistry*. Keokuk, Iowa, 87. A.B., Kansas, 04, A.M., 13; A.M., Ph.D., Bryn Mawr, 16. Instr. zool., Vassar, 16-19, asst. prof. physiol., 19-22; *assoc. prof.*, Wellesley, 22-24; asst. prof. physiol. chem., med. sch., *Minnesota*, 24-26, *research chemist*, *dept. med.*, 26- A.A.; *Chem. Soc.*; *Soc. Exp. Biol.* Mineral metabolism.
- Medlar, Prof. E(dgar) M(atthias)**, University of Wisconsin, Madison, Wis. *Pathology*. Ohio, Wabr., March 9, 87. B.S., Doane, 08; fellow, Nebraska, 09-11, A.M., 11; M.D., Harvard, 13. Asst. path., Boston City Hosp., 13-17; *pathologist*, Univ. Hosp., Iowa, 19-22; director, Hege-man Research Lab., N. Y., 22-24; *assoc. prof. path.*, *Wisconsin*, 24- M.C., U.S.A., 17-19. Ass. Path. and Bact. Measles; tuberculosis.
- Meek, Dr. Lois Hayden**, 1634 Eye St, N. W., Washington, D. C. *Education*. Washington, Oct. 19, 91. A.B., George Washington, 21; A.M., Columbia, 22, fellow, 22-23, Grace Dodge fellow, Ph.D., 24. Teacher, pub. schools, Washington, D. C., 12-17, demonstration teacher and supervisor, 17-21; asst. educ., Teachers Col., Columbia, 22-23; *educ. secretary*, *Am. Ass. Univ. Women*, 24- A.A.; *Nat. Soc. Study Educ.*; *Psychol. Ass.*; *Acad. Polit. Sci.* Learning of young children; materials for parental education.
- Meek, Prof. Walter J(oseph)**, 2015 Chadbourne Ave, Madison, Wis. **Physiology*. Dillon, Kans., Aug. 15, 78. A.B., Kansas, 02; A.M., Penn (Iowa), 07; Ph.D., Chicago, 09. Prof. biol., Penn (Iowa), 03-08; instr. *physiol.*, *Wisconsin*, 08-10, asst. prof., 10-12, *assoc. prof.*, 12-18, *prof.*, 18-, *assoc. dean med. sch.*, 20- Major, C.W.S., 18-19. A.A.; *Physiol. Soc.* (councilor, 15, sec'y, 23-). Peripheral nervous system; fibrinogen; cardiac physiology; blood volume; X-ray studies of circulation.
- Meeker, Prof. G(eorge) H(erbert)**, University of Pennsylvania, Philadelphia, Pa. *Physics, Chemistry*. Phillipsburg, N. J., Aug. 13, 71. B.S., Lafayette, 93, M.S., 95, Ph.D., 98, LL.D., 25; LL.D., Ursinus, 05; *Phar.D.*, *Medico-Chirurg. Col. Phila.*, 06; D.D.S., 07; Munich, 09-10; Sc.D., Villanova, 13. Chemist and manager chem. industries, 93-02; *consulting toxicologist*, 97-; *prof. chem.*, *Medico-Chirurg. Col. Phila.*, 97-16, *dean dept. pharmaceut. chem.*, 07-16; *prof. chem. and biochem.*, *Pennsylvania*, 16-, *dean grad. sch. med.*, 18- Staff biochemist, Phila. Gen. Hosp. Medal, Franklin Inst., 06. A.A.; *Chem. Soc.*; *Franklin Inst.*; *Phila. Path. Soc.* Molecular physics; applied electricity; analytical chemistry; molecular constitution of liquids; chemical technology.
- Meeker, R(obert) A(nderson)**, New Jersey State Highway Department, Trenton, N. J. *Engineering*. Plainfield, N. J., Sept. 25, 54. B.S., 75;

- M.S., 78; C.E., 91. State highway engineer, N. J. *State Highway Dept.*, 00-18, right of way engineer, 21- Civil Eng. (pres, Newark chap, 21); Road Builders Ass. (director, 03-). Highway design, construction and maintenance.
- Mees, Pres. C(arl) L(eo)**, Rose Polytechnic Institute, Terre Haute, Ind. *Physics*. Columbus, Ohio, May 20, 53. Ohio State, 73-74; M.D., Starling Med. Col, 74; Berlin and South Kensington, 80-81; Ph.D., Rose, 92. Prof. physics, high sch, Ky, 76-80; Ohio (Athens), 81-87; Rose, 87-20, pres, 95-20, emer. pres, 20- A.A. (sec'y, A, 87, gen. sec'y, 89, v. pres, 96, 20); Physical Soc; Eng. Educ; Elec. Eng. (pres); Cent. Ass. Sci. and Math. Teachers; Ind. Acad. Micro-measurements; elastic behavior of solids; velocity of air in tornadoes; electrolysis; electromotive force constant.
- Mees, Dr. C(harles) E(dward) Kenneth**, Eastman Kodak Co, Rochester, N. Y. **Photography*. Wellingborough, Eng, May 26, 82. B.S., London, 03, D.Sc., 06; hon. Sc.D., Rochester, 21. Managing director, Wratten and Wainwright, Ltd, Eng, 06-12; director research lab, Eastman Kodak Co, 12-, research and develop, 18-, director, Eastman Kodak Co, 23- Progress medal, Royal Photog. Soc, 13; John Scott award, 21; Janssen medal, 24. Sec'y, Am. committee, Int. Cong. Photog, 25. A.A. (committee of one hundred); Optical Soc; Physical Soc; Astron. Soc; Chem. Soc; Motion Picture Eng; Royal Photog. Soc. (v. pres, 12); Royal Astron. Soc; London Chem. Soc; hon. mem. Soc. de Photog. Photographic theory.
- Meggers, Dr. William F(rederick)**, 2904 Brandywine St, Washington, D. C. *Physics*. Clintonville, Wis, July 13, 88. A.B., Ripon, 10; A.M., Wisconsin, 16; Ph.D., Hopkins, 17. Instr. physics, Ripon, 10-11; Wisconsin, 11-12; Carnegie Inst. Tech, 12-14; physicist, Bur. Standards, 14- A.A.; Physical Soc; Optical Soc; Astron. Soc; Wash. Philos. Soc; Wash Acad. Spectroscopy; astrophysics; photography; measurements of standard wave-lengths; analysis of spectral structures.
- Megrail, Dr. Emerson**, 2109 Adelbert Road, Cleveland, Ohio. *Hygiene, Bacteriology*. Greensprings, Ohio, June 4, 90. A.B., Western Reserve, 12, M.D., 15, A.M., 22. Instr. *hygiene and bacter, sch. med, Western Reserve*, 19-22, senior instr, 22-24, asst. prof, 24- Fel. Am. Med. Ass; Soc. Bact; fel. Pub. Health Ass; Soc. Exp. Biol; Cleveland Acad. Med. (sec'y, exp. med. sect, 25). Diphtheria; typhoid group.
- Meharg, Virgil E(dward)**, 230 Grove St, Bloomfield, N. J. *Chemistry*. Texas, Oct. 20, 97. A.B., Rice, 18; M.S., Northwestern, 21. Chemist, Sanit. Dist, Chicago, 21-22; research, *Bakelite Corp*, 22- Organic chemistry; catalysis.
- Mehl, Dr. Maurice G(oldsmit)**, University of Missouri, Columbia, Mo. *Paleontology, Geology*. Burlingame, Kans, Dec. 25, 87. B.S., Chicago, 11, fellow, 12-13, Ph.D., 14. Instr. paleont, Chicago, 12-13; paleont. and geol, Wisconsin, 13-15; prof. *geol*, Oklahoma, 15-17; acting prof, Denison, 18-19; *Missouri*, 19- A.A.; Paleont. Soc; Geol. Soc. Petroleum geology; fossil Reptilia and Amphibia.
- Mehl, Dr. Robert F(ranklin)**, 37 Wendell St, Cambridge 38, Mass. *Physical chemistry*. Lancaster, Pa, March 30, 98. B.S., Franklin and Marshall, 19; Procter fellow, Princeton, 22-23, Ph.D., 24. Prof. *chem*, Juniata, 23-25; *Nat. Research Council fellow, Harvard*, 25- Chem. Soc. Physical chemistry of metal systems; heterogeneous equilibria; preparation of pure alloys; the properties of solid solutions.
- Meier, F(red) C(ampbell)**, U. S. Department of Agriculture, Washington, D. C. *Plant pathology*. Riggston, Ill, April 5, 93. B.S., Harvard, 16, A.M., 17. Austin teaching fellow, Harvard, 16-18; asst. pathologist, bur. plant indust, U. S. Dept. Agr, 18-19, pathologist, bur. agr. econ, 19-21, bur. plant indust, 21-22, *exten. pathologist, office coop. exten. work*, 22- Phytopath. Soc; Wash. Bot. Soc. Diseases of cucurbits; diseases of fruits and vegetables in transit and storage.
- Meier, Prof. Henry**, Sanger, Calif. *Astronomy*. Zurich, Switzerland. A.B., George Washington, 81; Hopkins, 81-82; A.M., Ph.D., Wooster, 98. Nautical almanac office, U. S. Naval Observatory, 84-92; prin, Milton Acad, 95-02; Carthage Col, 02-04; Okla. State Nor. Sch, Alva, 04-07; Oklahoma, 07-11; Vanderbilt, 11-14; prof. *astron, Centre*, 14-26, emer. prof, 26- Translation, Newcomb-Engelman's 'Popular Astron.' A.A.; Ky. Acad. Communication with Mars; astronomical observations used to determine data in history.
- Meier, Prof. Henry Frederick August**, Syracuse University, Syracuse, N. Y. *Botany*. Edwardsport, Ind, Jan. 7, 81. A.B., Indiana, 12, A.M., 13; Ph.D., Columbia, 20. Teacher, secondary schools, 04-11; teaching fellow, Indiana, 11-12; assoc. prof. and prof. *bot, Syracuse*, 12- Porto Rico, 27-28; summers, instr, Indiana, 11-13; asst, Columbia, 15-16. A.A.; Bot. Soc. Plant physiology; cellular physiology; inorganic salt requirements.
- Meigs, Dr. Edward B(rowning)**, Bureau of Dairying, Experiment Station, Beltsville, Md. *Physiology*. Philadelphia, Pa, Sept. 10, 79. A.B., Princeton, 00; M.D., Pennsylvania, 04. Asst. physiol, Pennsylvania, 04-06; instr, Harvard Med. Sch, 07-10; fellow physiol, Wistar Inst, 10-15; *physiologist, dairy div, U. S. Dept. Agr*, 15- A.A.; Soc. Nat; Physiol. Soc; Soc. Exp. Biol; Soc. Biol. Chem; Am. Med. Ass; Phila. Acad; Phila. Col. Physicians; Wash. Acad; Boston Soc. Med. Sci. Physiology of muscular contraction; osmotic properties of muscle; osmotic properties of calcium and magnesium phosphates; physiology of milk secretion.
- Meigs, Montgomery**, 1307 Grand Ave, Keokuk, Iowa. *Civil engineering*. Detroit, Mich, Feb. 27, 47. Harvard; Royal Polytech, Stuttgart, 67-69. Res. engineer, North. Pacific Ry, 70-73; U. S. civil engineer, improvements of Mississippi River, 74-; in charge Des Moines Rapids Canal, 82- A.A.; Civil Eng. A 'canvas cofferdam'; steamboats and dredge tenders; relief of ice pressure on dams by compressed air.
- Mein, William Wallace**, 315 Montgomery St, San Francisco, Calif. *Mining engineering*. Nevada City, Calif, July 19, 73. B.S., California, 00.

- Mine manager, S. Africa, and consulting engineer, London, 00-10; director, Int. Nickel Corp., and consulting engineer, 11-12; *pres*, *Wonder Co. Ltd*, *Bishop Oil Corp*, *Calaveras Cement Co.* and *Crown Bitumens Corp*; *managing director*, *Chontales Mines*. Asst. sec'y to Sec'y Agr, 18. A.A.; Min. and Metal. Eng; Min. and Metal. Soc; Can. Inst. Min. and Metal; S. African Inst. Eng.
- Meinecke, Dr. E(milio) P(epe Michael)**, U. S. Forest Service, Ferry Building, San Francisco, Calif. *Forestry*. Alameda, Calif, July 26, 69. Ph.D, Heidelberg, 93. Asst. Bot. Inst, Heidelberg, 94; Royal Forestry Exp. Sta, Munich, 98-02; prof, Univ. and Museum La Plata; *pathologist*, *bur. plant indust*, U. S. Dept. Agr. A.A.; Bot. Soc; Soc. Foresters; Phytopath. Soc; Calif. Acad; Soc. Etudes ocean. Tahiti. Anatomy and pathology of plants; physiology of fermentation; pathology of forest trees.
- Meinzer, O(scar) E(dward)**, 2355 Rhode Island Ave, N. E, Washington, D. C. **Geology*. Near Davis, Ill, Nov. 28, 76. A.B, Beloit, 01; fellow, Chicago, 06-07, Ph.D, 22. Prin. pub. sch, S. Dak, 01-03; prof. physical sciences, Lenox, 03-05; *U. S. Geol. Surv*, 06-, *in charge div. ground waters*, 12- Instr. cor. sch, Chicago, 06-08. Capt, C.Eng, 18. A.A.; Geol. Soc; Soc. Econ. Geol; Wash. Acad; Wash. Geol. Soc. Ground water; water supply.
- Meisel, Max**, 658 Broadway, Brooklyn, N. Y. *Bibliography*. Brooklyn, Dec. 25, 92. B.S, Col. City of N. Y, 14; B.L.S, N. Y. State Library Sch, 16. Asst. science div, N. Y. Pub. Library, 16-17; *pres*, *Premier Brass and Elec. Supply Co*, 21- Librarian, Am. Library Ass, War Service, 18-20. Oberly prize, Am. Library Ass, 24. A.A.; Hist. Sci. Soc. Bibliography of American natural history.
- Meiter, Dr. Edward G(eorge)**, U. S. Bureau of Mines, Pittsburgh, Pa. *Chemistry*. Salem, Ohio, June 11, 98. B.S, Mt. Union, 20; M.S, Ohio State, 21, Ph.D, 23. Asst. chem, Ohio State, 20-23; *asst. physical chemist*, U. S. Bur. Mines, 23- Chem. Soc. Gas chemistry; gas masks; dust respirators; continuous CO recorder.
- Melander, Prof. A(xel) L(eonard)**, College of the City of New York, New York, N. Y. *Biology*. Chicago, Ill, June 3, 78. B.S, Texas, 01, fellow, 01-02, M.S, 02; fellow, Chicago, 02-04; Sc.D, Harvard, 14. Asst. zool, Texas, 00-01; instr. entomol, Wash. Col, 04-06, prof, 06-26, head dept. zool, 07-26, asst. entomologist, Exp. Sta, 04-06, entomologist, 06-26; *prof. biol. and chairman biol. faculty*, *Col. City of N. Y.*, 26- Staff, Woods Hole, 02; Puget Sound Marine Sta, 09; Cold Spring Harbor, 13, 27. A.A.; Entom. Soc; Ass. Econ. Entom; N. Y. Entom. Soc; Wash. Entom. Soc; Brooklyn Entom. Soc. Economic entomology; taxonomy of insects; Diptera; Empididae; insecticides; fossil insects.
- Melcher, Dr. A(rles) F(rancis)**, 912 E. Chestnut Ave, Ponca City, Okla. *Geophysics*. Near Moweaqua, Ill, May 29, 83. B.S, Central (Mo), 07, M.S, 08; Chicago, 09-11; Ph.D, George Washington, 23. Mem. sci. staff, measures and weights div, Bur. Standards, 11-13; physical geologist and geophysicist, U. S. Geol. Surv, 13-25; *research physicist and head physical and recovery sect*, *Marland Oil Co*, 25- Chairman committee, study texture of oil rock, Nat. Research Council. Physical Soc; Ass. Petrol. Geol; Min. and Metal. Eng. (chairman, committee laboratories and apparatus); Wash. Philos. Soc; Okla. Acad. Geophysics, density and porosity of oil rocks.
- Melcher, Arthur C(larke)**, 58 Bowen St, Newton Center, Mass. *Chemistry*. Newton Center, June 26, 80. B.S, Mass. Inst. Tech, 00. Research asst, *Mass. Inst. Tech*, 00-04, research assoc, 04-14, purchasing agent, 14-22, *manager*, 22- A.A.; Chem. Soc; Soc. Chem. Indust. Apparatus and chemicals.
- Melchers, Prof. L(eo) E(dward)**, Manhattan, Kans. *Botany*. Toledo, Ohio, Aug. 1, 87. B.S, Ohio State, 12, M.S, 13. Asst. botanist, Ohio Exp. Sta, 13; instr. bot, *Kansas Col*, and acting plant pathologist, *Exp. Sta*, 14-19, *prof. plant path*, *head dept. bot. and plant path. and plant pathologist*, 19- Consultant plant path, Egyptian Govt, 27-28. A.A.; Bot. Soc; Phytopath. Soc. Plant pathology; diseases of cereals, forage crops, fruits and vegetables.
- Meldrum, Prof. W(illiam) Buell**, Haverford College, Haverford, Pa. *Chemistry*. Hull, Que, Can, Dec. 18, 87. B.A, McGill, 09, M.S, 10, 1851 Exhib. scholar, 12-14; Ph.D, Harvard, 14. Demonstrator chem, McGill, 09-11; instr, Montreal Tech. Inst, 10-11; Austin teaching fellow, Harvard, 11-12; instr. chem, Vassar, 14-16, *asst. prof*, 16-17; *Haverford*, 17- Geophys. lab, Carnegie Institution, 19; summers, chemist, mines branch, Can. Civil Service, 09, 13, irrig. branch, 15. C.W.S, U.S.A, 18-19, price sect, W.T.B, 19. A.A.; Chem. Soc; Ass. Sci. Teachers Middle States (pres, 24); Pa. Acad; Ass. Harvard Chemists. Electrochemistry; phase rule; melting points of salts.
- Meleney, Dr. Frank L(amont)**, 730 Park Ave, New York, N. Y. *Surgery*. Somerville, Mass, Sept. 25, 89. A.B, Dartmouth, 10; M.D, Columbia, 16. Instr. *surg*, Columbia, 19-20; assoc, Peking Union Med. Col, 20-24, assoc. prof, 24-25; *assoc*, *Columbia*, 25- Bacteriology of surgery.
- Melhus, Dr. Irving E**, Iowa State College, Ames, Iowa. *Plant pathology*. Creston, Ill, April 2, 80. B.S, Iowa Col, 06; Ph.D, Wisconsin, 12. Teacher, high sch, Iowa, 07-08; asst. bot, Wisconsin, 08-09, plant path, 09-10, instr, 10-11; plant pathologist, bur. plant indust, U. S. Dept. Agr, 12-16; assoc. prof. *plant path*, *Iowa Col*, 16-17, *prof*, 17- Mem. board governors, Crop Protection Inst. A.A.; Bot. Soc; Phytopath. Soc. (v. pres, 19, pres, 26); Soc. de Path. veg. et d'Entom. agr.
- Melick, Dr. C(lark) O(wen)**, 2376 E. 71st St, Chicago, Ill. *Medicine*. Mt. Perry, Ohio, April 25, 86. B.S, Ohio, 10; fellow, Chicago, 15-17, Ph.D, 22, M.D, Rush Med. Col, 22. Prof. biol, Mo. Wesleyan, 11-14; instr. *prev. med*, *Chicago*, 17-23, *asst. prof*, 23- Intern, Presb. Hosp, Chicago, 22-23. Am. Med. Ass. Typhoid infection through vegetables; preparation of bac-

- terial antigens; serological diagnosis of tuberculosis.
- Mellencamp, Dr. F(rank) J(ohn)**, Milwaukee State Normal School, Milwaukee, Wis. *Electrochemistry*. Grass Lake, Mich, April 20, 71. A.B., Michigan, 03, A.M., 06, Ph.D., 09. Instr. physics, State Nor. Col, 03-04; asst., Michigan, 04-07, instr., 07-13; head dept. physics and math, Milwaukee State Nor. Sch, 13-, acting pres, 22-23. Assoc. Physical Soc. Concentration cells.
- Meller, Prof. H(arry) B(ertine)**, City County Building, Pittsburgh, Pa. *Engineering*. Altoona, Pa, May 26, 78. E.M., Pittsburgh, 10. Instr. mining, Pittsburgh, 09-11, asst. prof., 11-12, prof., 12-23, in charge city program for abatement of smoke, 20-, v. dean sch. mines, 12-14, dean, 14-23. Consulting engineer, combustion and air pollution; senior fellow, Mellon Inst, 23-24. Min. and Metal. Eng.; Coal Min. Inst. Air pollution.
- Mellon, Prof. M(elvin) G(uy)**, Purdue University, Lafayette, Ind. *Chemistry*. Conneaut Lake, Pa, Oct. 25, 93. B.S., Allegheny, 15; M.S., Ohio State, 17, Ph.D., 19. Asst. instr. chem, Ohio State, 15-18, instr., 18-19; asst. prof. quant. anal, Purdue, 19-25, assoc. prof. anal. chem, 25- Chem. Soc. Analytical and physical chemistry; standard cells; amalgams; color standards; electrometric titration; analytical methods.
- Mellon, Dr. Ralph R(obertson)**, 6639 Wilkins Ave, Pittsburgh, Pa. *Bacteriology, Pathology*. Pittsburgh, Feb. 1, 83. B.S., Grove City Col, 01; M.D., Michigan, 09, M.S., 12; D.P.H., Harvard, 16. Instr. physical diagnosis and director lab. clin. path, Michigan, 09-13, asst. prof., 13-14; director dept. laboratories, Highland Hosp, Rochester, 16-27; West. Pa. Hosp, 27- Soc. Bact; Ass. Path. and Bact; Ass. Immunol. Microbe heredity; physiology and physical chemistry in bacteriology; applied bacteriology and epidemiology.
- Mellor, Lewis L(eRoy)**, Bausch and Lomb Optical Co, Rochester, N. Y. *Optics*. Utica, N. Y, March 6, 89. A.B., Michigan, 12, A.M., 15. Asst. astron, Detroit Observatory, Michigan, 12-17; asst. physicist, Nela Research Lab, 17-18; Bur. Standards, 18-19; optical engineer, sci. bur, Bausch and Lomb Optical Co, 19-22; Ilex Optical Co, 22-27; sci. bur, Bausch and Lomb Optical Co, 27- A.A.; Optical Soc; Astron. Soc. The measurement of transmission factor; spectrographic study of the early Potsdam velocity stars.
- Meloche, Prof. C(lifford) C(yrille)**, 525 Linden St, Ann Arbor, Mich. *Chemistry*. Port Huron, Mich, July 21, 86. A.B., Wisconsin, 10, A.M., 11, Ph.D., 14. Asst. quantitative analysis, Wisconsin, 11-14; instr. chem, Pa. State, 14-15; anal. chem, Michigan, 15-19, asst. prof., 19- Consulting chemist, ordnance dept, U.S.A., 18. Chem. Soc. Inorganic and analytical chemistry; compounds of cerium and cesium; quantitative determination of zine, cerium and bromine.
- Melton, Dr. F(rank) O(rmon)**, University of Oklahoma, Norman, Okla. *Geology*. Cuba, Kans, July 6, 96. B.S., Okla. Agr. and Mech. Col, 15; Missouri; Ph.D., Chicago, 24. Asst. geol., Columbia, 24-26; assoc. prof., Oklahoma, 26- Summer, junior geologist, U. S. Geol. Surv, 24. Structural geology; ancestral Rocky Mountains; isostasy.
- Meltzer, Dr. H(yman)**, Oregon Agricultural College, Corvallis, Oregon. *Psychology, Education*. Russia, Sept. 1, 98. B.S., Illinois, 17; A.M., Columbia, 23, Ph.D., 25. Instr. psychol, Oregon Col, 25- Lecturer, Bayonne Hosp, 25; summer, psychologist, Psychiatric Clinic, St. Louis, 25. Nat. Soc. Study Educ. Educational and genetic psychology; educational measurement; curriculum construction.
- Melville, Prof. Carey E(yster)**, Clark University, Worcester, Mass. *Mathematics*. Baltimore, Md, April 4, 78. A.B., Northwestern, 01. Assoc. prof. math, Clark, 13- A.A.; Math. Ass.
- Melvin, Prof. G(eorge) Spencer**, 127 King St, West Kingston, Ont, Can. *Physiology*. Montrose, Scotland, Oct. 7, 87. Ch.B., Aberdeen, 09, M.D., 12. Lecturer physiol, Aberdeen, 09-14, 19; prof, Queen's (Can), 19- Physiol. Soc; British Med. Ass; Physiol. Soc. Gt. Britain. Blood pressure.
- Mendel, Prof. Lafayette B(enedict)**, Yale University, New Haven, Conn. **Physiological chemistry*. Delhi, N. Y, Feb. 5, 72. A.B., Yale, 91, Ph.D., 93; Breslau, 95-96; Freiburg, 96; hon. Sc.D, Michigan, 13. Asst. physiol. chem, Sheffield Sci. Sch, Yale, 92-94, instr., 94-97, asst. prof., 97-03, prof. and mem. governing board, 03-, Univ. prof, Yale, 19- Lecturer, Grad. Sch. Agr, Ass. Agr. Col, 08; Hitchcock lecturer, California, 23; research assoc, Carnegie Institution, 10-; director, Russell Sage Inst. Path. Ed, 'Jour. Biol. Chem'; 'Chem. Reviews'; 'Chem. Monographs.' Commission Sci. Interalliée du Ravitaillement. Nat. Acad; A.A.; Soc. Nat; Physiol. Soc. (sec'y, 06-08); Soc. Exp. Biol; Soc. Biol. Chem. (treas, 07-10, pres, 11); Chem. Soc; Gastro-Enterol. Ass; Soc. Pharmacol; Philos. Soc; Am. Med. Ass; Home Econ. Ass; Dietetic Ass; Conn. Acad; Soc. Sci. de Bruxelles; Soc. de Chim. biol; Halle Akad. der Naturforscher. Physiological chemistry of digestion and nutrition; protein metabolism; physiology of growth; vitamins and accessory food factors.
- Mendenhall, Prof. C(harles) E(lwood)**, University of Wisconsin, Madison, Wis. **Experimental physics*. Columbus, Ohio, Aug. 1, 72. B.S., Rose, 94; Ph.D., Hopkins, 98. Aid, U. S. Coast Surv, 93, 94; asst. physics, Pennsylvania, 94-95; instr, Williams, 98-01; asst. prof, Wisconsin, 01-04, assoc. prof, 04-05, prof, 05- Asst, Smithsonian Astrophys. Observatory, 98, 00, 01. Ed. board, Int. Critical Tables. Chairman div. physical sciences, Nat. Research Council, 19-20. Sci. attaché, U. S. Embassy, London, 19. Major, science and research div, Sig. C. and A.S., 17-19. Nat. Acad; A.A.; Physical Soc. (pres, 23-25); Philos. Soc. Infra-red spectrum of absolutely black body; sensitive galvanometers for bolometric work; absolute value of gravity; high temperature measurements; luminous efficiencies; radiating con-

stants of metals; constants of radiation; photo-electric and other surface characteristics of metals.

Mendenhall, W(alter) C(urran), U. S. Geological Survey, Washington, D. C. **Geology*. Marlboro, Ohio, Feb. 20, 71. B.S., Ohio Nor. Univ. 93; Harvard, 96-97; Heidelberg, 99-00. Asst. geologist, *U. S. Geol. Surv.* 94-01, geologist, 01-22, in charge ground water investigations, 08-12, chief land classification board, 12-22, *chief geologist*, 22- A.A. (v. pres, E, 24); Geol. Soc; Min. and Metal. Eng; Wash. Soc. Eng; Wash. Acad; Wash. Geol. Soc. (pres, 17). General geology; stratigraphy; physiography; geography and mineral resources of parts of Alaska; geology, physiography and hydrology of southern California, Oregon, Utah, Texas and Hawaii; classification of public lands.

Mendenhall, Prof. Walter L(eslie), Boston University School of Medicine, Boston, Mass. *Pharmacology*. Garfield, Ill, Nov. 13, 81. M.D., Drake, 06. Lecturer, instr. and prof. physiol., Drake, 08-13; teaching fellow, Harvard Med. Sch., 13-15; asst. prof. pharmacol., Dartmouth, 15-18, prof., 18-19; physiol. and pharmacol., Southern California, 19-20; asst. prof. *pharmacol.*, Pennsylvania, 20-21; *prof. sch. med.*, Boston, 21- Lecturer and instr., Sargent Nor. Sch. Physical Educ., 14-15; physiologist, U. S. Pub. Health Service, 18. A.A.; Soc. Pharmacol.; Physiol. Soc; Soc. Exp. Biol. Blood coagulation; heart irritability; impurities in anesthetics; human thresholds; bile flow.

Mendenhall, Pres. W(illiam) O(rville), 1412 University Ave, Wichita, Kans. *Mathematics*. Ridge Farm, Ill, May 10, 79. A.B., Penn (Iowa), 00, A.M., 01; A.B., Haverford Col., 01; Ph.D., Michigan, 11. Prof. math., Wilmington Col., 02-04; instr., Stanford, 06-07; prof., Earlham Col., 07-18; *pres. Friends*, 18- Math. Soc; Math. Ass; Statist. Ass.

Mendiola, Prof. N(emesio) B(lanco), Los Baños, Laguna, P. I. *Genetics*. Rizal, P. I., Dec. 19, 90. B.S., Philippines, 14, M.S., 16; fellow, Cornell, 16-18, Ph.D., 18. Prin., intermediate sch., Pasay, P. I., 09-10; instr., Malabon, 10-11; asst. *agron. col. agr.*, Philippines, 11-14, asst. instr., 14-16, instr., 18-19, asst. prof., 19-20, *assoc. prof.*, 21- Consulting plant breeder, Bur. Agr., P. I., 20- Int. Educ. Board, 26. Los Baños Biol. Club (pres, 25). Plant breeding; agronomy; new varieties of economic plants; inheritance in duckweed, Hibiscus, rice and corn; bast fiber; barn manure; transpiration and nutrition in tobacco; plant breeding for the tropics.

Menefee, Prof. Ferdinand Northrup, University of Michigan, Ann Arbor, Mich. *Engineering*. Columbus, Kans., Jan. 7, 86. B.S., Nebraska, 08; C.E., Cornell, 10. Asst. city engineer, S. Omaha, Nebr., 09; instr. civil eng., Cornell, 10; instr. descriptive geom. and drawing, Michigan, 10-11, instr. drawing, 11-13, asst. prof., 13-14, *eng. mechanics*, 14-16, *prof.*, 19-, *administrative head dept.*, 22- Summer, engineer, Cent. Oregon Irrig. Co., 11, designer, Chicago, Milwaukee and St. Paul Ry., 12, field engineer, Pere Marquette Appraisal, 14, designer, Fargo Eng. Co., 15, 16-17. Sec'y, United Eng. Corp., Detroit and Ann

Arbor, 19-20, v. pres, 20- Capt. and major, ordnance dept., 17-19. Civil Eng; Soc. Test. Mat. The strength of materials; earth; steel; concrete.

Menge, Prof. Edward J(ohn von Komorowski), 1217 Wisconsin Ave, Milwaukee, Wis. *Zoology*. Fond du Lac, Wis., June 25, 82. Arizona; A.B., Dallas, 14, A.M., 15, Ph.D., 16, M.S., 17; Wisconsin; Chicago; hon. Sc.D., De Paul, 26. *Prof. biol.*, Dallas, 17-19; *Marquette*, 19-23, *zool.*, 23- Lecturer, Dallas Sch. Civics and Philanthropy; guest-lecturer, S. Amer. universities; founder and pres, Baconian Science Corp. A.A.; Soc. Zool; Soc. Parasitol. Animal psychology; general and professional biology; embryology and comparative anatomy; spleen development and comparisons; psychobiology.

Menge, Dr. G(eorge) A(lbert), Lafayette College, Easton, Pa. *Chemistry*. Buffalo, N. Y., Dec. 18, 74. Ph.B., Yale, 05, Ph.D., 06. Asst. chem., Yale, 03-06, instr., 06-07; chemist, div. pharmacol., hygienic lab., U. S. Pub. Health Service, and prof. chem., George Washington, 09-14; chemist, bur. animal indust., U. S. Dept. Agr., 14-17; director dept. tech. service, Hire's Condensed Milk Co., 17-19; administrative chemist, milk dept., Libby, McNeill and Libby, 19-22; consulting chemist, 22-24; *asst. prof. chem.*, Lafayette, 24- Director and sec'y, Waynesboro Orchard Co; director, Delta Oil Co. A.A.; Chem. Soc; Pub. Health Ass; Chem. Gesell. Pseudo ureas; pyrimidines; solubilities; melting points and melting point methods; new compounds of choline type; chemistry of milk.

Mengel, Levi W(alter), Public Museum and Art Gallery, Reading, Pa. *Entomology*. Reading, Sept. 27, 68. Phila. Col. Pharmacy, 91; Acad. Nat. Sciences, Phila., 91-93. Instr. nat. hist., Boys' High Sch., Reading, 94-02, v. prin., 02-15; *director, Reading Pub. Museum*, 04- A.A. Rhopalocera; the family Erycinidae.

Menne, Prof. Frank R(aymond), 932 Westover Road, Portland, Oregon. *Pathology*. Fond du Lac, Wis., March 20, 88. B.S., Wisconsin, 13; M.D., Rush Med. Col., 15. Asst. path., Rush Med. Col., 14-15; intern, Presb. Hosp., 15-17; asst. *prof. path. med. sch.*, Oregon, 16-19, *assoc. prof.*, 19-20, *prof.*, 20- Soc. Bact; Soc. Path. and Bact. Immunology; endocrinology.

Menninger, Dr. Karl A(ugustus), Mulvane Building, Topeka, Kans. *Neuropsychiatry*. Topeka, July 22, 93. A.B., Wisconsin, 14, M.S., 15; M.D., Harvard, 17. Instr. neuropath., Harvard, 18-20; Tufts, 19; *asst. prof. mental hygiene, criminol. and abnor. psychol.*, Washburn, 20-; *counselor mental health*, 25- Menninger Neuropsychiat. Clinic; med. director, Menninger Psychiat. Hosp; psychiatrist, Southard Sch. for Exceptional Children; director, Munic. Hygiene Clinic, Topeka. Lieut., U.S.N.R.F., 17-19. Psychiat. Ass; Psychoanal. Ass; fel. Am. Med. Ass; Orthopsychiat. Ass. (ed); Ass. Research Nervous and Mental Diseases; Ass. Study Epilepsy; Cent. Neuropsychiat. Ass. (sec'y); N. Y. Neurol. Soc. Psychoanalysis; influenza and mental diseases; congenital neurosyphilis.

Menten, Dr. Maud Leonora, University of Pittsburgh, Pittsburgh, Pa. *Pathology*. Lambton,

- Que, Can, March 20, 79. B.A, Toronto, 04, M.B, 07, M.D, 11; Ph.D, Chicago, 16. Research asst, Western Reserve, 10-12, 13-14; pathologist, Elizabeth Steele Magee Hosp, 16-18; instr. path, Pittsburgh, 18-21, asst. prof, 21-26, as-soc. prof, 26- Soc. Exp. Path; Ass. Path. and Bact; Soc. Exp. Biol; Physiol. Soc; Ass. Cancer Research; Int. Ass. Med. Mus. Chemical pathology; oxidase in tumor cells; surface tension; toxins of *Bacillus paratyphosus*.
- Menzel, Prof. Donald H(oward)**, Ohio State University, Columbus, Ohio. *Astronomy*. Florence, Colo, April 11, 01. A.B, Denver, 20, A.M, 21; Princeton, 23, Ph.D, 25. Instr. astron, Iowa, 24-25; asst. prof, Ohio State, 25- A.A; Astron. Soc; Ass. Variable Star Observers; Pacific Astron. Soc. Intensities of lines in stellar spectra; planetary temperatures and atmospheres.
- Menzies, Prof. Alan W(ilfrid) C(ranbrook)**, Princeton University, Princeton, N. J. **Chemistry*. Edinburgh, Scotland, July 31, 77. M.A, Edinburgh, 97, B.S, 98; Leipzig, 98; Aberdeen, 02-03; Ph.D, Chicago, 10. Asst. prof. chem, Heriot-Watt Col, Edinburgh, 98-01; prof, St. Mungo's Col, Glasgow, 02-08, sec'y med. faculty, 07-08; research assoc. instr. and asst. prof. chem, Chicago, 08-12; prof. and head dept, Oberlin, 12-14; prof, Princeton, 14- Vans Dunlop scholar, Edinburgh, 98-01, research fellow, Davy-Faraday lab, 01-02; organizer and director summer courses for science teachers, Dept. Agr. and Tech. Instruction for Ireland, 05-08; assoc. chemist, Bur. Standards, 18-19. A.A; Chem. Soc; London Chem. Soc; fel. Royal Soc. Edinburgh. Vapor pressure and density; molecular weights; removal of traces of water; equilibria in various binary and ternary systems; critical temperature of mercury; arsenic acid; arsenious oxid in acidimetry; ebullioscopy; hygrometry; differential thermometer; dissociation pressure of salt hydrates; meteoritic chlorine crystal orientation; evaporimetry.
- Mercer, Dr. A(lfred) Clifford**, 324 Montgomery St, Syracuse, N. Y. *Medicine*. Syracuse, July 5, 55. M.D, Syracuse, 78; St. Thomas Hosp. and Med. Sch, London, 78-80; Great Ormond St. Hosp, London, 90-91. Lecturer path. and histol, Syracuse, 84-86, prof. path, 86-93, pediat, 04-26. Pediat. staff, Syracuse Mem. and Univ. Hospitals. A.A; Am. Med. Ass; Micros. Soc. (pres, 96); fel. Royal Micros. Soc. Pediatrics.
- Mercer, H(enry) C(hapman)**, Doylestown, Pa. *Anthropology, Pottery*. Doylestown, June 24, 56. A.M, Harvard, 79. Curator Am. and prehist. anthropol, Pennsylvania, 93-97. Assoc. ed, 'Am. Naturalist,' 93-97. Grand prize, La. Purchase Expos, 04. Hon. mem, U. S. Commission to Expos. Historico-Am, Madrid, 92. A.A; Philos. Soc; Phila. Acad; Phila. Numis. and Antiq. Soc; Phila. Geog. Soc. Antiquity of man; cave explorations in Central America and the United States; ethnology in implements of American pioneer; processes of forming, coloring and burning clay; printing in colors without a press; pottery.
- Mercer, Dr. W(illiam) F(airfield)**, Ohio University, Athens, Ohio. *Biology*. Mansfield, N. Y,
- Jan. 22, 64. Ph.B, Hillsdale, 90; Ph.M, 93; Ph.D, Cornell, 00. Instr. math, Hillsdale, 86-90; prin. acad, and supt, pub. schools, Pa, 91-94; prof. nat. science, Chamberlain Inst, 95-98; biol. and geol, Ohio (*Athens*), 00- Instr, Cornell, 99. A.A; Soc. Zool; Ass. Anat; Micros. Soc; Wash. Biol. Soc; Ohio Acad; hon. fel. British Soc. Bact. Chem. Development of wings in Lepidoptera; comparative study of the soft palate; development of teeth and leg bones of the sheep.
- Meredith, Dr. Florence (Lyndon)**, Smith College, Northampton, Mass. *Hygiene, Medicine*. Boston, Mass, Aug. 20, 83. B.S, Temple; M.D, Tufts, 16; Radcliffe; Boston; Oxford; Jackson; Harvard, 16-17, 20. Instr. surg, Tufts, 16-20; physician for women, Hood Rubber Co, 16-18; director, N. Y. Health Center for Women and Girls, 19-20; prof. hygiene and prev. med, Woman's Med. Col. of Pa, 20-23; college physician, prof. hygiene and chairman dept, Smith, 23- Regional consultant, U. S. Pub. Health Service, 19-21; lecturer, Sch. Social Work, N. Y, 21-22; Pa, 22-23; Smith, 21- Surgeon General's Women's Advisory Committee, 21-23; board directors, Phila. Health Council, 23. Lecturer, War Dept, 18-19. Mem. staff, Boston Psychopathic Hosp, 26-27. Am. Med. Ass. (council health and pub. instruction); Pub. Health Ass; Ass. Women in Pub. Health (pres, 22-25); Nat. Ass. Med. Women (director, 24). General medicine and hygiene.
- Merica, Dr. Paul D(yer)**, International Nickel Co, 67 Wall St, New York, N. Y. *Chemistry*. Warsaw, Ind, 89. A.B, Wisconsin, 08; Ph.D, Berlin, 14. Prof. chem, Chekiang Prov. Col, Hangchow, China, 09-11; special investigator, Eng. Exp. Sta, Illinois, 14; asst. physicist, as-soc. physicist and physicist, Bur. Standards, 14-19; physical metallurgist and director research, Int. Nickel Co, 19- Chem. Soc; Physical Soc; Min. Eng; Wash. Acad. Metallography and physical chemistry of ferrous and non-ferrous alloys and metals.
- Merigold, Prof. B(enjamin) S(hores)**, Clark University, Worcester, Mass. *Chemistry*. Taunton, Mass, July 24, 73. A.B, Harvard, 96, A.M, 97, Ph.D, 01. Instr. chem, Worcester, 00-03; asst. prof, Clark, 03-08, prof, 08- A.A; Chem. Soc. Analytical and physico-chemical methods.
- Merling, Dr. Ruth E(velyn)**, E. I. du Pont de Nemours and Co, Wilmington, Del. *Chemistry*. Blue Rapids, Kans, Aug. 14, 95. B.S, Washington (Seattle), 16, M.S, 17; fellow, Illinois, 19-20, Ph.D, 20. Teaching fellow chem, Washington (Seattle), 16-17; asst, Illinois, 17-19; research chemist, B. F. Goodrich Rubber Co, 20-21; instr. chem, Ill. Woman's Col, 21; Kansas, 21-22; chemist, intel. div, Exp. Sta, E. I. du Pont de Nemours and Co, 23- Summer, prof, St. Teresa, 21. Chem. Soc. Organic chemistry.
- Merrell, Dr. W(illiam) Dayton**, University of Rochester, Rochester, N. Y. *Biology*. Brooklyn, N. Y, Aug. 21, 69. A.B, Rochester, 91; fellow, Chicago, 97-98, Ph.D, 98. Instr. sciences, Wayland Acad, Wis, 91-94; Western Mil. Acad, Ill, 94-95; asst. bot, Chicago, 96-99; instr.

- biol.*, Rochester, 99-05, asst. prof, 05-15, *prof.*, 15- A.A.; Bot. Soc.; Rochester Acad. Silphium.
- Merriam, Dr. C(linton) Hart**, 1919 16th St, Washington, D. C. **Zoology, Botany, Ethnology*. New York, N. Y., Dec. 5, 55. Yale, 74-77; M.D., Columbia, 79. Naturalist, Hayden Surv., Idaho, Wyo., Utah, 72; asst. U. S. Fish Commission, 75; chief, U. S. Biol. Surv., 85-10; *research assoc.*, *Smithsonian Inst.*, 10- Bering Sea commissioner, 91; chairman, U. S. Geog. Board. Nat. Acad.; A.A.; Soc. Nat. (past pres); fel. Ornith. Union (past pres); Anthrop. Ass.; Soc. Mammal. (past pres); Philos. Soc.; Wash. Acad.; Wash. Anthrop. Soc. (past pres); Wash. Biol. Soc. (past pres); for. mem. London Zool. Soc. Mammals and birds of North America; geographic distribution of animals and plants; Indian basketry, mythology, distribution and linguistics of Pacific coast tribes.
- Merriam, Prof. E(dmund) S(awyer)**, 231 Fourth St, Marietta, Ohio. *Chemistry*. Easthampton, Mass., May 4, 80. A.B., Trinity (Conn.), 02, A.M., 05, hon. Sc.D., 23; Ph.D., Göttingen, 05. Prof. chem., Marietta, 06-20; chief chemist, Safe-Cabinet Co., 20-23; *consulting chemist*, 23- Chem. Soc. Natural gas and gasoline derivatives.
- Merriam, Dr. John C(ampbell)**, Carnegie Institution, Washington, D. C. **Paleontology, Geology*. Hopkinton, Iowa, Oct. 20, 69. B.S., Lennox Col., 87; Ph.D., Munich, 93; hon. Sc.D., Columbia, 21, Princeton and Yale, 22; LL.D., Wesleyan, 22, California, 24, N. Y. Univ., 25. Instr. paleont., California, 94-99, asst. prof., 99-05, assoc. prof., 05-12, prof., 12-20, dean faculties, 20; *pres.*, *Carnegie Institution*, 21- Chairman, Nat. Research Council, 19. Nat. Acad. (councilor, 27-); A.A. (pres., Pacific div., 19); Soc. Nat.; Philos. Soc.; Paleont. Soc. (pres., 19, Pacific Coast div., 13, 15); Geol. Soc. (pres., 19); Galton Soc.; West. Soc. Nat.; Am. Acad.; Calif. Acad.; Wash. Acad.; cor. mem. Phila. Acad. Ichthyopterygia and Pythonomorpha of western North America; Tertiary geology and vertebrate paleontology of eastern Oregon and California; Triassic Vertebrata of California and Nevada; fossil Mammalia of eastern Oregon; Tertiary and Quaternary Carnivora of California; Miocene Mammalia of northern Nevada; research and education.
- Merrill, Prof. A(llyne) L(itchfield)**, Pleasant St, Arlington, Mass. *Mechanical engineering*. Malden, Mass., Aug. 8, 64. B.S., Mass. Inst. Tech., 85. Instr. mech. eng., *Mass. Inst. Tech.*, 85-93, asst. prof. *mechanism*, 93-99, assoc. prof., 99-05, *prof.*, 05- Eng. Educ.
- Merrill, Prof. A(rchibald) S(hepard)**, 541 Beckwith Ave, Missoula, Mont. *Mathematics*. Merrill, N. Y., Aug. 24, 87. A.B., Colgate, 11, A.M., 14; Ph.D., Chicago, 16. Asst., Colgate, 11-14; asst. prof. *math.*, *Montana*, 16-18, 19-20, assoc. prof., 20-23, *prof.*, 23- U.S.N., 18-19. Math. Soc.; Math. Ass. An isoperimetric problem with variable end-points; the 'danger-area' curve.
- Merrill, C(harles) W(ashington)**, 121 Second St, San Francisco, Calif. *Metallurgy*. Concord, N. H., Dec. 21, 69. B.S., California, 91, M.E., 22.
- Pres.*, *Merrill Co.* Chief div. collateral commodities, Food Ad., 17-18. Min. and Metal. Eng.; Inst. Min. and Metal. Gt. Britain; Australian Inst. Min. Eng.; S. African Ass. Eng. and Metal. Cyanid process in the treatment of precious metal ores.
- Merrill, Mrs. David R(obert) (Dr. Alice Helen Graustein)**, 2335 Carroll Park, Long Beach, Calif. *Organic chemistry*. Cambridge, Mass., Dec. 21, 94. A.B., Radcliffe, 17, A.M., 18, Ph.D., 21. In charge chem. lab., Radcliffe, 18-20. Summers, instr., New Eng. Hosp. Women and Children, 17-19. Cyclopropanes and hydropyridines in connection with delta-ketonic nitriles.
- Merrill, Prof. Elmer D(rew)**, University of California, Berkeley, Calif. **Botany*. East Auburn, Maine, Oct. 15, 76. B.S., Maine, 98, M.S., 04, hon. Sc.D., 26; George Washington, 00-01. Asst. nat. science, Maine, 98-99; asst. agrostologist, U. S. Dept. Agr., 99-02, botanist, insular bur. agr. and bur. forestry, Manila, P. I., 02-03, bur. govt. laboratories, 03-05; Bur. Science, P. I., 06-19, acting director, 19, director, 19-23; assoc. prof. bot. and head dept., Philippines, 12-17, prof., 17-19, professorial lecturer, 19-23; *prof. agr.*, *dean col. agr.*, *California and director*, *Exp. Sta.*, 24-; *director*, *Calif. Bot. Garden*, 27- Ed., 'Philippine Jour. Sci.', 06-23; 'Hilgardia', 25- Nat. Acad.; A.A.; Bot. Soc.; Am. Acad.; New Eng. Bot. Club; Soc. bot. de France; Bot. Gesell.; Royal Asiatic Soc. Systematic botany of China, Philippines, Borneo, Moluccas and Marianne Islands.
- Merrill, G(eorge) B(ates)**, State Plant Board, Gainesville, Fla. *Entomology*. Abington, Mass., Oct. 15, 86. Mass. Col.; Florida. Gipsy and brown-tail moth work, Mass., 04-10; gipsy moth parasite lab., bur. entom., U. S. Dept. Agr., 10-13; asst. entomologist, hornfly and tobacco investigations, Insular Exp. Sta., P. R., 13-15; *dept. port and ry. inspection*, *Fla. State Plant Board*, 16-18, asst. entomologist, 18-22, *assoc. entomologist*, 22- Investigation sugar cane insects, Santo Domingo, 14. Entom. Soc. Amer.; Ass. Econ. Entom.; Fla. Entom. Soc. (pres., 20, 23, 24). Coccidae; Aleyrodidae.
- Merrill, Dr. George P(erkins)**, U. S. National Museum, Washington, D. C. **Geology*. Auburn, Maine, May 31, 54. B.S., Maine, 79, M.S., 83, Ph.D., 89; Wesleyan, 79-80; Hopkins, 86-87; Sc.D., George Washington, 17. Asst. chem., Wesleyan, 79-80; asst. Fisheries Census, 80-81; U. S. Nat. Museum, 81-97, *curator and head curator geol.*, 87- Lecturer, Maryland, 90-91; prof., George Washington, 93-16. Nat. Acad.; Geol. Soc. (v. pres., 20); Hist. Sci. Soc.; Philos. Soc.; Wash. Geol. Soc. (pres., 06). Petrography; meteorites; building stones; rock weathering; histories of American geology and state surveys.
- Merrill, Prof. Helen A(bbot)**, Wellesley College, Wellesley, Mass. *Mathematics*. Orange, N. J., March 30, 64. A.B., Wellesley, 86; Chicago, 96-97; Göttingen, 01-02; Ph.D., Yale, 03. Teacher, private schools, 86-89, 91-93; instr. *math.*, *Wellesley*, 93-01, assoc. prof., 01-15, *prof.*, 15- A.A.; Math. Soc.; Math. Ass. (councilor, 17-20, v. pres., 20); Math. Verein. Differential equations.

- Merrill, Dr. Henry B(aldwin)**, 414 Beverly Road, Milwaukee, Wis. *Chemistry*. St. Paul, Minn., July 22, 94. B.S., Wisconsin, 16, M.S., 17, Ph.D., 21. Asst. chem., California, 19-20; research asst., Wisconsin, 20-21; prof., Carroll Col., 21-22; *research chemist*, A. F. Gallun and Sons Co., 22- Asst. chemist, Navy Dept., 17-18, private, C.W.S., 18-19, second lieut., C.W.S.R., 25. Chem. Soc. (chairman, Milwaukee sect., 25). Inorganic chemistry; reactions of constituents of animal skin; enzyme action; silicon; fluorine; selenium; leather chemistry.
- Merrill, Prof. Joseph F(rancis)**, University of Utah, Salt Lake City, Utah. *Electro-physics*. Richmond, Utah, Aug. 24, 68. B.S., Michigan, 93; fellow, Hopkins, 98-99, Ph.D., 99; Cornell, 93, 02; Chicago, 94, 96, 97. Asst. prof. chem., Utah, 93-95, prof. physics and physical chem., 97-98, *director state sch. mines*, 98-15, *schools of mines and engineering*, 15-, *prof. physics and elec. eng.*, 99-27, *electro-physics*, 27- Sec'y, Utah State Conservation Commission, 09-14. A.A.; Physical Soc.; Elec. Eng.; Eng. Educ.; Utah Acad.; Utah Soc. Eng. (pres., 07-10). Effect of dielectric on electrical resistance; effect of temperature and pressure on electrolysis of silver nitrate; reliability and durability of commercial electric integrating meters; electric air heating; electrical measurements.
- Merrill, Dr. Joseph H(enry)**, Raynham, Mass. *Entomology*. Danvers, Mass., Nov. 12, 81. B.S., Dartmouth, 05; Ph.D., Mass. Col., 14. Gipsy and brown-tail moth suppression work, Danvers, Mass., 05-09; deputy state nursery inspector, Mass. Col., 10-11, lecturer plant path., 11; asst. prof. apicult., Kansas Col., and asst. apiculturist, Exp. Sta., 12-27; *apiarist and lecturer*. State apiarist, Kans., 18. A.A.; Ass. Econ. Entom. Fruit and shade tree insects; apiculture.
- Merrill, Prof. Lucius H(erbert)**, 178 Main St., Orono, Maine. *Biochemistry*. Auburn, Maine, Oct. 1, 57. B.S., Maine, 83, hon. Sc.D., 08. Asst., U. S. Nat. Museum, 85-86; chemist, Maine Exp. Sta., 86-08, *prof. biochem*, Maine, 98-07, *agr. and biochem*, 07- A.A.; Chem. Soc. Nutrition of man; wheat and its milling products.
- Merrill, Prof. Maud A(manda)**, Stanford University, Calif. *Psychology*. Owatonna, Minn., April 30, 88. A.B., Oberlin, 11; A.M., Stanford, 20, Ph.D., 23. Research asst., Minn. Bur. Research, 12-19; instr. *psychol*, Stanford, 20-24, *asst. prof.*, 24- A.A.; Psychol. Ass.; West. Psychol. Ass. Individual and educational psychology; tests; mental defectives; delinquents; gifted children.
- Merrill, Dr. M(elvin) C(larence)**, U. S. Department of Agriculture, Washington, D. C. *Horticulture*, *Botany*. Richmond, Utah, April 6, 84. B.S., Utah Col., 05; Cornell, 10-11; M.S., Chicago, 12; A.M., Harvard, 13; Ph.D., Washington (St. Louis), 15. Teacher, high sch., Utah, 05-06; agr. inspector, Bur. Agr., P. I., 06-08, supt., Exp. Sta., 08-10; asst., Mo. Bot. Garden, 13-15; director dept. agr., Idaho Tech. Inst., 15-17; prof. hort., Utah Col., 17-22; dean and horticulturist, col. applied science, Brigham Young,
- 22-24; director forestry publications, U. S. Forest Service, 24; *ed. chief publications*, and *ed. supervisor*, 'Jour. Agr. Research,' U. S. Dept. Agr., 25- A.A.; Soc. Hort. Sci.; Bot. Soc.; Wash. Bot. Soc. Distilled water and growing plants; exosmosis from plant tissues; tomato breeding; canning crops.
- Merrill, Dr. O(scar) C(harles)**, Federal Power Commission, Washington, D. C. *Civil engineering*. Manchester, Maine, July 30, 74. A.B., Bates, 99, Sc.D., 25; B.S., Mass. Inst. Tech., 05. Instr. civil eng., California, 05-06; water power investigator, Wash., Oregon and Calif., 06-08; dist. engineer, U. S. Forest Service, 09-13, chief engineer, 14-20; *exec. sec'y*, Fed. Power Commission, 20- Chairman, Am. committee, World Power Conf., 24; Am. mem., Int. Exec. Council. Civil Eng.; Mech. Eng.; Elec. Eng.; Wash. Acad.; Wash. Soc. Eng. (director, 19). Water powers.
- Merrill, Dr. Paul W(illard)**, Mt. Wilson Observatory, Pasadena, Calif. *Astronomy*. Minneapolis, Minn., Aug. 15, 87. A.B., Stanford, 08; Ph.D., California, 13. Asst. and fellow, Lick Observatory, 09-13; instr. astron., Michigan, 13-16; asst. physicist and assoc. physicist, Bur. Standards, 16-18; *staff*, Mt. Wilson Observatory, Carnegie Institution, 19- A.A.; Astron. Soc.; Ass. Variable Star Observers; Physical Soc.; Pacific Astron. Soc.; Royal Astron. Soc. Wave-lengths of spectrum lines; stellar spectroscopy.
- Merriman, Prof. Curtis**, 1936 Commonwealth Ave., Madison, Wis. *Psychology*. Warren, Ind., March 7, 75. A.B., Indiana, 02; A.M., Columbia, 16; Ph.D., Stanford, 22. Teacher and prin., high schools, Ind., 02-08; dept. educ., Wash. State Nor. Sch., Cheney, 09-23; *prof*, Wisconsin, 23- Psychol. Ass. Educational psychology; intellectual resemblance of twins; effects of coaching for mental tests; study habits of university students.
- Merriman, Prof. Mabel L**, Hunter College, New York, N. Y. *Botany*, *Cytology*. Hinsdale, N. H. Chicago, 95-96; B.S., Smith, 94; A.M., Radcliffe, 01; Columbia, 24-25. Instr., high schools, Ill. and Mass., 97-99, 03-07; instr., asst. prof. and *assoc. prof. bot*, Hunter, 07- Bot. Soc.; Torrey Bot. Club. Algology; cell division in Allium, Zygnema, Spirogyra crassa and Spirogyra bellis; conjugation in Spirogyra ternata; zygospores; germination.
- Merriman, Paul R(obinson)**, University of Richmond, Richmond, Va. *Botany*. Jordan, N. Y., July 17, 82. Cumberland, 00; A.B., Miami, 03; M.S., Cornell, 21. Supt. and teacher, schools, N. Y., 00-20; *prof. bot*, Richmond, 20- Va. Acad. Vascular bundles of the umbelliflorae; flora of middle Virginia.
- Merriman, Thaddeus**, Board of Water Supply, 2224 Municipal Building, New York, N. Y. *Hydraulic engineering*. New Haven, Conn., April 6, 76. C.E., Lehigh, 97. U. S. Nicaragua and Isthmian Canal Commissions, 97-00; inspector materials, Guayaquil and Quito Ry. Co., 00-01; E. Jersey and Jersey City Water Supply Companies, 01-05; asst. engineer, Board Water Supply, New York, 05-06, div. engineer, 06-07,

- asst. chief engineer, 07-18, deputy chief engineer, 18-22, *chief engineer*, 22- Lecturer, Lehigh. A.A.; Civil Eng. (director, 24-26, chairman, committee on cement); Water Works Ass; Soc. Test. Mat; Concrete Inst; Franklin Inst; New Eng. Water Works Ass. Portland cement; kinetics of hydraulic flow; calcareous cements.
- Merritt, Prof. Ernest (George)**, 1 Grove Place, Ithaca, N. Y. **Physics*. Indianapolis, Ind, April 28, 65. Purdue, 81-82; M.E, Cornell, 86, 87-88; Berlin, 93-94. Instr. *physics*, Cornell, 82-92, asst. prof, 92-03, *prof*, 03-, dean grad. sch, 09-13. Assoc. ed, 'Physical Rev.' Nat. Acad; A.A. (sec'y, B, 95, v. pres, 00); Physical Soc. (sec'y, 99-12, ed, 'Bul,' v. pres, 13, pres, 14, 15); Am. Acad. Efficiency of glow lamps; infra-red dichroism; photography of manometric flame; conduction in arc gases; reflected cathode rays; photo-electric rays; luminescence.
- Merritt, George E(rnest)**, 4411 39th St, N. W, Washington, D. C. *Physics*. Indianapolis, Ind, June 23, 90. A.B, Pomona, 13. Bur. Standards, 17-20; special research, Nat. Terra Cotta Soc, 20-21; *Bur. Standards*, 21- Wash. Philos. Soc. Index of refraction of streae; application of the interferometer to the measurement of ceramic materials; thermal expansion of glazes and of fused quartz at high temperatures.
- Merritt, Dr. John W(esley)**, 316 Atlas Life Building, Tulsa, Okla. *Geology*. Atchison Co, Mo, Feb. 8, 85. B.S, Northwestern, 10, fellow, 11-12, M.S, 12; fellow, Wisconsin, 16-17, Ph.D, 17. Instr. geol, Dartmouth, 12-16; geologist, Roxana Petrol. Co, 16-18; Sapulpa Ref. Co, 18-21; coal exploration, Ill, 21-22; Freeborn Eng. Corp, 22; *consulting geologist*, 22- U. S. Geol. Surv, 13-14; Vermont Geol. Surv, 20; Okla. Geol. Surv, 26. Ass. Petrol. Geol; Min. and Metal. Eng. Petroleum geology; metamorphism.
- Merrow, Prof. Harriet Lathrop**, Merrow, Conn. *Botany*. Merrow, Sept. 8, 58. B.S, Wellesley, 86, A.M, 93; Michigan, 91-92; hon. M.S, R. I. Col, 20. Teacher, high sch, Mass. and Ohio, 87-91; asst, Michigan, 93-94; prof. bot, R. I. Col, 95-20. A.A; Bot. Soc. Parasitic fungi.
- Merryman, W(illia)m Walter**, College of William and Mary, Williamsburg, Va. *Physics*. Carbon-dale, Ill, March 16, 89. Grad, South. Ill. Teachers Col, 09; A.B, Missouri, 12; A.M, Illinois, 17; Ph.D, Chicago, 25. Asst. physics, Illinois, 18-19; instr, Western Reserve, 20-21; research physicist, Westinghouse Lamp Co, 25-27; *assoc. prof. physics*, William and Mary, 27- A.A; Physical Soc; Optical Soc. Terrestrial magnetism; atmospheric electricity; residual ionization in gases; electric discharges in rare gases.
- Mershon, Ralph D(avenport)**, 16 W. 54th St, New York, N. Y. *Electrical engineering*. Zanesville, Ohio, July 14, 68. M.E, Ohio State, 90; Sc.D, Tufts, 18. Asst. physics, Ohio State, 90, asst. elec. eng, 90-91; engineer and designer, Westinghouse Elec. and Mfg. Co, Pa. and N. Y, 91-97, 98-00; chief engineer, Colo. Elec. Power Co, 97-98; *consulting elec. and mech. engineer*, 00- Engineer, Victoria Falls Power Co, S. Africa, 06-07. John Scott medal, Franklin Inst. Major and lieut. col, C.Eng, 17-
19. A.A; fel. Elec. Eng. (v. pres, 02-05, pres, 12); Mech. Eng; Civil Eng; Electrochem. Soc; Franklin Inst; Can. Soc. Civil Eng; British Inst. Elec. Eng. Air losses occurring on transmission lines at high voltages.
- Mertie, Dr. J(ohn) B(eaver), Jr**, U. S. Geological Survey, Washington, D. C. *Geology*. Baltimore, Md, Jan. 22, 88. Baltimore City Col, 01-05; A.B, Hopkins, 08, Ph.D, 11. *Geologist*, U. S. Geol. Surv, 11- A.A; Geol. Soc; Soc. Econ. Geol; Wash. Geol. Soc. Geology and mineral resources of Alaska.
- Merwin, B(ruce) Welch**, University Museum, Philadelphia, Pa. *Archeology*. Iola, Kans, Feb. 27, 89. A.B, B.S, Kansas, 11. Instr, high sch, Tenn, 11-12; Idaho, 12-13; supt, schools, Kans, 13-14; *asst. curator univ. museum*, Pennsylvania, 15- Asst. director, Peabody Museum exped, Ohio, 08, director, 11, Tenn, 13. Anthropol. Ass. (acting sec'y-treas, 18, mem. council, 19); Kans. Acad. Mounds of Henry County, Tennessee, and vicinity.
- Merwin, Dr. H(erbert) E(ugene)**, Geophysical Laboratory, Washington, D. C. *Geophysics*. Newton, Kans, Feb. 20, 78. B.S, Harvard, 08, Ph.D, 11. Asst. physiog. and teaching fellow miner. and petrol, Harvard, 07-09; asst. petrologist, *geophys. lab*, Carnegie Institution, 09-17, *petrologist*, 17- Geol. Soc; Physical Soc; Wash. Acad; Wash. Geol. Soc; Wash. Philos. Soc. Glacial geology; mineralogy; petrology; physics.
- Merz, Dr. Albert R(onald)**, U. S. Department of Agriculture, Washington, D. C. *Chemistry*. Lynchburg, Va, Jan. 14, 87. B.S, Virginia, 09, M.S, 11; Ph.D, George Washington, 23. Chemist, Raymond Mining Co, 06; asst. chemist, Exp. Sta, Pa. State, 07; asst. chem, Virginia, 08-09, instr, 09-10; asst. chemist, South. Cotton Oil Co, 10-11; *assoc. chemist, bur. soils*, U. S. Dept. Agr, 11- Abstractor, 'Chem. Abstracts,' 18- A.A; Chem. Soc; Inst. Chem. Giant kelps; potash from cement mills and blast furnaces; collection of phosphoric acid; Russia's platinum; concentrated fertilizers.
- Merz, Eugene**, 338 Wilson Ave, Newark, N. J. *Mining engineering*. New York, N. Y, April 11, 69. B.S, Col. City of N. Y, 88; E.M, Columbia, 92. *Treas, Heller and Mers Co; pres*, Ultramarine Co. Chem. Soc; Soc. Chem. Indust.
- Meserve, Prof. Philip W(eston)**, 79 Federal St, Brunswick, Maine. *Chemistry*. Portland, Maine, Nov. 24, 88. A.B, Bowdoin, 11; A.M, Harvard, 15. Assoc. div. pharmacol, hygienic lab, U. S. Pub. Health Service, 13; instr. chem, Simmons, 13-14; Bowdoin, 15-16, *asst. prof*, 16- Chem. Soc.
- Meservey, A(rthur) B(ond)**, Dartmouth College, Hanover, N. H. *Physics*. New Hampton, N. H, Nov. 17, 84. A.B, Dartmouth, 06; B.Sc, Oxford (Eng), 11. Asst. *physics*, Dartmouth, 07-08; demonstrator, Oxford, 10-11; instr, Dartmouth, 11-16, *asst. prof*, 16- A.A; assoc. Physical Soc. Sparking potentials at low pressures; E.M.F. due to moving magnets; electrical response of the eye to light.

- Messenger, Prof. J(ames) Franklin**, University of Idaho, Moscow, Idaho. *Psychology*. Benton Co, Iowa, Jan. 30, 72. A.B., Kansas, 95; A.M., Harvard, 01; fellow, Columbia, 01-02, Ph.D., 03. Instr. psychol, New Mexico, 99-00; asst, Harvard, 00-01; instr, Pratt Inst, 02-03; Minn. State Nor. Sch, 03-04; dean, Highland Park Nor. Col, 04-05; prof. psychol, Va. State Nor. Sch, Farmville, 05-09; educ, Vermont, 09-20; *dean sch. educ, Idaho, 20-* Director summer sch, Vermont, 09-20. A.A.; Psychol. Ass; Nat. Ass. Col. Teachers Educ. Perception of numbers; supervision of instruction.
- Metcalf, Prof. C(ell) L(ee)**, University of Illinois, Urbana, Ill. *Entomology*. Lakeville, Ohio, March 26, 88. A.B., Ohio State, 11, A.M., 12; Sc.D., Harvard, 19. Asst. zool. and entom., Ohio State, 11-12; asst. entomologist, N. C. Exp. Sta, 12-14; asst. prof. entom., Ohio State, 14-20, *prof.*, 20-21; *Illinois, and head dept.*, 21-Summers, consulting entomologist, Maine Exp. Sta, 15-17, teacher, Cornell, 18-20. A.A.; fel. Entom. Soc. (sec'y, 20-25, v. pres, 26); Ass. Econ. Entom. Economic entomology; Syrphidae; animal parasites.
- Metcalf, Prof. F(ranklin) P(ost)**, Fukien Christian University, Foochow, China. *Botany*. Oberlin, Ohio, June 10, 92. A.B., Oberlin, 13; Cornell, 13-17. Asst. ornith., Oberlin, 12-13; asst. bot., Cornell, 13-16, instr., 16-17; asst. biologist, biol. surv., U. S. Dept. Agr, 17, 19-23; *prof. bot., Fukien Christian Univ.*, 23-Ornith. Union; Wilson Ornith. Club; Wash. Bot. Soc; Wash. Biol. Soc. Systematic botany; aquatic vegetation.
- Metcalf, Dr. Haven**, U. S. Department of Agriculture, Washington, D. C. *Plant pathology*. Winthrop, Maine, Aug. 6, 75. Colby, 92-94; A.B., Brown, 96, A.M., 97, 97-98; Harvard, 99; Indiana, 00; Nebraska, 01-03, Ph.D., 03. Instr. bot., Brown, 96-99; prof. biol. Tabor, 99-01; assoc. prof. bot. and bacter., Clemson, and state botanist, S. C., 02-06; pathologist, U. S. Dept. Agr, 06-07, pathologist in charge investigations in forest path, 07-25, *senior pathologist in charge investigations in forest path*, 25- Demonstrator, Brown, 95-96; lecturer, Martha's Vineyard Summer Inst, 96-99; S. C. State Summer Sch, 03-05; special agent, U. S. Dept. Agr, 04, 05. U. S. delegate, Int. Conf. Phytopath., Holland, 23. A.A.; Phytopath. Soc. (pres, 14); Bot. Soc; Soc. Bact; Wash. Bot. Soc. (pres, 20); Wash. Biol. Soc; New Eng. Bot. Club. A soft rot of the sugar-beet; *Bacterium teutlium*; cultural studies of a nematode associated with plant decay; the rice blast in South Carolina; individuality of chromosomes; diseases of forest trees; immunity in plant diseases; scientific administration.
- Metcalf, Dr. John T(rumbull)**, University of Vermont, Burlington, Vt. *Psychology*. New Haven, Conn, March 21, 89. A.B., Yale, 10, A.M., 11, Ph.D., 13; Berlin and Munich, 13-14. Instr. psychol, Princeton, 14-16; Smith, 16-18, asst. prof., 18-19; psychologist, dept. pub. welfare, Ill. Div. Criminol, 19-20; asst. prof. psychol, George Washington, 20-21; *assoc. prof., Vermont, 21-* Lieut. Sanit.C, 17-19. Psychol. Ass. Experimental psychology.
- Metcalf, Prof. Maynard M(ayo)**, Johns Hopkins University, Baltimore, Md. *Zoology*. Elyria, Ohio, March 12, 68. A.B., Oberlin, 89, Sc.D., 14; Ph.D., Hopkins, 93. Assoc. prof. biol. Goucher, 93-97, prof., 97-06; zool., Oberlin, 06-14; private research, 14-24; *research assoc. zool., Hopkins, 25-* Instr. and trustee, Woods Hole. Chairman div. biol. and agr, Nat. Research Council, 24-25; collaborator, marine invertebrates, U. S. Nat. Museum. A.A.; Soc. Nat. (treas, 02-04); Soc. Zool. (pres, 18, sec'y-treas, 02-09); Soc. Parasitol; Ecol. Soc; Soc. Trop. Med; Genetic Ass; Child Hygiene Ass; Am. Geog. Soc; Econ. Ass; Acad. Polit. Sci; Nat. Econ. League (councilor); Nat. Munic. League; West. Econ. Ass; Ohio Acad. (pres, 18); Wash. Biol. Soc; cor. mem. Wash. Helminth. Soc; Wash. Acad; fel. Royal Econ. Soc; Ray Soc. London; Soc. biol. de Lyons. Protozoology; morphology of Tunicata, Mollusca; theory of evolution; paleogeography.
- Metcalf, Dr. Ruth Clark (Mrs. John T)**, 326 College St, Burlington, Vt. *Psychology*. Holyoke, Mass, Oct. 8, 87. A.B., Smith, 09, A.M., 13; Smith Col. fellow, Columbia, 16-17, Ph.D., 19. Teacher, high sch, 09-11; reader, dept. philos. and psychol, Smith, 11-13, asst, 13-16, instr., 17-19; psychologist, Bur. Vocational Service for Juniors, New York, 19-23. Summers, instr., training sch. for social workers, Smith, 18-20. Psychol. Ass; Vocational Guidance Ass. (trustee, 21); N. Y. Ass. Consulting Psychol. (exec. committee, 21-23); N. Y. Soc. Exp. Study Educ. Experimental psychology; group tests given to public school children.
- Metcalf, Prof. W(ilmot) V(ernon)**, 227 Oak St, Oberlin, Ohio. *Chemistry*. Bangor, Maine, Sept. 2, 60. A.B., Oberlin, 83, A.M., 86; Ph.D., Hopkins, 90; Würzburg, 95-96; Leipzig, 03-05. Prof. nat. science, Whitman, 83-85; instr. chem. and physics, Carleton, 90-91, prof., 91-03; in business, 03-09; asst. prof. physics, Fisk, 09-14; *retired*, 14. Physical chemistry; van der Waals' equation; reaction of diazo-compounds with alcohols; nitro-compounds; chemical change induced by surface tension.
- Metcalf, Prof. Z(eno) P(ayne)**, State College Station, Raleigh, N. C. *Entomology*. Lakeville, Ohio, May 1, 85. A.B., Ohio State, 07; Sc.D., Harvard, 25. Instr. entom., Mich. State Col, and asst. entomologist, Exp. Sta, 07-08; asst. entomologist, N. C. State Dept. Agr, 08-12; *prof. zool. and entom., N. C. State, and entomologist, Exp. Sta, 12-*, *director instruction, sch. agr.*, 23-Staff lake lab, Ohio, 16, 18; Michigan Biol. Lab, 21. A.A.; Entom. Soc; Ass. Econ. Entom.; Ornith. Union; Wilson Ornith. Club; Micros. Soc. (v. pres, 22, pres, 27); Ecol. Soc; Soc. Mammal; Soc. Herp; Ohio Acad; N. C. Acad. (v. pres, 14, pres, 21). Economic entomology; morphology of Homoptera; classification of the Homoptera of the world; zoology of North Carolina.
- Metfessel, Dr. Milton**, 14 W. Court St, Iowa City, Iowa. *Psychology*. Waterloo, Ont, Can, Sept. 6, 01. A.B., Iowa State Teachers Col, 21; A.M., Iowa, 24, fellow, 24-25, Ph.D., 25. *Nat. Research Council fellow psychol, Iowa, 25-* Psychol. Ass; assoc. Iowa Acad. Psychology of music and speech.

- Metschl, Dr. John**, 1105 Richards St, Milwaukee, Wis. *Chemistry*. Milwaukee, March 7, 92. A.B. Wisconsin, 18, A.M., 20, Ph.D., 23. Asst. anthrop. Pub. Museum, Milwaukee, 14-16, asst. curator, 23-26. Lecture asst, Wisconsin, 20-21; summers, asst, Pub. Museum, Milwaukee, 17, 19, 20-23. Private, Sig.C, 18-19. Chem. Soc. Setting of plaster of paris; supersaturation of gases in liquids; firearms; petroleum.
- Mettler, Dr. L(ee) Harrison**, Hubbard Woods, Ill. *Neurology*. New York, N. Y., June 1, 63. A.B. Col. City of N. Y., 83, A.M., 86; Columbia, 83-84; M.D. Jefferson Med. Col., 86. Prof. neur. and head dept, med. col, Illinois, 14; *retired*. Am. Med. Ass. Diseases of nervous system.
- Metz, Prof. A(braham) L(ouis)**, Tulane University, New Orleans, La. *Chemistry, Toxicology*. Chicago, Ill., April 22, 64. Ph.G., N. Y. Col. Pharmacy, 87; hon. Ph.M., Tulane, 89, M.D., 93. Asst. chemist, Dept. Pub. Charities and Correction, New York, 85-87; instr. pharmacy, *Tulane*, 87-93, instr. and demonstrator, 93-96, prof. chem. and med. juris, 96-20, *chem. and toxicol. pharmaceut. dept.*, 08-20, *emer. prof.*, 20-Prof, dental dept, Tulane, 08-20, head dept. chem, 08-18. City chemist, New Orleans, 89-20, 25-; chemist, La. State Board Health, 89-07; chemist, Board Health, New Orleans, 97-01, 05-20, 25- Chem. Soc. (past v. pres, La. branch); Howard Mem. Library Ass. (board trustees).
- Metz, Dr. C(harles) W(illiam)**, Carnegie Institution, Cold Spring Harbor, N. Y. **Zoology*. Sundance, Wyo, Feb. 17, 89. A.B. Pomona, 11; fellow, Columbia, 12-13, Ph.D., 16. *Res. investigator, sta. for exp. evolution, Cold Spring Harbor*, 14- A.A.; Soc. Nat; Soc. Zool; Soc. Exp. Biol. Cytology and genetics of Diptera.
- Metzelaar, Dr. Jan**, Museum of Zoology, Ann Arbor, Mich. *Zoology*. Holland, Oct. 21, 91. Sc.D., Amsterdam, 19. Fisheries service, Holland, 17-23; *fisheries expert, Mich. State Dept. Conservation*, 23- Custodian and special investigator, dept. birds, Museum of Zool, Michigan, 25. Systematics; fishes; genetics; colors; pigeons.
- Metzger, Dr. F(loyd) J(ay)**, 342 Madison Ave, New York, N. Y. *Chemistry*. Akron, Ohio, Aug. 30, 77. Ph.B. Buchtel, 99; Ph.D., Columbia, 02. Tutor chem, Columbia, 05-07, instr., 07-11, asst. prof., 11-16, assoc. prof., 16-17; *v. pres. in charge research and develop. Air Reduction Co*, 17- Chem. Soc; Electrochem. Soc; Chem. Eng; Soc. Chem. Indust; N. Y. Chemists Club (pres, 23, trustee). Commercial gases; nitrogen fixation; cyanides.
- Metzger, Prof. J(acob) E(ly)**, University of Maryland, College Park, Md. *Agronomy*. New Enterprise, Pa., 82. B.S. Pa. State, 11; A.M., Hopkins, 24. *Prof. agr. educ, Maryland*, 14-17, *agron. and agronomist, Exp. Sta.*, 17-, acting dean col. agr., 24-26. A.A.; Soc. Agron; Acad. Polit. Sci. Farm crops.
- Metzler, Dr. Geo(rge) F(rederick)**, Mottville, N. Y. *Mathematics*. Westbrook, Ont, Can, 53. B.A. Toronto, 80, M.A., 84; Ph.D., Hopkins, 91; Clark, 92; Chicago and Michigan, 93; Berlin and Göttingen, 94-95; B.D., Toronto, 00. Prof. math, Albert, 80-84; Marietta, 89-90; asst, Queen's (Can), 96; instr, Syracuse, 08-10, asst. prof., 10-13, assoc. prof., 13; *pastor, M. E. Church, Fair Haven, N. Y.; Union Springs; Mottville and Skaneateles Falls*, 24- Invariants and covariants associated with the linear differential equations; surfaces of revolution and their representation on the hyperbolic plane; factorial 'N.'
- Metzler, Dean W(illiam) H(enry)**, New York State College for Teachers, Albany, N. Y. **Mathematics*. Odessa, Ont, Can, Sept. 18, 63. B.A. Toronto, 88; Ph.D., Clark, 92. Instr. math, Mass. Inst. Tech., 92-94; assoc. prof., Syracuse, 95-96, prof., 96-23, *dean grad. sch.*, 11-17, col. liberal arts, 21-23; *N. Y. State Col. Teachers*, 23- Former ed, 'Jour. Pedag.' and 'Math. Teacher.' A.A.; Math. Soc; Archeol. Inst; Ass. Teachers Math. Middle States and Md. (pres. and ed, 10); fel. Royal Soc. Can; British Ass; British Math. Ass; London Math. Soc; Edinburgh Math. Soc; fel. Edinburgh Royal Soc; Math. Verein; Soc. math. de France; Circolo Mat. di Palermo. Determinants; identities connecting alternants and elliptic functions; rank of a matrix; vanishing aggregates; factors of curculants; factorable continuants; rectangular arrays.
- van der Meulen, Prof. P(eter) A(ndrew)**, Rutgers University, New Brunswick, N. J. *Physical chemistry*. Makkum, Holland, Dec. 23, 91. B.Ch., Cornell, 13, Ph.D., 16. Instr. and asst. prof. miner, Cornell, 15-17; indust. chemist, 17-19; asst. prof. and assoc. prof. chem, *Rutgers*, 19-26, *prof. gen. and physical chem*, 26- Chem. Soc. Emulsions; insecticides.
- Meyer, Dr. Adolf**, Johns Hopkins Hospital, Baltimore, Md. **Psychiatry, Neurology*. Zurich, Switzerland, Sept. 13, 66. Staatsexamen, Zurich, 90; Paris, Edinburgh, London and Vienna, 90-92; M.D., Zurich, 92; LL.D., Glasgow, 01; Clark, 09. Hon. fellow, Chicago, 92-93, docent, 93-95; pathologist, Ill. East. Hosp, 93-95; Worcester Insane Hosp, 95-02; docent psychiat, Clark, 95-02; director, Path. Inst. of State Hospitals of N. Y., 02-09; *prof. psychiat, med. col.*, Cornell, 04-09; *Hopkins and psychiatrist-in-chief, Hopkins Hosp*, 10- A.A.; Neur. Ass. (pres, 22); Psychiat. Ass. (v. pres, 26); Am. Physicians; Psychol. Ass; Psychopath. Ass. (pres, 12, 16); Ass. Path. and Bact; Ass. Anat; N. Y. Psychiat. Soc. (pres, 05-07); fel. N. Y. Acad. (v. pres, 08); Harvey Soc; hon. mem. Boston Soc. Psychiat. and Neur; Royal Medico-Psychol. Ass. Comparative anatomy of fore-brain, chiefly of reptiles; pathological anatomy of the nervous system; psychopathology; normal and pathological anatomy of the cerebrum; aphasia; habit disorganizations; formulation of psychobiology and psychopathology as objective sciences; catatonia.
- Meyer, Adolph F(rederick)**, 628 Metropolitan Bank Building, Minneapolis, Minn. *Engineering*. Cedarburg, Wis, Feb. 28, 80. B.S., Wisconsin, 05, C.E., 09. Engineer, U.S.A., 05-12; consulting engineer, Int. Joint Commission, 12-17; assoc. prof. hydraul. eng., Minnesota, 14-19; *consulting hydraul. engineer*, 12- Civil Eng; Mech. Eng; Min. Eng. and Surveyors

- Soc; Minneapolis Eng. Club; St. Paul Eng. Soc. Hydrology; hydraulics; manufacture of groundwood.
- Meyer, Dr. A(rthur) W(illiam)**, 121 Waverley St, Palo Alto, Calif. **Anatomy*. Cedarburg, Wis, Aug. 18, 73. B.S. Wisconsin, 98, 99; M.D. Hopkins, 05. Instr. physics, St. John's Mil. Acad, 98-01; asst. anat. Hopkins, 05-06, instr. 06-07; asst. prof. Minnesota, 07-08; prof. Northwestern, 08-09; *human anat*, Stanford, 09- Research assoc. Carnegie Institution, 17-18. A.A.; Ass. Anat. (exec. committee, v. pres); Soc. Zool; Soc. Exp. Biol; West. Soc. Nat. Development; technique; growth; variations; ante-natal pathology; lymphatics; physiology; pathology.
- Meyer, Dr. Bernard S(andler)**, Ohio State University, Columbus, Ohio. *Plant physiology*. Nantucket, Mass, July 20, 01. A.B. Ohio State, 21, A.M. 23, Ph.D. 26. *Instr. bot*, Ohio State, 23- A.A.; Bot. Soc; Ohio Acad. Plant ecology.
- Meyer, Dr. Charles F(erdinand)**, 1137 Fair Oaks Parkway, Ann Arbor, Mich. *Physics*. Baltimore, Md, Jan. 15, 87. A.B. Hopkins, 06, fellow, 10-11, Ph.D. 12. Asst. applied elec. Hopkins, 11-12; instr. *physics*, Washington (St. Louis), 12-13, acting asst. prof. 13-14; lecturer, Hopkins, 14-15; instr. *Michigan*, 15-17, 19-21, *asst. prof.*, 21- Lieut. M.T.C. 17-19. A.A.; fel. Physical Soc; Optical Soc. Vibration of telephone diaphragms; spectroscopy; infra-red.
- Meyer, Dr. Erwin E(mil) A(lbert) G(eorge)**, 863 Iroquois Ave, Detroit, Mich. *Chemistry*. Hanover, Germany, Oct. 1, 73. Erlangen, 94-95; Ph.D. Berlin, 96-00; Tech. Hochschule, Hanover, 00-01. Chief chemist, St. Helen's Cable Co, Warrington, England, 02-05; *consulting chemist*, The Rubber Goods Mfg. Co, 06-08; Morgan and Wright Co, 08-10; *U. S. Rubber Co*, 10- Chem. Soc; Detroit Chem. Soc; Chem. Gesell. Organic chemistry; rubber latex.
- Meyer, Dr. Gustave M(orris)**, 14 Bullard Place, Flushing, N. Y. *Chemistry*. New York, N. Y., Dec. 16, 75. B.S. C.E. N. Y. Univ, 96; Sc.D. Geneva, 01. Tutor biol. chem. col. physicians and surg. Columbia, 07-08; assoc. prof. col. med. Syracuse, 08-09; asst. chem. *Rockefeller Inst.* 09-13, *assoc.*, 13- Chem. Soc; Soc. Exp. Biol; Soc. Biol. Chem; Harvey Soc. Biochemistry; carbohydrates; tissue chemistry.
- Meyer, Dr. J(ohn) Franklin**, U. S. Bureau of Standards, Washington, D. C. *Physics*. Penn Hall, Pa, March 11, 75. A.B. Franklin and Marshall, 94, A.M. 97, Sc.D. 18; Hopkins, 97-99; Ph.D. Pennsylvania, 04. Prin. high sch. Pa, 94-96; instr. math. and physics, Franklin and Marshall Acad, 96-97; prof. high sch. 00-02; instr. and asst. prof. physics, Pennsylvania, 02-07; prof. Pa. State, 07-09; director physical research, Westinghouse Lamp Co, 09-13; assoc. physicist, *Bur. Standards*, 13-18, *physicist*, 18- A.A.; Physical Soc; Elec. Eng; Illum. Eng. Soc; Wash. Acad. (ed. 'Jour.', 18-21); Wash. Philos. Soc. Electrical convection; thermoelectromotive forces; tungsten lamps; standards for electric service and street lighting; photometry.
- Meyer, Prof. K(arl) F(riederich)**, Hooper Foundation, San Francisco, Calif. *Bacteriology, Pathology*. Basel, Switzerland, May 19, 84. A.B. Zurich, 05, D.V.M. 09, Ph.D. 24; Munich, 05-06; Bern, 08. Pathologist, Transvaal Dept. Agr, 08-10; asst. prof. path. and bacter. sch. vet. med. Pennsylvania, 10-11, prof. 11-13; director lab. and exp. farm, Pa. Livestock Sanit. Board, Phila, 11-13; assoc. prof. bacter. and protozool. *California*, 13-14, prof. 14-15, assoc. prof. trop. med. *Hooper Foundation*, 15-21, *prof. research med.* and acting director, 21-24, *bacter. and director*, 24- A.A.; Ass. Path. and Bact; Soc. Bact; Ass. Immunol; Soc. Trop. Med. (v. pres, 18); Soc. Exp. Biol; Pub. Health Ass; Calif. Acad. Med; Phila. Path. Soc; Soc. Helvétique des Sci. Nat. Comparative pathology and bacteriology; protozoology; experimental typhoid infections; fecal flora of children; immunity; cutaneous hypersensitiveness; Malta fever; anaerobes; canning technology; botulism; symbiosis in invertebrates; plague and focal infections.
- Meyer, Dr. Martin**, College of the City of New York, New York, N. Y. *Chemistry*. St. Louis, Mo, April 15, 99. B.S. Col. City of N. Y., 18; A.M. Columbia, 20, Ph.D. 21. Prof. chem. Antioch, 22; instr. *Col. City of N. Y.*, 19-21, 23-27, *asst. prof.*, 27- Consulting chemist, New York, 23- Fellow, Inst. Chem. Second lieut. Inf, 17-18. Chem. Soc; N. Y. Acad. Organic sulphur compounds; lead tetraethyl; dehydrothiitoludin; elementary chemical calculations; first problems in chemistry; perfumes.
- Meyer, Prof. Max F(rederick)**, University of Missouri, Columbia, Mo. **Psychology*. Danzig, Germany, June 15, 73. Ph.D. Berlin, 96, 96-98. *Prof. exp. psychol*, Missouri, 00- A.A.; Psychol. Ass; Nat. Vocational Guidance Ass. Physiological acoustics; psychological theory of music; psychology of painting and sculpture; rhythmical activities; comparative psychology; individual differences in special abilities.
- Meyer, Prof. W(illiam) F(erdinand)**, Students' Observatory, Berkeley, Calif. *Astronomy*. Peru, Ill, Dec. 2, 80. B.S. Drake, 07; Ph.D. California, 19. Asst. astron. Drake, 06-07; California, 07-10, instr. 10-12; astronomer-in-charge, Int. Latitude Observatory, 12-18; Kellogg fellow, Lick Observatory, *California*, 18-19, asst. prof. *astron.*, 19-23, *assoc. prof.*, 23- A.A.; Astron. Soc; Pacific Astron. Soc. Orbits of new comets and satellites; polarigraphic studies of nebulae.
- Meyer, Dr. Willy**, 700 Madison Ave, New York, N. Y. *Surgery*. Minden, Germany, July 24, 58. M.D. Bonn, 80. Prof. clin. surg. Woman's Med. Col. N. Y., 86-92; *surg*, N. Y. *Post-Grad. Med. Sch. and Hosp*, 92-19, *emer. prof.*, 19- Attending surgeon, Lenox Hill Hosp, 87-, consulting surgeon, 23-; N. Y. Skin and Cancer Hosp; N. Y. Infirm. for Women and Children; Hosp. for Deformities and Joint Diseases; Montefiore Hosp; Bronx Hosp; N. Y. Post-Grad. Med. Sch. Hosp. Fel. Surg. Ass; Am. Med. Ass; Urol. Soc; Gastro-Enterol. Ass; Ass. Thoracic Surg; Ass. Cancer Research; N. Y. Acad. Med; N. Y. Path. Soc; N. Y. Surg. Soc; cor. mem. Urol. Gesell.

Meyers, H(erbert) H(enry), Mellon Institute, Pittsburgh, Pa. *Industrial chemistry*. Philadelphia, Pa, March 16, 91. B.S, Pennsylvania, 12. Research chemist, Am. Smelting and Ref. Co, 12-16; *indust. fellow*, Mellon Inst, 16-18. Chem. Soc; Chem. Eng; Electrochem. Soc. Commercial production of fertilizers.

Meylan, Prof. George L(ouis), Columbia University, New York, N. Y. *Anthropometry, Physiology*. Brassus, Switzerland, July 22, 73. M.D, N. Y. Univ, 96; B.S, Harvard, 02; A.M, Columbia, 04; hon. M.P.E, 19. *Prof. physical educ. and med. director*, Columbia, 03-08. Summers, lecturer, Harvard, 99-03; instr, Sargent Nor. Sch, 02-03. A.A; Physical Educ. Ass. (pres, 07-11). Physiology of exercise; anthropometry; physical education.

Mezes, Pres. S(idney) E(dward), College of the City of New York, New York, N. Y. *Education*. Belmont, Calif, Sept. 23, 63. B.S, California, 84, LL.D, 12; A.B, Harvard, 90, A.M, 91, Ph.D, 93; Tübingen, 90; LL.D, Southwestern (Texas), 11, N. Y. Univ. and Cincinnati, 15. Lecturer philos, Bryn Mawr, 92-93; docent, Chicago, 93-94; adjunct prof, Texas, 94-97, assoc. prof, 97-00, prof, 00-14, dean, 02-08, pres, 08-14; Col. City of N. Y, 14-27. Director in charge collecting data for Am. Commission to Negotiate Peace, 17-18, director territorial sect, Paris, 18-19; Cent. Territorial Commission, 19. A.A; fel. Texas Acad. (past pres). Pleasure-pain; conscience; causes of crime; differences between man and other animals; education and scientific ethics.

Michael, Prof. Arthur, 219 Parker St, Newton Center, Mass. **Chemistry*. Buffalo, N. Y, Aug. 7, 53. Heidelberg, 72-74; Berlin, 75-78; Ecole de Médecine, Paris, 79; hon. Ph.D, Tufts, 90, LL.D, 10; LL.D, Clark, 09. Prof. chem, Tufts, 81-90; Clark, 91; Tufts, 94-07, emer. prof, 07-12; *prof. org. chem*, Harvard, 12-18. Nat. Acad. Investigations in organic chemistry bearing on its fundamental laws and theory.

Michaelis, Dr. L(eonor), 15 Talbot Road, Windsor Hills, Baltimore, Md. *Physical chemistry*. Berlin, Germany, Jan. 16, 75. M.D, Berlin, 96. Asst, State Inst. Serum Research, Berlin, 98-99; intern asst, Munic. Hosp, 99-03; asst, med. clinic, dept. for cancer research, privat-docent, 02, prof, 05, 03-07, director biol. lab, Munic. Hosp, 07-22; prof. biochem, Med. Sch, Nagoya, Japan, 22-26; *res. lecturer research med*, Hopkins, 26-28. Prof, Berlin, 05, prof. and lecturer, 20. A.A; Chem. Soc; Chem. Gesell; Physiol. Gesell; Bunsen Gesell; Leopoldinische Akad. d. Wissensch. Physical chemistry applied to medicine and biology.

Michel, Prof. C(hristy) W(illiam), Columbus, Ohio. *Botany*. Mt. Sterling, Ohio, May 3, 81. A.B, Litt.B, Ohio Wesleyan, 04; A.M, Harvard, 12; fellow, Wisconsin, 12. Prof. biol, Defiance, 06-12. Bot. Soc. Plant pathology and physiology.

Michels, Prof. N(icholas) A(loysius), University of St. Louis School of Medicine, St. Louis, Mo. *Biology*. St. Paul, Minn, Oct. 1, 91. A.B, St. Thomas Col, 12; S.T.B, Catholic Univ, 18; A.M, Minnesota, 20; D.Sc, Louvain, Belgium, 22;

Friday Harbor, 21; Naples, 23. *Prof. biol*, St. Thomas Col, 23-25; *sch. med*, St. Louis, 25-28. Fossil fauna exped, Gerolstein, Germany, 22. Ass. Anat; Soc. Sci. de Bruxelles; Soc. d'Anthrop. de Bruxelles. Haematology; ecology; the Mast cell; embryonic blood; tissue culture cells; perivascular infiltrations.

Michelson, Prof. A(lbert) A(braham), University of Chicago, Chicago, Ill. **Physics*. Strelno, Germany, Dec. 19, 52. Grad. U. S. Naval Acad, 73; Berlin, 80; Heidelberg, 81; Col. de France, 82; hon. Ph.D, Western Reserve, 86, Stevens, 87, Leipzig, 09, Göttingen, 11; D.Sc, Cambridge, 99; LL.D, Yale, 01, Pennsylvania, 06; Physics D. Clark, 09. Instr. physics and chem, U. S. Naval Acad, 75-79; prof. physics, Case, 83-89; Clark, 89-92; prof. physics, Chicago, 92-25, *Distinguished Service prof*, 25-, *head dept*, 92-93. Exchange prof, Göttingen, 11; Lowell lecturer, 99. Bur. Int. des Poids et Mesures, 92-93; Int. Commission Weights and Measures, 97. Rumford medal, 89; grand prize, Paris Expos, 00; Copley medal, Royal Soc, 07; Nobel prize, 07; Cresson medal, Franklin Inst, 12; Draper gold medal, Nat. Acad, 16. Lieut. commander, U.S.N.R.F, 18. Nat. Acad. (pres, 23-27); A.A. (v. pres, 87, pres, 10); Physical Soc. (v. pres, 99-01, pres, 01-03, ed. board, 15-17); Astron. Soc; Philos. Soc. (v. pres, 10, 11, 13); Am. Acad; hon. fel. London Physical Soc; for. mem. Royal Soc; hon. fel. Edinburgh Royal Soc; cor. mem. British Ass; fel. Royal Astron. Soc; hon. mem. Royal Inst; hon. mem. Royal Irish Acad; for. assoc. Paris Acad; for. assoc. Acad. des Sci; Soc. de Physique; Holland Soc. des Sci; for. mem. Accad. dei Lincei. Light.

Michelson, Dr. Truman, Smithsonian Institution, Washington, D. C. *Anthropology*. New Rochelle, N. Y, Aug. 11, 79. A.B, Harvard, 02, A.M, 03, Ph.D, 04; Parker fellow, at Leipzig and Bonn, 04-05; private student with Prof. Boas, Columbia, 09-10. Instr. Latin, Missouri, 05-06; *ethnologist*, Bur. Am. Ethnol, 10-11; *prof*, George Washington, 17-18. Summer, Columbia, 24. Clerk, physical div, U. S. Immigration Commission, 09. A.A; Anthropol. Ass. (councilor); fel. Ethnol. Soc; Philol. Ass; Oriental Soc; Linguistic Soc; Wash. Acad; Wash. Anthropol. Soc. (sec'y, 11, v. pres, 18-20, pres, 23-24); cor. mem. Soc. des Américanistes de Paris. Philology; Algonquian tribes of North America.

Mickel, Dr. Clarence E(ugene), University Farm, St. Paul, Minn. *Entomology*. Lincoln, Nebr, Feb. 29, 92. B.S, Nebraska, 17; M.S, Minnesota, 23, Ph.D, 25. Exten. entomologist, Nebr, 17-20; research entomologist, Am. Beet Sugar Co, Colo, 20-22; exten. entomologist, Minnesota, 22-25, *asst. prof. entom*, 25-26. Entom. Soc; Ass. Econ. Entom. Taxonomy and biology of the Mutilidae (Hymenoptera).

Middlekauff, Dr. George W(iles), 1002 Oak Hill Ave, Hagerstown, Md. *Physics*. Leitersburg, Md, June 5, 69. A.B, Franklin and Marshall, 91, A.M, 94; Chicago, 02; Ph.D, Hopkins, 03. Instr. math, Palatinate, 91-92; prin. schools, Md, 93-94; instr. high sch, Pa, 94-99; lab. asst, Bur. Standards, 03-06, asst. physicist, 06-15, assoc. physicist, 15-17. Int. Elec. Cong, St.

- Louis, 04. A.A.; Physical Soc; Illum. Eng. Soc; Wash. Philos. Soc. Spectroscopy and photometry; effect of capacity and of self-induction upon wave-lengths in the spark spectrum; direct-reading candle-power scale for precision photometers; equations of tungsten filament lamps and their use in heterochromatic photometry; photometry of gas-filled lamps; life testing of incandescent lamps; photometric comparison of colored glass screens and tungsten filament lamps.
- Middleton, Prof. A(rthur) R(enwick)**, Purdue University, Lafayette, Ind. *Chemistry*. Webster, N. Y., May 8, 69. A.B., Rochester, 91; Ph.D., Cornell, 04. Instr. high sch., Mo., 04-06; asst. prof., *Purdue*, 06-14, assoc. prof., 14-18, *prof. inorg. chem.*, 18-, acting head dept., 25-26. Asst. ed., 'Chem. Abstracts,' 23- Nat. Research Council; Int. Committee on Nomenclature in Inorg. Chem. Chem. Soc; fel. Ind. Acad. (ed. board, 'Proc,' 25-). Higher order compounds and their applications to analysis.
- Middleton, Prof. Austin R(alph)**, University of Louisville, Louisville, Ky. *Zoology*. Baltimore, Md., April 14, 81. A.B., Hopkins, 10, fellow, 14-15, Ph.D., 15, fellow by courtesy, 15-16. Asst. nat. hist., Hopkins, 10-12; assoc. prof. *biol.*, Louisville, 16-17, *director dept.*, 16-, *prof. zool.*, 17- Hopkins sci. exped., Jamaica, 10. A.A.; Soc. Zool; Soc. Mammal; Soc. Parasitol; Ecol. Soc; Acad. Polit. Sci; Ky. Acad. (v. pres, 23, pres, 25); fel. Royal Soc. Arts. Heredity of the fission rate in Protozoa.
- Middleton, Dr. Edmund B(urrus)**, Parlin, N. J. *Chemistry*. Seymour, Ill., Oct. 20, 97. Fellow, Rice Inst., A.B., 18, M.S., 20; fellow, Northwestern, 20-22, Ph.D., 22. Research fellow chem. and Nat. Research Council fellow, Harvard, 22-24; *research chemist*, E. I. du Pont de Nemours and Co., 24-25, *du Pont-Pathé Co.*, 25- Chem. Soc. Organic compounds of mercury.
- Miles, Dr. A(lice) L(incoln)**, New York Homeopathic Medical College and Flower Hospital, Ave. A at 64th St., New York, N. Y. *Physiology, Pharmacology*. Cambridge, Mass., Nov. 29, 00. A.B., Mt. Holyoke, 22; M.S., Yale, 24, Ph.D., 25. Asst. physiol., Yale, 22-25; *instr. physiol. and pharmacol.*, N. Y. *Homeop. Med. Col.*, 25- Effects of ultraviolet radiation on the physical characteristics of blood of normal dogs.
- Miles, Dr. Egbert J.**, 87 Marvel Road, New Haven, Conn. *Mathematics*. Bethlehem, Ind., Jan. 9, 86. A.B., Indiana, 06; A.M., Swarthmore, 07; fellow, Chicago, 07-10, Ph.D., 10. Asst. math., Swarthmore, 06-07; instr., Cornell, 10-11; Yale, 11-16, asst. prof., 16-25, *assoc. prof.*, 25- A.A.; Math. Soc; Math. Ass. Calculus of variations.
- Miles, Dr. L(ee) E(llis)**, Alabama Polytechnic Institute, Auburn, Ala. *Plant pathology*. Rockville, Ind., Sept. 25, 90. A.B., Wabash, 14; Ph.D., Illinois, 20. Plant pathologist, Miss. State Plant Board, 20-22; *prof. plant path.*, Ala. *Polytech.*, 22-24, *plant pathologist, Exten. Service*, 24- A.A.; Bot. Soc; Phytopath. Soc. (sec'y, south. sect., 23-25). Leaf spots of the elm; poria incassata; the cause of timber rot; pyrenomycetous leaf-spots of bur clover; the fungi of Mississippi.
- Miles, Prof. W(alter) R(ichard)**, 245 Gerona Road, Stanford University, Calif. **Psychology, Physiology*. Silverleaf, N. Dak., March 29, 85. B.S., Pacific (Oregon), 06; A.B., Earlham, 08; fellow, Iowa, 10-13, A.M., 10, Ph.D., 13. Prof. psychol. and educ., Penn (Iowa), 08-10; asst. psychol., Iowa, 10-13; *assoc. prof.*, Wesleyan, 13-14; research psychologist, nutrition lab, Carnegie Institution, 14-22; *prof. exp. psychol.*, Stanford, 22- A.A.; Psychol. Ass; Physiol. Soc; fel. Am. Med. Ass; Optical Soc; Soc. Exp. Biol. Pitch singing; psychological effects of alcohol and of undernutrition; neuro-muscular changes from variations in metabolism; sensory thresholds; motor coordinations; eye movements; reading; drug studies with the elevated maze method.
- Milham, Prof. Willis I(sbister)**, Williamstown, Mass. *Astronomy, Meteorology*. Kinderhook, N. Y., Feb. 11, 74. A.B., Williams, 94, A.M., 95; Ph.D., Strassburg, 01. Asst. physics, *Williams*, 95-96, instr. math. and physics, 96-98, asst. prof. math. sciences, 98-99, 01-02, *prof. astron.*, 02- A.A.; Astron. Soc; Meteor. Soc. (pres, 24-26); Physical Soc; Am. Geog. Soc; Royal Astron. Soc; Soc. Belge d'Astron; Soc. Astron. de France. Accuracy of timekeepers; long range weather forecasting.
- Milks, Dr. H(oward) J(ay)**, 113 College Ave., Ithaca, N. Y. *Veterinary medicine*. Candor, N. Y., June 25, 79. Grad. N. Y. State Vet. Col., 04. Asst. physiol., N. Y. State Vet. Col., 03-05; pathologist, La. State Exp. Sta., 06-08; *prof. therapeut. and director small animal clinic*, N. Y. State Vet. Col., 09- Vet. Med. Ass; N. Y. State Vet. Med. Soc. (sec'y, 09-14).
- Millar, Prof. C(harles) Ernest**, Michigan State College, East Lansing, Mich. *Soils*. Coles Co., Ill., June 23, 85. B.S., Illinois, 09, M.S., 11; B.S., Kansas Col., 15; Ph.D., Wisconsin, 23. Asst., Illinois, 09-10; chem., Kansas Col., 10-13, agron., 13-14, instr., 14-15; asst. prof. *soils*, Mich. State Col., 15-18, assoc. prof., 18-25, *prof.*, 25- Concentration of soil solution and sap in roots and tops of plants; removal of nutrients from lower soil horizons by crops; virgin and depleted soils.
- Millar, Preston S(trong)**, 80th St. and East End Ave., New York, N. Y. *Physics*. Andover, N. J., March 9, 80. *Gen. manager and sec'y, Elec. Testing Laboratories; sec'y, Ass. Edison Illuminating Companies*. A.A.; Physical Soc; Illum. Eng. Soc. (pres, 13); Elec. Eng; Optical Soc. Illumination; testing.
- Millar, Dr. Russell W(ard)**, 2401 Warring St., Berkeley, Calif. *Physical chemistry*. Mattoon, Ill., March 15, 95. B.S., Illinois, 16, M.S., 20; Ph.D., California, 22. Instr. chem., California at Los Angeles, 22-25; *assoc. phys. chemist*, U. S. Bur. Mines, 25- Chem. Soc. Specific heats of gases at low temperatures; vapor pressure of liquid and solid metals, and of amalgams; aluminous oxide; reaction of zinc with carbon monoxide.
- Millar, W(illis) N(orman)**, University of Toronto, Toronto, Ont., Can. *Forestry*. Pittsburgh, Pa,

- Oct. 18, 83. B.S., Pennsylvania, 06; M.F., Yale, 08. Forest supervisor, U. S. Dept. Agr., 08-12; forest inspector, Can. Dept. Interior, 12-14; *assoc. prof. forestry, Toronto, 14-17, 20-Major, C.Eng., 17-20. Soc. Foresters; Can. Soc. Forest Eng. Game preservation; forest protection; farm forestry; forest utilization and administration.*
- Millard, Prof. E(arl) B(owman)**, Massachusetts Institute of Technology, Cambridge, Mass. *Physical chemistry.* Central City, Nebr., July 17, 88. A.B., Colorado, 10; A.M., Wisconsin, 11; Ph.D., Illinois, 14. Asst. chem., Wisconsin, 10-11; Illinois, 11-14; instr., *Mass. Inst. Tech.*, 14-16, asst. prof. *physical chem.*, 16-22, *assoc. prof.*, 22- Chem. Soc.
- Millberry, Dean Guy Stillman**, College of Dentistry, University of California, San Francisco, Calif. *Chemistry.* Menominee, Mich., Nov. 3, 72. D.D.S., California, 01. Asst. metal, *col. dent., California*, 04-07, instr., 07-08, *metal. and chem.*, 08-09, *prof.*, 09-, *supt. dental infirmary*, 06-14, *dean*, 14- A.A.; Chem. Soc.; Pub. Health Ass.; Sch. Hygiene Ass.; Am. Dental Ass. Dental metallurgy; dental economics.
- Millen, Prof. F. Eric**, Ontario Agricultural College, Guelph, Ont., Can. *Entomology.* July 4, 82. Ont. Agr. Col.; B.S.A., Toronto, 13. State apiarist and instr. apicult., Mich. State Col., 13-16; *assoc. prof.*, Iowa Col., 16-19; *prof. apicult. and provincial apiarist, Ont. Agr. Col.*, 19- Ass. Econ. Entom.
- Miller, Dean Adam M(arion)**, 335 Henry St., Brooklyn, N. Y. *Embryology, Histology.* Homewood, Pa., April 2, 79. A.B., Princeton, 01, fellow, 01-03, A.M., 02. Instr. *histol. and embryol.*, Columbia, 03-09, *anat.*, 09-12, asst. prof., 12-14; *prof.*, *L. I. Col. Hosp.*, 14-, *assoc. dean*, 20-22, *dean*, 22- A.A.; Ass. Anat.; N. Y. Acad. *Embryology*; venous system in birds; lymphatic system in birds; venous system in sheep; elastic tissue in the heart.
- Miller, Prof. Alfred S(tanley)**, Moscow, Idaho. *Mining, Metallurgy, Geology.* Normal, Pa., Oct. 20, 56. A.B., A.M., Stanford, 95; Ph.D., Heidelberg (Ohio), 95; E.M., Sch. of Practical Eng., San Francisco, 98. Prin. and supt., schools, Pa., 80-82; *prof. nat. science*, Wichita (Kans.), 89-92, *pres.*, 92-93; *prof. mining, metal. and geol.*, Idaho, 97-05. Chemical behavior of ammonia towards ferric chlorid and ferrous chlorid; metallurgy of gold.
- Miller, Dr. Alton L(ombard)**, 25 Clinton Road, Brookline, Mass. *Mathematics.* Somerville, Mass., April 10, 90. A.B., Harvard, 11, A.M., 13, Ph.D., 16; Turin, 15-16. Instr. *math.*, Harvard, 11-13; Michigan, 13-17; Harvard, 17-19; *treas. and gen. manager, Charles N. Miller Co.* Sec'y, board trustees, Gordon Col. Math. Soc. Projective differential geometry.
- Miller, A(ndrew) H(oward)**, Dominion Observatory, Ottawa, Ont., Can. *Geophysics.* Teulon, Man., Can., June 13, 86. B.A., Manitoba, 06; Rhodes scholar, Oxford, 07-10, B.A., 10, M.A., 19. Asst. *physics*, Wisconsin, 11-13; *tech. clerk*, Can. Dept. Interior, 13-15; *gravity specialist, Dominion Observatory*, 20- Lieut.,
- Can. Artill., 15-19. Physical Soc.; Royal Astron. Soc. Can. (sec'y, Ottawa center, 23-25). Gravity; isostasy.
- Miller, A(rthur) L(ouis)**, Standard Chemical Co., Pittsburgh, Pa. *Chemistry.* South Bend, Ind., Aug. 21, 92. B.S., Purdue. Asst. to asst. director, *radium research lab, Standard Chem. Co.*, 14-15, *mines chemist*, 15-16, in charge *carnotite concentration mill*, hydro-elec. power plant and mines lab, 16-17, acting chief physicist in charge *radium measurements*, 17-19, *chief radon dept.*, 19- Lecturer, Radium Chem. Co.; consultant, Rosanoff Process Co., 21-24. Chem. Soc. Radium; radon; luminous zinc sulfid; petroleum fractionation.
- Miller, Prof. Arthur M(cQuiston)**, 306 Chestnut St., Asheville, N. C. *Geology.* Eaton, Ohio, Aug. 6, 61. A.B., Princeton, 84, A.M., 87, fellow, 88-89; Munich, 91-92. Prin., high sch., Ohio, 85-88; *prof. biol. and geol.*, Wilson, 89-91; *geol., Kentucky*, 92-25, *emer. prof.*, 25-Ky. Geol. Surv. A.A.; Geol. Soc. *Geology of petroleum*; Kentucky geology.
- Miller, Dr. August E(dward)**, 1004 Garfield Ave., Urbana, Ill. *Entomology.* Zanesville, Ohio, May 3, 99. B.S., Ohio State, 21, M.S., 22, Ph.D., 25. Asst. entomologist in charge truck crop insect lab, Ohio Exp. Sta., Chillicothe, 22-26; *research entomologist, Ill. Nat. Hist. Surv.*, 26-Summer, asst., Ohio Exp. Sta., 20; European corn borer scout, Ohio, 21. Asst. botanist, Katmai exped., Nat. Geog. Soc., Alaska, 19. A.A.; Entom. Soc.; Ass. Econ. Entom.; Ohio Acad. Biology, morphology and taxonomy of the acarina; biology and control of the corn ear worm; cabbage looper; Mexican bean beetle; truck crop insects; termites; house infesting ants.
- Miller, Prof. Benj(amin) L(eRoy)**, Lehigh University, Bethlehem, Pa. *Geology.* Sabetha, Kans., April 13, 74. A.B., Kansas, 97; A.M., Penn (Iowa), 98; fellow, Hopkins, 01-03, Ph.D., 03. Prof. *biol. and chem.*, Penn (Iowa), 97-00; *assoc. geol.*, Bryn Mawr, 03-07; *prof., Lehigh*, 07- Asst., Kans. Univ. Geol. Surv., 96; Iowa Geol. Surv., 99; Md. Geol. Surv., 00-02, geologist, 02-11; field asst., U. S. Geol. Surv., 04-07, asst. geologist, 07-13; cooperating geologist, Pa. Geol. Surv., 19- A.A.; Geol. Soc.; Min. and Metal. Eng.; Min. and Metal. Soc.; Miner. Soc.; Pa. Acad. (pres, 25); Iowa Acad. Areal and economic geology; mineral resources of South America.
- Miller, Prof. B(essie) I(rving)**, Rockford College, Rockford, Ill. *Mathematics.* Baltimore, Md., 84. A.B., Goucher, 07, fellow, 07-08; fellow, Hopkins, 13-14, Ph.D., 14. Instr. *math.*, Kemper Hall, Wis., 11-13; *head physics and math. departments, Rockford*, 15-20, *dept. math.*, 20- A.A.; Math. Soc.; Math. Ass. (sec'y, Ill. sect, 24-). Canonical form of elliptic integral.
- Miller, Dr. C(arl) D(anforth)**, Alabama Polytechnic Institute, Auburn, Ala. *Physics.* Minneapolis, Minn., Jan. 30, 88. B.S., Richmond, 10; Ph.D., Chicago, 16. Instr. *physics*, Chicago, 14-16; physicist, Westinghouse Elec. and Mfg. Co., 16-17; *tech. adviser*, Wm. Gaertner and Co., 19-20; asst. prof. *physics*, Manitoba, 20-24;

- assoc. agr. engineer, Ala. Polytech, 25-* Lieut. ordnance dept, U.S.A., 17-19. A.A.; Physical Soc.; Optical Soc. X-rays; viscosity; oil.
- Miller, Prof. C(arl) W(allace)**, 32 Balton Road, Providence, R. I. *Physics*. Somerville, Mass., March 28, 93. A.B., Harvard, 15, A.M., 21, Ph.D., 23. Instr. *physics*, N. Y. Univ., 22-24; *asst. prof., Brown, 24-* A.A.; Physical Soc. Electric oscillations.
- Miller, Dr. Carleton F(riend)**, 125 W. Main St., Newark, Del. *Chemistry*. Wallingford, Conn., June 13, 88. B.S., Wesleyan, 09; Ph.D., Cornell, 14. *Asst. chem.*, Cornell, 09-14; instr., N. C. Col., 14-17, *asst. prof.*, 17-19; *prof., Delaware, 19-* Electrolysis of inorganic salts; carborundum electric furnace.
- Miller, Dr. C(harles) Phillip, Jr.**, University of Chicago, Chicago, Ill. *Medicine*. Oak Park, Ill., Aug. 29, 94. B.S., Chicago, 16, M.D., Rush Med. Col., 19; M.S., Michigan, 20. Vol. research *asst. path.*, Michigan, 19-20; *asst. res. physician*, Rockefeller Inst. Hosp., 20-24, *asst.*, Rockefeller Inst., 24-25; *asst. prof. med., Chicago, 25-* Vol. research *asst.*, Preussisches Inst. für Infektionskrankheiten 'Robert Koch,' Berlin, 26. A.A.; Soc. Exp. Path.; Soc. Exp. Biol.; Soc. Bact.; Soc. Clin. Invest.; Hist. Sci. Soc.; Harvey Soc. Bacteriology; immunology.
- Miller, Charles W(inthrop)**, Jaffna College, Vadukodai, Ceylon. *Ornithology*. Worcester, Mass., Nov. 18, 84. A.B., Clark, 05; A.M., Columbia, 13. *Asst. to Director W. E. D. Scott*, Worthington Soc. for the Investigation of Bird Life, 05-06, acting director, 05-08, director, 08-13; *missionary, Am. Board of Commissioners For. Missions, Jaffna, Ceylon, 14-* A.A. Colonization of the house martin; larvae of certain parasitic flies in bird nests; methods of attracting and protecting wild birds; growth of birds; inheritance of coloration of eggs of the bluebird; hybridism; daily life of birds, especially during the breeding season; imitation and instinct in birds; the parasitic bird fly; increase of native birds; aviary methods.
- Miller, Dr. Clifton M(eredith)**, Stuart Circle Hospital, Richmond, Va. *Ophthalmology, Otolaryngology*. Richmond, April 21, 73. M.D., Med. Col. of Va., 92. Demonstrator anat., *Med. Col. of Va.*, 96-05, instr. diseases of eye and ear, 01-06, *prof. anat.*, 05-06, diseases of nose and throat, 06-14, *otol. and rhinol.*, 14- Laryngologist, rhinologist and ophthalmologist, hospitals; mem., Richmond City Council. Laryngol. Rhinol. and Otol. Soc.; Otol. Soc.; fel. Col. Surg.; Acad. Ophthal.; Am. Med. Ass.; Richmond Acad. Med. and Surg. (pres, 08); S. Med. Ass.
- Miller, Prof. Dayton C(larence)**, Case School of Applied Science, Cleveland, Ohio. **Physics, Astronomy*. Strongsville, Ohio, March 13, 66. Ph.B., Baldwin, 86, A.M., 89; Sc.D., Princeton, 90, Miami, 24, Dartmouth, 27; LL.D., Western Reserve, 27. Prof. nat. science, Baldwin, 88-89; instr. math. and physics, *Case*, 90-93, *asst. prof. physics*, 93-95, *prof.*, 95- Lecturer, Lowell Inst., 14. Nat. Research Council, 24-, div. physical sciences, 25-, chairman div. physical sciences, 27. Trustee, Baldwin-Wallace, 99-, sec'y board, 14- Longstreth medal, Franklin Inst., 17; Elliott Cresson medal, Franklin Inst., 27; prize, A.A., 25. Nat. Acad.; A.A. (sec'y, B, 02-06, v. pres, 07, sec'y, council, 08, gen. sec'y, 09); Physical Soc. (sec'y, 18-22, v. pres, 23, pres, 25); Astron. Soc.; Optical Soc.; Meteor. Soc.; Seismol. Soc.; Math. Soc.; Metric Ass.; Eng. Educ.; Philos. Soc.; hon. mem. Otol. Soc.; Am. Acad.; hon. mem. Cent. Ass. Sci. and Math. Teachers; Ohio Acad. (v. pres, 21); hon. mem. Ky. Acad.; Cleveland Eng. Soc. (pres, 06, hon. pres, 20); Wash. Acad. (v. pres, 22); Soc. de Physique. Velocity of light in magnetic field; expansion of gases; Röntgen rays; relative motion of earth and ether; efficiency of incandescent gas light; interferometer applications; photographic registration of sound waves; quality of musical sounds.
- Miller, Prof. Dickinson S(ergeant)**, Care of Thos. Cook and Son, Vienna, Austria. *Philosophy, Psychology*. Philadelphia, Pa., Oct. 7, 68. Pennsylvania, 85-88; Clark, 89-90; A.B., A.M., Harvard, 92; Ph.D., Halle, 93; hon. Sc.D., Hobart, 09. Assoc. philos., Bryn Mawr, 93-98; instr., Harvard, 99-04; lecturer, Columbia, 04-07, prof., 07-19; Gen. Theol. Sem., 11-24; Smith, 24-26. A.A.; Philos. Ass.; Psychol. Ass. Metaphysics; ethics; analytic psychology; philosophy of religion.
- Miller, Prof. E(dgar) C(alvin) L(eRoy)**, 2915 Seminary Ave., Richmond, Va. *Pathology*. Pelham, Mass., Aug. 24, 77. Oberlin, 88-90; M.D., Michigan, 94. Bacteriologist, research laboratories, Parke, Davis and Co., 00-10; *prof. bacter. and physiol. chem., Med. Col. of Va.*, 11-, dean, 20-23. A.A.; Chem. Soc.; Soc. Bact.; Ass. Immunol.; Am. Med. Ass.; Pub. Health Ass.; Va. Acad. (sec'y, 23-); London Chem. Soc. Immunity; bacterial vaccines; opsonins; agglutination; tuberculin; keeping quality of antidiabetic serum; administration of diphtheria toxin in collodion sac; accuracy and capacity of the platinum loop.
- Miller, Dr. E(dgar) G(rim), Jr.**, 437 W. 59th St., New York, N. Y. *Biochemistry*. Gettysburg, Pa., Feb. 22, 93. B.S., Gettysburg, 11; Ph.D., Columbia, 13. *Asst. biochem.*, Columbia, 11-13; path. chem., Bellevue Hosp., 12-13; acting biochemist, Beth Israel Hosp., 13; instr. physiol. chem., col. med., Illinois, 13-14; *assoc. biochem.*, Columbia, 14-21, *asst. prof.*, 21-24, *assoc. prof.*, 24- Consulting chemist, Seaside Hosp., Staten Island, 25- A.A.; Chem. Soc.; assoc. fel. N. Y. Acad.; Harvey Soc. Pathological and physiological chemistry.
- Miller, Dr. Edwin Cyrus**, Experiment Station, Manhattan, Kans. *Plant physiology*. Baltimore, Ohio, Dec. 16, 78. A.B., Lebanon, 06; Yale, 07, Ph.D., 10. Instr. bot., *Kansas Col.*, 10-14, *asst. prof.*, 15-18, *assoc. prof.*, 18-20, *prof.*, 20-, *asst. plant physiologist, Exp. Sta.*, 11-20, *plant physiologist*, 20- A.A.; Bot. Soc.; Soc. Agron. Chemistry and water relations of plants.
- Miller, Dr. Edwin M(orton)**, 952 N. Michigan Ave., Chicago, Ill. *Surgery*. Ida Grove, Iowa, June 10, 88. A.B., Illinois, 10; Senn fellow, Rush Med. Col., M.D., 13. *Asst. instr. surg.*, *Rush Med. Col., Chicago*, 15-17, instr., 17-25, *asst.*

- prof. clin. surg*, 25— Am. Med. Ass; Chicago Surg. Soc. Surgery of bones and nerves; goiter.
- Miller, Dr. E(lroy) J(ohn)**, 250 Cedar St, East Lansing, Mich. *Chemistry*. West Toledo, Ohio, July 27, 91. B.S. Michigan, 14, M.S., 15, Ph.D., 23. Research asst. *chem*, *Mich. Exp. Sta.*, 15-19, *research assoc*, 20— Research chemist, gas warfare investigation, American Univ, 17-18. Chem. Soc. Adsorption by activated sugar charcoal; hydrolytic adsorption; adsorption and soil acidity; purification of adsorbent charcoals; negative adsorption; inversion of sucrose by adsorbed acids.
- Miller, Prof. Emerson R**, Auburn, Ala. *Chemistry*. Bascom, Ohio, June 2, 62. Wittenberg Col, 84-87; B.S. Michigan, 94, M.S., 95; Marburg, 01-02; Ph.D. Minnesota, 18. Prin, high sch, Kans, 88-91; asst. qual. anal, Michigan, 94-95; adjunct prof. pharmacy, Ala. Polytech, 95-96, prof, 96-05; chief dept. chem, Cuban Exp. Sta, Santiago, 05-06; prof. pharmaceut. chem, Ala. Polytech, 06-13; acting asst. prof. plant chem. and chemist, pharmaceut. exp. sta, Wisconsin, 13-17; *prof. research chem. and research chemist*, *Ala. Polytech*, 18— A.A.; Chem. Soc; Pharmaceut. Ass. Plant chemistry; alkaloids; glucosides; volatile oils; chemistry of the velvet bean.
- Miller, Eric R(exford)**, U. S. Weather Bureau, Madison, Wis. *Meteorology*. Mount Pleasant, Mich, June 19, 78. B.S. Arizona, 21; M.S. Wisconsin, 21. Observer, *U. S. Weather Bur*, 01-05, research observer, 06-08, local forecaster, 08-17, *meteorologist*, 18— Lecturer, Wisconsin, 08— A.A.; Meteor. Soc; Physical Soc. Pyrheliometry; dustfalls.
- Miller, Prof. Frank (Francis) G(arner)**, University of Idaho, Moscow, Idaho. *Forestry*. Lanark, Ill, June 2, 66. Ph.B. Iowa, 00; B.S.A., Iowa Col, 01; M.F. Yale, 03. Supt, schools, Iowa, 93-99; expert, bur. forestry, U. S. Dept. Agr, 01-12; prof. *forestry*, Nebraska, 03-07; prof. and dean sch. forestry, Washington (Seattle), 07-12; prof. and head dept, Wash. Col, 15-17; *prof. and dean sch. forestry*, *Idaho*, 17— A.A.; Soc. Foresters; Forestry Ass. The germination and growth of Leguminosae, with reference to large and small seed; the germination of forest tree seed; forest planting in eastern Nebraska, North Platte and South Platte valleys; forest taxation in Washington; timber resources of Idaho and Washington.
- Miller, Fred A**, Greenfield, Ind. *Botany*. Brooklyn, Ind, Sept. 5, 78. B.S. Purdue, 08, M.S., 12. *Production supt, biol. dept*, *Eli Lilly and Co*, 08— Ind. Acad.
- Miller, Prof. Frederick R(ober) t**, University of Western Ontario Medical School, London, Ont, Can. *Physiology*. Toronto, Ont. B.A., Toronto, 03, M.B., 07; M.D. Munich; Strassburg; Liverpool; Oxford. Asst. *physiol*, Cornell, 03-05; asst. demonstrator, Toronto, 05-07, demonstrator, 07-10; lecturer, McGill, 12-14; *prof. med. sch*, *Western Ontario*, 14— Examiner, Can. Med. Council, 16-18. A.A.; Physiol. Soc; fel. Royal Soc. Can; London Physiol. Soc. Muscle-nerve physiology; stomach; salivary reflexes; deglutition; cardio-inhibitory and mastication centers; cerebellum; viscero-motor and other reflexes.
- Miller, Dr. Frederick W(illiam), Jr**, New York University, New York, N. Y. *Physical chemistry*. New York, June 29, 98. B.S. N. Y. Univ, 18, Inman fellow, 18-19, M.S., 19, Ph.D., 23. *Instr. chem*, *N. Y. Univ*, 19— The ternary system—silver perchlorate, toluene and water; phase rule.
- Miller, Prof. G(eorge) A(bram)**, 1203 W. Illinois St, Urbana, Ill. **Mathematics*. Lynnville, Pa, July 31, 63. A.B. Muhlenberg, 87, A.M., 90; Ph.D. Cumberland, 93; Leipzig and Paris, 95-97. Prin, schools, Kans, 87-88; prof. *math*, Eureka, 88-93; instr, Michigan, 93-95; Cornell, 97-01; asst. prof, Stanford, 01-03, assoc. prof, 03-06; *Illinois*, 06-07, *prof*, 07— Summers, instr, Chicago, 98, prof, 12; California, 13. Int. math. prize, 00. Nat. Acad; A.A. (sec'y, A, 01, 07-12); Math. Soc. (sec'y, San Francisco sect, 02-06, v. pres, 08, chairman, Chicago sect, 07-09); Math. Ass. (v. pres, 16, pres, 21); Am. Acad; London Math. Soc; Math. Verein; Soc. math. de France; hon. mem. Indian Math. Soc; cor. mem. Spanish Math. Soc. Theory of groups of finite order; history of mathematics.
- Miller, Dr. Geo(rge) F(rederick)**, Faculty Exchange, Norman, Okla. *Psychology*. Farmington, Mo, May 10, 80. B.S. Missouri, 12; Ph.D. Columbia, 16; Pennsylvania, 16-18. Teacher, rural and high schools, 02-13; prof. educ, Temple, 15-18; asst. to director, sch. board service div, Bur. Educ, 18-19; *instr. educ. and psychol*, *Oklahoma*, 20— Summer, instr, West Virginia, 19. A.A.; Okla. Acad. Intelligence tests; formulas for scoring tests; objective tests.
- Miller, Prof. George J**, 103 Parsons St, Mankato, Minn. *Geography*. Sturgis, Mich, Feb. 7, 80. B.S. Chicago, 07, M.S., 09, 09-13. Instr. *geog*, Chicago, 08-13; *head dept*, *Minn. State Teachers Col*, *Mankato*, 13— Ed, 'Jour. of Geog.' A.A.; Ass. Geog; Nat. Council Geog. Teachers (sec'y, 14—). Lake Superior iron ores; settlement and population of Michigan; boundaries of Michigan; education; geography of Minnesota and of North America; geography as a social science.
- Miller, Gerrit S(mith), Jr**, U. S. National Museum, Washington, D. C. **Zoology*. Peterboro, N. Y, Dec. 6, 69. A.B. Harvard, 94. Asst. curator, *div. mammals*, *U. S. Nat. Museum*, 98-09, *curator*, 09—
- Miller, Dr. Harry East**, 320 Perkins St, Oakland, Calif. *Chemistry*. San Francisco, Calif, Nov. 26, 62. B.S. California, 85; Ph.D. Strassburg, 88. Consulting chemist; supt, Judson Dynamite and Powder Co; expert, E. I. du Pont de Nemours Powder Co; supt, Giant Powder Co; retired, 13; volunteer investigator *chem*, *California*, 15-20, *research assoc*, 20— A.A.; Chem. Soc; Soc. Chem. Indust; Seismol. Soc; Franklin Inst; Min. Eng; Calif. Acad; Chem. Gesell; Chem. Verein.
- Miller, Harry G**, Procter and Gamble, Ivorydale, Ohio. *Agricultural chemistry*. Cambria, Wis, June 4, 90. B.S., M.S., Ph.D., Wisconsin. Asst.

- chem, Wisconsin, 12-16; chemist, Oregon Exp. Sta., 16-26; *research chemist, Procter and Gamble*, 26- Chem. Soc. (chairman, Oregon sect, 23-25). Relation of sulfur to plant nutrition; potassium in animal nutrition; mineral metabolism in dairy cattle; fat metabolism; nutritive value of cottonseed meal and coconut meal.
- Miller, Harry M(ilton), Jr.**, Washington University, St. Louis, Mo. *Zoology*. Baltimore, Md., June 3, 95. B.S., Ohio Wesleyan, 17; Ph.D., Illinois, 23. Instr. *zool, Washington (St. Louis)*, 23-25, *asst. prof.*, 25- A.A.; Soc. Parasitol.; Micros. Soc. Parasitology; larval trematodes; microchemistry of glands; behavior of invertebrates.
- Miller, Dr. Henry K(eppele), Jr.**, 1028 Gloria Ave., Durham, N. C. *Chemistry*. Wilmington, Del., Feb. 15, 99. B.S., Princeton, 20; A.M., Columbia, 21, Ph.D., 22. *Asst. chem.*, Columbia, 20-22; instr., Princeton, 22-26; *asst. prof., Duke*, 26- Chem. Soc. Inorganic chemistry; phase rule; ionization; intensive desiccation; electrodeless discharge.
- Miller, Hugh**, Union College, Schenectady, N. Y. *Civil engineering*. Roselle, N. J., Feb. 1, 81. C.E., Princeton, 01; Harvard, 10, 12. Centennial Copper Mining Co. and Bright, Sears and Co, 03-09; *prof. civil eng.*, Clarkson Tech., 09-15; lecturer, Rice, 15-17; *prof.*, George Washington, 21-26, dean col. eng., 22-26; *Union Col.*, 26- Am. Council Educ., 23-26. Capt., C.Eng., 17-21. A.A.; Civil Eng.; Eng. Educ. (councilor, 23-26); Wash. Soc. Eng.; Princeton Eng. Ass.
- Miller, Prof. I(saiah) L(eslie)**, 811 12th Ave., Brookings, S. Dak. *Mathematics, Chemistry*. Campbellsville, Ky., March 5, 89. A.B., Indiana, 15, A.M., 16, 16-17, 19. *Asst. instr. math.*, Indiana, 15-17; *prof.*, Carthage Col., 17-20; *assoc. prof.*, S. Dak. Col., 20-25, *prof.*, 25- A.A.; Math. Soc.; Math. Ass. The electrolytic preparation of potassium ferrieyanide; calculus of variations; transformations; mathematics of life insurance.
- Miller, Dr. James Alex(ander)**, 379 Park Ave., New York, N. Y. *Medicine*. Roselle, N. J., March 27, 74. A.B., Princeton, 93, A.M., 94; M.D., Columbia, 99. *Prof. clin. med., Columbia*. Visiting physician, Bellevue Hosp; med. director, Rockefeller Commission Prev. Tuber. in France, 17-18. Am. Physicians; fel. Col. Physicians; Climat. and Clin. Ass. (pres, 14); N. Y. Acad. Med.; N. Y. Tuber. and Health Ass. (pres). Internal medicine; tuberculosis.
- Miller, John A(nderson), Jr.**, 12 Summit St., Glen Ridge, N. J. *Engineering*. Newark, N. J., Sept. 20, 95. Ph.B., Yale, 15. Cadet engineer, Pub. Service Ry., Newark, 15-17, *asst. to traffic engineer*, 19-23; *assoc. ed.*, 'Elec. Ry. Jour.', 23- Lieut., C.Eng., 17-19, capt., C.Eng.R. Assoc. Civil Eng.; Soc. Mil. Eng. Transportation in the advanced zone; effects of bridges on transit conditions; increasing the efficiency of passenger transportation in city streets; effect of synchronized traffic control lights on electric railway operation.
- Miller, Prof. John A(nthony)**, Swarthmore College, Swarthmore, Pa. **Astronomy*. Greensburg, Ind., Dec. 16, 59. A.B., Indiana, 90; A.M., Stanford, 93; Ph.D., Chicago, 99. Instr. math., Indiana, 90; supt., schools, Ind., 90-91; instr. math., Stanford, 91-94, *asst. prof.*, 94-95; *prof. mech. and astron.*, Indiana, 95-06; *math. and astron.*, Swarthmore, 06-, v. pres, 13-, *director, Sproul Observatory*, 11- Chief solar eclipse exped., Spain, 05; Brandon, Colo., 18; Mex., 23; New Haven, Conn., 25; Sumatra, 26. A.A.; Astron. Soc.; Math. Soc.; Philos. Soc. (sec'y); fel. Ind. Acad.; fel. Am. Acad.; fel. Royal Astron. Soc. Stellar parallax; solar corona; measures of double stars; elliptic modular functions of square rank.
- Miller, Prof. J(ohn) Craig**, Rocksprings, Texas. *Medicine, Chemistry*. Pittsburgh, Pa., Oct. 9, 49. M.D., Pennsylvania, 76. *Prof. chem.*, Lincoln (Pa.), 87-21; *retired*, 21.
- Miller, Dr. John M(ilton)**, Atwater Kent Manufacturing Co., Philadelphia, Pa. *Radio engineering*. Hanover, Pa., June 22, 82. A.B., Yale, 04, A.M., 07, Ph.D., 15. *Asst. physicist*, assoc. physicist and physicist, Bur. Standards, 07-19; *radio engineer, Atwater Kent Mfg. Co.*, 19- Radio aid, bur. eng. U.S.N., 19-25. Radio Eng.; Physical Soc. Three electrode vacuum tubes.
- Miller, Dr. J(oseph) L(eggett)**, 5313 Greenwood Ave., Chicago, Ill. *Medicine*. Kewanee, Ill., Nov. 24, 67. B.S., Michigan, 93; M.D., Northwestern, 95. *Clin. prof. med., Chicago*. Attending physician, St. Luke's Hosp. A.A.; Soc. Pharmacol.; Soc. Clin. Invest.; Am. Physicians; Chicago Internal Med. Soc. Detection of smegma bacillus; chlorid retention in nephritis; Kernig's sign; experimental production of arteriosclerosis; exudates and transudates; experimental pulmonary edema; non-specificity of vaccine therapy.
- Miller, Prof. Karl G(reenwood)**, University of Pennsylvania, Philadelphia, Pa. *Psychology*. Salem, Va., May 25, 93. A.B., Pennsylvania, 15, A.M., 18, Ph.D., 21. Instr. *psychol., Pennsylvania*, 15-21, *asst. prof.*, 21-, *director admissions*, 26- Psychol. Ass. Clinical psychology.
- Miller, Dr. Lewis Benjamin**, Universal Portland Cement Co., Chicago, Ill. *Physical chemistry*. Parkersburg, Iowa, June 24, 96. A.B., Iowa, 19, M.S., 20; Ph.D., Columbia, 22. *Asst. chem.*, Iowa, 17-20; Columbia, 20-22; *assoc. chemist*, U. S. Pub. Health Service, 23-25; *research chemist, Universal Portland Cement Co., Chicago*, 25- A.A.; Physical Soc.; Chem. Soc.; Faraday Soc.; Iowa Acad. Colloid chemistry; soil colloids; Bredig gold colloids; alum process of water purification; Portland cement.
- Miller, Prof. L(ouallen) F(rederick)**, 1531 E. River Road, Minneapolis, Minn. *Physics*. Aurora, Ill., Sept. 23, 75. A.B., Michigan, 99, fellow, 99-00, M.S., 00; fellow, Wisconsin, 00-01; Ph.D., Chicago, 21. Instr., Wisconsin, 01-07; *prof.*, Colo. Sch. Mines, 07-16; *asst. prof.*, Minnesota, 17-20, *assoc. prof.*, 20- A.A.; Physical Soc. Current and voltage characteristics in Wehnelt interrupter; pressure shift in calcium arc; magnetostriction; effect of humidity on heat transmission in insulating materials.
- Miller, Prof. Loye Holmes**, University of California at Los Angeles, Los Angeles, Calif. *Biol.*

- ogy. Minden, La, Oct. 13, 74. B.S., California, 98, M.S., 03, Ph.D., 12. Instr. nat. science, Oahu Col., Honolulu, 99-03; asst. zool., California, 03-04; head dept. science, Calif. State Nor. Sch., Los Angeles, 04-19, asst. prof. *biol.*, 19-20; assoc. prof., *California at Los Angeles*, 20-23, *prof.*, 23- Summers, asst., California, 08, 11, 13, instr., 10; assoc. prof., Col. Physicians and Surg., Los Angeles. Asst., U. S. Fish Commission, 03; U. S. Biol. Surv., 07. A.A.; Ornith. Union; Ecol. Soc.; Cooper Ornith. Club; Paleont. Soc. Zoology; paleontology; land vertebrates; fossil birds of Pacific Coast; methods and curricula in biology.
- Miller, Prof. M(erritt) F(inley)**, 309 Hicks Ave., Columbia, Mo. *Soils*. Grove City, Ohio, July 7, 75. B.S., Ohio State, 00; M.S.A., Cornell, 01. Asst., Fed. Soil Surv., 01-02; instr. agron., Ohio State, 02-03, asst. prof., 03-04; *prof.*, *Missouri*, 04-12, *soils*, 12- A.A.; Soc. Agron. (pres, 23); Soil Surv. Ass. (pres, 20). Soil fertility and erosion; the relation of water and plant nutrients to the development of the maize plant; field classification of soils; factors affecting the nitrogen and carbon level in soils.
- Miller, Prof. Newton**, 358 Douglas Ave., Salt Lake City, Utah. *Medicine*. Sharptown, Ind., March 20, 79. A.B., Indiana, 05, A.M., 06; Ph.D., Clark, 08; M.D., Rush Med. Col., Chicago, 23. Instr. zool. and morphol., Clark, 08-11, asst. prof., 11-12; *prof.* *biol.*, Wheaton, 12-15; zool., *Utah*, 15-20, *micros. anat.*, 20- Collector fish, Guatemala, for Indiana, 04. Systematic zoology; dynamic biology; the fishes of the Matagua River; biology of the American toad; activity and rate of reproduction of the brown rat; handling of chick embryos; heredity of white fore-lock; gummas of the base of the heart; trichinosis.
- Miller, Prof. R(aymond) F(oster)**, College of Emporia, Emporia, Kans. *Physics*. Lyon Co., Kans., Feb. 11, 87. A.B., Emporia, 09; A.M., Kansas, 12; Ph.D., Iowa, 23. Teacher, high sch., Kans., 09-13; *prof. physics*, *Emporia*, 13- Radio inspector, Navy Yard, 18. Physical Soc.; assoc. mem. Radio Eng. Optical constants of crystals of selenium and tellurium.
- Miller, Prof. Robert C(unningham)**, University of Washington, Seattle, Wash. *Zoology*. Blairsville, Pa., July 3, 99. A.B., Greenville, 20; A.M., California, 21, Ph.D., 23. Asst. zool., California, 20-21, research assoc., 23-24; *asst. prof.*, *Washington (Seattle)*, 24- Assoc. biologist, San Francisco Bay Marine Piling Surv., 21-24; collaborator, Nat. Research Council committee, marine piling investigations, 23-24. A.A.; Soc. Zool.; Soc. Mammal; Ecol. Soc.; West. Soc. Nat.; Cooper Ornith. Club; Calif. Acad. Bird behavior; flight of birds; marine zoology; physiology of invertebrates; biology of marine wood-boring organisms; salt error of indicators.
- Miller, Prof. Robert Talbott, Jr.**, 203 Highfield Road, Guilford, Baltimore, Md. *Surgery*. Covington, Ky., April 20, 78. A.B., Amherst, 99, Sc.D., 25; M.D., Hopkins, 03. Instr. surg., Hopkins, 08-09; assoc. prof., Pittsburgh, 09-15, *prof.*, 15-21; *assoc. prof.*, *Hopkins*, 22-25, *clin. surg.*, 25- Asst. visiting surgeon, Hopkins Hosp., 25- Surg. Ass.; Am. Med. Ass.; Ass. Path. and Bact.; S. Surg. Ass. Tetanus; histogenesis of mesenteric cysts; cancer of the colon.
- Miller, Dr. Rolla W(oods)**, 545 William Penn Way, Box 1756, Pittsburgh, Pa. *Chemistry*. Aurora, Ind., Oct. 2, 92. A.B., Wabash, 13; M.S., Kansas Col., 15; Ph.D., Pittsburgh, 17. Instr. chem., Kansas Col., 13-15; research asst., Mellon Inst., 15-17, fellow, 19-21; *research chemist*, *Hope Natural Gas and Affiliated Companies*, 21- Capt., C.W.S., 17-19. Chem. Soc. Natural gas; gasoline; oil.
- Miller, Rudolph P(hilip)**, 342 Madison Ave., New York, N. Y. *Civil engineering*. New York, July 5, 66. B.S., Col. City of N. Y., 85; C.E., Columbia, 88, hon. M.S., 14. Asst. engineer, Bur. Buildings, New York, 02-06; consulting engineer, 06-09; supt., buildings, New York, 10-15, 20-21, chairman board appeals, 16-18; *consulting engineer*, 18-19, 22- Building Code committee, U. S. Dept. Commerce; chairman, Nat. Board Jurisdictional Awards in Building Indust. Civil Eng.; Inst. Consulting Eng.; Soc. Test. Mat.; Fire Protection Ass. (pres, 24-26). Properties of building materials; fireproofing; zoning and building laws.
- Miller, Dr. Shirley P(utnam)**, University of Minnesota, Minneapolis, Minn. *Anatomy*. Rockwell, Iowa, June 17, 78. B.S., S. Dak. Col., 03; A.M., Minnesota, 04, fellow, 20-21, Ph.D., 22; Berlin and Munich, 08-11; fellow, Chicago, 16. Asst. zool., S. Dak. Col., 05-08; demonstrator anat., Biol. Inst., Berlin, 09; *prof. zool.* and rural hygiene, S. Dak. Col., 11-20; *instr. anat.*, *Minnesota*, 21- Pan-Pacific Sci. Cong., 24. A.A.; Ass. Anat.; Soc. Mammal. Histogenesis of muscle; mitochondria effects of inanition on glands; morphology of Hawaiian fishes.
- Miller, Spencer**, South Orange, N. J. *Engineering*. Waukegan, Ill., April 25, 59. B.S., Worcester, 79. Consulting engineer, Lidgerwood Mfg. Co., New York, 90-27; *retired*. Naval Consulting Board. A.A.; Mech. Eng.; Civil Eng.; Naval Archt. and Marine Eng. Cableways; apparatus for life saving at sea; fueling warships in a seaway; elastic towing.
- Miller, Dr. Sydney R(obotham)**, 1115 St. Paul St., Baltimore, Md. *Medicine*. Newark, N. J., Aug. 9, 84. B.S., N. Y. Univ., 05; M.D., Hopkins, 10. Asst. med., *Hopkins*, 11-15, instr. *clin. med.*, 15-22, *assoc.*, 22- Director lab. internal med., Phipps Psychiat. Clinic, 13-15. A.A.; Am. Med. Ass.; fel. Col. Physicians; S. Med. Ass. Clinical medicine and pathology.
- Miller, Dr. T(homas) Grier**, 110 S. 20th St., Philadelphia, Pa. *Medicine*. Statesville, N. C., Sept. 18, 86. A.B., North Carolina, 06; M.D., Pennsylvania, 11. *Assoc. med.*, *Pennsylvania*, 16- Asst. physician, Univ. Hosp., Pennsylvania, 14-; consultant physician, Friends Hosp., 22- Soc. Clin. Invest.; Phila. Col. Physicians; Interurban Clin. Club. Internal and industrial medicine; diabetes; therapeutics.
- Miller, W(aldron) DeW(itt)**, American Museum of Natural History, New York, N. Y. *Ornithology*. Brooklyn, N. Y., Feb. 4, 79. High sch. *Assoc. curator birds*, *Am. Museum Nat.*

- Hist.*, 03— Fel. Ornith. Union. Systematic ornithology.
- Miller, Prof. Ward L.**, 122 W. Pine St, Grove City, Pa. *Plant morphology*. Hutchinson, Kans, Dec. 17, 92. A.B., Southwestern (Kans), 16; M.S., Chicago, 19. Teacher, high sch, Kans, 16–17; asst. prof. *biol.*, *Grove City Col.*, 19–21, prof., 21— A.A.; Bot. Soc; Pa. Acad. Stem anatomy; floral abortions.
- Miller, Prof. W(ilford) S(tanton)**, University of Minnesota, Minneapolis, Minn. *Psychology*. A.B., Indiana, 10, A.M., 11; Ph.D., Illinois, 17. Teacher, prin. and supt, pub. schools, Ind, 00–07; instr. educ. psychol, Indiana, 10–11; sec'y, sch. educ, Illinois, 11–16; prin, univ. high sch, and asst. prof. educ, *Minnesota*, 16–18, assoc. prof., 18–20, prof. educ. psychol., 20— Research asst, Illinois, 10–11. Chief psychol. examiner, Camp Dodge, 18–19. A.A.; Psychol. Ass; Nat. Soc. Study Educ; Educ. Research Ass. Educational psychology; mental tests.
- Miller, Dean W(illiam) J(asper)**, Texas Technological College, Lubbock, Texas. *Engineering*. Bee Co, Texas, 93. E.E., Texas, 15; M.S., Mass. Inst. Tech, 22. Apprentice engineer, Gen. Elec. Co, 15–17; instr. and asst. prof. elec. eng, Texas, 17–20; instr, Mass. Inst. Tech, 20–21; prof. in charge dept, Okla. Agr. and Mech. Col, 21–23; research engineer in charge, Eng. Exp. Sta, Arkansas, 23–25; dean eng, *Texas Tech. Col.*, 25— Elec. Eng. (chairman, Okla. sect, 23); Eng. Educ. Transformer harmonics.
- Miller, Prof. W(illiam) J(ohn)**, University of California at Los Angeles, Los Angeles, Calif. *Geology*. Red Bluff, Calif, April 26, 80. B.S., Pacific (Calif), 00, M.S., 02; Stanford, 00–01; fellow, Hopkins, 04–05, Ph.D., 05; Sc.D., Pacific (Calif), 26. Instr. geol. and chem, Pacific (Calif), 00–03; prof. geol. and miner, Hamilton, 05–14; geol. and head dept, Smith, 14–24; prof. and chairman dept, *California at Los Angeles*, 24— Summers, Southern California, 22, 24; field asst, Md. Geol. Surv, 04; U. S. Geol. Surv, 05–06; field geologist, N. Y. Geol. Surv, 07–24. A.A.; Geol. Soc. (chairman, Cordill. sect, 27); Miner. Soc; Am. Acad. Precambrian structural and general geology; mineralogy; igneous and metamorphic rocks in California, Maryland and New York; areal geology of the Adirondack Mountains; magnetite and garnet deposits; physiography and glaciology of New York.
- Miller, Prof. W(illiam) Lash**, 8 Hawthorne Ave, Toronto, Ont, Can. *Physical chemistry*. Galt, Ont, Sept. 10, 66. B.A., Toronto, 87, fellow, 90; Berlin, 87–89; Göttingen, 89; Ph.D., Munich, 90; Leipzig, 92. Demonstrator chem, *Toronto*, 91–99, assoc. prof. *physical chem.*, 00–07, prof., 08— Board reviewers, 'Jour. Physical Chem.', 96–, assoc. ed, 10–26. A.A. (chairman, C, 13, 23); hon. mem. Chem. Soc. (chairman, sect. physical chem, 06, assoc. ed, 'Jour.', 13–24); Soc. Chem. Indust. (chairman, Can. sect, 10); Electrochem. Soc. (pres, 12); hon. mem. Electroplaters Ass; Wash. Acad; Royal Soc. Can. (pres, sect. III, 08); Can. Inst. Chem. (pres, 26); British Ass. (v. pres, 24); London Chem. Soc. Concentration changes and polarization during electrolysis with alternating and interrupted current; study of bios.
- Miller, Prof. William Snow**, University of Wisconsin, Madison, Wis. **Anatomy, Histology*. Stirling, Mass, March 29, 58. M.D., Yale, 79; fellow, Clark, 90–92; Leipzig, 95–96; fellow, Hopkins, 05–06; Sc.D., Cincinnati, 20, Wisconsin, 26. Pathologist, City Hosp. and Mem. Hosp, Worcester, Mass, 89–92; instr, vert. anat, *Wisconsin*, 92–95, asst. prof, 95–04, assoc. prof. anat, 04–16, prof, 16–25, emer. prof., 25— Lecturer, Mt. Holyoke, 89; Hopkins, 18–19. Past mem, ed. board, 'Anat. Record.' A.A.; Soc. Nat; Ass. Anat. (v. pres, 09); Am. Med. Ass; Tuber. Ass. (special investigator); Harvey Soc; Wis. Acad; Chicago Med. Hist. Soc; Int. Tuber. Ass; Gesell für Geschichte Med. und Naturwissenschaft; Soc. int. d'Hist. Méd. Anatomy and histology of the lungs; anatomical relations of a tubercle; medical history and biography.
- Miller, Dr. W(illiam) Tyler**, 1209 S. Crenshaw Boulevard, Los Angeles, Calif. *Horticulture*. King William Co, Va, Nov. 14, 69. A.B., Michigan, 92; A.M., Cornell, 97, Ph.D., 99. Assoc. ed, 'Cyc. of Am. Hort.', 99–02; ed. staff, 'Country Life in Amer.', 01–12; ed, 'Garden Magazine', 05–12; asst. prof. landscape hort, Illinois, 12–16; landscape architect. Botany of cultivated plants; landscape architecture.
- Milligan, Dr. Charles H.**, 1005 Park Ave, Hamilton, Ohio. *Organic chemistry*. Sevierville, Tenn, Oct. 4, 88. A.B., Carson and Newman, 12; B.S., Chicago, 15, Swift fellow, 17–18, Ph.D., 19. Grafflin fellow, Hopkins, 19–21; research chemist, Procter and Gamble Co, 21–26; *Champion Coated Paper Co*, 26— A.A.; Chem. Soc. Composition and hydrogenation of oils.
- Milligan, Dr. Lowell H(aines)**, 5 Harvard St, Worcester, Mass. *Physical chemistry*. Columbus, Ohio, Aug. 5, 94. B.Ch.E., Ohio State, 16, M.S., 17; fellow, Mellon Inst, 17; fellow, Cornell, 21–23, Ph.D., 23. Junior gas chemist, U. S. Bur. Mines, 17–18, consulting chemist, 19–22; research chemist, Norton Co, 23— Research chemist, Aluminum Co. of Amer, 19–20. Lieut, C.W.S., 18. A.A.; Chem. Soc; Electrochem. Soc. Alumina; aluminum; field methods of gas analysis; phosgene; oxidation and reduction products of nitric acid; grinding wheels.
- Millikan, Dr. Robert A(ndrews)**, California Institute, Pasadena, Calif. **Physics*. Morrison, Ill, March 22, 68. A.B., Oberlin, 91, A.M., 93, hon. Sc.D., 11; fellow, Columbia, 93, Ph.D., 95, hon. Sc.D., 17; Berlin and Göttingen, 95–96; hon. Sc.D., Northwestern, 13, Pennsylvania, 15, Amherst, 17, Dublin, 24; LL.D., California, 24, Yale, 25; Ph.D., King John Casimir Univ, Poland, 26. Asst. physics, Chicago, 96–97, assoc, 97–99, instr, 99–02, asst. prof, 02–07, assoc. prof, 07–10, prof, 10–21; director, *Norman Bridge lab. physics, and chairman exec. council, Calif. Inst.*, 21— Hitechoek lecturer, California, 17; Clark lecturer, Amherst, 17; exchange prof, Belgium, 22. Joint ed, 'Univ. Chicago Science Series', 15–21. V. chairman, Nat. Research Council, 16—; Am. rep, committee intellectual cooperation, League of Nations; Troisième

Conseil de Physique Solvay, Brussels, 21. Lieut. col. and chief science and research div, Sig.C, 17-19. Comstock prize, Nat. Acad, 13; Edison medal, Inst. Elec. Eng, 23; Nobel prize, Royal Swedish Acad, 23; Hughes medal, Royal Soc, 23; Faraday medal, London Chem. Soc, 24; gold medal, Inst. Mech. Eng, 26. Nat. Acad. (ed, 'Proc,' 15-, v. chairman, exec. board, 27-); A.A. (v. pres, 11); Physical Soc. (pres, 16-18, assoc. ed, 'Rev,' 03-16); Philos. Soc; Am. Acad; hon. mem. Royal Inst; hon. mem. Royal Irish Acad; cor. mem. Inst. de France Acad. des Sciences; Göttingen Wissensch. Gesell; cor. mem. Acad. des Sciences de Russie; Soc. Batave de Philos. Exp. & Rotterdam. Polarization of light from incandescent surfaces; variation of dielectric constants with frequencies; effect of temperature on photoelectric discharge; the charge on the negative ion in gases; absorption of X-rays; isolation of an ion and a direct study of its properties; discharge potentials in high vacua; velocities of electrons discharged from metals under the influence of ultraviolet light; photoelectric determination of Planck's 'h'; exact values of e , n and related constants; Brownian movement in gases; viscosity coefficients of gases; contact E.M.F; valency in gaseous ionization; extension of ultraviolet spectrum; laws of reflection of gas molecules; X-rays from light atoms; stripped atom; pulling electrons from metals by electric fields; cosmic rays.

Millis, Col. John, U.S.A. (retired), 3250 Euclid Ave, Cleveland, Ohio. *Physics, Engineering.* Wheatland, Mich, Dec. 31, 58. Grad. U. S. Mil. Acad, 81. All grades from second lieut. to col, C.Eng, 81-22; *retired*, 22. Board examiners, Elec. Expos, Phila, 84; U. S. Lighthouse Board, 94-98. Nat. delegate, Congresses Navig, Elec. and Physics, Paris, 00. A.A; Civil Eng; Astron. Soc. Cosmology; gravitation and general physical theory; illumination; geology of the glacial period; river and harbor works; origin of the solar system; constructional history of the earth.

Mills, Prof. Charles K(arsner), 2121 De Lancey St, Philadelphia, Pa. *Neurology.* Falls of Schuylkill, Pa, Dec. 4, 45. Cent. High Sch. Phila, 60-64; M.D, Pennsylvania, 69, Ph.D, 71, LL.D, 16. Prof. diseases of the mind and nervous system, Phila. Polyclinic, 83-98; mental diseases and med. juris, *Pennsylvania*, 93-01, clin. prof. nervous diseases, 01-03, prof. *neur.*, 03-15, *emer. prof.*, 15- Clin. prof. Woman's Med. Col. of Pa, 91-02. Neur. Ass. (pres, 86, 24); Am. Med. Ass. (chairman, sect. nervous and mental diseases, 93); Psychiat. Ass; Phila. Neur. Soc. (pres, 93, 14); Phila. Col. Physicians; Royal Soc. Med; cor. mem. Gesell. Nervenärzte; Soc. de Neur. de Paris; Dutch Soc. Psychiat. and Neur. The nervous system and its diseases; diseases of the brain and cranial nerves.

Mills, Dr. Clarence A(lonzo), 1602 Rose Place, Cincinnati, Ohio. *Medicine.* Miami, Ind, Dec. 9, 91. A.B, South Dakota, 17; Ph.D, Cincinnati, 20, M.D, 22. Asst. physiol, South Dakota, 17; instr, Kansas, 17-18; sch. med, Marquette, 18-19; biochem, *Cincinnati*, 19-22, internal med, 22-23, asst. prof, 23-25, *director laboratories*

for exp. med., 25- Nat. Research Council fellow, 22-23; asst. attending physician, Cincinnati Gen. Hosp, 23-, director diabetic clinic, 25-; Peking Union Med. Col, 26-28. Am. Med. Ass; Physiol. Soc; Soc. Biol. Chem. Blood coagulation and control of hemorrhage; immunity and anaphylaxis; biological action of light.

Mills, Prof. Clifford N(ewton), Illinois State Normal University, Normal, Ill. *Mathematics.* Carlos City, Ind, Aug, 86. B.S, Franklin, 10; A.M, Indiana, 14. Prof. *math.*, Highland, 10-13; asst. prof, S. Dak. Col, 14-19; *prof.*, Heidelberg, 19-23; North. Nor. and Indust. Sch, S. Dak, 23-25; *Ill. State Nor. Univ.*, 25- *Math. Soc.* Applied mechanics; teaching of mathematics.

Mills, Dr. James E(dward), Edgewood Arsenal, Edgewood, Md. **Chemistry.* Winnsboro, S. C, April 30, 76. A.B, Davidson, 96, A.M, 00; Ph.D, North Carolina, 01. Asst. chem, North Carolina, 00-01, instr, 01-03, assoc. prof, 04-10; lecturer, South Carolina, 10-13, prof, 13-21; tech. director, *C.W.S.*, 21-24, *chief chem. div.*, 24- Capt, C.Eng, 17, C.W.S, 18, major, 18, lieut. col, O.R.C. A.A; Chem. Soc; Electrochem. Soc; Soc. Chem. Indust. Molecular attraction; heats of vaporization of liquids; specific heats; relationship of physical properties and of chemical constitution to physiological action; boll weevil investigation.

Mills, John, Wyoming, N. J. *Electrical engineering.* Chicago, Ill, April 13, 80. A.B, Chicago, 01, fellow, 02-03; fellow, Nebraska, 03-04, A.M, 04; B.S, Mass. Inst. Tech, 09. Instr. physics, Western Reserve, 03-07; drawing, Mass. Inst. Tech, 07-09; prof. physics and elec. eng, Colo. Col, 09-11; eng. dept, Am. Tel. and Tel. Co, 11-15; research dept, West. Elec. Co, 16-22, personnel dept, 22-25, *director publication*, Bell Telephone Laboratories, Inc, 25- Physical Soc; Elec. Eng; Radio Eng; Eng. Educ; Management Ass. Telephone transmission; radio communication.

Mills, Prof. Ralph G(arfield), Mayo Clinic, Rochester, Minn. *Pathology.* Lincoln, Ill, March 4, 81. A.B, Illinois, 03; M.D, Northwestern, 07; Chicago, 12-13, 24-25. Intern, St. Luke's Hosp, Chicago, 07-08; builder and in charge, Kennedy Hosp, Korea, 08-12; prof. path. and bacter. and in charge clin. laboratories and research dept, Severance Union Med. Col, Korea, 13-18; *prof. path. and head dept.*, Peking Union Med. Col, 18-24; sch. med, Colorado, 25-26; *Mayo Foundation, Minnesota*, and *assoc. Mayo Clinic*, 26- Asst. res. pathologist, Hopkins Hosp, 18-19; instr, Hopkins, 19-20. A.A; Ass. Path. and Bact; Soc. Bact; Soc. Parasitol; Minn. Path. Soc; China Med. Missionary Ass; hon. mem. Korea Med. Missionary Ass; Int. Ass. Med. Mus. Local tissue immunity; gross and micro-pathological anatomy.

Mills, Ronald Van Auken, Petroleum Experiment Station, Bartlesville, Okla. *Mining engineering.* Washington, D. C, Aug. 2, 81. E.M, Columbia, 06. Engineer, U. S. Mexico and Canada, 06-10; prof. min. and geol. and in charge

- govt. sch. mines, Pei Yang Univ, Tientsin, China, 10-12; assoc. geologist, U. S. Geol. Surv, 12-18; petrol. technologist and engineer, U. S. Bur. Mines, San Francisco, Calif, and Bartlesville, Okla, 18-23; oil and gas valuation engineer, Bur. Int. Revenue, Washington, D. C, 23-26; petrol. engineer, U. S. Bur. Mines, Bartlesville, Okla, 20-, in charge oil recovery investigations, 26- Technologist, Navy Dept, Naval Ordnance Plant, S. Charleston, W. Va, 17-19; Okla, 26- Ass. Petrol. Geol; Min. and Metal. Eng. Oil field waters; induced migration; segregation; accumulation of oil; underground movements of oil, gas and water through reservoir sands; corrosion of oil gas field equipment.
- Mills, William C**, Ohio State University, Columbus, Ohio. **Archeology*. Pymont, Ohio, Jan. 2, 60. B.S., Ohio State, 89, M.S., 02. *Curator dept. archeol, Ohio State, and curator and librarian, Ohio Archeol. and Hist. Soc*, 98- Assoc. ed, 'Ohio Naturalist', 00. Director field explorations, Ohio Archeol. and Hist. Soc, 00; in charge exhibit, Pan-Am. Expos, 01; hon. supt. archeol, La. Purchase Expos, 04; supt. archeol, Jamestown, 07. A.A.; Soc. Nat; Anthropol. Ass. (councilor, 19); assoc. Ornith. Union; Ohio Acad. (librarian, 99-). Mounds and village sites; Ohio flint; Baum prehistoric village sites, Ross County, Ohio; microscopical sections of Ohio flint.
- Mills, Dr. William W(histler)**, Mellon Institute, Pittsburgh, Pa. *Analytical chemistry*. Pontiac, Kans, May 8, 92. B.S., Franklin, 14; M.S., Ohio State, 21, Ph.D., 25. Chemist, Pittsburgh Crucible Steel Co, Midland, Pa, 14-17, asst. chief chemist, 17-19; instr. chem, Wooster Col, 21-22; asst, Ohio State, 22-25; *analyst, Mellon Inst*, 25- Chem. Soc. Iodine as a standard substance in chemical measurements.
- Milne, Dr. Lindsay Stephen**, 1800 Federal Reserve Building, Kansas City, Mo. *Medicine*. Montrose, Scotland, May 8, 83. M.B., Ch.B., Edinburgh, 04, M.D., 08. Asst. prof. path, Edinburgh, 05-08; pathologist, Russell Sage Inst. Path, 08-11; prof. med, Kansas, 11-20. Attending physician, hospitals, Kansas City. Lieut. col, M.C, 17-19. Ass. Path. and Bact; Am. Med. Ass; N. Y. Acad. Med; Harvey Soc; British Med. Ass; British Path. and Bact. Soc; Edinburgh Royal Col. Physicians. Internal medicine; syphilis; liver diseases; anemia; diabetes; disorders in internal gland secretions.
- Milne, Prof. W(illiam) E(dmund)**, University of Oregon, Eugene, Oregon. *Mathematics*. Pendleton, Oregon, Jan. 19, 90. A.B., Whitman, 12; A.M., Harvard, 13, Ph.D., 15. Asst. math, Harvard, 13-15; Bowdoin, 15-16, asst. prof, 16-18; *prof, Oregon*, 19- Lieut. ordnance dept, 18-19. Math. Soc; Math. Ass. Theory of functions of real and complex variables; damped oscillatory motion.
- Miloslavich, Dr. E(dward) L(ucas)**, 634 Fourth St, Milwaukee, Wis. *Pathology, Bacteriology*. Oakland, Calif, Dec. 20, 84. M.D., Vienna, 08, 11-14, 19-20. Asst, Path. Inst, Vienna Mil. Hosp, 10-14; assoc. prof. path. anat, Vienna, 17-21; director, Path. Inst, Vienna Mil. Hosp. and pathologist, seven war hospitals, Vienna, 18-21; *prof. path. and bacter, and director departments, med. sch., Marquette*, 21-, *prof. physical anthrop*, 25- Director path. lab, St. Mary's Hosp, 22-; consulting pathologist, Milwaukee Co. Hosp, 22-; U. S. Veterans Hosp, 25-; South View Hosp, 22-; Emergency Hosp, 24-; pathologist, Marquette Univ. Hosp, 22-; Ev. Deaconess Hosp, and St. Joseph's Hosp, 23- Collaborator, 'Wiener Medizinische Wochenschrift', 10-; contrib. ed, 'Hosp. Progress', 24-; ed. staff, 'Int. Jour. Orthodontia, Oral Surgery and Radiography', 25- Sixteen medals, Austria, Germany, Bulgaria and Serbia, 13-18. War pathologist, Balkans, 14-18. A.A.; Ass. Path. and Bact; Soc. Clin. Path; fel. Am. Med. Ass; Am. Hosp. Ass; Soc. Parasitol; Anthropol. Ass; Wis. Archeol. Soc; Path. Gesell; Vienna Anthropol. Gesell; Vienna Gesell. Physicians; Vienna Criminol. Gesell. Vermiform process; suprarenal glands; pathology of the intestines; tuberculosis; morphology of human constitution; anthropological splanchnology.
- Minchin, Prof. Howard D(aniel)**, Ohio State University, Columbus, Ohio. *Physics, Electrochemistry*. Belleville, Ont, Can, May 3, 68. B.S., Michigan, 99, A.M., 04, Ph.D., 06. Prin. high sch, Mich, 99-01; instr. physics, Detroit, 01-04; Rochester, 04-06, asst. prof, 06-19; *prof. applied optics, Ohio State*, 19- Optical engineer, C.Eng, U.S.A., 18-19. Committee on Course of Study in Chem. for Mich. Secondary Schools. Assoc. Physical Soc; Ass. Applied Optics (v. pres, 16); Optical Soc; Soc. de Physique. Radiation of metals; measurement of sound waves; reflection of light from colored papers; distillation and purification of mercury; coefficient of expansion of fused quartz; optics.
- Miner, Carl S(helley)**, 9 S. Clinton St, Chicago, Ill. **Chemistry*. State Center, Iowa, Aug. 5, 78. B.S., Chicago, 03. Research chemist, Corn Products Co, 03-06; *proprietor and director, Miner Laboratories*, 06- Consulting chemist. A.A.; Chem. Soc. (chairman, Chicago sect, 22, councilor, 23-26). Industrial chemistry; unfermentable residue of commercial glucose; manufacture of furfural and derivatives.
- Miner, H(arlan) S(herman)**, Welsbach Co, Gloucester City, N. J. **Chemistry*. Chester, Vt, June 29, 64. B.S., Lehigh, 88; hon. Sc.D., Pennsylvania, 19, Lehigh, 21. *Chemist, Welsbach Co*, 88- Trustee, Pennington Sem; Lehigh; advisory mem. for N. J. Naval Consulting Board. Gold medal and diploma, La. Purchase Expos, 04. A.A.; Chem. Soc. (councilor); Chem. Eng; Electrochem. Soc; Soc. Chem. Indust; Franklin Inst; N. Y. Chemists Club; Soc. de Chim. indust. Rare earths; radium; mesothorium; manufacture and development of incandescent gaslights.
- Miner, Prof. J(ames) B(urt)**, University of Kentucky, Lexington, Ky. *Psychology*. Berlin, Wis, Oct. 6, 73. B.S., Minnesota, 97, LL.B., 99, M.S., 01; fellow, Columbia, 02-03, Ph.D., 03. Instr. psychol, Illinois, 03-04; Iowa, 04-05, asst. prof. philos, 05-06; *psychol*, Minnesota, 06-15; Carnegie Inst. Tech, 15-18, assoc. prof, 18-21; *prof. and head dept, Kentucky*, 21-

Exec. sec'y, Research Bur. Retail Training, 18-20. A.A.; Psychol. Ass; S. Soc. Philos. and Psychol. (pres, 25). Deficiency and delinquency; personnel; rhythm.

Miner, Dr. John Rice, 325 Keswick Road, Baltimore, Md. *Biometry*. Chicago, Ill, April 10, 92. A.B, Michigan, 13; Sc.D, Hopkins, 22. Asst. math, Michigan, 12-13; computer, Maine Exp. Sta, 13-17; biometrician, Food Ad, 17-19; assoc. biometry and vital statistic, sch. hygiene and pub. health, *Hopkins*, 19-24, assoc. prof, 24-25, *assoc. mem. inst. biol. research*, 25- A.A.; Statist. Ass. Vital statistics; curve fitting; milk production; suicide.

Miner, Dr. Roy Waldo, American Museum of Natural History, New York, N. Y. *Zoology*. North Adams, Mass, Feb. 24, 75. A.B, Williams, 97; grad, Gen. Theol. Sem, 00; Ph.D, Columbia, 23. Instr. Latin and biol, Berkeley Sch, New York, 00-04; assoc. head master and instr, Kelvin Sch, 04-05; asst. curator invert. zool, *Am. Museum Nat. Hist*, 05-17, assoc. curator, 17-21, *curator lower invertebrates*, 22- Marine explorations, New Eng. coast and Bay of Fundy, 09-22; exped, Lesser Antilles, 11, 14; biol. exped, P. R, 14, 15; leader submarine exped, Bahamas, 23, 24, 26. N. Y. Committee marine piling investigations, Nat. Research Council, 22-24. A.A.; Ass. Mus. (councilor, 17-20); Ecol. Soc; N. Y. Acad. (asst. sec'y, 05, sec'y, sect. biol, 07, councilor, 24-26, recording sec'y, 26-). Invertebrate morphology and ecology; Myriapoda; phylogeny and homologies of limb muscles; corals; oceanography.

Minnich, Prof. Dwight E(lmer), University of Minnesota, Minneapolis, Minn. *Zoology*. Hutchinson, Kans, Jan. 28, 90. A.B, Miami, 10; fellow, Harvard, 16-17, Ph.D, 17. Traveling fellow, Harvard, 17-18; instr. *zool*, Syracuse, 19-20; *Minnesota*, 20-21, asst. prof, 21-25, *assoc. prof*, 25- A.A.; Soc. Zool. (sec'y, 25-). Sensory physiology and behavior of animals; light reactions of animals; physiology of the chemical and mechanical senses of invertebrates and lower vertebrates.

Minnis, Dr. Wesley, 9 Wellington Road, Buffalo, N. Y. *Chemistry*. Cheney, Kans, June 5, 95. B.S, M.S, Washington (Seattle), 16; Nat. Aniline and Chem. Co. fellow, Michigan, 20-22, Ph.D, 22. Teaching asst. chem, Michigan, 16-18; research chemist, Nat. Aniline and Chem. Co, Pa, 18-20; Semet-Solvay Co, N. Y, 22-23; *research and development chemist*, *Nat. Aniline and Chem. Co*, 23- Chem. Soc. Triarylmethyls containing sulfur; chemistry of thiophene and derivatives; dye intermediates.

Minor, Dr. Jessie E(lizabeth), 956 Worthington St, Springfield, Mass. *Chemistry*. Belleville, Ill, April 17, 80. B.S, Drury, 04; fellow, Pennsylvania, 08-10; Ph.D, Bryn Mawr, 17. Substitute prof. chem, Drury, 06-08; prof, Huguenot, S. Africa, 10-14; assoc. prof, Goucher, 17-18; chief chemist, Hamersley Mfg. Co, 18-20; head pulp and paper dept, Emerson Lab, 20-22; *chief chemist*, *Collins Mfg. Co*, 22- Chem. Soc; Tech. Ass. Pulp and Paper Indust; London Soc. Chem. Indust. Equilibrium reactions; cellulose;

beater consistency changes; beater acidities; paper testing; pulp weight factors.

Minor, Dr. Ralph S(mith), University of California, Berkeley, Calif. *Physics*. Deposit, N. Y, April 29, 76. A.B, Hamilton, 98, Root fellow, 98, A.M, 01; Freiburg, 98-99; Ph.D, Göttingen, 02. Teacher, high sch, N. Y, 02-03; instr. *physics*, California, 03-06; assoc. prof, Nevada, 06, prof, 07-09; assoc. prof, *California*, 09-19, *prof*, 19- Committee on research methods and technique, Nat. Research Council. A.A; Physical Soc; Optical Soc. Absorption and refraction of ultraviolet radiation.

Minot, Dr. A(nnie) S(tonie), Harvard Medical School, Boston, Mass. *Physiology, Chemistry*. Bath, N. H, April 25, 94. A.B, Smith, 15; Ph.D, Radcliffe, 23. Lab. asst, Mass. Gen. Hosp, 15-20; *research worker*, *Harvard Med. Sch*, 23-; *instr. physiol*, *Wellesley*, 25- Physiol. Soc; Pub. Health Ass. Creatinuria; composition of milk; industrial manganese and lead poisoning; chemotherapy of cancer.

Minot, Dr. George R(ichards), 188 Marlborough St, Boston, Mass. *Medicine*. Boston, Dec. 2, 85. A.B, Harvard, 08, M.D, 12. Med. house officer, Mass. Gen. Hosp, 12; asst. res. physician, Hopkins Hosp, 13-14; *asst. med*, Hopkins, 14-15; *Harvard Med. Sch*, 15-18, asst. prof, 18-27, *clin. prof*, 27- Asst, Harvard, 15-16; asst, Mass. Gen. Hosp, 15-18, assoc, 18-23, physician to special clinic, 23-25, special consultant, 25-; physician, Huntington Mem. Hosp, 17-, chief med. laboratories, 23-; assoc, Peter Bent Brigham Hosp, 25- Am. Med. Ass; Am. Physicians; Soc. Clin. Invest; Climat. and Clin. Soc; Tuber. Ass; Soc. Control Cancer; Soc. Exp. Biol; fel. Am. Acad. Clinical medicine; blood diseases; conditions of the blood.

Miriam, Sister Rose (Smyth), 981 Lake Ave, Rochester, N. Y. *Biochemistry*. Ballinamore, Ireland, June 5, 80. A.B, St. Elizabeth, 10; A.M, Canisius Col, 22; Ph.D, Fordham, 26. *Instr. chem*, *Nazareth Acad*, *Rochester*, 12- Amino acids; detoxication in the body; synthetic organic chemistry.

Mirsky, Alfred E(zra), Rockefeller Institute, New York, N. Y. *Physiology*. Flushing, L. I, N. Y, Oct. 17, 00. A.B, Harvard, 22, 25-26; King's (Eng), 23-25. *Nat. Research Council fellow*, 24- Proteins; respiration; muscular activity.

Miser, H(ugh) D(insmore), U. S. Geological Survey, Washington, D. C. **Geology*. Pea Ridge, Ark, Dec. 18, 84. A.B, Arkansas, 08, A.M, 12. Field asst, *U. S. Geol. Surv*, 07-11, junior geologist, 11-12, asst. geologist, 12-13, assoc. geologist, 13-19, *geologist*, 19- Acting prof, Arkansas, and acting state geologist, 20; geologist, Ark. Geol. Surv, 07-10; Tenn. Geol. Surv, 12, 17, state geologist, 26. A.A; Geol. Soc; Soc. Econ. Geol; Ass. Petrol. Geol; Min. and Metal. Eng; Tenn. Acad; Wash. Geol. Soc; Wash. Acad; Nashville Eng. Ass. Areal and economic geology.

Miser, Dr. Wilson L(ee), Vanderbilt University, Nashville, Tenn. *Mathematics*. Pea Ridge, Ark, June 26, 86. A.B, Arkansas, 08; A.M, Yale, 11; fellow, Chicago, 12-13, Ph.D, 13.

- Prin, high sch, Ark, 08-10; instr. *math*, Minn-
sota, 13-15; asst. prof, Arkansas, 15-19; assoc.
prof, Armour Inst, 19-25; *prof*, *Vanderbilt*,
25- A.A.; Math. Soc; Math. Ass. Linear differ-
ential equations.
- Misner, Prof. E(dward) G(ardner)**, 221 Cornell
St, Ithaca, N. Y. *Agriculture*. Dairyland, N.
Y, Jan. 23, 91. B.S, Cornell, 13, Ph.D, 18.
Asst. prof. *farm management*, Cornell, 18-20,
prof, 20- Econ. Ass; Farm Econ. Ass. Farm
management.
- Mitchell, A(llan) C(harles) G(ray)**, California
Institute, Pasadena, Calif. *Chemistry*. Houston,
Texas, Oct. 1, 02. B.S, Virginia, 23, M.S, 24.
Teaching fellow chem, Virginia, 23-24; *Calif.*
Inst, 24- A.A. Activation of molecules by
excited mercury atoms; the entropy of hydrogen
chloride derived from infra-red band spectra.
- Mitchell, C(harles) L(yman)**, 904 Rittenhouse
St, N. W, Washington, D. C. *Meteorology*.
Dunningsville, Pa, March 25, 83. Grad, Pa.
State Nor. Sch, California, 01. Teacher, schools,
Pa, 01-04; asst. observer and observer, U. S.
Weather Bur, 04-15; asst. district forecaster,
Chicago, 15-20; *district forecaster*, Washington,
D. C, 20- Fel. Meteor. Soc; Wash. Philos. Soc.
West Indian hurricanes and other tropical
cyclones of the North Atlantic ocean.
- Mitchell, Dr. C(laude) W(illiam)**, Silver Spring,
Md. *Zoology*, *Medicine*. Hiawatha, Kans, May
27, 89. A.B, Nebraska, 10, fellow, 10-13, A.M,
11, Ph.D, 13; M.D, Rush Med. Col, Chicago, 16;
D.P.H, Hopkins, 25. Instr. *physiol* and *pharma-*
col, Nebraska, 13-14; *pharmacologist*, bur. chem,
U. S. Dept. Agr, 14-15; *prof*, *physiol* and
pharmacol, Alabama, 16-17; asst. surgeon, *U.*
S. Pub. Health Service, 17-21, past asst. sur-
geon, 21-25, *physician and surgeon*, 25- A.A.
Pharmacology; heredity in rotifers; action of
chemicals on the peristaltic movements of the
intestines; Vincent's angina; carbon monoxide
and hydrogen sulphide poisoning; diphtheria.
- Mitchell, Dr. David**, 160 W. 85th St, New York,
N. Y. *Psychology*. Aldershot, Ont, Can, Oct.
13, 84. B.A, Toronto, 10; A.M, Pennsylvania, 11,
fellow, 12-14, Ph.D, 13. Instr. *psychol*, Penn-
sylvania, 14-17; director *psychol* research, Bur.
Educ. Experiments, 17-19. A.A; Psychol. Ass.
Psychophysics; the influence of distraction in
lifted weight experiments; the constant time
error; exceptional children; clinical psychology.
- Mitchell, Miss E(velyn) G(roesbeeck)**, Howard
University, Washington, D. C. *Zoology*, *Ento-*
mology. East Orange, N. J. A.B, Cornell, 02;
M.S, George Washington, 06; M.D, Howard, 13.
Instr. *zool*, Cornell summer *geol*. camp, 02; lab.
and field asst. and artist to Dr. Dupree, Louisi-
ana, 04; asst. *zool*, George Washington, 04-06;
zool. artist (unofficial), U. S. Nat. Museum, 04-
12; asst. *histol* and *physiol* chem, *med. col*,
Howard, 09-12, *lecturer neur*, 17-; *practising*
physician, 14- Intern, Woman's Hosp. Phila,
13-14; visiting *neurologist*, Freedmen's Hosp,
15- A.A; Entom. Soc; Wash. Biol. Soc. Dip-
tera; ichthyology; morphology of fish and fossil
insects; life histories of Culicidae and Chirono-
midae; reptiles; small mammals.
- Mitchell, Dr. Graham John**, Cananea, Sonora,
Mex. *Mining geology*. San Francisco, Calif,
Sept. 4, 87. B.S, Oregon, 12; A.M, Columbia,
13, Ph.D, 18. Instr. *geol*, Oregon, 13-14, *geol-*
ogist, Oregon Bur. Mines and Geol, 13-16, asst.
prof, 14-16; asst, Columbia, 16-18; *geologist*,
Calumet and Ariz. Mining Co, 18-21; private
geol. examinations, 21-22; *chief geologist*,
Cananea Consol. Copper Co, 22- *Geologist*, N.
Y. Acad, P. R. Surv, 17. Mech. Eng; hon. mem.
Condon Geol. Soc.
- Mitchell, Prof. H(arold) H(anson)**, University of
Illinois, Urbana, Ill. *Biochemistry*, *Nutrition*.
Evanston, Ill, Jan. 22, 86. A.B, Illinois, 09,
M.S, 13, Ph.D, 15. Asst. chem, *Exp. Sta, Illinois*,
11-13, assoc. *animal nutrition*, 13-18, asst. *prof*,
18-20, assoc. *prof*, 20-25, *prof*, 25- Committee
foods and nutrition, Nat. Research Council.
Soc. Biol. Chem; Soc. Animal Production.
Animal nutrition; metabolism of amino acids;
nutritive value of proteins; protein require-
ments; energy requirements of farm animals;
energy values of farm feeds.
- Mitchell, Dr. Helen S(wift)**, Sanitarium Nutri-
tion Laboratory, Battle Creek, Mich. *Nutri-*
tion. Bridgeport, Conn, Sept. 21, 95. A.B,
Mt. Holyoke, 17; Ph.D, Yale, 21. Instr, high
sch, N. Y, 17-18; *director nutrition research*,
Battle Creek Sanitarium and prof. nutrition,
Battle Creek Col, 21- Lecturer, exten, Michi-
gan. Dietetics Ass; Soc. Biol. Chem; Mich.
Home Econ. Ass. (v. pres); Mich. Acad; Mich.
State Teachers Ass. Physiological chemistry;
effect of ultraviolet light on rats and on food;
comparative value of proteins in nutrition; uti-
lization of various forms of iron in nutrition of
anemic rats.
- Mitchell, Henry Bedinger**, 20 Fifth Ave, New
York, N. Y. *Mathematics*. Long Island, N. Y.,
Aug. 12, 74. Columbia, 91-92, E.E, 98, A.M,
00. Asst. *math*, Columbia, 98-00, tutor, 00-05,
adjunct *prof*, 05-08, *prof*, 08-25. Sec'y faculty,
Columbia, 07-09, chairman committee on admis-
sions, 08-09, committee on instruction, 09-10,
univ. council, 24-25.
- Mitchell, Prof. H(oward) H(awkes)**, University
of Pennsylvania, Philadelphia, Pa. **Mathemat-*
ics. Marietta, Ohio, Jan. 14, 85. Ph.B, Mari-
etta, 06; Ph.D, Princeton, 10. Instr. *math*,
Yale, 10-11; *Pennsylvania*, 11-14, asst. *prof*,
14-21, *prof*, 21- Ballistician, Aberdeen Prov-
ing Grounds, 18. A.A; Math. Soc. (ed, 'Trans,'
25-); Philos. Soc. Linear groups; theory of
numbers.
- Mitchell, J(ohn) Alfred**, U. S. Forest Service, Uni-
versity Farm, St. Paul, Minn. *Forestry*. De-
troit, Mich, April 1, 86. B.S, Mich. State Col,
09, M.F, 25. Forest asst, *U. S. Forest Service*,
09-13, *forest examiner*, 13-, in charge silvical
investigations, 11-14, Feather River Exp. Sta,
14-18, inspector state cooperation, 18-23, *silvi-*
culturist, *Lake States Forest Exp. Sta*, 23- Soc.
Foresters. Brush disposal in California; incense
cedar; forest fires in Minnesota.
- Mitchell, Prof. J(ohn) Pearce**, Stanford Univer-
sity, Calif. *Chemistry*. Providence, R. I, June
4, 80. A.B, Stanford, 03, A.M, 04, Ph.D, 09;
Leipzig, 04-05. Asst. *chem*, Stanford, 01-04,

- instr. 05-09, asst. prof. 09-16, assoc. prof. 16-20, *prof.* 20-, *registrar*, 25- A.A.; Chem. Soc; Chem. Eng; Pub. Health Ass. Physical chemistry; methods and standards for water analysis; smoke damage to vegetation.
- Mitchell, Prof. O(liver) W(endell) H(olmes)**, Syracuse University, Syracuse, N. Y. *Bacteriology*. Lancaster, Mo, Aug. 17, 86. M.D., Missouri, 08; Rush Med. Col, 09, Chicago, 10; Harvard, 13-15. Asst. path. and bacter, Missouri, 06-08, asst. path. and anesthetist to Hosp, 09-10, instr. path. and bacter, 10-12, asst. prof. 12-13, assoc. prof. 13-14; bacter, *Syracuse*, 14-15, *prof. bacter. and hygiene*, 16- City bacteriologist, Syracuse, 14-18. A.A.; Ass. Path. and Bact; Am. Med. Ass. Skin disinfection; pneumonitis of rodents; viability of *Bacillus typhosus*; *pneumococcus*.
- Mitchell, Prof. Philip H(enry)**, Brown University, Providence, R. I. *Physiology*. Southbury, Conn, Dec. 13, 83. Ph.B., Yale, 04, Ph.D., 07. Instr. *physiol. Brown*, 07-11, asst. prof. 11-20, assoc. prof. 20-26, *prof.* 26- Director biol. sta, Bur. Fisheries, Woods Hole, 14-20. Soc. Biol. Chem. Utilization of carbohydrates; enzymes concerned with carbohydrate metabolism in the embryo; purin metabolism in the embryo; distribution of purin enzymes; creatinin metabolism; nutrition of oysters; oxygen requirements of shellfish; selective absorption of potassium by animal cells.
- Mitchell, Prof. R(obert) V(incen)**, College Station, Pullman, Wash. *Animal husbandry*. Mahaffey, Pa, July 23, 84. B.S., Missouri, 13. Poultryman, Pa. State, 08-09, asst. *poultry husbandry*, 11-12; Missouri, 12-13; *prof.* New Hampshire, 13-17; Delaware, 17-18; *head dept.* Wash. State, 18- Summer, with food research bur, U. S. Dept. Agr, 18. A.A.; Int. Ass. Poultry Husbandry. Poultry husbandry; egg production.
- Mitchell, Prof. S(amuel) A(lfred)**, University, Va. *Astronomy*. Kingston, Ont, Can, April 29, 74. M.A., Queen's (Can), 94, LL.D., 24; Ph.D., Hopkins, 98. Research asst, Yerkes Observatory, 98-99; tutor *astron.*, Columbia, 99-06, instr. 06-08, adjunct prof. 08-13; *prof.* Virginia, and director, McCormick Observatory, 13- Observer total solar eclipses, Ga, 00, Sumatra, 01, Spain, 05, Oregon, 18, Calif, 23, Conn, 25, Norway, 27; asst, Astrophys. Observatory, Smithsonian Institution, 04; astronomer, Yerkes Observatory, 07, 09, 10-13; Ernest Kempton Adams research fellow, Columbia, 14-21. A.A. (v. pres, 21); Astron. Soc. (v. pres, 25-27); Philos. Soc; Am. Acad; patron Ass. Variable Star Observers; fel. Royal Astron. Soc; Astron. Gesell; Soc. astron. de France; hon. mem. Soc. Astron. de Mex. Stellar photometry, spectroscopy and parallax; variable stars; flash spectrum.
- Mitchell, Prof. T(heodore) B(ertis)**, 123 New Bern Ave, Raleigh, N. C. *Entomology*. Cambridge, Mass, Oct. 26, 90. B.S., Mass. Col, 20; M.S., N. C. State, 24. Nursery inspector, N. C. State Dept. Agr, 20-25; *asst. prof. zool. and entom.*, N. C. State, 25- Assoc. Entom. Soc;
- Ass. Econ. Entom; N. C. Acad. Systematic entomology; Apoidea; Megachilinae.
- Mitchell, Prof. U(lysses) G(rant)**, 1313 Massachusetts St, Lawrence, Kans. *Mathematics*. Nashua, Iowa, Nov. 26, 72. A.B., Kansas, 06, A.M., 07; Ph.D., Princeton, 10. Prin. and supt, pub. schools, 98-04; instr. hist, Kansas, 05-06, instr. *math.*, 06-08; teaching fellow, Princeton, 08-10; asst. prof, *Kansas*, 10-15, assoc. prof. 15-20, *prof.* 20- Assoc. ed, 'Math. Monthly,' 14-19. A.A.; Math. Soc; Math. Ass; Hist. Sci. Soc; Kans. Acad. Projective geometry; history and teaching of mathematics.
- Mitchell, Prof. W(alter) A(lfred)**, Mukden, China. *Physics*. Hartford, Conn, Jan. 13, 81. A.B., Trinity (Conn), 01; A.M., Columbia, 10. Tutor physics, Maine, 02-03; instr. R. I. Col, 03-04; asst, Columbia, 04-05, 09-10; *prof.* Imp. Polytech. Col, Shanghai, China, 05-08; Soochow Univ, 08-12; *eng. and commercial work*. Lecturer, Fuh Tan Col, 08-09. A.A.; Physical Soc; Ass. Chinese and Am. Eng.
- Mitchell, Dr. Walter M(ann)**, Massillon, Ohio. *Metalurgy, Engineering*. Philadelphia, Pa, April 5, 80. B.S., Pennsylvania, 02; Ph.D., Princeton, 05. Asst, Allegheny Observatory, 06; director observatory, Haverford, 07-09; asst. prof. astron, Michigan, 10-13; mech. engineer, Midvale Steel Co, 15-18; supt. metal. and testing lab, Standard Roller Bearing Co, 19-20; metal engineer, E. I. du Pont de Nemours and Co, Del, 23-26; *asst. sales manager*, Cent. Alloy Steel Corp, 26- Aeronaut. mech. engineer in charge inspection, Bur. Aircraft Production, 18-19. Soc. Steel Treat; Soc. Test. Mat; Astron. Soc; Franklin Inst; British Inst. Metals. Solar spectroscopy; history of solar observations; alloy steels; heat and corrosion resistant alloys.
- Mitchener, Prof. A(lvin) V(alentine)**, University of Manitoba, Winnipeg, Man, Can. *Entomology*. Port Rowan, Ont, Feb. 14, 88. B.A., McMaster, 14; B.S.A., Toronto, 18. *Asst. prof. entom.*, Manitoba, 18- Entom. Soc; Can. Soc. Tech. Agr. Apiculture.
- Mitke, Cha(rle)s A.**, Box 2051, Bisbee, Ariz. *Mining*. Dorrance, Pa, Aug. 14, 81. A.B., Yale, 08, Ph.B., 10. Mining engineer, Phelps Dodge and Co, 10-16; *consulting mining engineer*, 16- A.A.; Min. Eng; Min. Cong; Chem. Eng; London Inst. Min. and Metal. Mine ventilation; mining methods.
- Mix, Prof. A(rthur) J(ackson)**, University of Kansas, Lawrence, Kans. *Plant pathology*. Bolivar, N. Y, Sept. 30, 88. A.B., Hamilton, 10; fellow, Cornell, 11-15, Ph.D., 16. Asst. botanist, N. Y. Exp. Sta, Geneva, 15-16; instr. plant path, *Kansas*, 16-18, assoc. prof. *bot.*, 19-24, *prof.* 24- A.A.; Bot. Soc; Phytopath. Soc; Kans. Acad. Non-parasitic plant diseases; biology of exoascaceae.
- Mixer, Dr. Charles Galloupe**, 270 Commonwealth Ave, Boston, Mass. *Surgery*. Boston, May 1, 82. B.S., Mass. Inst. Tech, 02; M.D., Harvard, 06. *Practising surgeon*, 07- Assoc. surgeon, Children's Hosp; consulting surgeon, Leonard Morse, Jordan, Cable and Cape Cod Hospitals,

- Mass. U.S.A. Fel. Col. Surg; Surg. Ass; Am. Med. Ass; Urol. Soc; S. Surg. Ass; New Eng. Surg. Ass; Boston Surg. Soc; Boylston Med. Soc; New Eng. Pediat. Soc. Infancy and childhood; urinary system.
- Mixter, Prof. W(illiam) G(ilbert)**, 250 Edwards St, New Haven, Conn. **Chemistry*. Dixon, Ill, Sept. 23, 46. Ph.B, Yale, 67, A.M, 87; Bunsen's Lab, 72-73; Hofmann's Lab, 73-74. Asst. chem, *Sheffield Sci. Sch, Yale*, 67-72, instr, 74-75, prof, 75- Chem. Soc. Inorganic chemistry; thermal chemistry.
- Mixter, Dr. William Jason**, 270 Commonwealth Ave, Boston, Mass. *Surgery*. Vienna, Austria, Dec. 5, 80. B.S, Mass. Inst. Tech, 02; M.D, Harvard, 06. *Practising surgeon*, 07- Asst. visiting surgeon and assoc. visiting surgeon, in charge neuro-surg. cases, Mass. Gen. Hosp; consulting surgeon, Mass. Eye and Ear Infirmary, Ann Jacques, Leonard Morse and Cape Cod Hospitals, Mass. M.C, U.S.A., 17-19. Surg. Ass; Am. Med. Ass; Soc. Neur. Surg; Neur. Soc; Soc. Research Nervous and Mental Diseases; Boylston Med. Soc; New Eng. Surg. Soc; Boston Surg. Soc; Boston Soc. Psychiat. and Neurol; Int. Surg. Soc. Surgery of the central nervous system.
- Moak, Dr. Harris**, 360 Park Place, Brooklyn, N. Y. *Bacteriology*. Albany Co, N. Y, Aug. 13, 75. M.D, Albany Med. Col, 99. Asst. prof. bacter, L. I. Col. Hosp, 06-10; instr, Columbia, 10-12. Bacteriologist, milk commission, Kings Co. Med. Soc, 04- Ass. Path. and Bact; Am. Med. Ass; Ass. Med. Milk Commissions; Pub. Health Ass.
- Moberg, Dr. Erik G(ustaf)**, Scripps Institution, La Jolla, Calif. *Biochemistry*. Grolanda, Sweden, April 22, 91. B.S, North Dakota, 16, M.S, 17; Ph.D, California, 25. Assoc. chem. oceanog, *Scripps Inst, California*, 24-25, instr, 25- Chem. Soc. Chemistry of sea water and of marine plankton.
- Modjeski, Ralph**, 121 E. 38th St, New York, N. Y. *Civil engineering*. Cracow, Poland, Jan. 27, 61. C.E, Illinois, 85, D.Eng, 11. *Consulting civil engineer*. Potts and Franklin gold medals, Franklin Inst; silver medal, Paris Expos, 00; grand prize, La. Purchase Expos, 04; gold medal, Inst. Architects, 27. Nat. Acad; Civil Eng; West. Soc. Civil Eng. (past pres); hon. mem. Franklin Inst; hon. mem. Phila. Eng. Club; Can. Inst. Eng; British Inst. Civil Eng.
- Moenkhaus, Prof. W(illiam) J**, Indiana University, Bloomington, Ind. **Physiology*. Huntingburg, Ind, Jan. 6, 71. A.B, Indiana, 94, A.M, 95; Harvard, 96-98; Chicago, 99-01, Ph.D, 03. Instr. zool, Indiana, 95-96; asst. director, State Museum, São Paulo, Brazil, 98-99; asst. prof. zool, Indiana, 01-04, assoc. prof. *physiol*, 04-05, junior prof, 05-08, prof, 08- Instr, Williams, 99; Rush Med. Col, 00. A.A; Soc. Nat. (sec'y, 03-08); Soc. Zool; fel. Ind. Acad. (treas, 10). Variations of North American fishes; the development of the hybrids between *Fundulus heteroclitus* and *Menidia notata* with especial reference to the behavior of the maternal and paternal chromatin; selective fertilization among fishes; cross-fertilization of fishes; effects of inbreeding and selection on fertility and sex ratio; some factors influencing longevity; effects of thyroid feeding.
- Moerk, Prof. Frank X(avier)**, 145 N. Tenth St, Philadelphia, Pa. *Chemistry*. Philadelphia, July 3, 63. Ph.G, Phila. Col. Pharmacy, 84, Ph.M, 05. Asst. chem, *Phila. Col. Pharmacy*, 84-92, theoret. chem, 86-99, prof. anal. chem, 99- A.A; Chem. Soc; Pharmaceut. Ass. Analytical and pharmaceutical chemistry; quantitative methods in pharmaceutical chemistry.
- Moffatt, M(iles) R(ees)**, Amoskeag Manufacturing Co, Manchester, N. H. *Chemistry*. West Stockbridge, Mass, June 2, 77. A.B, Columbia, 99, B.S, 01. Asst. physics, Columbia, 01-02; research chemist, Mallinckrodt Chem. Works, 02-03; instr. gen. chem, Lowell Textile Sch, 03-05; chemist, Atlantic Mills, R. I, 05-09; instr. anal. and org. chem, Lowell Textile Sch, 09-12; asst. supt. dyeing, *Amoskeag Mfg. Co*, 12- Chem. Soc. Industrial chemistry.
- Moffitt, Fred H(oward)**, U. S. Geological Survey, Washington, D. C. *Geology*. Princeville, Ill, April 2, 74. A.B, Williams, 95; A.M, Lafayette, 99; fellow, Columbia, 02-03. Instr. math. and graphics, Lafayette, 99-02; asst. geologist, *U. S. Geol. Surv*, 01-10, geologist, 10- A.A; Geol. Soc; Min. Eng; Wash. Acad; Wash. Geol. Soc; Wash. Soc. Eng. Geology and mineral resources of Alaska; aero-photographic mapping.
- Moffitt, Dr. G(eorge) W(ilber)**, Yerkes Observatory, Williams Bay, Wis. *Physics*. Pleasantville, Iowa, March 28, 87. A.B, Iowa, 10; Ph.D, Stanford, 13. Asst. physics, Stanford, 10-13; instr, Washington (St. Louis), 13-15, asst. prof, 15-17; research physicist, Eastman Kodak Co, 17-22; ordnance dept, U.S.A., 22-26; research assoc, *Yerkes Observatory*, 26- Asst. Lick Observatory, 11. Physical Soc; Optical Soc. Contact potential of liquids; refractometry; spherometry; photographic and telescope objectives; projection; wide aperture stellar spectrographs; instrument design.
- Moffitt, Dr. Herbert C(harles)**, University of California, San Francisco, Calif. *Medicine*. San Francisco, Dec. 9, 67. B.S, California, 89, LL.D, 19; M.D, Harvard, 94. *Prof. med, California*, 00- Am. Physicians. Internal medicine.
- Mohler, Dr. F(red) L(oomis)**, U. S. Bureau of Standards, Washington, D. C. **Physics*. Wilbraham, Mass, Aug. 23, 93. A.B, Dickinson, 14; Ph.D, Hopkins, 17. Instr. physics, Hopkins, 14-17; assoc. physicist and physicist, *Bur. Standards*, 17- Physical Soc; Optical Soc; Wash. Acad. Electrical and spectroscopic studies of electron currents in gases and vapors; photoelectric ionization; negative ion formation.
- Mohler, Prof. John Frederick**, 127 S. College St, Carlisle, Pa. **Physics*. Boiling Springs, Pa, Oct. 30, 64. A.B, Dickinson, 87, A.M, 90; fellow, Hopkins, 96, Ph.D, 97. Instr. math. and science, Wilmington Conf. Acad, Del, 87-90; math, Wesleyan Acad, Mass, 90-94; prof. physics, *Dickinson*, 96- Asst. observatory, Hopkins, 95-96. A.A; Physical Soc. Effect of pressure on wave-length of light; pressure in the electric spark; capillary action below zero; the Doppler

principle in spark discharges; quantitative spectrum analysis.

Mohler, Dr. John R(obbins), 1620 Hobart St, N. W., Washington, D. C. *Pathology, Bacteriology*. Philadelphia, Pa, May 9, 75. A.B., Temple, 93; D.V.M., Pennsylvania, 96, hon. Sc.D., 25; Milwaukee Med. Col, 99; hon. Sc.D., Iowa Col, 20. Asst. inspector, *bur. animal indust, U. S. Dept. Agr*, 97-99, vet. inspector, 99-01, zoologist, 01-02, chief path. div, 02-14, asst. chief bur, 14-17, *chief bur*, 17- Advisory board, hygienic lab, U. S. Pub. Health Service. Remount board, U.S.A.; V.C. U.S.A. Soc. Bact; Soc. Exp. Biol; Vet. Med. Ass; Soc. Animal Production; Pub. Health Ass; D. C. Vet. Med. Ass; Wash. Acad. Tuberculosis, anthrax, rabies and other diseases of animals communicable to man; comparative pathology of the pancreas; comparative study of tubercle bacilli; meat inspection.

Mohler, Prof. Robert Ellsworth, McPherson College, McPherson, Kans. *Agriculture*. Red Cloud, Nebr, March 13, 86. A.B., Mt. Morris, 12; M.S., Kansas Col, 16; Wisconsin, 24-25. *Prof. agr*, Mt. Morris, 12-13; *McPherson*, 13-, *dean*, 25- Summer, instr, Kans. State Nor. Sch, 18. Kans. Acad. Plant breeding.

Mohlman, Dr. F(loyd) W(illiam), Sanitary District of Chicago, Chicago, Ill. *Chemistry*. Beardstown, Ill, March 6, 90. B.S., Illinois, 12, M.S., 14, Ph.D., 16. Asst. chemist, Ill. State Water Surv, 12-15, chemist and bacteriologist, 15-16; instr. sanit. chem, Illinois, 16-17; chemist and engineer, New Haven Sewage Exp. Sta, 17-18; Conn. State Dept. Health, 18-19; *chief chemist, Sanit. Dist. of Chicago*, 19- Chem. Soc; Chem. Eng; Pub. Health Ass; Water Works Ass; Ill. Acad. Sanitary engineering; sewage treatment; water purification; stream pollution.

Moisseiff, Leon S, 1 Liberty St, New York, N. Y. *Engineering*. Riga, Latvia, Nov. 12, 72. Baltic Polytechnic Inst, 88-90; C.E., Columbia, 95. Private eng. firms, 95-97; engineer design, Dept. Bridges, New York, 97-14; Del. River bridge, 20-26; *advisory eng, Port of New York Authority*. Civil Eng; Soc. Test. Mat. Bridges; structures; foundations; reinforced concrete; financial reports.

Molby, Dr. Fred A, University of West Virginia, Morgantown, W. Va. *Physics*. Linn, Kans, Jan. 5, 78. A.B., Baker, 04; A.M., Cornell, 08, Ph.D., 10. Asst. *physics*, Baker, 02-04; Cornell, 06-08, instr, 08-12; asst. prof, Indiana, 12-18; Cincinnati, 18-20; assoc. prof, *West Virginia*, 20-21, *prof*, 21- Summers, magnetic observer, U. S. Coast and Geod. Surv, 06-10. A.A.; Physical Soc; Optical Soc; W. Va. Acad. Rotatory powers of optically active substances at low temperatures; refractive indices.

Moldenke, Dr. Richard, Watchung, N. J. *Metallurgy*. Watertown, Wis, Nov. 1, 64. E.M., Columbia, 85, Ph.D., 87. Prof. mech. eng, Mich. Col. Mines, 90-91; metallurgist, McConway and Torly Co, Pa, 90-00; sec'y-treas, Am. Foundrymen's Ass, 99-13; v. pres-manager, N. J. State Village, 07-18; *consulting metallurgist*. Supt, Pa. Malleable Co, 00-02; foundry expert, U. S. Bur. Mines. Pres. Roosevelt's Conser-

vation Board. Gold medal, Am. Foundrymen's Ass. Min. Eng; Mech. Eng; Soc. Test. Mat; hon. mem. Foundrymen's Ass; Electrochem. Soc; British Iron and Steel Inst; British Foundrymen's Ass; Verein Eisenhüttenleute. Metallurgy of cast iron and malleable castings; foundry practice and development.

Moler, Prof. G(eorge) S(ylvanus), 408 University Ave, Ithaca, N. Y. **Physics*. Columbus, Ohio, Oct. 4, 51. B.M.E., Cornell, 75; A.B., Hedding, 82. Instr. *physics*, Cornell, 75-80, asst. prof, 80-11, prof, 11-17, *emer. prof*, 17- A.A.; Physical Soc.

Molera, E(urobius) J(oseph), 2025 Sacramento St, San Francisco, Calif. *Civil engineering*. Vich, Barcelona, Spain. Pres, Mercantile Library, San Francisco, 80-83; *civil engineer and architect*, 83- Supervisor, San Francisco archeol. exped, Mex, 06-07. Lieut, Royal Engineers. Pacific Astron. Soc. (pres, 94-96); Calif. Acad. (trustee, 92-05, pres, 06-08); hon. mem. Soc. Mex. de Geog. y Estadistica; cor. mem. Barcelona Acad. Electricity; calendar stone of Mexico.

Molina, Edward C(harles Dixon), 195 Broadway, New York, N. Y. *Engineering, Mathematics*. New York, Dec. 13, 77. High sch. Eng. asst, Bell Telephone Co, 01-05, with circuits design dept, 05-19; *telephone engineer, develop. and research dept, Am. Tel. and Tel. Co*, 19- Lecturer, Yale, 21. A.A.; Elec. Eng; Math. Soc; Math. Ass; N. Y. Elec. Soc. The theory of probability applied to engineering problems; telephone apparatus.

Molitor, David (A), 1596 Bewick Ave, Detroit, Mich. *Civil engineering*. Detroit, Aug. 16, 66. B.C.E., Washington (St. Louis), 87; hon. C.E., George Washington, 08. Engineer, Weizen-Immendingen Ry, Baden, Germany, 87-90; asst. engineer, Memphis bridge over Miss. River, 90-92; engineer, C.Eng, U.S.A., 92-99; U. S. Board Eng. on Deep Waterways, 98-99; consulting engineer, 00-06; designing engineer, Panama Canal, 06-08; prof. in charge dept. topog. and geod. eng, Cornell, 08-11; designing bridge engineer, Waddell and Harrington, 11-12; designing engineer, Toronto Harbor Commission, 13-16; consulting engineer, 16-23; *structural engineer, Albert Kahn, Inc*, 23- A.A.; Civil Eng; Wash. Acad; Can. Inst. Eng. Landslides; distortion of a framed structure and of steel lock gates; properties of concrete under compressive stress; precise spirit levelling; design of bridges; three-hinged masonry arches; hydraulics of rivers, weirs and sluices; kinetic theory of engineering structures; the Panama canal; metric system of weights and measures.

Molitor, F. A, 19 W. 31st St, New York, N. Y. *Engineering*. Detroit, Mich, April 21, 68. B.S., Cornell, 86. Instrumentman, draftsman and chief draftsman, Cent. Ry. of N. J., 86-88; asst. engineer, N. Y. exten, Baltimore and Ohio Ry, 88-89; prin. asst. engineer, Ky. Cent. Ry, Cincinnati, Ohio, 89-90; engineer, maintenance of way, west. div, Chesapeake and Ohio Ry, 90-91; gen. roadmaster, Louisville South. Ry, 91; engineer, shipping dept. and river and harbor terminals, Phila. and Reading Ry, 91-94; Phila.

- Belt Line Ry, 92-94; engineer in charge construction, Montauk Div, L. I. Ry, and Ft. Pond Bay Steamship Terminals, 94-95; chief engineer, Choctaw, Okla. and Gulf Ry, and allied companies, 95-02; gen. manager and chief engineer, Midland Valley Ry. Co, 02-05; supervising ry. expert, Philippine Govt, 05-07; ry. conditions and terminal problems, Orient and Europe, 07-08; *consulting engineer*, N. Y., 08-Col, C.Eng, 17-19. Civil Eng; Mech. Eng; Soc. Mil. Eng; Inst. Consulting Eng. (past sec'y); Ry. Eng. Ass; fel. Am. Geog. Soc; British Inst. Civil Eng.
- Molstad, Melvin C(arl)**, Yale University, New Haven, Conn. *Chemistry*. Spring Valley, Minn, Nov. 18, 98. A.B., Carleton Col, 20; B.S., Mass. Inst. Tech, 23. Junior chemist, fixed nitrogen research lab, U. S. Dept. Agr, 20-21, asst. chemist, 23-26; *instr. chem. eng*, Yale, 26- Chem. Soc.
- Monahan, Prof. W(illiam) C(ollins)**, Massachusetts Agricultural College, Amherst, Mass. *Poultry husbandry*. Framingham, Mass, April 26, 89. B.S., Maine, 14. Exten. specialist, Maine, 14-17; specialist poultry and egg handling, U. S. Dept. Agr, 17-18; *exten. prof*, Mass. Col, 18- Exec. committee, Nat. Poultry Council, 25. Ed, 'New Eng. Poultryman.' Mass. Fed. Poultry Ass. Profitable poultry keeping.
- Monfort, W(ilson) F(orsyth)**, 506 N. Vandeventer Ave, St. Louis, Mo. *Chemistry*. Greensburg, Ind, June 24, 63. A.B., Marietta, 90, A.M., 96; Bonn, 92-93. Prof. chem, Marietta, 94-06; acting prof. sanit. chem, Illinois, 17-19; *consulting chemist*. Chem. Soc; Soc. Bact; Water Works Ass; Pub. Health Ass; New Eng. Water Works Ass. Bacteriology; water supplies; sanitation.
- Monk, Dr. George S(pencer)**, University of Chicago, Chicago, Ill. *Physics*. London, Eng, June 18, 84. B.S., Chicago, 14, Ph.D., 23. Research asst, Mt. Wilson Observatory, 13-16; Yerkes Observatory, 16-17; *instr. physics*, Oregon Col, 18-19; asst. prof, Oregon, 19-20; asst, Chicago, 20-23, research instr, 23-26, *asst. prof*, 26- Physical Soc; Geol. Soc. Spectroscopy.
- Monnett, Dr. Victor E(lvert)**, 723 White St, Norman, Okla. *Geology*. Hale, Mo, Dec. 1, 89. A.B., Oklahoma, 12; Michigan, 12-13; Ph.D., Cornell, 22. Teacher *geol*, Oklahoma and Cornell, 13-23; *head dept*, Oklahoma, and *director sch. geol. eng*, 23- A.A.; Geol. Soc; Ass. Petrol. Geol; Okla. Acad. Glacial, structural and economic geology.
- Monroe, Prof. C(larence) J(ohn)**, Missouri School of Mines, Rolla, Mo. *Physical chemistry*. B.S., Chicago, 17, fellow, 19-20, Ph.D., 21. *Asst. prof. chem*, Mo. Sch. Mines, 21- A.A.; Chem. Soc. Sorption by charcoal; atomic structure.
- Monroe, Dr. K(enneth) P(otter)**, Colgate and Co, Jersey City, N. J. *Chemistry*. Mt. Vernon, Ind, Sept. 27, 91. B.S., Chicago, 13; Ph.D., Columbia, 17. Physical chemist, color lab, bur. chem, U. S. Dept. Agr; *research chemist*, E. I. du Pont de Nemours and Co; *Colgate and Co*. Chem. Soc. Viscosity; phase rule of aromatic organic compounds; carbohydrates; indigo and intermediates; lead organo-derivatives.
- Monroe, Walter S(cott)**, 607 Michigan Ave, Urbana, Ill. *Education*. Chase, Kans, Aug. 14, 82. A.B., Missouri, 05, B.S., 07, A.M., 11; Ph.D., Chicago, 15. Prin, high sch, Mo, 05-07; supt, schools, Norborne, Mo, 07-09; asst. math, Missouri, 09-11; prof. educ. admin, Kans. State Teachers Col, 12-18; assoc. prof. *educ.* and director bur. cooperative research, Indiana, 18-19; assoc. prof. and asst. director *bur. educ. research*, Illinois, 19-21, *prof. and director*, 21-Summers, State Nor. Sch, Mont, 15, Pa. State, 23, California, 25. A.A.; Nat. Educ. Research Ass. (pres, 15); Nat. Soc. Col. Teachers Educ. (pres, 26); Nat. Soc. Study Educ. Educational tests.
- Monroe, Will(iam) S(eymour)**, Couching Lion Farm, Waterbury, Vt. *Psychology, Pedagogy*. Hunlock Creek, Pa, March 22, 63. A.B., Stanford, 94; Jena, Leipzig and Paris, 94-95; Grenoble and Leipzig, 00-01. Prof. psychol. and pedag, Mass. State Nor. Sch, Westfield, 96-08; psychol, N. J. State Nor. Sch, Montclair, 09-25; *retired*. Assoc. ed, 'Pedag. Sem.' Gold medal, Paris Expos, 00. A.A.; Psychol. Ass; Anthropol. Ass; Nat. Educ. Ass; hon. mem. Ass. Med. Officers of Am. Institutions for the Idiotic and Feeble-Minded. Social sense of the child; defective and normal children.
- Montague, Prof. W(illiam) P(epperell)**, Columbia University, New York, N. Y. *Philosophy*. Chelsea, Mass, Nov. 24, 73. A.B., Harvard, 96, A.M., 97, Ph.D., 98. Docent *philos*, Harvard, 98-99; instr, California, 99-03; lecturer, *Columbia*, 03-04, tutor, 04-05, instr, 05-07, adjunct prof, 07-10, assoc. prof, 10-20, *prof*, 20-A.A.; Philos. Ass. (v. pres, 08, pres, 23); Psychol. Ass. Time-perception; verification of Fechner's law; energistic theory of consciousness; realism; basic conceptions of physics.
- Montgomery, Prof. E(dward) G(errard)**, U. S. Department of Commerce, Washington, D. C. *Agronomy*. Milan, Mo, May 10, 78. B.S., Nebraska, 06, A.M., 08. Adjunct prof. agron, Nebraska, 06-10, prof, 10-11; Cornell, 11-20; in charge for. market sect, U. S. Dept. Agr, 20-21; *chief foodstuffs div*, U. S. Dept. Commerce, 21- A.A.; Soc. Agron. (treas, 07, v. pres, 14). Plant breeding; crop culture; corn crops; examining and grading grain; economics; statistics; promotion of foreign trade.
- Montgomery, Dr. George R(edington)**, Federal Council of Churches, 287 Fourth Ave, New York, N. Y. *Logic, Psychology*. Marsh, Turkey, June 17, 70. A.B., Yale, 92, LL.B., 94, B.D., 00, Ph.D., 01. Lecturer *philos*, Yale, 00-04; prof, Carleton, 04-05; lecturer, N. Y. Univ, 11-16; asst. prof. French, Yale, 19-20; *sec'y*, Fed. Council of Churches, 21- Philos. Ass; Psychol. Ass. Logic; language; psychology.
- Montgomery, Prof. Jack P(ercival)**, University of Alabama, University, Ala. *Chemistry*. Columbus, Miss, July 18, 77. A.B., Southwestern Presbyterian, 99, hon. A.M., 04; Ph.D., Virginia, 03. Instr, high sch, Ala, 01-02; asst. state

- chemist, Miss, 02-05; assoc. prof. chem, Miss. Agr. and Mech. Col, 05-11, instr. dyeing, 08-11; *prof. org. chem, Alabama, 11-* Summers, prof, Virginia, 26, 27. Chem. Soc; Inst. Chem; Agr. Chem; British Chem. Soc. Compounds of urea with acids and salts; estimation of nickel as the sulphid; qualitative analysis; boiling points, heats of vaporization and densities of liquids and vapors; the dyeing of cotton yarn; the physical constants of solutions at boiling point; the precipitation of lead chlorid; production of xylose and furfural; dyes; condensation products of aniline and glucose; absorption of iodine by urine; adsorption of salt in the seasoning of food; adsorption of alkali halides by barium sulfate; barium sulfate and hydrogen-ion concentration; colloid chemistry.
- Montgomery, Dr. John A(rthur)**, 256 Ashland Ave, River Forest, Ill. *Chemistry*. Boone, Iowa, Nov. 24, 89. A.B. Missouri, 12; M.S. Iowa Col, 17; Ph.D. Wisconsin, 19. *Chief chemist*, Structural Materials Lab, 19-20; *Borromite Co*, 20-Chem. Soc. Foods; aluminum alloys; cement and concrete; water.
- Montillon, Prof. G(eorge) H(amilton)**, University of Minnesota, Minneapolis, Minn. *Chemical engineering*. Cedar Rapids, Iowa, Nov. 1, 88. B.S. Iowa Col, 12, M.S. 18; Ph.D. Michigan, 26. Instr. *chem. eng*, Wisconsin, 19-20; asst. prof, *Minnesota*, 20-24, 25-26, *assoc. prof*, 26- Eng. Educ; Chem. Soc; Electrochem. Soc. Nickel and cobalt plating; continuous crystallization.
- Montonna, Prof. Ralph E(ugene)**, University of Minnesota, Minneapolis, Minn. *Chemistry, Chemical engineering*. Cape Vincent, N. Y., Oct. 13, 94. B.S. Syracuse, 16; Ph.D. Yale, 24. Chemist, Merrell-Soule Co, 16-18; research chemist, Solvay Process Co, 18-19; supt. and research chemist, U. S. Color and Chem. Co, 19-20; research chemist, Semet-Solvay Co, 20-22; asst. instr. *chem. eng*, Yale, 22-24; *asst. prof*, *Minnesota*, 24- A.A.; Chem. Eng; Chem. Soc. Filtration; fractionating columns; usage of waste sulfite liquor; preparation of alkyl chlorides; silicon tetrachloride as an acylating agent; thermal decomposition of benzyl benzoate; benzoyl chlorid; condensation of chloral with aldehydes.
- Moodie, Prof. Roy L(ee)**, University of Illinois College of Medicine, Chicago, Ill. *Paleontology, Anatomy*. Bowling Green, Ky, July 30, 80. A.B. Kansas, 05; Ph.D. Chicago, 08. Prof. biol. Mo. State Nor. Sch, Warrensburg, 08; instr. zool, Kansas, 08-09, *asst. prof*, 09-14; *anat. col. med, Illinois*, 14- Paleont. expeditions, west. states. A.A.; Paleont. Soc; Ass. Anat; Soc. Zool. Paleopathology; development of skeleton; coal measures Amphibia; history of anatomy.
- Moody, Dr. Agnes M(ary Claypole)**, 2826 Garber St, Berkeley, Calif. *Zoology, Geology, Anthropology*. Bristol, England, 70. Ph.B. Buchtel, 92; M.S. Cornell, 94; Ph.D. Chicago, 96. Instr. zool, Wellesley, 96-98, asst. histol. and embryol, Cornell, 98-00; zool. and geol. Throop, 00-01, instr. 01-03; *lecturer sociol, Mills*, 18- 'Jour. Applied Micros.' A.A. Social anthropology; histology of Cayuga Lake lamprey; embryology of *Anurida maritima*.
- Moody, Prof. H(erbert) R(aymond)**, College of the City of New York, New York, N. Y. *Chemistry*. Chelsea, Mass, Nov. 19, 69. B.S. Mass. Inst. Tech, 92; A.M. Columbia, 00, Ph.D. 01. Asst. chem, Mass. Inst. Tech, 92-94, instr. anal. chem, 94-95; science, Gilbert Sch, Conn, 95-99; prof. chem, Hobart, 01-05; asst. prof. anal. and applied chem, *Col. City of N. Y.*, 05-06, *assoc. prof. and prof. chem. eng*, 06-22, *chem. and director dept*, 22- Chief tech. expert, chem. div, W. I. B, 17-18. A.A.; Chem. Soc. (chairman, N. Y. sect, 14); fel. Inst. Chem; Electrochem. Soc; N. Y. Chemists Club (chairman, bur. employment, trustee); London Soc. Chem. Indust; London Chem. Soc; Soc. de Chim. indust. Fixation of nitrogen; electric furnace products; special petroleum purifications; aluminum sulfate; bread and other food products; technical fibers and straws.
- Moody, Prof. H(oward) W(ilson)**, Agricultural and Mechanical College, Miss. *Physics*. Garrison, Iowa, Oct. 24, 77. A.B. Cornell (Iowa), 02; Chicago, 08-10, fellow, 10-12, Ph.D. 12. Instr. *physics*, Lafayette, 12-13; instr. and acting head dept, Williams, 13-14; *prof. and head dept, Miss. Agr. and Mech. Col*, 14-, *dean sch. eng*, 25- A.A.; Physical Soc; Optical Soc; Eng. Educ. Thermodynamics; the ratio of the specific heats for air and carbon dioxide.
- Moody, Prof. Julia E(leanor)**, Wellesley College, Wellesley, Mass. *Zoology*. Canton, N. Y. B.S. Mt. Holyoke, 94, A.M. 09; Ph.D. Columbia, 12. Instr. *zool*, Mt. Holyoke, 05-11; *Wellesley*, 13-16, *assoc. prof*, 16-24, *prof*, 24- A.A.; Soc. Zool. Genetics; comparative anatomy.
- Moody, Lewis F(erry)**, 408 W. Cheltenham Ave, Philadelphia, Pa. *Hydraulic engineering*. Philadelphia, Jan. 5, 80. B.S. Pennsylvania, 01, M.S. 02. Instr. mech. eng, Pennsylvania, 02-04; asst. prof. mech. eng. and prof. hydraulic eng, Rensselaer, 08-16; engineer, I. P. Morris dept, William Cramp and Sons Ship and Engine Building Co, 04-08; *consulting engineer*, 11- Mech. Eng. (chairman, Phila. sect, 18); Eng. Educ; Franklin Inst. Mechanical engineering; hydraulic turbines; pumps; draft tubes.
- Moody, Dr. Robert Orton**, University of California, Berkeley, Calif. *Anatomy*. Buffalo, N. Y., Oct. 18, 64. B.S. Cornell, 91; M.D. Yale, 94. Instr. histol, Yale, 91-93, asst. path, 96-00; *anat*, Cornell, 00-01; *California*, 01-05, instr. 05-06, asst. prof, 06-14, *assoc. prof*, 14- A.A.; Ass. Anat; Micros. Soc. The muscular tunic of the large and small intestine in man and in the cat; histogenesis of the thyroid gland of pig; diaphragm; position of stomach, large intestine and liver in man.
- Moody, Walter S(herman)**, 155 Dawes Ave, Pittsfield, Mass. *Electrical engineering*. Chelsea, Mass, Sept. 20, 64. Mass. Inst. Tech, 84-87. Instr. elec. eng. and physics, Mass. Inst. Tech, 88; asst. engineer, Thomson Elec. Welding Co, 89-92; designing engineer, Thomson-Houston Co, 92-93; *chief engineer, transformer dept, Gen.*

- Elec. Co.*, 93- Fel. Elec. Eng; Nat. Elec. Light Ass. Static transformers.
- Moody, Prof. William A. (Ibion)**, 60 Federal St, Brunswick, Maine. *Mathematics*. Kennebunkport, Maine, July 31, 60. A.B., Bowdoin, 82, A.M., 85, Sc.D., 22; Harvard, 90-91. Teacher, secondary schools, 80-84; instr. *math.*, *Bowdoin*, 84-87, prof., 87-26, *emer. prof.*, 26-, acting pres, 24. A.A.; Math. Soc; Math. Ass.
- Moore, Prof. Charles A. (nsel)**, University of Tennessee, Knoxville, Tenn. *Chemistry, Agronomy*. Solon, Maine, Dec. 8, 69. B.S., Tennessee, 93. Asst. chemist, Tenn. Exp. Sta., 93-98; chemist, North La. Exp. Sta., 98-99; *Tenn. Exp. Sta.*, 99-05, *chemist and agronomist*, 05-, prof. agron., *Tennessee*, 07-11, v. director, 19-24, *director*, 24- A.A.; Soc. Agron. (v. pres, 11, pres, 21); Ass. South. Agr. Workers (sec'y, 19, pres, 22). Soil nitrogen; change in content; lysimeter experiments.
- Mook, Dr. Charles C. (raig)**, American Museum of Natural History, New York, N. Y. *Geology*. Metuchen, N. J., May 7, 87. B.S., Columbia, 12, A.M., 14, Ph.D., 15. Lecturer and instr., Barnard, Columbia, 15-22; research asst. to H. F. Osborn, *Am. Museum Nat. Hist.*, 12-22, *assoc. curator vert. paleont.*, 22-; *asst. prof.*, Hunter Col., 26-27; *New York Univ.*, 27- Acting prof., Rutgers, 21-22, summers, instr., 15-17. A.A.; fel. Geol. Soc; fel. Paleont. Soc; fel. N. Y. Acad. (sec'y, sect. geol. and miner, 18-20). Morrison formation; saurpoid dinosaurs; fossil crocodiles.
- Moon, Dean Frederick Franklin**, New York State College of Forestry, Syracuse, N. Y. *Forest engineering*. Easton, Pa., July 3, 80. A.B., Amherst, 01; Harvard, 02-04; M.F., Yale, 09. N. Y. Forest, Fish and Game Commission, 09-10; prof. forestry, Mass. Col., 10-12; forest eng., *N. Y. State Col. Forestry, Syracuse*, 12-20, acting dean, 17-18, *dean*, 20- Summer, U. S. Forest Service, 09. N. Y. Conservation Commission, 09-10. A.A.; Soc. Foresters (chairman, N. Y. sect., 24-26); N. Y. State Forestry Ass. Forest reconnaissance; woodlots in New York; forestry conditions in Europe.
- Moon, Dr. Virgil H. (olland)**, Jefferson Medical College, Philadelphia, Pa. *Pathology*. Craig, Ind., July 31, 79. A.B., Kansas, 10, M.S., 11; fellow, Rush Med. Col., 13-14, M.D., 13. Research pathologist, McCormick Inst., Chicago, 11-14; *assoc. prof. and prof. path. and bacter. sch. med.*, Indiana, 14-27; *head dept. path.*, *Jefferson Med. Col.*, 27- Experimental immunity in typhoid; hydrophobia; immune reactions.
- Mooney, Dr. Melvin**, University of Chicago, Chicago, Ill. *Physics*. Kansas City, Mo., July 1, 93. A.B., Missouri, 17; Ph.D., Chicago, 23. Chemist, Morris and Co., 17-18; physicist, F. E. Simpson Radium Inst., 21-23; West. Elec. Co., 23; *Nat. Research Council fellow*, 24- Physical Soc; Chem. Soc. Colloidal physics.
- Moore, Prof. Addison W. (ebster)**, University of Chicago, Chicago, Ill. *Philosophy*. Plainfield, Ind., July 30, 66. A.B., De Pauw, 90, A.M., 93; Cornell, 93-94; fellow, Chicago, 94-95, Ph.D., 98; Berlin, 01-02. Prin. high sch., Ind., 90-91; instr. English, De Pauw, 92-93; *asst. philos.*, *Chicago*, 95-97, *assoc.*, 97-98, *instr.*, 98-01, *asst. prof.*, 01-04, *assoc. prof.*, 04-09, *prof.*, 09- Philo. Ass. (pres); Psychol. Ass. Modern logic; sensory and motor forms of reaction-time; representational versus functional logic in Locke; logical significance of the categories of existence, meaning and reality; pragmatism; creative intelligence.
- Moore, Prof. Andrew C. (harles)**, Columbia, S. C. *Botany*. Spartanburg Co., S. C., Dec. 25, 66. A.B., South Carolina, 87, LL.D., 09; fellow, Chicago, 98-99. Supt. and prin. schools, S. C. and Ala., 87-98; *asst. bot.*, Chicago, 00; *prof. biol. and geol.*, *South Carolina*, 00-05, *biol.*, 05-, acting pres, 08-09, dean, 09-13. Asst., Woods Hole, 02-03. A.A.; Bot. Soc. The mitoses in the spore mother cell of *Pallavicinia*; sporogenesis in *Pallavicinia*.
- Moore, Dr. Anne**, 3 Bank St., New York, N. Y. *Physiology*. Wilmington, N. C., 72. A.B., Vassar, 96, Babbitt fellow, A.M., 97; fellow, Chicago, Ph.D., 01. Asst. biol., Vassar, 98-99; head dept. biol., Calif. State Nor. Sch., San Diego, 01-05. *Dinophilus gardineri*; poisonous effects of a pure sodium chloride solution; power of sodium sulphate to neutralize ill effects of sodium chloride; lymph hearts of the frog; geotropic gatherings of *paramecia*; effects of electrolytes and non-conductors upon rigor mortis.
- Moore, Prof. Arthur R. (ussell)**, University of Oregon, Eugene, Oregon. *General physiology*. Furnas Co., Nebr., Nov. 10, 82. A.B., Nebraska, 04; Ph.D., California, 11. Asst. prof. physiol., California, 11-13; *assoc. prof.*, Bryn Mawr, 13-16; *prof.*, Rutgers, 16-26; *gen. physiol. and head dept. animal biol.*, *Oregon*, 26- Instr., Woods Hole, 16-20; acting prof., Stanford, 26. A.A.; Physiol. Soc; Soc. Exp. Biol. Reversal and balancing of tropisms; stereotropism and its inhibition by light; respiration of nervous tissue; chemical stimulation of invertebrate nerve cord; inhibition of luminescence by light; ionic basis of Pflüger's law; experimental embryology.
- Moore, Barrington**, 925 Park Ave., New York, N. Y. *Forestry*. Ossining, N. Y., Sept. 25, 83. A.B., Yale, 06, M.F., 08. Forest asst., U. S. Forest Service, N. Mex., 09-11; examiner, Washington, D. C., 11-14; *assoc. curator woods and forestry*, *Am. Museum Nat. Hist.*, 17, research *assoc. forestry*, 19. Ed. board, 'Jour. Forestry,' 13-23; ed., 'Ecol,' 20- Board sci. directors, N. Y. Bot. Garden; sec'y, Council Nat. Parks, Forests and Wild Life, 22- Capt. and major, C.Eng., 17-18. A.A.; Soc. Foresters; Bot. Soc; Ecol. Soc. (pres, 19); Torrey Bot. Club; Am. Geog. Soc; fel. N. Y. Acad. (councilor, 24-); Finland Soc. Forestry (cor. sec'y). Forest management; silviculture; forest ecology.
- Moore, Prof. Bruce V. (ictor)**, 210 S. Allen St., State College, Pa. *Psychology*. Kokomo, Ind., Sept. 9, 91. A.B., Indiana, 14, A.M., 17; Columbia, 17-18; research fellow, Carnegie Inst. Tech., 19-20, Ph.D., 21. Asst. prof. *psychol.*, *Pa. State*, 20-23, *assoc. prof.*, 24- Psychologist, U.S.A., 18-19. Psychol. Ass. Personnel selection of graduate engineers.
- Moore, Dr. Carl R. (ichard)**, University of Chicago, Chicago, Ill. *Zoology*. Brookline, Mo.,

- Dec. 5, 92. B.S. Drury, 13, A.M., 14; fellow, Chicago, 14-15, Ph.D., 16. Teaching fellow, Drury, 13-14; asst. *zool.*, Chicago, 15-16, assoc., 16-18, instr., 18-22, asst. prof., 22-26, *assoc. prof.*, 26- Ed. staff, 'Biol. Bul.', 26- A.A.; Soc. Zool. (v. pres, 25). Fertilization; modification of sexual conditions; internal secretions of gonads.
- Moore, Prof. Charles J(ames)**, Hunter College, New York, N. Y. *Inorganic chemistry*. Flint Hill, Va, Aug. 9, 75. B.S. Va. Mil. Inst., 95; Ph.D., Virginia, 01; A.M., Harvard, 09. Instr. math, Horner Sch, N. C., 96-98; prof. chem. and geol. West. Md. Col., 01-02; instr., Georgia, 02-04, adjunct prof., 04-07; Austin teaching fellow, Harvard, 08-12; instr. chem., N. Y. Univ., 12-14; asst. prof., Hunter, 14-17, assoc. prof., 17-20; chief chemist, bur. soils, U. S. Dept. Agr., 20-21; *prof. chem.*, Hunter, 21- Jackson-Hope medal. Chem. Soc.; Boylston Chem. Club (pres, 09-11). Interaction of primary aliphatic amines and the salts of certain metals; revisions of the atomic weight of phosphorus; the amount of colloidal material in soils; liquid hydrogen sulfide; logarithmic reduction tables for analytical chemistry; purification of quicksilver.
- Moore, Prof. Charles N(apoleon)**, University of Cincinnati, Cincinnati, Ohio. **Mathematics*. Cincinnati, Nov. 14, 82. A.B., Cincinnati, 03; M.S., George Washington, 05; Ph.D., Harvard, 08; Paris, 11-12. Computer, U. S. Naval Observatory, 03-05; instr. *math.*, Cincinnati, 08-09, asst. prof., 09-17, assoc. prof., 17-24, *prof.*, 24-Summer, faculty, Chicago, 14. A.A.; Math. Soc. (assoc. ed., 'Trans.', 17-, councilor, 19-22, v. pres, 26-); Math. Ass. (committee on math. requirements); Math. Verein; Soc. math. de France; Circolo Mat. di Palermo. Divergent series and integrals; developments in Bessel's functions; double Fourier's series; generalized limits.
- Moore, C(hester) N(ewell)**, General Electric Co., Schenectady, N. Y. *Physics*. Amity, Mo, April 25, 83. B.S., Dartmouth; Leipzig. *Research engineer*, Gen. Elec. Co., 07- Physical Soc. X-ray tubes, cathode ray tubes and apparatus.
- Moore, C(larence Bloomfield)**, 1321 Locust St, Philadelphia, Pa. **Archeology*. Philadelphia, Jan. 14, 52. A.B., Harvard, 73. A.A.; Anthropol. Ass; mem, hon. mem. and cor. mem. various societies of United States, Europe and South America. Explorations in aboriginal mounds in southern United States.
- Moore, Dr. C(larence) L(emuel) E(lisha)**, Massachusetts Institute of Technology, Cambridge, Mass. **Mathematics*. Ross Co, Ohio, May 12, 76. B.S., Ohio State, 01; A.M., Cornell, 02, Ph.D., 04. Instr. *math.*, Mass. Inst. Tech., 04-09, asst. prof., 09-16, assoc. prof., 16-20, *prof.*, 20- Math. Soc.; Am. Acad. Geometry of the sphere; geometry of the circle in space; differential geometry of hyperspace.
- Moore, D(aniel) McFarlan**, General Electric Co., Harrison, N. J. *Electrical engineering*. Northumberland, Pa, Feb. 27, 69. Lehigh, 90. Engineer, Gen. Elec. Co., 90-94; *inventor and gen. manager*, Moore Elec. Co., 94- Scott medal, Franklin Inst. Fel. Elec. Eng.; Illum. Eng. Soc. Electric lighting; current control; vacuum phenomena; the 'Moore Electric Light'; light without heat; wireless telegraphy; cold filament lamp.
- Moore, Prof. Dwight M(anson)**, University of Arkansas, Fayetteville, Ark. *Plant physiology*. Zanesville, Ohio, Dec. 10, 91. B.S., Denison, 14; Montpellier, France, 19; M.S., Denison, 21; Ph.D., Ohio State, 24. Prin. and instr., high schools, Ohio, 14-17, 19-20; instr. *biol.*, Denison, 20-23; *bot.*, Ohio State, 23-24; asst. prof., Arkansas, 24-26, *prof. and head dept.*, 26- Bot. Surv., Bass Islands, Lake Erie. A.A.; Bot. Soc.; Ecol. Soc.; Ohio Acad. Botanical survey of parts of Licking County, Ohio; the dormancy of bulbs; effects of low temperature on bulbs.
- Moore, Prof. E. E**, Hedding College, Abingdon, Ill. *Physical chemistry*. Ware, Mass, Aug. 14, 96. B.S., Worcester, 18; M.S., Iowa Col., 24. Instr., Wash. Col., 20-22; asst., Iowa Col., 22-24; *prof. chem.*, Hedding, 24- Asst., Idaho; chemist, Atlas Powder Co.; People's Gas Light and Coke Co. Chem. Soc. Metallography.
- Moore, Prof. Edward J(ames)**, University of Buffalo, Buffalo, N. Y. *Physics*. Chili, N. Y., June 13, 73. A.B., Oberlin, 03, A.M., 06; fellow, Chicago, 09-10, Ph.D., 13. Tutor math, Oberlin Acad., 03-07, instr., 07-08, assoc. prof. physics and astron., Oberlin, 10-19; *prof. physics*, Buffalo, 19- Instr., exten. div., Chicago, 10-14, asst. prof., 14-19, summers, instr., 15, Colorado, 14. A.A.; assoc. Physical Soc.; Ohio Acad. X-rays; discharge of electricity from points in gases; specific heats; effects of magnetism on the period of a pendulum; focal lengths of lenses.
- Moore, Prof. E(liakim) H(astings)**, Hotel del Prado, Chicago, Ill. **Mathematics*. Marietta, Ohio, Jan. 26, 62. A.B., Yale, 83, Ph.D., 85, hon. Sc.D., 09; Berlin, 85-86; hon. Ph.D., Göttingen, 99; LL.D., Wisconsin, 04; Math.D., Clark, 09; D.Sc., Toronto, 21. Instr. math, acad., Northwestern, 86-87; tutor, Yale, 87-89; asst. prof., Northwestern, 89-91, assoc. prof., 91-92; *prof. math.* and acting head dept., Chicago, 92-96, *prof. and head dept.*, 96- Nat. Acad. (assoc. ed., 'Proc.', 15-); A.A. (pres, 21, v. pres, A., 10); Math. Soc. (v. pres, 98-00, ed., 'Trans.', 99-07, pres, 00-02); Math. Ass; Am. Acad.; Philos. Soc.; cor. mem. British Ass; London Math. Soc.; Math. Verein; Circolo Mat. di Palermo (assoc. ed., 'Rendiconti', 08-14). Group theory and theory of numbers with applications; improper definite integrals; functions of real variables; foundations; general analysis; linear integral equations.
- Moore, Prof. E(lwood) S**, University of Toronto, Toronto, Ont., Can. *Geology*. Clarksburg, Ont., Aug. 3, 78. B.A., Toronto, 04, M.A., 08; fellow, Chicago, 07-09, Ph.D., 09; Paris, 15. Science master, Collingwood Collegiate Inst., 06; *prof. geol. and miner.*, Pa. State, 09-22, acting dean sch. mines, 18-19, dean, 19-22; *prof. econ. geol.*, Toronto, 22- Field asst., Ont. Dept. Mines, 04-05, field geologist, 06-10, 22-; Can. Geol. Surv., 12; Pa. Topog. and Geol. Surv., 18-22. Econ.

- geologist, exped. Hudson Bay, 16, Cuba, 17. A.A. (sec'y, sect. E, 21-24); Geol. Soc.; Soc. Econ. Geol.; Miner. Soc.; Min. Eng.; Coal Min. Inst. (exec. board, 20); fel. Royal Soc. Can.; Can. Inst. Min. and Metal; British Ass. Precambrian, metamorphic and economic geology; coal and iron deposits.
- Moore, Dr. Emmeline**, Conservation Commission, Albany, N. Y. *Biology*. Batavia, N. Y., April 29, 72. A.B., Cornell, 05; A.M., Wellesley, 06; Ph.D., Cornell, 14. Teacher, pub. schools, 95-03; instr. biol. nor. sch., 06-10; substitute prof. bot. Huguenot, S. Africa, 11; instr. and asst. prof. Vassar, 14-19; *research biologist*, N. Y. *Conservation Commission*, 19- Teaching fellow, Wellesley, 05-06; Cornell, 12-14; hon. fellow, Wisconsin, 19-20; summers, investigator, Bur. Fisheries, 17-19. Walker prize, Boston Soc. Nat. Hist., 09, 15. A.A.; Bot. Soc.; Ecol. Soc.; Soc. Parasitol.; Fisheries Soc. (v. pres, div. biol., 23, fish culture, 24). Botany; parasitology; fish pathology; pollution of waters.
- Moore, Prof. Fleming G.**, Washburn College, Topeka, Kans. *Chemistry*, *Physics*. Albany, Texas, Nov. 27, 84. B.S., Agr. and Mech. Col. Texas, 02; Ph.D., Kansas, 25. Instr. chem., Agr. and Mech. Col. Texas, 16-19, asst. prof., 19-22; asst. instr., Kansas, 22-25; *prof.*, Washburn, 25- Syntheses of meta thiazanes; structure of matter.
- Moore, Dr. George Dunning**, 201 Salisbury St., Worcester, Mass. *Chemistry*. Louisville, Ky., June 14, 62. A.B., Harvard 84; Ph.D., Bonn, 87. Asst. to Prof. Aug. Kekulé, chem. lab., Bonn, 86-87; instr. chem., Worcester, 89-90, asst. prof., 90-94; *chem. engineer*, 94- Chem. Soc.; Soc. Chem. Indust.; Am. Acad.; Chem. Gesell. Organic chemistry.
- Moore, Dr. George T(homas)**, Missouri Botanical Garden, St. Louis, Mo. **Botany*. Indianapolis, Ind., Feb. 23, 71. B.S., Wabash, 94; A.B., Harvard, 95, A.M., 96, Ph.D., 00. Asst. crypt. lab., Harvard, 97-99, instr., Radcliffe, 98-99; in charge dept. bot., Dartmouth, 99-01; physiologist and algologist, bur. plant indust., U. S. Dept. Agr., 01-02, in charge lab. plant physiol., 02-05; *prof.* plant physiol. and applied bot., Washington (St. Louis), 09-12, *Engleman prof. bot.*, and *director*, Mo. Bot. Garden, 12- Instr., Woods Hole, 96-07, 13, head dept. bot., 07-19; lecturer, Thayer Sch. Eng., 00-02, Dartmouth, 01-02. A.A.; Soc. Nat.; Bot. Soc. (sec'y, 10-14, v. pres, 16); Soc. Bact.; Philos. Soc.; Wash. Acad.; St. Louis Acad. (pres, 19-). Morphology and physiology of algae; contamination of water supplies by algae; fixation of free nitrogen by root tubercle organisms.
- Moore, Dr. H(enry) F(rank)**, Linville Falls, N. C. *Zoology*. Philadelphia, Pa., June 4, 67. A.B., Cent. High Sch. Phila., 85; A.B., Pennsylvania, 92, Ph.D., 95. Asst. biol., Pennsylvania, 92-95; lecturer, Hahnemann Med. Col., 93-96; chief naturalist, 'Albatross,' 97-02; sci. asst., Bur. Fisheries, 02-11, asst. in charge div. sci. inquiry, 11-14, deputy commissioner, 14-23. Nat. Research Council, 17-24. Naturalist, Int. Fish Commission, 93-96. Two awards, Int. Fishery Cong., 08, U. S. rep. and v. pres. at Rome, 11; medal, K. K. Oester. Fischerei Gesell., 08. Ass. Geog.; Phila. Acad.; hon. mem. K. K. Oester. Fischerei Gesell. Invertebrate zoology; zoology applied to the fisheries, especially mollusks and sponges; Oligochaeta; Isopoda.
- Moore, Dr. Henry Thomas**, Skidmore College, Saratoga Springs, N. Y. *Psychology*. Ansonville, N. C., June 27, 86. A.B., Missouri, 03; Ph.D., Harvard, 14. Asst. prof. psychol., Dartmouth, 15-17; Minnesota, 17-19; *prof.*, Dartmouth, 19-25; educ. psychol., Michigan, 25; *pres.*, Skidmore, 25- Co-ed., 'Jour. Abnor. and Social Psychol.,' 25- A.A.; Psychol. Ass.; N. H. Acad. Psychology of music; instinct; emotion.
- Moore, Prof. H(erbert) F(isher)**, University of Illinois, Urbana, Ill. *Mechanical engineering*. Panacook, N. H., July 10, 75. B.S., New Hampshire, 98, Sc.D., 22; M.E., Cornell, 99, M.M.E., 03. Teacher science and math, Colby Acad., N. H., 99-00; instr. machine design, Cornell, 00-03; mech. engineer, Riehle Bros. Test. Machine Co., Pa., 03-04; instr. and asst. prof. mech., Wisconsin, 04-07; asst. prof. theoret. and applied mech., Illinois, 07-14, *prof. eng. materials*, 14- Nat. Research Council. A.A.; Mech. Eng.; Soc. Test. Mat. (pres); Eng. Educ.; British Inst. Metals. Lubrication of bearings; appliances and machines for testing materials; strength of built-up structures and of materials; fatigue of metal under repeated stress.
- Moore, Dr. Howard B(oswald)**, Eastman Kodak Co., Rochester, N. Y. *Physical chemistry*. Chicago, Ill., Oct. 4, 01. B.S., Chicago, 21, M.S., 22, Ph.D., 24. Grafflin research fellow, Hopkins, 24-25; *research chemist*, Eastman Kodak Co., 25- A.A.; Chem. Soc. Chemical effects produced by light and electrons on mercury surfaces; photochemical equivalent law for silver halides; subatomics.
- Moore, Dr. Hugh Kelsea**, 93 Prospect St., Berlin, N. H. **Chemistry*, *Chemical engineering*. Andover, Mass., Jan. 3, 72. Mass. Inst. Tech., 93-96; hon. Sc.D., Maine, 24. With Electrochem. Co., Rumford Falls, Maine, 97; Moore Electrochem. Co. and Am. Electrochem. Co., 97-03; Burgess Sulphite Fibre Co., N. H., 03; *chief chemist and chem. engineer*, Brown Co. and Brown Corp. Director, Electron Chem. Co., N. H.; rep., N. H. State Legislature, 23-24. Div. chem., Nat. Research Council, chairman trustees for publication critical, physical and chem. constants, 21. Treas., Naval Consulting Board, N. H. Gold medal, Inst. Chem. Eng., 20; Perkin medalist, 25. Chem. eng. committee, Council Nat. Defense, 17-18. Chem. Soc.; Inst. Chem. Eng. (pres, 26); Electrochem. Soc.; Pulp and Paper Ass.; N. H. Acad.; N. Y. Chemists Club. The explosion process of recovering soda salts from black liquor; accident prevention; electrolytic diaphragm cells; physical and chemical constants; production of hydrochloric acid; electrolysis of salt solutions; hydrogenation of oils; lubricating oils; the unsubmerged cathode cell.
- Moore, Prof. James G(arfield)**, 2125 West Lawn Ave., Madison, Wis. *Horticulture*. Shepherd, Mich., Oct. 22, 81. B.S., Mich. State Col., 03, M.S., 05. Instr. hort., Wisconsin, 05-07, asst. prof., 07-10, assoc. prof., 10-15, *prof.*, 15- A.A.;

- Soc. Hort. Sci. Vegetable production; pomology.
- Moore, Prof. J(ared) S(parks)**, Western Reserve University, Cleveland, Ohio. *Philosophy, Psychology*. Cambridge, Mass, Sept. 29, 79. A.B, Hopkins, 00; A.M, Harvard, 03, Ph.D, 05. Instr. *psychol. and philos*, Western Reserve, 07-13, asst. prof, 13-19, assoc. prof, 19-25, *prof*, 25- A.A; Psychol. Ass; Philos. Ass. Theoretical psychology; metaphysics.
- Moore, Prof. J(ohn) Percy**, Media, Pa. **Zoology*. Williamsport, Pa, May 17, 69. A.B, Cent. High Sch. Phila, 86; B.S, Pennsylvania, 92, Ph.D, 96. Asst. instr. *zool*, Pennsylvania, 90-92, instr, 92-07, asst. prof, 07-12, *prof*, 12-; *asst. curator*, *Acad. Nat. Sciences*, Phila, 02-Sci. asst, U. S. Bur. Fisheries, intermittently, 90-; instr, Hahnemann Med. Col, 96-98; Woods Hole, 01-02; lecturer, Ludwick Inst, 02- A.A; Soc. Nat; Soc. Zool; Ecol. Soc; Soc. Parasitol; Philos. Soc; Phila. Acad. (cor. sec'y, 02-); Soc. zool. de France. Systematic morphology of annelids and vertebrates; economic biology of fishes; polychaete fauna of New England, Japan and Alaska; Polychaeta of North Pacific; life histories, habits and adaptations of annelids; biological factors in the control of mosquitoes and leeches; leeches of Indo-Malayan and Oriental regions.
- Moore, Dr. J(oseph) H(aines)**, Mt. Hamilton, Calif. **Astronomy, Astrophysics*. Wilmington, Ohio, Sept. 7, 78. A.B, Wilmington, 97; Ph.D, Hopkins, 03. Asst. spectrosc. *Lick Observatory*, 03-06, asst. astronomer, 06-09, acting astronomer in charge D. O. Mills exped, Chile, 09-13, asst. astronomer, 13-18, assoc. astronomer, 18-23, *astronomer*, 23- Eclipse exped, 18, 22, 23. A.A; Astron. Soc; Physical Soc; Am. Geog. Soc; Pacific Astron. Soc. (ed. committee, 18-, pres, 20). Spectroscopy; absorption and fluorescent spectrum of sodium vapor; spectra of Nova Aquilae No. 2 and No. 3; orbits of two cepheid variables; spectroscopic binaries; radial velocities of stars of Secchi's fourth type; radial velocities and internal motions of gaseous nebulae; spectrographic determination of rotation of planetary nebulae; spectrum of the solar corona.
- Moore, Dr. J(osiah) J(ohn)**, 6937 Bennett Ave, Chicago, Ill. *Pathology*. Anaconda, Mont, Aug. 26, 86. B.S, Montana, 07; fellow, Chicago, 09-10, M.S, 15, M.D, Rush Med. Col, 12. Asst. biol, Montana, 05-07; path, Chicago, 12, fellow, Sprague Mem. Inst, 12-13; instr. exp. med, Illinois, 13-15, asst. prof. path. and bacter, 15-21; *director*, *Nat. Path. Lab*, 21- Asst, McCormick Inst, 10-11. Summers, field worker Rocky Mt. spotted fever, 07, 08, 10. Ass. Path. and Bact; Soc. Clin. Path. (trustee, 23); Soc. Bact; Am. Med. Ass. (sec'y, sect. path. and physiol, 19-). Clinical pathology; bacteriology; serology.
- Moore, Lewis E(ugene)**, 73 Tremont St, Boston, Mass. *Civil engineering*. Amboy, Ill, Jan. 24, 80. B.S.(M.E.), Wisconsin, 00, C.E, 06; Mass. Inst. Tech, 01-02. Master mechanic, Champion Iron Mine, 00-01; draftsman, Phoenix Bridge Co, 02-03; instr. structural drawing and mech, Wisconsin, 03-04; theoret. and applied meech, Illinois, 04-07; asst. prof. civil eng, Mass. Inst. Tech, 07-13, assoc. prof, 13-14; *consulting engineer*, 07- Capt. and major, C.Eng, 17-18. Bridge engineer, Mass. Ry. Commissioners, 07-21; consulting engineer on rebuilding Harvard Bridge. Civil Eng; Boston Soc. Civil Eng. Strength of materials; strength of chain links; strength of angles in compression; design of plate girders.
- Moore, Dr. Lillian M(ary)**, 774 Santa Barbara Road, Berkeley, Calif. *Biology*. Las Vegas, N. Mex, Feb. 14, 87. B.S, California, 14, M.S, 15, Ph.D, 18. Asst. *physiol*, *California*, 15-16, instr, 16-24, *asst. prof*, 24- A.A; Physiol. Soc. Temperature centers in the brain; regulation of body temperature; periodic variations in physiological processes in women.
- Moore, Dr. Mary Mitchell (Mrs. Arthur Russell)**, Eugene, Oregon. *Physiology*. Raleigh, N. C, May 1, 92. A.B, Bryn Mawr, 15; fellow, Pennsylvania, 15-16; Ph.D, Rutgers, 18. Instr. chem, N. J. Col. for Women, 18-19; research fellow physiol, Rutgers, 24-26; *research assoc*, *Oregon*, 26- Am. Woman's table, Naples Zool. Sta, 25; summers, asst, Jacques Loeb, Woods Hole, 15-18. Temperature coefficient; tropistic responses of cerianthus; reactions of cerianthus to light.
- Moore, Dr. Neil Preston**, Thornley and Co, San Diego, Calif. *Chemistry*. Vina, Calif, Feb. 7, 87. A.B, Stanford, 14, A.M, 15, Ph.D, 21. *Research chemist*, *Thornley and Co*. A.A; Chem. Soc. Geochemistry; binders for materials.
- Moore, Philip N(orth)**, 805 Merchants-Laclede Building, St. Louis, Mo. *Engineering geology*. Connersville, Ind, July 8, 49. A.B, Miami, 70, LL.D, 20; sch. mines, Columbia, 70-72. Asst, Mich. Geol. Surv, 72; Mo. Geol. Surv, 73; Ky. Geol. Surv, 73-77; metallurgist, Leadville, Colo, 78-81; managing director, treas. and pres, Slate Creek Iron Co, Ky, 82-89; organizer and director, Conrey Placer Mining Co, 97-06; pres, Admiralty Zinc Co, 17-18; *consulting geologist and mining engineer*, 89- Eng. Council, 17-23; War Minerals Relief Commission, 19-20. Min. Eng. (pres, 17); Min. and Metal. Eng. (pres, 17); hon. mem. St. Louis Eng. Club; St. Louis Acad.
- Moore, Prof. Ransom A(sa)**, University of Wisconsin, Madison, Wis. *Agronomy*. Kewaunee, Wis, June 5, 61. Wisconsin. Teacher and supt, schools, 82-95; asst, instr, asst. agriculturist and *prof. agron*, *Wisconsin*, 95- Breeding of farm crops; forage plants; oat and barley smut; soy beans.
- Moore, Prof. Raymond O(ecil)**, University of Kansas, Lawrence, Kans. *Geology, Paleontology*. Roslyn, Wash, Feb. 20, 92. A.B, Denison, 13; Ph.D, Chicago, 16. Instr. geol, Chicago, 16; asst. prof. *geol. and paleont*, *Kansas*, 16-18, assoc. prof, 18-19, *prof*, 19- Summer, asst. prof, Chicago, 17; U. S. Geol. Surv; Mo. Bur. Geol. and Mines; state geologist, Kans, 17- Geol. Soc; Ass. Petrol. Geol. (ed, 'Bul,' 20-); Paleont. Soc. Stratigraphy of Mississippian of Missouri; oil and gas of Kansas; paleontology of Pennsylvanian of Texas; geology of the Col-

- orado plateau; geologic exploration of Grand Canyon of the Colorado River.
- Moore, Dr. R(ichard) B(ishop)**, Purdue University, Lafayette, Ind. **Chemistry*. Cincinnati, Ohio, May 6, 71. Univ. Col. London, 86-90; British Museum, 93-95; B.S. Chicago, 96; hon. Sc.D. Colorado, 16. Instr. chem. Birkbeck Inst. London, 91-93; Missouri, 97-05; prof. Butler, 05-11; bur. soils, U. S. Dept. Agr. 11-12; physical chemist, U. S. Bur. Mines, 12-19, chief chemist, 19-23; The Dorr Co, 23-24, gen. manager, 24-26; head dept. chem. and dean sch. science, *Purdue*, 26- Longstreth medal, 19; Potts medal, Franklin Inst, 22; Perkin medal, 26. A.A.; Chem. Soc; Chem. Eng; Electrochem. Soc; Min. Eng; Philos. Soc; Colo. Sci. Soc; Soc. de Chim. indust. Reaction between carbon dioxide and soluble nitrites; radioactivity of Missouri waters; chemical separation of radioactive types of matter; radioactivity of waters of Yellowstone Park; separation of iron from manganese; atomic weights of krypton and xenon; occurrence and properties of rare gases of the atmosphere; change of thorium emanation to helium; commercial extraction of radium; metallurgy of rare metals, especially tungsten, vanadium and uranium; commercial recovery of helium from natural gas; liquefaction of gases.
- Moore, Robert J(erome)**, 79 Tonawanda St, Buffalo, N. Y. *Chemistry, Chemical engineering*. Hoboken, N. J., June 4, 92. B.S. Cooper Inst, 15; A.M. Columbia, 16, 17-19. Lecture asst, asst. and instr. chem, Columbia, 11-20; director, Fraser Laboratories, New York, 20-23; *research chemist, Pratt and Lambert, Inc*, 24- Chief chemist, Chem. Ref. Syndicate, New York, 21-24. A.A.; Chem. Soc. (exec. committee, West. N. Y. sect, 26-); Soc. Chem. Indust; fel. Inst. Chem; Chem. Eng; Oil and Color Chemists Ass. Hydrocarbon oils; oil shale; drying oils and resins; protective coatings; aromatic hydrocarbons; varnishes; nitrocellulose lacquers.
- Moore, Prof. Robert Lee**, University of Texas, Austin, Texas. **Mathematics*. Dallas, Texas, Nov. 14, 82. B.S. A.M. Texas, 01, fellow, 01-02; Chicago, 03-05, Ph.D, 05. Asst. prof. math, Tennessee, 05-06; instr. Princeton, 06-08; Northwestern, 08-11; Pennsylvania, 11-16, asst. prof, 16-20; assoc. prof, *Texas*, 20-23, *prof*, 23- A.A.; Math. Soc. (assoc. ed, 'Trans,' 13-, councilor, 17-19, v. pres, 23); Math. Ass; Circolo Mat. di Palermo; Polish Math. Soc. Foundations of mathematics; analysis situs; point sets; functions of real variables.
- Moore, Robert Thomas**, Onawa, Maine, or Pasadena, Calif. *Ornithology*. Haddonfield, N. J., June 24, 82. A.B. Pennsylvania, 03; A.M. Harvard, 04. Ed, 'Cassinia,' 11-16; *pres, East Finance Co*, 14-; *owner, Bariston Mt. Foxes and Big Bear Fox Ranching Co, Inc*. Director indust. institutions; Empire Lumber Co. Ornith. Union; Forestry Ass; Del. Valley Ornith. Club. Bird music; the ornithological scale.
- Moore, Russell W(ellman)**, 44 W. 77th St, New York, N. Y. *Chemistry*. Brooklyn, N. Y., Dec. 21, 61. Sch. mines, Columbia, 79-82; A.B. Princeton, 83, M.S. 85, A.M. 86. Chemist, N. Y. State Dairy Commission, 85-88; chemist and examiner, U. S. Appraiser, N. Y., 88-98, chemist in charge lab, 98-10; manager, U. S. Conditioning and Test. Co, 10-12; explosives commissioner, New York, 12-15, consulting chemist, fire dept, 15-18. Chem. Soc; Soc. Chem. Indust. (v. chairman, 04, chairman, 05); N. Y. Chemists Club (pres, 11). Fats; oils; paints; drugs.
- Moore, Dr. Thomas V(erner)**, Catholic University of America, Washington, D. C. *Experimental psychology*. Louisville, Ky, Oct. 22, 77. Ph.D. Catholic Univ, 03; Leipzig, 04-05; California, 06-09, fellow, 09; Munich, 13-14; M.D. Hopkins, 15. Lecturer *psychol. inst. pedag, Catholic Univ*, 03-04, instr, 10-16, assoc. prof, 16-22, *prof*, 22- Lecturer, Trinity (D. C.), 12-13. Psychol. Ass; D. C. Med. Soc. Reaction time; sensibility of the skin; imagery and concept; memory; ethics; pathology of memory and perception.
- Moore, Dr. V(ernanus) A(lva)**, Cornell University, Ithaca, N. Y. *Pathology, Bacteriology*. Jefferson Co, N. Y., April 13, 59. B.S. Cornell, 87; M.D. George Washington, 90; hon. D.V.M. Pennsylvania, 11; Sc.D. Syracuse, 19. Chief div. animal path, bur. animal indust, U. S. Dept. Agr, 95-96; *prof. comp. path, bacter. and meat inspection, N. Y. State Vet. Col, Cornell*, 96-, *director*, 08- A.A.; Ass. Path. and Bact. (v. pres, 09); Tuber. Ass; Vet. Med. Ass; Soc. Bact; Am. Med. Ass; Pub. Health Ass. Tubercle bacilli in milk; bovine tuberculosis; fowl typhoid; diphtheria in chickens; swine plague; rabies; laboratory methods and apparatus; pathology of infectious diseases of animals.
- Moore, Dr. William**, American Cyanamid Co, 511 Fifth Ave, New York, N. Y. *Entomology*. Phoenixville, Pa, Jan. 29, 87. A.B. Ursinus, 07; Ph.D. Cornell, 20. Lecturer entom. and zool. Potchefstroom Agr. Sch, S. Africa, 10-13; asst. prof. entom. Minnesota, 13-17, assoc. prof, 17-21; Japanese beetle lab, bur. entom. U. S. Dept. Agr, 21-23; *chief entomologist, Am. Cyanamid Co*, 23- A.A.; Entom. Soc; Ass. Econ. Entom. Lice; insecticides.
- Moore, Dr. William C(abler)**, 4110 Fernhill Ave, Baltimore, Md. *Physical chemistry*. Nashville, Tenn, Feb. 10, 84. B.S. Nashville, 03; fellow, Chicago, 07-09, Ph.D, 10. Asst. and instr. chem. and physics, Nashville, 01-06; instr. chem, Columbia, 09-13; research chemist, Nat. Carbon Co, 13-19; assoc. immunol. sch. hygiene and pub. health, Hopkins, 19-20; *research chemist, U. S. Indust. Alcohol Co*, 20- Summers, instr. Nashville, 02-09, Chicago, 11. Chem. Soc. (chairman, Cleveland sect, 15, exec. committee, Md. sect, 24-, sec'y-treas, 26); Physical Soc; Electrochem. Soc. Organic amalgams; aqua regia; carbon; flame arc; immunology; industrial applications of physical and electrochemistry.
- Moore, Dr. W(illiam) D(ewey)**, Box 514, Clemson College, S. C. *Plant pathology*. Seneca, S. C., Dec. 2, 97. B.S. Clemson, 20; M.S. Rutgers, 22, Ph.D, 23. *Plant pathologist*, S. C. Exten. Div, 23-25; Truckers Supply Co, 25-27; S. C. *Exten. Div*, 27- A.A.; Phytopath. Soc. Truck crop diseases.

Moore, Prof. Willis L(uther), Cosmos Club, Washington, D. C. **Meteorology*. Scranton, Pa, Jan. 18, 56. Pub. schools and private instruction; LL.D, Norwich, 96; Sc.D, St. Lawrence, 06. Observer, U. S. Weather Bur, 76, local forecast official, 91-04, prof. *meteor*, 94-95, chief bur, 95-13; *prof*, *George Washington*, 12- Lecturer, Royal Inst, London, 12. First Int. Radio Cong, London, 12. A.A; fel. Am. Geog. Soc; Wash. Acad. (v. pres, 05-10); hon. mem. Royal Meteor. Soc; Austrian Meteor. Soc.

Moorehead, Warren K(ing), Andover, Mass. *American archeology*. Sienna, Italy, March 10, 66. Denison, 86; hon. A.M, Dartmouth, 01. Curator museum, Ohio State, and State Archeol. Soc, 94-97; *director*, *Phillips Acad*, 01- Asst, Smithsonian Institution, 89-90. Columbian Expos, 91-93. U. S. Board Indian Commissioners, 09-; explorations, Univ. Illinois. Medal, Madrid Expos, 92, Columbian Expos, 93. A.A. (sec'y, H, 93); Anthropol. Ass; Wash. Acad. Ohio Valley Indians; the stone age; fort ancient; the American Indian; stone ornaments; archeology of Maine; the Hopewell mound group of Ohio; the Cahokia mounds.

Moose, Prof. J(oe) E(ugene), 902 Lahoma St, Norman, Okla. *Chemistry*. Poolville, Texas, May 28, 96. A.B, South. Methodist, 17; M.S, Illinois, 22, fellow, 23-24, Ph.D, 24. *Asst. prof. chem*, *Oklahoma*, 24- Calorimetry; fuel technology; heats of oxidation of metals; combustion analysis for alloys.

Moots, Prof. Elmer E(arl), Cornell College, Mount Vernon, Iowa. *Mathematics, Engineering*. Kirksville, Mo, Jan. 31, 82. B.C.E, Des Moines, 06; M.S, Maine, 08; C.E, Wisconsin, 11; Ph.D, Iowa, 27. Instr. math, Maine, 06-09; Wisconsin, 09-11; prof. applied math, Whitman, 11-14; asst. prof. civil eng, Arizona, 15-16; irrig. engineer, Tucson, Ariz, 16-18; *prof. math. and eng*, *Cornell (Iowa)*, 18- Summers, honorariums, Iowa, 23-25. Math. Soc; Math. Ass; Soc. Civil Eng; Agr. Eng. Flood waves and the moving hydraulic jump.

Mordoff, Prof. Richard A(ian), Cornell University, Ithaca, N. Y. *Meteorology, Climatology*. Scottsville, N. Y, June 23, 86. B.S, Cornell, 11, A.M, 18, Ph.D, 20. Asst. physical geog, *Cornell*, 12-13, instr. *meteor*, 16-20, asst. prof, 20-24, *prof*, 24- Meteor. Soc. The climate of New York State and its relation to agriculture.

More, Prof. Charles C(hurch), University of Washington, Seattle, Wash. *Civil engineering*. Rock Island, Ill, Jan. 21, 75. C.E, Lafayette, 98, M.S, 01; M.C.E, Cornell, 99. Acting prof. civil eng, Washington (Seattle), 00-01; engineer, Am. Bridge Co. and other companies, 01-04; asst. prof. *civil eng*, *Washington (Seattle)*, 04-06, assoc. prof, 07-11, *prof*, 12-, *head dept*, 17- Capt, C.Eng, O.R.C, 17, major, ordnance dept, 18. Civil Eng; Eng. Educ. (counselor, 19-22).

More, Prof. Louis T(renchard), University of Cincinnati, Cincinnati, Ohio. **Physics*. St. Louis, Mo, April 9, 70. B.S, Washington (St. Louis), 92; fellow, Hopkins, 94-95, Ph.D, 95. Instr. *physics*, Worcester, 96; demonstrator and

asst. prof, Nebraska, 96-00; *prof*, *Cincinnati*, 00-, *dean* col. liberal arts, 10-13, *grad. sch*, 16- A.A; Physical Soc; Hist. Sci. Soc; Philos. Ass; Spinoza Soc; Ohio Acad. (v. pres, 16); Soc. de Physique. Electrical stress in ether; double refraction of light; binaural audition; discharge of electricity through gases; physical theory; magnetic effect of currents in gases; history, philosophy and limitations of science; the dogma of evolution.

Morecroft, Prof. John H(arold), Columbia University, New York, N. Y. *Electrical engineering*. England, Sept. 19, 81. E.E, Syracuse, 04, M.S, 07. Asst. instr. *elec. eng*, Syracuse, 05-07; instr, Pratt, 07-09; instr, asst. prof, assoc. prof. and *prof*, *Columbia*, 09- Fel. Elec. Eng; fel. Radio Eng. (v. pres, 23, pres, 24); fel. Physical Soc; Eng. Educ. Alternating current phenomena; vacuum tubes; radio communication; electrical circuits and machinery.

Morehead, Prof. J(ames) C(addall), Carnegie Institute of Technology, Pittsburgh, Pa. *Mathematics*. Pulaski Co, Va, March 25, 77. A.B, Roanoke, 98, A.M, 99; M.S, Princeton, 00, fellow, 00-03; Ph.D, Yale, 05. Instr. math, Northwestern, 05-09, asst. prof, 09-12; instr. *math. and descriptive geom*, *Carnegie Inst. Tech*, 15-16, asst. prof, 16-26, *assoc. prof. and curator*, 26- Math. Soc. Theory of numbers; differential geometry; higher algebra; analytic mechanics.

Morehouse, Dr. D(aniel) W(alter), 2718 University Ave, Des Moines, Iowa. *Astronomy, Astrophysics*. Mankato, Minn, Feb. 22, 76. B.S, Drake, 00, M.S, 02; B.S, Chicago, 02; Ph.D, California, 14. Prof. physics and astron, *Drake*, 00-22, *pres*, 22- Summer, volunteer research asst, Yerkes Observatory, 09; instr, California, 11-12. Donohoe comet medal. Astron. Soc; fel. Iowa Acad; fel. Royal Astron. Soc; British Astron. Ass; Soc. astron. de France. Stellar photography; comet C, 1908.

Morehouse, L(yman) F(oote), American Telephone and Telegraph Company, 195 Broadway, New York, N. Y. *Electrical engineering*. Big Rapids, Mich, Oct. 21, 74. B.S.(E.E), Michigan, 97, A.M, 04. Asst. prof. physics, Washington (St. Louis), 01; instr, Michigan, 02-04, instr. and asst. prof. *elec. eng*, 04-06; transmission engineer, West. Elec. Co, Europe, 06-09; equipment engineer, *Am. Tel. and Tel. Co*, New York, 09-19, *equipment develop. engineer*, 19- Exec, finance and standard committees; mem, advisory committee *elec. eng*, Nat. Research Council; U. S. Nat. Committee, Int. Electrotechnical Commission. Fel. Elec. Eng. (manager, 20-24, v. pres, 24-26, committees).

Moreno, Dr. H(alcott) O(adwalader), Stanford University, Calif. *Mathematics*. Gainesville, Ga, Nov. 2, 73. A.B, Georgia, 93, A.M, 94, B.L, 96; scholar and fellow, Clark, 97-00, Ph.D, 00. Tutor math, Georgia, 93-97; asst, Clark, 00-01; instr. *applied math*, *Stanford*, 01-04, asst. prof, 04-09, assoc. prof, 09-18, *prof*, 18- A.A; Math. Soc; Math. Ass. Ruled loci in n -fold space; non-Abelian group in which every sub-group is Abelian; engineering.

- Morenus, Prof. Eugenie M(aria)**, Sweet Briar College, Sweet Briar, Va. *Mathematics*. Cleveland, N. Y., Feb. 21, 81. A.B., Vassar, 04, A.M., 05, Vassar Alumnae fellow, 18-19; Ph.D., Columbia, 22. Teacher, high sch., N. Y., 06-07, 08-09; substitute *math*, Vassar, 07-08; instr., *Sweet Briar*, 09-16, assoc. prof., 16-18, *prof*, 18-A.A.; Math. Soc.; Math. Ass. Curves connected with a system of similar conics; geometric properties completely characterizing the set of all the curves of constant pressure in a field of force.
- Morey, George W(ashington)**, Geophysical Laboratory, Washington, D. C. **Physical chemistry*. Minneapolis, Minn., Jan. 9, 88. B.S., Minnesota, 09. Asst. chem., Minnesota, 07-09; asst. chemist, Bur. Standards, 09-12; asst. physical chemist and *physical chemist*, *geophys. lab*, *Carnegie Institution*, 12- Gen. manager, optical glass plant, Spencer Lens Co., 18-20. Manufacturer optical glass, W. I. B., 17-18. Chem. Soc.; Optical Soc.; Wash. Acad. Acidimetric, alkalimetric and calorimetric standards; gas at low temperatures; physics and chemistry of high temperatures and pressures; hydrothermal silicate synthesis; optical glass; general silicate chemistry.
- Morgan, Prof. Agnes Fay**, University of California, Berkeley, Calif. *Chemistry*. Peoria, Ill., May 4, 84. B.S., Chicago, 04, M.S., 05, Ph.D., 14. Instr. chem., Washington (Seattle), 10-13; asst. prof. nutrition, *California*, 15-16, *household science*, 16-19, assoc. prof., 19-23, *prof*, 23-A.A.; Chem. Soc. Chemistry of food and nutrition; vitamin occurrence and N metabolism; vegetable pigments and vitamin A formation.
- Morgan, A(lfred) C(ookman)**, P. O. Box 346, Clarksville, Tenn. *Entomology*. Near Seaford, Del., Jan. 19, 76. B.S.A., Cornell, 04. *Bur. entom.*, U. S. Dept. Agr., 04- Entom. Soc. Tobacco insects; Thysanoptera.
- Morgan, Dr. Ann Haven**, Mt. Holyoke College, South Hadley, Mass. *Zoology*. Waterford, Conn., May 6, 82. A.B., Cornell, 06, fellow, 11-12, Ph.D., 12. Asst. *zool.*, Mt. Holyoke, 06-07, instr., 07-09; asst. and instr., Cornell, 09-11; assoc. prof., *Mt. Holyokè*, 12-13, *prof*, 14- Staff, Woods Hole; U. S. Eugenics Committee. A.A.; Soc. Nat.; Soc. Zool.; Entom. Soc.; Social Hygiene Ass. Ecology of insects; experimental zoology; aquatic insects; May-flies.
- Morgan, Arthur E(rnest)**, Antioch College, Yellow Springs, Ohio. *Hydraulics*. Cincinnati, Ohio, June 20, 78. Colorado, 98, hon. Sc.D., 23. Consulting engineer, 02-07; supervising engineer, drainage investigations, U. S. Dept. Agr., 07-09; *pres*, *Morgan Eng. Co*, 09-; *chief engineer*, *Conservancy Dist*, Miami, 15-21, *Pueblo, Colo*, 21-; *pres*, *Antioch*, 20- V. *pres*, Moraine Park Sch., Dayton, 17- A.A.; Civil Eng. Flood prevention; plant breeding.
- Morgan, Dr. D(avid) P(ercy), Jr**, 114 E. 90th St., New York, N. Y. *Chemistry*. Lenox, Mass., Sept. 4, 94. A.B., Harvard, 16; Ph.D., Columbia, 23. Nat. Research Council fellow, 23-24; *consulting chemist*, *Loomis, Stump and Banks*, 25-
- Morgan, Dr. F(rank) M(illett)**, Hanover, N. H. *Mathematics*. A.B., Cornell, 09, A.M., 10, Ph.D., 12. Instr. *math*, Sturgis Prep. Sch., 07-12; asst. instr., Cornell, 11-12; instr., Dartmouth, 12-15, asst. prof., 15-21; *asst. director*, *Clark Sch*, 21- Math. Soc.; Math. Ass. Transformations.
- Morgan, Dr. Herbert R(ollo)**, U. S. Naval Observatory, Washington, D. C. *Astronomy, Mathematics*. Medford, Minn., March 21, 75. Fellow, Virginia, A.B., 99, Ph.D., 01. Prof. *math*, *Pantops Acad*, Va., 00-01; computer, Naval Observatory, 01-05; prof. *astron.* and higher *math*, Pritchett, and director, Morrison Observatory, 05-07; asst. astronomer, U. S. Naval Observatory, 07-24, *astronomer*, 24- Astron. Soc. Satellites of Saturn; comet orbits; transit circle observations.
- Morgan, Prof. Jerome J(ohn)**, 67 Salter Place, Maplewood, N. J. *Chemical engineering*. Russell, Pa., April 22, 80. B.S., Pa. State, 05, M.S., 10; Ph.D., Columbia, 19. Asst. chem., Md. Col., 05-06, asst. prof., 06-08; asst. chemist, bur. chem., U. S. Dept. Agr., 08; prof. chem., Col. of Hawaii, 08-09; instr., Stevens, 09-11, *asst. prof*, 11-19; *chem. eng*, *Columbia*, 19- Chem. Soc.; Soc. Chem. Indust.; Soc. Test. Mat.; Gas Ass.; Eng. Educ. Industrial chemical analysis; vapor pressures at high temperatures; volatilization of potash; low-temperature coal tars; phenols; coal carbonization; manufacture and utilization of gaseous fuels.
- Morgan, Pres. (John) H(arcourt) A(lexander)**, University of Tennessee, Knoxville, Tenn. *Zoology, Entomology*. Strathroy, Ont., Can., Aug. 31, 67. B.S.A., Ont. Agr. Col. and Toronto, 89; Cornell, 92, 98; Woods Hole, 95. Prof. *entom.* and *zool*, Louisiana, and entomologist, Exp. Sta., 89-05; director, Gulf Biol. Sta., 00-05; prof. *zool.* and *entom.*, *Tennessee*, and director, Exp. Sta., 05-19, *pres*, 19- State entomologist, Tenn., 05-19; asst. commissioner for La., Atlanta Expos, 95; entomologist and sec'y, La. Crop Pest Commission, 04-05; administrator for Tenn. Food Ad., 17. Ass. Econ. Entom. (pres, 07); La. Nat. Soc. (pres, 00). Louisiana and Tennessee insects; mosquitoes of Louisiana; American ixoids.
- Morgan, Prof. John J(acob) B(rooke)**, Northwestern University, Evanston, Ill. *Psychology*. Norristown, Pa., Aug. 23, 88. A.B., Taylor, 11; A.M., Columbia, 13, Ph.D., 16, Cutting traveling fellow, Hopkins, 16-17; B.D., Drew Sem., 14. Asst. psychol., Columbia, 14-16; instr., Princeton, 17; asst. prof., Minnesota, 19-21; director psychol. clinic, Iowa, 21-25; *assoc. prof. psychol.*, *Northwestern*, 25- Sanit.C., U.S.A., 18-19, grading and testing specialist, educ. dept., 20-21. A.A.; Psychol. Ass. Attention; movement; memory; perception; psychopathology.
- Morgan, Prof. J(ohn) Livingston R(utgers)**, Columbia University, New York, N. Y. **Physical chemistry*. New Brunswick, N. J., June 27, 72. B.S., Rutgers, 92, hon. Sc.D., 16; Ph.D., Leipzig, 95. Asst. chem., Stevens, 95-96; instr. quant. anal., Brooklyn Polytech, 96-97; tutor *physical chem*, *Columbia*, 97-01, adjunct prof., 01-05, *prof*, 05-A.A.; Physical Soc.; Chem. Soc.; Electrochem. Soc.; fel. London Chem. Soc. Molten hydrated

salts as solvents; relationship between the volume and weight of a falling drop and the other constants of the liquid; photochemistry; the precise determination of electrical conductance in liquid systems; solubility of gases in liquids.

Morgan, Lawrence O(nis), University of Illinois College of Medicine, Chicago, Ill. *Neurology, Histology, Embryology*. Turon, Kans, May 22, 00. A.B., Southwestern (Kans), 22; A.M., Indiana, 23; Ph.D., Cornell, 26. Asst. embryol., Indiana, 22-23; instr. anat. and neurol., Cornell, 23-26; *histol., embryol. and neurol., col. med., Illinois*, 26- Ass. Anat. Cytology; staining technique; experimental study of basal ganglia; subthalamus of brain.

Morgan, Prof. O(ra) S(herman), Columbia University, New York, N. Y. *Agricultural economics*. Hampshire, Ill, Aug. 11, 77. A.B., Illinois, 05; M.S.A., Cornell, 07, Ph.D., 09. Director, N. Y. State Sch. Agr., Alfred, 08-12; *prof. agr., Columbia*, 11- Agr. adviser and agr. Levantine surveyor, Near East Relief, 26, 27. A.A.; Farm Econ. Ass; Acad. Polit. Sci. Soils.

Morgan, Prof. Raymond, University of Pennsylvania, Philadelphia, Pa. *Physical optics*. Centerville, Ind, June 5, 93. A.B., Indiana, 16, A.M., 17; Ph.D., Pennsylvania, 22. Bur. Standards, 18-19; instr. *physics, Pennsylvania*, 19-24, *asst. prof.*, 24- Optical constants of sodium-potassium alloys.

Morgan, Prof. T(homas) H(unt), Columbia University, New York, N. Y. **Biology*. Lexington, Ky, Sept. 25, 66. B.S., Kentucky, 86, M.S., 88, LL.D., 16; Ph.D., Hopkins, 90, Bruce fellow, 90-91, LL.D., 15; LL.D., McGill, 21; Sc.D., Edinburgh, 22; Michigan, 24. *Prof. biol.*, Bryn Mawr, 91-04; *exp. zool., Columbia*, 04- Jesup lecturer, Columbia, 12; Vanuxem lecturer, Princeton, 16; Hitchcock lecturer, California, 16; Mellon lecturer, Pittsburgh, 23; Silliman lecturer, Yale, 25. Nat. Acad. (pres, v. chairman, exec. board, 27-); A.A.; Soc. Nat. (pres, 09); Soc. Zool.; Soc. Exp. Biol. (pres); Philos. Soc; Phila. Acad; for. mem. Royal Soc; London Linnean Soc; hon. mem. Royal Irish Acad; Soc. biol. de France; Belgian Soc. Zool. and Malacol; Soc. des Sci. Méd. et Nat. de Bruxelles; Royal Soc. Sci. Upsala; Zool. Societies of Norway, Denmark, Finland, Moscow, St. Petersburg and Munich. Experimental embryology and regeneration; experimental zoology; heredity and sex; the physical basis of heredity; the theory of the gene.

Morgan, Dr. W(illiam) m Conger, University of California at Los Angeles, Los Angeles, Calif. *Chemistry*. Albany, N. Y., June 21, 74. A.B., Yale, 96, Silliman fellow, 96-99, Ph.D., 99. *Prof. chem.*, Washburn, 99-01; instr., California, 01-06, *asst. prof.*, 06-13; *prof.*, Reed, 13-20; *California at Los Angeles*, 20- A.A.; Chem. Soc.; Seismol. Soc. Stereochemistry of nitrogen; origin of bitumens; analytical methods; alleged complexity of tellurium.

Morgan, Prof. W(illiam) m Gerry, 1006 16th St., N. W., Washington, D. C. *Medicine*. Newport, N. H., May 2, 68. Dartmouth; M.D., Pennsylvania, 93. *Prof. gastro-enterol.*, Georgetown,

organizer and chief med. officer, clinic for diseases of the digestive organs. Asst. surgeon, N.R.C., major, O.R.C. Am. Med. Ass; Col. Physicians; Therapeut. Soc; Gastro-Enterol. Ass; N. Y. Acad. Med; Wash. Acad. Diseases of the digestive organs.

Morgan, Prof. W(illiam) P(itt), 4105 Otterbein Ave, Indianapolis, Ind. *Zoology*. Indianapolis, Nov. 17, 93. A.B., Indiana Central, 19; A.M., Indiana, 22, fellow, 25-26, Ph.D., 26. *Prof. zool., Indiana Central*, 19- Summers, instr., Ind. Biol. Sta., 20-26. Genetic Ass; Ind. Acad. Cytology of earwigs.

Morgen, Dr. Ralph A(lexander), 127½ N. Central Ave, Chicago, Ill. *Chemistry*. Sacramento, Calif, June 6, 03. B.S., California, 23, Ph.D., 25. Research chemist, Pacific Gas and Elec. Co, 24-25; *develop. engineer, West. Elec. Co*, 25- A.A.; Chem. Soc. The free energy of hydrofluoric acid; metallurgy.

Morgulis, Prof. Sergius, University of Nebraska College of Medicine, Omaha, Nebr. *Biochemistry*. Balta, Russia, July 6, 85. A.B., Ananieff, Russia, 04; A.M., Columbia, 07; Ph.D., Harvard, 10. Austin teaching fellow, Harvard, 09, traveling fellow, 10-12; assoc. animal metabolism, nutrition lab, Carnegie Institution, 12-13; instr. and assoc. biochem., Columbia, 13-16; *prof. biochem. and physiol.*, Creighton, 16-22; *chairman dept. biochem., col. med., Nebraska*, 22- Bowdoin prize and medal, Harvard, 11; prize, Fisheries Soc, 18. A.A.; Soc. Biol. Chem; Biochem. Ass; Physiol. Soc.; Soc. Zool; Fisheries Soc. Regeneration; inanition; metabolism; chemistry of bone and blood; enzymes.

Moritz, Dr. Alan R(ichard), Lakeside Hospital, Cleveland, Ohio. *Pathology*. Hastings, Nebr., Dec. 25, 99. B.S., Nebraska, 20, A.M., 21, M.D., 23. Intern, Lakeside Hosp., Cleveland, 23-24; Hanna research fellow *path., Western Reserve*, 24-25, *instr. sch. med.*, 25- Ass. Path. and Bact. Experimental pathology; nutrition.

Moritz, Prof. Robert E(douard), University of Washington, Seattle, Wash. *Mathematics, Astronomy*. Christianthal, Germany, June 2, 68. B.S., Hastings, 92; Ph.M., Chicago, 96; Ph.D., Nebraska, 01; Ph.N.D., Strassburg, 02. *Prof. math. and physics*, Hastings, 93-98; *instr. math.*, Nebraska, 98-02, *adjunct prof.*, 02-03, *asst. prof.*, 03-04; *prof., Washington (Seattle)*, 04- A.A.; Math. Soc; Math. Ass. (councilor, 16). General theory of cyclic harmonic curves; theory of rati-ents; literametrics; mathematical memorabilia.

Mork, Harry S(olomon), Special Yarns Corp, Boston, Mass. *Chemical engineering*. Boston, April 10, 78. B.S., Mass. Inst. Tech, 99. Chemist, City Wastes Disposal Co, 99; Mass. State Board Health, 99-00; Cellulose Products Co, 00-01; with Little and Walker and Arthur D. Little, Inc, 01-19; *sec'y and treas., Chem. Products Co*, 02-; v. pres, Lustron Co, 19-; v. pres, Special Yarns Corp, 25- Chem. Soc. Cellulose chemistry; artificial silk.

Morley, Prof. F(rank), 2032 Park Ave, Baltimore, Md. **Mathematics*. Woodbridge, Eng, Sept. 9, 60. B.A., Cambridge, 83, M.A., 87, D.Sc., 97. Instr. *math.*, Haverford, 87-88, *prof.*, 88-00;

- Hopkins*, 00— Ed, 'Am. Jour. Math.' 00— Math. Soc. (pres, co-ed, 'Bul'); Math. Ass; Philos. Soc; Am. Acad; London Math. Soc; Circolo Mat. di Palermo. Geometry; theory of functions.
- Morley, Prof. Raymond K(urtz)**, Worcester Polytechnic Institute, Worcester, Mass. *Mathematics*. Templeton, Mass, Oct. 28, 82. A.B, A.M, Tufts, 04; Ph.D, Clark, 10. Instr. *math*, Maine, 04—07; Worcester, 10—11; Illinois, 11—12; asst. prof, Worcester, 12—17, *prof*, 17—Math. Soc; Math. Ass; Eng. Educ. Algebraic invariants; calculations for the Maya calendar.
- Morley, Dr. Sylvanus G(riswold)**, Carnegie Institution, Washington, D. C. **Anthropology*. Chester, Pa, June 7, 83. C.E, Pa. Mil. Col, 04, hon. Ph.D, 21; A.B, Harvard, 07, A.M, 08, fellow, 08. Fellow Cent. Amer. archeol, Archeol. Inst. of Amer, 09—14; *assoc. Am. archeol, Carnegie Institution*, 14— Field exped, Mex, Guatemala, Honduras, British Honduras, Nicaragua, Salvador, Costa Rica and Panama. Anthrop. Ass; Archeol. Inst; Maya Soc; Wash. Acad. American archeology; Maya archeology; Maya hieroglyphic writing.
- Morningsstar, Helen**, 1275 Franklin Ave, Columbus, Ohio. *Geology*. Columbus, Sept. 23, 91. A.B, Ohio State, 13, A.M, 15; Bryn Mawr, 15—17, European fellow, 16—17, Ph.D, 22. Instr. geol, Ohio State, 17—23. A.A; Paleont. Soc; Ohio Acad. Fauna of Pottsville, Ohio.
- Morrell, Dr. J(acque) C(yrus)**, 168 N. Harlem Ave, Oak Park, Ill. *Chemistry, Chemical engineering*. Savannah, Ga, Jan. 18, 93. B.S, Cooper Union; A.M, Ph.D, Columbia. Demonstrator, Columbia, 14—21, instr, 19—21; *assoc. director research process develop. oil technol, Universal Oil Products Co*, 21— C.W.S, U.S.A, 18—19, major, C.W.R.S. Chem. Soc; Chem. Eng; Petrol. Inst. The chemistry, physical properties, pyrolysis and technology of hydrocarbons; inversion of sucrose; suspensions and emulsions; activated charcoal.
- Morrell, J(oseph) A(ian)**, 246 Livingston Ave, New Brunswick, N. J. *Physiological chemistry*. Harrison, Ont, Can, Nov. 9, 97. B.A, Toronto, 21, fellow, 21—24, M.A, 22, Ph.D, 24. *Research and biol. laboratories, E. R. Squibb and Sons*, 24— Enzymes; chemistry of endocrine glands.
- Morrey, Dr. Cha(rlie) B(radfield)**, Ohio State University, Columbus, Ohio. *Bacteriology*. Chesterhill, Ohio, Nov. 5, 69. A.B, Ohio State, 90; M.D, Starling Med. Col, 96; Vienna and Pasteur Inst, Paris, 97—99. Asst. Latin, Ohio State, 90, Latin and physiol, 91—92, physiol, 92—97, asst. prof, 99—02, *assoc. prof*, 02—03, *bacter*, 03—04, *prof*, 04— Lecturer, Starling Med. Col, 99—03, prof, 04—07, acting prof, 96—97. A.A; Chem. Soc; Soc. Bact; Ohio Acad. Fundamentals of bacteriology; accuracy of the glance and localization on the periphery of the retina; bacterial enzymes; nitrogen nutrition of green plants; vaccination in colds and in hay fever.
- Morrill, Prof. A(ibro) D(avid)**, Clinton, N. Y. **Zoology*. Northfield, N. H, Aug. 29, 54. B.S, Dartmouth, 76, M.S, 79; Michigan, 76—77; Sc.D, Colgate, 26. Teacher, acad, Pa, 78—83; *prof*, Belmont Col, 83—88; biol. and geol, Ohio (Athens), 88—91; chem. and biol, Hamilton, 91—96, *biol*, 96— A.A; Soc. Nat; Soc. Zool; Nature Study Soc; Boston Soc. Nat. Hist. Nerve endings in pectoral appendages of *Prionotus*; nerve endings in auditory epithelium of *Gaelus*; histogenesis of the auditory nerve; regeneration of nerve tissue in planarians.
- Morrill, Dr. A(ustin) W(infield)**, 382 N. Ave. 53, Los Angeles, Calif. *Entomology*. Tewksbury, Mass, Sept. 11, 80. B.S, Mass. Col. and Boston, 00, Ph.D, Mass. Col, 03. Field agent, bur. entom, U. S. Dept. Agr, 03—06, in charge white fly investigations, 06—09; state entomologist, Ariz, and consulting entomologist, Exp. Sta, 09—19; *consulting entomologist*, 20—; *director, Estación Exp. de los Cosecheros de Legumbres del Rio Fuerte, Los Mochis, Sinaloa, Mex*, 21—; *consulting entomologist, Mex. Dept. Agr. and Development*, 25— A.A; Entom. Soc; Ass. Econ. Entom. (v. pres. and chairman, Pacific Slope branch, 17); Wash. Entom. Soc. Greenhouse, citrus and strawberry white flies; fumigation of citrus trees; insects injurious to cotton and truck crops.
- Morrill, Dr. C(harles) V**, Cornell Medical College, New York, N. Y. *Anatomy*. New York, March 9, 84. A.B, Col. City of N. Y, 03; A.M, Columbia, 06, Ph.D, 10. Asst. zool, Columbia, 06—08; lecturer histol. and embryol, col. med, Syracuse, 08—10; instr. *anat*, Univ. and Bellevue Hosp. Med. Col, 10—15; *med. col, Cornell*, 15—19, asst. prof, 19—23, *assoc. prof*, 23— A.A; Ass. Anat; Soc. Zool. Regeneration in fish and Amphibia; sex determination in insects; development of mammalian heart; symmetry in monsters; feeding experiments with Amphibia.
- Morrill, Dr. W(arren) P(earl)**, Columbia Hospital for Women, Washington, D. C. *Medicine*. Benton Harbor, Mich, Jan. 20, 77. Ph.B, Michigan, 98; M.D, Hopkins, 08. Res. physician and supt, Sydenham Hosp, Baltimore, 08—12; *assoc. med, Col. Physicians and Surg*, Baltimore, 09—12; supt, Winnipeg Gen. Hosp, Man; supt, Univ. Hosp, Augusta, Ga, 20; Charity Hosp, Shreveport, La, 20—25; *Columbia Hosp. for Women*, 25— M.C, 17—18, lieut. col, 18—19, col, M.R.C. Soc. Biol. Chem; Ass. Mil. Surg. (exec. council). Hospital administration; infant metabolism; military medicine.
- Morris, Prof. Clyde T(ucker)**, 1790 Cambridge Boulevard, Columbus, Ohio. *Engineering*. Morrow Co, Ohio, April 19, 77. C.E, Ohio State, 98. New Columbus Bridge Co, 98—99; draftsman, Youngstown Bridge Co, 99—01; King Bridge Co, 01—02; prin. asst. engineer, Puget Sound Bridge and Dredging Co, 02—04; asst. engineer, King Bridge Co, 04—06; *assoc. prof. structural eng, Ohio State*, 06—08, *prof*, 08— Deputy commissioner in charge bur. bridges, Ohio State Highway Commission, 11—12. Civil Eng; Eng. Educ. Steel structures; stresses; reinforced concrete.
- Morris, Dr. Frank E(dward)**, Connecticut College for Women, New London, Conn. *Psychology*. New Brunswick, N. J, June 23, 89. A.B, Yale, 13, Ph.D, 16. Instr. psychol, Texas, 16—17; *philos. and psychol, Conn. Col. for Women*,

- 17-21, asst. prof, 21-24, *prof*, 24- Director psycho-educ. clinic, New London Pub. School System, 19-; psychologist, Conn. State Farm for Women, 23-26. A.A.; assoc. Psychol. Ass; Philos. Ass. Clinical psychology; college entrance tests.
- Morris, Dr. F(rank) R(ay)**, State College, Fresno, Calif. *Mathematics*. Pekin, Ind, June 18, 85. B.S., Valparaiso, 07, B.Pd, 08; A.B., Indiana, 12, A.M., 13; Ph.D., California, 18. Asst. commercial dept, Valparaiso, 07-08; teaching fellow math, Indiana, 12-13; California, 16-18, instr, 18-21; *assoc. prof. and head dept. math. and eng*, *Fresno State Col*, Calif, 21- A.A.; Math. Soc; Math. Ass; Ass. Eng. Perpetual calendars; geometry of space; theory of finance.
- Morris, Frederick K(uhne)**, 127 E. 31st St, New York, N. Y. *Geology*. Salt Lake City, Utah, Feb. 11, 86. Woods Hole, 02; B.S., Col. City of N. Y., 04; A.M., Columbia, 10, 14-16. Teacher, pub. schools, New York, 04-14; asst. geol., Columbia, 14-15, lecturer, 15-16, instr, 16-20; first prof, Pei Yang Univ, Tientsin, 20-22; *assoc. curator geol. and geog*, *Am. Museum Nat. Hist*, 23- Lecturer, Columbia, 24; geographer, U. S. Dept. State, 20. Geologist, Am. Museum Nat. Hist. third Asiatic exped, 22-; field studies, China, 20-22, Mongolia, 22, 23, 25. Preparator landscape maps, Nat. Research Council, 17-18. Instr. topog, U. S. Air Service Radio Sch, 17-19, topog. and map reading, S.A.T.C., 18. A.A.; Am. Geog. Soc; Min. and Metal. Eng; N. Y. Acad; Geol. Soc. China. Engineering geology; structural and physiographical geology; map reading and interpretation; the old rock floor, the great bathylith, the basin structures, and the peneplains of Mongolia.
- Morris, Dr. H(arold) H(ulett)**, 624 High St, Newark, N. J. *Chemistry*. Racine, Wis, March 12, 89. A.B., Wisconsin, 11, A.M., 16, Ph.D., 17. Instr. chem, Mich. State Col, 11-12; asst. chemist, Mont. Exp. Sta, 12-14; asst. chem, Wisconsin, 14-17; research chemist, Nat. Carbon Co, 17-18; *exec. chemist*, *E. I. du Pont de Nemours and Co*, 18- Chem. Soc; Wis. Acad. Pigments; lithopone; paints; heavy chemicals; selenic acid; gold.
- Morris, Dr. Harry**, Louisiana State University, Baton Rouge, La. *Pathology*. Bloomingburg, Ohio, Sept. 17, 81. D.V.M., Ohio State, 10. *Bacteriologist and veterinarian*, *La. Exp. Sta*, 11-, *acting prof. animal path*, *Louisiana*, 23- A.A.; Vet. Med. Ass. Animal pathology.
- Morris, H(arry) E(lwood)**, Bozeman, Mont. *Botany, Bacteriology*. Virginia City, Mont, April 17, 86. B.S., Montana, 09; M.S., Wisconsin, 17. Asst. botanist and bacteriologist, *Mont. Exp. Sta*, 09-22, *assoc. botanist and bacteriologist*, 22- Phytopath. Soc; Mont. Hort. Soc. Plant pathology and physiology.
- Morris, Prof. O(scar) M(atison)**, Pullman, Wash. *Horticulture*. Highland, Kans, June 26, 74. B.S., Okla. Agr. and Mech. Col, 96; Cornell, 97-98; M.S., Wash. Col. Asst. hort, Okla. Agr. and Mech. Col, 98-03, prof, 03-10; *prof. and head dept*, *Wash. Col*, 11- Pomol. Soc; Soc. Hort. Sci. Fruit growing and storage; berry breeding.
- Morris, Prof. Richard**, Rutgers University, New Brunswick, N. J. *Mathematics*. Keyport, N. J, Nov. 9, 68. B.S., Rutgers, 99, M.S., 02; Ph.D., Cornell, 07. Instr. *math. and graphics*, *Rutgers*, 99-05, assoc. prof, 05-09, *prof*, 09- Board Educ, New Brunswick, N. J. A.A.; Math. Soc; Math. Ass. Automorphic functions.
- Morris, Dr. Robert T(uttle)**, 114 E. 54th St, New York, N. Y. *Botany*. Seymour, Conn, May 14, 57. Cornell, 80; M.D., Columbia, 82; hon. A.M., Center Col. of Ky, 89. Instr, asst. prof, assoc. prof. and prof. *surg*, *N. Y. Post-Grad. Med. Sch*, 89-18, *emer. prof*, 18- Dean, North. Nut Growers Ass, 25- Trustee, Cornell, 05-15. A.A.; Am. Breeders Ass; N. Y. Linnean Soc. Tree propagation.
- Morris, Prof. Roger S(ylvester)**, 3646 Washington Ave, Avondale, Cincinnati, Ohio. *Medicine*. Ann Arbor, Mich, Sept. 24, 77. A.B., Michigan, 00, M.D., 02. Instr. internal med. and demonstrator clin. med, Michigan, 03-05; asst. res. physician, Hopkins Hosp, 05-07; asst. med, Hopkins, 06-08, assoc, 08-15; *prof*, *Cincinnati*, 15- Major, M.C., 17-18, lieut. col, 18-19. Ass. Path. and Bact; Am. Physicians; Soc. Trop. Med; Soc. Clin. Invest. The action of X-rays on the blood; hemolysins in urine; changes in internal organs in experimental anemia; experimental lipemia; leucocytic ferments.
- Morris, Prof. S(amuel) J(ohn)**, 205 Kingwood St, Morgantown, W. Va. *Anatomy*. Morgantown, Aug. 3, 87. M.D., Maryland, 12; West Virginia, 12. Asst. prof. *anat*, *West Virginia*, 12-18, assoc. prof, 18-20, *prof*, 20- Fel. Col. Physicians; Ass. Study Int. Secretions; W. Va. Med. Soc; Monongalia Co. Med. Soc. Persistent thymus gland.
- Morris, Dr. S(eth) M(abry)**, Galveston, Texas. *Chemistry*. Austin, Texas, June 15, 67. B.S., Texas, 88; M.D., Columbia, 91. Prof. chem. and toxicol, *sch. med*, *Texas*, 91-08, *prof. ophthalm*, 08- Am. Med. Ass; fel. Col. Surg.
- Morrison, Dr. Beulah M(ay)**, 1300 Louisiana St, Lawrence, Kans. *Psychology*. Sanger, Calif, Oct. 2, 96. A.B., California, 19, A.M., 20, Ph.D., 23. Asst. *psychol*, California, 19-20, research asst, 20-23; instr, *Kansas*, 24-26, *asst. prof*, 26-Summer, instr, California, 24. A.A. Emotions in mental defectives; tests of musical talent.
- Morrison, Prof. Edwin**, Michigan State College, East Lansing, Mich. *Physics*. Bloomington, Ind, March 5, 61. B.S., Earlham, 88, M.S., 91; Indiana, 90; Chicago, 00-01, 04. Prof. science, Pacific Col, 91-01; physics and chem, Penn (Iowa), 01-06; *physics*, Earlham, 06-19; *Mich. State Col*, 19- A.A.; Physical Soc; fel. Ind. Acad. Mechanics; surface tension; energy losses in impacts and in commercial hammers.
- Morrison, Prof. F(rank) B(arron)**, New York State Agricultural Experiment Station, Geneva, N. Y. *Animal husbandry*. Fort Atkinson, Wis, May 19, 87. B.S., Wisconsin, 11. Asst. and instr. agr. chem, Wisconsin, 11-13, asst. prof. animal husbandry, 13-17, assoc. prof, 17-19, prof, 19-27, asst. director, Exp. Sta, 15-27, acting dean col. agr. and acting director, Exp. Sta, 25-26; *director*, *N. Y. State Agr. Exp. Sta*, *Geneva*, 27-

- Committee on nutrition, Nat. Research Council. A.A.; Soc. Animal Production (sec'y, 15-17, pres, 19); Dairy Sci. Ass; Chem. Soc. Animal feeding and nutrition.
- Morrison, H(arley) J(ames)**, 3495 Brookline Ave, Cincinnati, Ohio. *Chemistry*. Cincinnati, Feb. 15, 66. Ph.B, Yale, 87. *Procter and Gamble Co*, 87- Chem. Soc; Soc. Chem. Indust; Oil Chemists Soc. (past pres); Chem. Eng. Fats and oils; soaps; glycerin.
- Morrison, Harold**, U. S. Department of Agriculture, Washington, D. C. *Entomology*. McCordsville, Ind, May 24, 90. A.B, Cornell, 14; A.M, Stanford, 15; Sc.D, Harvard, 27. Asst. office state entomologist, Ind, 11-15; inspector, fed. hort. board, U. S. Dept. Agr, 16-17, entom. explorer, *bur. entom*, 17-20, asst. entomologist, 20-24, assoc. entomologist, 24-25, *entomologist*, 25- A.A; Entom. Soc; Ass. Econ. Entom; Wash. Entom. Soc; Wash. Biol. Soc; Ind. Acad; Cambridge Entom. Club. Scale insects; Coccidae.
- Morrison, Montford**, 341 W. Chicago Ave, Chicago, Ill. *Physics*. Bainbridge, Ga, Dec. 11, 83. France, Germany and Italy. Research worker, Ga. Tech. and private lab, 05-14; *consulting engineer*, Scheidel-West. X-ray Co, 14-17; Victor Elec. Corp, 17-21; Int. X-ray Corp, 21-23; *Acme Int. X-ray Corp*, 23-; *Morrison Eng. Corp*, 21- Physical Soc; Math. Soc; Elec. Eng; Civil Eng; Mech. Eng; Radio Eng; Chem. Eng; Min. and Metal. Eng; Illum. Eng. Soc; Chem. Soc; Electrochem. Soc. Electricity; magnetism; electric and magnetic fields; mathematical interpretation of X-ray theory.
- Morrison, Prof. R(oger) L(eroy)**, 929 Church St, Ann Arbor, Mich. *Highway engineering*. Winnetka, Ill, Aug. 28, 83. A.B, Illinois, 11, B.S, 12, C.E, 17; A.M, Columbia, 14. Instr. civil eng, Tennessee, 11-12; junior engineer, Ill. Highway Commission, 12-13; highway engineer, United Gas Improv. Co, 13-14; prof. highway eng, Agr. and Mech. Col. Texas, 14-19; engineer of tests, Pittsburgh Test. Lab, Birmingham, Ala, 19-21; treas. and gen. manager, Concrete Products Co, 21-24; *assoc. prof. highway eng. and highway transport*, Michigan, and *director*, State Highway Lab, 24- Ry. construction, S. Pacific and W. Pacific Rys, 05-09. Civil Eng; Soc. Test. Mat. (committee on road materials); Concrete Inst; Eng. Educ; Nat. Highway Traffic Ass; Ass. State Highway Officials (committee on tests); Soc. Munic. Improv; Mich. Eng. Soc; Int. Ass. Road Congresses. History of broken stone road construction; Portland and aluminate cement concrete.
- Morse, Albert P(itts)**, 16 Upland Road, Wellesley, Mass. *Zoology*. Sherborn, Mass, Feb. 10, 63. Cornell, 90; Woods Hole, 93. Asst. zool, Wellesley, 88-08, *curator zool. museum and lecturer econ. entom*, 90-; instr. zool, Teachers' Sch. Science, Boston, 01-10; *curator nat. hist. Peabody Museum, Salem, Mass*, 11- Research asst, Carnegie Institution, 03, 05. Trustee, Ropes Mem, Salem, Mass, 25- Fel. Entom. Soc. Amer; Nuttall Ornith. Club; Essex Co. Ornith. Club; Morse Science Nature Club; Boston Soc. Nat. Hist; Cambridge Entom. Club (pres, 02, 23). Orthoptera, especially Acridiidae of North America; natural history of Essex County, Massachusetts.
- Morse, Dr. Arthur H(enry)**, New Haven Hospital, New Haven, Conn. *Obstetrics, Gynecology*. Salem, Mass, Dec. 13, 80. A.B, Tufts, 02; M.D, Hopkins, 06. Instr. obstet, med. dept, Hopkins, and res. obstetrician, Hopkins Hosp, 10-11; *obstet. and gynec*, med. sch, California, 13-15; asst. prof, Yale, 15-20, *prof*, 21-; asst. obstetrician and gynecologist, New Haven Hosp, 15-20, *obstetrician and gynecologist-in-chief*, New Haven Hosp. and Dispensary, 20- A.A; Am. Med. Ass; Col. Surg; Gynec. Soc; N. Y. Obstet. Soc. Mechanism and pathology of labor; creatin metabolism in pregnancy.
- Morse, Prof. David S(herman)**, 1508 Nott St, Schenectady, N. Y. *Mathematics*. Roxbury, N. Y, Sept. 16, 92. A.B, Pd.M, N. Y. Univ, 17; A.M, Harvard, 18; Ph.D, Cornell, 23. Instr. *math*, Union (N. Y.), 18-20; Cornell, 20-24; asst. prof, Union (N. Y.), 24-27, *assoc. prof*, 27- Summers, instr, Cornell, 20-25. Math. Soc; Math. Ass. Analysis; divergent series.
- Morse, Prof. Fred W(inslow)**, Amherst, Mass. *Chemistry*. Berlin, Mass, Dec. 6, 65. B.S, Worcester, 87, M.S, 00. Asst. chem, Mass. Exp. Sta, 87-88; N. H. Exp. Sta, 88-89, chemist, 89-09, v. director, 96-09, acting director, 12-13, 18-20; prof. chem, New Hampshire, 90-92, org. chem, 92-09. Research chemist, Mass. Exp. Sta, 10. A.A; Chem. Soc. Agricultural chemistry; effect of cold storage on fruits; respiration of fruits; availability of soil potash; temperature and plant growth; sulphate of ammonia and soils; calcium carbonate in soil; fixation of nitrogen in soil.
- Morse, Dr. (Harold) Marston**, Harvard University, Cambridge, Mass. **Mathematics*. Waterville, Maine, March 24, 92. A.B, Colby, 14; A.M, Harvard, 15, Sheldon traveling fellow, 17, Ph.D, 17. Benjamin Peirce instr. *math*, Harvard, 19-20; instr, Cornell, 20-22, asst. prof, 22-25; assoc. prof, Brown, 25-26; *asst. prof*, Harvard, 26- Committee on anal. situs, Nat. Research Council. Second lieut, C.A.C, 19-24. A.A; Math. Soc; Math. Ass. Dynamical systems; calculus of variations; function theory.
- Morse, Dr. H(arry) W(heeler)**, Stanford University, Calif. **Physics, Physical chemistry*. San Diego, Calif, Feb. 25, 73. A.B, Stanford, 97; Ph.D, Leipzig, 02. Instr. physics, Harvard, 02-10, asst. prof, 10-12; lecturer chem, California, 12-13; in charge sci. work, West. Precipitation Co, 13-18; tech. manager, Am. Trona Corp, 18-20; *consulting chemist and metallurgist*, 20- Chem. Soc; Min. Eng; Chem. Eng; Am. Acad. Luminescence spectra; storage batteries; electrical precipitation; hydrometallurgy of copper; recovery of potash and borax from desert brines.
- Morse, Dr. John Lovett**, 483 Beacon St, Boston, Mass. *Medicine*. Taunton, Mass, April 21, 65. A.B, Harvard, 87, A.M, M.D, 91. Asst. clin. med, Harvard Med. Sch, 96-00, instr. *pediat*, 00-06, asst. prof, 06-15, prof, 15-21, *emer. prof*, 21- Consulting physician, Infants' Hosp, Floating Hosp, Children's Hosp. Emer. mem. Am. Physicians; Am. Med. Ass; Pediat. Soc; New Eng. Pediat. Soc. Diseases of children.

- Morse, Prof. Josiah**, University of South Carolina, Columbia, S. C. *Psychology*. Richmond, Va, Feb. 17, 79. A.M, Richmond Col, 00; Ph.D, Clark, 04. Lecturer and instr. psychol, Clark, 04-05; psychol. and educ, Texas, 05-06; *prof. philos. and educ*, Peabody Col, 08-11; *psychol. and philos. South Carolina*, 11- Research asst. to Pres. G. Stanley Hall; summers, prof, Kans. State Nor. Sch, Davis and Elkins, Summer Sch. of South, Cornell. A.A; Psychol. Ass; S. Soc. Philos. and Psychol. (v. pres, 14). Race and religious psychology.
- Morse, Dr. Leighton B**, 206 Christie Heights, Leonia, N. J. *Physics*. Iowa Co, Iowa, Jan. 14, 82. Ph.B, Grinnell, 03; fellow, Nebraska, 03-05; Ph.D, Columbia, 08. Instr. *physics*, Grinnell, 02-03; Columbia, 06-08, lecturer, 08-09, instr, 09-18; *asst. prof, Col. City of N. Y.*, 18- A.A; Physical Soc. Electric double refraction in carbon disulphid at a temperature near the boiling point; test of Kerr's law; the selective reflection of bivalent carbonates in the infra-red spectrum; the selective reflection of salts of oxygen acids.
- Morse, Dr. Mary Elizabeth**, 40 Commonwealth Ave, Boston, Mass. *Pathology*. Montpelier, Vt, Feb. 16, 78. A.B, Goucher, 99; M.D, Hopkins, 03. Asst. pathologist, Worcester State Hosp, 13-15; *pathologist*, Boston State Hosp, 15-20; *Boston Psychopath. Hosp.*, 20- Hon. fellow, Clark, 14. A.A; Psychiat. Ass; Mass. Psychiat. Soc. Neuropathology.
- Morse, Dr. Minerva**, 66 Paradise Road, Northampton, Mass. *Organic chemistry*. Minneapolis, Minn, April 6, 93. A.B, Minnesota, 15, M.S, 20, Ph.D, 25. Asst. chem, Minnesota, 18-22; instr. med. chem, Constantinople Woman's Col, 23-24; research asst, dept. pediat, Minnesota, 24-25; *instr. chem. Smith*, 25- Chem. Soc. Oxidation of phenols.
- Morse, Paul F(ranklin)**, The Texas Co, Houston, Texas. *Geology, Paleontology*. Wellston, Ohio, July 24, 97. A.B, Ohio State, 20; M.S, Chicago, 24, 24-25. Geologist, Miss. Geol. Surv, 20-21, asst. state geologist, 21-22; *geologist*, Miss. and Ala. Bauxite Companies, 22-23; Humphreys Corp, 25-27; *Texas Co*, 27- Summer, geologist, Rycade Oil Corp, 25. A.A; Ass. Petrol. Geol; Ohio Acad. Bauxite; petroleum geology; stratigraphy.
- Morse, Dr. Roy R(ober) t**, 269 W. Mountain St, Pasadena, Calif. *Geology*. Jennings, La, Oct. 7, 90. B.S, California, 13, Ph.D, 22. Teaching fellow geol, California, 13, 17, instr, 20-23, asst. prof, 23-25. Geol. explorations, Standard Oil Co, China and Philippines, 14-16, Alaska, 22; summer, Mex, 23. War minerals investigations, U. S. Bur. Mines, U. S. Geol. Surv. and Calif. Council for Defense, 18-20. Mining engineering; structural geology; stratigraphy; petroleum accumulation.
- Morse, Stanley F(letcher)**, Columbia, S. C. *Agricultural engineering*. Watertown, Mass, Sept. 15, 84. Mass. Col, 02-03; B.S.A, Harvard, 06. Agr. and field work, Mex. and East. U. S, 06-08; consulting agriculturist, 08-10; agriculturist, Nat. Railways, Mex, 10-11; consulting agriculturist and lecturer, Farmers' Inst, 11-13; prof. agr, Arizona, 13-15, director agr. exten, 14-16; state county agent leader, Ariz, U. S. Dept. Agr, 15-16; *consulting agr. engineer and agriculturist*, 16- Asst. managing ed, 'Country Gentleman,' 08-10. A.A; Agr. Eng. (pres, South. sect, 20); Farm Econ. Ass; Soc. Agron. Agronomy; business farm management; sugar cane agronomy; tropical agriculture.
- Morse, Dr. Sterne**, Cleveland Clinic Foundation, Cleveland, Ohio. *Biophysics*. Gunnison, Colo, May 31, 87. M.D, Harvard, 13. Intern, Presb. Hosp, New York, 12-13; special expert, hygienic lab, U. S. Pub. Health Service, 13-14; asst. serol, Psychiat. Inst, N. Y. State Hospitals, 14-17, assoc, 19-22; pathologist, Grant Hosp, Columbus, Ohio, 22-23; *assoc. biophysics, Cleveland Clinic Foundation*, 23- Lieut, M.C, 17-19. Ass. Clin. Path; Soc. Bact; Chem. Soc. Immunology; cell permeability; electric capacitance of biological systems; chemical effects of X-rays.
- Morse, Dr. W(arn)er J(ackson)**, Agricultural Experiment Station, Orono, Maine. *Plant pathology, Bacteriology*. Waterbury, Vt, Oct. 30, 72. B.S, Vermont, 98, M.S, 03, hon. Sc.D, 23; Ph.D, Wisconsin, 12. Teacher nat. science, Montpelier Sem, 99-01; instr. bot, Vermont, 01-05, asst. prof. bacter, 05-06, asst. botanist, Vt. Exp. Sta, 01-06; plant pathologist, *Maine Exp. Sta.*, 06-24, *director*, 21- A.A; Phytopath. Soc; Soc. Bact; Bot. Soc; N. E. Bot. Club; Vt. Bot. Club.
- Morse, Prof. W(illiam) C(lifford)**, Agricultural and Mechanical College, Miss. *Geology*. Starr, Ohio, Oct. 28, 74. A.B, Ohio State, 06, fellow, 06-08, A.M, 08; Chicago, 11, 13-14; Ph.D, Mass. Inst. Tech, 27. Asst. geol, Ohio State, 07-08, instr, 08-13; Washington (St. Louis), 14-16, asst. prof, 16-18; *prof, Miss. Agr. and Mech. Col.*, 18- Asst. geologist, Ohio Geol. Surv, 07, 09; Ill. Geol. Surv, 14-15; Ky. Geol. Surv, 08, 19; geologist, Ohio State Highway Dept, 12-13; oil geologist, 16-; asst. geologist, Miss, 20-21. A.A; fel. Geol. Soc; Ass. Petrol. Geol; Paleont. Soc; Ohio Acad. Stratigraphic geology; highway materials; oil and gas.
- Morse, Prof. Withrow**, Lansdowne, Pa. *Biochemistry*. Dayton, Ohio, May 7, 80. B.S, A.M, Ohio State, 04; Ph.D, Columbia, 09. Asst. chem, med. col, Cornell, 06-07; instr. biochem, Wisconsin, 10-13; assoc. prof. and director laboratories, col. med, Nebraska, 15-16; mem. in charge chem, Nelson Morris Inst, Chicago, 16-18; *prof. biochem. sch. med*, West Virginia, 18-23; *physiol. chem. and toxicol. Jefferson Med. Col.*, 23- Soc. Biol. Chem; Chem. Soc; Soc. Exp. Biol; Soc. Bact; Franklin Inst; Soc. Nat; hon. mem. Phila. Med. Soc; British Biochem. Soc. Intracellular enzymes; reaction of tissues; urinary products; applied biochemistry.
- Mortensen, Prof. F(rederick) C(hristopher)**, 411 N. 14th St, E, Cedar Rapids, Iowa. *Chemistry*. Jan. 16, 93. A.B, St. Olaf, 14; A.M, California, 16; Chicago; Ph.D, Iowa, 26. Prof. chem, Westminster (Utah), 14-17; *asst. prof, Coe*, 17- City chemist and bacteriologist, Cedar Rapids, 18-23. Chem. Soc; Water Works Ass; Iowa Acad. Hydrogen-ion concentration control

- and water purification; rearrangements of cycloparaffins; enzymes.
- Mortensen, M(artin)**, Iowa State College, Ames, Iowa. *Dairying*. Sindal, Denmark, May 29, 72. B.S.A, Iowa Col, 09. Supt. mfg, Manford Hazelwood Cream Co, Iowa, 99-04, manager, Oregon, 04-08; *head dairy dept, Iowa Col, 09*-Hon. rep, U. S. Dept. Agr, Europe, 00, Iowa Col. rep, 14. Dairy Sci. Ass. (sec'y-treas, 17-19, v. pres, 19, pres, 20); Royal Agr. Soc. Denmark. The influence of acidity on the flavor and keeping quality of butter; ice cream; organization and construction of creameries; cost of manufacturing in Iowa dairy plants.
- Morton, Dr. Dudley J(oy)**, 169 Cold Spring St, New Haven, Conn. *Surgery, Anatomy*. Baltimore, Md, March 27, 84. M.D, Hahnemann Med. Col, 07. Intern, Nat. and Children's Homeop. Hospitals, 07-09; asst. surg. path, sch. med, Hopkins, 09-10; clin. chief and instr. *orthop. surg*, Hahnemann Med. Col, 10-20; instr, *Yale*, 24-27, *asst. prof*, 27-, *assoc. surgeon, New Haven Hosp*, 25- Research assoc, Am. Museum Nat. Hist, 25-; visiting orthopedist, Children's Homeop. Hosp, Phila, 14-20. Lieut, M.C, 18-19. Ass. Anat; Soc. Mammal; Anthropol. Ass; fel. N. Y. Acad. Evolutionary development of the human foot; human and primate feet; mechanism of the normal foot and its disorders; evolution of the erect posture; evolutionary development of vertebrate limb-structure; analysis of mechanics of terrestrial locomotion; ontogenous and evolutionary development of body-form.
- Morton, Prof. Geo(rge) E(dwin)**, Colorado Agricultural College, Fort Collins, Colo. *Animal husbandry*. Johnstown, Wis, June 17, 79. B.S, Milton, 99, M.S, 04; Wisconsin, 01-03; B.S, Colo. Col, 04. Asst. prof. and assoc. prof. *animal husbandry*, Wyoming, 04-07; *prof*, *Colo. Col*, 07-, *head dept. and animal husbandman, Exp. Sta*, 09- Expert, bur. animal indust, U. S. Dept. Agr, 06-07; dairy commissioner, Colo, 13- Director managing committee, Nat. West. Stock Show. Soc. Animal Production; Dairy Sci. Ass. Rations of beef cattle, sheep and swine; digestibility of native western hay; cost of beef production under semi-range conditions; effect of winter feeding on range steers; sugar beet by-products for fattening steers; pea-field fattening of lambs; permanent irrigated pastures.
- Morton, Dr. H(arold) A(rthur)**, Miller Rubber Co, Akron, Ohio. *Chemistry*. Worcester, Mass, Dec. 25, 90. A.B, Clark, 12, A.M, 13; Ph.D, Pittsburgh, 15. Fellow, Mellon Inst, 15-19; *director research, Miller Rubber Co*, 20- Chem. Soc. Organic chemistry.
- Morton, Dr. John J(amieson)**, Jr, 18 Audubon St, Rochester, N. Y. *Surgery*. Holyoke, Mass, May 19, 86. A.B, Amherst, 07; M.D, Hopkins, 13. Asst. path, Rockefeller Inst, 15-16; asst. prof. *surg*, *Yale*, 21-24; *prof*, *Rochester*, 24- Fel. Am. Med. Ass; fel. Col. Surg; Robert Jones Orthop. Soc. Experimental cancer; radiant energy.
- Morton, Prof. J(oshua) R(omine)**, Ohio University, Athens, Ohio. *Chemistry*. Point Rock, Ohio. Rio Grande Col; B.S, Ohio (Athens), 05, M.S, 12. Teacher, pub. schools, 96-99; prin, Wilkesville Acad, 00-01; head dept. science, high sch, Ohio, 06-09; instr. *chem*, *Ohio (Athens)*, 04-06, 10-12, asst. prof, 12-14, assoc. prof, 14-17, *prof*, 17- A.A. Chemical qualitative analysis; absorption of the barium ion in qualitative analysis; water of crystallization in cobalt chlorides.
- Morton, Prof. R(obert) L(ee)**, Ohio University, Athens, Ohio. *Education*. Brownsville, Ohio, Nov. 25, 89. B.S, 13, A.M, 18, Ph.D, 25. Teacher and supt, schools, Ohio, 07-09, 13-18; prof. educ, *Ohio (Athens)*, 18-20, director exten. dept, 20-21, *prof. math. methods*, 21- A.A; Nat. Soc. Study Educ; Soc. Educ. Research; Statist. Ass. Educational administration and supervision; educational tests; analysis of errors in learning; statistical technique.
- Morton, Robert M(iller)**, Strub Building, Sacramento, Calif. *Engineering*. Wampum, Pa, June 12, 85. B.S, Washington and Jefferson. Civil eng. student and junior engineer, U. S. Dept. Pub. Roads, 06-08; chief engineer, Highway Commission, San Joaquin Co, Calif, 08-13; Sonoma Co, 13-14; supt. construction, Calif. State Highway Commission, Sacramento, 15; chief engineer, Highway Commission, Sacramento Co, 15-19; San Diego Co, 19-23; *state highway engineer, Calif*, 23- Assoc. Civil Eng; Ass. Eng.
- Mory, A(ustin) V(an) H(oesen)**, Bakelite Corporation, Bloomfield, N. J. *Chemistry*. Near Masonville, Iowa, Nov. 15, 69. Wooster, 88-90; B.S, Rose, 94, Ch.E, 14. Analyst, Ill. Steel Co, 95; asst. chem, Armour and Co, 96-01; in charge chem. dept, Armour Packing Co, 01-07; chief, U. S. Lab. Food and Drug Inspection, Kansas City, Mo, 07-11; director tech. lab, Sears, Roebuck and Co, 11-20; chem. supt, Procter and Gamble Co, 20-21; director tech. bur, Biscuit and Cracker Manufacturers Ass, 22-24; *assoc. research director in charge personnel and pub. relations, Bakelite Corp*, 24- Chem. Soc. (sec'y, Kansas City sect, 04-07, chairman, Chicago sect, 16, advisory board, 'Jour. Ind. and Eng. Chem,' 18-, councilor, 20-21, chairman, committee of progress in society procedure, 23, sec'y-treas, endowment committee, 25-); Chicago Chemists Club (pres, 23); N. Y. Chemists Club. Technology of oils, fats; food products; synthetic resins and plastics.
- Moschcowitz, Dr. Alexis V(ictor)**, 925 Madison Ave, New York, N. Y. *Surgery*. Giralt, Hungary, April 25, 65. Ph.G, N. Y. Col. Pharmacy, 85; M.D, Columbia, 91. *Prof. clin. surg*, *Columbia*, 13- Attending surgeon, Mt. Sinai Hosp; consulting surgeon, Israel Zion Hosp; East New York Hosp; Beth David Hosp, Brownsville. Surg. Ass; N. Y. Acad. Med; Int. Surg. Soc.
- Moschcowitz, Dr. E(li)**, 25 W. 68th St, New York, N. Y. *Medicine*. Hungary, Aug. 2, 79. A.B, Col. City of N. Y, 96; M.D, Columbia, 00; Vienna and Berlin, 04. *Assoc. visiting physician, Mt. Sinai Hosp*, 17- A.A; Am. Med. Ass; Ass. Path. and Bact; N. Y. Path. Soc. (pres, 17-19); N. Y. Acad. Med. Pathological and in-

ternal medicine; anaphylaxis; hypertension and nephritis; adrenal diseases; appendicitis; calcification and ossification; cysts of liver; cancerous infiltration of nerves; medical history.

Moseley, E(dwin) L(incoln), Bowling Green, Ohio. *Zoology, Botany, Physiography*. Union City, Mich, March 29, 65. A.M, Michigan, 85. Teacher, high sch, Mich. and Ohio, 85-87, 89-14; head dept. *biol*, Ohio State Nor. Col, Bowling Green, 14- Steere zool. exped, P. I, 87-88. A.A; Ohio Acad. (sec'y, 95-03, pres, 04). Changes in level of Lake Erie; formation of Sandusky Bay and Cedar Point; flora of Northern Ohio; cause of trembles and milk-sickness.

Moseley, Prof. Hal Walters, Tulane University, New Orleans, La. *Chemistry*. Russellville, Ky, July 14, 88. B.S, Bethel, 08, M.S, 10; A.M, Tulane, 14; Chicago, 18, 19, 21. Prof. chem. and physics, Okla. Baptist Col, 08-11; instr. and asst. prof, Tulane, 11-18, *assoc. prof. chem*, 18-, *chairman dept*, 19- Summer, prof, Peabody Col, 14. Contrib. ed, 'Jour. Chem. Educ.' A.A; Chem. Soc. (past v. pres, and pres, La. sect); fel. Inst. Chem; New Orleans Acad. (treas). Inorganic and physical chemistry; passivity of metals; quantitative methods; potassium chlorate; adsorptive power of chars.

Mosenthal, Prof. Herman O(tto), 889 Lexington Ave, New York, N. Y. *Medicine*. New York, N. Y, July 8, 78. A.B, Columbia, 99, M.D, 03. Asst. biochem, Columbia, 08-09, instr, 09-12, *assoc*, 12-14, *asst. med*, 09-10, instr, 10-14; *assoc. prof*, Hopkins, 14-18; *assoc*, Columbia, 19-20; *assoc. prof*, N. Y. Post-Grad. Med. Sch. and Hosp, 20-22, *prof*, 22- A.A; Am. Physicians; Am. Med. Ass; Soc. Biol. Chem; Soc. Exp. Biol; Soc. Clin. Invest; N. Y. Acad. Med. Diseases of metabolism.

Moser, Rear Admiral Jeff(erse)n F(ranklin), U.S.N, 2040 Santa Clara Ave, Alameda, Calif. *Oceanography*. Allentown, Pa, May 3, 48. Grad, U. S. Naval Acad, 68. All grades from midshipman to rear admiral, U.S.N. Four expeditions, Isthmus of Darien and in Nicaragua, 69-75; on coast surv. service, 75-95; hydrog. inspector, U. S. Coast and Geod. Surv, 93-95; mem, Fur-Seal Commission, 96, 97; in command 'Albatross' on fishery investigations and oceanography, 96-02; on Agassiz South Sea exped, 99-00. A.A; Naval Inst. Asiatic-American fisheries; Pacific fisheries; salmon fisheries of Alaska.

Moses, Ben (Duncan), Fifth and J Sts, Davis, Calif. *Mechanics*. Silver City, N. Mex, Nov. 22, 82. B.S, California, 09. Assembly shops, Holt Mfg. Co, 09-10; teacher sciences, N. Mex. Nor. Sch, Silver City, 10-11; *asst. mech. eng*, California, 11-15; Yuba Mfg. Co, 15-22; *asst. prof. agr. eng*, California, 22-25, *asst. agr. engineer*, 25- Exec. sec'y, Calif. Committee on Relations of Elec. to Agr. The uses of electricity in California agriculture.

Mosher, Dr. Clelia Duel, Stanford University, Calif. *Mechanics*. Silver City, N. Mex, Nov. A.B, Stanford, 93, A.M, 94; M.D, Hopkins, 00. *Asst. hygiene, Stanford*, 93-94, instr, 94-96, *asst. prof. personal hygiene*, 10-23, *assoc. prof. and med. adviser of women*, 10- Asst. gynec,

H. A. Kelly's sanitarium, and extern, Hopkins Hosp, 00-01; med. investigator, children's bur. and *assoc. med. director*, refugee bur, Red Cross, Paris, 17-19. A.A; Am. Med. Ass. Physiology of women; blood pressure; respiration; menstruation; dysmenorrhea; schematograph for recording posture; gallstones; muscular strength; height of college women; personal hygiene.

Mosher, Dr. Edna, Adelphi College, 282 Lafayette Ave, Brooklyn, N. Y. *Entomology*. Kempt Shore, N. S, Can. B.S.A, Cornell, 08; M.S, Illinois, 13, Ph.D, 15. Teacher, schools, N. S, 02-05; supervisor nature study and sch. gardens, Hampton, Va, 08-10; instr, Gary, Ind, 10-12; entom, Illinois, 15-18; Ohio State, 18-19; *prof. biol*, New Mexico, 19-23, dean women, 20-23; *Adelphi Col*, 23- Summers, instr, Va. State Nor. Inst, 09, 11, lake lab, Ohio, 19, research specialist, Maine Exp. Sta, 15. Governor-general's medal, 00. A.A; fel. Entom. Soc; Soc. Zool; Ass. Econ. Entom; Ecol. Soc; Ohio Acad; Ont. Entom. Soc; Acadian Entom. Soc. Morphology and taxonomy of immature stages of insects, especially Lepidoptera; grasses of Illinois; Gramineae.

Mosher, Dr. Raymond Mylar, 1582 Chapel St, New Haven, Conn. *Psychology*. Palo Alto, Calif, May 9, 94. A.B, Stanford, 19, A.M, 23; Ph.D, Columbia, 26. Instr. music, Calif. State Teachers Col, San Jose, 14-19; head dept, Calif. State Teachers Col, Santa Barbara, 19-22; *director exp. educ*, Conn. State Nor. Sch, New Haven, 24- Lecturer, Yale, 25- Group method of measurement of sight singing; the phonetic versus the look-and-say method of teaching beginners to read.

Moss, E(ugene) G(rissom), Oxford, N. C. *Agriculture*. Creedmore, N. C. B.S, North Carolina, 02. Chemist, Tenn. Coal, Iron and Ry. Co, 02-07; supt, Warner Iron Co, Tenn, 07-09; tobacco farmer, 09-11; tobacco specialist, U. S. Dept. Agr, 11-14, *agronomist and director*, Tobacco Exp. Sta, Oxford, N. C, 14- Tristate Tobacco Growers Ass. (director, mem. exec. committee, 22); N. C. Tobacco Growers Ass. (sec'y-treas, 20-22). Tobacco culture; harvesting tobacco; control of tobacco wilt; diseases of flue cured tobacco; fertilizer tests with tobacco; sand-drown.

Moss, Dr. E(zra) H(enry), University of Alberta, Edmonton, Alta, Can. *Botany*. Thorndale, Ont, April 11, 92. B.A, Toronto, 16, M.A, 20, Ph.D, 25. Asst. bot, Toronto, 19-21; *lecturer, Alberta*, 21- A.A; Bot. Soc; Phytopath. Soc. Development in Agaricaceae; poplar cankers; morphology and life histories of coniferous rusts.

Moss, Dr. Sanford A(lexander), General Electric Co, Lynn, Mass. *Engineering*. San Francisco, Calif, Aug. 23, 72. B.S, California, 96, M.S, 00; Ph.D, Cornell, 03. Instr. eng, California, 97-98; mech. eng, Cornell, 01-03; *engineer*, Thomson research lab, Gen. Elec. Co, Lynn, Mass, 04- A.S, U.S.A, 17-19. A.A; Physical Soc; Mech. Eng; Elec. Eng; Eng. Educ. Mathematical engineering; engineering thermodynamics.

- Moss, Prof. William L(orenzo)**, Harvard Medical School, Boston, Mass. *Medicine*. Athens, Ga, Aug. 23, 76. B.S., Georgia, 01; M.D., Hopkins, 05; Berlin, 07. Res. house officer, Hopkins Hosp, 05-06, asst. physician, 06-07, instr. med, Hopkins, 08-10, assoc, 10-14, asst. res. physician, Hopkins Hosp, 10-14; internist, State Inst. Study Malignant Diseases, Buffalo, 14-15; *asst. prof.*, dept. health, Yale, 17; prev. med. and hygiene, *Harvard Med. Sch.*, 19-21, *bacter. and immunol.*, 24- Acting and asst. dean, sch. pub. health, Harvard, 26-27. In charge Harvard exped, Peru, 16. Capt, major and lieut. col, M.C., 17-19, col, M.O.R.C., 24- Am. Med. Ass; Ass. Path. and Bact; Soc. Clin. Invest; Soc. Trop. Med; Tuber. Ass; assoc. Am. Physicians. Immunity; anaphylaxis; tuberculosis; hemorrhagic diseases; blood transfusion; diphtheria; influenza; pneumonia.
- Mossman, Dr. Harland W(infield)**, 1707 Jefferson St, Madison, Wis. *Embryology*. Portland, N. Y., May 7, 98. B.S., Allegheny, 20; M.S., Wisconsin, 22, Ph.D., 24. Asst. zool, *Wisconsin*, 20-24, *instr. anat.*, 24- A.A.; Soc. Zool; Ass. Anat. The rabbit placenta and placental transmission; fetal physiology.
- Mossom, D(onald) Stuart**, Florida Geological Survey, Tallahassee, Fla. *Geology*. Red Bank, N. J., Nov. 3, 99. A.B., Hopkins, 21, 21-23. *Asst. state geologist, Fla.*, 24- Summers, asst, Md. Geol. Surv, 22, field asst, U. S. Geol. Surv, 23. Economic geology of Florida; stratigraphy of Florida and coastal plain.
- Mote, Prof. Don C(arlos)**, Oregon Agricultural College, Corvallis, Oregon. *Entomology*. Greenville, Ohio, Jan. 13, 87. Michigan, 06-07; B.S., Ohio State, 11, M.S., 12. Econ. zoologist, Ohio Exp. Sta, 12-19; state entomologist, Ariz, 19-23; assoc. prof. *entom. and assoc. entomologist, Oregon Col.*, 23-24, *prof. head dept. and entomologist*, 24- A.A.; Entom. Soc; Ass. Econ. Entom; Ohio Acad. Parasites of live stock; oxwarble flies; control of insects attacking farm crops; bionomics of the cheese skipper and *Drosophila ampelophila*; distribution of Hypoderma.
- Motherwell, Robert Millford**, Dominion Observatory, Ottawa, Ont, Can. *Astronomy*. Millford, Man, Aug. 14, 81. B.A., Toronto, 07, M.A., 08. Observer, *Dominion Observatory*, 07-13, asst. astronomer, 13-19, *astronomer*, 19- Gold medal, Royal Astron. Soc. Can, 07. Astron. Soc; Royal Astron. Soc. Can. (sec'y, Ottawa Centre). Double stars; occultations of stars by the moon; direct celestial photography; light variations of stars.
- Mott, Director William E(iton)**, Carnegie Institute of Technology, Pittsburgh, Pa. *Engineering*. Burlington, N. J., Jan. 24, 68. Pennsylvania, 84-85; B.S., Mass. Inst. Tech, 89. Asst, Mass. Inst. Tech, 89-90; practising civil engineer, 90-92; instr. civil eng, Cornell, 92-01, asst. prof, 01-05; assoc. prof. hydraul. eng, Mass. Inst. Tech, 05-09; prof. and head dept. civil eng, *Carnegie Inst. Tech.*, 09-17, dean sch. applied science, 17-19, *director col. eng.*, 19- A.A.; assoc. Civil Eng; Eng. Educ; Forestry Ass; West. Pa. Eng. Soc. Science and engineering.
- Mott, W(illiam) Roy**, 402 Jefferson St, Decorah, Iowa. *Electrochemistry*. Decorah, Feb. 11, 80. B.S., Wisconsin, 03, M.S., 07; Cornell, 04. Research chemist, Carborundum Co, 05-06; instr. chem, Wisconsin, 07-08; research chem. engineer, Nat. Carbon Co, 09-23. Lecturer, Case, 19-20. Electrochem. Soc; Chem. Soc. (sec'y, Cleveland sect, 19-20); Soc. Motion Picture Eng; Illum. Eng. Soc. Single potentials of zinc, halogens and alkali metals; arc images in chemical analysis; volatility of refractories; white light in motion picture photography; flame arc carbons and lamps.
- Mottier, Prof. David M(yers)**, Bloomington, Ind. **Botany*. Patriot, Ind, Sept. 4, 64. A.B., Indiana, 91, A.M., 92; Ph.D., Bonn, 97. Instr. *bot.*, Indiana, 91-93, assoc. prof, 93-98, *prof.*, 98- Smithsonian research student, Naples Biol. Sta, 98. A.A.; Soc. Nat; Bot. Soc; Bot. Cent. States; Ind. Acad. (pres, 07); Wash. Acad. Fecundation in plants; cytology and morphology of Spermatophyta; embryology of archegonates; centrifugal force upon the cell; plastids and chondriosomes in plants; polyembryony in Polypodiaceous ferns; anomalous dicotyledonous plants.
- Mott-Smith, Dr. M(orton) C(hurchill)**, 2562 Graciosa Drive, Hollywood, Calif. *Physics*. Honolulu, Hawaii, Nov. 26, 77. B.S., Mass. Inst. Tech, 00; Ph.D., Halle, 06. Asst. prof. physics, Colby; George Washington. A.A. Space and number theories.
- Moulton, Dr. C(harles) Robert**, Institute of American Meat Packers, 509 S. Wabash Ave, Chicago, Ill. *Nutrition*. Clifton, Pa, Sept. 16, 84. B.S., Illinois, 07, fellow, 07; M.S.A., Missouri, 09, Ph.D., 11. Asst. agr. chem, Missouri and Exp. Sta, 07-10, instr, 10-12, asst. prof, 12-18, prof. and head dept, 18-23; *director dept. nutrition, Inst. Am. Meat Packers*, 23- Lecturer, Chicago, 25-; asst. inst. animal nutrition, Pa. State, 17-18. Nat. Research Council. A.A.; Chem. Soc; Soc. Animal Production. Agricultural chemistry; animal nutrition; nitrogenous bodies in meat and meat extracts; timothy and wheat; composition, maintenance, growth and energy metabolism of beef animals.
- Moulton, Prof. D(onald) A(lonzo)**, 1061 Douglas Ave, Ames, Iowa. *Ceramic engineering*. Ironton, Ohio, March 31, 85. B.C.E., Ohio State, 08. Osborn Eng. Co, 08-09; South. Clay Mfg. Co, Ala, 10-12; construction engineer, Credit Forks Brick and Tile Co, Can, 13-14; research engineer, McLain Fire Brick Co, Pa; supt, Dixie Plant, Peebles Paving Brick Co, Portsmouth, Ohio; *prof. ceramic eng.*, Iowa Col. Ceramic Soc. Paving brick; refractories.
- Moulton, Dudley**, 244 California St, San Francisco, Calif. *Entomology*. San Jose, Calif, Dec. 29, 79. A.B., Stanford, 03, A.M., 06. County entomologist, Santa Clara Co, Calif, 04-06; agent and expert, bur. entom, U. S. Dept. Agr, 06-09; deputy commissioner, Calif. State Commission Hort, 09-11; *hort. commissioner, San Francisco City and Co*, 15- Scale insects. Thysanoptera; insects affecting California deciduous fruits; horticultural quarantine.
- Moulton, Prof. E(iton) J(ames)**, 1114 Colfax St, Evanston, Ill. *Mathematics*. Le Roy,

- Mich, Aug. 4, 87. B.S., Chicago, 07, Ph.D., 13; A.M., Wisconsin, 10; Harvard, 10-11. Prof. *math.*, Pritchett, 08-09; instr., Wisconsin, 09-10; Harvard, 10-11; *Northwestern*, 12-13, asst. prof., 13-17, assoc. prof., 17-21, *prof.*, 21-A.A.; Math. Soc. (acting sec'y, Chicago sect, 18); Math. Ass; Astron. Soc. Rotating fluid bodies; mathematical analysis.
- Moulton, Dr. F(orest) R(ay)**, 327 S. La Salle St., Chicago, Ill. **Mathematics, Celestial mechanics*. Le Roy, Mich, April 29, 72. A.B., Albion, 94; Ph.D., Chicago, 99. Instr. *astron.*, Albion, 92-94; asst. *Chicago*, 96-98, assoc., 98-00, instr., 00-03, asst. prof., 03-08, assoc. prof., 08-12, *prof.*, 12- Major, ordnance dept., 18-19. Nat. Acad.; A.A.; Math. Soc. (assoc. ed, 'Trans,' 08-); Astron. Soc; Philos. Soc; Am. Acad; hon. cor. mem. British Ass; fel. Royal Astron. Soc; Circolo Mat. di Palermo. Resistance to comets passing through sun's corona; criteria of temporary stability of satellite motion; problem of four bodies; problem of n bodies; determination of orbits from spectroscopic observations; nebular hypothesis; general methods of determining orbits; foundations of geometry; periodic solutions of problem of three bodies; convergence of series used in celestial mechanics; ballistics; differential equations; theory of functions of infinitely many variables.
- Moulton, Gail F(rancis)**, Illinois Geological Survey, Urbana, Ill. *Petroleum, Geology*. Chicago, Ill, July 31, 98. B.S., Chicago, 20, M.S., 22. Field asst., Roxana Petrol. Co, 18; Imp. Oil Co, 19; asst. geologist, U. S. Geol. Surv., 20, assoc. geologist, 21-22; asst. prof. geol., South Dakota, 22-24; *petroleum geologist, Ill. Geol. Surv.*, 24- Geologist, S. Dak. Geol. Surv., 22-24. Ass. Petrol. Geol. Stratigraphic and structural geology in the Rocky Mountain region; petroleum geology in Illinois; geochemical relations of Illinois oil field waters; carbon ratios and petroleum.
- Moultrop, I(rving) E(dwin)**, The Edison Electric Illuminating Co. of Boston, 39 Boylston St., Boston, Mass. *Engineering*. Marlboro, Mass, July 24, 65. Apprentice, Whittier Machine Co, Mass; chief draftsman, Boston Edison Co, 92-97, mech. engineer, 97-13, asst. supt., construction bur., 13-26, *chief engineer, Edison Elec. Illum. Co.*, 26- Nat. Elec. Light Ass. rep., advisory council, U. S. Board of Surv. and Maps, and Am. Eng. Standards Committee. Mech. Eng. (manager, 08-11, v. pres, 12-14); Elec. Eng. (manager, 26-); Nat. Elec. Light Ass. (chairman, tech. and hydro-elec. sect., 19-21, gas power committee).
- Mount, Prof. Geo(rge) H(aines)**, 629 W. 35th Place, Los Angeles, Calif. *Psychology*. Fairfield, Iowa, May 1, 79. A.B., Parsons, 03; A.M., Iowa, 08, Ph.D., 10. Instr. and prin. schools, Iowa, 03-07; asst. educ., Iowa, 08-10; *prof. psychol.* and educ., North. State Nor. Sch., Mich., 10-11; *psychol.*, Iowa State Teachers Col., 11-21; Dubuque, 21-24; Duke, 24-25; *Southern California*, 25- Summer, asst., Iowa, 09. A.A.; Psychol. Ass; Musical talent and training; pitch discrimination; mental images.
- Mountcastle, Dr. H(arry) W(illiam)**, Western Reserve University, Cleveland, Ohio. *Physics*. Pittsburgh, Pa, Feb. 5, 75. B.S., Case, 97, M.S., 00; Paris, 98; A.M., Western Reserve, 01; Ph.D., Hopkins, 04. Instr. physics, Case, 97-02; assoc., Bryn Mawr, 04-06; research asst., N. Y. Telephone Co, 06-07; asst. prof. physics, *Western Reserve*, 07-11, assoc. prof., 11-14, *prof.*, 14-18, *physics and astron. and director physical lab.*, 18- A.A. (sec'y, council, 12, gen. sec'y, 13); Physical Soc; Elec. Eng; Astron. Soc; Optical Soc; fel. Royal Astron. Soc. Thermal conductivity of glass; the magnetic rotatory dispersion of sodium vapor; waves along wires; high frequency oscillations; optical behavior of metals.
- Moyer, Prof. James Ambrose**, State House, Boston, Mass. *Engineering*. Cedars, Pa, Sept. 13, 75. B.E., Pa. State Nor. Sch., West Chester, 93; B.S., Harvard, 99, Austin fellow, 00-01, A.M., 04. Draftsman for Commander Roy C. Smith, 99; instr. descriptive geom. and eng., Harvard, 01-04; engineer, turbine dept. and chief computer, research lab., Gen. Elec. Co, 05-07; statist. engineer, Westinghouse, Church, Kerr and Co, New York, 07-08; prof. mech. eng. in charge mech. and hydrog. laboratories, Michigan, 08-12; prof. mech. eng., Pa. State, 12-15; *director, Mass. Dept. Educ.*, 15- Chairman congressional commission on war invention, 17-19; advisory commission on educ., U.S.N., 19- A.A.; Mech. Eng; Elec. Eng; Automotive Eng; Eng. Educ; Univ. Exten. Ass. (sec'y and treas., 21-27, pres, 27); Franklin Inst; Boston Math. and Physical Club; Royal Soc. Arts; Verein Ing; Int. Inst. du Froid. Explosive mixtures in gas engine cylinders; continuous engine indicators; superheated steam; steam turbines; turbine air compressors; aspirators; stresses in disks; heat transmission as affected by velocities; earth pressures; mercury vapor turbines.
- Muckenfuss, Dr. A(nthony) M(oultre)**, Woodbridge, N. J. *Chemistry*. Charleston, S. C., Aug. 5, 69. A.B., Wofford, 89, A.M., 90; Ph.D., Hopkins, 95. Prof. chem., Millsaps, 93-02; Arkansas, 02-05; Mississippi, 05-15; Emory, 15-20; *research chemist, Roessler and Hasslacher Chem. Co, Perth Amboy*, 20- State chemist, Ark. A.A.; Chem. Soc. (chairman, Ga. sect, 20); Soc. Test. Mat. Oils, paints and pigments; parasulphamin benzoic acid; mineral and industrial resources of Mississippi; fertilizers in Arkansas; a new test for paint; foods.
- Muckleston, Major H(ugh) B(urritt)**, 901 Rogers Building, Vancouver, B. C., Can. *Civil engineering*. Kingston, Ont, July 1, 73. Grad., Royal Mil. Col., Can, 94. Asst. engineer, Kingston Light, Heat and Power Co, 94-95; student, Westinghouse Elec. and Mfg. Co, Pa, 94-96; asst. engineer, Can. Pacific Ry., B. C., 97-98, 99-02; asst. chief eng., Can. Dept. Nat. Resources, 03-16; asst. chief engineer, Can. Pacific Ry, 19; chief engineer, Lethbridge North. Irrig. Dist, 19-23; *consulting engineer*, 24- C.E.F., 16-19. Civil Eng; Eng. Inst. Can. Hydraulics; structural engineering.
- Mudd, Dr. Harvey G(ilmer)**, Beaumont Building, St. Louis, Mo. *Surgery*. St. Louis, Aug.

- 29, 57. M.D., Washington (St. Louis), 81. *Prof. clin. surg., Washington (St. Louis)*. A.A.; Surg. Ass. (v. pres, 20); Ass. Genito-Urinary Surg. (pres, 08); Archeol. Inst.; St. Louis Acad.; Int. Ass. Urol.; Int. Surg. Ass.; Soc. Physico-Chim. di Palermo.
- Mudd, Dr. Stuart**, St. Thomas Road, Villa Nova, Pa. *Medicine*. St. Louis, Mo., Sept. 23, 93. B.S., Princeton, 16; A.M., Washington (St. Louis), 18; M.D., Harvard, 20. Research fellow, Harvard, 20-23; assoc., Rockefeller Inst., 23-25; *assoc. path., Henry Phipps Inst., and asst. prof. exp. path., sch. med., Pennsylvania*, 25-A.A.; Am. Med. Ass.; Physiol. Soc.; Ass. Path. and Bact.; Soc. Bact.; Ass. Immunol.; Soc. Exp. Path.; Soc. Exp. Biol.; Chem. Soc.; Harvey Soc. Effects of chilling the body surface; mechanisms for bacterial transport; electroendosmosis; surface composition of normal and sensitized cells.
- Mudge, C(ourtland) S(awin)**, University Farm, Davis, Calif. *Bacteriology*. Providence, R. I., May 12, 88. Ph.B., Brown, 11, Ph.D., 15. Research bacteriologist, Nat. Canners Ass., 15-16; dairy div., U. S. Dept. Agr., 16-22; *assoc. prof. bacter., California*, 22- Soc. Bact.; Soc. Exp. Biol. Dairy bacteriology; streptococcus.
- Mudge, Dr. W(illiam) A(ivin)**, International Nickel Co., Huntington, W. Va. *Metallurgy*. Schenectady, N. Y., Nov. 18, 92. B.S., Union (N. Y.), 14; A.M., Columbia, 15, Ph.D., 20. Research chemist, Gen. Elec. Co., 15-16; prof. chem., Albright Col., 16-17; *metallurgist, Int. Nickel Co.*, 20- Indust. representative from W. Va. to senate of chem. educ., Chem. Soc., 26. Capt., Inf., 17-19. Min. and Metal. Eng.; Soc. Steel Treat.; Electrochem. Soc.; Ceramic Soc.; Chem. Soc.; British Inst. Metals; British Iron and Steel Inst. The metallurgy of nickel and nickel alloys.
- Muehlberger, Dr. C(larence) W(einert)**, University of Wisconsin, Madison, Wis. *Chemistry*. Chicago, Ill., July 16, 96. B.S., Armour, 20; M.S., Wisconsin, 22, Ph.D., 23. Instr. org. chem., Armour, 17-18; asst. chem., *Wisconsin*, 20-21, research asst., 21-23, *asst. prof. pharmacol. and toxicol.*, 25-; *state toxicologist*, 23-C.W.S., U.S.A., 18-19. Chem. Soc.; Electrochem. Soc. Toxicology of aniline and organic arsenical compounds; chemistry of selenium halides; aqueous hydrohalogens; hydrobromic acid; absorption of substances through the intact skin.
- Mueller, Dr. Edward**, Burton Halls, Dana St., Cambridge, Mass. *Chemistry*. South Bend, Ind., Oct. 16, 83. B.S., Purdue, 02; A.M., Harvard, 05, Ph.D., 07; Heidelberg, 08. Anal. chemist, Norfolk and West. Ry. Co., 02-04; *asst. chem.*, Harvard, 05-07, instr. sch. med., Washington (St. Louis), 07-10; Tufts, 10-11; *Mass. Inst. Tech.*, 11-13, asst. prof., 13-20, *assoc. prof.*, 20-A.A.; Chem. Soc.; Am. Acad. Adsorption; atomic weights; aromatic character; hydrocarbon oils; ammoniates; biochemistry.
- Mueller, E(ugene) F**, 3914 Huntington St., Washington, D. C. *Physics*. Denison, Iowa, Jan. 8, 83. A.B., Iowa, 02, 04-05; Harvard, 08-09. *Assoc. physicist and physicist, Bur. Standards*, 05, 08, 09- Physical Soc.; Wash. Acad.; Wash. Philos. Soc. Thermometry; calorimetry.
- Mueller, Prof. J(ohn) Howard**, 2176 Centre St., West Roxbury, Mass. *Bacteriology, Immunology*. Sheffield, Mass., June 13, 91. B.S., Ill. Wesleyan, 12; M.S., Louisville, 14; Ph.D., Columbia, 16. Asst. path., Columbia, 16-17, instr. bacter., 19-20, asst. prof., 20-22, *assoc. prof.*, 22-23; *asst. prof. bacter. and immunol., Harvard Med. Sch.*, 23- Soc. Exp. Biol.; Immunol. Soc.; Chem. Soc.; Soc. Biol. Chem. Cholesterol metabolism; chemistry of bacterial cultural requirements; chemistry of bacterial antigenic substances.
- Muenschner, Dr. Walter C(onrad Leopold)**, Cornell University, Ithaca, N. Y. *Botany*. Fischbach, Germany, May 30, 91. A.B., Wash. Col., 14; A.M., Nebraska, 15; Ph.D., Cornell, 21. Instr. high sch., S. Dak., 15-16; *bot., N. Y. State Col. Agr., Cornell*, 16-23, *asst. prof.*, 23- Field asst. cereal investigations, bur. plant indust., U. S. Dept. Agr., 17, summers, botanist, 23, *assoc. botanist*, 24, asst. instr., Puget Sound Marine Sta., 15-16, asst. prof., Cornell, 24-26. U.S.A., 18-19. A.A.; Bot. Soc.; Ecol. Soc. Plant physiology; weed control; algae; slime molds; taxonomy.
- Muenzinger, Prof. K(arl) F(riedrich)**, University of Colorado, Boulder, Colo. *Psychology*. Speyer, Germany, April 28, 85. A.B., 08; Ph.D., 18. Asst. prof., Texas, 12-16; indust. engineer, Lakeside Press, Chicago, 18-20; *asst. prof. psychol., Colorado*, 24- Industrial psychology; psychology of language.
- Muesebeck, C(arl) F(rederick) W(illiam)**, 17 E. Highland Ave., Melrose Highlands, Mass. *Entomology*. Medina, N. Y., Sept. 24, 94. B.S., Cornell, 16. Bur. entom., U. S. Dept. Agr., 16-18; instr. parasitol., Cornell, 18-21; *entomologist, bur. entom., U. S. Dept. Agr.*, 21- A.A.; Entom. Soc.; Ass. Econ. Entom. Insect parasitism; parasitic Hymenoptera.
- Mugrage, E(dward) R(ossiter)**, 4200 E. 9th Ave., Denver, Colo. *Clinical pathology*. Leadville, Colo., April 12, 85. A.B., Denver, 07, A.M., 08; M.D., Colorado, 13. *Assoc. prof. clin. path. and acting head dept. sch. med., Colorado*, 24- Fel. Am. Med. Ass.; fel. Soc. Clin. Path.
- Muhleman, Prof. Geo(rge) W**, 1450 Capitol Ave., St. Paul, Minn. *Biochemistry*. Hannibal, Ohio, April 26, 71. B.S., Northwestern, 99; M.S., Iowa, 12. *Prof. chem., Iowa State Teachers Col.*, 10-11; Mt. Union, 16-18; *Hamline*, 18-A.A.; Chem. Soc.; Swiss Chem. Soc. Digestive enzymes; pectinase of *Sclerotinia cinerea*.
- Mullenburg, Prof. Garrett A**, 2 Vienna Road, Rolla, Mo. *Geology, Mineralogy*. Orange City, Iowa, Sept. 17, 89. A.B., Iowa, 12, M.S., 13; E.M., Mo. Sch. Mines, 25; Ph.D., Columbia, 25. Research asst., Eng. Exp. Sta., Missouri, 13-14; instr. *geol.*, Colo. Sch. Mines, 14-16; *Mo. Sch. Mines*, 16-17, asst. prof., 17-20, *assoc. prof.*, 20- Geologist, Mo. Geol. Surv.; Colo. Geol. Surv.; Nat. Explor. Co. Ore deposits.
- Muir, Roy C(ummings)**, General Electric Co., Schenectady, N. Y. *Electrical engineering*. Arcadia, Wis., Dec. 30, 81. B.S.(E.E.), Wisconsin, 05. Engineer, *Gen. Elec. Co.*, 19-22, *asst. engineer, indust. dept.*, 22- A.A.; Elec. Eng.; Mech. Eng. Design and operation of electric apparatus.

Mulford, Prof. Walter, University of California, Berkeley, Calif. *Forestry*. Millville, N. J., Sept. 16, 77. B.S.A., Cornell, 99, F.E., 01. State forester, Conn., and forester, Exp. Sta., 01-04; forest agent, bur. forestry, U. S. Dept. Agr., 04-05; asst. prof. forestry, Michigan, 05-07, junior prof., 07-11; prof. and head dept., Cornell, 11-14; *prof. and head div., California*, 14-, director res. instruction, col. agr., 19-21, acting dean, 20-21. Asst. Yale Forest Sch., 02, 03; summers, forest agent and expert, U. S. Forest Service. Board editors, 'Forestry Quarterly,' 02-04, 09. Soc. Foresters (pres, 24).

Mullan, Dr. Eugene H(agan), U. S. Public Health Service, Linesville, Ky. *Psychology*. Oakland, Calif., July 18, 79. B.S., St. John's (Md.), 99; M.D., Maryland, 03. Asst. surgeon, U. S. Pub. Health Service, 05-09, passed asst. surgeon, 09-17, surgeon, 17-, in charge hosp. for mental diseases, 19- Psychiat. Ass. Psychiatry; mental hygiene; mental deficiency; mentality of rural school children and of immigrants; epilepsy; pupil conditions in immigrants.

Mullemeister, Dr. H(ermance), University of Washington, Seattle, Wash. *Mathematics*. Apeldoorn, Holland, April 21, 85. Phil.D., Utrecht, Holland, 12, Ph.D., 13. Washington (Seattle), 16; instr. math, British Columbia, 16-17; assoc. Washington (Seattle), 18-23, instr., 23- Math. Soc; Math. Ass. Projective geometry.

Mullenix, Prof. B(ollin) C(larke), 845 E. Washington St., Appleton, Wis. *Zoology*. La Valle, Wis., Nov. 26, 69. A.B., Wheaton, 95, A.M., 97; Chicago, 95, 96, 01; Ph.D., Harvard, 08. Instr. chem. and biol., Wheaton, 95-97, prof., 97-05; biol., Yankton, 08-11; Lawrence, 11-16, zool., 16-, dean freshmen, 23- Bowdoin prize and bronze medal, Harvard, 09. A.A.; Soc. Zool. Nerve terminations in the ear of fishes; the neurofibrillae in the ear of birds and their connections.

Muller, Dr. C(harles) J(ulian), Wolvin Building, Duluth, Minn. *Geology*. New York, N. Y., July 21, 97. B.S., Trinity (Conn.), 18; M.S., Mass. Inst. Tech., 20, Ph.D., 23; Columbia, 20-21. Instr. miner, Columbia, 20-21; Mass. Inst. Tech., 21-23; *geologist, Oliver Iron Mining Co.*, 23- Engineer, U.S.N., 18-19. Assoc. mem. Min. and Metal. Eng; Boston Geol. Soc. Origin of the New Jersey maquetites.

Muller, Dr. George P(aul), 1930 Spruce St., Philadelphia, Pa. *Surgery*. Philadelphia, June 29, 77. A.B., Cent. High Sch. Phila., 95; M.D., Pennsylvania, 99; M.S., Villanova, 16. Surg. Ass; Clin. Surg. Soc; Col. Surg; Am. Med. Ass; Phila. Col. Physicians. Clinical surgery.

Muller, Prof. H(ermann) J(oseph), University of Texas, Austin, Texas. *Biology, Genetics*. New York, N. Y., Dec. 21, 90. A.B., Columbia, 10, A.M., 11, Ph.D., 15; fellow, Cornell, 11-12. Asst. physiol., Cornell, 11-12; zool., Columbia, 12-15; instr. biol., Rice Inst., 15-18, in charge dept., 16-18; instr. zool., Columbia, 18-20; assoc. prof., Texas, 20-25, prof., 25- Summer, assoc. prof., Chicago, 25. Board control, 'Bot. Abstracts' and 'Biol. Abstracts,' 25- A.A.; Soc. Nat; Soc. Exp. Biol; Soc. Zool; Eugenics Soc;

N. Y. Acad. Linkage and crossing over; multiple factor analysis; lethal factors; evolution; theory of the gene; mutation; artificial production of gene mutations.

Müller, Dr. R(alph) H(olcombe), 540 W. 124th St., New York, N. Y. *Physical chemistry*. Philadelphia, Pa., Jan. 25, 00. B.S., Pennsylvania, 22; A.M., Columbia, 23, Ph.D., 25. Asst. chem., Columbia, 23-25; N. Y. Univ., 24-25, instr., 25- Chem. Soc; Franklin Inst; N. Y. Chemists Club. Radiation; photochemistry; colloids.

Mulliken, Dr. Robert S(anderson), Harvard University, Cambridge, Mass. *Physics, Chemistry*. Newburyport, Mass., June 7, 96. B.S., Mass. Inst. Tech., 17; Loewenthal fellow, Chicago, 19-21, Ph.D., 21. Junior chem. engineer, U. S. Bur. Mines, 17-18; research asst., N. J. Zinc Co., 19; Nat. Research Council fellow, Chicago, 21-23; Harvard, 23- C.W.S., 18. A.A.; Physical Soc; Chem. Soc; Fern Soc. The separation of isotopes; isotope effect and interpretation of band spectra.

Mulliken, Prof. S(amuel) P(arsons), 10 Harris St., Newburyport, Mass. *Chemistry*. Newburyport, Dec. 19, 64. B.S., Mass. Inst. Tech., 87; Ph.D., Leipzig, 90; fellow, Clark, 90-91. Asst. chem., Cincinnati, 88-89; assoc. Bryn Mawr, 91-92; instr. and acting head dept. chem., Clark, 92-94; instr. and asst. prof. org. chem., Mass. Inst. Tech., 95-13, assoc. prof., 13-26, prof., 26- Major, C.W.S., 18-19. A.A.; Chem. Soc; Am. Acad. Organic chemistry; general method for identification of organic compounds by systematic procedure based on physical properties and chemical behavior.

Mullikin, Dr. Anna M(argaret), Alden Park, Germantown, Philadelphia, Pa. *Mathematics*. Baltimore, Md., March 7, 93. A.B., Goucher, 15; A.M., Pennsylvania, 19, Ph.D., 22. Instr. math., Science Hill Sch., Ky., 15-17; Mary Baldwin Sem., Va., 17-18; Stevens Sch., Pa., 19-20; Texas, 20-21; Oak Lane Country Day Sch., Pa., 21-22; William Penn High Sch., Phila., 22-23; Germantown High Sch., 23- Analysis situs.

Mullikin, Dr. Richard N(icholas), E. I. du Pont de Nemours and Company, Wilmington, Del. *Chemistry*. Baltimore, Md., July 15, 88. A.B., Hopkins, 12, Ph.D., 15. Fellow, Mellon Inst., 15-16; chemist, British Am. Chem. Co., 16-17; special asst. to manager, production div., *dye-stuffs dept., E. I. du Pont de Nemours and Co.*, 17-25, manager control div., 25- Chem. Soc; Chem. Eng. Manufacture of dyestuffs, intermediates, heavy chemicals and pharmaceutical products; inventory and production control; cost efficiencies; permanent investment projects.

Mullins, Dr. G(eorge) W(alker), Columbia University, New York, N. Y. *Mathematics*. Fayetteville, Ark., Feb. 11, 81. A.B., Arkansas, 04; A.M., Columbia, 12, Ph.D., 17. Prof. math., Simmons (Texas), 05-12; instr., Barnard, Columbia, 12-19, asst. prof., 19-23, assoc. prof., 23- Math. Soc; Math. Ass.

Mulsow, Dr. F(rederick) W(illiam), St. Luke's Hospital, Cedar Rapids, Iowa. *Pathology, Bacteriology*. Baldwin City, Kans., Oct. 6, 82. A.B., Baker, 11; fellow, Kansas, 13-14, A.M., 15; fellow, Chicago, 18-19, Ph.D., 19, M.D.,

- Rush Med. Col, 20. Asst. prin, high sch, Kans, 11-13; asst. state food bacteriologist, Kans, 14-15; asst. prof. bacter, Wash. Col, 15-16; asst, Chicago, 17-18; asst. prof. bacter. and path, col. med, Iowa, 21-22, assoc. prof. and acting head dept, 22-25; *pathologist and director clin. lab, St. Luke's Hosp, and practising physician and surgeon, Cedar Rapids, 25-A.A.*; Ass. Path. and Bact; Soc. Bact; Am. Med. Ass.
- Mumford, A(lbert) R(ussell)**, 280 Madison Ave, New York, N. Y. *Mechanical engineering*. Boston, Mass, July 13, 95. B.S, Mass. Inst. Tech, 18. Junior engineer, U. S. Shipping Board, 18-19; asst. fuel engineer, U. S. Bur. Mines, 19-23; *fuel engineer, N. Y. Steam Corp, 23- U.S.N.*, 18. A.A; assoc. Mech. Eng. Combustion of fuel; power plant design.
- Mumford, Dean F(rederick) B(lackmar)**, Columbia, Mo. *Agriculture*. Moscow, Mich, May 28, 68. B.S, Mich. State Col, 91, M.S, 93; Leipzig, 00; Zurich, 01; D.Agr, Nebraska, 27. Asst, Mich. Exp. Sta, 91-95, asst. prof. agr, Mich. State Col, 93-95; prof, Missouri, 95-04, acting dean col. agr. and acting director, Exp. Sta, 03-05, *prof. animal husbandry, 05-, dean col. agr. and director, Exp. Sta, 09-* Chairman, Mo. Council Defense, Food Ad, 17-19. A.A. (councilor, 16); Genetic Ass; Soc. Animal Production. Animal husbandry.
- Mumford, Prof. Herbert W(indsor)**, Urbana, Ill. *Animal husbandry*. Moscow, Mich, Feb. 26, 71. Albion, 87-89; B.S, Mich. State Col, 91. Instr. agr, Mich. State Col, 95, asst. prof, 96-97, animal husbandry, 97-98, prof. agr. and experimenter with live stock, 98-00; *prof. animal husbandry, Illinois, and chief in animal husbandry, Ill. Exp. Sta, 01-, dean col. agr. and director agr. exten. service and Exp. Sta, 22-A.A.*; Soc. Animal Production; Econ. Ass; Ill. Acad. A comparison of fodders; the production and marketing of wool; comparison of silage and shock corn for beef production; market classes and grades of beef cattle; physical properties of meats; effects of feeds on the quality of pork; comparison of methods of feeding corn and clover for fattening steers; beef production; practical gardening and farming.
- Munding, F(rederick) G(eorge)**, Box 51, Vassar College, Poughkeepsie, N. Y. *Entomology*. Utica, N. Y, April 7, 91. B.S, Syracuse, 14, M.S, N. Y. State Col. Forestry, 22. Instr, N. Y. State Col. Forestry, Syracuse, 21-22; zool, Syracuse, 22-23; *asst. in research, N. Y. State Exp. Sta, 23, assoc, 23-* A.A. Economic entomology.
- Munger, Thornton T(aft)**, Pacific Northwest Forest Experiment Station, Lewis Building, Portland, Oregon. *Forestry*. North Adams, Mass, Oct. 3, 83. A.B, Yale, 05, M.F, 08. Forest asst, forest examiner and silviculturist, U. S. Forest Service, 08-24; *director, Pacific Northwest Forest Exp. Sta, 24-* Lecturer, forest sch, Yale, 16; Washington (Seattle); Oregon Col. Soc. Foresters; Ecol. Soc. Silviculture; forest influences; forest mensuration.
- Munk, Max M(ichael)**, East Pittsburgh, Pa. *Aeronautics*. Hamburg, Germany, Oct. 22, 90. M.E, 14; Ph.D, 17; D.E, 18. Aerodynamic lab, Göttingen, 14-17; expert for aeronautics, German navy, 17-19; Zeppelin airship factory, 19-20; *Nat. Advisory Committee for Aeronautics, 21-* The science of motion of the air.
- Munn, Prof. Lottie E**, Lake Erie College, Painesville, Ohio. *Chemistry*. North Eaton, Ohio, June 15, 97. A.B, Baldwin-Wallace, 17; M.S, Illinois, 22, fellow, 23-24, Ph.D, 24. Instr. chem, Baldwin-Wallace, 17-20; asst, Illinois, 20-23; *prof, Lake Erie, 24-* A.A; Chem. Soc. Bacteriology.
- Munn, M(alcolm) J(ohn)**, Cosden Building, Tulsa, Okla. *Geology*. Bodeaw, Ark, Aug. 2, 74. Arkansas. Topographical aid and asst. topographer, U. S. Geol. Surv, 02-04, asst. geologist, 04-13, oil geologist, 13-20; *pres, Munn Bros, 21-* Geol. Soc; Wash. Geol. Soc. General and economic geology, especially of oil and gas fields of the eastern part of the United States.
- Munn, M(ancel) T(hornton)**, Experiment Station, Geneva, N. Y. *Botany*. Plainwell, Mich, Jan. 31, 87. B.S, Mich. State Col, 12, fellow, 15-16, M.S, 17. *Assoc. botanist, N. Y. Exp. Sta, Geneva, 12-* Phytopath. Soc; Ass. Seed Anal. Plant pathology; seeds.
- Munn, W(illiam) F(aitoute)**, 318 White St, Orange, N. J. *Chemistry*. East Orange, N. J, Jan. 20, 91. Columbia. Chemist, W. Va. Pulp and Paper Co; Lederle Laboratories; Gen. Chem. Co; chief chem. and elec. engineer, Elec. Alloy Co; chief chemist, Colura Pictures Corp; *research chemist, private lab. A.A.*; Chem. Soc; Soc. Chem. Indust; Radio Club; N. Y. Chemists Club; fel. Royal Soc. Arts London.
- Munns, E(dward) N(orfolk)**, U. S. Forest Service, Washington, D. C. *Forestry*. St. Louis, Mo, Jan. 13, 89. M.S, Michigan. Director, Converse Exp. Sta, U. S. Forest Service, 12-18, forest examiner, 18-21; asst. state forester, Calif, 21-23; *chief office forest exp. stations, U. S. Forest Service, 23-* A.A; Soc. Foresters; Ecol. Soc; West. Soc. Nat. Meteorology; forest ecology and biology.
- Munroe, Prof. Charles E(dward)**, Forest Glen, Md. *Chemistry*. Cambridge, Mass, May 24, 49. B.S, Harvard, 71; Ph.D, George Washington, 94, LL.D, 14. Asst. chem, Harvard, 71-74; prof, U. S. Naval Acad, 74-86; chemist, U.S.N. Torpedo Sta. and War Col, 86-92; *prof. chem. and dean faculty of grad. studies, George Washington, 92-18, emer. prof, 18-* Lecturer, Lowell Inst, 91-92; consulting chemist, U. S. Geol. Surv, 07-10; collaborating chemist, U. S. Dept. Agr, 08-09; consulting expert explosives, U. S. Bur. Mines, 10-; chairman committee explosives, Nat. Research Council, 18-; U. S. Assay Commission, 85, 90, 93; visitor, U. S. Naval Acad, 98; special agent in charge chem. industries, census, 00, 05, 10. Commandant, Order of Medjidje from Sultan of Turkey, 01; officer, Order of Leopold II, Belgium, 26. A.A. (sec'y, subsect. chem, 80, v. pres, 88); Chem. Soc. (pres, 98); Soc. Chem. Indust; hon. fel. Inst. Chem; Philos. Soc; Naval Inst. (ed, 'Proc,' 80-86); Am. Acad; Wash. Acad; Wash. Chem. Soc. (pres, 95); London Chem. Soc; Chem. Gesell. Explosives; analytical methods; chemical technology.
- Munroe, Prof. Henry S(mith)**, Litchfield, Conn. *Physics*. Brooklyn, N. Y, March 25, 50.

- Brooklyn Polytech, 67; E.M. Columbia, 69, Ph.D, 76, hon. Sc.D, 04. Asst. geologist, Ohio State Geol. Surv, 70-71; asst. chemist, U. S. Dept. Agr, 70-72; asst. geologist and mining engineer, Geol. Surv, Yesso, Japan, 72-75; prof. geol. and mining, Tokyo, 75-76; adjunct prof. surv. and practical mining, Columbia, 77-91, prof. mining, 91-15, dean faculty applied science, 97-99. Min. Eng. (v. pres, 90-92); Min. and Metal. Soc. (pres, 08, sec'y, 10-); Eng. Educ. (pres, 09). Movement of mineral grains in water currents; economic physics.
- Munsell, Dr. Hazel E.** U. S. Department of Agriculture, Washington, D. C. *Chemistry*. Monson, Mass, April 9, 91. A.B, Mt. Holyoke, 14, fellow, 17-18; A.M, Columbia, 21, Ph.D, 24. Instr, high sch, N. Y, 14-17; Pratt Inst, 18-20; research chemist, Columbia, and Ass. Improving Condition of Poor, 20-24; *bur. home econ, U. S. Dept. Agr, 24- Chem. Soc.*
- Munson, Dr. J(ohn) P.** 706 N. Anderson St, Ellensburg, Wash. *Zoology, Anatomy, Cytology*. Jolster, Norway, Feb. 21, 60. B.S, Wisconsin, 87, M.S, 92; Ph.B, Yale, 91; fellow, Chicago, 93-97, Ph.D, 97; hon. fellow, Clark, 97. Master in English, Augustana Col, 89-91; nat. sciences, Wis. Acad, 91-93; *head dept. biol, Wash. State Teachers Col, 98- Director dept. zool, seaside sta, Minnesota; lecturer, grad. sch. med, Illinois. Seventh Int. Zool. Congress, Boston; eighth Int. Congress, Graz, Austria, 10. Walker prize. A.A; Ass. Anat; fel. Royal Soc. Sweden. The ovarian egg of Limulus; oogenesis of the tortoise; spermatogenesis of the butterfly; generation and degeneration of sex cells; anatomy of Ophioglypha Sarsii; minute structure of the chelonian brain; a walking cell; cytogenesis; cell division and differentiation; origin of sex; comparative cytology.*
- Munson, L(ewis) S(terms)**, E. I. du Pont de Nemours and Co, Wilmington, Del. *Chemistry*. Corey, Mich, March 9, 73. B.S, Mich. State Col, 97. Asst. chem, Mich. Exp. Sta, 97-99; chief contracts lab, bur. chem, U. S. Dept. Agr, 99-06, chief ink-making div, bur. engraving and printing, 06-07; chemist, Ault and Wiborg Co, 07-18; *supt. production, dye works, E. I. du Pont de Nemours and Co, 18- Chem. Soc. Composition and adulteration of foods.*
- Munz, Dr. Philip A(lexander)**, Pomona College, Claremont, Calif. *Botany*. Saratoga, Wyo, April 1, 92. A.B, Denver, 13, A.M, 14; Ph.D, Cornell, 17. Instr. biol, Denver, 13-14; asst, Cornell, 14-15, bot, 16-17; asst. prof, Pomona, 17-23, assoc. prof, 23-26, prof, 26- Summer, Cornell biol. exped, Southwest, 17. A.A; Bot. Soc; Fern Soc; Torrey Bot. Club; New Eng. Bot. Club. Venation of Zygoptera; Anura; taxonomy of various groups of western plants, especially Onagraceae; Nemacladus; Antirrhinum of new world; monographic treatment of Oenothera.
- Murbach, Dr. L(ouis)**, Castleton Road, Poultney, Vt. *Biology*. Java, Ohio, July 5, 64. Ph.B, Michigan, 89, B.S, 90; Ph.D, Leipzig, 94; fellow, Chicago, 95. Teacher, high sch, Mich, 90; instr, Michigan, 91; asst, Zool. Inst, Leipzig, 93; biol, Chicago, 95; head dept. biol, high sch, Mich, 96-19; Detroit Junior Col, 15-19; *retired, 19. Instr, Woods Hole. Assoc. ed,*
- 'Sch. Science,' 01- A.A; Mich. Acad. Coelenterata; netting organs; life history of Gonionemus; Hypolitus peregrinus, n. g. n. s; Medusae from the coast of British Columbia and Alaska.
- Murchison, Prof. Carl**, Clark University, Worcester, Mass. *Psychology*. Hickory, N. C, Dec. 3, 87. A.B, Wake Forest, 09; Rumrill fellow, Harvard, 09-10; Yale, 14-16; Ph.D, Hopkins, 23. Asst. prof. psychol, Miami, 16-17, assoc. prof, 19-22; *prof, Clark, 23-, chairman dept, 24- Ed, 'Pedag. Sem,' 24-; 'Genetic Psychol. Monographs,' 25-; 'Jour. Gen. Psychol,' 27- Psychol. div, U.S.A, 18-19. A.A; Psychol. Ass. Criminal intelligence; differential psychology.*
- Murdoch, Dr. Joseph**, 40 Payson Road, Belmont, Mass. *Geology*. Washington, D. C, Feb. 19, 90. A.B, Harvard, 11, M.S, 12, Ph.D, 15. Asst. secondary enrichment investigation, 13-15; *Russell and Co, 15- Microscopical determination of opaque minerals.*
- Murdoch, Dr. Katharine**, Vocational Service for Juniors, 122 E. 25th St, New York, N. Y. *Educational psychology*. Pittsburgh, Pa, Jan. 15, 89. B.S, Columbia, 12, A.M, 13, Ph.D, 18. Asst. educ. psychol, Teachers Col, Columbia, 12-13; instr. psychol. and educ, Carnegie Inst. Tech, 13-16; instr. psychol, N. Y. Sch. Social Work, 18-20; race research, schools of Honolulu, 20-24; *psychologist, Vocational Service for Juniors, 25- Instr, exten. dept, Columbia, 17-20; lecturer, Teachers Col, 19; Nurses Training Schools, New York, 17-20; summer, Honolulu, 20; psychologist, Texas Mental Hygiene Surv, 24. A.A; Psychol. Ass; Educ. Research Ass. Race psychology; scientific measurement in sewing; achievement quotients; correlation of mental and physical measures.*
- Murdoch, Dr. L(ester) H(ughes)**, Okeene, Okla. *Meteorology*. Peoria, Ill, Jan. 19, 69. Kans. State Nor. Sch, 87-90; M.D, George Washington, 06. Sect. director, U. S. Weather Bur, Salt Lake City, 99-02; Galveston, 03-04. Am. Med. Ass. Fluctuations in water level of Great Salt Lake; precipitation cycles.
- Murdock, Prof. Carleton C(hase)**, 118 Schuyler Place, Ithaca, N. Y. *Physics*. Cooperstown, N. Y, July 29, 84. B.S, Colgate, 07; A.M, Cornell, 10, Pres. White fellow, 13-14, Ph.D, 19. Asst. physics, Maine, 07-08; instr, Cornell, 09-13, 14-19, asst. prof, 19- A.A; Physical Soc. Photo-active electrolytic cells; cathodic sputtering; polarization capacity.
- Murdock, H(arvey) E(lison)**, University of Montana, Bozeman, Mont. *Agricultural engineering*. Carroll, Ohio, Oct. 3, 79. B.S.(M.E), Colorado, 06, M.E, 08, C.E, 11. Instr. theoret. and applied mech, Illinois, 06-12; irrig. engineer, U. S. Dept. Agr, 13-14; *agr. engineer and prof. agr. eng, Montana, 14- A.A; Agr. Eng. Strength of materials; irrigation; drainage; sewage disposal; timber treatment; tillage; farm power.*
- Murlin, Prof. J(ohn) R(aymond)**, University of Rochester, Rochester, N. Y. **Physiology, Nutrition*. Auglaize Co, Ohio, April 30, 74. B.S, Ohio Wesleyan, 97, A.M, 99; fellow, Pennsylvania, 99-01, Ph.D, 01. Instr. physiol. and zool, Ohio Wesleyan, 96-98; prof. biol, Ursinus,

- 01-03; instr. physiol, Univ. and Bellevue Hosp. Med. Col, 03-06; asst. prof, 06-09; med. col, Cornell, 09-17; *prof. physiol. and director dept. vital econ, Rochester*, 17- Chairman committee on food and nutrition, Nat. Research Council, 19-22. Lieut. col, Sanit.C, and director div. food and nutrition, med. dept, U.S.A, 17-19, col, Sanit.R.C, 19- A.A; Physiol. Soc; Soc. Exp. Biol. (pres, west. N. Y. branch, 22-24); Soc. Biol. Chem; Am. Med. Ass; Pub. Health Ass. Absorption and secretion in Crustacea; nutritive value of gelatin; metabolism of pregnancy; energy metabolism of mother and child before and after birth; metabolism after pancreatectomy; carbohydrate metabolism; influence of fat on heat production; diet of soldiers in training camps; food consumption in training camps; energy metabolism in newborn infants; preparation and physiological action of insulin; insulin in phlorhizin diabetes; nutritive value of cereals; specific dynamic action of foods and muscular efficiency.
- Murnaghan, Dr. Francis D(ominic)**, Johns Hopkins University, Baltimore, Md. **Mathematics*. Co. Tyrone, Ireland, Aug. 4, 93. B.A, National Univ, Ireland, 13, M.A, 14; Ph.D, Hopkins, 16. Instr. math, Rice Inst, 16-18; *assoc. applied math, Hopkins*, 18-21, *assoc. prof*, 21- A.A. (asst. sec'y, 24-26); Math. Soc; Math. Ass; Physical Soc; London Math. Soc. Applied mathematics; vector analysis; aerodynamics.
- Murneek, Prof. A(ndrew) E(dward)**, University of Missouri, Columbia, Mo. *Plant physiology*. Courland, Latvia, May 24, 88. B.S, Oregon Col, 17; fellow, Iowa Col, 17-18, M.S, 18; Ph.D, Wisconsin. Asst. *hort. research*, Oregon Col, 18-19, *asst. prof*, 19-25; *Missouri*, 25- A.A; Soc. Hort. Sci; Bot. Soc; Soc. Plant Physiol; Chem. Soc. Nutrition, correlation and reproduction of horticultural plants; fruit storage.
- Murphy, Dr. E(dward) C(harles)**, Berkeley, Calif. *Civil engineering*. Croydon, Ont, Can, June 17, 59. B.C.E, Cornell, 84, M.S, 85, C.E, 92, Ph.D, 00. Asst. prof. civil eng, Kansas, 87-99; instr, Cornell, 01; engineer, U. S. Geol. Surv, 03-26. Civil Eng. Hydraulics; aerodynamics; accuracy of current meter work; laws of transportation of débris.
- Murphy, Dr. Fred T(owsley)**, Penobscot Building, Detroit, Mich. *Surgery*. Detroit, Oct. 23, 72. A.B, Yale, 97, hon. A.M, 14; M.D, Harvard, 01. Asst. anat, Harvard Med. Sch, 03-04, surg, 10-11; prof. surg, Washington (St. Louis), 11-19; surgeon-in-chief, Barnes and St. Louis Children's Hospitals, 11-19. Trustee, Phillips Acad, 08-; mem. corp, Yale, 19- Surg. Ass; Soc. Clin. Surg; Am. Med. Ass. (sec'y, surg. sect, 11).
- Murphy, Dr. Gardner**, Columbia University, New York, N. Y. *Psychology*. Chillicothe, Ohio, July 8, 95. A.B, Yale, 16; A.M, Harvard, 17; Ph.D, Columbia, 23. Research fellow *psychol*, Harvard, 22-25; lecturer, *Columbia*, 21-25, *instr*, 25- A.A; Psychol. Ass. Psychopathology.
- Murphy, Dr. H(elen) E**, University of New Mexico, Albuquerque, N. Mex. *Biology*. Aberdeen, 98. B.S, Cornell, 17, Ph.D, 20. Instr. limnol, Cornell, 19; acting asst. prof. biol, Colo. Col, 20-21; acting biologist, Scripps Inst, California, 22; asst. prof. *biol*, *New Mexico*, 23-24, *assoc. prof*, 24- A.A; Ecol. Soc. Embryology; taxonomy; life history of Ephemeroptera; marine copepoda.
- Murphy, Dr. James B(umgardner)**, Rockefeller Institute, New York, N. Y. **Pathology*. Morgantown, N. C, Aug. 4, 84. B.S, North Carolina, 05; M.D, Hopkins, 09. Asst. Path. Inst, Ward's Island, N. Y, 09-10; *Rockefeller Inst*, 10-12, *assoc*, 12-15, *assoc. mem*, 15-23, *life mem. in charge div. biophysics*, 23- Commissioner, N. Y. State Board Charities, 22- Delegate, Int. Cong. Med, London, 13; Pan-Am. Sci. Cong, 15; Cong. du Cancer, Strasbourg, 23. A.A; Soc. Exp. Path; Am. Physicians; Soc. Exp. Biol; Ass. Cancer Research (councilor, 16-23, v. pres, 21, pres, 22); Soc. Control Cancer (advisory council and exec. committee, 25); fel. N. Y. Acad; Soc. Clin. Invest; Harvey Soc; for. mem. Zentralkomitee für Erforsch. und Bekampf. der Krebskrankheit; Ass. l'Etude du Cancer. Tissue grafting; cancer; tuberculosis; function of the lymphoid tissue; biological action of physical agents; cell metabolism.
- Murphy, Prof. Paul A**, Albert Agricultural College, Glasnevin, Dublin, Ireland. *Plant pathology*. Kilkenny, Ireland, 87. B.A, Trinity (Ireland), 13, Sc.D, 22; Imp. Col. Sci, London, 13; Kaiserliche Biol. Anstalt, Berlin, 14; Cornell, 15. Tech. asst, seeds and plant disease div, Dept. Agr. and Tech. Instruction for Ireland, 12; traveling scholarship, England Board Agr, 12-14; asst. in charge field lab. plant path, Exp. Sta, P. E. I; *prof. and head dept. plant path, Albert Agr. Col, Dublin*. Phytopath. Soc; Royal Irish Acad. Virus diseases; diseases of potatoes; Phytophthora infestans.
- Murphy, Dr. Robert Cushman**, American Museum of Natural History, New York, N. Y. *Ornithology*. Brooklyn, N. Y, April 29, 87. Ph.B, Brown, 11; A.M, Columbia, 18; D.Sc, Univ. San Marcos (Peru), 25. Asst, Am. Museum Nat. Hist, 06-07; curator mammals and birds, Brooklyn Museum, 11-17, dept. nat. science, 17-20; *assoc. curator birds, Am. Museum Nat. Hist*, 21-26, *asst. director*, 24-26, *curator oceanic birds*, 27- Conductor exped. trop. and subantarctic Atlantic, 12-13; Lower California, 15; Peru, 19-20; Ecuador and Peru, 24-25; Mediterranean, 26. U. S. Nat. Sub-committee on Chem. and Physical Oceanography of the Pacific. Delegate, Third Pan-Am. Sci. Cong, 24. Geophys. Union. A.A; fel. Ornith. Union; Nat. Ass. Audubon Societies (director); Ass. Geog; life fel. Am. Geog. Soc; fel. N. Y. Acad. (v. pres, 24). Zoogeography; marine and insular ornithology; oceanic distribution; life history of marine vertebrates; fisheries; physical oceanography.
- Murphy, Dr. William F(arry)**, 311 Beacon St., Boston, Mass. *Medicine*. Stoughton, Wis, Feb. 6, 92. A.B, Oregon, 14; M.D, Harvard, 22. Junior *assoc. med*, *Peter Bent Brigham Hosp*, 23-26, *assoc*, 26-; *asst, Harvard Med. Sch*, 24- Soc. Clin. Invest; Soc. Exp. Biol. Clinical medicine; diabetes mellitus and insulin; pernicious anemia.
- Murray, A(lexander) G(rantland)**, U. S. Department of Agriculture, Washington, D. C. *Drug*

- control. Griffin, Ga, Feb. 22, 77. A.B, Emory. *Acting in charge drug control*, 25- Mathematics medal, Emory, 98. Analytical drug chemistry.
- Murray, Dr. Cecil D (unmore)**, Harvard University, Cambridge, Mass. *Physiology*. New York, N. Y., Dec. 20, 97. A.B, Harvard, 19; Ph.D, Columbia, 23; Ph.D, Cambridge, 25. Asst. Rockefeller Inst. Hosp, 23-24; assoc. prof. physiol. Bryn Mawr, 25-26; *tutor physiol. sciences, Harvard*, 26- Acid-base equilibrium in two-phase systems; physical chemistry of blood; physiology of oxygen transport system.
- Murray, Prof. Cha(rle)s**, Ames, Iowa. *Veterinary science*. Greenfield, Ohio, 76. B.Pd, Drake, 06; B.S, Iowa Col, 10, D.V.M, 12. Supt. pub. schools, 93-08; instr. bacter, *Iowa Col*, 08-12, assoc. prof. vet. bacter, 12-16, *prof. vet. investigation*, 16- Vet. Med. Ass; Soc. Bact; U. S. Live Stock Sanit. Ass. Animal diseases; broncho-pneumonia, enteritis and infectious abortion of swine; diseases of poultry.
- Murray, Prof. D(aniel) A(lexander)**, McGill University, Montreal, Que, Can. *Mathematics*. Scotsburn, N. S, May 23, 62. B.A, Dalhousie, 84; Ph.D, Hopkins, 93. Tutor math, Dalhousie, 85-87; assoc. prof, N. Y. Univ, 90-94; instr, Cornell, 94-01; *prof*, Dalhousie, 01-07; *applied math, McGill*, 07- A.A; Math. Soc; Math. Ass. Differential equations.
- Murray, Dr. Elsie**, Ithaca, N. Y. *Psychology*. Athens, Pa, Sept. 17, 78. A.B, Cornell, 04, fellow, 06-07, Ph.D, 07; Columbia, 14-15. Asst. Vassar, 07-09; prof. psychol. and philos, Wilson Col, 09-19; Sweet Briar, 19-22; acting prof, Wells, 22-23. Psychol. Ass. Memory imagery; organic and tactual sensation; imagery; experimental esthetics; individual and vocational tests.
- Murray, Prof. F(orrest) H(amilton)**, 44 Chestnut St, Halifax, N. S, Can. *Mathematics*. Mazon, Ill, March 23, 92. A.B, Illinois, 15; A.M, Harvard, 17, Ph.D, 23; Paris, 20-22. Dept. math, West Virginia, 22-23; *asst. prof, Dalhousie*, 23- Math. Soc; Math. Ass; London Math. Soc; Soc. math. de France. Differential equations; partial differential equations of mathematical physics.
- Murray, H(enry) A(lexander), Jr**, 50 Brimmer St, Boston, Mass. *Biology, Psychology*. New York, N. Y., 93. A.B, Harvard, 15; M.D, Columbia, 19, Abraham Du Bois fellow, 19-20, A.M, 20; Cambridge, 24-25. Instr. physiol. chem, Harvard, 20; intern, Presb. Hosp, New York, 20-22; asst. Rockefeller Inst, 22-24, assoc. 25-26; *research fellow psychol, Harvard*, 26- A.A; Soc. Clin. Invest; Ass. Anat; Physiol. Soc; Harvey Soc. Blood chemistry of tetany of diverse origins; physiological ontogeny and senescence; correlations between growth, differentiation, metabolism and chemical constitution.
- Murray, Nat(haniel) O(arleton Davis)**, 317 Seventh St, La Grange, Ill. *Statistics*. Cincinnati, Ohio, Nov. 29, 72. B.L, Cincinnati, 98. Market reporter, 92-94; asst. ed, 'Cincinnati Price Current,' 98-04; field agent, bur. crop estimates, U. S. Dept. Agr, 04-07, statistician and asst. chief, 07-23; *grain and cotton statistician, Clement, Curtis Co, Chicago*, 23- Statist. Ass; Econ. Ass. Agricultural statistics; rural economics.
- Murray, Prof. Thomas J(efferson)**, Rutgers University, New Brunswick, N. J. *Bacteriology*. Nyack, N. Y., Oct. 13, 91. B.S, Col. City of N. Y., 13; M.S, Purdue, 15. Asst. bacter, Purdue, 13-15; assoc. prof, Va. Polytech, and assoc. bacteriologist, Exp. Sta, 15-18; assoc. prof. bacter, Wash. Col, and bacteriologist, Exp. Sta, 18-20; bacter. and hygiene, sch. med, West Virginia, 20-21; *bacter, Rutgers*, 21-23, *prof*, 23- Soc. Bact; Soc. Exp. Biol; fel. Pub. Health Ass.
- Murray, Dr. Wallace J(ennings)**, 18 Berkeley St, Reading, Mass. *Organic chemistry*. Boston, Mass, Aug. 24, 90. B.S, Mass. Inst. Tech, 12, Swett fellow, Leeds, 14-15, Moore fellow, Geneva, 15-16, Sc.D, 16. Asst. org. chem, Mass. Inst. Tech, 12-13, instr. anal. chem, 13-14; Northwestern, 16-17; *research chemist, Nat. Aniline and Chem. Co*, 17-18; Conn. Metal and Chem. Co, 19-20; *Arthur D. Little, Inc*, 20- Lieut. C.W.S, 18-19. Chem. Soc; Ass. Textile Chemists and Colorists (research committee). Determination of atomic weight of bromine; fastness of dyes and dyed fabrics; properties of tertiary alcohols.
- Murrill, Dr. Paul I(ngold)**, Plainfield, N. J. *Chemistry*. Hickory, N. C, July 11, 74. B.S, Kentucky, 95, M.S, 96; Ph.D, Michigan, 99, fellow, 99-00. Acting prof. chem, Ala. Polytech, 00-01; asst. chemist, nutrition investigations, U. S. Dept. Agr, 02-03; with E. I. du Pont de Nemours Powder Co, 03-13; U. S. Rubber Co, 13-15; Tenn. Copper Co, 15-16; Fed. Dye and Chem. Co, 16-17; *chem. engineer and consulting chemist*, 17-; with R. T. Vanderbilt Co, Inc, 20- Chem. Soc; Chem. Eng; Soc. Chem. Indust; N. Y. Chemists Club. Accelerators of the vulcanization of rubber.
- Murrill, Dr. W(illiam) A(lphonso)**, New York Botanical Garden, Bronx Park, New York, N. Y. **Mycology*. Campbell Co, Va, Oct. 13, 69. B.S, Va. Polytech, 87; B.S, Randolph-Macon, 89, A.B, 90, A.M, 91; Ph.D, Cornell, 00. Prof. nat. science, Bowling Green Female Sem, Va, 91-93; Wesleyan Female Inst, Va, 93-97; asst. bot, Cornell, 98-99, asst. crypt. botanist, 99-00; instr, De Witt Clinton High Sch, New York, 00-04; asst. curator, N. Y. Bot. Garden, 04-05, first asst, 06-07, asst. director, 09-19, curator pub. instruction, 19-24; *explorer and writer*, 24- Ed, 'Mycologia'; assoc. ed, 'North Am. Flora.' Phytopath. Soc; Bot. Soc; Torrey Bot. Club. Cytology; taxonomy of the Basidiomycetes; shade trees in cities; edible and poisonous mushrooms; nature and character books for children; pecans, moss, holly trees, drug plants and pine woods of Florida.
- Musgrave, Prof. Geo(rge) W(allace)**, 55 N. Fifth Ave, New Brunswick, N. J. *Agronomy*. Seranton, Pa, Aug. 25, 91. B.S, M.S, Cornell, 15. Teacher, high sch, 16-17; bur. soils, U. S. Dept. Agr, 17-18; asst. instr, asst. prof, assoc. prof. and *prof. agron. and head dept, Rutgers and N. J. Exp. Sta*, 18- A.A; Soc. Agron. Field plat competition; corn breeding; potato hill and tuber units; pasture lands; the soil province and crop response.

Musselman, Dr. Amos S(entman), Standard Oil Co, Whiting, Ind. *Chemistry*. Gettysburg, Pa, Oct. 15, 92. B.S. Gettysburg Col, 12; Ph.D, Hopkins, 15. Research chemist, Richards and Co, 15-16; Texas Co, 16-17; *Standard Oil Co. of Ind*, 17-24, asst. head dept, 24-27, asst. supt. dept, 27-

Musselman, Dr. John Rogers, Johns Hopkins University, Baltimore, Md. *Mathematics*. Gettysburg, Pa, Dec. 1, 90. A.B. Gettysburg Col, 10, A.M., 13; Ph.D, Hopkins, 16. Instr. math, Illinois, 16-18; Washington (St. Louis), 19-20; assoc. *Hopkins*, 20-25, *assoc. prof.*, 25- Statistician, Food Ad, 18. Lieut. Gen. Staff, 18-19. A.A; Math. Soc; Math. Ass. Geometry; statistics.

Musselman, Prof. Luther K(ynner), 215 Whitney Ave, New Haven, Conn. *Obstetrics, Gynecology*. Gettysburg, Pa, June 18, 95. B.S, Gettysburg Col, 15; M.D, Hopkins, 19; Ph.D, Yale, 23. Instr. *obstet. and gynec.*, Yale, 22-24, asst. prof, 24-25, *asst. clin. prof.*, 25- Attending obstetrician and gynecologist, New Haven Hosp, 23- A.A; Am. Med. Ass; fel. Col. Surg. Natural immunity in the new born; serological properties of blood sera of sexes.

Musser, Dr. John H(erry), 1551 Canal St, New Orleans, La. *Medicine*. Philadelphia, Pa, June 9, 88. B.S, Pennsylvania, 05, M.D, 08. Physician, Phila. Gen. Hosp, 14-25; *assoc. med.*, Pennsylvania, 15-20, asst. prof, 20-25; *prof.*, *Tulane*, and *physician*, *Charity Hosp*, 25- A.A; Am. Physicians; Soc. Clin. Invest; Soc. Exp. Biol; Climat. Ass; Phila. Col. Physicians.

Mutchler, Andrew J(ohnson), American Museum of Natural History, New York, N. Y. *Zoology*. Phillipsburg, N. J. High sch. Asst. dept. invert. zool. *Am. Museum Nat. Hist.*, 13-21, asst. curator dept. entom, 21-27, *assoc. curator*, 27- Entom. Soc; N. Y. Entom. Soc. (librarian, 14, curator, 14-). Invertebrate zoology; Coleoptera.

Muttkowski, Prof. Richard A(nthony von), University of Detroit, Detroit, Mich. *Entomology, Zoology*. Milwaukee, Wis, March 4, 87. A.B, St. Lawrence Col, 04; St. Paul Sem, 04; A.B, Wisconsin, 13, Ph.D, 16. Asst. dept. invert. zool, Milwaukee Pub. Museum, 06-12; instr. zool, Missouri, 16-17; Kansas Col, 17-18; asst. prof. zool. and entom, Idaho, 19-22, *assoc. prof.*, 22-25; *prof. biol.*, *Detroit*, 25- Summers, Wis. Geol. and Nat. Hist. Surv, 14-16, instr, Wisconsin, 16, investigator, Bur. Fisheries, 17-25. Intelligence div, Sig.C, 18-19, instr, A.E.F. Univ. Beaune, 19. A.A; Entom. Soc; Soc. Zool; Micros. Soc; Ecol. Soc; Brooklyn Entom. Soc; Wis. Acad; Mich. Acad; Wis. Nat. Hist. Soc. (sec'y, 09-12, ed, 10-18). Aquatics; physiology of insects; experimental zoology.

Myers, Dr. Burton D(orr), Bloomington, Ind. *Histology*. Attica, Ohio, March 30, 70. Ph.B, Buchtel, 93; A.M, Cornell, 00; M.D, Leipzig, 02. Supt. schools, Ohio, 93-97; asst. physiol, Cornell, 98-00; *anat.*, Hopkins, 02-03, instr, 03; *assoc. prof.* and head dept, *Indiana*, 03-05, junior prof, 05-06, *prof.*, 06-, asst. dean, 20-27, *dean at Bloomington*, 27- A.A; Ass. Anat; Micros. Soc. (exec. committee, 99); Am. Med. Ass; Am. Council Educ. Anatomy; embryology; optic chiasma; commissures on floor of third ventricle; the position of the normal

stomach and observations on the movement of the diaphragm; histological changes in testes following vasectomy; development of certain features of the cerebellum.

Myers, Prof. C(harles) E(mory), 304 W. Fairmount Ave, State College, Pa. *Horticulture*. Tivoli, Pa, Feb. 23, 82. B.S, Pa. State, 08; M.S, Cornell, 11, Ph.D, 22. Asst. hort, Pa. State, 08-11, asst. prof, 11-18, *assoc.*, *prof. plant breeding*, 18-20, *prof.*, 20- A.A; Soc. Hort. Sci; Soc. Agron; Genetic Ass. Vegetable gardening; plant breeding.

Myers, Dr. Chester Newton, 644 Pacific St, Brooklyn, N. Y. *Chemistry*. Lansingburg, N. Y, Nov. 7, 84. A.B, Williams, 06; fellow by courtesy, Hopkins, 09-10, Ph.D, 10. Assoc. Carnegie Institution, 10-14; org. chem, Hopkins, 10-14; org. chemist, U. S. Pub. Health Service, 14-19, past asst. surgeon, Reserve, 19; org. and bio chemist, *H. A. Metz Laboratories*, 19, *director chem. and clin. research*, 19-; *assoc. dermat. and syphilol.*, *Columbia*. Research chemist, Vanderbilt Clinic; director chemo-therapy, N. Y. Skin and Cancer Hosp. Biol. Conf. A.A; Soc. Biol. Chem; Soc. Exp. Biol. Therapeutic action of drugs by intradermal injections; local action of insulin; arsenic in legal medicine; action of arsenic in experimental animals; toxemias following heavy meals; eczema; varicose ulcer; acne; chemical constitution of arsenicals in therapy; trypanosomes.

Myers, Prof. C(lyde) H(adley), Wyckoff Road, Ithaca, N. Y. *Plant genetics*. Randolph, Ill, Feb. 6, 83. B.S, Ill. Wesleyan, 07; M.S, Illinois, 10; Ph.D, Cornell, 12. Asst. *plant breeding*, Illinois, 07-10; instr, *Cornell*, 11-12, asst. prof, 12-13, *prof.*, 13- A.A; Genetic Ass; Soc. Agron. Bud variation; effect of environment; hybridization of cabbage and related plants.

Myers, Dr. Garry C(leveland), Cleveland School of Education, Cleveland, Ohio. *Psychology*. Sylvan, Pa, July 15, 84. A.B, Ursinus, 09; Ph.D, Columbia, 13. Prin. pub. schools, Pa, 10-11; Ursinus Acad, 11-12; prof. social sciences and psychol, Juniata, 12-14; Brooklyn Training Sch. for Teachers, 14-20; *Cleveland Sch. Educ.*, 21- A.A; Psychol. Ass. Genetic psychology; incidental memory; recognition and recall; association and perception; intelligence tests; learning.

Myers, George S(prague), Stanford University, Calif. *Ichthyology, Herpetology*. Jersey City, N. J, Feb. 2, 05. Indiana, 24-26; Stanford, 26- Asst. in charge fishes, Indiana, 24-26; *asst. curator fishes*, *Stanford*, 26- Field collector, Am. Museum Nat. Hist, 22-23. Soc. Ichthyol. and Herp; Ind. Acad; N. Y. Zool. Soc; N. Y. Aquarium Soc; Phila. Acad. Taxonomy of South American fresh-water fishes; classification of the Cyprinodontoidae; osteology of the Characidae; life-histories of North American Anura.

Myers, Prof. G(eorge) W(illiam), University of Chicago, Chicago, Ill. *Mathematics, Astronomy*. Champaign Co, Ill, April 30, 64. B.L, Illinois, 88, M.L, 91; Ph.D, Munich, 96. Instr. math. and astron, Illinois, 88-90, asst. prof, 90-95, *assoc. prof.*, 95-97, *prof.*, 97-00; head dept.

- math. and astron. Chicago Inst, 00-01; *prof. teaching math. and astron. Chicago, 01-* Astron. ed, 'Sch. Science,' 00-; assoc. ed, 'Math. Teacher,' 05; ed, 'Lake Math. Series'; 'Standard Math. Service.' A.A.; Math. Soc.; Math. Ass; Nat. Council Math. Teachers. Variable stars; mathematical pedagogy; teaching of astronomy and mathematics.
- Myers, Prof. Harold (Bunce),** University of Oregon Medical School, Portland, Oregon. *Pharmacology.* Oberlin, Ohio, July 31, 86. A.B, Wisconsin, 08; M.D, Western Reserve, 11. Instr. *pharmacol.* Univ. and Bellevue Hosp. Med. Col, 12-15; *prof. med. sch. Oregon, 15-, asst. dean, 17-* A.A.; Soc. Pharmacol; Am. Med. Ass; Col. Physicians; West. Soc. Nat. Tolerance of drugs; uranium glycosuria; diphtheria toxemia; intravenous medication with dyes; fungicidal action of volatile oils.
- Myers, Dr. J(ay) A(rthur),** University of Minnesota, Minneapolis, Minn. *Anatomy, Medicine.* Croton, Ohio, Nov. 25, 88. B.S, Ohio (Athens), 12, M.S, 13; Ph.D, Cornell, 14; M.D, Minnesota, 20. Instr. *anat.* Missouri, 13-14; *Minnesota, 14-18, internal med, 20-23, asst. prof. med, 23-26, assoc. prof. prev. med, 26-* Private practice, 20-; chief tuber. service, Minneapolis Gen. Hosp; med. director, Lymanhurst Sch. Tuber. Children; chief chest clinic, Minnesota. A.A; Am. Med. Ass; Nat. Int. Artificial Pneumothorax Ass.
- Myers, Prof. John T(ennynson),** University of Nebraska College of Medicine, Omaha, Nebr. *Bacteriology, Immunology.* Wyman, Iowa, Oct. 6, 84. A.B, Washburn, 11; fellow, Kansas, 11-12, M.S, 12; Logan fellow, Chicago, 24, Ph.D, 24. Asst. chem, Washburn, 10-11; chemist, Dept. Health, Chicago, 13; asst. quantitative anal, 13-14; hygiene and bacter, Chicago, 15; instr. *path. and bacter, col. med, Nebraska, 16-17, asst. prof, 17-24, assoc. prof, 24-* Committee, standardization of biol. stains. A.A; Soc. Bact; Am. Med. Ass; Chem. Soc. (abstractor). The reactions of the formamides; production of hydrogen sulphide by bacteria; relationship of hard water to health; focal infection.
- Myers, Dr. Ralph E(merson),** 257 Midland Ave, East Orange, N. J. *Chemistry.* Wooster, Ohio, June 13, 79. B.S, Buchtel, 01, M.S, 02; Ph.D, Pennsylvania, 04; Pa. State, 04-09. In charge electrochem. eng, Pa. State, 04-09; chem. engineer in charge chem. research and tungsten filament manufacture, *Westinghouse Lamp Co, Bloomfield, N. J., 09-15, chief engineer in charge research and develop, 15-* Chem. Eng; Chem. Soc; Elec. Eng. Electrochemistry; chemical engineering; incandescent lamps; vacuum tubes.
- Myers, Dr. Rollin Guizot,** 2459 Buchanan St, San Francisco, Calif. *Chemistry.* Shelby, Ohio, Sept. 14, 77. B.S, Case, 01; M.S, 09; Berlin; Chicago; Tulane; fellow, Stanford, 19, Ph.D, 20. Chemist, U. S. Referee Board, 09-10; instr. chem, col. pharmacy, Northwestern, 10-11; instr. demonstrator and asst. prof, Tulane, 11-18; assoc. chemist, U. S. Civil Service Commission, 19; chemist in charge test. lab, Q.M.C. U.S.A., Fort Mason, San Francisco, 19-25. Chem. Soc. The relation of constitution to taste; fire-proof asbestos; writing paper; vulcanized fiber; use of petroleum ether in paint analysis; use of potassium persulphate for N₂ determination in urine; invertebrate animals; whale blood.
- Myers, Prof. Victor C(aryl),** Western Reserve University, Cleveland, Ohio. *Biochemistry.* Buskirk Bridge, N. Y, April 13, 83. A.B, Wesleyan, 05, A.M, 07; fellow, Yale, 07-09, Ph.D, 09. Adjunct prof. *physiol. chem. and director dept. physiol. chem. and exp. physiol,* Albany Med. Col, Union, 09-11; lecturer chem. path, Post-Grad. Med. Sch. and Hosp, N. Y, 11-12, *prof. path. chem, 12-22, biochem. and director dept, 22-24; head dept, Iowa, and path. chemist, Univ. Hosp, 24-27; sch. med, Western Reserve, 27-* Assoc. ed, 'Jour. Lab. and Clin. Med'; 'Jour. Metabolic Research'; director, Jour. Biol. Chem. Corp. Major, Sanit.O.R.C. Eleventh and twelfth Int. Physiol. Cong. A.A; assoc. fel. Am. Med. Ass; Soc. Biol. Chem. (sec'y, 19-23, councilor, 24); Fed. Am. Societies Exp. Biol. (exec. sec'y, 22); Physiol. Soc; Soc. Exp. Biol. (councilor, 21-23, sec'y-treas, 24, chairman, Iowa branch, 25-27); Gastro-Enterol. Ass; Chem. Soc; Harvey Soc; N. Y. Acad. Med; Soc. de Chim. biol. Metabolism of creatin, creatinin and pyrimidins; chemistry of blood in health and disease.
- Myers, Prof. W(illiam) I(rving),** New York State College of Agriculture, Ithaca, N. Y. *Agriculture.* Lowman, N. Y, Dec. 18, 91. B.S, Cornell, 14, Ph.D, 18. Instr. *farm management, N. Y. State Col. Agr, Cornell, 14-18, asst. prof, 18-20, prof, 20-* Farm Econ. Ass; Econ. Ass; Statist. Ass. Agricultural economics; farm management.
- Myers, W(illiam) M(arsh),** U. S. Bureau of Mines, New Brunswick, N. J. *Mineralogy.* Clinton, N. Y, Nov. 22, 92. B.S, Syracuse, 14; M.S, Michigan, 23. Chemist and metallurgist, Crucible Steel Co, 14-15; Kalem Co, Inc, 15-17; Cerro de Pasco Copper Corp, 17-18; New Cornelia Copper Co, 19-20; Homestead Iron Dyke Mines, Inc, 20-21; *assoc. mineral technologist, U. S. Bur. Mines, 21-* Miner. Soc; Min. and Metal. Eng; Ceramic Soc. Mining, milling and utilization of garnet; commercial garnets; mining and preparation of feldspar and flint; mica; non-metallic minerals; lime from small stone.
- Myers, Dr. William S(hields),** 25 Madison Ave, New York, N. Y. *Chemistry, Ceramics, Sanitation.* Albany, N. Y, Dec. 15, 66. B.S, Rutgers, 89, M.S, 94, Sc.D, 08; Munich, Berlin and London, 90-92. Asst. chemist, N. J. Exp. Sta, 88-89; chemist, Lister Chem. Works, 92-93; instr. and assoc. prof. chem, Rutgers, 93-01; *director, Nitrate of Soda Educ. Bur. for U. S. and Cuba, 01-* N. J. Geol. Surv, 93-01; mayor, New Brunswick, 04-06; special consul for Chile, in U. S, 18- Trustee, Rutgers, 02-, managing committee, N. J. State Col. Agr, 20- Jury awards, Jamestown Expos, 07. A.A; Chem. Soc; N. Y. Chemists Club; Soc. Chem. Indust. Gt. Britain; fel. London Chem. Soc. Ceramics; sanitation; waters, soils and clays of New Jersey; effects upon crops of sodium nitrate.

Myerson, Dr. Abraham, 483 Beacon St, Boston, Mass. *Neurology*. Yanova, Russia, Nov. 23, 81. M.D. Tufts, 08. Instr. neuropath, St. Louis, 12-13; assoc. Harvard Med. Sch., 13-17; asst. prof. and *prof. neur. med. sch.*, Tufts, 17- Physician, hospitals. Neur. Ass; Psychopath. Ass; Am. Med. Ass; Ass. Path. and Bact. Psychiatry; reflexes; syphilis; pathology of the sympathetic nervous system; inheritance of mental diseases; personality tests.

Myrick, Dr. Raymond Thompson, 1132 W. Park Ave, Whiting, Ind. *Chemistry*. Richmond, Ind, Nov. 16, 88. B.S., Earlham, 12; Ph.D., Hopkins, 16. Instr. chem, Earlham, 12-13; Hopkins, 15-16; *Standard Oil Co. of Ind.*, 16- Chem. Soc. Physical chemistry; colloidal phenomena; petroleum.

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Nabours, Prof. Robert K(irkland), Kansas State Agricultural College, Manhattan, Kans. **Zoology*. Many, La, Nov. 5, 75. B.E., Chicago, 05, Ph.D, 11. Teacher nat. hist. and asst. curator museum, Chicago, 05-09, asst. *zool.*, 09-10; instr, *Kansas Col.*, 10-11, asst. prof., 11-13, *prof.*, 13-, *curator nat. hist. museum*. Bokhara sheep investigation exped, Cent. Asia, 14; round-the-world exped, reopening Cent. Asia fur trade, 19-20. A.A.; Soc. Nat; Soc. Zool; Kans. Acad. (pres, 19). Animal genetics; inheritance in Orthoptera; inheritance from crosses of Indian cattle on American cattle.

Nachtrieb, Prof. Henry F(rancis), 2448 Cedar St, Berkeley, Calif. **Zoology*. Near Galion, Ohio, May 11, 57. German Wallace, 74-77; B.S., Minnesota, 82; Hopkins, 83-85, fellow, 84-85. Instr. *zool.*, *Minnesota*, 86-87, *prof. animal biol.* and head dept, 87-25, *emer. prof.*, 25- Curator *zool. museum*, and zoologist, Minn. Geol. and Nat. Hist. Surv., 87-19. Ed, 'Zool. Reports,' Minn. Geol. and Nat. Hist. Surv. A.A.; Soc. Nat; Soc. Zool. (v. pres, cent. sect, 10); Ass. Anat. Anatomy and embryology; echinoderms of Beaufort, N. C; lateral line system of Polyodon; primitive pores of Polyodon spathula.

Nadler, Dr. Walter H(erman), 30 N. Michigan Ave, Chicago, Ill. *Medicine*. Peru, Ill, April 30, 89. B.S., Northwestern, 10, M.D., 13. *Asst. prof. med.*, *Northwestern*, 25- Attending physician, Cook Co. Hosp. A.A.; Am. Med. Ass; Chicago Inst. Med; Chicago Internal Med. Soc; Chicago Path. Soc. Glycemia as a guide in the treatment of diabetes.

Nafe, Prof. John P(aul), Clark University, Worcester, Mass. *Psychology*. Valley, Nebr, June 2, 88. A.B., Colorado, 11; Ph.D., Cornell, 24. Asst. instr. *psychol.*, Cornell, 21-23, instr, 23-24; asst. prof, *Clark*, 24-25, *assoc. prof.*, 25- Summers, Colorado, 24-26. The affective qualities.

Nagelvoort, Adriaan, 52 E. 41st St, New York, N. Y. *Chemistry*. Sherman Co, Nebr, May 16, 83. A.B., Michigan, 05. *Chem. engineer*; asst. to pres, Mathieson Alkali Works, 19-20; chem. engineer and consulting chem. engineer, *Nitrogen Corp.*, 20- Organizer and co-manager, Nat. Expos. Chem. Industries, New York, 15. Commanding officer, Niagara Falls branch, Edge-

wood Arsenal, 17-19, major, C.W.S., 18-19. A.A; Chem. Soc; Inst. Chem; Chem. Eng; Soc. Chem. Indust; Electrochem. Soc; N. Y. Chemists Club; Soc. de Chim. indust. Ore concentration; nitrogen fixation.

Nagle, James C, 1203-6 Allen Building, Dallas, Texas. *Civil engineering*. Richmond, Va, Oct. 9, 65. B.S., Texas, 89, A.M., 92; C.E., Pittsburgh, 92; M.C.E., Cornell, 93; Virginia and Cornell, 91, 95, 98; Columbia, 12-13. Rodman and asst. engineer, railways, 87-88; topographer, Texas Geol. Surv., 89-90; prof. civil eng, Agr. and Mech. Col. Texas, 90-13, dean eng, 11-13; chairman, Texas State Board Water Engineers, 13-17; prof. civil eng. and dean eng, Agr. and Mech. Col. Texas, and director, Eng. Exp. Sta, 17-22; *mem. firm*, *Nagle, Witt, Rollins Eng. Co.*, 19-, *Nagle, Witt, Rollins and Gilchrist*, 26- Engineer, Water Supply Reservoir, Dallas, Texas, 24-27; chief engineer, Brazos and Burleson Ry, 94; asst. chief engineer, H. E. and W. T. Ry, 99-00; agent and expert in irrig. investigations, U. S. Dept. Agr., 00-03; engineer, Burleson Co. Improv. Dist. No. 1, 09-10, 14-15, 20; consulting engineer, Prairie View State Nor. and Indust. Col., 17-22. Civil Eng. (past pres, Texas sect); Eng. Educ; Ass. Eng. (past director); Southwest. Geol. Soc; fel. Royal Soc. Arts. Railway and irrigation engineering; sediment carrying capacity of rivers as affecting irrigation storage reservoirs; river protection; sewerage.

Nagler, Dr. Floyd A(ugust), 6 Melrose Circle, Iowa City, Iowa. *Engineering*. Howard City, Mich, Jan. 11, 92. B.S., Mich. State Col, 14; M.S., Michigan, 15, Ph.D, 17. Asst. engineer, Fargo Eng. Co, 14-17; asst. hydraulic engineer with R. E. Horton, 17-20; asst. and *assoc. prof. hydraulic eng*, Iowa, 20- Second lieut, Sig.C, 17-18. A.A; Civil Eng; Meteor. Soc; New Eng. Water Works Ass. Hydrology; obstruction of bridge piers to flow of water; weir formulas; flow in pipes.

Nakahara, Dr. Waro, Government Institute for Infectious Diseases, Tokyo, Japan. *Pathology*. Tokyo, Sept. 14, 94. A.M., Cornell, 17, Schuyler fellow, 17-18, Ph.D, 18; hon. M.D., Kyoto Imp. Univ, Japan, 23. Fellow path, Rockefeller Inst, 18-19, asst, 19-25; *assoc. pathologist*, *Govt. Inst. for Infectious Diseases*, Tokyo Imp. Univ. and research assoc, *Inst. Physical and Chem. Research*, 25- Japan Cancer Soc. prize, 27. A.A; Ass. Cancer Research; Harvey Soc. X-ray effects; tissue grafting; cancer immunity by fatty acids; function of macrophage; etiology of chicken sarcoma.

Naramore, C(hester), 45 Nassau St, New York, N. Y. *Geology*. Winnemucca, Nev, Oct. 6, 79. A.B., Stanford. Field asst, State Min. Bur, San Francisco, 03-06; statistician, U. S. Geol. Surv, Denver, 06-08; San Francisco, 09; field geologist and oil lease supt, Consol. Oil Lands Co, 09-14; supt, Montebello Oil Co, Calif, 14; manager, Calgary Petrol. Products Ltd, Can, 14-15; deputy state oil and gas supervisor, Taft, Calif, 15-16; chief petrol. technologist, U. S. Bur. Mines, 17-19; export manager, Union Petrol Co, Pa, 19; *foreign exploration work for petroleum*, *Sinclair Consol. Oil Corp.*, 20- Interallied Petrol. Conf, London and Paris, 18. Ass.

- Petrol. Geol; Min. and Metal. Eng. Mineral and petroleum resources.
- von Nardroff, Dr. E(rnest) R(obert)**, 397 Madison St, Brooklyn, N. Y. *Physics*. Brooklyn, May 12, 64. E.M. Columbia, 86; hon. Sc.D. St. Lawrence, 03. Instr. physics, Barnard, Columbia, 91-97; head science dept, Erasmus Hall High Sch, Brooklyn, 97-98; *prin. Stuyvesant High Sch, New York*, 08- Lecturer, evening high schools, Brooklyn, 87-98; pub. lecture system, New York, 92- Physical Soc; Brooklyn Inst. (pres, physics dept). Diffraction of light; color apparatus; inaudible sound waves; new interferometer method for measuring refractive index of thin parallel plates singly and doubly refracting.
- Narraway, J(ames) E(phraim)**, Department of Justice, Ottawa, Ont, Can. *Paleontology*. Guysborough, N. S. June 11, 57. B.A. New Brunswick, 74. Paleont. Soc. Ontogeny of Ordovician fossils; trilobites; echinoderms.
- Nash, Prof. T(homas) P(almer), Jr**, 875 Monroe Ave, Memphis, Tenn. *Biochemistry*. Elizabeth City, N. C. June 15, 90. A.B. North Carolina, 10, A.M., 11; Ph.D. Cornell, 22. Instr. chem, North Carolina, 10-11; col. med, Tennessee, 15-17, acting prof, 17-19; instr. med. col, Cornell, 19-22; *prof, col. med, Tennessee*, 22- Soc. Biol. Chem. Ammonia formation in the animal body; the mechanism of phlorhizin diabetes; mechanism of insulin action.
- Nash, Prof. W(illiam) G**, Box 403, Georgetown, Ky. *Physics*. Pleasureville, Ky, Aug. 13, 99. A.B. Georgetown Col. (Ky), 19; fellow, Washington, 24-25, M.S., 25. Instr. *physics, Georgetown Col. (Ky)*, 19-24, *prof*, 25- Ionization and spectrum intensities.
- Nason, Prof. Edith H(olloway)**, Cornell University, Ithaca, N. Y. *Chemistry*. Salem, Mass, 95. A.B. Vassar, 17; Vassar Alumnae fellow, Yale, 20-21, Ph.D., 21. Asst. chem, Vassar, 17-19; instr, Illinois, 21- Asst. *prof. home econ, Cornell*, 25- Chem. Soc; Home Econ. Ass. Organic and food chemistry; chemical education; the science of cookery.
- Nason, Frank L(ewis)**, Box 6, West Haven, Conn. *Geology*. New London, Wis, May 12, 56. A.B. Amherst, 82, A.M. Instr. math, Rensselaer, 82-88; asst, N. J. Geol. Surv, 88-91; Mo. Geol. Surv, 91-92; *consulting geologist and mining engineer*, 92-; *consulting mining geologist, N. J. Zinc Co*, 06-; *U. S. Steel Corp.* Consulting geologist, Witherbee, Sherman and Co, 07-21; Port Henry Iron Ore Co, Replogle Steel Co. and Chateaugay Ore and Iron Co, 19-21. A.A.; Geol. Soc; Min. Eng. Structural economic geology; ore deposits; diamond drilling for magnetic iron ore.
- Nassau, Prof. J(ason) J(ohn)**, Case School of Applied Science, Cleveland, Ohio. *Mathematics, Astronomy*. Smyrna, Asia Minor, March 29, 93. Columbia, 13, 14; C.E. M.S. Syracuse, 15, Ph.D., 20; Edinburgh, 18-19. Teaching fellow, Syracuse, 16-17, instr, 19-21; asst. *prof. math. and astron, Case*, 21-24, *assoc. prof*, 24- Math. Soc; Math. Ass; Astron. Soc; fel. Royal Astron. Soc; Edinburgh Math. Soc. Determinants; solar motion; double stars.
- Nathanson, Prof. J(onas) B(ernard)**, Carnegie Institute of Technology, Pittsburgh, Pa. *Physics*. Vilna, Lithuania, Sept. 5, 89. A.B. Ohio State, 12; A.M. Illinois, 13, Ph.D., 16. Asst. *physics*, Illinois, 13-16; instr, *Carnegie Inst. Tech*, 16-19, *asst. prof*, 19- A.A.; Physical Soc; Optical Soc. Optical properties of alkali metals; ratio of charge to mass of the electron.
- Naudain, Dr. G(lenn) G(arnet)**, Winthrop College, Rock Hill, S. C. *Chemistry*. Algona, Iowa, Oct. 31, 94. B.S. Iowa Col, 17, M.S., 22, Ph.D., 23. Instr, Iowa Col, 19-23; research fellow, Mellon Inst, 23-25; *prof. chem*, Kans. State Teachers Col, 25-26; *head dept, Winthrop Col*, 26- Chem. Soc. Food and physiological chemistry; flour; starch; corn; a vitamin summary.
- Naumburg, Elsie M(argaret) B(inger)**, 121 E. 64th St, New York, N. Y. *Ornithology*. New York, July 7, 80. Senckenbergische Nat. Gesell, Frankfurt, Germany; Zool. Inst. des Bayr. Staats, Munich; asst, *Am. Museum Nat. Hist*, 16-23, *research assoc*, 23- A.A.; Ornith. Union; Linnean Soc; Am. Geog. Soc; N. Y. Acad. Birds of Matto Grosso, Brazil.
- Navias, Dr. Louis**, General Electric Company, Schenectady, N. Y. *Chemistry*. Grodno, Russia, Sept. 9, 97. B.S. Col. City of N. Y., 18; fellow, Illinois, 20-22, M.S., 21; Ph.D., 23. Chemist, glass plant, Bausch and Lomb Optical Co, 18-20; ceramic expert, U. S. Tariff Commission, 23; *ceramic chemist, Gen. Elec. Co*, 24- A.A.; Chem. Soc; Ceramic Soc. Ceramic chemistry; silica; clays; mullite; porcelain.
- Naylor, Prof. Joseph P**, De Pauw University, Greencastle, Ind. *Physics*. Pennsville, Ohio, April 4, 53. M.S. Indiana, 85. Instr, high sch, Ind, 83-15; *assoc. prof. physics*, Indiana, 85-87, *prof*, 87-91; *De Pauw*, 91-25, *emer. prof*, 25- Research prof, affiliated colleges, Ind, 17- Fel. Physical Soc; fel. Ind. Acad. (pres, 12); Ind. Sci. Teachers (pres, 13). Lecture and laboratory apparatus; heat in radioactive transformations.
- Naylor, Prof. Nellie M**, Iowa State College, Ames, Iowa. *Chemistry*. Clear Lake, Iowa, March 20, 85. A.B. Iowa, 08; M.S. Iowa Col, 18; Ph.D. Columbia, 23. Asst. chem, Iowa Col, 09-12, instr, 12-20; Carnegie research asst, Columbia, 22-23; *asst. prof. chem, Iowa Col*, 23- Chem. Soc. Organic chemistry; enzymes.
- Neagle, Prof. H(arry) B(enjamin)**, 1015 Russell St, Augusta, Ga. *Public health*. Lubec, Maine, Dec. 15, 77. A.B. Bowdoin, 99; M.D. Hopkins, 03; C.P.H. Harvard, Mass. Inst. Tech; D.P.H. Georgia, 23. Assoc. director, Loomis Sanatorium, 03-07; special investigator, Mass. State Board Health, 15; *prof. pub. health, Harvard Med. Sch, Shanghai, China*, 16-17; health officer and director hospitals, Jackson, Mich, 18-22; *prof. prev. med, Georgia and health officer, Augusta and Richmond counties*, 22-26. Pub. Health Ass; Am. Med. Ass; Child Health Ass; Tuber. Ass. Public health education; health and welfare survey.
- Neal, Prof. Herbert V(incen)**, Tufts College, Mass. **Biology*. Lewiston, Maine, April 3, 69. A.B. Bates, 90; A.B. Harvard, 93, A.M.

- Ph.D, 96; studied under Kupffer, 96-97. Master hist. and Latin, St. Paul's Sch, 90-92; asst. zool, Harvard and Radcliffe, 93-95; *prof. biol*, Knox, 97-13; *zool*, Tufts, 13-, *dean grad. sch*, 24- Asst. director, Harpswell Lab, 08; curator, Barnum Museum; director and trustee, Mount Desert Island Biol. Lab. A.A. (sec'y, F); Soc. Nat; Soc. Zool. (sec'y, cent. sect, 10); Ass. Anat; Am. Acad; Ill. Acad; Boston Soc. Nat. Hist; cor. mem. Russian Nat. Acad. Morphology of vertebrate head; development of hypoglossus musculature; histogenesis of ventral nerves; development and histogenesis of nerves in Acanthias; history of eye muscles and eye muscle nerves; neuromeres and metameres.
- Neal, Prof. M(arcus) Pinson**, University of Missouri, Columbia, Mo. *Pathology*. Heflin, Ala, Sept. 23, 87. Alabama; M.D. Med. Col. of Va, 12. Instr. clin. path, Med. Col. of Va, 12-13; asst. Von Ruck Research Lab. for Tuber, 13-16, asst. director, 15-16; clin. pathologist, Winyah Sanatorium, N. C, 13-16; instr. path. and clin. path. med. sch, Northwestern, 16-20, assoc, 20; asst. prof. path. and bacter, schools med. and dent, Iowa, 20-22; *prof. path. and head dept, sch. med, Missouri*, 22- Pathologist, Univ. Hospitals and Boone Co. Hosp, Mo. From lieut. to major, M.R.C, 17-19. A.A; Soc. Clin. Path; Am. Med. Ass; Soc. Baet; Soc. Cancer Control; Chicago Path. Soc. Tuberculosis; status-lymphaticus; vascular changes in the kidney; epilepsy; diphtheria; strongyloides intestinal infection; the leucocyte count.
- Neal, Prof. R(oland)**, Drury College, Springfield, Mo. *Chemistry*. Clearfield, Iowa, Oct. 10, 83. A.B, Cornell (Iowa), 04, A.M, 07; Ph.D, Stanford, 15. *Prof. science*, Dakota Wesleyan, 07-09; chem. and geol, Pacific (Calif), 10-20; *chem*, Drury, 20- Chem. Soc. Colloids; colloidal copper sulphide.
- Nebel, Dr. W(alter)**, E. I. du Pont de Nemours and Co, Wilmington, Del. *Chemistry*. Milwaukee, Wis, Sept. 3, 85. B.S, Wisconsin, 09, M.S, 11, Ph.D, 17. Asst. chem, Wisconsin, 09-10, instr, 10-18, asst. prof, 18; chem. director, Gen. Mfg. Co, 19-23; *research chemist*, E. I. du Pont de Nemours and Co, 23- Chem. Soc. (sec'y, 18). Organic chemistry; alkaloids; cellulose acetate; plastics; lacquers.
- Needham, Prof. James G(eorge)**, Cornell University, Ithaca, N. Y. **Biology*. Cass Co, Ill, March 18, 68. B.S, Knox, 91, M.S, 93, Litt.D, 21; Hopkins, 93-94; Goldwin Smith fellow, Cornell, 96, Ph.D, 98. Instr, high sch, Ill, 91-93; biol, Knox, 94-96; prof, Lake Forest, 98-07; *prof. entom. and limnol*, Cornell, 07- Assoc. ed, 'Psyche.' A.A; Soc. Nat; Entom. Soc. (pres, 19); Fisheries Soc; Okefinokee Soc. (pres, 20); N. Y. Entom. Soc. Fresh water biology; life histories of aquatic insects; systematic study of Ephemeridae and Odonata.
- Neff, Dr. Andrew M(cNally)**, Mellon Institute, Pittsburgh, Pa. *Chemistry*. Altadena, Calif, Nov. 9, 93. A.B, California, 20; M.S, Chicago, 21, Ph.D, 25. *Indust. fellow*, Mellon Inst, 25- A.A; Chem. Soc. Organic chemistry.
- Neff, Prof. F(rank) H(oward)**, Case School of Applied Science, Cleveland, Ohio. *Civil engi-*
- neering*. Cleveland, July 30, 65. B.S, Case, 87, C.E, 92. Instr. French and civil eng, Case, 87-92, asst. prof. *civil eng*, 92-97, *prof*, 97- A.A; Civil Eng; Eng. Educ; Ry. Eng; Soc. Test. Mat.
- Negus, Prof. Sidney S(tevens)**, Medical College of Virginia, Richmond, Va. *Chemistry*. Dudley, Mass, Jan. 31, 92. Europe, 11-12; A.B, Clark, 13; A.M, Harvard, 17; Ph.D, Hopkins, 23. Instr, Mercersburg Acad, 13-15; asst. org. chem, Harvard, 16-17; head dept. chem, Mercersburg Acad, 17-21; asst. anal. chem, Hopkins, 22-23; assoc. prof. chem, Richmond, 23-26, *prof. org. chem*, 26-27; *chem*, Med. Col. of Va, 27- C.W.S, U.S.A. A.A; Chem. Soc. (chairman, Va. sect); Va. Acad. Organic, inorganic and physical chemistry; vapor pressure; speed of organic reactions; odor and chemical constitution; history of chemistry.
- Neher, Prof. F(red)**, Princeton University, Princeton, N. J. *Chemistry*. Troy, N. Y, April 30, 67. A.B, Princeton, 89, A.M, 91; fellow, Chicago, 96-98. Asst. chem, Princeton, 91-92, instr, 92-98, asst. prof. org. and anal. chem, 98-03, prof. and head dept. chem, 03-14, *prof. org. chem*, 14- Chemist, U. S. Fish Commission, 90; consulting chemist, U. S. Bur. Mines, 17-18. A.A; Chem. Soc. Determination of arsenic; derivatives of halogenated ethers and esters; war gases.
- Nehrling, Henry**, Sebring, Fla. *Ornithology, Horticulture, Botany*. Howard's Grove, Wis, May 9, 53. Ill. Nor. Sch, Addison, 69-73. Teacher, parochial schools, 73-87; sec'y and custodian, Milwaukee Pub. Museum, 90-03; *collaborator, bur. plant indust, U. S. Dept. Agr*, 06- Deputy collector, U. S. Customs, Milwaukee, 87-90. A.A; fel. Ornith. Union; Wis. Acad; cor. mem. Nuttall Ornith. Club; hon. mem. Agassiz Ass; life mem. Fla. Hort. Soc; Berlin Ornith. Gesell. North American birds; Amaryllidaceae; Araceae; Bromeliaceae; Scitamineaceae; Palmae; semitropical plants growing in Florida.
- Neidig, Prof. Ray E**, University of Idaho, Moscow, Idaho. *Agricultural chemistry*. Lisbon, Iowa, Dec. 21, 88. B.S, Cornell (Iowa), 11, M.S, 12; Ph.C, Iowa, 15. Asst, Cornell (Iowa), 09-10; asst. chemist, Iowa Exp. Sta, 10-12, assoc. research chemist, 12-14; asst. chemist, Idaho Exp. Sta, 15-16, assoc. chemist, 17-18, *prof. agr. chem, Idaho, and chemist, Exp. Sta*, 18- A.A; Chem. Soc. Agricultural and industrial research; soils and alkalies.
- Neidle, Dr. M(arks)**, Building Trades Paint and Specialties Corp, Brooklyn, N. Y. *Chemistry*. Russia, 90. B.S, Col. City of N. Y, 11, fellow, 11-13; A.M, Columbia, 12, Ph.D, 13. Instr. anal. and physical chem, Pittsburgh, 13-15, asst. prof, 15-18; chief chemist, Sterling Varnish Co, 18-19; L. Sonneborn Sons, Inc, 19-26; *v. pres, Building Trades Paint and Specialties Corp*, 26- Chem. Soc; Soc. Test. Mat. (committee, D1). Surface tension of aqueous solutions; adsorption; preparation and theory of colloidal solutions; inorganic gels; paints; varnishes; structural water-proofers.
- Neikirk, Dr. L(ewis) I(rving)**, 4723 21st Ave, N. E, Seattle, Wash. *Mathematics*. Central

- City, Colo, Dec. 10, 73. B.S. Colorado, 98, M.S., 01; Harrison fellow, Pennsylvania, 01-03, Ph.D., 03. Instr. math, Illinois, 05-11; *Washington (Seattle)*, 11-14, asst. prof., 14- Research fellow, Pennsylvania, 03-05. A.A.; Math. Soc; Math. Ass. Algebra; calculus; calculus of variations; abstract groups; functions of infinite number of variables; functional variable.
- Neill, Prof. Alma J(essie)**, 415 W. Comanche St, Norman, Okla. *Physiology*. Chillicothe, Ill, Feb. 21, 85. Grad. Ill. State Nor. Sch., 11; A.B. Illinois, 13, A.M., 15, Ph.D., 20; Chicago, 21. Teacher, schools, 02-09; asst. *physiol.*, Illinois, 13-20; asst. prof., *Oklahoma*, 20-23, *assoc. prof.*, 23- Research, sch. med, Paris, 26-27; instr, Ill. State Nor. Sch., 16-18. A.A.; Okla. Acad; Royal Soc. Arts. Enzymes; absorptions; rhythms of muscle tissue; puerperal infection.
- Neill, Dr. James M(affett)**, Vanderbilt Medical School, Nashville, Tenn. *Bacteriology, Immunology*. Clarion, Pa, July 6, 94. B.S. Allegheny, 17; Ph.D. Mass. Col., 21. Asst. Rockefeller Inst., 21-25, *assoc. prof. bacter. and immunol.*, 25-26; *prof. sch. med, Vanderbilt*, 27- Traveling fellow, Gen. Educ. Board, 24-25. Harvey Soc. Lactic acid fermentation; oxidation and reduction of blood pigments and immunological substances.
- Neill, Dr. M(ather) H(umphrey)**, 1829 Makiki St, Honolulu, Hawaii. *Medicine*. Westfield, N. J, May 21, 82. A.B. Amherst, 05; M.D. Harvard, 09. *Surgeon, U. S. Pub. Health Service*, 14- Am. Med. Ass; Pub. Health Ass; Ass. Mil. Surg; Nat. Inst. Social Sci. Infectious diseases; pellagra; stream pollution; maritime quarantine; leprosy.
- Neish, Dr. Arthur C**, Queen's University, Kingston, Ont, Can. *Chemistry*. Kingston, Nov. 5, 76. B.A. Queen's (Can), 98; A.M. Columbia, 00, Ph.D., 04. Asst. qual. anal, Columbia, 00-02, tutor *chem*, 03-09, instr., 10-14, asst. prof., 14-19, *assoc. prof.*, 19; *prof. and head dept, Queen's (Can)*, 19- Instr. evening high schools, N. Y, 04-08; lecturer, Dept. Educ, New York. Chem. Soc; Soc. Chem. Indust; fel. Can. Inst. Chem. (pres, 24). Rare earths; thorium; cerium; precipitation of rare earths; milkweed.
- Neiswander, C(laud) R(evere)**, European Corn Borer Laboratory, Oak Harbor, Ohio. *Entomology*. Rawson, Ohio, March 6, 93. A.B. Ohio State, 22, M.S., 23, Ph.D., 26. *Asst. entomologist, Ohio Exp. Sta.*, 23- Summer, asst, Ohio State, 22. A.A; Entom. Soc; Ass. Econ. Entom; Ecol. Soc; Ohio Acad. European corn borer and other corn insects.
- Neivert, Dr. Harry**, Vanderbilt Clinic, New York, N. Y. *Anatomy*. New York, Aug. 7, 89. Rochester, 07-09; M.D. Buffalo, 13; Pennsylvania, 22-23. Nat. Research Council fellow, Jefferson Med. Col., 23-24, *instr. anat.*, 24; *col. physicians and surg, Columbia*, 24- Prosector, Buffalo; asst. surg. Manhattan Eye, Ear, Nose and Throat Hosp; Vanderbilt Clinic, Columbia. Am. Med. Ass. Anatomy of paranasal sinuses.
- Neller, Dr. J(oseph) R(obert)**, Washington State College, Pullman, Wash. *Agricultural chemistry*. Ashby, Minn, Nov. 13, 92. B.S. Macalester Col., 13; M.S. Minnesota, 15; Ph.D. Rutgers, 21. Teacher, high sch., 13-14; research chemist, Texas Co., 20-21; *assoc. chemist, Wash. Exp. Sta.*, 22- A.A; Chem. Soc; Soc. Agron; Northwest Sci. Ass. Agricultural biochemistry; plant nutrition and toxins.
- Nelms, Dr. W(illiam) S(tockton)**, Emory University, Atlanta, Ga. *Physics*. Cleburne, Texas, Feb. 28, 83. A.B. Southwestern, 03, A.M., 04; fellow, Columbia, 12-13, Ph.D., 13. *Prof. physics*, John Tarleton, 05-06; asst, Columbia, 08-12; asst. prof, Ga. Tech., 13-16; *assoc. prof.*, Southwestern, 16-17; Ga. Tech., 17-18; *in charge dept, Emory*, 19-, *prof.*, 20- Lieut. ordnance dept, 18- A.A; Physical Soc; Ga. Acad. (pres, 24). Resonators for short electric waves.
- Nelson, Dr. Alfred L(ewis)**, 3764 Tuxedo Ave, Detroit, Mich. *Mathematics*. Moray, Kans, Feb. 8, 91. A.B. Midland, 11; A.M. Kansas, 13; Ph.D. Chicago, 15. Instr. math, Kansas, 12; Michigan, 15-20, asst. prof., 20-25; *prof. and head dept, Col. City of Detroit*, 25- A.A; Math. Soc; Math. Ass; Circolo Mat. di Palermo. Projective differential geometry.
- Nelson, Prof. Aven**, University of Wyoming, Laramie, Wyo. **Botany*. Keokuk, Iowa, March 24, 59. A.B. M.S.D. Mo. State Nor. Sch., 83; M.S. Drury, 90; A.M. Harvard, 92; Ph.D. Denver, 04; hon. Sc.D. Colorado, 26. Instr. English and biol, Drury, 83-85; prin, schools, Mo, 85-87; *prof. biol, Wyoming*, 87-15, *bot.*, 15-, pres, 17-22, *emer. pres.*, 22- In charge lab, Columbian Expos, 93; La. Purchase Expos, 04; bot. explorer, 94-25; Yellowstone Park, 99. A.A; Bot. Soc; Soc. Hort. Sci; Wash. Biol. Soc. Systematic, physiological and economic botany; taxonomy; flora of western America.
- Nelson, Prof. C(arl) Ferdinand**, University of Kansas, Lawrence, Kans. *Physiological chemistry*. Mörlunda, Sweden, May 25, 82. A.B. Wisconsin, 08, A.M., 10, fellow, 11-12, Ph.D., 12; M.D. Rush Med. Col., 17. Instr. chem, Iowa, 08-11; Illinois, 12-13; asst. prof. *physiol. chem, Kansas*, 13-14, *assoc. prof.*, 14-19, *prof. and head dept.*, 19- Chem. Soc; Soc. Biol. Chem; Am. Med. Ass; Kans. Acad. Osmosis; metabolism in muscular tissue; calcium metabolism; anoxemia; compressed air.
- Nelson, Prof. Casper I(rving)**, 1111 Eighth St, N. Fargo, N. Dak. *Bacteriology*. River Falls, Wis, June 16, 86. River Falls State Nor. Sch., Wis, 05; A.B. Wisconsin, 12; Logan fellow, Chicago, 26, Ph.D., 26. Instr. bacter. and pub. health, Wisconsin, 11-12; *prof. bacter, N. Dak. Col.*, 14- A.A. Protein specificity of flax proteins, globulins from bacteria and their specificity.
- Nelson, Dr. Cyril A(rthur)**, Rutgers University, New Brunswick, N. J. *Mathematics*. Troy, Kans, Oct. 19, 93. A.B. Midland Col., 14; A.M. Kansas, 16; fellow, Chicago, 18-19, Ph.D., 19. Instr. math, Kansas, 19-20; Western Reserve, 20-21; *assoc.*, Hopkins, 21-27; *assoc. prof.*, Rutgers, 27- A.A; Math. Soc; Math. Ass. Projective differential geometry.
- Nelson, Prof. D(otson) M(cGinnis)**, Mississippi College, Clinton, Miss. *Physics*. Charleston, Miss, Dec. 18, 80. B.S. Miss. Col., 07; Chi-

- cago, 14; A.M. Indiana, 19, Ph.D. 25; Michigan, 20. Asst. prof. chem, Miss. Col., 11-13, prof. physics, 13-20; exec. sec'y, Miss. Baptist Educ. Commission, 20-25; *prof. physics, Miss. Col., 25-* Optical Soc. Light.
- Nelson, E(dward) W(illiam)**, U. S. Department of Agriculture, Washington, D. C. **Ornithology, Mammalogy, Ethnology*. Manchester, N. H., May 8, 55. Cook Co. Nor. Sch, 75; Sc.D, George Washington, 20; A.M, Yale, 20. Field naturalist, *U. S. Dept. Agr.*, 90-07, chief field naturalist, *biol. surv.*, 07-13, in charge biol. investigations, 13-14, asst. chief, 14-16, chief bur, 16-27, *senior biologist*, 27- Naturalist, 'Corwin' Arctic search exped, 81; Death Valley exped, 91; sci. explorations, Mex, 92-06. A.A; fel. Ornith. Union (pres, 08-11, 12); Soc. Mammal. (v. pres, 19-21, pres, 21-24); hon. mem. Cooper Ornith. Club; hon. mem. Calif. Acad; Wash. Acad. (v. pres, 12); Wash. Biol. Soc. (pres, 12); Wash. Biol. Field Club; cor. mem. Soc. Mex. Hist. Nat. Birds and mammals of North America and Central America; Eskimos of Alaska; conservation of wild life.
- Nelson, Dr. E(lmer) M(artin)**, U. S. Department of Agriculture, Washington, D. C. *Chemistry*. Clark, S. Dak, July 5, 92. B.S, Wisconsin, 18, M.S, 19, Ph.D, 23. Instr. agr. chem, Wisconsin, 20-23, Mead, Johnson and Co. fellow, dept. agr, 23-25; director nutrition, Soft Wheat Millers Ass, Tenn, 25-26; *assoc. chemist, lab. protein investigation, bur. chem, U. S. Dept. Agr.*, 26- A.A; Chem. Soc. Nutrition; vitamins.
- Nelson, E(lnathan) K(emper)**, U. S. Department of Agriculture, Washington, D. C. *Chemistry*. Cincinnati, Ohio, Nov. 25, 70. B.S, Illinois, 94. Chemist, Swift and Co, 95-02; Morris and Co, 03-04; anal. and consulting chemist, 04-09; asst. chemist, *bur. chem, U. S. Dept. Agr.*, 09-12, *chief essential oils lab*, 12- Chem. Soc. Essential oils; pungent principles; fruit acids; pectin.
- Nelson, Prof. E(rwin) E(llis)**, 1258 Ferdon Road, Ann Arbor, Mich. *Pharmacology*. Springfield, Mo, June 11, 91. B.S, Drury, 14; A.B, Missouri, 14, A.M, 16, fellow, 16-18, Ph.D, 20; M.D, Michigan, 26. Asst. zool, Missouri, 13-16; asst. prof. *pharmacol, Michigan*, 19-27, *assoc. prof.*, 27- Summers, sci. asst, Bur. Fisheries, Iowa, 17-18, Woods Hole, 19, pharmacologist, U. S. Dept. Agr, 23-24. Soc. Pharmacol; Physiol. Soc. Bio-assay of drugs.
- Nelson, Dr. Ja(me)s A(llen)**, R. F. D. 3, Mt. Vernon, Ohio. *Zoology, Entomology*. Urbana, Ohio, April 29, 75. Ph.B, Kenyon, 98; Ph.D, Pennsylvania, 03; hon. fellow, Cornell, 04-08. Asst. zool, Pennsylvania, 03-04; expert in apiculture, *bur. entomol, U. S. Dept. Agr.*, 08-18, *collaborator*, 18- A.A; Soc. Zool; Entom. Soc; Ass. Eeon. Entom; Ohio Acad; Wash. Entom. Soc. Embryology and anatomy of *Dinophilus*; structure of palpi of male spiders; development of the honey bee.
- Nelson, James C(arlton)**, 104 E. Wilson St, Salem, Oregon. *Botany*. Grant, Ky, Dec. 11, 67. B.S, Hanover, 90, A.M, 93. Instr, Car-
- thage, Mo, 91-92; Hull Acad, Iowa, 92-94; high sch, Ill, 94-99; Iowa, 99-07, *prin.*, 07-12; Wash, 12-14; *Senior High Sch, Salem*, 14- Collaborator, 'Bot. Abstracts.' Bot. Soc; Fern Soc. Systematic botany; vascular plants of Oregon; botanical biography.
- Nelson, Dr. John B(rockway)**, Rockefeller Institute, Princeton, N. J. *Bacteriology*. Newburyport, Mass, Dec. 9, 94. B.S, Mass. Col, 17; A.M, Harvard, 23; Ph.D, Missouri, 24. Asst. bacteriologist, pub. service laboratories, Kentucky, 19-22; instr. microbiol, Mass. Col, 24; *asst. animal path, Rockefeller Inst.*, 25- A.A. Antibody transmission in colostrum; animal paratyphoid.
- Nelson, Prof. Martin**, University of Arkansas, Fayetteville, Ark. *Agriculture*. Seneca, Wis, Sept. 12, 71. B.S.A, Wisconsin, 05, M.S, 06. Field asst, dept. soils, Wisconsin, 06; adjunct prof. field crops and soils, Nebraska, 06-07, *assoc. prof. field crops*, 07-08; *prof. agron, Arkansas, and Exp. Sta.*, 08- Soc. Agron. Agronomy; acidity of soils and its influence upon farm crops and upon ammonification and nitrification; cross inoculation of legumes; the physical and chemical requirements of Southern soils; the control of rice blight; breeding grains and cotton adapted to Arkansas conditions.
- Nelson, N(els) C(hristian)**, American Museum of Natural History, New York, N. Y. **Anthropology*. Denmark, April 9, 75. B.L, California, 07, M.L, 08. Asst. curator museum anthrop, California, 09-12, instr. anthrop, 10-12; asst. curator, *Am. Museum Nat. Hist.*, 12-21, *assoc. curator North Am. archeol.*, 21- Field asst, U. S. Geol. Surv, 08; lecturer, Archeol. Inst, 11; archeol. expeditions, San Francisco Bay region and southwest. U. S, 12-17; Ky, Fla, Western Europe, Mongolia and China. A.A; Anthrop. Ass; Ethnol. Soc. The archeology of the San Francisco Bay region, southwestern United States, Kentucky, Florida, Mongolia and China.
- Nelson, Dr. N(els) T(heodore)**, 6 Kellogg St, Windsor, Conn. *Plant physiology*. La Prairie, Wis, Feb. 6, 86. B.S.A, Wisconsin, 19, M.S, 21, Ph.D, 24. Agent tobacco investigations, U. S. Dept. Agr, 19-20; asst. agron, Wisconsin, 21-23; *physiologist, Conn. Exp. Sta.*, 24- Soc. Agron; Genetic Ass. The effects of frequent cutting on the production root reserves and behavior in alfalfa; tobacco fertilizers.
- Nelson, Dr. N(elson) L(awrence) T**, University of Alabama, Tuscaloosa, Ala. *Botany*. B.S, Carleton, 91; Ph.D, Chicago, 99. Prin. and supt, schools, Minn, 91-96; dean, Defiance, 00-01; instr, high sch, Mo, 01-09; prof. biol, Des Moines, 09-12; Presbyterian (S. C), 12-14; instr, Florida, 14-16; prof. biol. and geol, Omaha, 17-18; *assoc. prof. biol. and bot, Agr. and Mech. Col. Texas*, 18-21; acting prof. biol, Mississippi, 23-25; *asst. prof. biol, Alabama*, 26- Bot. Cent. States; Sullivan Moss Soc. (sec'y, 08). Taxonomy; ecology; bryology; mycology.
- Nelson, O(le) A(nker)**, 449 S. Oak St, Clarendon, Va. *Physical chemistry*. Fort Ransom, N.

- Dak, April 12, 92. B.S., N. Dak. Col, 18; M.S., Princeton, 19. Asst., N. Dak. Col, 16-18; Princeton, 18-20; research chemist, junior chemist, color lab, and assoc. physical chemist, insecticide and fungicide laboratories, bur. chem., U. S. Dept. Agr, 20- Inst. Chem; Electrochem. Soc. Vapor pressure; insecticidal and fungicidal properties and preparation of certain copper compounds.
- Nelson, Dr. P(recious) Mabel**, 821 Kellogg Ave, Ames, Iowa. *Physiological chemistry*. Brookston, Ind, Nov. 9, 87. B.S., California, 15, A.M., 16; Currier fellow, Yale, 19-20, Ph.D., 23. Teacher, schools, 07-09, 12-14; instr. home econ, Santa Barbara State Teachers Col, Calif, 16-19; asst. physiol. chem, Yale, 20-23; assoc. prof. foods and nutrition and in charge grad. and research work, dept. foods and nutrition, Iowa Col, 23-25, acting head dept. *foods and nutrition*, 26-27, *prof. and head dept.*, 27- Chem. Soc. Nutrition; experimental cookery; influence of diet on lactation in white rats; time of cooking and loss of nitrogenous extractives in roasting beef.
- Nelson, Prof. R(alpha) E(mory)**, 232 Littleton St, West Lafayette, Ind. *Chemistry*. Fowler, Ind, Oct. 15, 86. B.S., Purdue, 11, M.S., 13; Ph.D., Chicago, 18. Asst. and instr. chem, *Purdue*, 11-16, asst. prof., 19-25, *assoc. prof.*, 25- Lieut., C.W.S., 18. Chem. Soc; Ind. Acad. Physical-organic and organic chemistry; molecular rearrangement.
- Nelson, Prof. R(oy) A(ndrew)**, Cornell College, Mt. Vernon, Iowa. *Physics*. Joy, Ill, Feb. 15, 96. B.S., Knox, 16; M.S., Illinois, 20, Ph.D., 23. Asst. physics, Illinois, 16-17, 19-23, instr., 23-25; *prof.*, Cornell (Iowa), 25- Physical Soc. Convection and conduction of heat and humidity.
- Nelson, Prof. Thurlow C(hristian)**, 77 Adelaide Ave, New Brunswick, N. J. *Zoology*. New Brunswick, Sept. 22, 90. B.S., Rutgers, 13; Ph.D., Wisconsin, 17. Asst. oyster research lab, *N. J. Exp. Sta.*, 09-14, asst. biologist, 16-19, *biologist*, 19-; asst. prof. *zool.*, Rutgers, 19-22, *assoc. prof.*, 22-26, *prof.*, 26- Biologist, N. J. Board Shellfisheries, 20-; summers, asst., Bur. Fisheries, 14-19. A.A.; Soc. Zool; Ecol. Soc; Soc. Parasitol. Oyster and Teredo investigations; physiology of lamellibranch mollusks; parasitology.
- Nelson, Prof. Victor E(manuel)**, Iowa State College, Ames, Iowa. *Chemistry*. Eau Claire, Wis, Jan. 21, 88. B.S., Wisconsin, 12, M.S., 14. Asst. agr. chem, Wisconsin, 12-14, instr., 14-17; assoc., Hopkins, 17-19; asst. prof. *physiol. chem.*, Iowa Col, 19-23, *prof.*, 23- Chem. Soc. Animal nutrition.
- Nelson, Wilbur A(rmistead)**, University of Virginia, Charlottesville, Va. *Economic geology*. Nashville, Tenn, Feb. 14, 89. B.S., Vanderbilt, 10; A.M., Stanford, 15. Asst. chem, Vanderbilt, 08-10; chemist, Tenn. Packing Co, 10-11; asst. geologist, Tenn. Geol. Surv, 11-14; econ. geologist, Nashville, Chattanooga and St. Louis Ry, 14-16; mining geologist, Paga Mining Co, 16-18; state geologist, Tenn, 18-25; *head*, *Corcoran and Rogers Schools Geol.*, Virginia, and *state geologist*, 25- Summer, asst. geologist, Va. Geol. Surv, 12. Asst. ed, 'Resources of Tenn,' 12-14. Tenn. Highway Commission, 18; chairman advisory council, U. S. Board Surveys and Maps, 25, 26, 27; emergency fuel distributor, Tenn, 22; exec. committee, states relations div, Nat. Research Council, chairman committee conservation drilling results; sec'y, Va. Water Power and Develop. Commission, 26. Chairman, exec. committee, South. Appalachian Water Power Conf, 22-23; exec. committee, Nat. Conf. State Parks. A.A.; Geol. Soc; Soc. Econ. Geol; Am. State Geologists (past pres); Seismol. Soc; Min. and Metal. Eng; Tenn. Acad. (pres, 24); Nashville Eng. Ass. (v. pres, 22); N. Y. Chemists Club. Clays of west Tennessee; southern Tennessee coal field; minerals of Tennessee; natural bridges; Monteagle Wonder Cave; smoke.
- Ness, Helge**, Texas Experiment Station, College Station, Texas. *Botany, Horticulture*. Norway, Nov. 4, 61. B.S., Texas Col, 89; M.S., Cornell, 98. Instr. hort. and bot, *Texas Col*, 91-99, *prof. bot.*, 00-03, horticulturist and *chief div. bot.*, *Exp. Sta.*, 08- Soc. Hort. Sci. Plant breeding; breeding species of *Rubus* and *Quercus*.
- Nettleton, Dr. L(ewis) L(omax)**, Union Switch and Signal Co, Swissvale, Pa. *Physics*. Nampa, Idaho, June 24, 96. B.S., Idaho, 18; M.S., Wisconsin, 21, Ph.D., 23. Asst. physics, Wisconsin, 19-23; *research dept.*, Union Switch and Signal Co, 23- Physical Soc. High frequency oscillator at very low gas pressures; size of gas molecules.
- Neubauer, Dr. Ferdinand John**, Casilla 1219, Santiago, Chile. *Astronomy*. Marienbad, Bohemia, May 30, 86. A.B., Oregon, 10, A.M., 12; Ph.D., California, 17. Instr. astron, California, 17; astronomer in charge, Int. Latitude Observatory, U. S. Coast and Geod. Surv, 18-22; asst. astronomer, *Lick Observatory*, 22-25, *acting astronomer in charge Chile sta.*, 25- U. S. Shipping Board, 17-18. A.A.; Astron. Soc; Pacific Astron. Soc. Variation of latitude; radial motions of stars; spectroscopic binary stars.
- Neumann, Felix (Jonathan)**, Army Medical Library, Washington, D. C. *Medicine*. Königsberg, Prussia, Sept. 10, 58. Königsberg, 78-79. Journalist, Königsberg, Danzig, Berlin, 80-86; for. book trade, New York, Boston, Chicago, 86-00; Library of Congress, 00-07; *Army Med. Library*, 08-23, *asst. librarian*, 23- A.A.; Anthropol. Ass; Wash. Anthropol. Soc. (councilor, 12-). Anthropology; library science; bibliography and history of medicine; history of science.
- Neuwirth, Isaac**, 2144 Crotona Parkway, New York, N. Y. *Biochemistry*. New York, Dec. 15, 94. B.S., Cornell, 14, Ph.D., 27. Instr. biochem. and lecturer pub. health and hygiene, N. Y. Homeop. Med. Col. and asst. consulting chemist, Flower Hosp, 20-24; instr. *physiol.* and *pharmacol.*, med. dept., Louisville, 24-25; *pharmacol. sch. dentistry*, N. Y. Univ, 25-26, *asst. prof.*, 26- Sanit. C, U.S.A., 17-19. A.A;

- Soc. Biol. Chem; Soc. Exp. Biol; Chem. Soc; Harvey Soc. Sugar in normal urine.
- Nevens, Prof. William B(arbour)**, University of Illinois, Urbana, Ill. *Dairy husbandry*. Winnebago, Ill, Nov. 27, 85. B.S., Wisconsin, 14; M.S., Illinois, 17, Ph.D., 21. Asst. *dairy husbandry*, Illinois, 14-17; *asst. prof.*, Nebraska, 17-19; *Illinois*, 21- Dairy Sci. Ass; Soc. Animal Production; Nebr. Acad. Growth equation constants; the sunflower as a silage crop, composition, yield and digestibility.
- Neville, Dr. Harvey A(lexander)**, University of Illinois, Urbana, Ill. *Chemistry*. Millwood, Va, Feb. 18, 98. A.B., Randolph-Macon, 18; A.M., Princeton, 20, Ph.D., 21. *Instr. chem.*, Princeton, 18-20; *Illinois*, 21- Summer, instr., Middlebury, 25. Chem. Soc. (sec'y, Ill. sect, 24-). Catalysis in oxidation; colloidal setting of cements.
- Nevin, Prof. Charles Merrick**, 925 N. Tioga St, Ithaca, N. Y. *Geology*. Helton, Pa, Sept. 12, 92. B.S., Pa. State, 16; M.S., Cornell, 22, Ph.D., 25. *Asst. prof. structural and oil geology*, Cornell.
- Nevin, Prof. Mary**, 9 E. Eighth St, New York, N. Y. *Bacteriology*. Richmond, Va, Nov. 16, 80. Bacteriologist, Pasteur Inst, Paris, 09-11; N. Y. Dept. Health, 14-17; Dept. Health, New York, 19-22; *asst. prof. bacter. col. physicians and surg.*, Columbia, 23- Bacteriologist, Military Hosp. No. 21, France, 17-18; director laboratories, Rockefeller Commission for Prevention Tuber. in France, 18-19; Nat. Soldiers Homes, 22-23. Médaille de la Reconnaissance française, 20. Soc. Bact; Ass. Path. and Bact; fel. Pub. Health Ass. Medical bacteriology; botulism; gas gangrene; measles; poliomyelitis; tuberculosis.
- Newburgh, Prof. Louis H(arry)**, University Hospital, Ann Arbor, Mich. *Medicine*. Cincinnati, Ohio, June 17, 83. A.B., Harvard, 04, M.D., 08. Asst. internal med, Harvard Med. Sch, 12-16; *asst. visiting physician*, Mass. Gen. Hosp, 12-16; *asst. prof. internal med*, *Michigan*, 16-18, *assoc. prof.*, 18-22, acting head dept, 17-22, *prof. clin. invest*, 22- Am. Physicians; Soc. Clin. Invest; Am. Med. Ass. Experimental medicine; use of strychnin in cardio-vascular disturbances; pneumonia; Bright's disease; diabetes mellitus.
- Newcomb, Prof. John L(oyd)**, University, Va. *Civil engineering*. Sassafras, Va, Dec. 18, 81. A.B., William and Mary, 00; C.E., Virginia, 03. Asst. engineer, Norfolk and South. Ry. Co, 03-04, div. engineer, 04-05; adjunct *prof. civil eng.*, Virginia, 05-09, *assoc. prof.*, 09-10, *prof.*, 10- Consulting engineer, 05- Supervisor, S.A.T.C., 18. Civil Eng; Eng. Educ.
- Newcombe, Prof. Frederick C(harles)**, 1928 Vancouver Highway, Honolulu, Hawaii. **Plant physiology*. Flint, Mich, May 11, 58. B.S., Michigan, 90; Ph.D., Leipzig, 93. Teacher, Mich. Sch. for Deaf, 80-87; instr. bot, Michigan, 90-02, *asst. prof.*, 93-97, junior *prof.*, 97-05, *prof.*, 05-23; *retired*, 23. Int. Cong. Arts and Science, St. Louis, 04 (sec'y, sect. plant physiol). Ed-in-chief, 'Am. Jour. Bot.', 14-17. A.A. (sec'y, G, 97); Soc. Nat; Bot. Soc. (pres, 17); Bot. Cent. States (pres, 06); Hawaiian Bot. Soc. (pres, 24); Hawaiian Acad. (pres, 25). Perennial mycelium blackberry rust; influence of mechanical resistance on life period of cells; cause and condition of lysigenous cavity formation; regulatory formation of mechanical tissue; rheotropism of roots; klinostats and centrifuges for research; geotropic response; sensitive life of *Asparagus plumosus*; the behavior of twining plants in darkness; behavior of plants in unventilated chambers; significance of behavior of sensitive stigmas; supposed reversal of geotropic response.
- Newcomer, E(rval) J(ackson)**, Box 243, Yakima, Wash. *Entomology*. Oregon, Ill, May 5, 90. A.B., Stanford, 11. Asst. Calif. State Commission Hort, 11-12; acting instr., Stanford, 13-14; *assoc. entomologist, bur. entom.*, U. S. Dept. Agr, 14- A.A; Entom. Soc; Ass. Econ. Entom; Pacific Coast Entom. Soc. Insect pests of deciduous fruits.
- Newcomer, Dr. Harry Sidney**, 205 W. 57th St, New York, N. Y. *Medicine*. Willets Point, N. Y, Oct. 16, 87. A.B., Wisconsin, 09, fellow, 10-11, A.M., 10, 11-12; Freiburg, 12-13; M.D., Hopkins, 15; Tübingen, 14; Paris, 23-24; Upsala, 24. Res. pathologist, Pa. Hosp, Phila, 15-17, director lab, 19-21; research asst, Henry Phipps Inst, 21-22; *ophthalmologist*, 22- Instr., Naval Med. Sch, 18-19. A.A; Physiol. Soc; Optical Soc; Math. Soc; Physical Soc; Soc. d'Ophthal. Biophysics; physiological optics.
- Newell, Dr. Franklin S(pilman)**, 443 Beacon St, Boston, Mass. *Medicine*. Roxbury, Mass, April 30, 71. A.B., Harvard, M.D., 96. Asst. *prof. obstet. and gynec.*, *Harvard Med. Sch.*, *prof. clin. obstet.*, 18- Obstetrician, Mass. Gen. Hosp; visiting obstetrician, Boston Lying-in Hosp; past visiting surgeon, Boston City Hosp. Am. Med. Ass; Gynec. Soc. (v. pres, 25, pres, 26); Gynec. Club; Col. Surg. Obstetrics.
- Newell, F(rederick) H(aynes)**, 1706 21st St, N. W, Washington, D. C. **Hydrography*. Bradford, Pa, March 5, 62. B.S., Mass. Inst. Tech, 85; D.Eng., Case, 12. Asst. hydraulic engineer, U. S. Geol. Surv, 88-90, hydrographer, 90-02; chief engineer, U. S. Reclamation Service, 02-07, director, 07-14; *prof. civil eng.*, Illinois, 14-20; *consulting engineer*, 20-; *pres.*, *The Research Service, Inc.* U. S. Land Commission; U. S. Inland Waterways Commission; Nat. Advisory Board for Fuels and Structural Mat; Nat. Research Council; Ill. State Board Examiners of Structural Engineers; Eng. Council, 18; engineer member, Pa. Water and Power Resources Board. Cullum medal, Am. Geog. Soc. Civil Eng; Mech. Eng; Ass. Eng. (pres, 19); Forestry Ass. (sec'y); West. Soc. Eng; Ill. Soc. Eng; Wash. Soc. Eng. (pres, 07); Wash. Acad. (v. pres, 07). Oil well drilling; agriculture by irrigation; hydrography of arid regions; irrigation engineering; natural resources of Hawaii; the present and future uses of water resources.
- Newell, Prof. Lyman C(hurchill)**, 688 Boylston St, Boston, Mass. *Chemistry*. Pawtucket, R. I, Sept. 18, 67. Ph.B., Brown, 90, A.M., 91; Ph.D.,

- Hopkins, 95. Instr. *chem.*, Brown, 90-91; high sch., R. I. and Mass., 91-92, 95-98; nor. sch., Lowell, Mass., 98-04; asst. prof., *Boston*, 04-06. *prof.*, 06- A.A.; Chem. Soc.; New Eng. Ass. Chem. Teachers (pres, 98). Organic and historical chemistry.
- Newell, Prof. Walter Stephen**, Coe College, Cedar Rapids, Iowa. *Psychology*. Glenwood, Iowa, July 30, 71. A.B., Columbia, 95; Ph.D., Boston, 98; Harvard, 07. Prin., high sch., Conn., 97-06; *prof. philos. and psychol.*, Coe, 09- Iowa Acad. *Urticaria factitia*.
- Newell, Wilmon**, Gainesville, Fla. *Entomology*. Hull, Iowa, March 4, 78. B.S., Iowa Col., 97, M.S., 99; Sc.D., 20. Asst. entomologist, Iowa Exp. Sta., 97-99; Ohio Exp. Sta., 99-02; asst. entomologist and apiarist, Texas Exp. Sta., 02; state entomologist, Ga., 03-04; entomologist, La. Exp. Stations, and sec'y and entomologist, La. State Crop Pest Commission, 05-09; *prof. entom.*, Texas Exp. Sta. and state entomologist, 10-15; *plant commissioner*, Fla. *State Plant Board*, 15-; *dean col. agr. Florida*, and *director*, *Exp. Sta.*, 21- A.A.; Ass. Econ. Entom. (pres, 20). Agriculture; apiculture; horticultural quarantine; eradication of insects and plant diseases.
- Newhall, Dr. S(idney) M(erritt)**, Yale University, New Haven, Conn. *Psychology*. Wilbraham, Mass., May 21, 96. B.S., Wesleyan, 19, A.M., 21; fellow, Columbia, 22-23, Ph.D., 23. Asst. *psychol.*, Wesleyan, 19-22; *instr.*, Yale, 23- Summer, asst., Boston Psychopathic Hosp., 21. A.A.; Psychol. Ass.; Eugenics Soc. Experimental and applied psychology.
- Newins, Prof. Harold S(tephenson)**, 705 W. Foster Ave., State College, Pa. *Forestry*. Patchogue, N. Y., Nov. 30, 87. Ph.B., Lafayette, 09; M.F., Yale, 11. Instr., asst. prof., assoc. prof. and prof. forestry, Oregon Col., 11-18, 19-22; east. manager, dry kiln dept., Cutler Desk Co., N. Y., 22-24; *prof. wood utilization*, Pa. State, 24- Airplane wood inspector, A.S., U.S.A., 18-19. A.A.; Soc. Foresters. Wood technology.
- Newkirk, Dr. Burt L(ercy)**, General Electric Co., Schenectady, N. Y. *Astronomy*, *Mechanics*. Ellenville, N. Y., May 1, 76. A.B., Minnesota, 97, A.M., 99; Ph.D., Munich, 02. Asst. astron., Minnesota, 98-00; Watson asst., California, 03-04, instr. math., 04-06; asst., Lick Observatory, 06-07; asst. prof. math. and mech., Minnesota, 07-20, assoc. prof., 20-21; *research engineer*, *research lab. Gen. Elec. Co.*, 21- A.A.; Math. Soc.; Eng. Educ.; Astron. Gesell. Parallax of ring nebula in Lyra; orbits of Watson asteroids; tables for reduction of photographic measures; the Repsold measuring apparatus of the Student's Observatory of the University of California; gyroscopic effects; dynamic balance; vibrations of heavy machinery; shaft behavior; critical speeds of shafts; shaft whipping.
- Newkirk, W(illiam) B(entley)**, Corn Products Refining Co., Edgewater, N. J. *Chemistry*. Fall City, Nebr., Nov. 9, 88. A.B., Southern California, 10. Supt., Fed. Chem. Co., 10-14; re-
- search chemist, Am. Beet Sugar Co., 14-18; sugar technologist, Bur. Standards, 18-19; *research chemist*, *Corn Products Ref. Co.*, 19- Viscous materials; rare sugars; sugar manufacture; refined dextrose from corn.
- Newland, David H(ale)**, 94 Menand Road, Albany, N. Y. *Geology*. Vienna, N. Y., April 7, 72. A.B., Hamilton, 94; Munich, 94; Heidelberg, 95-96; Columbia, 96-97. Temporary field asst., N. Y. Geol. Surv., 97-98; lit. and sci. work, 98-03; assoc. ed., 'Eng. and Mining Jour.', 04; asst. state geologist, N. Y., 05-20; *practising econ. geologist*, 20- Gold medal, Panama-Pacific Expos. Geol. Soc.; Soc. Econ. Geol.; Min. Eng. Geology of magnetic iron ores of the Adirondacks; iron ores of the Clinton formation; geology of salt and gypsum deposits; quarry investigations; geology and petrology of the Precambrian.
- Newlands, James A(ndrew)**, 11 Laurel St., Hartford, Conn. *Chemistry*, *Bacteriology*. Edinburgh, Scotland, April 23, 77. A.B., Beloit, 03; Chicago, 03-04; Mass. Inst. Tech., 04-05. Asst. chemist, sanit. lab., Beloit, 03-04; sanit. research sta., Mass. Inst. Tech., 04-05; chemist, Souther Eng. Co., Conn., 05; chemist and bacteriologist, Conn. State Board Health, 05-07, chemist, 07-13; sec'y, *Henry Souther Eng. Co.*, 13-16, *pres*, 16-; *state chemist*, Conn., 13- Conn. State Health Council, 17-; Conn. State Indust. Waste Board, 18-21. A.A.; Chem. Soc.; Pub. Health Ass.; Water Works Ass. (committee on indust. wastes); Soc. Test. Mat.; Health League; New Eng. Water Works Ass.; Conn. Soc. Civil Eng.; Middletown Sci. Ass. (sec'y, 06-08). The determination of nitrates in water; water purification; explosive mixtures in kerosene lamps; disposal of sewage and trade wastes.
- Newlin, Prof. R(hesa) L(ancaster)**, Ohio Wesleyan University, Delaware, Ohio. *Mathematics*. Saxapahaw, N. C., Jan. 22, 92. B.S., Guilford Col., 17; M.S., Chicago, 22. Instr. math., Clemson, 19-20; Guilford Col., 20-21, *prof. physics*, 22-25; *asst. prof. math.*, *Ohio Wesleyan*, 25- Math. Soc.; Math. Ass.
- Newman, Prof. H(oratio) H(ackett)**, University of Chicago, Chicago, Ill. *Zoology*. Near Seale, Ala., March 19, 75. B.A., McMaster, 96; fellow, Chicago, 98-00, 04-05, Ph.D., 05. Instr. biol. and chem., Culver Mil. Acad., Ind., 00-04; *zool.*, Mich., 05-08, asst. prof. elec., 08; *prof.*, Texas, 08-11; assoc. prof., *Chicago*, 11-17, *prof.*, 17-, dean colleges of science, 15-22. Instr., Woods Hole, 06, 09. A.A.; Soc. Nat.; Soc. Zool. General physiology; experimental evolution; animal behavior; phylogeny of the chelonian carapace; respiration of the heart; process of heredity in fish hybrids; habits of tortoises; spawning behavior of fish; hermaphroditism in fish; behavior of Texas lizards; variation and heredity in armadillo; oogenesis and parthenogenesis in armadillo; teleost hybridology and teratology; echinoderm hybridology; biology of twins; human twins; organic symmetry; symmetry reversal.
- Newsom, Prof. I(saac) E(rnest)**, Colorado Agricultural College, Fort Collins, Colo. *Veterinary*

- pathology*. Colorado City, Texas, April 13, 83. B.S., Colo. Agr. Col., 04; D.V.S., San Francisco Vet. Col., 06; D.V.S., Kansas City Vet. Col., 09; Chicago, 13. Asst. veterinarian, Colo. Agr. Col., 06; state meat inspector, Colo., 07; prof. vet. anat., *Colo. Agr. Col.*, 08-12, *prof. vet. path. and pathologist, Exp. Sta.*, 12- Vet. Med. Ass.; Colo. Vet. Med. Ass. Brisket disease in cattle; sheep diseases.
- Newsom, Prof. J(ohn) F(lesher)**, Palo Alto, Calif. *Geology, Mining*. Elizabethtown, Ind., Sept. 6, 69. A.B., Indiana, 91; A.M., Stanford, 92, Ph.D., 01. Instr. geol., Indiana, 95-96, asst. prof., 96-98; mining, Stanford, 99-01, assoc. prof., 01-09, prof., 09-10. Asst. geologist, Ark., 91-93. A.A.; Soc. Nat.; Geol. Soc.; Soc. Econ. Geol.; Min. Eng.; Min. and Metal. Soc.; Calif. Acad. Geology of the Santa Cruz mountains of California.
- Newton, Mrs. H. B. (Dr. Mary W(inston))**, Eureka College, Eureka, Ill. *Mathematics*. Forreston, Ill., Aug. 7, 69. A.B., Wisconsin, 89; fellow, Bryn Mawr, 91-92; fellow by courtesy, Chicago, 92-93; Ass. Col. Alumnae fellow, 95; Ph.D., Göttingen, 96. Instr. math., Fox Lake, Wis., 89-91; high sch., Mo., 96-97; *prof. math.*, Kansas Col., 97-00; asst. prof., Washburn, 13-21; *prof.*, *Eureka Col.*, 21- Math. Soc.; Math. Ass. Hermite's form of Lamé's differential equation; Riemann's theory of differential equations.
- Newton, Alfred James**, 1070 Harvard St., Rochester, N. Y. *Chemistry*. London, Eng., Nov. 14, 73. London. Prin., London Co. Council Sch. Photograving and Lithog., 02-12; *supt. engraving dept.*, *Eastman Kodak Co.*, 12- Optical Soc.; Chem. Soc.; Royal Photog. Soc. Photomechanical reproduction.
- Newton, Prof. H(oward) D(ouglas)**, Connecticut Agricultural College, Storrs, Conn. *Chemistry*. Stockbridge, Mass., Jan. 14, 81. B.S., Boston, 04; Ph.D., Yale, 08. Asst. chem., Yale, 05-08; *in charge dept. chem.*, *Conn. Col.*, 08- A.A.; Chem. Soc. Titanium in analysis.
- Newton, Dr. J(ohn) D(awson)**, University of Alberta, Edmonton, Alta., Can. *Soils*. Plaisance, Que., Dec. 14, 94. B.S.A., McGill, 17; Ph.D., California, 22. Asst. agron., British Columbia, 18-20; *assoc. prof. soils*, *Alberta*, 22- A.A.; Can. Soc. Tech. Agr.; W. Can. Soc. Agron. Plant nutrition; soil surveys.
- Newton, Dr. M(argetaret)**, Agricultural College, Winnipeg, Man., Can. *Plant pathology*. Montreal, Que. B.S.A., McGill, 18, M.Sc., 19; Can. Research Council fellow, 19-21; Ph.D., Minnesota, 22. Asst. pathologist, Can. Dept. Agr., 18-21; assoc. prof., Saskatchewan, 21-25; *plant pathologist, Dom. Lab. Plant Path, Agr. Col., Winnipeg*, 25- Phytopath. Soc.; Can. Soc. Sci. Agr. Biologic forms of wheat stem rust in Western Canada; Helminthosporium teres.
- Newton, Prof. R(obert)**, University of Alberta, Edmonton, Alta., Can. *Field husbandry, Plant biochemistry*. Montreal, Que., Feb. 7, 89. B.S.A., McGill, 12; M.S., Minnesota, 21, Ph.D., 23. District agriculturist, McGill, 12-13; asst. Dominion cerealist, Can. Exp. Farms, 13-14; director agr. instruction, New Brunswick, 14-15; *prof. plant biochem.*, *Alberta*, 19- Can. Nat. Research Council committees on exp. methods, cereal rust research and wheat research. C.A., 15-19. A.A.; Chem. Soc.; Soc. Agron.; Soc. Plant Physiol.; Ass. Cereal Chem.; W. Can. Soc. Agron.; Can. Soc. Tech. Agr. Nature of winter hardiness, drought hardiness and disease resistance in crop plants; quality of wheat in relation to environmental factors.
- Newton, Dr. Roy C(hester)**, Swift and Co, Chicago, Ill. *Chemistry*. El Reno, Okla., May 8, 96. B.S., Okla. Agr. and Mech. Col., 21; Ph.D., Chicago, 24. Asst. chem., Okla. Agr. and Mech. Col., 19-21; instr., Purdue, 23-24; *research chemist, Swift and Co*, 24- Abstractor, 'Chem. Abstracts.' Chem. Soc. Interhalogen replacement in halogenoacetones; colloid chemistry; emulsions.
- Newton, Dr. William**, University of California at Los Angeles, Los Angeles, Calif. *Botany*. Montreal, Que., Can., April 25, 93. B.S., McGill, 14; M.S., California, 20, Ph.D., 23. Chief soil and crop branch, Dept. Agr., Victoria, B. C., 15-20; prof. bot., Pomona, 23-24; sci. asst., coastal lab., Carnegie Institution, 24-26; *asst. prof.*, *California at Los Angeles*, 26- Chem. Soc. Dormancy in potato tubers; nitrogen metabolism in potato tubers; carbon dioxide absorption in green leaves.
- Newton, William Lee**, Coleman and Bell Co., Norwood, Ohio. *Chemistry*. Diamond, Ind., Aug. 7, 96. A.B., Ind. State Nor. Col., Terre Haute, 18; M.S., George Washington, 23. Research chemist, fixed nitrogen research lab., U. S. Dept. Agr., 19-26; *sales manager, Coleman and Bell Co.*, 26- C.W.S., U.S.A., 18-19. A.A.; Chem. Soc.; Nature Ass. Fixation of atmospheric nitrogen; catalyst development; hydrogen production; synthesis of ammonia from its elements; manufacturing.
- Nice, Prof. L(eonard) B(laine)**, University of Oklahoma, Norman, Okla. *Physiology*. Marshfield, Ohio, May 1, 82. Ph.B., Ohio, 08; fellow, Clark, 09-11, Ph.D., 11. Asst. *physiol.*, Clark, 08-11; instr., Harvard, 11-12; *prof.*, *Oklahoma*, 13- Soc. Nat.; Physiol. Soc.; fel. Okla. Acad. (sec'y, 17-24). Effect of alcohol, nicotine and caffeine on white mice; book disinfection; physiology of respiration; tonus rhythms in diaphragm muscle; blood of complement deficient guinea pigs; functions of semicircular canals in young chicks; functions of the depressor nerve; birds of Oklahoma.
- Nice, Margaret Morse (Mrs. L. B.)**, Norman, Okla. *Ornithology, Psychology*. Amherst, Mass., Dec. 6, 83. A.B., Mt. Holyoke, 06; fellow, Clark, 07-09, A.M., 15. Assoc. Ornith. Union; Wilson Ornith. Club; Cooper Ornith. Club; Nat. Ass. Audubon Societies; Okla. Forestry Ass.; fel. Okla. Acad. Birds of Oklahoma; life histories of birds; child psychology; speech development of children.
- Nicholas, Dr. Henry O(scar)**, Rice Institute, Houston, Texas. *Chemistry*. Cleveland, Ohio, Aug. 23, 97. A.B., Oberlin, 19; Ph.D., Yale, 23. *Dept. chem.*, *Rice*, 20- Colloids; bio-chemistry.

- Nicholas, Prof. J(ohn) S(pangler)**, Yale University, New Haven, Conn. *Experimental embryology*. Pittsburgh, Pa, March 10, 95. B.S., Gettysburg, 16, M.S., 17; fellow, Yale, 20-21, Ph.D., 21. Asst. biol., Yale, 17-19; instr. anat., sch. med., Pittsburgh, 21-22, *asst. prof.*, 22-26; *biol.*, Yale, 26- Ass. Anat.; Soc. Exp. Biol.; Soc. Zool. The regulation of posture in the forelimb of *Amblystoma punctatum*; rotations of the limb and peribranchial areas; ventral and dorsal implantations of the limb bud; mammalian embryos.
- Nicholls, Dr. A(lbert) G(eorge)**, 86 Oxford St., Halifax, N. S., Can. *Pathology, Internal medicine*. Shotley Bridge, Durham, Eng, April 16, 70. B.A., McGill, 90, M.A., 93, M.D., C.M., 94, D.Sc., 09; Erlangen, Prague and Vienna, 96-97. Lecturer path., McGill, 99-04, *asst. prof.*, 04-14, lecturer med., 07-14; *prof. path. and bacter.*, Dalhousie, 14- Can. Med. Ass; fel. Royal Soc. Can; Montreal Medico-Chirurg. Soc; British Med. Ass; fel. Royal Inst. Pub. Health. Chronic Bright's disease; multiple progressive hyaloseriosis; curative effect of various normal and antitoxic sera on tuberculosis; hemorrhagic typhoid fever; 'dust-bodies' of the blood; paths of infection.
- Nichols, Dr. Edson H.**, 322 W. Anderson St., Hackensack, N. J. *Chemistry*. Camden, N. J., July 12, 86. A.B., Cornell, 08, Ph.D., 11. Instr. chem., Cornell, 09-11; *chief chemist*, Maywood Chem. Works, 13- Chem. Soc. Industrial chemistry.
- Nichols, Prof. Edward L(eamington)**, Cornell University, Ithaca, N. Y. **Experimental physics*. Leamington, Eng, Sept. 14, 54. B.S., Cornell, 75; Leipzig, 75-76; Berlin, 76-78; Ph.D., Göttingen, 79; fellow, Hopkins, 79-80; LL.D., Pennsylvania, 08; Sc.D., Dartmouth, 10. Prof. physics and chem., Central Univ. of Ky, 81-83; physics and astron., Kansas, 83-87; *physics*, Cornell, 87-19, *emer. prof.*, 19- Founder, 'Physical Rev.', and ed., 83-12; ed. dept. physics, 'Johnson's Cyclopedia' and 'Webster's Diet.' Visiting committee, Bur. Standards, 01- Sec'y, chamber delegates, Elec. Cong., Chicago, 93. Nat. Acad; A.A. (sec'y B, 89, v. pres, 93, pres, 07); Physical Soc. (pres, 07-09); hon. mem. Optical Soc; hon. mem. Illum. Eng. Soc; hon. mem. Elec. Eng; Philos. Soc; assoc. Am. Acad; hon. mem. Nat. Elec. Light Ass; Kans. Acad. (pres, 85); Sigma Xi (past pres). Radiation; color; physiological optics; electricity; photometry; fluorescence; phosphorescence; luminescence; spectral photometry.
- Nichols, Dr. G(eorge) E(lwood)**, Yale University, New Haven, Conn. **Botany*. Southington, Conn, April 12, 82. A.B., Yale, 04, Ph.D., 09. Asst. bot., Yale, 04-09, instr., 09-15, *asst. prof.*, 15-24, *assoc. prof.*, 24-26, *prof. and director*, Marsh Bot. Garden, 26- Staff, biol. sta., Michigan, 20- A.A.; Bot. Soc. (treas, 25-, ed. board, 26-); Ecol. Soc. (v. pres, 20, ed. board, 25-); British Ecol. Soc; Ass. Geog; Soc. Foresters; Torrey Bot. Club (ed. board, 19-24); New Eng. Bot. Club; Conn. Bot. Soc; Conn. Acad.
- Ecology; ecological classification; vegetation of northern America; bryophytes; dendrology.
- Nichols, Lieut. Col. H(enry) J(ames)**, care of Surgeon General, U. S. Army, Washington, D. C. *Bacteriology*. Milwaukee, Wis, May 21, 77. A.B., Yale, 99, A.M., 01; M.D., Pennsylvania, 04; Army Med. Sch., 06. *M.C., U.S.A.*, 06-; *asst. prof. path. and bacter.*, Army Med. Sch., 10-14, 19-22; director laboratories, 23-26. Ed., 'Am. Jour. Trop. Med.', 21-26. Nat. Research Council, 25, 26-29. A.A; Am. Med. Ass; Soc. Bact; Soc. Trop. Med. (pres, 19); Soc. Exp. Path; Soc. Clin. Path; Pub. Health Ass; Ass. Mil. Surg. Experimental syphilis and yaws; typhoid vaccine and vaccination; carriers in infectious diseases; tropical diseases; clinical pathology; preventive medicine.
- Nichols, Henry W(indsor)**, 1706 E. 69th St., Chicago, Ill. *Geology*. Cohasset, Mass, Dec. 7, 66. B.S., Mass. Inst. Tech, 93. Asst. geol., Mass. Inst. Tech, 94; curator econ. geol., *Field Museum Nat. Hist.*, 95-97, *asst. curator geol.*, 97-24, *assoc. curator*, 24- Agent, Am. commission, Paris Expos, 00. Min. Eng; Chem. Soc; Ass. Mus; West. Soc. Eng. Ore deposits of Colombia; concretions.
- Nichols, Dr. Herbert**, 302 Summit Ave., Brookline, Mass. **Engineering, Physics, Psychology*. Walpole, N. H., Feb. 7, 52. B.S., Worcester, 71; Ph.D., Clark, 91. Engineer, Pa. Ry, 72-85; instr. psychol., Harvard, 91-93; lecturer, Hopkins, 96. Psychology of time and space; ethics; philosophy; genetic geometry and physics; abridged cosmology.
- Nichols, John Treadwell**, American Museum of Natural History, New York, N. Y. *Zoology*. Jamaica Plain, Mass, June 11, 83. A.B., Harvard, 05. Asst., *dept. ichthyol.*, *Am. Museum Nat. Hist.*, 09-13, *asst. curator*, 13-19, *assoc. curator recent fishes*, 19- A.A; Soc. Ichthyol. and Herp; Soc. Mammal; Ornith. Union; Cooper Ornith. Club; Nuttall Ornith. Club; Wash. Biol. Soc; N. Y. Linnean Soc. Systematic and faunal ichthyology and ornithology.
- Nichols, Dr. M(ary) Louise**, Powelton Apartments, 36th St. and Powelton Ave, Philadelphia, Pa. *Zoology*. Brookville, Pa, Feb. 19, 73. Woods Hole, 95-97, 00; Ph.D., Pennsylvania, 01. Teacher zool., Phila. Nor. Sch, 93-02, zool. and geog, 02-16; *head dept. science*, *South Phila. High Sch. for Girls*, 16- A.A; Genetic Ass; Eugenics Soc. Spermatogenesis of *Oniscus asellus* Linn. and *Euchroma gigantea*; chromosome relations in the spermatocyte of *Oniscus*; development of the pollen of *Sarracenia*; comparative studies in crustacean spermatogenesis; habits of the mining bee.
- Nichols, M(elvin) L.**, Cornell University, Ithaca, N. Y. *Chemistry*. Dayton, Ohio, Nov. 30, 94. Ch.B., Cornell, 18, Ph.D., 22. Instr., *Cornell*, 18-22, *asst. prof. anal. chem.*, 23- Chem. Soc. Physical and analytical chemistry.
- Nichols, Dr. Susan P(ercival)**, Oberlin College, Oberlin, Ohio. *Botany*. Brownville, Maine, May 12, 73. B.S., Cornell, 98, fellow, 98-99; scholar, Am. Women's table, Naples Zool. Sta., 99-00; fellow, Wisconsin, 02-03, Ph.D., 04.

- Teacher science, Houghton Sem, N. Y., 00-02; private sch, Ky, 04-08; instr. bot, Oberlin, 08-11, assoc. prof, 11-25, prof, 25- A.A.; Soc. Nat; Bot. Soc; Ohio Acad. The nature and origin of binucleated cells in some Basidiomycetes; the healing of wounds in algae cells; effect of wounds upon the circulation of protoplasm in Nitella.
- Nichols, Dr. William Henry**, 61 Broadway, New York, N. Y. **Chemistry, Metallurgy*. Brooklyn, N. Y., Jan. 9, 52. Brooklyn Polytech, 65-68; B.S., N. Y. Univ, 70, M.S., 73, LL.D., 20; LL.D., Lafayette, 04; Sc.D., Columbia, 04, Pittsburgh, 20, Tufts, 21. *Mfg. chemist, copper refiner and smelter*, 70- Chairman, Allied Chem. and Dye Corp; director companies. Eighth Int. Cong. Applied Chem. (pres, 12). A.A.; Chem. Soc. (pres, 18-20); Soc. Chem. Indust. (pres, 04); Electrochem. Soc; Min. Eng; Can. Min. Inst. Metallurgy of copper; industrial chemistry.
- Nicholson, Dr. Frederic M(ax)**, 508 Kesner Building, 5 N. Wabash Ave, Chicago, Ill. *Pathology*. Clinton, Iowa, Aug. 8, 89. Fremont Col, 09; Lewis Inst, Chicago, 15; B.S., Chicago, 18, Ph.D., 21, M.D., Rush Med. Col, 27. Asst. anat, Chicago, 19-20, assoc, 20-21; asst. path, Rockefeller Inst, 21-23, assoc, 23-24. A.A.; Ass. Anat; Harvey Soc; Ill. Acad. Microchemical and pathological cytology; rickettsia in Rocky Mountain spotted fever; iron-containing proteins of the nerve cells; the thyroid gland; meningo-encephalitic lesions and protozoan-like parasites; the central nervous system in botulinus poisoning.
- Nicholson, Prof. H(enry) Hudson**, 505 Terminal Building, Lincoln, Nebr. **Chemistry, Mineralogy*. Rushford, Wis, May 25, 50. Antioch, 67-70; A.M., Lawrence, 74; Harvard, 84; Heidelberg and Berlin, 85. Prof. physical science, Nebr. State Nor. Sch, 74-82; head prof. chem, Nebraska, 82-05; consulting mining and indust. engineer, 05- Consulting engineer, In-gold Placer Mining Co; Hamilton Mining Co; Standard Consol. Mining Co; Cuban Develop. Co. U. S. Assay Commission, 99. Chem. Soc; Min. Eng; Chem. Gesell. Substituted acrylic acids with electrolytic separation of iron, nickel and zinc; gold ores of the Colorado sulphid belt; the calorimetric assay of copper; distillation products of Cuban hard woods.
- Nicholson, Rev. P(atrick) J(oseph)**, St. Francis Xavier College, Antigonish, N. S., Can. *Physics*. Beaver Cove, N. S., Sept. 8, 87. B.A., St. Francis Xavier, 09; A.M., Hopkins, 11, fellow, 11-12, Ph.D., 13; theol. studies, 13-16. Prof. physics, St. Francis Xavier, 12- A.A.; Physical Soc. Selenium.
- Nicholson, Dr. Seth B(arnes)**, 1078 N. Michigan Ave, Pasadena, Calif. **Astronomy*. Springfield, Ill, Nov. 12, 91. B.S., Drake, 12; Ph.D., California, 15. Instr. astron, California, 13-15; astronomer, Mt. Wilson Observatory, 15- Astron. Soc; Pacific Astron. Soc. Solar astronomy; heat radiation of stars and planets; orbits of comets and asteroids; discovery and orbit of Jupiter's ninth satellite.
- Nickerson, Prof. C(arleton) B(ell)**, Dalhousie University, Halifax, N. S., Can. *Chemistry*. Boothbay Harbor, Maine, Jan. 15, 85. A.B., Clark, 06, A.M., 07. Asst. Mass. Inst. Tech, 07-09; instr. chem, Dalhousie, 09-20, asst. prof, 20-22, assoc. prof, 22-23, prof, 23- N. S. Inst. (v. pres, 20-22, pres, 22-24). Analytical chemistry.
- Nickerson, Mrs. Margaret (Lewis)**, 179 Malcolm Ave, S. E., Minneapolis, Minn. **Histology, Embryology*. Akron, N. Y., Dec. 8, 70. A.B., Smith, 93; Ass. Col. Alumnae fellow, 96-97; A.M., Radcliffe, 97; M.D., Minnesota, 04. Instr. histol. and embryol, Minnesota, 98-06; physician, pub. schools, Minneapolis, 12-
- Nickerson, Dr. W(infield) S(cott)**, Faribault, Minn. **Zoology, Medicine*. Cotuit, Mass, Nov. 2, 64. B.S., Harvard, 90, Sc.D., 94; M.D., Minnesota, 05. Acting prof. biol, Colorado, 94-95; instr. Northwestern, 95-96; histol. and embryol, Minnesota, 97-99, asst. prof, 99-11; practicing physician, 11- Capt. M.R.C. Morphology of Vermes; morphology of several trematodes; human helminthology.
- Nicolet, Prof. Ben H(arry)**, University of Chicago, Chicago, Ill. *Chemistry*. Kansas City, Mo, July 30, 90. A.B., Kansas, 10; Ph.D., Yale, 13. Fellow, Mellon Inst, 13-17; asst. prof. chem, Chicago, 19- Chief org. div. lab, C.W.S., U.S.A., 18. A.A.; Chem. Soc. Hydantoins; hydrogenation of fats and oils; higher fatty acids; the nature of halogens attached to carbon.
- Nicoll, Dr. Homer K(ing)**, 122 S. Michigan Ave, Chicago, Ill. *Internal medicine*. Clarence, Iowa, June 20, 83. A.B., Tarkio Col, 04; M.D., Rush Med. Col, 09, fellow, 11-13. Instr. path, Rush Med. Col, Chicago, 14-20, asst. prof. clin. med, 24- Res. pathologist, Presb. Hosp, Chicago, 14-20. Soc. Internal Med; Am. Med. Ass; Inst. Med; Chicago Path. Soc. Antistreptococcus serums in chronic arthritis; chronic carbon monoxid poisoning.
- Nielsen, Prof. J(ens) Rüd**, University of Oklahoma, Norman, Okla. *Physics*. Copenhagen, Denmark, Sept. 22, 94. Copenhagen, 13-19; London, Cambridge, Oxford, Manchester, 20; Ph.D., Calif. Inst, 24. Asst. physics, Copenhagen, 16-20; instr. Polytekniske Laereanstalt, Copenhagen, 20-22; Am-Scandinavian Foundation fellow, 22-23; prof, Humboldt State Teachers Col, Calif, 23-24; asst. prof, Oklahoma, 24-26, assoc. prof, 26- A.A.; Physical Soc; Okla. Acad. Photo-electric effect; spectroscopy.
- Nielsen, Dr. Walter M.**, Duke University, Durham, N. C. *Physics*. Tyler, Minn, Dec. 18, 00. B.S., Minnesota, 22, Ph.D., 25. Teaching fellow, Minnesota, 22-25; instr. physics, Duke, 25- Physical Soc. Negative ion formation in mercury vapor.
- Nierman, Dr. John L(ewis)**, 306 W. Alice St, Kingsville, Texas. *Chemistry*. Howell, Mo, Feb. 11, 87. B.S., Missouri, 18, A.M., 19, fellow, 23-24, Ph.D., 24. Head dept. chem, Sweet Briar, 19-23; S. Texas State Teachers Col, 23- Chem. Soc. Radioactivity; agricultural chemistry.

- Nietz, A(dolph) H.** 55 Harding Road, Rochester, N. Y. *Chemistry*. Rochester, Minn., July 10, 89. A.B., Minnesota, 13, M.S., 15. Asst. instr. chem., Minnesota, 14-15; research chemist, *Eastman Kodak Research Lab*, 15-17, 19-20, *factory supt*, 20- Lieut., Bur. Aircraft Production, 18. Chem. Soc. Photography; organic reducers; hydrogen electrode; photographic development.
- Nieuwland, Prof. Julius Arthur**, University of Notre Dame, Notre Dame, Ind. *Chemistry*, *Botany*. Ghent, Belgium, Feb. 14, 78. A.B., Notre Dame, 99, Sc.D., 11; Ph.D., Catholic Univ., 04. *Prof. org. chem*, Notre Dame, 04-, bot., 04-18, *head dept*, 18-, *dean faculty science*. Ed., 'Mid. Nat.' Chem. Soc.; Chem. Gesell. Synthesis of organic compounds from acetylene; taxonomy and nomenclature of higher plants.
- Nightingale, Dr. Gordon T(hayer)**, New Jersey Agricultural Experiment Station, New Brunswick, N. J. *Biochemistry*. Northville, Mich., April 6, 98. B.S., New Hampshire, 19, M.S., 21; Ph.D., Wisconsin, 25. Asst., N. H. Exp. Sta., 19-20; W. Va. Exp. Sta., 20-21; instr., Wisconsin, 21-25; *biochemist*, dept. hort., N. J. Exp. Sta., 25- Nitrogen metabolism in plants in relation to length of daily light exposure and other factors of environment.
- Nightingale, Harold Watson**, University of Washington, Seattle, Wash. *Fisheries*. Boston, Mass., Dec. 31, 91. B.S., Mass. Inst. Tech., 14; M.S., Washington (Seattle), 25. Sci. asst., Bur. Fisheries, 14-16; biologist, Panama Canal Zone, 16-20; consultant, New York and Boston, 20-24; *instr. fisheries*, Washington (Seattle), 24- Lecturer, Mass. Inst. Tech., 22; chief div. sanitation, Wash. State Board Health, 26-27. Naturalist, Int. Ice Patrol; Can. fisheries exped., 14-15. Sanitation; fisheries.
- Niles, Prof. Walter L(indsay)**, 477 First Ave., New York, N. Y. *Medicine*. Lebanon, N. Y., Jan. 2, 78. M.D., Cornell, 02. *Prof. clin. med.*, med. col., Cornell, acting dean, 18-19, *dean*, 19- Attending physician, Bellevue Hosp; consulting physician, Mem., Willard Parker, Jamaica and Southampton Hospitals. A.A.; Soc. Exp. Biol.; Am. Physicians; Am. Med. Ass; Harvey Soc; N. Y. Acad. Med. Bacteriology; circulation; metabolism in diabetes.
- Nininger, Prof. H(arvey) H(arlow)**, 759 E. Euclid St., McPherson, Kans. *Ornithology*, *Natural history*. Conway Springs, Kans., Jan. 17, 87. A.B., McPherson, 14; A.M., Pomona, 16. Prof. biol., La Verne Col., 14-18; field agent, bur. entom., U. S. Dept. Agr., 18-19; *prof. biol.*, Southwestern (Kans.), 19-20; *McPherson*, 20- Summers, lecturer, Pomona, 16, field agent, Kans. Entom. Commission, 19; supt., Rocky Mountain Summer Sch., 22- McPherson biol. exped., Great Basin, 21. A.A.; Ornith. Union; Nat. Ass. Audubon Societies; Kans. Audubon Societies (v. pres); Kans. Acad. (pres, 25). North American birds; meteorites of North America; life histories of insects; mouthparts of Orthoptera.
- Nisson, Dr. P(hilip) S(amuel)**, 1614 Ave. M., Brooklyn, N. Y. *Chemistry*. Boston, Mass., Oct. 19, 00. A.B., Harvard, 20; Ph.D., Columbia, 24. Instr., Columbia, 20-22; *chemist*, *Gray Indust. Laboratories*, 24- A.A.; Chem. Soc. Petroleum.
- Nitchie, C(harles) C(arter)**, Residence Park, Palmerton, Pa. *Metallurgy*. Evanston, Ill., Nov. 29, 81. A.B., Cornell, 05. Chemist, Mineral Point Zinc Co., 05-21; *research investigator*, N. J. Zinc Co., 21- Chem. Soc. (chairman, Lehigh Valley sect, 26); Min. and Metal. Eng. Metallurgical chemical analysis; gas producers; hydro-metallurgy of zinc; quantitative spectrographic analysis.
- Nixon, Dr. Charles E(dward)**, 626 Flood Building, San Francisco, Calif. *Neurology*. California, 90. A.B., Minnesota, 08, M.D., 15, M.S., 19, Ph.D., 21. Teaching fellow, instr. and asst. prof. nervous and mental diseases, Minnesota, 17-21; *instr. neuropath*, med. sch., California, 22- Fel. Am. Med. Ass; Cent. Neuropsychiat. Ass. Chemistry of the cerebrospinal fluid; neuropathology; individuality.
- Noble, Prof. Charles Albert**, 2224 Piedmont Ave., Berkeley, Calif. *Mathematics*. Soquel, Calif., Aug. 14, 67. B.S., California, 89, fellow, 96-97; Ph.D., Göttingen, 01. Teacher *math*, high schools, Calif., 89-93; instr., California, 97-00, 01-03, asst. prof., 03-11, assoc. prof., 11-19, *prof*, 19- Math. Soc. Partial differential equations; calculus of variations.
- Noble, Dr. G(ladwyn) K(ingsley)**, American Museum of Natural History, New York, N. Y. *Zoology*. Yonkers, N. Y., Sept. 20, 94. A.B., Harvard, 17, A.M., 18; Ph.D., Columbia, 22. Asst. curator *herp*, Am. Museum Nat. Hist., 19-22, assoc. curator, 22-24, *curator*, 24- Lecturer, Columbia, 25. Zoologist, Harvard exped., Guadeloupe, Newfoundland and Peru, 14-16. A.A.; Soc. Zool.; Soc. Ichthyol. and Herp; Ass. Anat.; fel. N. Y. Acad. Anatomy and phylogeny of the Amphibia; amphibian life histories; evolution of the vertebrate skeleton; taxonomy and distribution of amphibians, reptiles and birds.
- Noble, Dr. L(evi) F.** Valyermo, Calif. *Geology*. Auburn, N. Y., Nov. 13, 82. A.B., Yale, 05, A.M., 07, Ph.D., 09. Junior geologist, U. S. Geol. Surv., 09-12, asst. geologist, 12-17, assoc. geologist, 17-19, *geologist*, 19- A.A.; Geol. Soc; Am. Geog. Soc; Calif. Acad. Geology of the Grand Canyon, Arizona; geology of the Death Valley region and the San Andreas Rift, California; saline deposits in the desert regions of southeastern California and southern Nevada.
- Noble, Dr. R(obert) J(ackson)**, Department of Agriculture, Sydney, N. S. W., Australia. *Plant pathology*. Sydney, May 17, 94. B.Sc.A., Sydney Univ., 15; Ben Fuller research fellow, 21-23; M.S., Minnesota, 22, Ph.D., 23. Asst. biologist, N. S. W. Dept. Agr., 20-21; collaborator, U. S. Dept. Agr., 21-23; *prim. asst. biologist*, N. S. W. Dept. Agr., 23- Instr., Australian Imp. Forces, Eng., 19. Phytopath. Soc; Royal Soc. N. S. W.; Linnean Soc. N. S. W. Cereal diseases; the physiology of cereal smuts.

- Noble, Prof. W(illis) C(larke), Jr.**, 338 E. 26th St, New York, N. Y. *Bacteriology, Hygiene*. Peking, China, May 19, 85. Ph.B, Yale, 06, Ph.D, 13; M.D, N. Y. Univ, 25. Instr. bacter, *Univ. and Bellevue Hosp. Med. Col.*, 14, lecturer, 14-17, *asst. prof. hygiene*, 17-20, *bacter*, 20- Bacteriologist, Dept. Health, New York, 13-14; N. Y. State Dept. Health, 18-25; N. Y. State Commission on Ventilation, 13-16. A.A.; Soc. Bact; Ass. Immunol; Soc. Exp. Biol; Harvey Soc. Public health bacteriology; tetanus; diphtheria; etiology of acute respiratory infections; disinfection; influence of external temperatures on the formation of immune bodies; immunization with vaccines.
- Noé, Prof. A(dolf) C(arl)**, University of Chicago, Chicago, Ill. *Paleobotany, Geology*. Graz, Austria, Oct. 28, 73. A.B, Chicago, 00, Ph.D, 05; Sc.D, Innsbruck, 22; hon. Ph.D, Graz, 23. Demonstrator paleobot, Graz, 95-97; instr. science and mod. languages, Burlington Inst, Iowa, 00-01; German, Stanford, 01-03; instr. and *asst. prof.* German lit, *Chicago*, 03-23, *asst. prof. paleobot*, 23-24, *assoc. prof.*, 24- Geologist, Ill. State Geol. Surv, 21; Ky. Geol. Surv, 22; Iowa Geol. Surv, 23- Treasurer, Am. Committee for Vienna Relief, 21- Gold medal, Vienna, 23; Officer's Cross, Order of Austrian Republic, 25. A.A; Paleont. Soc; Bot. Soc; Ass. Petrol. Geol; Min. and Metal. Eng. (v. chairman, Chicago sect, 26, chairman, 27); West. Soc. Eng; Ill. Acad; Iowa Acad; Chicago Geog. Soc; Soc. géol. de France. Coal geology; carboniferous flora of America; morphology of fossil plants; stratigraphy of coal measures; geology of Illinois, Iowa and Donetz basin, Russia.
- Noetzli, Fred A.**, 928 Central Building, Los Angeles, Calif. *Hydraulic engineering*. Zurich, Switzerland, July 29, 87. C.E, Swiss Fed. Polytech, 11; Sc.D, Zurich, 13. Survey Swiss Nat. Park, 11-12; instr. and *prof.* in charge Swiss Fed. Polytech, 12-14; designer and constructor bridges, Rome, Italy, 15-16; instr, Lehigh, 16-17; designer, concrete structures, Calif, 17-18; hydro-elec. and irrig. developments, Calif. and Ariz, 18-22; *consulting engineer*, U. S. Dept. Interior, *Indian Irrig. Service*, 25- J. James R. Croes medal, Soc. Civil Eng, 21. Civil Eng. Gravity and arch action in curved dams; relation between deflections and stresses in arch dams; arch and multiple arch dam construction.
- Noguchi, Dr. Hideyo**, Rockefeller Institute, New York, N. Y. **Pathology, Bacteriology*. Fukushima, Japan, Nov. 24, 76. M.D, Tokyo Med. Sch, 97; M.S, Pennsylvania, 06; Ph.D, Tokyo, 14; Sc.D, Brown, 21; Yale, 21; hon. Dr, Sorbonne, 25. *Asst. Govt. Inst. for Infectious Diseases*, Tokyo, 98-00; path, Pennsylvania, 01-03; research *asst.*, Carnegie Institution, 03-04; *asst.*, *Rockefeller Inst.*, 04-07, *assoc.*, 07-09, *assoc. mem.*, 09-14, *mem.*, 14- Titular *prof.*, Imp. Govt. Japan, 11. A.A; Am. Physicians; Ass. Path. and Bact; Soc. Immunol; Soc. Exp. Biol; Soc. Exp. Path; Philos. Soc; Harvey Soc; cor. mem. Vienna Soc. Internal Med; Soc. biol. de Paris; Soc. de Path. exot; Mex. Nat. Acad; Norwegian Med. Soc; Danish Royal Acad; Moscow Soc. Dermat; Med. Soc. Caracas; Accad. Med.
- Florence. Snake venoms and antitoxins; hemolysis; cytotoxins; syphilis; cultivation of Spirochetes; filterable viruses; general paralysis; yellow fever; Carrion's disease.
- Nolan, Thomas B(rennan)**, U. S. Geological Survey, Washington, D. C. *Geology*. Greenfield, Mass, May 21, 01. Ph.B, Yale, 21, Ph.D, 24. Junior geologist, U. S. Geol. Surv, 24-26, *asst. geologist*, 26- Min. Eng; Wash. Geol. Soc. Economic geology.
- Nolan, W(illis) J(ames)**, 423 Dorset Ave, Washington, D. C. *Apiculture*. Cleveland, Ohio, April 11, 91. A.B, Western Reserve, 14; A.M, Illinois, 17. *Asst. biol.*, Western Reserve, 14-16; *assoc. apiculturist, bur. entom.*, U. S. Dept. Agr, 21- U.S.A, 17-19. A.A; Ass. Econ. Entom. The brood-rearing activity of the honeybee; the rearing of queen bees; the major sources of pollen used by honeybees.
- Noland, Prof. Lowell E(van)**, 1723 Summit Ave, Madison, Wis. *Protozoology*. Lee, Ind, July 15, 96. A.B, De Pauw, 17; A.M, Wisconsin, 21, Ph.D, 23. Teacher, high sch, Ind, 17-18, 19-20; *asst. zool.*, *Wisconsin*, 20-21, *instr.*, 21-25, *asst. prof.*, 25- A.A; Soc. Zool; Ecol. Soc; Soc. Parasitol; Micros. Soc. Ecology of Protozoa; taxonomy and cytology of ciliates.
- Noll, Dr. Charles F(ranklin)**, Pennsylvania State College, State College, Pa. *Agronomy*. Green Park, Pa, 78. Cumberland Valley State Nor. Sch, Pa, 00; B.S, Pa. State, 06; M.S, Cornell, 11, Ph.D, 23. Special field *asst.*, *div. zool.*, Pa. State Dept. Agr, 06-07; *prof. exp. agron.*, Pa. State, 08- A.A; Soc. Agron. Field tests with fertilizers and lime; strains and varieties of field crops; breeding of corn, oats and wheat; plant genetics.
- Nolla, J(ose) A(ntonio) B(ernabe)**, Insular Experiment Station, Rio Piedras, P. R. *Plant pathology*. Camuy, P. R, May 22, 02. B.S.A, Porto Rico, 23; M.S, Cornell, 26. *Exten. service*, Insular Dept. Agr, Porto Rico, 23-24; *asst. plant pathologist*, Insular Exp. Sta, 24-25. Bot. Soc; Phytopath. Soc. The anthracnose of pomelo, orange, lemon, lime, mango and avocado; an alternaria disease of onions; onion culture; onion leaf anthracnose; mango withertip.
- Nomland, Dr. J(orgen) O.**, 1524 Grand Ave, Oakland, Calif. *Paleontology, Geology*. Buxton, N. Dak, Aug. 24, 85. E.M, North Dakota, 10; M.S, California 15, fellow, 14-16, Ph.D, 16. *Asst. chief geologist*, *Standard Oil Co. of Calif.*, 16- In charge geol. exped, Panama, 19-22; Indo-China, 23-24. Paleont. Soc; Calif. Acad. Invertebrate paleontology; petroleum geology; California tertiary geology and paleontology; petroleum engineering.
- Nonidez, Dr. Jose F(ernandez)**, Cornell Medical College, 477 First Ave, New York, N. Y. *Anatomy*. Madrid, Spain, Feb. 22, 92. M.S, Madrid, 13, Sc.D, 14. *Asst. zool.*, Columbia, 18-19; research *assoc.*, Carnegie Inst, 19-20; *assoc. instr. anat. med. col.*, Cornell, 20- Traveling scholar, Spanish Govt, 17-19. Woods Hole. Ass. Anat; Soc. Zool; Harvey Soc. Cytology; endocrinology.

- Norbury, Dr. Frank Parsons**, 1133 Williams Boulevard, Springfield, Ill. or Norbury Sanatorium, 1631 Mound Ave, Jacksonville, Ill. *Psychiatry*. Beardstown, Ill, Aug. 5, 63. M.D., L. I. Col. Hosp, 88; A.M., Ill. Col. 03. Res. physician, Pa. Inst. for Feeble-Minded, 88; asst. physician, Ill. Cent. Hosp. for Insane, 88-93; physician-in-charge, Oak Lawn Retreat, 96-00; Norbury Sanatorium, 01-09; *supt.*, Kankakee State Hosp, 09-11; alienist, state board administration, 11-13; *Norbury Sanatorium*, 13- Prof. Keokuk Med. Col, 04-08. Acting med. director, Nat. Committee for Mental Hygiene, 17-19. A.A.; Psychiat. Ass; Am. Med. Ass; Col. Physicians; Meteor. Soc. Neuropsychiatry; exhaustion; social psychiatry.
- Norcross, Prof. Wilbur Harrington**, Dickinson College, Carlisle, Pa. *Psychology*. Ralston, Pa, June 28, 82. A.B., Dickinson, 07, A.M., 12; Hopkins, 14-16, fellow, 16-17, Ph.D., 20. Teacher Greek and Latin, Dickinson Sem, 08-14, dean, 12-14; *prof. psychol.*, Dickinson, 16- Lieut, S.C, 18-19. A.A.; Psychol. Ass; S. Psychol. Ass. Experimental psychology; learning process; acquisition of skill.
- Nordgaard, Prof. Martin A(ndrew)**, 1304 St. Olaf Ave, Northfield, Minn. *Mathematics*. Northwood, Iowa, Jan. 29, 82. A.B., St. Olaf, 03; Chicago, 12-13; A.M., Maine, 14; Pennsylvania, 17-18; Ph.D., Columbia, 22. Teacher, secondary schools, 03-12; instr. *math.*, Maine, 13-16; Grinnell, 18-19, asst. prof., 19-21; lecturer, Columbia, 21-22; *prof. and head dept.*, Antioch, 22-24; *St. Olaf*, 24- Math. Ass. (pres, Minn. sect, 25-). History of mathematics; algebraic methods; prognostic tests; mathematical tests in college.
- Norling, Dr. Sven A(lbert)**, Masonic Temple, Excelsior, Minn. *Agricultural engineering*. Söderhamn, Sweden, March 21, 94. B.S., Upsala, 17, M.S., 19; Am-Scandinavian Foundation fellow, Wisconsin, 20-21, fellow, 22-23, Ph.D., 24. Teacher, Molkom Agr. Sch, Sweden, 20; research asst. agr. eng, Minnesota, 21-22; *consulting engineer*, 23- Summer, state surveyor, Lake Vanern control, Sweden, 20. Agr. Eng; Minneapolis Eng. Club. Ground water and its relation to crop growth; sub-soil as a factor in drainage design.
- Norman, Prof. C(arl) A(dolph)**, 129 Tibet Road, Columbus, Ohio. *Mechanical engineering*. Borga, Finland, Jan. 12, 79. M.E., Royal Tech. Inst, Stockholm, 00; Munich; California; Chicago; Royal Tech. Inst. Charlottenburg. Indust. engineer, Russia, Gen. Elec. Co. and Int. Harvester Co, 02-17; *prof. machine design*, Ohio State, 17- Mech. Eng; Automotive Eng. Thermodynamics; machine elements; economic utilization of liquid fuel; entropy chart for gases; carburetion temperature of oil mixtures; belt transmission; principles of machine design.
- Norris, Dr. Charles**, 344 W. 72d St, New York, N. Y. *Pathology, Bacteriology*. Hoboken, N. J., Dec. 4, 67. Ph.B., Yale, 88; M.D., Columbia, 92, Alumnus fellow, 96-97, 00-02; Göttingen, 94-95; Vienna, 95-96. Intern, Roosevelt Hosp, 93-94; tutor path, Columbia, 97-99; instr. med. col, Cornell, 99-00; asst. bacter. and hygiene, Columbia, 02-03, instr., 03-04; *director laboratories, Bellevue and Allied Hospitals*, 04-; chief med. examiner, New York, 18-; asst. *prof. path.*, Cornell; *prof. gross anat.*, Fordham. Ass. Path. and Bact; Soc. Exp. Biol; N. Y. Path. Soc; N. Y. Acad. Med. The bactericidal action of lymph and of the blood; the isolation of bacillus aerogenes capsulatus; broncho-pneumonia with streptothrix; suppurative phyllophlebitis; bacterial precipitins; pneumococci in human mouth and lungs after death; 'red-leg' in frogs; spirochete and spirochetal infection; multiple systemic sarcoma; acromegalia; typhoid carriers; anterior poliomyelitis; vaccine treatment in acute suppurative infections; wood alcohol poisoning; the medical examiner; tetra-ethyl lead and carbon monoxid poisoning.
- Norris, Dr. Earl R(alpha)**, State University of Iowa, Iowa City, Iowa. *Biochemistry*. Minot, N. Dak, Feb. 12, 96. B.S., Mont. Col, 19; Ph.D., Columbia, 24. *Instr. biochem.*, Iowa, 24- Chem. Soc. Hydrolysis and precipitation proteins; applications of colloid chemistry to biochemical problems.
- Norris, Prof. G(eorge) W(illiam)**, University of Pennsylvania, Philadelphia, Pa. *Medicine*. Philadelphia, Jan. 1, 75. A.B., Pennsylvania, 95, M.D., 99. *Prof. clin. med.*, Pennsylvania, 12- Am. Med. Ass; Am. Physicians; Philos. Soc; Phila. Path. Soc; fel. Phila. Col. Physicians; Phila. Acad. Cardiac and pulmonary pathology and diagnosis.
- Norris, Prof. H(arry) W(aldo)**, Grinnell, Iowa. *Zoology*. Pittsfield, N. H, Sept. 11, 62. A.B., Grinnell, 86, hon. A.M., 89, Sc.D., 24; fellow, Cornell, 88-90; Nebraska, 90-91; Freiburg, 01-02. Instr. biol, Grinnell, 88, *prof.*, 91-03, *zool.*, 03- A.A.; Soc. Nat; Soc. Zool; Micros. Soc; Ass. Anat; Iowa Acad. Development of the amphibian ear; cranial nerves of Amphiuma, Siren, the cecilians, the dogfish and ganoid fishes.
- Norris, H(enry) H(utchinson)**, Holbrook, Mass. *Electrical engineering*. Philadelphia, Pa, April 26, 73. Hopkins, 90, 92-94; Cornell, 94-96. Electrician, Rhodes Mfg. Co, 90-91; Arnold Elec. Mfg. Co, 91-92; asst. instr. elec. eng, Hopkins, 92-94; instr. Cornell, 96-01, asst. prof, 01-05, prof, 05-14, in charge dept, 09-14; ed. staff, 'Elec. Ry. Jour,' 14-23; asst. to pres, McGraw-Hill Co, 23-25; *educ. adviser*, Boston Elevated Ry, 25- Supt. elec. ry. tests, and mem. jury awards, La. Purchase Expos, 04; consulting engineer. Elec. Eng. (manager, 09-12); Elec. Ry. Ass; Eng. Educ. (sec'y, 09-14). The pedagogical treatment of engineering branches; electric railway operation and engineering.
- Norris, Prof. James F(lack)**, Massachusetts Institute of Technology, Cambridge, Mass. **Chemistry*. Baltimore, Md, Jan. 20, 71. A.B., Hopkins, 92, fellow, 94, Ph.D., 95. Asst. org. chem, Mass. Inst. Tech, 95-96, instr, 96-00, asst. prof, 00-04; *prof. chem.*, Simmons (Mass), 04-15; Vanderbilt, 15-16; gen. chem, Mass. Inst. Tech, 16-20, org. chem, 20-, *director re-*

- search lab*, 26- Lecturer, Harvard, 12-14; Clark, 13-14. Chairman div. chem. and chem. technol, Nat. Research Council, 24-25; v. pres. Int. Union Pure and Applied Chem, 25-28. Assoc. Naval Consulting Board, 16; in charge war gas offense chem. research, U. S. Bur. Mines, 17-18; lieutenant, C.W.S., 18-19; in charge C.W.S. for England and inspection German chem. war gas factories. Chem. Soc. (pres, 25-27, asst. ed, 'Jour,' pres, New Eng. sect, 04-06); Am. Acad; hon. mem. Royal Inst; hon. fel. Roumanian Chem. Soc. Principles of organic chemistry; experimental organic chemistry; inorganic chemistry.
- Norris, Prof. L(eo) C(handler)**, 108 Elston Place, Ithaca, N. Y. *Poultry husbandry*. Canaserauga, N. Y., March, 91. B.S., Cornell, 20, Ph.D., 24. Instr. animal husbandry, Cornell, 20-23, instr. and asst. prof. poultry husbandry, 23- Poultry Sci. Ass. Production of volatile fatty acids in the intestinal tract of calves; rickets in chicks; protein requirement of growing chicks.
- Norris, Dr. R(obert) S(tewart)**, Santa Cruz, Calif. *Chemistry*. Belleville, Wis., Jan. 19, 69. B.S., California, 92; Ph.D., Hopkins, 97. Food expert, U. S. Dept. Agr., 97-98; instr. chem., California, 98-99; chemist and supt., Union Sugar Co., 99-07; chemist, Exp. Sta., Hawaiian Sugar Planters' Ass., 07-13, sugar technologist, 13-20. A.A.; Chem. Soc.; Hawaiian Chem. Ass. (pres, 11); Hawaiian Eng. Ass. Sugar technology.
- Norris, R(obert) V(an) A(rsdale)**, 524 Second National Bank Building, Wilkes-Barre, Pa. *Mining engineering*. Newark, N. J., May 2, 64. E.M., Columbia, 85, hon. M.S., 14. Engineer, Susquehanna Coal Co., 86-14; D. L. and W. Ry., 06-18. Lecturer, Harvard, 07-17; Columbia, 09, 14-16. Engineer, U. S. Fuel Ad., 18-19; price fixing committee, W. I. B., 18-19. A.A.; Min. Eng. (councilor, 08-10, v. pres, 11-12, director, 20-27, chairman, anthracite sect); Civil Eng; Mech. Eng; Can. Min. Inst. Coal mining; valuation; taxation.
- North, C(layton) Olin**, 384 Merriman Road, Akron, Ohio. *Chemistry*. DuBois, Pa., Oct. 31, 91. B.S., Carnegie Inst. Tech., 14, Ch.E., 17. In charge chem. lab, Republic Rubber Co., 14-16; compounder, Goodyear Tire and Rubber Co., 16-18, asst. director research, 18-21; sec'y, treas. and manager development, Rubber Service Laboratories, 21- Major, C.W.R.S. Chem. Soc. The use and effect of materials in rubber compounding; accelerators.
- North, Dr. Edward O(scar)**, Knox College, Galesburg, Ill. *Analytical chemistry*. Rockford, Ill., Oct. 29, 95. B.S., Beloit, 18; M.S., Illinois, 22, Ph.D., 25. Instr. chem., Beloit, 18-20; Knox Col., 24- The preparation, properties and uses of silicododecitungstic acid.
- North, Dr. H(enry) B(riggs)**, North Metal and Chemical Co., York, Pa. *Chemistry*. Janesville, Wis., Jan. 14, 79. Ph.G., Wisconsin, 02, B.S., 04, A.M., 06; Zurich; D.Sc., Paris, 09. Instr. chem., Wisconsin, 04-07; assoc. prof., Rutgers, 10-17; research chemist, York Metal and Alloy Co., 17-21; pres. and treas., North Metal and
- Chem. Co.*, 21- Pres., York Bleachery and Dye Works. Chem. Soc.; Soc. chim. de France. Reactions of thionyl and sulphuryl chlorides; tungsten and molybdenum compounds; rare elements.
- Northcott, Prof. John A(rthur)**, 137 Glenwood Ave., Leonia, N. J. *Mathematics*. Belleville, Can., June 20, 83. B.A., Toronto, 04, M.A., 05. Asst. master, St. Andrew's, 04-07; instr. math., Cheshire Sch., Conn., 07-09; Syracuse, 09-12, asst. prof., 12-13; instr., Columbia, 13-14; assoc. prof., Syracuse, 14-20, prof., 20-21; assoc., Columbia, 21-22, asst. prof., 22-, asst. to director univ. exten., 25-27, assoc. director, 27- Math. Soc. Differential geometry.
- Northrop, John D(eWolf)**, U. S. Geological Survey, Washington, D. C. *Economic geology*. Troupsburg, N. Y., Nov. 5, 86. B.S., Syracuse, 10, 10-11. Asst. classifier, U. S. Geol. Surv., 11-14, asst. geologist, 14, assoc. geologist, 14-16, geologist, 16-19; Roxana Petrol. Corp., U. S., Peru and Ecuador, 19-21; geologist, U. S. Geol. Surv., 21-24, senior geologist and asst. chief conservation branch, 24- Soc. Econ. Geol.; Wash. Geol. Soc. Petroleum; natural gas; asphalt; political and commercial control of the petroleum resources of the world.
- Northrop, Dr. John H(oward)**, Rockefeller Institute, Princeton, N. J. *Biology, Biochemistry*. Yonkers, N. Y., July, 91. B.S., Columbia, 12, A.M., 13, Ph.D., 15, fellow, 15-16. Asst., Rockefeller Inst., 16, assoc., 17-20, assoc. mem., 20-24, mem., 24- Ed., 'Jour. Gen. Physiol.' A.A.; Chem. Soc.; Soc. Exp. Biol. Starch; effect of temperature on insects; fermentation; agglutination of bacteria.
- Northrup, Prof. Ann Hero**, Tulane University, New Orleans, La. *Chemistry*. New Orleans, April 21, 75. A.B., Vassar, 96, A.M., 97. Instr. chem., Pratt Inst., 98-03; acting prof., Newcomb Col., Tulane, 04-05, prof., 05- A.A.
- Northrup, Dr. E(dwin) F(itch)**, Princeton, N. J., or 636 E. State St., Trenton, N. J. **Physics*. Syracuse, N. Y., Feb. 23, 66. A.B., Amherst, 91; fellow, Hopkins, 93-95, Ph.D., 95. Prof. physics, Texas, 96-97; engineer, Rowland Telegraph Co., 98-02; sec'y, Leeds and Northrup Co., Phila., 03-10; asst. prof. physics, Princeton, 10-20; pres., Pyroelectric Instrument Co., N. J., 16-20; v. pres., Electrothermic Corp., 20- Bronze medal, Paris, 00; Longstreth medal, 12; Elliott Cresson medal, 16. A.A.; Electrochem. Soc.; Elec. Eng.; Franklin Inst. Alternating current telegraphy; electrical measurements; forces in electrical conductors; electrical conductivity at very high temperatures; the motions of vortex rings in fluids; temperature measurement, recording and control; the measurement of large alternating currents; inductive heating without the use of a transformer iron; high frequency induction furnaces; electrothermic engineering.
- Northrup, Dr. W(illiam) P(erry)**, 114 E. 71st St., New York, N. Y. *Medicine*. Peterborough, N. Y., Jan. 11, 51. A.B., Hamilton, 72, A.M., 75; M.D., Columbia, 78; LL.D., Knox, 20. Instr. Greek, Knox, 72-76; prof. pediat., Univ. and Bellevue Hosp. Med. Col., 94-20, emer. prof., 20- Attending and consulting physician,

- Presb. Hosp; consulting physician, hospitals, Health Dept, New York. Emer. mem. Am. Physicians; Pediat. Soc. (past pres); fel. N. Y. Acad. Med. (past pres, pediat. sect). Diphtheria; scurvy; infant feeding; infectious diseases; open-air treatment of pneumonia and other acute infectious diseases; roof playgrounds.
- Norton, Prof. Arthur E(dwin)**, Harvard University, Cambridge, Mass. *Mechanical engineering*. Portland, Maine, June 26, 77. Ph.B, Brown, 00, hon. A.M., 20. Asst. prof. eng. drawing, *Harvard*, 10-20, *assoc. prof. mech. eng.*, 20- *Mech. Eng.* (chairman, sect. committee on standardization of bolt, nut and rivet proportions). Gear teeth; machine design.
- Norton, Arthur H(erbert)**, 22 Elm St, Portland, Maine. *Zoology*. St. George, Maine, April 19, 70. Pub. schools. *Curator, Portland Soc. Nat. Hist*, 05- A.A.; Ornith. Union; Nat. Ass. Audubon Soc; cor. mem. New Eng. Bot. Club; Maine Ornith. Soc. (sec'y); Portland (Maine) Soc. Nat. Hist; Josselyn Bot. Soc. (pres, sec'y). Ornithology; bibliography of the natural history of Maine.
- Norton, Prof. C(harles) L(add)**, Massachusetts Institute of Technology, Cambridge, Mass. *Physics*. Springfield, Mass, Dec. 11, 70. B.S, Mass. Inst. Tech, 93. Asst. *physics, Mass. Inst. Tech.*, 93-95, instr., 95-99, asst. prof., 99-06, *assoc. prof.*, 06-10, *prof.*, 10- A.A.; Physical Soc; Mech. Eng; Chem. Soc; Soc. Test. Mat; Eng. Educ; Ceramic Soc; Am. Acad. Industrial physics; thermal conductivity of earthy materials.
- Norton, Dr. Francis J(ames)**, 514 Clarendon St, Syracuse, N. Y. *Chemistry*. Fort Plain, N. Y., Aug. 11, 99. A.B, Yale, 21, Ph.D., 24. *Research chemist, research and develop. sect, Solvay Process Co*, 24- Chem. Soc. Solubility and vapor pressure in three component systems.
- Norton, F(rederick) H(arwood)**, 83 Washington St, Winchester, Mass. *Physics*. Manchester, Mass, Oct. 23, 96. B.S, Mass. Inst. Tech, 18. Chief physicist, Nat. Advisory Committee for Aeronautics, 18-22; *research assoc, Mass. Inst. Tech.*, 22- Fel. Physical Soc; Automotive Eng; Ceramic Soc. Aeronautics; ceramics.
- Norton, J(esse) B(aker)**, El Centro, Calif. *Botany*. Leadvale, Tenn, Aug. 19, 77. B.S, Kansas Col, 97, M.S, 01. Sci. aid, U. S. Dept. Agr, 00; asst. entomologist, Kansas Exp. Sta, 00-02; asst. physiologist, bur. plant indust, U. S. Dept. Agr, 02-07; asst. prof. plant breeding, Cornell, 07-08; physiologist, bur. plant indust, U. S. Dept. Agr, 08-18, agr. explorer, 19-20; plant breeder, Coker's Pedigreed Seed Co, 20-26; *physiologist, Associated Chambers Plant Pest Control Committee of Imperial Valley*, 26- A.A.; Genetic Ass; Dairy Sci. Ass; Am. Geog. Soc; Wash. Acad; Wash. Biol. Soc. Plant breeding; breeding disease-resistant vegetables; Liliaceae.
- Norton, Prof. J(ohn) B(itting) S(mith)**, College Park, Md. *Botany, Phytopathology*. Cocke Co, Tenn, April 7, 72. B.S, Kansas Col, 96, M.S, 00; hon. Sc.D, Maryland, 23. Asst. bot, Kans. Exp. Sta, 94-96; bot. asst, Mo. Bot. Garden, 96-01; *prof. bot. and plant path, Maryland*, 01-19, *mycol*, 20-, *plant pathologist and botanist, Exp. Sta*, 01- A.A.; Phytopath. Soc. (councilor, 26); Wash. Bot. Soc; Dahlia Soc. Flora of southwestern United States; Ustilagineae; North American Euphorbiaceae; plant diseases; Mycosphaerella; Dahlia variety rating and nomenclature.
- Norton, Prof. J(ohn) F(oote)**, University of Chicago, Chicago, Ill. *Bacteriology*. Natick, Mass, June 23, 85. B.S, Mass. Inst. Tech, 06; Ph.D, Chicago, 11. Asst. org. chem, Mass. Inst. Tech, 06-07, *indust. chem*, 07-08; *assoc. chem*, univ. high sch, Chicago, 08-10, *asst. bacter*, Chicago, 10-11; *instr. sanit. chem*, Mass. Inst. Tech, 11-14, *asst. prof*, 14-17; *bacter, Chicago*, 17-21, *assoc. prof*, 21- A.A.; Soc. Bact; Soc. Exp. Biol; Pub. Health Ass. (sec'y, lab. sect, 22-); Water Works Ass; Chicago Inst. Med. Hygiene; disinfection; water examination; food poisoning.
- Norton, Prof. J(ohn) H(enry)**, 4748 15th Ave, Sacramento, Calif. *Chemistry*. Scotland Co, Mo, July 9, 73. B.Agr, Missouri, 97, B.S, 99, M.S, 07. Teacher, high sch, Mo, 99-01; *asst. chemist, bur. chem*, U. S. Dept. Agr, 01-03; *instr. chem*, N. Dak. Col, 03-04; *prof. agr. chem. and chemist, Exp. Sta, Arkansas*, 04-08; *asst. prof. agr. chem. in charge Citrus Exp. Sta, California*, 08-12; *consulting chemist*, 12-13; *teacher, high sch, Calif*, 13-17; *instr. chem*, univ. farm, California, 17-20; *Sacramento Junior Col*, 20- Chem. Soc. (sec'y-treas, Sacramento sect, 22-). Agricultural chemistry; soils; nutrition.
- Norton, Dr. Thomas H(erbert)**, 5 Prescott Road, White Plains, N. Y. **Chemistry*. Rushford, N. Y, June 30, 51. A.B, Hamilton, 73, hon. Sc.D, 95; Ph.D, Heidelberg, 75; Berlin, 76-77; Paris, 77-78. Manager chem. works, Paris, 78-83; *prof. chem*, Cincinnati, 83-00; U. S. Consul, Harput, Turkey, 00-05; Smyrna, 05-06; Chemnitz, Germany, 06-14; special agent in charge campaign to create nat. dyestuff indust, U. S. Dept. Commerce, 15-17; chemist, E. I. du Pont de Nemours and Co, 17-20; *ed, 'Chemicals'*, 20- Prof. Col. Pharmacy, Cincinnati, Ohio, 88-90. Ed, 'Chem. Eng.', 17-18. Jury awards, Cincinnati Expos, 87; trustee, Lane Theol. Sem; Miami Med. Col; Presb. Hosp; Laura Mem. Med. Col. Pan-Am. Sci. Cong, 15. A.A. (sec'y, C, 91, sec'y, council, 92, gen. sec'y, 93, v. pres, 94, librarian, 97); Chem. Soc; Soc. Chem. Indust; Acad. Polit. Sci; Inst. Social Sci; Wash. Acad; fel. London Chem. Soc; Chem. Gesell; Soc. chim. de France; Russian Chem. Soc. Special properties and preparation of the rarer metals; organic chemistry; dyestuffs; chemical conditions in Europe and the near east; the potash industry; hydroelectric development.
- Norton, Prof. W(illiam) H(armon)**, Mount Vernon, Iowa. *Geology*. Willoughby, Ohio, April 3, 56. A.B, Cornell (Iowa), 75, A.M, 78; LL.D, Iowa, 11. Instr. Latin and Greek, Cornell (Iowa), 75-77, adjunct prof, 77-81, prof. Greek and geol, 81-90, geol, 90-25. Special asst,

- Iowa Geol. Surv, 93-; asst, U. S. Geol. Surv, 03-12. Geol. Soc; Iowa Acad. (pres, 00). Artesian wells; glacial geology.
- Nothnagel, Dr. Mildred (Mrs. Chas. E. Wilson)**, 812 Logan St, Wayne, Nebr. *Botany*. Chicago, Ill, March 25, 90. A.B, Indiana, 13, fellow, 16-17, Ph.D, 17; fellow, Chicago, 14-15, M.S, 15; fellow, Northwestern, 15-16. Asst. bot, Northwestern, 15-16; asst. plant physiologist, Fla. Exp. Sta, 17-18; instr. bot, Texas, 18-19. A.A. Cytology; morphology.
- Notman, Howard**, 136 Joralemon St, Brooklyn, N. Y. *Entomology*. Brooklyn, April 20, 81. Brooklyn Polytech; B.S, Harvard, 03; Harvard Law Sch. Delegate to council, N. Y. Acad, from Brooklyn Entom. Soc, 20-24. Entom. Soc; N. Y. Entom. Soc. (ed, 'Jour,' 20-24); Brooklyn Entom. Soc. (cor. sec'y, 23-25); N. Y. Acad; London Entom. Soc; Soc. Linnean de Lyon. Coleopterological taxonomy.
- du Noüy, Dr. P(ierre) L(ecomte)**, The Rockefeller Institute, New York, N. Y. *Physics*. Paris, France, Dec. 20, 83. L.B, Paris, 00, L.L.L, 03, B.Ph, B.Sc, grad. sch. oriental languages, 04, D.Sc, 16. *Assoc. mem, Rockefeller Inst*, 21- Certificate of merit, Franklin Inst, 23; grand prize, Pasteur Exhib, Strasbourg, 23. Chevalier, Légion d'honneur; commander of the Crown of Roumania. Physical Soc; Harvey Soc; Soc. de Physique; Soc. de Chim. physique. Physico-chemistry of blood serum in relation to immunity; molecular dimensions and weight of colloidal substances; surface tension and viscosity of colloids; surface equilibria of solutions.
- Novak, Dr. Emil**, 26 E. Preston St, Baltimore, Md. *Medicine*. Baltimore, March 8, 83. M.D, Maryland, 04; A.B, Loyola, 12. Res. surgeon, Md. Gen. Hosp, 04-05; assoc. gynec, Baltimore Med. Col, 05-08; assoc. prof, Col. Physicians and Surg, Baltimore, 09-14, obstet, 14-19; instr. *clin. gynec, Hopkins*, 15-22, *assoc, 22-A.A*; Am. Med. Ass; fel. Gynec. Soc; Col. Surg; S. Surg. Ass; Baltimore City Med. Soc. (sec'y, 11-19). Physiology and pathology of menstruation; menstrual histology of endometrium; corpus luteum; gynecological pathology.
- Novello, Dr. N(unzio) Jean**, 133 E. 30th St, New York, N. Y. *Physiological chemistry*. Bari, Italy, Jan. 9, 99. A.B, Hunter, 22; A.M, Fordham, 24, Ph.D, 25. *Instr. chem, Hunter*, 24- N. Y. Acad. Quantitative determination of intestinal putrefaction; detoxication of heterocyclic compounds and pteric and pteramic acids in the animal body.
- Novy, Dr. F(rederick) G(eorge)**, 721 Forest Ave, Ann Arbor, Mich. *Bacteriology, Physiological chemistry*. Chicago, Ill, Dec. 9, 64. B.S, Michigan, 86, M.S, 87, Sc.D, 90, M.D, 91; Hygienic Inst, Berlin, 88; Path. Inst, Prague, 94; Pasteur Inst, Paris, 97; LL.D, Cincinnati, 20. Asst. org. chem, *Michigan*, 86-87, instr. hygiene and physiol. chem, 87-91, asst. prof, 91-93, junior prof, 93-02, *prof. bacter, 02-*, *director hygienic lab, 09-* Past mem, Mich. Board Health; U. S. Commission to Investigate Bubonic
- Plague in Calif, 01. Nat. Research Council. Chevalier, Légion d'honneur. Int. Med. Cong. Moscow, 97 (hon. pres, sect. hygiene); Int. Cong. Tuber, 08 (v. pres, sect. path); Int. Cong. Hygiene, 12 (v. pres, sect. trop. med). Nat. Acad; A.A. (v. pres, K, 10); Soc. Bact. (pres, 04); Physiol. Soc; Am. Physicians; Soc. Exp. Path. (pres, 21); Am. Med. Ass. (council pharmacol. and chem); Soc. Exp. Biol; Ass. Path. and Bact; Soc. Biol. Chem; Soc. Pharmacol; Ass. Immunol. (pres, 24); Mich. Acad. (pres, 10); Mich. Med. Soc. (v. pres, 98); hon. mem. Phila. Path. Soc; hon. mem. Harvey Soc; assoc. mem. Soc. de Path. exot; cor. mem. Soc. biol. de Paris; assoc. mem. Soc. Royale des Sci. Med. et Nat. Bruxelles. Chemistry of bacteria; the cultivation of anaerobes; new anaerobic bacillus; immunizing action of non-bacterial products; etiology of diphtheria, yellow fever and plague; formaldehyde and sulphur disinfection; organic peroxids; cultivation of trypanosomes; trypanosomes of birds; hematozoa of birds; mosquito flagellates; relapsing fever spirochetes; Leishman-Donovan bodies; filterable virus; anaphylatoxin and anaphylaxis microbic respiration.
- Nowell, Prof. J(ohn) W(illiam)**, Wake Forest College, Wake Forest, N. C. *Chemistry*. Tyner, N. C, Aug. 15, 83. A.B, Wake Forest, 03, A.M, 07; Ph.D, Hopkins, 12. *Instr. chem, Wake Forest*, 09-10; N. C. State, 12-14; assoc. prof, *Wake Forest*, 14-15, *prof, 15-* Chem. Soc. (pres, N. C. sect, 15, 18); N. C. Acad. Steric hindrance effect of ortho substituted groups in para-sulphamid benzoic acids.
- Nowlan, Prof. F(rederick) S(tanley)**, University of British Columbia, Vancouver, B. C, Can. *Mathematics*. Havelock, N. S, Aug. 2, 86. B.A, Acadia, 08; A.M, Harvard, 09; Ph.D, Chicago, 25. Adjunct prof. *math, Ga. Tech*, 09-10; instr, Horace Mann Sch, Columbia, 10-11, asst, Columbia, 11-12, exten. instr, 12; asst. prof, Bowdoin, 18-21; Manitoba, 21-26; *prof, British Columbia*, 26- Math. Soc. Linear algebras; number theory.
- Noyes, Dr. Alice A(yr)**, 77 Winchester St, Bradford, Mass. *Entomology*. Haverhill, Mass, July 15, 84. A.B, Mt. Holyoke; A.M, Cornell, Ph.D. Asst. zool, Mt. Holyoke, 07-10; assoc. prof. biol, Sweet Briar, 10-12; asst, Cornell, 13-15; instr. zool, Milwaukee-Downer, 15-16. A.A; Entom. Soc. Net-spinning Trichoptera; proventriculus of a Hydropsyche larva.
- Noyes, Dr. Arthur A(mos)**, California Institute, Pasadena, Calif. *Chemistry*. Newburyport, Mass, Sept. 13, 66. B.S, Mass. Inst. Tech, 86, M.S, 87; Ph.D, Leipzig, 90; LL.D, Maine, 08, Clark, 09; hon. Sc.D, Harvard, 09, Yale, 13, Pittsburgh, 15. Asst. anal. chem, Mass. Inst. Tech, 87-88, instr. anal. or org. chem, 90-94, asst. and assoc. prof. org. chem, 94-99, prof. theoret. chem, 99-20, director research lab. physical chem, 03-20, acting pres, 07-09; *director, Gates chem. lab, Calif. Inst*, 20- Ed, 'Rev. Am. Chem. Research,' 95-01. Nat. Research Council. Converse medal, Chem. Soc. Nat. Acad. (ed, 'Proc,' 15); A.A. (pres, 27, sec'y, C, 00); Chem. Soc. (pres, 04); Philos.

Soc; Am. Acad; for. assoc. Royal Soc. Edinburgh; Chem. Gesell; Bunsen Gesell. Qualitative analysis of rare elements; thermodynamic chemistry; development of the ionic theory; instruction in qualitative analysis and chemical principles; class reactions for identification of organic compounds; chemical education.

Noyes, Dr. Bradford, Jr., Taylor Instrument Companies, Rochester, N. Y. *Physics*. Charleston, W. Va, 95. B.S., West Virginia, 20; M.S., Cornell, 22, Ph.D., 24. Instr. physics, Cornell, 20-24; *physicist, Taylor Instrument Companies*, 24-A.A.; Physical Soc; Optical Soc. Heat; thermometry; variation in resistance of carbon and graphite with temperature.

Noyes, H(arry) A(lfred), New Rochelle Research Laboratories, New Rochelle, N. Y. *Chemistry, Bacteriology*. Marlborough, Mass, July 7, 90. B.S., Mass. Col, 12, M.S., 14. Asst. chem., Mass. Col, 10-13; hort. chem. and bacter., Purdue Exp. Sta, 13-17, research assoc., 17-18; fellow fruit beverages, Mellon Inst., 18-22; research chemist, Mich. State Dept. Agr., 22; cereal chemist, Mich. Exp. Sta, 22-23; *research chemist and food technologist, New Rochelle Research Lab*, 23- Director research, Welch Grape Juice Co, 19-22. A.A.; Chem. Soc. (chairman, agr. and food div, 22-23); Soc. Baet; Ind. Acad. Carbonic acid gas in relation to soil acidity, plant composition and soil biology; bacteriological technic; bacterial nutrition; fruit beverages.

Noyes, Helen Miller, Harriman Research Laboratory, New York, N. Y. *Chemistry*. Carthage, Ill., Feb. 27, 82. B.S., Carthage Col, 02; A.M., Columbia, 22. Instr. math, Iberia Acad, Mo, 04-05; Synodical Col, 05-07; Ferry Hall, Ill, 07-15; *chemist, Harriman Research Lab, Roosevelt Hosp*, 19- A.A.; Chem. Soc; Soc. Cancer Research. Calorimetry; hydrogen ions; enzymes in tumors and normal tissues.

Noyes, Prof. William A(lbert), 1105 Nevada St, Urbana, Ill. **Chemistry*. Independence, Iowa, Nov. 6, 57. A.B., B.S., Grinnell, 79, A.M., 82; Ph.D., Hopkins, 82; Munich, 89; LL.D., Clark, 09; Chem.D., Pittsburgh, 20. Asst. chem., Grinnell, 79-80; instr., Minnesota, 82-83; prof., Tennessee, 83-86; Rose, 86-03; chemist, Bur. Standards, 03-07; *director chem. lab, Illinois*, 07-26, *emer*, 26- Nichols medal, 08; Willard Gibbs medal, 20. Nat. Acad; A.A. (sec'y, C, 90, v. pres, 96); Chem. Soc. (ed, 'Jour,' 02-17, sec'y, 03-07, ed, 'Abstracts,' 07-09, pres, 20, ed, 'Chem. Monographs,' 19-, 'Chem. Reviews,' 24-26); Soc. Chem. Indust; Philos. Soc; Am. Acad; Ind. Acad. (pres, 94); Soc. de Chim. indust; Ill. Acad; Chem. Gesell. Oxidation of benzene derivatives with potassium ferricyanide; atomic weight of oxygen; determination of phosphorus, sulfur and manganese in iron; hydrolysis of maltose and dextrin; camphoric acid; atomic weights of hydrogen and chlorine; molecular rearrangements; positive and negative valences; derivatives of camphor; hypochlorous acid; nitrogen trichloride; amine oxides; electron theory of valence.

Noyes, Prof. W(illiam) Albert, Jr., University of Chicago, Chicago, Ill. *Chemistry*. Terre Haute,

Ind, April 18, 98. A.B., Grinnell, 19; Sc.D., Paris, 20. Teaching fellow, California, 20-21; instr. chem., California, 21-22; *Chicago*, 22-23, *asst. prof*, 23- Second lieut., Sig.C, 18-19. Chem. Soc; Ill. Acad; Soc. de Chim. physique. Electrochemistry; discharge through gases; photochemistry.

Nugent, David Bertram, Dominion Observatory, Ottawa, Ont., Can. *Astronomy*. Millbrook, Ont, Dec. 28, 81. B.A., Toronto, 06, M.A., 07. Asst. physics, Toronto, 07; asst. astronomer, *Dominion Observatory*, 12-19, *astronomer*, 19- Royal Astron. Soc. Can. (treas, Ottawa Center, 12-22). Physics; fundamental stars.

Nusbaum, Dr. C(hristian), 2407 Taylor Road, Cleveland, Ohio. *Physics*. Columbus Grove, Ohio, Oct. 1, 82. A.B., Ohio State, 08, A.M., 10; fellow, Harvard, 11-13, Ph.D., 15. Asst. physics, Ohio State, 08-11; Harvard, 13-15, instr., 15-18; assoc. physicist, Bur. Standards, 18-20; research assoc., Mass. Inst. Tech., 20-22; *asst. prof. physics, Case*, 22- A.A.; Physical Soc; Soc. Test. Mat; Soc. Steel Treat; Cleveland Eng. Soc; Wash. Philos. Soc. Hysteresis and eddy-current losses in iron at high frequencies; magnetic analysis; magnetic susceptibilities.

Nusim, M(elach) J(oseph), 416 Cattell St, Easton, Pa. *Mechanical engineering*. Vaslui, Roumania, Sept. 21, 81. A.B., Lycée real, Braila, Roumania, 00; M.E., Columbia, 05. Asst. engineer, Gen. Elec. Co, Mass, 05-10, in charge eng. calculations and exp. steam tests, 11-14; with Westinghouse Machine Co, 14; turbine engineer, Southwark Foundry and Machine Co, 15-18; *consulting engineer, Ingersoll-Rand Co*, 18- Assoc., Columbia, 19-20. A.A.; Mech. Eng. Steam turbines and centrifugal air compressors.

Nuttall, Mrs. Zelia, Casa Alvarado, Coyoacan, D. F., Mex. *Archeology*. San Francisco, Calif, Sept. 6, 58. Private schools, Paris, Dresden, and Bedford Col, London, 64-76. *Hon. special asst, Peabody Museum, Cambridge, Mass*, 87-; *hon. prof. archeol, Nat. Museum, Mex.* Field director, Crocker archeol. researches, Mex. and California, 04-; advisory council dept. anthrop., California. Sci. mission to Russia, Pennsylvania, 94. Int. jury awards, Columbian Expos, 93; La. Purchase Expos, 04; medal, Hist. Expos, Madrid, 92; Columbian Expos, 93; Pan-Am. Expos, 01-15. Int. Geog. Cong, Geneva, 08 (hon. v. pres); Int. Am. Cong. Rome (hon. v. pres). A.A.; hon. mem. Archeol. Ass; Anthropol. Ass; Ethnol. Soc; Am. Geog. Soc; Philos. Soc; Asiatic Ass; cor. mem. Geog. Soc. Phila; Calif. Acad; Hawaiian Hist. Soc; fel. Royal Anthropol. Soc; Soc. Cient. Ant. Alz; Soc. Mex. de Geog. y Estadística; Soc. Ital. d'Anthrop; Soc. de Geog. de Geneve; Paris Soc. des Américanistes. Ancient and colonial history, calendar systems, religions and languages of the inhabitants of Mexico and Central America; ancient manuscripts and picture writings; documents relating to expeditions of Sir Francis Drake and John Hawkins; botany of Mexico.

Nutting, Dr. P(erley) G(ilman), U. S. Geological Survey, Washington, D. C. **Optics, Geophysics*. Randolph, Wis, Aug. 22, 73. A.B.,

- Stanford, 97; M.S., California, 99, Whiting fellow, Göttingen, 01-02; Pres. White fellow, Cornell, 02-03, Ph.D., 03. Asst. physics, Stanford, 97-98; California, 98-01; asst. physicist, Bur. Standards, 03-09, assoc. physicist, 09-12; asst. prof. physics, George Washington, 07-09; physicist, research lab. and optical engineer, Eastman Kodak Co, 12-16; in charge sci. research, Westinghouse Elec. and Mfg. Co, 16-20; consulting engineer, 20-25; *geophysicist*, *U. S. Geol. Surv.*, 25- A.A.; Physical Soc; Astron. Soc; Optical Soc. (pres, 17); British Optical Soc. Spectroscopy; lens testing; visual sensitometry; colorimetry; photographic sensitometry; industrial research; motion picture engineering; geophysics.
- Nuzum, Dr. Frank R.**, Cottage Hospital, Santa Barbara, Calif. *Medicine*. Wisconsin, 88. B.S., Wisconsin, 11; M.D., Rush Med. Col, 13. Asst. to Dr. J. B. Herrick, 14-16; to Dr. A. J. Ochsner, 16-17; *practising physician*, 18- Ass. Path. and Bact; Am. Med. Ass. Internal medicine; pathology; changes in the His bundle.
- Nuzum, Dr. J(ohn) W(eston)**, 2106 Sedgwick St, Chicago, Ill. *Surgery*. Broadhead, Wis, June 16, 89. B.S., Wisconsin, 12; M.D., Rush Med. Col, 14. Intern, Cook Co. Hosp, 15-16, pathologist, 16-19; instr. hygiene and prev. med. and *assoc. path. and anat. col med.*, Illinois. Director surg. lab. and staff surgeon, Augustana Hosp, Chicago, Am. Med. Ass. Surgical pathology, bacteriology.
- Nye, Prof. Arthur W(ickes)**, University of Southern California, Los Angeles, Calif. *Physics*. Canton, Ohio, Jan. 28, 82. B.S., Case, 04, M.E., 07; Chicago, 16; California, 17, 24-25, 26. Morgan Eng. Co, 04; Gen. Elec. Co, 04-05; *prof. physics, Southern California*, 07- Summer, instr. California at Los Angeles, 17. Ordinance dept, U.S.A., 18-19. A.A.; Physical Soc; assoc. Illum. Eng. Soc; Elec. Eng. (sec'y, La. sect, 17). Illuminating engineering; phenomena at total internal reflection of electromagnetic waves.
- Nye, Dr. Robert N(ason)**, 32 Lawrence Road, Chestnut Hill, Mass. *Bacteriology*. Springfield, Mass, June 3, 92. A.B., Harvard, 14, M.D., 18. Research asst, Mass. Gen. Hosp, 19-20; asst. pathologist, Boston City Hosp, 20-21; asst. director antitoxin and vaccine lab, Mass. Dept. Pub. Health, 22-23; *asst. physician, Thorndike mem. lab, Boston City Hosp, and instr. bacter, Harvard Med. Sch.*, 23- Ass. Path. and Bact; Ass. Immunol; Soc. Clin. Invest.
- Nyswander, Prof. J(ames) A(ndrew)**, University of Michigan, Ann Arbor, Mich. *Mathematics*. Napoleon, Ohio, April 23, 91. B.S., California, 13; Ph.D., Chicago, 24. Instr. *math.*, Nevada, 14-16, asst. prof, 16-18, assoc. prof, 18-21; *asst. prof.*, Swarthmore, 24-26; *Michigan*, 26- Differential equations.
- Nyswander, Prof. R(euben) E(dson)**, 2151 S. Josephine St, Denver, Colo. *Physics*. Antwerp, Ohio, Jan. 4, 78. A.B., Indiana, 01, A.M., 04; fellow, Cornell, 06-07, Ph.D., 08. Asst. *physics*, Indiana, 99-02; magnetic observer, U. S. Coast and Geod. Surv, 03-06; instr, Indiana, 08-09; *prof.*, Denver, 09-, *director sch. elec. eng.*, 19- A.A.; Physical Soc; Elec. Eng; Eng. Educ. The absorption and reflection of calcite and aragonite for infra-red rays as dependent upon the plane of polarization; energy in the spectrum of the tungsten filament; measurements of thermophosphorescence of glass and calcite produced by radium radiation.
- O
- Oakes, Dr. E(arle) T(homas)**, Douglaston, N. Y. *Chemistry*. Marlette, Mich, Aug. 3, 90. A.B., 15, A.M., 16; Ph.D., Columbia, 19. Chemist, Royal Italian Aeronautical Commission, 16-17; *research director, Nat. Biscuit Co*, 19-22, *New York Bakeries*, 22- Asst. chief chemist, Bur. Aircraft Production, 17-19. Physical chemistry.
- Oakley, Dr. R(ussell) A(rthur)**, U. S. Department of Agriculture, Washington, D. C. *Agronomy*. Marysville, Kans, Sept. 7, 80. B.S., Kansas Col, 03; Chicago, 03; Sc.D., Iowa Col, 20. *Senior agronomist, forage crop investigations, bur. plant indust, U. S. Dept. Agr.*, 03- A.A.; Soc. Agron. Turf grasses; photoperiodism in alfalfa; silages.
- Obear, Dr. G(eorge) B(arrows)**, University of the Philippines, Manila, P. I. *Physics*. Lynn, Mass, July 27, 79. B.S., Mass. Inst. Tech, 03; M.S., Brown, 05, Ph.D., 11. Instr. math. and elec. eng, Lowell Textile Sch, 03-04; asst. instr. math, Brown, 05-07; physics, Colby, 11-16; Case, 16-18; capt. and head dept. physics and eng, Med. Research Lab, A.S., 18-20; *chief dept. physics, Philippines*, 20- A.A.; Physical Soc. Standard cells; nucleation and ionization; hygrometry of gelatinous media; electric conditions in animal tissue; oxygen and aviation; dermatography.
- Oberfell, Charles R(aymond)**, 301 Elmwood Ave, Lynchburg, Va. *Chemistry*. Williamsport, Pa, Feb. 4, 84. B.S., Pa. State, 06, M.S., 10. Asst. chemist, Yocum-Eachus Lab, Newark, N. J, 06-08; chief chemist, England, Walton and Co, Phila, 08-17; *chem. director, J. H. Heald and Co, Inc, and Imp. Dyewood Corp, Lynchburg*, 17- Chem. Soc; Chem. Eng; Leather Chem. Ass. (pres, 16-17). Leather.
- Oberholser, Harry C(hurch)**, 2805 18th St, N. W, Washington, D. C. *Ornithology*. Brooklyn, N. Y, June 25, 70. Private schools. *Asst. ornithologist, biol. surv, U. S. Dept. Agr.*, 95- A.A.; fel. Ornith. Union; Ecol. Soc; Wash. Biol. Soc; cor. mem. N. Y. Linnean Soc; Cooper Ornith. Club; Wilson Ornith. Club; For. Bird Club; British Ornith. Union; Australasian Ornith. Union; S. African Ornith. Union; Bombay Soc. Nat. Hist. General systematic ornithology; geographical distribution; troglodytes; Otocoris; Bleda and its allies; birds of South America, Africa and Asia; great horned owls; the birds of Texas.
- Obreshkove, Prof. Vasil**, St. Stephen's College, Annandale-on-Hudson, N. Y. *Physiology*. Shoumla, Bulgaria, May 11, 90. B.S., Syracuse, 15, M.S., 16; Thayer fellow, Harvard, 19-20, Ph.D., 20. Research asst, sta. for exp. evolution, Carnegie Institution, 16-17; asst. zool, Harvard,

17-18, 19-20; instr, Syracuse, 20-22, asst. prof, 22-24, assoc. prof, 24-25; *head dept. biol, St. Stephen's, 25- A.A.; Soc. Zool.*

O'Brien, Dr. Brian, J. N. Adam Memorial Hospital, Perrysburg, N. Y. *Physics.* Denver, Colo, Jan. 2, 98. Ph.B, Yale, 18, Ph.D, 22. Research engineer, Westinghouse Elec. and Mfg. Co, 22-23; *research physicist, Buffalo Tuber. Ass, 23- A.A.; Physical Soc; Elec. Eng. Optical constants of mercury; action of light on living matter; contact E.M.F. of carbon; reaction of bacteria to light stimuli; surface phenomena in metallic conductors.*

O'Brien, Dr. Frank J(ohn), 215 E. Walnut St, Louisville, Ky. *Psychology.* Worcester, Mass, Aug. 9, 91. A.B, Col. Holy Cross, 12; A.M, Clark, 13, Ph.D, 16. Harvard Med. Sch, 18-20; Louisville, 24- Asst. research exp. psychol, Clark, 14-16; psychol. intern, Psychopathic Hosp, Boston, 16-18; psychologist, Mass. Reformatory for Boys, 20-21; *director, Louisville Psychol. Clinic, 22- In charge mental work, Somerville Police Court, Mass, 17-20; asst. director, Mental Hygiene Surveys, Nat. Committee, 20-22; mem, State Child Welfare Commission; Mental Hygiene Div. of Am. Ass. Social Workers; Nat. Conference Social Work. Psychol. Ass; Am. Prison Ass. Mental hygiene; community relationships of child guidance clinics.*

O'Brien, Ruth, U. S. Department of Agriculture, Washington, D. C. *Chemistry.* Taylorville, Ill, Sept. 19, 92. B.S, 14, A.M, 15. Instr. chem, 17, asst. prof, 17-21, assoc. prof, 21-23; *in charge div. textiles and clothing, bur. home econ, U. S. Dept. Agr, 24- Chem. Soc; Soc. Text. Mat; Soc. Textile Chemists and Colorists; Home Econ. Ass. Textile chemistry.*

Ocaranza, Dr. F(ernan)do, 2a San Juan de Letran, No. 19, Mexico City, Mex. *Physiology.* Mexico City, May 30, 76. A.B, Inst. Cie. y Lit. de Mex, 95; M.D, Mexico, 00. *Prof. physiol, Mexico, 15-17; Mil. Med. Sch, 17-18; biol, Mexico, 18- Conferencist, exten. univ, 17; chief comp. physiol, Inst. de Biol. Ass. Study Int. Secretions; Soc. Sanit. y Moral Profilaxia; Acad. N. de Med; Soc. de Med. Interna; Soc. Astron. de Mex. Physiological constants of guinea pigs; hematology of man, rabbits and guinea pigs; hormones of the guinea pig; thyroids, parathyroids and thymus.*

Ocfemia, Prof. G(erardo) O(ffimaria), College of Agriculture, Los Baños, P. I. *Plant pathology.* Guinobatan, P. I, April 23, 91. B.Agr, Philippines, 15, M.S, 20; fellow, Philippines, at Wisconsin, 20-23, Ph.D, 23. Asst. agron, Philippines, 15-17, plant physiol, 17-18, *plant path, 19-20, instr, 20, asst. prof. and acting head dept, 23- Bot. Soc; Phytopath. Soc. Relation of soil temperature to helminthosporium disease of rice; anthracnose of avocado, mango and upo; phytophthora disease of eggplant and citrus; bunchy-top of abaca.*

Ochsner, Dr. Edward H, 2155 Cleveland Ave, Chicago, Ill. *Medicine.* Sauk Co, Wis, Jan, 68. B.S, Wisconsin, 91; M.D, Rush Med. Col, 94; Vienna, Leipzig and Hamburg, 96-97. Res. physician and surgeon, Cook Co. Hosp, 96-97;

junior surgeon and attending surgeon, Augustana Hosp, and attending surgeon, St. Mary's of Nazareth Hosp, 99-04; prof. clin. surg, Illinois, 99-10; pres, Ill. State Charities Commission, 13-17. Am. Med. Ass; fel. Col. Surg; South. Surg. Ass; Ill. Med. Soc. (past pres). Chronic fatigue intoxication; observations on the functions of the corpus luteum; biochemistry of topical applications; the treatment of potential and acquired static flatfoot; temporary ventrosuspension of the uterus; the prognosis of congenital dislocation of the hip; appendicitis; goiter; developments in the non-operative treatment of cancer.

O'Connell, Dr. Marjorie, St. Albans, L. I, N. Y. *Paleontology.* Newark, N. J, Aug. 15, 90. A.B, Columbia, 11, A.M, 12, Ph.D, 16. Lecturer geol, Adelphi, 13-14; curator paleont, Columbia, 14-16; Sarah Berliner fellow, 17-18; expert asst. paleont, Am. Museum Nat. Hist, 18-19, research asst, 20-22; *publicity and sci. writer, 22- Summers, asst, Columbia, 12, 13, instr, 14. Walker first prize, Boston Soc. Nat. Hist, 14. A.A; fel. Paleont. Soc; fel. Am. Geog. Soc; Geol. Soc; N. Y. Acad. Invertebrate paleontology and stratigraphy; ancient habitats; Jurassic of Cuba; immigration problems.*

O'Day, Dr. M(arcus) D(river), 940 E. Sherman St, Portland, Oregon. *Physics.* Shenandoah, Iowa. A.B, Oregon, 19, A.M, 21; Whiting fellow, California, 22, Ph.D, 22. Instr. physics, California, 22-26; *asst. prof, Reed Col, 26- Thermal conductivity; Thomson effect; specific heat of metals.*

Oddy, Dr. Harold G(rant), University of Florida, Gainesville, Fla. *Chemistry.* St. Mary's, Ont, Can, Aug. 15, 99. B.A, McMaster, 20, M.A, 21; M.A, Toronto, 22, Ph.D, 23. Lecturer, Alberta, 23-25; *asst. prof. chem, Florida, 25- Chem. Soc. Phases of Friedel and Crafts reaction.*

Odel, Dr. Allan F(ulson), E. I. du Pont de Nemours and Co, Wilmington, Del. Chemistry. Columbia, Tenn, May 2, 86. B.S, Vanderbilt, 06, M.S, 07, Ph.D, 09. Demonstrator chem, Tennessee, 06-07, 08-09; Toronto, 07-08; asst. prof, Louisiana, 09-13; *research chemist, Chas. Pfizer and Co, 13-17; E. I. du Pont de Nemours and Co, 17- A.A; Chem. Soc. Organic chemistry; cypress wood; terpenes in cypress oil; tartaric, racemic, mesotartaric and saccharic acids; aromatics; dye intermediates; sulphur colors.*

Odland, Prof. T(heodore) E(ugene), University of West Virginia, Morgantown, W. Va. *Agronomy.* Rutland, N. Dak, Jan. 11, 92. B.S, Minnesota, 17, M.S, 20; Ph.D, Cornell, 26. Instr. agron, Minnesota, 17-18, 19-20, asst. prof. and asst. agronomist, 20-21; *West Virginia, 21-24, assoc. prof. agron. and assoc. agronomist, 24- A.S, U.S.N, 18-19. A.A; Soc. Agron; Minn. Crop Improvement Ass. (sec'y, 20). Farm crops; plant breeding.*

O'Donoghue, Prof. Cha(rlie)s H(enry), University of Manitoba, Winnipeg, Man, Can. *Zoology.* Bedfordshire, Eng, Sept. 23, 85. B.Sc, London, 08, British mem. fellow, 12, D.Sc, 12; Freiburg, 13. Asst, Univ. Col, London, 08, 13,

- fellow, 14, sub-dean faculty science, 15; *prof. zool., Manitoba*, 18— Lecturer, St. Thomas' Hosp, 14. Fel. Soc. Zool.; Physiol. Soc.; Ass. Anat.; Soc. Mammal.; British Ass. (gen. committee, 10). Circulatory system of vertebrates; reproductive cycle in mammals; ovaries; mammary glands; nudibranchiate Mollusca; Bryozoa.
- O'Donovan, Dr. Charles**, 5 E. Read St, Baltimore, Md. *Therapeutics, Clinical medicine.* Baltimore, Feb. 7, 60. Loyola; A.B., Georgetown, 78, A.M., 88; M.D., Maryland, 81. *Prof. diseases of children, Women's Med. Col. Baltimore*, 94—98; *Baltimore Med. Col.*, 99—07, *therapeut. and diseases of children*, 08— A.A.; Am. Med. Ass.; Md. Med. and Chirurg. Faculty (past pres). The action of certain heart stimulants in the early stages of pneumonia.
- Oenslager, George**, B. F. Goodrich Co, Akron, Ohio. *Chemistry.* Harrisburg, Pa, Sept. 25, 73. A.B., Harvard, 94, A.M., 95. Research chemist, S. D. Warren and Co, 96—06; Diamond Rubber Co, 06—12; *tech. adviser*, Yokohama Rubber Co, Japan, 20—22; *B. F. Goodrich Co*, 12—19, 22— Chem. Soc.; Chem. Eng. Rubber; materials used in the rubber industry.
- Oertel, Dr. Horst**, McGill University, Montreal, Que., Can. *Pathology.* Oberlössnitz, Saxony, Jan. 25, 73. M.D., Yale, 94; Leipzig, Würzburg and Berlin, 94—98; Guy's Hosp, London, 13—14. Instr. clin. path, Univ. and Bellevue Hosp. Med. Col, 99—03; pathologist, City Hosp, New York, and director, Strecker Mem. Lab, 03—07, director, Russell Sage Inst. Path, City Hosp, 07—13; assoc. prof. path, *McGill*, 14—19, *Strathcona prof. path. and director path. inst.*, 19—; pathologist, *Royal Victoria Hosp.*, 14—19, *pathologist-in-chief*, 19— Ass. Path. and Bact; Soc. Exp. Biol; N. Y. Path. Soc.; Harvey Soc.; N. Y. Acad. Med. Excretion of organic phosphorus in urine; reflex action; multilocular echinococcus disease; leukemia of the skin; non-inflammatory necrosis of the liver with jaundice in chronic cyanosis; primary carcinoma of the liver; histogenesis of cancer; epithelial proliferation in nephritis; Bright's disease; cause of death; functional mutation and morphological persistence; nephritis; the pancreas; degeneration and senescence; immunity; metastasis in tumors; relation of age period to disease.
- Oesch, Dr. J(oseph) B(ernard)**, The Newport Co, Carrollville, Wis. *Chemistry.* Jona, Ct. St. Gall, Switzerland, Jan. 11, 81. M.Sc., Ph.D., Zurich. Asst. Polytech. Sch, Zurich, 04—06; chemist, Berlin Aniline Co, Germany and France, 06—14; lecturer, Col. Chem, Leeds, and chief research Brit. Govt, Leeds, 14—20; *chief research, Newport Co*, 20— Chem. Soc.; Schweiz. Chem. Gesell.; Chem. Gesell.; British Chem. Soc.; British Soc. Dyers and Colorists. Colors; intermediates.
- Oesper, Prof. R(alph) E(dward)**, University of Cincinnati, Cincinnati, Ohio. *Chemistry.* Cincinnati, June 14, 86. A.B., Cincinnati, 08, A.M., 09, Ph.D., 14. Asst. chem, Cincinnati, 07—10; instr. high sch, Wash, 10—12; asst. prof, Ohio Mech. Inst, 12—13; asst, Cincinnati, 13—14; instr, N. Y. Univ, 14—17; asst. prof, Smith, 17—18; *assoc. prof, Cincinnati*, 18— Chem. Soc.
- Organic and analytical chemistry; colloids; emulsions.
- Oestlund, Dr. Oscar W(illiam)**, University of Minnesota, Minneapolis, Minn. *Entomology.* Attica, Ind, Sept. 27, 57. A.B., Augustana, 79, A.M., 87, Ph.D., 00; Minnesota, 80—82. Asst. and entomologist, Minn. Geol. and Nat. Hist. Surv, 85—90; entomologist and instr. biol, *Minnesota*, 91—06, asst. prof. *animal biol.*, 06—26, *emer. prof.*, 26— Entomologist, Minn. Hort. Soc, 87—90. A.A.; Minn. Acad. Aphididae; principles of taxonomy as applied to Insecta.
- Oettingking, Dr. Bruno**, Museum of the American Indian, Heye Foundation, Broadway at 155th St, New York, N. Y. *Anthropology.* Hamburg, Germany, April 2, 71. Zurich; Leipzig; Ph.D., Heidelberg, 08. In charge dept. physical anthrop, Royal Museum, Dresden, 07—10; anat. inst, Heidelberg, 10—11; Univ. Nacional, Buenos Aires, 12—13; Am. Museum Nat. Hist, 13—20; *curator physical anthrop, Museum of the Am. Indian, Heye Foundation*, 20— Lecturer, Columbia, 20— A.A.; Anthropol. Soc. Physical anthropology.
- von Oettingen, Dr. W(olfgang) F(elix)**, Western Reserve University School of Medicine, Cleveland, Ohio. *Pharmacology.* Marburg, Germany, Dec. 3, 88. Ph.D., Göttingen, 13; M.D., Heidelberg, 16. Instr. chem, Göttingen, 12—13; asst. pharmacol, Heidelberg, 15—17; hosp. service, 18—20; private med. research, 20—25; *instr. pharmacol, sch. med, Western Reserve*, 25— Soc. Pharmacol. Toxicology of poisonous gases; atropine; the antiseptic action of anilin dyes; alkaloids in the organism; action of cathartic salts; colloidal silver compounds; the calcium metabolism of the skin and the lymph.
- O'Gara, Dr. P(atricks) J(oseph)**, American Smelting and Refining Co, Salt Lake City, Utah. *Botany.* Coleridge, Nebr, July 1, 72. South Dakota, 96, 97; B.S., Nebraska, 02, Sc.D., 17; foreign study, 04—05. Plant pathologist, U. S. Dept. Agr, 02—10; plant pathologist and entomologist, Rogue River Valley, Oregon, 10—14; director agr. and smelter by-product investigations, Am. Smelting and Ref. Co, 14—25. Special meteor. observer in charge frost prevention investigations, U. S. Weather Bur, 10—14. A.A.; Bot. Soc.; Phytopath. Soc.; Forestry Ass; Min. and Metal. Eng; Soc. Exp. Eng; fel. Royal Meteor. Soc; Royal Soc. Arts. Plant diseases; bacteriology; mycology; plant physiology; meteorology; effect of sulphur dioxide on plants.
- Ogburn, Prof. John H(utcheson)**, 625 Center St, Bethlehem, Pa. *Astronomy.* Springfield, Tenn, Dec. 22, 68. C.E., Vanderbilt, 92, fellow, 92—93. Asst. astronomer, Dudley Observatory, 93—95; *instr. math. and astron, Lehigh*, 95—06, asst. prof, 06—10, assoc. prof, 10—12, *prof.*, 12— Position and orbits of minor planets; definitive orbit of minor planet 387; determination of aberration constant and the variation of latitude by zenith telescope method.
- Ogburn, Dr. S(imon) C(icero)**, Jr, Bucknell University, Lewisburg, Pa. *Chemistry.* Winston-Salem, N. C, Oct. 8, 00. B.S., North Carolina, 21, Ph.D., 26; M.S., Washington and Lee, 23.

- Instr. chem, Washington and Lee, 21-23, asst. prof, 23-26; *prof. chem. eng, Bucknell*, 26-
Summers, chemist, P. H. Hanes Knitting Co,
N. C., 19-21, mfg. dept, R. J. Reynolds Tobacco
Co, 17-19. Chem. Soc; Va. Acad. Inorganic
cobaltinitrites; platinum metals.
- Ogburn, Prof. William F(ielding)**, University of
Chicago, Chicago, Ill. *Sociology*. Butler, Ga,
June 29, 86. B.S., Mercer, 05; A.M., Columbia,
09, Ph.D., 12. Instr. econ, politics and hist,
Princeton, 11-12; *prof. econ. and sociol*, Reed,
12-17; *sociol*, Washington (Seattle), 17-18; Co-
lumbia, 19-27; *Chicago*, 27- Special investi-
gator, U. S. Bur. Labor Statist, 19. Director
cost of living research, Nat. War Labor Board,
18. Sociol. Soc. (exec. committee, 23-, v. pres,
27); fel. Statist. Ass. (ed, 'Jour,' 20-25); Econ.
Ass; Anthropol. Soc; fel. Ethnol. Soc. Statistics;
wages; cost of living; politics; population;
social psychology; culture history.
- Ogden, Prof. H(enry) N(eely)**, 614 University
Ave, Ithaca, N. Y. *Civil engineering*. Dexter,
Maine, April 30, 68. C.E., Cornell, 89. Instr.
civil eng, *Cornell*, 89-92, 94-96, asst. prof, 96-
08, *prof. sanit. eng*, 08- N. Y. State Pub.
Health Council, 13- Civil Eng. Sewer flush-
ing; septic tanks.
- Ogden, Prof. R(obert) M(orris)**, Cornell Univer-
sity, Ithaca, N. Y. **Psychology, Education*.
Binghamton, N. Y., July 6, 77. B.S., Cornell,
01; Ph.D., Würzburg, 03. Asst. psychol, Mis-
souri, 03-05; asst. prof. philos. and psychol,
Tennessee, 05-07, assoc. prof, 07-09, *prof*, 09-
14; psychol, Kansas, 14-16; *educ, Cornell*, 16-
dean col. arts and sciences, 23- A.A.; Psychol.
Ass. (sec'y-treas, 14-16, councilor, 18-20); S.
Soc. Philos. and Psychol. (sec'y-treas, 10, pres,
12). Memory and the rapidity of learning;
esthetics; experimental investigation of the
thought processes; audition; educational psy-
chology.
- Ogilvie, Prof. I(da) H(elen)**, Barnard College,
New York, N. Y. *Geology*. New York, Feb. 12,
74. A.B., Bryn Mawr, 00; Chicago, 01; Ph.D.,
Columbia, 03. Lecturer *geol*, *Barnard, Colum-
bia*, 03-05, tutor, 05-10, instr, 10-12, asst. prof,
12-16, *assoc. prof*, 16- Director, Women's Agr.
Camp, 17-20. A.A.; Geol. Soc; Ecol. Soc; N.
Y. Acad. Glaciology of the Adirondacks,
British Columbia and Maine; geology of the
Oritz Mountains, New Mexico.
- Ogilvie, Lawrence**, Department of Agriculture,
Bermuda. *Plant pathology*. Rosehearty, Scot-
land, July 5, 98. M.A., B.S., Aberdeen, 21; M.S.,
Cambridge, 23. *Plant pathologist, Dept. Agr*,
Bermuda. Delegate, West Indian Agr. Conf,
24. Phytopath. Soc; Ass. Econ. Biol; British
Mycol. Soc. The slime fluxes of trees; diseases
of the Easter lily; virus diseases of plants; eco-
nomic fungi of Bermuda; Bermuda insects.
- Oglevee, Prof. C(hristopher) S(toner)**, Lincoln,
Ill. *Biology*. Dickerson Run, Pa, March 24,
68. B.S., Lincoln, 94, Sc.D., 05. Asst. biol,
Lincoln, 94-00, *prof. nat. science*, 00-19; *re-
tired*, 19. A.A.; Ill. Acad. The influence of
insoluble substances on the toxic action of
poisons.
- O'Hanlon, Sister M(ary) Ellen**, Rosary College,
River Forest, Ill. *Botany*. Iowa City, Iowa,
Nov. 5, 82. B.S., St. Clara, 17; M.S., Wiscon-
sin, 19; Ph.D., Chicago, 25. Teacher, pub.
schools, Iowa, 00-11; instr. biol. and chem, St.
Clara Acad, Wis, 13-18; biol, St. Clara Col, 18-
22; *prof. bot. and head dept*, *Rosary Col*, 22-
Bot. Soc; Ecol. Soc. Morphology of Marchanti-
aceae.
- O'Hare, Dr. James P(atrik)**, 520 Commonwealth
Ave, Boston, Mass. *Medicine*. Charlestown,
Mass, March 17, 86. A.B., Harvard, 08, M.D.,
11. Fellow *med*, *Harvard Med. Sch*, 14-15,
asst, 16-18, *instr*, 18- Asst. physician, Carney
Hosp, 13-15; Boston City Hosp, 15-16; assoc.
med, Peter Bent Brigham Hosp, 16-17, 19-
acting physician, 17-19. Am. Physicians; Soc.
Clin. Invest; Am. Med. Ass. Nephritis; hyper-
tensive disease.
- O'Harra, B(erry) M(arvel)**, American Smelting
and Refining Co, Maurer, N. J. *Metallurgy*.
Carthage, Ill, June 18, 94. B.S., S. Dak. Sch.
Mines, 15, Met.E., 22. Chemist, Am. Smelting
and Ref. Co, 15-17, research metallurgist, 17-
19, supt. electrolytic lead refinery and bismuth
plant, 19-21; assoc. metallurgist, U. S. Bur.
Mines, Mo, 21-24, metallurgist and acting supt,
Miss. Valley Exp. Sta, 24-25; *supt. research
lab*, *Am. Smelting and Ref. Co*, 25- Min. and
Metal. Eng. (tech. committee, reduction and
refining of zinc, 26); Electrochem. Soc. Non-
ferrous metallurgy; metallurgy of zinc; phys-
ical chemistry.
- O'Harra, Pres. Cleophas C(isney)**, State School
of Mines, Rapid City, S. Dak. *Geology*. Bent-
ley, Ill, Nov. 4, 66. A.B., Carthage, 91, LL.D.,
20; Ph.D., Hopkins, 98. Prof. nat. and physical
sciences, Carthage, 92-95, v. pres, 93-95;
prof. miner. and geol, *S. Dak. Sch. Mines*, 98-
11, *geol. and pres*, 11- In charge geol. field
work, S. Dak. Sch. Mines, 98-; asst, Md. Geol.
Surv, 96-98; summers, field asst, U. S. Geol.
Surv. Ed-in-chief, 'Black Hills Engineer.'
Chairman, S. Dak. Coal Commission, 17-18; S.
Dak. Advisory Board, U. S. Fuel Ad, 17-18;
educ. director, soldier training, S. Dak. Sch.
Mines, 17-19. A.A.; Geol. Soc; Seismol. Soc;
Min. and Metal. Eng; Eng. Educ; Wash. Geol.
Soc. Geology of Alleghany County, Maryland;
geology and mineralogy of the Black Hills;
White River badlands.
- Ohern, Prof. D(aniel) W(ebster)**, 515 W. 14th
St, Oklahoma City, Okla. *Geology*. Maquon,
Ill, June 2, 70. A.B., Drake, 98; A.M., West
Virginia, 99; Ph.D., Hopkins, 07. Asst. Greek,
West Virginia, 98-03; assoc. prof. geol, Bryn
Mawr, 07-08; prof. miner. and director sch.
mines, Oklahoma, 08-11; director, Okla. Geol.
Surv, 11-13; *consulting geologist*, 13- Field
asst, U. S. Geol. Surv; Md. Geol. Surv; Okla.
Geol. Surv. A.A.; fel. Geol. Soc; Okla. Acad;
Wash. Acad. Structure, stratigraphy and
paleontology of the upper Carboniferous of
Oklahoma.
- Ohle, Prof. Ernest L(inwood)**, Washington Uni-
versity, St. Louis, Mo. *Mechanical engineering*.
Berea, Ohio, July 10, 75. B.S., Case, 02, M.E.,
05. Instr. mech. eng, Case, 02-05; prof. steam

- eng. and head dept. *mech. eng.*, Iowa, 05-08; *prof., Washington (St. Louis)*, 08- A.A.; *Mech. Eng.*; *Eng. Educ.*; St. Louis Eng. Club. The explosive pressure of gaseous mixtures; soot fall; smoke abatement.
- Ohlmacher, Dr. Joseph C.**, Vermillion, S. Dak. *Pathology*. Sycamore, Ill, Oct. 27, 74. M.D., Rush Med. Col., 01. Instr. path, Northwestern, 01-02; clin. director and pathologist, Independence State Hosp, Iowa, 02-10; pathologist and asst. supt, Clarendon State Hosp, 12-18; *head dept. path. and bacter.*, *col. med.*, *South Dakota*, and *director state health laboratories*, 18- Am. Med. Ass; Pub. Health Ass; S. Dak. Acad. Bacteriology; serology.
- O'Kane, Prof. Walter C(ollins)**, University of New Hampshire, Durham, N. H. *Entomology*. Columbus, Ohio, Nov. 10, 77. A.B., Ohio State, 97, A.M., 09. *Prof. econ. entom.*, *New Hampshire*, and *entomologist*, *Exp. Sta.*, 10- State nursery inspector, N. H., 12-, deputy commissioner agr., 14- V. chairman, N. H. Food Ad; chairman, board governors, Crop Protection Inst. A.A.; fel. Entom. Soc; Ass. Econ. Entom. (pres, 19); N. H. Acad. (sec'y, 19, pres, 24).
- Okey, Prof. Ruth E(liza)**, University of California, Berkeley, Calif. *Physiological chemistry*. Woodsfield, Ohio, Sept. 13, 93. B.S., Monmouth, 14; M.S., Illinois, 15, fellow, 17-18, Ph.D., 18. Instr. physiol. chem, Illinois, 18-19; asst. prof. *household science*, *California*, 19-26, *assoc. prof.*, 26- Asst. prof, Iowa, 21-22. Soc. Biol. Chem; Home Econ. Ass. (mem. research committee, U. S. Dept. Agr. committee vitamin research, 25-); Chem. Soc. Nutrition; emodin-containing drugs; inulin in the animal body; effect of menstrual cycle on blood composition and metabolism.
- Okkelberg, Prof. Peter**, University of Michigan, Ann Arbor, Mich. *Biology*. Goodhue, Minn., Nov. 12, 80. A.B., Minnesota, 06, A.M., 09; Ph.D., Michigan, 18. Asst. *zool.*, Minnesota, 08-09; instr, *Michigan*, 10-18, *asst. prof.*, 18- A.A.; Soc. Zool; Soc. Mammal; Mich. Acad. (ed, 25-). Embryology; cytology; fertilization and development of germ cells.
- Olcott, William Tyler**, 62 Church St, Norwich, Conn. *Astronomy*. Chicago, Ill, Jan. 11, 73. B.S., A.M., Trinity (Conn), 96. *Sec'y, Ass. Variable Star Observers*, 11- A.A.; Astron. Soc; fel. Royal Astron. Soc. Long period variable stars.
- Older, Clifford**, 140 S. Dearborn St, Chicago, Ill. *Engineering*. Adams Co, Wis, Nov. 17, 76. B.S., Wisconsin, 00. Transitman, Pa. Ry, 00-02; div. engineer, C. and A. Ry, 02-06; bridge engineer, Ill. Highway Dept, 06-17, chief highway engineer, 17-24; *pres.*, *Consoer, Older and Quinlan, Inc, Chicago*, 24- Civil Eng. Highway research in Illinois.
- Oldroyd, Mrs. T. S. (Ida Shepard)**, Stanford University, Calif. *Paleontology*. Goshen, Ind, Nov. 25, 57. *Curator geol. museum, Stanford*, 14- A.A.; Paleont. Soc; West. Soc. Nat; Calif. Acad. Conchology; marine shells.
- Olds, Pres. George D(aniel)**, 3 Orchard St, Amherst, Mass. *Mathematics*. Middleport, N. Y., Oct. 14, 53. A.B., Rochester, 73, A.M., 76, LL.D., 97. Teacher, Albany Acad, 73-79; *prof. math.*, Rochester, 84-91; *Amherst*, 91-, dean, 08-20, 22-23, acting pres, 20-21, *pres.*, 23- A.A.; Math. Soc.
- Olin, Prof. H(ubert) L(eonard)**, Black Springs, Iowa City, Iowa. *Chemistry, Chemical engineering*. Marcus, Iowa, May 10, 80. A.B., Iowa, 08; M.S., Illinois, 11, Ph.D., 14. Instr. *chem.*, Vassar, 13-14; Illinois, 14-16; asst. prof, Ohio State, 16-18; *assoc. prof.*, *Iowa*, 19- Capt, C.W.S., 18-19; C.W.R.S., 19- Chem. Soc; Chem. Eng; Iowa Gas Ass. Carbonization and by-products of coal; heat transfer in chemical plant apparatus; filtration; fuel gases.
- Olis, Dr. Edward O(sgood)**, Exeter, N. H. *Medicine*. Rye, N. H., Oct. 29, 48. A.B., Harvard, 71, M.D., 77; hon. Sc.D., Tufts, 24, New Hampshire, 24. *Prof. pulmonary diseases, med. sch.*, *Tufts*, 01- Past visiting and consulting physician, Rutland State Sanatorium. Trustee, Montgomery Indust. Sch. for Colored Girls, Ala. U. S. delegate, Int. Tuber. Cong, Rome, 12. Major, M.R.C. Tuber. Ass. (hon. director); Pub. Health Ass; Climat. Ass. (past pres); Mass. Tuber. League (past pres); Boston Tuber. Ass. (past pres); Int. Union Tuber. Tuberculosis.
- Olitsky, Dr. Peter K(osciusko)**, Rockefeller Institute, New York, N. Y. *Pathology*. New York, Aug. 20, 86. M.D., Cornell, 09. Bacteriologist, research laboratories, New York, 13-14; *asst. path. and bacter.*, *Rockefeller Inst.*, 17-18, *assoc.*, 18-23, *assoc. mem.*, 23- Fellow, Mt. Sinai Hosp, 14-17; typhus exped, Mex, 16; meningitis exped, China, 18; chairman, foot-and-mouth disease commission, Europe, 25. A.A.; Soc. Exp. Path; Ass. Path. and Bact; Pub. Health Ass; Soc. Exp. Biol; Ass. Immunol; Harvey Soc. Bacteriology; serology; immunology; filtrable viruses; typhus fever; epidemic meningitis; bacillary dysentery; epidemic influenza; mosaic disease; vesicular stomatitis; common colds.
- Olive, Dr. Edgar W(illiam)**, 908 Hume-Mansur Building, Indianapolis, Ind. **Botany*. Lebanon, Ind, April 1, 70. B.S., Wabash, 93, M.S., 95; A.M., Harvard, 97, Ph.D., 02. Instr. bot, Wabash, 93-95; sciences, high sch, Ind, 95-96; bot, Harvard and Radcliffe, 97-03; research asst, Carnegie Institution, Bonn, 03-04; Wisconsin, and res. lecturer bot, 04-06; prof, S. Dak. Col, and state botanist, S. Dak., 07-12; curator, Brooklyn Bot. Garden, 12-20. A.A.; Bot. Soc. (v. pres, 17); Phytopath. Soc. Acrasiaceae; mitotic division of the nuclei of the Cyanophyceae; morphology of *Monascus purpureus*; Entomophthoraceae; Empusa; slime molds; sexual fusions in rusts.
- Oliver, Edwin Letts**, 503 Market St, San Francisco, Calif. *Engineering*. San Francisco, Nov. 9, 78. California, 00. Surveyor, North Star Mines, 03-06, metallurgist, 06-10; *pres.* and *manager*, *Oliver Continuous Filter Co.*, 10-; pres, Idaho-Md. Consol. Mines Co, Grass Valley, Calif. Min. and Metal. Eng; Min. and Metal. Soc; Chem. and Metal. Soc. S. Africa. Precipitation of precious metals in the regeneration of cyanide from solutions; filtration as applied to

the manufacture of paper, cane and beet sugar; heavy chemicals, soda, salt, starch, dewatering of sewage, cyanidation of gold and silver ores and flotation concentration.

Oliver, Prof. Jean (Redman), 1246 Lombard St., San Francisco, Calif. *Pathology*. Watsonville, Calif., Aug. 19, 90. A.B., Stanford, 11, M.D., 14. Instr. path., Stanford, 14-16; asst. path. and bacter., Rockefeller Inst., 16-18, assoc., 19; assoc. prof. path., Stanford, 19-24, prof., 24-Major, M.C., 17-18, lieut. col., M.O.R.C. Soc. Exp. Path.; Ass. Path. and Bact.; Physiol. Soc.; Soc. Exp. Biol. Mammalian spermatogenesis; experimental nephritis and hemochromatosis; nephrolins; precipitins; antibody production; agglutination; arsphenamine.

Oliver, Dr. Wade W(right), Long Island Medical College, Brooklyn, N. Y. *Bacteriology*. Cincinnati, Ohio, Aug. 30, 90. A.B., Michigan, 12; M.D., Cincinnati, 15. Asst. bacter., Cincinnati, 11-15; with Rockefeller Int. Health Foundation, 16; prof. bacter., L. I. Col. Hosp., 17- A.A.; Ass. Path. and Bact.; Soc. Bact.; Soc. Exp. Path.; Am. Med. Ass. Immunology.

Olivier, Prof. Charles P(ollard), University of Virginia, Charlottesville, Va. *Astronomy*. Charlottesville, April 10, 84. A.B., Virginia, 05, A.M., 08, Ph.D., 11; fellow, Lick Observatory, California, 09-10. Vanderbilt fellow and instr., Virginia, 05-09; asst., Lick Observatory, 10; prof. astron. and physics, Agnes Scott Col., 11-14; adjunct prof. astron., Virginia, 14-23, assoc. prof., 23- Volunteer observer, U. S. Naval eclipse exped., Spain, 05; summer, Yerkes Observatory, 13. Pres., commission des étoiles filantes; mem., commission des étoiles doubles, Int. Astron. Union, 25- Master computer, ordnance dept., U.S.A., 18-19. A.A.; Astron. Soc.; Meteor. Soc.; Va. Acad.; fel. Royal Astron. Soc.; Soc. astron. de France; Soc. astron. d'Anvers. Double stars; meteors; stellar parallax; variable stars.

Olmstead, L(ewis) B(ertie), U. S. Department of Agriculture, Washington, D. C. *Physics*. Cambridge, Nebr., Feb. 26, 84. B.S., Nebraska, 09, A.M., 11. Asst. physics, Nebraska, 09-11; assoc. prof. math., Nebr. State Nor. Sch., Peru, 11; asst., Bur. Standards, 11-12; soil physicist, 12- A.A.; Physical Soc.; Int. Soc. Soil Sci. Optics; soil physics; fixed nitrogen.

Olmstead, Dr. P(aul) S(mith), Bell Telephone Laboratories, 463 West St., New York, N. Y. *Physics*. Wilton, Conn., Aug. 10, 97. B.S., Princeton, 19, Queen fellow, 20-22, Ph.D., 23. *Research physicist*, West. Elec. Co., 20, 22-24, *Bell Telephone Laboratories*, 25- Ballistic computer, ordnance dept., U.S.A., 18-19. Physical Soc.; Statist. Ass. Ionization and radiation potentials; adsorption by carbon; statistics.

Olmsted, Dr. James Montrose Duncan, University of California, Berkeley, Calif. *Physiology*. Lake City, Iowa, May 21, 86. A.B., Middlebury, 07; Rhodes scholar, Oxford, 08-11, B.A., 11, M.A., 14; A.M., Harvard, 18, Ph.D., 20. V. prin. high sch., N. Y., 07-08; prof. biol., Shorter, 11-12; assoc. prof., Richmond, 12-15; asst. zool., Harvard, 15-18, 19-20; assoc. *physiol.*, col. med., Illinois, 20; asst. prof., Toronto, 20-24, assoc.

prof., 24-27; prof., California, 27- A.A.; Physiol. Soc.; Soc. Zool. Physiology of the nervous system.

Olney, Prof. A(lbert) J(ackson), 1101 S. Limestone St., Lexington, Ky. *Horticulture*. Fremont, Mich., April 15, 88. B.S., Mich. State Col., 13, M.Hort., 20; M.S., Chicago, 25. *Horticulturist*, Vail Agr. Sch., 14-16; prof. hort. and asst. horticulturist, Kentucky, 16- A.A.; Soc. Hort. Sci. Pomology.

Olney, Prof. L(ouis) A(twell), Lowell Textile School, Lowell, Mass. *Chemistry*. Providence, R. I., April 21, 74. B.S., Lehigh, 96, M.S., 08, Sc.D., 26. Instr. chem., Brown, 96-97; prof. chem. and head dept. textile chem. and dyeing, Lowell Textile Sch., 97-; pres., Stirling Mills, 12- Chemist, Board Health, Machine Shop, and Gas Light Co., Lowell. Contributor, 'Century Diet'; directing ed., 'Am. Dyestuff Reporter,' 19- A.A.; Chem. Soc. (past pres., New Eng. sect. assoc. ed., 'Abstracts,' chairman, cooperative committee); Soc. Chem. Indust.; Chem. Eng.; Ass. Textile Chemists and Colorists (pres. and chairman, research committee, 21-); Nat. Ass. Wool Manufacturers; Cotton Mfg. Ass.; Soc. Dyers and Colorists. Petroleum; distillation of coal and coal tar; wool scouring; textile coloring; textile fibers; physics of color; theory of textile coloring; artificial silk; fastness of dyes.

Olsen, Aksel G(ilkrog), 38 Woodward Ave., Battle Creek, Mich. *Biochemistry*. Sindal, Denmark. A.B., Nebr. Wesleyan, 22; Fleischmann fellow, Minnesota, 22-23, M.S., 23, 25; Toulouse, 19. *Research chemist*, Postum Cereal Co., 23- Ass. Cereal Chem.; Chem. Soc. Cereal chemistry; bios requirements and proteolytic enzymes of yeast; relation of temperature and acidity to the activity of malt diastase; factors affecting the activity of malt enzymes.

Olsen, Prof. J(ohn) C(harles), 316 Argyle Road, Brooklyn, N. Y. *Chemistry*. Galesburg, Ill., July 22, 69. A.B., Knox, 90, A.M., 93, Sc.D., 25; Hopkins, 94, fellow, 99-00, Ph.D., 00; Chicago, 97. Teacher, high sch., Ill., 90-98; prof. anal. chem., Brooklyn Polytech., 00-14; prof. chem. and head dept., Cooper Union, 14-18; prof. chem. eng., Brooklyn Polytech., 18- Lecturer, Brooklyn Inst. Arts and Sciences, 00-; Pratt Inst., 00-06. Chem. Soc.; Chem. Eng. (sec'y, 08-26); N. Y. Chemists Club; Chem. Gesell. Compounds of manganese; analytical methods; vapor tension of crystals; preparation of pure standard salts; case hardening of steel with gases; corrosion of metals; drying of linseed oil.

Olsen, Dean Julius, Simmons University, Abilene, Texas. *Physics*. Chicago, Ill., May 5, 73. B.S., Bethany (Kans.), 98, hon. Sc.D., 22; Ph.D., Yale, 02. Prof. physics, Simmons (Texas), 02-23, dean dept. arts and sciences, 09-27. A.A.; Physical Soc. Physical chemistry.

Olshausen, Prof. Geo(rge) R(obert), 2732 Hille-gass Ave., Berkeley, Calif. *Physics*. St. Louis, Mo., Nov. 1, 68. D.E., Washington (St. Louis), 90; Ph.D., Berlin, 01. Asst. engineer, Union Depot Ry. Co., St. Louis, 90-91, chief engineer, 91-95; mech. engineer, Wm. Wharton, Jr., and Co., Phila., 95-96; asst. prof. mech. eng., Armour Inst., 01, prof. physics, 01-02; mech. and elec.

- engineer, Lichter and Jens, St. Louis, 02-03; instr. physics, Cornell, 03-07; asst. prof. theoret. and elec. eng, Worcester, 07-11; asst. physicist, assoc. engineer physicist and engineer physicist, Bur. Standards, 12-17; archit. engineer, Oakland, Calif, 22-27; *private research*, 27- Physical Soc. Unipolar rotation; theory of radiant heat; cathode rays; coaxial solenoids.
- Olson, Prof. A(xel) R(agnar)**, University of California, Berkeley, Calif. *Chemistry*. Helsingborg, Sweden, Feb. 6, 89. B.S., Chicago, 15; Ph.D., California, 17. Nat. Research Council fellow, 19-21; *asst. prof. chem, California*, 21-Chem. Soc.
- Olson, Geo(rge) A(lfred)**, The Gypsum Industries, 844 Rush St, Chicago, Ill. *Chemistry*. Chicago, Dec. 11, 74. B.S.A., Wisconsin, 02, M.S., 08. Asst. chemist, Wis. Exp. Sta, 02-08; instr. agr. chem, Wisconsin, 03-08; asst. chemist, Wash. Exp. Sta, 08-10, chemist, 10-12, head div. agr. chem, 12-21; *agr. director, Gypsum Industries*, 21- State chemist, Wash, 16-21; federal collaborating chemist, 16-21. A.A.; Chem. Soc. (chairman, sec'y and counselor, Inter-mountain sect); Agr. Chem; Soc. Agron; Ass. Food Chemists; Soc. Milling and Baking Tech; Inst. Inventors. Enzymes; foods; fertilizers; insecticides; fungicides; preservatives; antiseptics; soils; dust explosions; wheat; flour; mineral nutriment.
- Olson, Prof. Horace L(undh)**, 215 Louis St, East Lansing, Mich. *Mathematics*. Chicago, Ill, May 26, 93. B.S., Chicago, 17, M.S., 18, Ph.D., 23. Instr. *math*, Heidelberg (Ohio), 18; New Hampshire, 18-19; Wisconsin, 19-20; Michigan, 20-24; *asst. prof, Mich. State Col*, 24- Ed. board, problem dept, 'Am. Math. Monthly.' Math. Soc; Math. Ass.
- Olson, Prof. P(eter) J(ohn)**, North Dakota Agricultural College, Fargo, N. Dak. *Agronomy*. Grafton, N. Dak, Oct. 12, 87. B.S., N. Dak. Col, 10; M.S., Illinois, 13. Asst. prof. agron, Minnesota, 13-18; *asst. agronomist, N. Dak. Exp. Sta*, 24- Soc. Agron; Genetic Ass. Plant breeding.
- Olsson, A(xel) A(dolf)**, 48 Woodside Ave, Gloversville, N. Y. *Geology, Paleontology*. Gloversville, April 19, 89. A.B., Cornell, 13. Geologist, Sinclair Oil Co, 17-21; *geologist and paleontologist, Int. Petrol. Co, Peru and Ecuador*, 22- A.A.; Ass. Petrol. Geol; Soc. géol. de France. Tertiary paleontology; the Miocene of northern Costa Rica; paleontology of northern Peru.
- Onclay, Prof. L(awrence)**, 1619 Ames Ave, Winfield, Kans. *Organic chemistry*. Hopkinsville, Ky, Aug. 16, 77. A.B., De Pauw, 07; M.S., Chicago, 13; Kansas. Teacher, high sch, Ind, 07-09; *prof. chem, Wheaton (Ill)*, 09-11; Upper Iowa, 12-18; *Southwestern (Kans)*, 18- Instr, Kansas, 24-25. Chem. Soc; Kans. Acad. Thiazolidines; thiazolidones.
- O'Neal, Prof. Claude E(dgar)**, 95 Oak Hill Ave, Delaware, Ohio. *Botany*. Coatesville, Ind, Jan. 29, 84. Grad. Ind. State Nor. Sch, 10; A.B., Indiana, 11, A.M., 13, Ph.D., 22. Teaching fellow *bot*, Indiana, 12-13; instr, *Ohio Wesleyan*, 13-14, asst. prof, 14-17, assoc. prof, 17-21, *prof*, 21- Summer, asst, Indiana, 12, teaching fellow, 13. A.A.; Bot. Soc; Torrey Bot. Club; Genetic Ass; Ind. Acad; fel. Ohio Acad. Embryo-sac development in *Oenothera*; reduction division in *Datura*; species of nummularia found in Indiana.
- O'Neill, Prof. Edmond**, University of California, Berkeley, Calif. *Chemistry*. Nashville, Tenn, Dec. 13, 58. Ph.B., California, 79; Strassburg, 80-87. Instr. chem, *California*, 79-86, asst. prof, 88-90, assoc. prof, 90-07, *prof. inorg. chem. and dean col. chem*, 07-, *director laboratories*, 12- A.A.; Chem. Soc; Chem. Eng; Franklin Inst; San Francisco Acad; Chem. Gesell. Constituents of California plants; California petroleum.
- O'Neill, Dr. J(ohn) J(ohnston)**, McGill University, Montreal, Que, Can. *Geology*. Port Colborne, Ont, Nov. 12, 86. B.Sc., McGill, 09, M.Sc., 10; fellow, Yale, 10-12, Ph.D., 12; Wisconsin, 12-13. Asst. geol, McGill, 09-10; Yale, 11-12; field asst, Can. Geol. Surv, 09-13, asst. geologist, 13, geologist, 14-20; Whitehall Petrol. Corp, 20-21; asst. *prof. geol, McGill*, 21-27, *assoc. prof*, 27- Consulting geologist, 21-; geologist in charge Can. Arctic exped, 13-16. Geol. Soc; Soc. Econ. Geol; Min. and Metal. Eng; fel. Royal Soc. Can; Can. Min. Inst. Petrography; economic geology; Arctic geology.
- deOng, E(imer) R(alph)**, University of California, Berkeley, Calif. *Entomology*. Villisca, Iowa, Sept. 29, 82. B.S., California, 15, M.S., 23. Asst. entom, *California*, 15-17, instr, 17-25, *asst. entomologist, Exp. Sta*, 25- Consulting entomologist, Calif. State Food Ad, 18-19. A.A.; Ass. Econ. Entom. Cyanide and potassium xanthate as soil fumigants; nicotine as an insecticide; insecticidal properties of petroleum oil; control of the red spider in deciduous orchards.
- Ophüls, Dr. W(illiam)**, 2398 Sacramento St, San Francisco, Calif. **Pathology, Bacteriology*. Brooklyn, N. Y, Oct. 23, 71. Würzburg, 90-93; Berlin, 94; M.D., Göttingen, 95. Asst. Path. Inst, Göttingen, 96-97; *prof. path. and bacter*, Missouri, 97-98; *Cooper Med. Col, San Francisco*, 98-; *path. sch. med, Stanford*, 09- Fellow, Rockefeller Inst, 05-08. Ass. Path. and Bact; Soc. Exp. Biol. Tuberculosis; amyloid substances; coccidoidal granuloma; acid proof bacilli; tuberculosis and pseudo-tuberculosis; inflammatory edema of lungs; chronic inflammation of kidneys and liver; arteriosclerosis.
- Opie, Dr. Eugene L(indsay)**, Henry Phipps Institute, Philadelphia, Pa. **Pathology*. Staunton, Va, July 5, 73. A.B., Hopkins, 93, M.D., 97, fellow, 98-99. Asst. bacter, Hopkins, 99-00, instr, 00-01, assoc, 01-04; mem, Rockefeller Inst, 04-10; *prof. path. sch. med, Washington (St. Louis)*, 10-23, dean sch. med, 12-15; *prof. and director dept. path. sch. med, Pennsylvania*, and *director lab, Henry Phipps Inst*, 23- House officer, Hopkins Hosp, 97-98; pathologist, Presb. Hosp, New York, 07-10. Ed, 'Jour. Exp. Med,' 05-10. Capt, major, lieut. col. and col, M.C., 17-19. Nat. Acad; A.A.; Ass. Path. and Bact. (pres, 18); Am. Physicians;

- Soc. Exp. Biol. (sec'y, 09); Soc. Exp. Path. (pres, 23); Physiol. Soc; Am. Med. Ass; Phila. Path. Soc. (pres); Tuber. Ass. (v. pres). Histology and pathology of the pancreas and its relation to diabetes mellitus; protozoan micro-organism related to the malarial parasites; eosinophile leucocytes; necrosis and cirrhosis of the liver; enzymes and anti-enzymes of inflammatory exudates; diet in relation to certain toxic substances; pneumonia and influenza; immunity; tuberculosis.
- Oppenheimer, Prof. B(ernard) S(utro)**, 124 E. 61st St, New York, N. Y. *Medicine*. New York, June 20, 76. A.B, Harvard, 97; M.D, Columbia, 01. Fellow path, *Columbia*, 11, *asst. prof. clin. med.*, 15— Attending physician, Montefiore Home and Hosp, 11—; assoc. attending physician, Mt. Sinai Hosp, 19— Chairman med. board, Mary Zinn Home for Convalescent Children. Gold medal, Am. Med. Ass, 17. Am. Physicians; Soc. Clin. Invest; Soc. Exp. Biol; N. Y. Acad. Med; N. Y. Tuber. and Health Ass. (board directors). The circulatory system.
- Oppitz, Dr. Louis K(ossuth)**, 8320 Underwood Ave, Birmingham, Ala. *Physics*. Kaschau, Hungary, May 29, 78. A.B, Yale, 06, A.M, 09; Ph.D, Pennsylvania, 15. *Asst. physics*, Michigan, 11—12; instr, Pennsylvania, 12—15; *assoc. prof.*, West. Col. for Women, 15—16; *prof.*, Westminster (Pa.), 16—18; St. Thomas, 18—20; Earlham, 20—21; Shorter, 21—22; Howard, 22—24; Colo. State Teachers Col, 24—25; *Howard*, 25—, *dean science*, 26— Summer, *prof.*, Baylor, 24. A.A. X-rays; crystal structure; ultra-microscopy of colloids; relativity; thermionics.
- Orcutt, Charles Russell**, 1747 Fern St, San Diego, Calif. *Botany*. Hartland, Vt, April 27, 64. Pub. schools. *Ed.*, 'W. Am. Scientist' and 'Am. Plants.' Davenport Acad; San Diego Soc. Nat. Hist. West American Mollusca; Cactaceae; botany of western America and Mexico.
- Orcutt, Mrs. Ruby Rivers (Murray)**, Guilford, Conn. *Chemistry*. Burlington, Vt, Nov. 19, 89. A.B, Mt. Holyoke, 12, A.M, 14; Ph.D, Cornell, 16. *Asst. chem.*, Mt. Holyoke, 12—14; reader, Cornell, 14—16; chemist, Standard Aniline Products Co. and Standard Essence Co, 16—18. Abstractor, 'Chem. Abstracts,' 16—17. Unsaturated compounds containing phenyl groups; phthal-ins; adsorption.
- Ordahl, Dr. George**, Sonoma State Home, Eldridge, Calif. *Psychology*. Austin, Minn, April 21, 74. B.S, Valparaiso, 90; A.B, Oregon, 02, A.M, 03; Ph.D, Clark, 08. *Prof. psychol.*, Geneva Col, 08—09; psychol. and educ, Nevada, 09—14; state psychologist, Ill, 14—15; fellow and lecturer mental deficiency, Stanford, 15—16; *clin. psychologist and educ. director*, Sonoma State Home, 16— Summer, Sch. Feeble-Minded, Minn, 14. Psychol. Ass. Mental deficiency; delinquency; heredity.
- Ordeman, Dr. G(eorge) Fred(erick)**, 418 Cleveland Ave, Whiting, Ind. *Chemistry*. Frederick, Md, Nov. 9, 92. B.S, Washington and Lee, 12, 12—13; Ph.D, Hopkins, 16. *Assoc. prof. chem.*, Washington and Lee, 16—18; research chemist, Standard Oil Co. of Ind, 19—23, *asst. supt. acid and asphalt div.*, 23— Lieut, S.C, 18—19.
- Ordway, Dr. Thomas**, Albany Medical College, Albany, N. Y. *Medicine*. Dorchester, Mass, May 7, 77. A.B, Harvard, 00, A.M, 01, M.D, 05. *Asst. path.*, Harvard, 07—08; Boston City Hosp, 08—09; *prof. path. and bacter.*, Albany Med. Col, Union, 09—11; physician in charge, Huntington Hosp, Harvard, 11—15; *assoc. prof. med. and dean*, Albany Med. Col, Union, 15—A.A; Am. Med. Ass; Am. Physicians; Ass. Path. and Bact; Soc. Clin. Invest; Soc. Cancer Research. Pancreatitis in the cat; metabolism of the rat; blood in cancer; radium injuries; radiotherapy; tumors of fowls; nature of the Wassermann reaction.
- Orelup, J(ohn) W(estley)**, Springfield, N. J. *Organic chemistry*. St. Paul, Minn, 97. Minnesota, 13—17. Research chemist, Sherwin-Williams Co, 17—18; Carus Chem. Co, 18—20; Sunbeam Chem. Co, 20—21; *director research*, Chem. Co. of Amer. and co-operative lab, Boyce and Veeder Co, 21— Chem. Soc; Automotive Eng; fel. Royal Soc. Arts. Bichromate oxidation of toluol sulphamid to saccharin; carbon in automobile engines; corrosion in electrolytes; dyes for acetate silk; synthesis of alizarin dyes.
- Orndorff, Prof. W(illiam) R(idgely)**, 802 E. Seneca St, Ithaca, N. Y. **Chemistry*. Baltimore, Md, Sept. 9, 62. A.B, Hopkins, 84, fellow, Ph.D, 87; Berlin and Heidelberg, 97—98; Munich, 06. *Asst. chem.*, Hopkins, 84—86; instr, Cornell, 87—90, *asst. prof.*; 90—03, *prof. org. and physiol. chem.*, 03— Jury awards, Paris Expos, 89; La. Purchase Expos, 04; Panama-Pacific Expos, 15; special agent, eleventh census, 90. Chem. Soc; Chem. Gesell. Reaction of diazo-compounds with alcohol; polymeric modifications of acetic and propionic aldehydes; molecular weight of hydrogen peroxid and of sulphur; paranthracene or dianthracene; constitution of gallein and coerulein; bilirubin; phenol tetrachlorophthalein; tetrachlorogallein; trisazo compounds of resorein; constitution of the phthaleins, the sulfonophthaleins and the oxyazo compounds; constitution and color of organic compounds.
- O'Roke, Prof. E(arl) C(leveland)**, South Dakota State College, Brookings, S. Dak. *Zoology*. Sabetha, Kans, Aug. 2, 87. A.B, Kansas, 12, A.M, 16. Instr. *zool.*, Wyoming, 17—19, *asst. prof.* and *asst. parasitologist*, Exp. Sta, 19—20; S. Dak. Col, 20— Biol. Surv, Kansas, 16; Ecol. Surv, S. Dak, 24. A.A; Ecol. Soc; Soc. Parasitol; S. Dak. Acad; Kans. Acad. Parasitology; ecology.
- O'Rourke, Dr. L(awrence) J(ames)**, 1724 F St, N. W, Washington, D. C. *Psychology*. Seattle, Wash, Aug. 10, 92. A.B, Lawrence Col, 15; Wisconsin; Ph.D, George Washington, 22. Instr, Cornell, 17—18; psychologist, civilian advisory board, war plans div, Gen. Staff, 20—22; *director personnel research*, U. S. Civil Service Commission, 22— Consultant, indust. psychol, 20—; lecturer, George Washington, 22—25; summers, instr, Wisconsin, 16—17. Psychologist, Med. Research Lab, A.S, U.S.A, 18, chief of selection, enlisted personnel, 19. A.A; Psychol.

Ass; Statist. Ass. Industrial and educational psychology; vocational guidance and intelligence tests; technique validity and reliability of selection and training of employees.

Orr, Dr. Harold, 329 Tegler Building, Edmonton, Alta, Can. *Dermatology*. Toronto, Ont, April 28, 89. M.B., Toronto, 11, D.P.H., 20. *Director div. social hygiene, Provincial Dept. Health, Alberta*, 20-; *in charge dept. dermat.*, Alberta, 24- Médaille des Epidemies, France, 18; officer, Order of the British Empire. Fel. Royal Soc. Med. Syphilis.

Orr, William, 397 Main St, Winchester, Mass. *Geology*. Philadelphia, Pa, Nov. 16, 60. A.B., Amherst, 83, A.M., 90. Prin, Hopkins Acad, Mass, 83-85; Smith Acad, 85-88; teacher, high sch, 88-90, prin, 90-10; deputy commissioner educ, Mass, 10-16; *educ. sec'y, Int. Y. M. C. A. Committee*, 16- Curator, Museum Nat. Hist, Springfield, 94-10. A.A. *Geology of western Massachusetts*; extinct volcanoes of Mt. Tom and Mt. Holyoke; physiography of Holyoke Range; terraces of Connecticut River and of Westfield River; glacial formation of western Massachusetts.

Orrok, Geo (rge) A (lexander), Willimantic, Conn. *Mechanical engineering*. Dorchester, Mass, July 3, 67. Sch. Mechanic Arts, 83-85; Mass. Inst. Tech, 85-88. Teacher, pub. schools, Mass, 88-90; manual training, Ogden Mil. Acad, 90-91; Utah Col, 91-92; draftsman and engineer, F. S. Pearson, 92-98; mech. engineer, N. Y. Edison Co, 98-16; *consulting engineer*, 16- Consulting prof, Brooklyn Polytech, 11-14; lecturer, Yale, 20-; Cyrus Fogg Brackett lecturer, Princeton, 25; lecturer, Harvard Eng. Sch, 27-, Pennsylvania, 27- Eng. div, Nat. Research Council. A.A.; Mech. Eng. (sec'y, gas power sect, 07-14, manager, 12-15); Automotive Eng; Soc. Mil. Eng; Civil Eng; Eng. Foundation (v. chairman); Min. and Metal. Eng; Naval Archit. and Marine Eng; Iron and Steel Inst; Inst. Consulting Eng; Franklin Inst; Conn. Soc. Civil Eng; Conn. Bot. Soc; Brooklyn Eng. Club (pres, 10); London Inst. Metals; London Inst. Mech. Eng; Berlin Verein Ing; Egypt Explor. Soc. Heat transmission; power development; air and helium at low temperatures; properties of water.

Ortenburger, Dr. A (rthur) I (rving), University of Oklahoma, Norman, Okla. *Herpetology, Zoogeography*. Detroit, Mich, June 8, 98. A.B., Michigan, 20, fellow, 20-22, M.S., 22, Ph.D., 25. Asst. curator herp, Am. Museum Nat. Hist, 22-24; *asst. prof. zool.*, Oklahoma, 24- In charge, Am. Museum Nat. Hist. exped, Arizona, 23, Oklahoma Museum Zool. exped, 25-27; asst, U. S. Wis. Biol. Surv, 18; summer, Detroit Junior Col, 20. A.A.; Soc. Ichthyol. and Herp; fel. Okla. Acad; Mich. Acad. Fauna of Oklahoma; herpetology of the United States; Oklahoma reptiles and amphibians; geographical distribution; characters of reptile hemipenes; the genera Masticophis and Coluber.

Orton, Prof. C (layton) R (oberts), State College, Pa. **Plant pathology*. East Hardwick, Vt, April 1, 85. B.S., Vermont, 09; M.S., Purdue, 15; Ph.D., Columbia, 24. Special agent, U. S.

Dept. Agr, 09-10; asst. plant pathologist, Wisconsin, 10; asst. botanist, Ind. Exp. Sta, 10-13; asst. prof. bot, Pa. State, 13-16, assoc. prof, 16-19, *plant path.*, 17-19, *prof.*, 19-, *plant pathologist, Exp. Sta.*, 13- Collaborator, bur. plant indust, U. S. Dept. Agr, 13-25; Crop Protection Inst. Bayer Co. Inc. fellow, Boyce Thompson Inst, 25-27. Rep, Phytopath. Soc, div. biol. and agr, Nat. Research Council, 22-24, liaison mem, div. states relations, 23-24. A.A. (pres, Pa. State branch, 23); Ass. Plant Path. (sec'y, advisory board, 18-21, chairman, 22-23); Phytopath. Soc; Bot. Soc; Crop Protection Inst. (board governors, 20-25); Torrey Bot. Club; Pa. Acad; Ind. Acad. Uredinales; Dothideales plant diseases; seed-borne parasites; plant disinfection.

Orton, Dr. Edward, Jr, 788 E. Broad St, Columbus, Ohio. *Ceramic engineering*. Chester, N. Y, Oct. 8, 63. E.M., Ohio State, 84; Sc.D., Rutgers, 22. Director dept. ceramic eng, Ohio State, 94-16, dean col. eng, 02-15; *manufacturer*. State geologist, Ohio, 99-06. D.S. medal, 19. Lieut. col, motor transport corps, 17-19, brig. gen, O.R.C., 22- A.A.; Ceramic Soc. (sec'y, 99-17); Eng. Educ. Industrial problems in the silicate industries; the standardization of paving brick tests; pyrometric cones.

Orton, Dr. Samuel T (orrey), University of Iowa, Iowa City, Iowa. *Psychiatry*. Columbus, Ohio, Oct. 15, 79. B.S., Ohio State, 01; M.D., Pennsylvania, 05; A.M., Harvard, 06. Pathologist and clin. director, Worcester State Hosp, Mass, 10-14; instr. neuropath, Harvard, 13; sci. director, Pa. Hosp, Phila, 14-19; *prof. psychiat.*, Iowa, and *director, State Psychopathic Hosp*, 19- Lecturer, Clark, 13, 15. A.A.; Psychiat. Ass; Am. Med. Ass; Neur. Ass; Ass. Path. and Bact. Neuropathology.

Orton, Dr. W (illiam) A (llen), 600 Cedar St, Takoma Park, D. C. **Agriculture, Phytopathology*. North Fairfax, Vt, Feb. 28, 77. B.S., Vermont, 97, M.S., 98, hon. Sc.D., 15. Instr. bot. and asst. botanist, Vt. Exp. Sta, 97-99; plant pathologist, U. S. Dept. Agr, 99-24, in charge office cotton, truck and forage crop disease investigations, 07-24; v. chairman, Fed. Hort. Board, 12-24; *director and gen. manager, Trop. Plant Research Foundation*, 24- Chairman committee on trop. research, Nat. Research Council. A.A. (councilor); Soc. Nat; Phytopath. Soc. (pres, 21, rep. council of A.A.); Bot. Soc; Soc. Hort. Sci; Soc. Agron; Genetic Ass; Soc. Foresters; Wash. Bot. Soc; Int. Soc. Soil Sci; Int. Soc. Sugar Cane Technologists; World Agr. Soc; Soc. de Path. veg. et d'Entom. agr. Cotton, cowpea, cucumber, melon, watermelon and potato diseases; plant quarantine; breeding of disease-resistant plants; international phytopathology; botany of American tropical agriculture; vegetable problems in diabetic diets.

Osborn, Prof. Frederick A (rthur), University of Washington, Seattle, Wash. *Physics*. Tecumseh, Mich, March 3, 71. Ph.B., Michigan, 96, Ph.D., 07. Asst. physics, high sch, Mich, 90-91, instr, 93-96; prof, Olivet, 96-02; *prof.*, Washington (Seattle), 02- A.A.; Physical Soc; fel. Illum.

Eng. Soc. Thickness of liquid films; Abbé-Pulfrich interferometer; diffraction grating; index of refraction of liquids.

Osborn, Prof. H(enry) F(airfield), American Museum of Natural History, New York, N. Y. **Vertebrate paleontology, Comparative anatomy, Biology*. Fairfield, Conn, Aug. 8, 57. A.B., Princeton, 77, Sc.D., 80, LL.D., 02; Royal Col. Sciences (under Huxley), 79; Cambridge (under Balfour), 79, hon. D.Sc., 04; LL.D., Trinity (Conn.), 01, Columbia, 07; hon. Ph.D., Christiania, Norway, 11; hon. Sc.D., Yale, 23, Oxford, 26. Asst. prof. nat. science, Princeton, 81-83, prof. comp. anat., 83-90; Da Costa prof. biol., Columbia, 90-95, *zool.*, 95-10, *research prof.*, 10-, dean faculty pure science, 92-95; curator *vert. paleont.*, *Am. Museum Nat. Hist.*, 91-10, *hon. curator*, 10-, asst. to pres., 99-01, v. pres. and trustee, 01-08, *pres.*, 08-; vertebrate paleontologist, *U. S. Geol. Surv.*, 00-24, *senior geologist*, 24- Paleontologist, *Can. Geol. Surv.*, 00-04. Director, Brearley Sch. for Girls, 96-19, pres., 01-11; elector, Hall of Fame, 10-; trustee, Kahn Foundation for Foreign Travel of Am. Teachers, 11-26; N. Y. Pub. Library, 12-18. Gold medal, Nat. Inst. Social Science, 13; Hayden medal, Phila. Acad., 14; Gaudry medal, Soc. géol. de France, 18; Darwin medal, Royal Geol. Soc., 18; Cullum medal, Am. Geog. Soc., 19; gold medal, Soc. nat. d'Acclimatation de France, 23; Roosevelt medal of honor, 23; gold medal, Holland Soc., 25; Wollaston medal, Geol. Soc. London, 26. Commander, Order of the Crown, Belgium, 20. Nat. Acad. (councilor, 06, trustee, 13); A.A. (v. pres., 92); Soc. Nat. (pres., 91); Soc. Zool. (pres., 91); Geol. Soc.; Paleont. Soc. (pres., 04); life fel. Am. Geog. Soc.; Philos. Soc. (councilor, 07-, v. pres., 22-); Am. Acad.; N. Y. Zool. Soc. (pres., 08-23); fel. N. Y. Acad. (v. pres., 97, 98, pres., 98-00); Wash. Acad. (v. pres., 11); La Plata Mus.; Soc. Cient. Ant. Alz.; for. mem. Royal Soc.; hon. mem. British Ass.; London Linnean Soc.; London Zool. Soc.; London Geol. Soc.; Manchester (England) Lit. and Philos. Soc.; hon. fel. Edinburgh Royal Soc.; Paris Inst. de Paleont. humaine; Moscow Imp. Soc. Nat.; Bavarian Acad.; Senckenbergische Natur. Gesell.; assoc. Belgian Acad.; hon. fel. Swedish Acad.; Upsala Acad. Vertebrate evolution and biology.

Osborn, Prof. H(enry) L(eslie), 1599 Hewitt Ave, St. Paul, Minn. *Zoology*. Newark, N. J., July 5, 57. A.B., Wesleyan, 78; fellow, Hopkins, 81-84, Ph.D., 84. Asst. biol., Wesleyan, 78-81; *prof. zool.*, Purdue, 84-87; *biol. and geol.*, *Hamline*, 87-, *dean faculty*, 18-, acting pres., 23. Asst., U. S. Fish Commission, 80-81; summers, staff, Cold Spring Harbor, 91-93, *prof.*, Chautauqua, N. Y., 95-03, Minnesota, 13-15. A.A.; Soc. Nat.; Soc. Zool.; Minn. Acad. (pres). Embryology and anatomy of gasteropods; structure of trematodes; trematodes of Minnesota frogs.

Osborn, Prof. Herbert, Ohio State University, Columbus, Ohio. **Zoology, Entomology*. Lafayette, Wis., March 19, 56. B.S., Iowa Col., 79, M.S., 80, Sc.D., 16; museum comp. zool., Harvard, 81-82; Naples Zool. Sta., 94-95. Asst. *zool. and entom.*, Iowa Col., 79-83, asst. prof., 83-85, *prof.*, 85-98; *Ohio State*, 98- Special agent, div.

entom., U. S. Dept. Agr., 85-94; entomologist, Iowa Exp. Sta., 90-98; state entomologist, Iowa, 98; director lake lab, Ohio State, 00-19; director, Ohio Biol. Surv., 12-, consulting entomologist, Maine Exp. Sta., and Trop. Plant Research Foundation, 25. In charge entom. exhibit, Exp. Stations, Columbian Expos., 93. Trustee, Trop. Plant Research Foundation, 25; publication board, Union Biol. Societies. A.A. (v. pres., 17, exec. committee); Soc. Nat.; Soc. Zool.; Ass. Econ. Entom. (pres., 98); Entom. Soc. (managing ed., 'Annals,' 08-, pres., 11); Ecol. Soc.; Micros. Soc. (pres., 07-09); Wash. Entom. Soc.; Wash. Biol. Soc.; Iowa Acad. (pres., 87, sec'y-treas. and ed., 90-98); Ohio Acad. (treas., 98-04, pres., 04); Sigma Xi (sec'y., 07). Economic entomology; life histories and ecology of insects; grass insects; Mallophaga; systematic and faunal studies of Hemiptera.

Osborn, Prof. Jesse O(tto), Harris Teachers College, St. Louis, Mo. *Mathematics*. Trinity, Ky., Oct. 15, 94. A.B., Berea Col., 17; A.M., Kentucky, 21; Ph.D., Cornell, 23. Instr. *math.*, Pa. State, 20-21; Cornell, 21-23; Iowa, 23-24; *head asst.*, *Harris Teachers Col.*, 24- Math. Soc.; Math. Ass. Algebraic geometry.

Osborn, Dr. R(obert) A(mbrose), 227 S. Seventh St., Corvallis, Oregon. *Chemistry*. Van Wert, Ohio, Dec. 12, 97. B.S., Ohio Northern, 21; M.S., Ohio State, 22, fellow, 23-24, Ph.D., 24. *Asst. prof. chem.*, *Oregon Col.*, 24- A.A.; Chem. Soc. Analytical and physical chemistry; sodium carbonate as an ultimate standard.

Osborn, Sidney J(ose), 500 Sugar Building, Denver, Colo. *Chemistry*. Philadelphia, Pa., Feb. 26, 83. A.B., Pennsylvania, 02, A.M., 03. *Gen. chemist*, *Great West. Sugar Co.*, 17- Chem. Soc. (chairman, sugar div., 21-22, chairman, Colo. sect., 22-24). Chemical control of the beet sugar manufacturing process.

Osborn, Dr. Stanley H(art), State Department of Health, Hartford, Conn. *Public health*. Peabody, Mass., May 3, 91. M.D., Tufts, 14; Harvard, 14, 15; Mass. Inst. Tech., 15. Acting biologist, Metropolitan Water Board, Boston, 14; in charge field unit, Am. Red Cross Sanit. Commission, 15-16; typhus and malaria control, Serbia and Montenegro, 15-16; dist. health officer, Mass. State Dept. Health, 16-17; epidemiologist, 17-18, 19-20; director bur. preventable diseases and deputy commissioner health, *Conn. State Dept. Health*, 20-22, *state commissioner health*, 22- Lieut., M.C., and div. epidemiologist, A.E.F. and B.E.F., 18-19. Order of St. Sava of Serbia, III. A.A.; fel. Pub. Health Ass. (sec'y., pub. health administration sect., 23-26); Am. Med. Ass.; Conn. Pub. Health Ass.; Hartford Tuber. Soc. (director, 24-). Epidemiology and public health as applied to a state; anthrax; typhoid; smallpox; poliomyelitis; milk and disease.

Osborne, Dr. Caroline A(melia), 52 May St., Worcester, Mass. *Psychiatry*. East Templeton, Mass., April 18, 66. M.D., Woman's Med. Col. Pa., 99; A.M., Clark, 07, Ph.D., 08. Supt. nurses, Mem. Hosp., 99-04, instr., 04-18; *psychologist and asst. physician*, *Hosp. Cottages*, *Baldwins*

- ville, Mass, 18- Asst. Psychopath. Hosp, Boston, 15-16. A.A.; Am. Med. Ass. Neuro-pathology; mental defectiveness; speech defects; biology; psychology.
- Osborne, Prof. Geo(rge) A(bbott)**, 249 Berkeley St, Boston, Mass. *Mathematics*. Danvers, Mass, Dec. 21, 39. B.S, Harvard, 60. Instr. *math*, Lawrence Sci. Sch, Harvard, 60; asst. prof, U. S. Naval Acad, 61-65; prof, *Mass. Inst. Tech*, 66-10, *emer. prof*, 10- A.A; Math. Soc.
- Osborne, Dr. Harold S(mith)**, 195 Broadway, New York, N. Y. *Electrical engineering*. Fayetteville, N. Y, Aug. 1, 87. B.S, Mass. Inst. Tech, 08, fellow, 08-10, Eng.D, 10. Eng. dept, *Am. Tel. and Tel. Co*, 10-19, *transmission engineer*, 19- Sec'y-treas, Eng. Standards Committee, 23-26; treas, U. S. Nat. Committee, Int. Electrotech. Commission. Fel. Elec. Eng. (chairman, standards committee, 23-26); fel. Physical Soc; assoc. Radio Eng; Montclair Ass. Eng. Dielectrics; capacities of parallel wires; inductive interference in telephone circuits; telephone and telegraph transmission problems.
- Osborne, Prof. Oliver T(homas)**, 1155 Forest St, New Haven, Conn. *Medicine*. New Haven, Nov. 14, 62. M.D, Yale, 84, hon. A.M, 00; Leipzig, 85. Prof. *therapeut*, Yale, 94-25, *emer. prof*, 25- Chairman med. board, Gaylord Sanatorium. Am. Med. Ass. (ed, *therapeut. dept*, 'Jour,' 07-19); *Therapeut. Soc.* (past pres). Pharmacology; materia medica; therapeutics; drugs and organic extracts; principles of therapy; diseases of the kidney and heart.
- Osborne, Dr. Thomas B(urr)**, 58 Huntington St, New Haven, Conn. **Chemistry*. New Haven, Aug. 5, 59. A.B, Yale, 81, Ph.D, 85, hon. Sc.D, 10. *Research chemist*, *Conn. Exp. Sta*, 86- Research assoc, Carnegie Institution. Nat. Acad; A.A; Chem. Soc; Physiol. Soc; Soc. Biol. Chem. (pres, 10); Soc. Exp. Biol; Philos. Soc; Am. Acad; hon. mem. London Chem. Soc; assoc. mem. Soc. Royale des Sci Med. et Nat. Bruxelles; Halle Akad. der Naturforscher. Chemistry of the vegetable proteins and related subjects.
- Osburn, Prof. Raymond C(arroll)**, Ohio State University, Columbus, Ohio. **Zoology*. Newark, Ohio, Jan. 4, 72. B.S, Ohio State, 98, M.S, 00; fellow, Columbia, 02-03, Ph.D, 06. Instr. biol. and embryol, Starling Med. Col, 98-99; prof. biol, Fargo, 99-02; teacher, N. Y. High Sch. of Commerce, 03-07; instr. zool, Barnard, Columbia, 07-10, asst. prof, 10-15; assoc. director, N. Y. Aquarium, 10-15; prof. biol, Conn. Col. for Women, 15-17; *prof. zool. and entom. and head dept*, *Ohio State*, 17-; *director*, *Franz Theodore Stone Lab, Put-in-Bay*, 18- A.A; Soc. Nat; Soc. Zool; Fisheries Soc; Ass. Econ. Entom; Entom. Soc; Ecol. Soc; Ohio Acad; N. Y. Entom. Soc; N. Y. Acad. Fishes and fisheries; Syrphidae; aquatic adaptations in vertebrates; origin of the limbs of vertebrates; Bryozoa; Woods Hole faunal survey; aquatic biology and ecology.
- Osburn, William**, Morris, Ill. *Zoology*. Wilmington, Ill, Oct. 3, 54. A.B, Kansas, 77, A.M, 91. Prof. nat. science, Walden, 91-01; instr. biol, Cincinnati, 01-02; dept. biol, high sch, Ohio, 02-04; *proprietor*, *Goose Lake Seed and Stock Farm, Morris*, 04- Curator entom, Cincinnati Soc. Nat. Hist; supervisor, Goose Lake Township, Ill. Assoc. ed, 'Prairie Farmer.' Assoc. Ornith. Union; Ill. Poultry Ass. (pres). Ornithology; parasitism in Lepidoptera; diseases of poultry; Golden Pentabrid corn.
- Oser, Bernard L(evussove)**, Food Research Laboratories, Inc, 1440 Broadway, New York, N. Y. *Biochemistry*. Philadelphia, Pa, Feb. 2, 99. B.S, Pennsylvania, 20, M.S; Ph.D, Fordham, 27. Asst. physiol. chem, Jefferson Med. Col, 20-21; biochemist, Phila. Gen. Hosp, 22-26; instr. biochem, grad. sch. med, Pennsylvania, 22-26; *asst. director*, *Food Research Laboratories, Inc*, 26- Chemist, Dermat. Research Inst, Phila. Chem. Soc; Phila. Physiol. Soc. Blood chemistry; measurement of hydrogen-ion concentration; spectrophotometry; intestinal chemistry; food and nutrition; vitamins.
- Osgood, Dr. Alfred T(ownsend)**, 40 E. 41st St, New York, N. Y. *Surgery*. Upland, Pa, Oct. 14, 72. A.B, Yale, 95; M.D, Columbia, 99. *Prof. urol. surg*, *Univ. and Bellevue Hosp. Med. Col*, 12- Attending surgeon, Bellevue Hosp; consulting surgeon, French Hosp; Lawrence Hosp, Bronxville; Muhlenberg Hosp, Plainfield. Fel. Col. Surg; Urol. Soc; Ass. Genito-Urinary Surg; Soc. int. d'Urol. Surgery of the urinary and genital tracts.
- Osgood, Dr. Edwin E(ugene)**, University of Oregon Medical School, Portland, Oregon. *Biochemistry, Internal medicine*. Fall River, Mass, Jan. 25, 99. A.B, Oregon, 22, A.M, 23, M.D, 24. *Assoc. biochem. and med. med. sch*, *Oregon*, 19- Methods of estimating alkali reserve and hemoglobin; normal hemoglobin blood counts; hemoglobin blood counts in anemia.
- Osgood, Prof. R(obert) B(ayley)**, 372 Marlborough St, Boston, Mass. *Medicine*. Salem, Mass, July 6, 73. A.B, Amherst, 95; M.D, Harvard, 99. Röntgenologist, Children's Hosp, 02-03; asst. surgeon, Carney Hosp, 02-06; asst. surgeon, Mass. Gen. Hosp, 07-15, visiting surgeon, 15-22, in charge dept. orthop. surg, 19-22; *chief staff*, *dept. orthop. surg*, *Children's Hosp*, 22-; *J. B. and Buckminster Brown prof. orthop. surg*, *Harvard Med. Sch*, 22- Hugh Owen Thomas lecturer, Med. Inst, Liverpool, 25. Chairman advisory board, Shriners' Hosp. for Crippled Children, 22-; advisory committee, Health Dept, Boston. Orthop. Ass. (pres, 21); fel. Col. Surg; Am. Acad; Inst. Social Sci; Boston Surg. Soc; cor. mem. British Orthoped. Ass. Diseases of tibial tubercle; epidemiology of infantile paralysis; anatomical causes of tennis elbows.
- Osgood, Wilfred H(udson)**, Field Museum of Natural History, Chicago, Ill. **Zoology*. Rochester, N. H, Dec. 8, 75. A.B, Stanford, 99; Ph.D, Chicago, 18. Asst. biologist, U. S. Biol. Surv, 97-09; asst. curator mammal. and ornith, *Field Museum Nat. Hist*, 09-20, *curator zool*, 21- Specialist, Fur Seal Inquiry, 14; six expeditions, Alaska, four expeditions, S. Amer. and Africa. Nat. Research Council, 19-20. A.A; fel. Ornith. Union; Soc. Mammal. (pres, 23-); Wash. Biol. Soc. (sec'y, 00-09); Cooper Ornith. Club (first pres); British Ornith. Club; cor. mem. London

Zool. Soc. Mammalogy; ornithology; biological surveys of Alaska.

Osgood, Prof. W(illiam) F(ogg), Harvard University, Cambridge, Mass. **Mathematics*. Boston, Mass., March 10, 64. A.B., Harvard, 86, A.M., 87; Göttingen, 87-89; Ph.D., Erlangen, 90; LL.D., Clark, 09. Instr. math, Harvard, 90-93, asst. prof., 93-03, prof., 03-14, *Perkins prof.*, 14- Ed., 'Annals of Math,' 01-02. Nat. Acad.; Math. Soc. (v. pres, 03, pres, 05-07, ed., 'Trans,' 09); Philos. Soc.; Math. Verein; Leop.-Carol. Akad.; Göttingen Gesell.; Circolo Mat. di Palermo; Charkow Math. Soc.; Calcutta Math. Soc. Theory of functions of real and of complex variables.

O'Shaughnessy, Prof. Louis, Blacksburg, Va. *Mathematics, Engineering*. South Solon, Ohio, Aug. 8, 77. B.S., Va. Polytech, 03, C.E., 04; A.M., Ohio State, 07; Ph.D., Pennsylvania, 11. Instr. civil eng., Va. Polytech, 04-06; math, Pennsylvania, 07-18; prof. civil eng., Va. Polytech, 18-19, *applied math.*, 19- A.A.; Math. Soc.; Math. Ass.; Eng. Educ. Differential equations and series.

O'Shaughnessy, M(ichael) M(aurice), City Hall, San Francisco, Calif. *Civil engineering*. Limerick, Ireland, May 28, 64. B.E., Royal Univ., Ireland, 84. *City engineer, San Francisco*, 12-Laurie prize, Soc. Civil Eng., 12. Civil Eng. (pres, San Francisco branch, 20); Water Works Ass.; New Eng. Water Works Ass. Hydraulic engineering; railway construction; tunnels.

O'Shea, Prof. M(ichael) V(incent), University of Wisconsin, Madison, Wis. *Education, Psychology*. Le Roy, N. Y., Sept. 17, 66. B.L., Cornell, 92; Europe, 95. *Prof. educ.*, Minn. State Nor. Sch., 92-95; Teachers' Col., Buffalo, 95-97; *Wisconsin*, 97- Summers, lecturer, California, Pennsylvania and other universities, 06-15; director surv. pub. educ. system, Miss., and All-Year Schools, Newark, N. J., 25-27. Committee of One Hundred on Pub. Health; chairman Am. committee, Int. Educ. Cong. Liège, 06, Brussels, 10. A.A.; Soc. Col. Teachers Educ. (pres, 12). Mental development in childhood and youth; tobacco in relation to mental efficiency; measurement of educational processes, products and vocational aptitudes.

Oskamp, Joseph, New York State College of Agriculture, Ithaca, N. Y. *Horticulture*. Cincinnati, Ohio, Jan. 22, 88. B.S., Missouri, 12. Asst. hort., Purdue Exp. Sta., 12-13, research asst. pomol., 14-16, assoc., 17-20; horticulturist, Mo. Fruit Exp. Sta., 20-21; *exten. prof. pomol.*, N. Y. State Col. Agr., Cornell, 21- Soc. Hort. Sci. Orchard nutrition; soil management; fertilization; pruning; varieties of small fruits; fruit tree stocks.

Oslund, Dr. Robert M., University of Illinois College of Medicine, Chicago, Ill. *Physiology*. Great Falls, Mont., Oct. 14, 93. A.B., 20; Ph.D., 23. Instr. physiol. and pharmacol., sch. med., Vanderbilt, 23-25; *asst. prof. physiol., col. med.*, Illinois, 25- A.A.; Physiol. Soc.; Soc. Exp. Biol.; Soc. Zool. Cryptorchidism and hormone production; vasectomy in rats, guinea pigs and dogs; interstitial cell hypertrophy; vasectomy and rejuvenescence; the testicular hormone; physio-

logical tests of spermatotoxin; follicular extracts; vasa efferentia ligation; effects of X-rays on testes.

Osmun, Prof. A(lbert) Vincent, Massachusetts Agricultural College, Amherst, Mass. *Botany*. Danbury, Conn., Jan. 20, 80. B.Agr., Conn. Col., 00; B.S., Boston, 03; B.S., Mass. Col., 03, M.S., 05. Asst., Conn. Exp. Sta., 00-02; instr. bot., Mass. Col., 03-07, asst. prof., 07-14, assoc. prof., 14-16, *prof., head dept. and head, Exp. Sta.*, 16- A.A.; Bot. Soc.; Phytopath. Soc.; Fern Soc. (sec'y, 04); New Eng. Bot. Club. Bacteria of soils; ferns and flora of New England; soil bacteria; plant pathology; mycology.

Ostenberg, Zeno, San Jose, Calif. *Chemistry*. Des Moines, Iowa, Nov. 18, 88. A.B., Stanford, 13, A.M., 14; fellow, California, 15-16. Asst. pharmacol., Stanford, 13-15; chief chemist, Int. Cellulose Co., 16-17; research chemist, Atlas Powder Co., 20-21; *chief chemist, The Caltex Co.*, 21- Lieut. N.R.F.C., 18-19. Chem. Soc. Physical, organic, bacteriological and pharmacological chemistry; cellulose and gliadin solutions; imitation leather and rayon.

Osterberg, Dr. Arnold E(rwin), Mayo Clinic, Rochester, Minn. *Chemistry*. Minneapolis, Minn., Feb. 9, 94. B.S., Washington (Seattle), 16; M.S., Minnesota, 20, Ph.D., 25. Asst. chem., Washington (Seattle), 16-17; instr., high sch., Wash., 17; *assoc. chemist, Mayo Clinic and Foundation*, 17- Chem. Soc. Organic and bio chemistry; thyroxin; the thyroid gland; organic synthesis and reduced indole substances.

Osterbrock, Prof. W(illiam) C(arl), University of Cincinnati, Cincinnati, Ohio. *Electrical engineering*. Cincinnati, Dec. 17, 93. E.E., Cincinnati, 18. Instr. elec. eng., Cincinnati, 18-22, asst. prof., 22-27, *assoc. prof.*, 27- Elec. Eng.; Radio Eng. Short-wave radio transmission; Faraday effect.

Osterhout, George E., Windsor, Colo. *Botany*. Wyoming Co., Pa., March 31, 58. A.B., Lafayette, 81. A.A.; Bot. Soc.; Torrey Bot. Club. Flowering plants and birds of Colorado; the Ammiaceae and the genus *Cirsium*.

Osterhout, Dr. W(inthrop) J(ohn) V(anleuven), Rockefeller Institute, New York, N. Y. **Botany*. Brooklyn, N. Y., Aug. 2, 71. A.B., Brown, 93, A.M., 94; Bonn, 95-96; Ph.D., California, 99; hon. Sc.D., Harvard, 25. Instr. bot., Brown, 93-95; California, 96-99, asst. prof., 99-08, assoc. prof., 08-09; asst. prof., Harvard, 09-13, prof., 13-25; *mem., Rockefeller Inst.*, 25- Hitchcock lecturer, California, 19; Colver lecturer, Brown, 22, Sedgwick mem. lecturer, 25. Joint ed., 'Jour. Gen. Physiol.' Board directors, Rockefeller Inst., 20-25; trustee, Woods Hole. Nat. Acad.; A.A.; Soc. Nat.; Bot. Soc.; Physiol. Soc.; Soc. Exp. Biol.; Chem. Soc.; Philos. Soc.; Am. Acad.; New Eng. Bot. Club; Boston Soc. Nat. Hist.; Wash. Acad.; cor. mem. Phila. Acad.; hon. mem. Bot. Soc. Edinburgh; Kung. Physiog. Säl., Lund, Sweden. Spindle formation and fertilization in plants; antagonism; permeability; electrical conductivity; respiration; photosynthesis; bioelectric phenomena.

- Osterud, Prof. H(jalmar) L(aurits)**, Medical College of Virginia, Richmond, Va. *Anatomy*. Spring Valley, Minn, March 15, 83. A.B, Washington (Seattle), 09, A.M, 10; Columbia, 10-11; Ph.D, Minnesota, 21. Instr. zool, Washington (Seattle), 11-17; teaching fellow, Minnesota, 17-18, instr. *anat*, 18-19; prof, Alabama, 19-20; instr, Minnesota, 20-21, asst. prof, 21-22; assoc. prof, *Med. Col. of Va*, 22-24, *prof*, 24- A.A; Ass. Anat; assoc. Chem. Soc; Va. Acad. Embryology; growth.
- Ostrander, Prof. J(ohn) E(dwin)**, Amherst, Mass. *Civil engineering, Mathematics*. Slingerlands, N. Y, March 20, 65. A.B; C.E, Union 86, A.M, 89. Practising civil engineer, 86-91; instr. civil eng, Lehigh, 91-92; *prof*. civil eng. and mech. arts, Idaho, 92-97; *math. and civil eng, Mass. Col. and meteorologist, Exp. Sta.* 97- Acting prof, Amherst, 00, 01, 07. Civil Eng; Min. Eng; Eng. Educ. Variation of the magnetic needle; meteorology.
- Otis, Dr. Arthur S(inton)**, 313 Park Hill Ave, Yonkers, N. Y. *Psychology, Mathematics*. Denver, Colo, July 28, 86. A.B, Stanford, 10, A.M, 15, Ph.D, 20. Director research, Office Surgeon Gen, Washington, D. C, 17-18; psychologist, Cheney Bros. Silk Mills, 19-21; *ed, standard tests and math. textbooks, World Book Co*, 22- Development specialist, U. S. War Dept, 21-22; summer, instr, Stanford, 20, N. Y. Univ, 23. A.A; Psychol. Ass; Nat. Soc. Study Educ; Educ. Research Ass; Nat. Council Teachers of Math; N. Y. Soc. Exp. Study Educ; N. Y. Soc. Consulting Psychol. The teaching of plane geometry.
- Otis, Prof. Cha(rls) H(erbert)**, University of Wisconsin, Madison, Wis. *Botany*. Raymond, Nebr, Jan. 25, 86. A.B, Michigan, 10, Ph.D, 13. Asst. bot, Michigan, 09-10, curator bot. garden and arboretum, 10-12, acting director and asst. bot, 12-13; instr, Cornell, 13-15; New Hampshire, and asst. botanist, Exp. Sta, 15-16; instr. *biol*, Western Reserve, 16-19, *asst. prof*, 19-27; *Wisconsin*, 27- Exten. service, Vt. Exp. Sta, 15; plant disease surv, bur. plant indust, U. S. Dept. Agr, 18. A.A; Bot. Soc. Trees of Vermont and Michigan; transpiration of emersed water plants.
- Otis, Dan(iel) H(enry)**, 522 First National Bank Building, Madison, Wis. *Agriculture*. Topeka, Kans, March 30, 72. B.S, Kansas Col, 92, M.S, 97. Asst. agr, Kansas Col, 92-98, dairying, 98-00, prof. dairy and animal husbandry, 00-03; manager, Deming ranch, Oswego, Kans, 03-05; assoc. prof. animal nutrition, Wisconsin, 05-09, prof. farm management, 09-19, asst. dean col. agr, 12-19; *director*, Banker-Farmer Exchange of Wis. Bankers Ass, 19-23; *agr. commission, Am. Bankers Ass*, 23- Ed, 'Banker-Farmer,' 23-27; 'Bul,' agr. commission, Am. Bankers Ass, 27- Educ. corps, U.S.A. Kans. Acad; Wis. Acad. Animal nutrition; farm management; inoculation of soy beans for root tubercles; feeding of farm animals; selection of feeds for farm animals; simplification of farm and household accounts.
- Ott, Dr. W(illiam) P(inkerton)**, University, Ala. *Mathematics*. Augusta Co, Va, Dec. 12, 76. A.B, Washington and Lee, 00, A.M, 01; Ph.D, Chicago, 17. Instr, Univ. Sch, Nashville, Tenn, 01-09; instr, asst. prof. and assoc. prof. *math*, Vanderbilt, 09-24; *prof. and head dept, Alabama*, 24- Math. Soc; Math. Ass. Calculus of variations.
- Ottenberg, Dr. Reuben**, 15 W. 89th St, New York, N. Y. *Medicine, Biology*. New York, 82. A.R, Columbia, 02, M.D, 05. Instr. bacter, Columbia, 13-20; *adjunct physician, Mt. Sinai Hosp*, 20- Soc. Exp. Biol; Ass. Clin. Invest; Am. Med. Ass; Harvey Soc; N. Y. Path. Soc; N. Y. Acad. Blood transfusion; heredity of the blood groups.
- Ottley, Prof. Alice M(aria)**, 46 Dover Road, Wellesley, Mass. *Botany*. Seneca Castle, N. Y, Nov. 20, 82. A.B, Cornell, 04; A.M, Wellesley, 06; Ph.D, California, 21. Asst. *bot, Wellesley*, 04-06, 07-09, instr, 09-16, 17-19, asst. prof, 19-22, *assoc. prof. and curator herbarium*, 22- Exchange prof, Univ. Witwatersrand, S. Africa, 25. A.A; Bot. Soc; Genetic Ass; Eugenics Soc; Sci. League; Mass. Hort. Soc; Boston Soc. Nat. Hist. Comparative morphology; taxonomy of flowering plants; the development of the gametophytes and fertilization in *Juniperus communis* and *Juniperus virginiana*; contribution to life history of *Impatiens sultani*; revision of Californian species of *Lotus*.
- Otto, Prof. Carl**, University of Maine, Orono, Maine. *Chemistry*. Covington, Ky, Nov. 6, 95. A.B, Cincinnati, 16, A.M, 20, Ph.D, 22. Asst. chem, Cincinnati, 16-17, grad. asst, 19-21, instr. chem. eng, 21-24; *asst. prof. chem, Maine*, 24- A.A; Chem. Soc. Physical chemistry.
- Outerbridge, Alex(ander) E(wing), Jr**, 8 Summit St, Philadelphia, Pa. *Metallurgy*. Philadelphia, July 31, 50. Pennsylvania. Asst, assay lab, U. S. Mint, Phila, 68-79, organizer, assay dept, New Orleans Branch, 79-80; *metallurgist*, A. Whitney and Sons Car Wheel Works, 80-88; *William Sellers Co*, 88- Lecturer, Pennsylvania; prof, Franklin Inst. John Scott Legacy medal and premium; Elliott Cresson gold medal. Franklin Inst. Molecular physics of iron.
- Overbeck, Dr. R(obert) M(ilton)**, Caracoles Tin Co. of Bolivia, Casilla 674, La Paz, Bolivia, S. Amer. *Geology*. Baltimore, Md, Jan. 23, 87. A.B, Hopkins, 09, fellow, 14-15, Ph.D, 15. U. S. Geol. Surv, 13-20; Shell Co. of Calif, 20-24; *geologist, Caracoles Tin Co. of Bolivia*, 24- Md. Geol. Surv, 13; Guggenheim Bros, 19-20. Geol. Soc; Min. and Metal. Eng; Ass. Petrol. Geol; Wash. Geol. Soc. Copper ores; geology and mineral resources of Alaska.
- Overholser, Prof. E(arle) L(ong)**, University of California, Berkeley, Calif. *Pomology*. Kansas City, Mo, Dec. 19, 88. B.S.A, Missouri, 13, fellow, 13-14, A.M, 14; Cornell, 14-16, Ph.D, 26. Asst. bot, Missouri, 11-13; instr. *pomol*, Cornell, 14-17, asst. prof, 17-18; exchange prof. from Cornell, *California*, 18-19, *asst. prof*, 19- Delegate from Univ. California, and Pacific States Cold Storage Warehousemen's Ass, Fourth Int. Cong. Refrig, London. A.A; Hort. Soc; Soc. Hort. Sci; Bot. Soc. Color production in fruits; pollination of apples; cold storage of fruits; physiology of oxidase system of fruits.

Overholts, Prof. L(ee) O(ras), State College, Pa. *Botany*. Camden, Ohio, June 23, 90. A.B., Miami, 12; Lackland fellow, Washington (St. Louis), 12-15, Ph.D., 15. Instr. bot., Pa. State, 15-17, asst. prof., 17-20, assoc. prof., 20-25, prof., 25- Collaborator, U. S. Dept. Agr., 18- Assoc. ed., 'Mycologia,' 26- Bot. Soc.; Phytopath. Soc.; Torrey Bot. Club; West. Pa. Bot. Soc. Taxonomy of fungi; forest pathology; physiology of fungi.

Overman, Dr. O(liver) R(alph), University of Illinois, Champaign, Ill. *Chemistry*. Windfall, Ind., April 15, 86. A.B., Indiana, 10, A.M., 11; Ph.D., Cornell, 17. Teaching fellow, Indiana, 10-11; asst. chem., Cornell, 11-15; prof. chem. and geol., Huron, 15-17; assoc. dairy chem., Illinois, 17-19, asst. prof., 19- A.A.; Chem. Soc. (councilor, S. Dak. sect, 16); S. Dak. Acad. (second v. pres, 15). Electrodeposition of lead; oxidation of hydrazin and ammonia; food values and dairy products.

Overmyer, Dr. Calvin J., Wadsworth, Howland and Co, Inc, 141 Federal St, Boston, Mass. *Chemistry*. Lindsey, Ohio, Feb. 13, 97. B.S., Mich. State Col, 18, Rhodes scholar, 19; Ph.D., Oxford, 23. *Research chemist, Wadsworth, Howland and Co, Inc.* Capt. C.W.S. Chem. Soc. Nitro-cellulose and pyroxylin lacquers; dyes.

Overn, Oswald B(enjamin), 1222 St. Anthony Ave, St. Paul, Minn. *Physics*. Mankato, Minn., Jan. 26, 91. A.B., Minnesota, 12; M.S., Iowa, 18; Chicago, 19-20. Instr. physics, Luther, 12-19; prof., Concordia, 20- A.A.; Physical Soc. X-rays.

Overton, Prof. Ja(me)s B(ertram), University of Wisconsin, Madison, Wis. **Botany*. Richmond, Mich., Dec. 23, 69. Ph.B., Michigan, 94; fellow, Chicago, 00-01, Ph.D., 01; Bonn, 03-04. Senior master math, St. John's Mil. Acad., Wis., 95-98; prof. biol., Ill. Col., 01-04; instr. bot., Wisconsin, 04-07, asst. prof., 07-12, assoc. prof. plant physiol., 12-15, prof., 15- Summer, asst., Chicago, 00. A.A.; Soc. Nat.; Bot. Soc.; Ecol. Soc.; Chem. Soc.; Bot. Cent. States; Wis. Acad.; Int. Ass. Bot. Parthenogenesis and special problems in fertilization; reduction divisions in flowering plants; cytology of Ascomycetes; physiology of vascular plants.

Ovitz, Frank K(ehn), 313 Oliver St, Whiting, Ind. *Chemical engineering*. Mineral Point, Wis., May 17, 82. B.S., Michigan, 05. Instr. chem. eng., Illinois, 06-07, chemist, Eng. Exp. Sta., 07-08; asst. chemist, fuel engineer and supt., U. S. Bur. Mines, 08-20; fuel engineer, Standard Oil Co. of Ind., 20- Min. Eng. Chemistry and utilization of fuels; petroleum; combustion.

Owen, Prof. Fayette Timothy, 1319 Lawrence St, Emporia, Kans. *Chemistry*. Lyndon, Ill., April 11, 68. A.B., Doane, 96, A.M., 04; Columbia, 05, Ph.D., 12. Teacher science, Franklin Acad., Nebr., 96-04; head dept. science, N. Y. State Nor. and Training Sch., Potsdam, 05-11; prof. chem., Emporia, 13- Chem. Soc. Physical chemistry.

Owen, Dr. F(orrest) V(ern), Maine Agricultural Experiment Station, Orono, Maine. *Genetics*. Harrisville, Utah, Aug. 27, 99. B.S., Utah Col,

21; M.S., Oregon Col, 23; fellow, Wisconsin, 24-25, Ph.D., 26. Asst. crops, Oregon, 21-23; assoc. biologist, Maine Exp. Sta., 26- Inheritance and physiological studies of soybeans.

Owen, Miss Juliette A., 306 N. Ninth St, St. Joseph, Mo. *Ornithology*. St. Joseph. Vassar. A.A.; Ornith. Union; Ass. Mus.; N. Y. Acad.; Wash. Acad.; Wash. Biol. Soc. Ornithology and botany of Missouri.

Owen, Miss Luella Agnes, 306 N. Ninth St, St. Joseph, Mo. *Geography, Geology*. St. Joseph. Pub. and private instruction. Int. Congresses Geog. and Geol. A.A.; Am. Geog. Soc.; Forestry Ass.; Soc. de Spéléologie. Origin and deposition of loess; evidence of early man in the Missouri River valley; value of the Missouri and its tributaries for transportation; caves and other evidence supporting the theory of geyser action; land snails in loess of China, America and Europe; the causes, consequences and control of floods of the Missouri River.

Owen, W(illiam) Ludwell, Louisiana Experiment Station, Baton Rouge, La. *Bacteriology*. Halifax Co, Va., 85. B.S., 06. Bacteriologist, Ga. Exp. Sta., 06-08; La. Sugar Exp. Sta., 08-17; head research lab, Penick and Ford, Ltd, Inc, 17-21; research bacteriologist, La. Exp. Sta., 21- A.A.; Soc. Bact.; Chem. Soc. Deterioration of raw sugars in storage.

Owens, Dr. A(lbert) W(affie), 61 Hammond Road, Belmont, Mass. *Metallurgy*. Lewisburg, Pa., Oct. 23, 88. B.S., Bucknell, 09; Ph.D., Illinois, 18. Instr. science, Bacone Col, 09-11; chem., Illinois, 11-13, 15-17; high sch., Ariz., 13-15; physical chemist, Bur. Standards, 18-20; tech. research lab, U. S. Smelting, Ref. and Mining Co, Boston, Mass., 20- Chem. Soc. Atomic weight of samarium; preparation of pure aluminum and of iron-carbon-manganese alloys.

Owens, Prof. C(harles) E(lmer), Oregon Agricultural College, Corvallis, Oregon. *Botany*. Clay Co, Ind., Nov. 26, 77. A.B., Indiana, 10, A.M., 11. Teacher, pub. schools, Ind., 00-09; teaching fellow, Indiana, 10-12; instr. bot. and plant path., Oregon Col, 12-16, asst. prof., 16-20, assoc. prof., 20- A.A.; Bot. Soc.; Phytopath. Soc. Plant pathology.

Owens, Prof. F(rederick) W(illiam), Pennsylvania State College, State College, Pa. *Mathematics*. Rockwell City, Iowa, Nov. 18, 80. B.S., M.S., Kansas, 02, fellow, 02-03; Ph.D., Chicago, 07. Instr. math., Northwestern, 05-07; Cornell, 07-15, asst. prof., 15-26; prof. and head dept., Pa. State, 26- A.A.; Math. Soc.; Math. Ass.; Physical Soc.; Circolo Mat. di Palermo. Foundations of geometry; applied mathematics.

Oxley, Prof. Arthur D(aniel), Lambuth College, Jackson, Tenn. *Biology*. West Liberty, Iowa, Dec. 18, 00. B.S., Iowa Wesleyan, 23; A.M., Arkansas, 24. Asst. bot., Arkansas, 23-24; prof. biol., Lambuth, 24- Summer, instr., Hendrix Col, 24. A.A.; Bot. Soc. Mosses of northwest Arkansas.

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Paarmann, J(uergen) H(erman), Davenport Public Museum, Davenport, Iowa. *Biology*. Davenport, Sept. 2, 70. B.S., Iowa, 01, M.S., 02.

- Teacher, pub. schools, 94-97, prin, 99-00; *curator, Davenport Pub. Museum, 02-* Supervisor nature study, pub. schools, Davenport, 03-10; prof, Augustana, 18-19. Ass. Mus; Archeol. Inst; Iowa Anthropol. Ass. (sec'y, 06-). Flora of eastern Iowa; museum work. [*Died, July 14, 27.*]
- Pack, Dr. Dean A(lvin)**, 1876 S. Main St, Salt Lake City, Utah. *Botany*. Kamas, Utah, Sept. 5, 89. A.B, Utah, 16; fellow, Chicago, 19-20, Ph.D, 20. Teacher, high schools, 13-17; instr. bot. and head dept, Utah, 17-18; asst. prof. biol. Agr. and Mech. Col. Texas, 20-21; *plant breeder, sugar plant investigations, bur. plant indust, U. S. Dept. Agr, 21-* Summers, U. S. Smelting and Ref. Co, 16-18. Plant physiology and breeding; biochemistry.
- Pack, Prof. Frederick J(ames)**, University of Utah, Salt Lake City, Utah. *Geology*. Bountiful, Utah, Feb. 2, 75. B.S, Utah, 04; A.M, Columbia, 05, Ph.D, 06. Prof. geol. and miner, Brigham Young, 06-07; *Deseret prof. geol, Utah, 07-* A.A; fel. Geol. Soc; Ass. Petrol. Geol; Seismol. Soc; fel. Royal Scottish Geog. Soc; fel. London Geol. Soc. Structural geology.
- Pack, Dr. George Thomas**, University of Alabama, University, Ala. *Pathology*. Antrim, Ohio, May 14, 98. B.S, Ohio State, 20; M.D, Yale, 22. Asst. physiol, Ohio State, 20-21; instr. pharmacol. and toxicol, Yale, 21-23; assoc. prof. path, Alabama, 23-24, *prof. and head dept, 24-*, *lecturer minor surg, 25-* A.A; Physiol. Soc. The influence of benzyl benzoate on nitrogenous metabolism and various diuretics on blood concentration; blood concentration in extensive superficial burns; the nature of the sensation of thirst; picric acid poisoning; pharmacological behavior of malic acid and its salts; ionic medication; burn deformities; experimental ablation of superior cervical sympathetic ganglia; physiological action of proteases obtained from shattered ox-blood antigen.
- Pack, Prof. Herbert J(ohn)**, Utah Agricultural College, Logan, Utah. *Entomology, Zoology*. Woods Cross, Utah, Oct. 26, 92. B.S, Utah Col, 13, M.S, 23; Ph.D, Cornell, 25. Instr. zool, Utah Col, 13-14; high sch, 14-18; zool. and entom, *Utah Col, 20-21*, asst. prof, 21-25, assoc. prof, 25-26, *prof. entom. and entomologist, Exp. Sta, 26-* Asst. entomologist, bur. entom, U. S. Dept. Agr. and asst, sugar beet investigations, bur. plant indust; asst, Cornell, 23-24, lecturer, 24-25. A.A; Ass. Econ. Entom; Soc. Ichthyol. and Herp; Wash. Biol. Soc. Biology of ladybird beetles; food habits of lizards; reptiles of Utah; food of young trout.
- Pack, R(obert) W(allace)**, Sun Oil Co, Beaumont, Texas. *Geology*. Berkeley, Calif, June 15, 85. B.S, California, 08, fellow, 09-10. Asst. miner. and petrog, California, 08-09; asst. and assoc. geologist, U. S. Geol. Surv, 10-13, paleontologist, 14-15, geologist, 16-17; *Sun Oil Co, 17-19*, chief geologist, 20, *gen. supt, Gulf Coast div, 20-* Geol. Soc; Paleont. Soc; Min. Eng; Ass. Petrol. Geol; Wash. Geol. Soc; Wash. Acad. Geology of petroleum; California stratigraphy and tertiary paleontology; petroleum deposits of Central and South America, Texas, Louisiana and California.
- Packard, Dr. Charles**, 1145 Amsterdam Ave, New York, N. Y. *Biology*. Boston, Mass, 84. B.S, Syracuse, 07, M.S, 08; Ph.D, Columbia, 14. Instr. zool, Williams, 08-10; Columbia, 14-18; asst. prof, Peking Union Med. Col, 18-23; *assoc, Inst. Cancer Research, Columbia, 24-* A.A; Soc. Zool. General physiology; effect of radium and the X-ray on living matter; cancer.
- Packard, C(lyde) M(onroe)**, Box 495, West Lafayette, Ind. *Entomology*. Cummington, Mass, Jan. 28, 89. B.S, Mass. Col, 13; M.S, California, 25. *Entomologist, bur. entom, U. S. Dept. Agr, 13-* A.A; Entom. Soc; Ass. Econ. Entom. The Hessian fly and its parasites.
- Packard, Prof. E(arl) L(eroy)**, University of Oregon, Eugene, Oregon. *Paleontology*. East Charlemont, Mass, April 10, 85. A.B, Washington (Seattle), 11, A.M, 12; Ph.D, California, 15. Instr. geol, Washington (Seattle), 15-16; asst. prof, Oregon, 16-17; head dept, Miss. Agr. and Mech. Col, 17-18; *prof, Oregon, 18-* A.A; Paleont. Soc; West. Soc. Nat; Calif. Acad. Mesozoic and Cenozoic Mactriniae of the Pacific Coast; fauna of the Cretaceous of the Santa Ana Mountains; quantitative molluscan fauna of San Francisco Bay; the Trigoninae of the Pacific Coast; an aberrant oyster from the Oregon Eocene.
- Packard, Prof. W(ales) H(arrison)**, Bradley Polytechnic Institute, Peoria, Ill. *Physiology*. Chatham, Ohio, Nov. 12, 70. B.S, Olivet, 94; Chicago, 94-98, Ph.D, 08. Instr. zool, Woods Hole, 95-99; *biol, Bradley Polytech, 98-04, prof, 04-* Summers, instr, Chicago, 03, Illinois, 14. A.A; Cent. Ass. Sci. and Math. Teachers; Ill. Acad. Resistance to lack of oxygen; dissolved oxygen in polluted streams.
- Paddock, Dr. G(eorge) F(rederic)**, Northwestern University, Evanston, Ill. *Astronomy*. Providence, R. I, 79. Ph.B, Brown, 02; fellow, Virginia, 02-06, A.M, 06, Ph.D, 12. Asst. south. sta, Lick Observatory, Santiago, Chile, 06-12, Mt. Hamilton, Calif, 12-18, acting astronomer in charge south. sta, 18-24; *instr. astron, Northwestern, 25-* Astron. Soc; Pacific Astron. Soc. Radial velocities of stars; spectroscopy.
- Paddock, Prof. W(endell)**, Ohio State University, Columbus, Ohio. *Botany*. Three Oaks, Mich, July 12, 66. B.S, Mich. State Col, 93, M.S, 98. Asst. hort, N. Y. Exp. Sta, Geneva, 93-00; *prof. bot. and hort, Colo. Agr. Col, 98-09; hort, Ohio State, 09-* A.A; Soc. Hort. Sci. Plant diseases.
- Padgett, Prof. Fred Warde**, University of Oklahoma, Norman, Okla. *Chemistry*. Ft. Scott, Kans, Oct. 10, 88. B.S, Pittsburgh, 13, M.S, 14. Fellow, Mellon Inst, 12-17; assoc. prof. chem, Oklahoma, 17-25, *prof. petrol. eng, 25-* Chem. Soc. (chairman, Okla. sect, 25). Petroleum; pyrogenesis of hydrocarbons; natural gas; colloid chemistry of petroleum.
- Page, Dr. Calvin G(ates)**, 128 Marlboro St, Boston, Mass. *Bacteriology*. Boston, July 9, 67. A.B, Harvard, 90, M.D, 94. Physician, orthop.

- dept, Boston Dispensary, 96-16; asst. bacter, Harvard Med. Sch, 99-12, instr, 12-20, asst. prof, 20-25; assoc. prof, Mass. Col. Pharmacy, 21-26. House officer, Children's Hosp, 93-94; Boston City Hosp, 95. Soc. Bact; Ass. Path. and Bact; Pub. Health Ass; Am. Med. Ass; Tuber. Ass. Bacteriology of scarlet fever; sporotrichosis; milk; *L. acidophilus*; streptococcus diagnosis.
- Page, Prof. Frederick S(myth)**, Dartmouth College, Hanover, N. H. *Botany*. Candia, N. H., Oct. 28, 89. B.S., Dartmouth, 13; M.S., Vermont, 14. Asst. bot, Vermont, 13-15; instr. *biol.*, Dartmouth, 15-21, asst. prof, 21- U. S. Exp. Sta., Burlington, Vt, 14-15. A.A; Bot. Soc. Mycorrhizas of white pine; transpiration of forest seedlings; silviculture.
- Page, Dean J(ames) M(orris)**, University of Virginia, Charlottesville, Va. **Mathematics*. Cobham, Va, March 4, 64. A.M., Randolph-Macon, 85, LL.D., 04; Ph.D., Leipzig, 87. Head master, private sch, 88-95; lecturer and fellow by courtesy, Hopkins, 96; adjunct prof. *math.*, Virginia, 96-98, assoc. prof, 98-01, prof, 01-, dean. Dean academic faculty, Virginia, 00-02, chairman faculty, 03-04. Assoc. ed, 'Annals of Math,' 96-99. Va. State Board Educ, 10-27. A.A; Math. Soc. Applications of the infinitesimal calculus to geometry; differential equations; theory of transformation groups.
- Page, Dr. Leigh**, Yale University, New Haven, Conn. **Physics*. South Orange, N. J., Oct. 13, 84. Ph.B., Yale, 04, Ph.D., 13. Instr. *physics*, Yale, 12-16, asst. prof, 16-22, prof, 22- Silliman lecturer, 17; summers, lecturer, Chicago, 22, 24, Columbia, 26. Judge Einstein contest, 'Sci. Am.' A.A; Physical Soc; Math. Soc. Principle of relativity; photoelectric effect; electrodynamics; atomic structure.
- Paige, Sidney**, Amerada Corporation, 65 Broadway, New York, N. Y. *Geology*. Washington, D. C., Nov. 2, 80. Michigan, 02-03; Yale, 08. Nicaragua Canal Commission, 98-00; asst. geologist, U. S. *Geol. Surv.*, 02-07, *geologist*, 13-, in charge west. areal geol, 16-18, in charge div. geol, 18-24; *Amerada Corp.*, 24- Asst. geologist, Panama Canal Commission, 07. Geol. Soc; Ass. Petrol. Geol; Min. Eng; Min. and Metal. Soc; Wash. Geol. Soc; Wash. Acad. (assoc. ed, 'Jour'). Geology of Alaska, United States and South America.
- Paine, Prof. Ellery B(urton)**, 606 Pennsylvania Ave, Urbana, Ill. *Electrical engineering*. Willington, Conn, Oct. 9, 75. B.S., Worcester, 97, M.S., 98, E.E., 04. Gen. Elec. Co, N. Y., 99; elec. engineer, Lehigh Valley Coal Co, Pa, 99-02; prof. physics, Stetson, 02-04; physics and elec. eng, N. C. State, 04-07; asst. prof. *elec. eng.*, Illinois, 07-13, prof. in charge dept, 13- Elec. Eng; Eng. Educ; West. Soc. Eng. High potential discharges in dielectrics; combinations of harmonic motions; lightning; magnetic properties of iron alloys; high voltage power cables.
- Paine, Prof. George Porter**, University of Delaware, Newark, Del. *Physics*. Dutch Island, R. I., Sept. 12, 76. A.B., Harvard, 05, A.M., 07; Ph.D., Wisconsin, 18. Prof. math, Ripon, 07-09; asst. prof, Minnesota, 09-12; research instr,
- Wisconsin, 14-19; Nat. Research Council fellow, Harvard, 19-23; assoc. prof. *physics*, Delaware, 23-25, prof, 25-, in charge dept, 23- Geophys. Union. Physical Soc. Aerodynamics; circulation of the atmosphere; free air humidities; energy transformations in air jets.
- Paine, Mrs. Robert (Mary Esther Trueblood)**, 94 Panoramic Way, Berkeley, Calif. *Mathematics*. Richmond, Ind, May 6, 72. Ph.B., Earlham, 93; Ph.M., Michigan, 96; Woman's Educ. Ass. fellow, Göttingen, 00-01. Instr. *math.*, Earlham, 97-99; Mt. Holyoke, 02-10; exten. div, California, 15- A.A; Math. Soc. History of mathematics.
- Painter, H(enry) R(aymond)**, U. S. Entomological Laboratory, Box 95, West Lafayette, Ind. *Entomology*. Big Springs, Kans, Sept. 10, 88. B.S., Okla. Agr. and Mech. Col, 12, M.S., 16. Asst. entomologist, Okla. Agr. and Mech. Col, 12-18; asst. entomologist, bur. entom., U. S. Dept. Agr, 18- A.A; Ass. Econ. Entom. San Jose scale; fowl tick; locust borer.
- Painter, Prof. Theophilus S(hickel)**, University of Texas, Austin, Texas. **Zoology*. Salem, Va, Aug. 22, 89. A.B., Roanoke, 08; A.M., Yale, 09, Ph.D., 13. Instr. *zool.*, Yale, 14-16; adjunct prof. and prof, Texas, 16- Soc. Nat; Soc. Zool; Ass. Anat. Experimental zoology; mammalian cytology.
- Palache, Prof. Charles**, 106 Appleton St, Cambridge, Mass. **Mineralogy, Geology*. San Francisco, Calif, July 18, 69. B.S., California, 91, fellow, 92-94, Ph.D., 94. Instr. *miner.*, Harvard, 96-01, asst. prof, 02-12, prof, 12-, curator *miner. museum*, 23- A.A; Geol. Soc; Min. Soc; Am. Acad. Mineralogy; crystallography and paragenesis of American minerals; mineralogy of Franklin Furnace, New Jersey; the two-circle goniometer.
- Palkin, Dr. S(amuel)**, 13th St, N. W., Washington, D. C. *Chemistry*. Russia, Feb. 22, 90. Ph.B., Yale, 10; M.S., George Washington, 13, Ph.D., 15. Metal. chemist, Tiffany and Co, 10-11; asst. chemist, drug div, bur. chem., U. S. Dept. Agr, 11-18, org. and physical chemist, color lab, 20-22, assoc. chemist, drug control lab, 22- Fel. Inst. Chem; Chem. Soc. Metals; drugs; photosensitizing dyes; medicinal products.
- Pallister, Prof. Hugh D(avidson)**, University of Alabama, University, Ala. *Mining*. Cleveland, Ohio, May 31, 83. B.S., Case, 06, E.M., 14. Mining and consulting engineer, 06-10; instr. mech. and hydraul. eng, Case, 08-10; metal. and mining, Pa. State, 10-12, asst. prof, 12-15; prof. and head departments geol. and mining, Texas Sch. Mines, 15-19; supt. coal mines, McKinney Steel Co, 19-21; director, State Mine Exp. Sta. and sch. mines, Alabama, 21- Asst. Texas Bur. Econ. Geol. Consulting engineer, U. S. Shipping Board, 17-19. A.A; Min. Eng; Coal Min. Inst; Ala. Acad. Geology, mining and metallurgy of quicksilver, iron and coal.
- Palmer, Prof. A(lbert) deForest**, Brown University, Providence, R. I. **Physics*. Tewksbury, Mass, July 26, 69. Ph.B., Brown, 91, Ph.D., 95; Hopkins, 91-93. Instr. *physics*, Brown, 93-96,

- assoc. prof.*, 96- A.A.; Physical Soc; Soc. de Physique. Wave-length of helium line; condensation in steam jet; effect of high pressure on electrical resistance of mercury; dielectric constants of solutions; changes in the dielectric constant of water with frequency of the electric field and with temperature; thermoelectric measurement of temperatures between 0° and 200° C; measurement of small changes in elliptically polarized light produced by strain and surface films; effect of electrostatic charge on metallic reflection.
- Palmer, Andrew H(enry)**, 333 Pine St, San Francisco, Calif. *Meteorology*. Dubuque, Iowa, May 1, 86. A.B, Minnesota, 08; A.M, Harvard, 09; Ph.D, Santa Clara, 23. Asst. observer, Blue Hill Observatory, 08-09, research asst, 09-12; instr. geog, Mass. State Nor. Sch, Salem, 12-13; magnetic observer, Carnegie Institution, 13-14; meteorologist, U. S. Weather Bur, 14-24; *supt, crop and weather ins. dept, Aetna Affiliated Companies, San Francisco, 24-* A.A.; Seismol. Soc; Am. Geog. Soc; Calif. Acad. Climatology; seismology; water power; weather insurance.
- Palmer, Prof. C(harles) C(onger)**, University of Delaware, Newark, Del. *Animal industry*. Canton, Ohio, July 20, 92. D.V.M., Ohio State, 12; M.S., Minnesota, 16. Asst. prof. physiol, Minnesota, 13-17; prof. bacter. and hygiene and veterinarian, Exp. Sta, Delaware, 17-22, *prof. animal indust. and head dept, 22-* Lieut, V.C, 18. Soc. Animal Production; Vet. Med. Ass. (sec'y). Physiology; diseases of live stock.
- Palmer, Prof. C(harles) S(hattuck)**, Northwestern University, Evanston, Ill. *Chemistry*. Champaign, Ill, Nov. 11, 95. B.S., Illinois, 17, M.S, 20, Ph.D, 22. Nat. Research Council fellow chem, Yale, 22-24; *asst. prof, Northwestern, 24-* A.A.; Chem. Soc; Electrochem. Soc; Ill. Acad; Chem. Gesell. Organic compounds of arsenic.
- Palmer, Dr. C(harles) S(keele)**, 4333 Dakota St, Pittsburgh, Pa. *Chemistry*. Danville, Ill, Aug. 4, 58. A.B, Amherst, 79, A.M, 82; fellow, Hopkins, 85-86, Ph.D, 86; Leipzig, 92. Prof. chem, Colorado, 87-02; pres, Colo. Sch. Mines, 02-03; chief chemist, A. C. M. Co, Anaconda, Mont, 03-04; *assoc. ed, 'Eng. and Mining Jour,' 04-06; natural science ed, D. Appleton and Co, 06-07; consulting chemist, indust. firms, 07-15; fellow, Mellon Inst, 15-17; chief chemist, United Fuel Gas Co, 21; consulting chem. engineer, 21-* A.A.; Chem. Soc; Chem. Eng; Electrochem. Soc; West. Pa. Eng. Soc; Colo. Sci. Soc. (pres, 04); Colo. State Teachers Ass. (pres, 02). Chemical engineering; educational chemistry; wool grease; fuel engineering; storage batteries; gasoline.
- Palmer, Dr. Chase**, 1137 Green St, San Francisco, Calif. **Chemistry*. Saco, Maine, Sept. 19, 56. Princeton, 74-76; A.B, Hopkins, 79, fellow, 80-82, Ph.D, 82. Instr. chem, Mass. Inst. Tech, 82-83; Mass. State Nor. Sch, Salem, 83-87; Tufts, 87-88; prof, Wabash, 88-90; manager lead and zinc mines, Mo, 91-94; chemist, Du Pont Manual Training High Sch, Louisville, Ky, 95-01; prof. chem, Cent. Univ. of Ky, 01-05; Kentucky, 05-06; chemist, U. S. Geol. Surv, 07-19; chief chemist, South. Pacific Co, 19-21; *consulting chemist, 21-* A.A.; Chem. Soc; Franklin Inst; Chem. Gesell. Thorium compounds; allyl cyanid; aromatic substitution products; ore deposition; rock analysis; enrichment of silver and copper ore deposits; geochemistry and chemical classification of natural waters; natural relations of oils to waters.
- Palmer, Prof. C(laude) I(rwin)**, 6440 Greenwood Ave, Chicago, Ill. *Mathematics*. Battle Creek, Mich, May 31, 71. A.B, Michigan, 03; Chicago. *Assoc. prof. math. and dean, Armour, 03-* A.A.; Math. Soc; Math. Ass. Applied mathematics; geometry; trigonometry.
- Palmer, Dr. E(phraim) Laurence**, Cornell University, Ithaca, N. Y. *Botany*. McGraw, N. Y., July 8, 88. A.B, Cornell, 11, A.M, 13, fellow, 16-17, Ph.D, 17. Asst. bot, Cornell, 10-13; prof, Iowa State Teachers' Col, 13-19; asst. prof. rural educ, Cornell, 19-23, *prof, 23-* Ed, 'Cornell Rural Sch. Leaflet,' 19-; director nature educ, 'Nature Magazine,' 25- Summers, staff, California at Los Angeles, 22, 24, Iowa Col, 23, Utah Col, 25-27. A.A.; Ecol. Soc; Nature Study Soc. (sec'y, 25-); Iowa Acad. Science education; impurities of commercial seeds; taxonomy of fish.
- Palmer, E(rik) S(chjôth)**, Winchester Repeating Arms Co, New Haven, Conn. *Engineering*. Cleveland, Ohio, Dec. 31, 85. Ph.B, Yale, 06; Columbia, 11-12. Instr. math, Rollins, 08-09; Rutgers, 09-12; prof. math. and chem, Rollins, 12-17; ballistic engineer, Winchester Repeating Arms Co, 17-20, *research engineer, 20-* A.A.; Physical Soc; Math. Soc; Math. Ass; Circolo Mat. di Palermo. Ballistics; patents.
- Palmer, E(rnest) J(esse)**, Arnold Arboretum, Jamaica Plain, Mass. *Botany, Forestry*. Leicester, Eng, April 8, 75. Baptist Col. (Mo.) Field collector, Mo. Bot. Garden and Arnold Arboretum, Harvard, 13-18, *field collector and asst. botanist, 21-* A.A.; Ecol. Soc; Fern Soc; St. Louis Acad. Botanical exploration; plant lists; taxonomy; plant geography; forest distribution.
- Palmer, Prof. F(rederic), Jr**, Haverford, Pa. *Physics*. Brookline, Mass, Oct. 17, 78. A.B, Harvard, 00, A.M, 04, Ph.D, 13. Instr. math, Asheville Sch, N. C, 00-01; math. and physics, Worcester Acad, 01-03; *physics, Haverford, 04-* 08, *assoc. prof, 08-16, prof, 16-* Lecturer, Harvard, 18-19. Lick Observatory solar eclipse exped, Spain, 05. A.A.; Physical Soc; Franklin Inst. Ionization by Schumann rays.
- Palmer, Prof. Geo(rge) D(avid), Jr**, 1116 Bluemont St, Manhattan, Kans. *Chemistry*. Helena, Ark, Dec. 7, 97. B.S, Clemson Col, 19; A.M, Hopkins, 21, Ph.D, 24. Prof. chem, Guilford Col, 21-22; *org. chem, Kansas Col, 24-* Summer, asst, Bur. Standards, 19. Chem. Soc. Dyes; drugs.
- Palmer, Dr. H(arold) K(ing)**, 1741 S. Harvard Boulevard, Los Angeles, Calif. *Astronomy, Engineering*. Berkeley, Calif, Jan. 20, 78. B.S, California, 98, fellow, Lick Observatory, 98-02, Ph.D, 03. Asst. D. O. Mills exped, South. Hemisphere, 03-05; Lick Observatory, 05-06; solar observatory, Carnegie Institution, 06; with West. Elec. Co, 07; Lucile Oil Co, 08; *engineer, U. S. Indian Service, 09-25; Los Angeles*

- Co. Sanitation Districts, 25-* Instr. California, 03. Spectra of faint nebulae; celestial photography; irrigation and sanitary engineering; hydraulics.
- Palmer, Prof. Harold S(chjöth)**, University of Hawaii, Honolulu, Hawaii. *Geology*. Cleveland, Ohio, June 4, 90. A.B. Yale, 12, Ph.D, 23; Vienna, 26-27. Geol. aid, U. S. Geol. Surv, 14-16, asst. geologist, 16-18, assoc. geologist, 18; instr. *geol.*, Trinity, 19-20; asst. prof, *Hawaii*, 20-23, *prof*, 23- U.S.A., 18-19. Asst. Yale Cent. Andean exped, 13; B. P. Bishop Museum 'Tanager' expeditions, 23, 24. A.A.; Meteor. Soc.; Hawaiian Acad. Geology of ground waters; areal geology in Montana and Hawaii.
- Palmer, Howard**, Hotel Mohican, New London, Conn. *Geography*. Norwich, Conn, Nov. 28, 83. A.B. Yale, 05; LL.B. Harvard, 08. *Explorer; author; lecturer*. Exploring and mapping, North. Selkirk Mountains, B. C. Can, 08-12, 15; explorer, Can. Rockies between Mt. Columbia and Mt. Robson, 16, 19, 20, 23-26. A.A.; Explorers' Club; Am. Alpine Club (sec'y, 11-17, v. pres, 23-26, pres, 26-); cor. mem. Phila. Geog. Soc; fel. Royal Geog. Soc; British Alpine Club. Mountain exploration; motion of glaciers; history and topography of the Canadian Cordillera.
- Palmer, Prof. Irving A(rlston)**, 1022 12th St, Golden, Colo. *Metallurgy*. New Waverly, Ind, May 20, 66. B.S. Lafayette, 87, M.S., 90. Assayer, chemist and electro-metallurgist, Pa. Lead Co, 87-98; assayer, chemist, asst. supt. and supt, Am. Smelting and Ref. Co, 98-11; asst. supt. and supt, United Zinc and Chem. Co, 11-12; consulting metallurgist and supt, U. S. Smelting, Ref. and Mining Co, 12-16; *prof. metal, Colo. Sch. Mines*, 17- Min. and Metal. Eng; Eng. Educ; Denver Teknik Club. Chemistry; metallurgy; engineering education.
- Palmer, Dr. Katherine (E. H.) Van Winkle**, Renwick Heights, Ithaca, N. Y. *Paleontology*. Oakville, Wash, Feb. 4, 95. B.S. Washington (Seattle), 18; Goldwin Smith fellow, Cornell, 18-20, Ph.D, 25. Asst. geol. Oregon, 18; Cornell, 21, 25; asst. prof. hist. geol. and paleont, Washington (Seattle), 22; *Heckscher research asst. paleont, Cornell*, 25- Summers, prof, Utah Col, 26, 27. Paleont. Soc; Calif. Acad; Soc. géol. de France. Tertiary of Washington; Oligocene and Eocene of Washington; Veneridae; Gastropoda of mid-Eocene of southern United States.
- Palmer, Prof. L(eroy) S(heldon)**, 2262 Carter Ave, St. Paul, Minn. *Biochemistry*. Rushville, Ill, March 23, 87. B.S. Missouri, 09, A.M., 11, Ph.D, 13. Chemist, dairy div, U. S. Dept. Agr, 09-13; asst. prof. dairy chem, Missouri, 13-19; assoc. prof. *agr. biochem, Minnesota*, and dairy chemist, Exp. Sta, 19-22, *prof*, 22- Assoc. ed, 'Jour. Dairy Science.' A.A.; Soc. Biol. Chem; Chem. Soc. (councilor, 25); Soc. Exp. Biol. Agricultural and dairy chemistry; carotinoids; physical chemistry of milk and dairy products; animal nutrition; vitamins.
- Palmer, Dr. R(obert) H(astings)**, 207 Hawthorne St, Palo Alto, Calif. *Geology, Paleontology*. Toledo, Ohio, Dec. 1, 82. A.B. Adrian Col, 05; A.M., Utah, 09; J.D., Chicago, 12; Ph.D,
- Stanford, 26. Practising lawyer, 12-17; prof. paleont, Washington, 20-21; chief paleontologist and stratigrapher, Inst. Geol. of Mex, 21-23; *consulting geologist*, 23- U.S.A., 17-18. Geol. Soc; Ass. Petrol. Geol. Rudistids of Mexico; corals of southern Mexico; geology of Hidalgo, Mexico, and parts of Vera Cruz; geology of Lake Chapala.
- Palmer, Dr. Samuel C(opeland)**, 712 Ogden Ave, Swarthmore, Pa. *Zoology*. Concord, Pa, April 27, 74. A.B. Swarthmore, 95, A.M., 07; fellow, Harvard, 07-08, 10-11, A.M., 09, Ph.D, 12. Asst. zool, Harvard, 07-09; Radcliffe, 08-09; acting asst. prof. zool. and geol, *Swarthmore*, 09-10, asst. prof, 10-25, assoc. prof. *biol*, 25-26, *prof*, 26- Lecturer, Wagner Inst, 11. Soc. Zool; Del. Valley Ornith. Club (treas, 12-). Histology of the vertebrate retina.
- Palmer, Dr. T(heodore) S(herman)**, 1939 Biltmore St, Washington, D. C. *Zoology*. Oakland, Calif, Jan. 26, 68. A.B. California, 88; M.D., Georgetown, 95. Field agent, *U. S. Dept. Agr*, 89-90, first asst. ornithologist, 90-96, asst. chief *biol. surv*, 96-02, asst. in charge game preservation, 02-10, asst. chief, 10-14, in charge game preservation, 14-16, expert in game conservation, 16-24, *biologist*, 24- A.A.; Soc. Nat; fel. Ornith. Union (sec'y, 17-); Soc. Mammal; Genetic Ass; Bison Soc; Fisheries Soc; Forestry Ass; Soc. Foresters; Nat. Ass. Audubon Societies (v. pres, 05-); Cooper Ornith. Club; Baird Ornith. Club; Wilson Ornith. Club; Calif. Acad; N. Y. Zool. Soc; Wash. Acad; Wash. Biol. Soc. (v. pres, 02-08, pres, 09); cor. mem. Ornith. Gesell, Bavaria. Nomenclature of mammals and birds; index of genera of mammals; game protection; biography of zoologists.
- Palmer, T(homas) Chalkley**, Delaware County Institute of Science, Media, Pa. *Chemistry*. Media, Oct. 23, 60. B.S. Haverford, 82. Chemist and plant manager, companies, 82-22; *pres, Del. Co. Inst. Science*, 94- A.A.; Franklin Inst; Phila. Acad; Royal Micros. Soc. Diatoms; mechanism of locomotion; trachelomonas.
- Palmer, Prof. Walter S(tanley)**, University of Nevada, Reno, Nev. *Metallurgy*. Waterville, Maine, May 29, 84. B.S. Nevada, 05; E.M., Columbia, 07. Gen. practise mining and metal, 05-08; chemist, Balaklala Copper Co, Calif, 08-09; mining engineer, U. S. Gen. Land Office, 09-10; instr. and asst. prof. min. and metal, *Nevada*, 10-16, *prof. metal*, 16-, acting prof. mining and director, Mackay Sch. Mines, 22-24. Consulting engineer, 10-; gen. manager, Bullshhead Mining and Smelting Co, 19; chemist and metallurgist, Nev. State Mining Lab, 10-23, director, 23-; consulting metallurgist, U. S. Bur. Mines, Nev, 18; certifying adviser indust. furloughs, mining and smelting industries, Nev, 18. Min. and Metal. Eng. Metallurgy of gold and silver; non-metallics.
- Palmer, Prof. W(alter) W(alker)**, 24 Gramercy Park, New York, N. Y. **Medicine*. Southfield, Mass, Feb. 27, 82. B.S. Amherst, 05, Sc.D, 22; M.D., Harvard, 10, fellow, 12-13, 14-15; grad, Mass. Gen. Hosp, 11. Instr. physiol. chem, Harvard, 12-13; house physician, Mass. Gen. Hosp, 13-15; asst. med, Rockefeller Inst. and

- asst. res. physician, Hosp, 15-17; asst. prof. med, med. col, Cornell, 17; assoc. prof. and acting director dept, Columbia, 17-19; assoc. prof, Hopkins, 19-21; *Bard prof, Columbia, 21-* Visiting physician, Presb. Hosp, New York, 17-19, 21-, acting director med. science, 17-19, director, 21-; assoc. visiting physician, Hopkins Hosp, 19-21. Amherst paleont. exped, Wyoming, 04. Med. div, Nat. Research Council, 24- A.A; Am. Physicians; Am. Med. Ass. (council pharmacy and chem); Soc. Biol. Chem; Soc. Exp. Biol; Soc. Clin. Invest. (sec'y, 17); Harvey Soc; N. Y. Acad. Med. Metabolism; acid-base equilibrium; diabetes mellitus; nephritis.
- Palmie, Prof. Anna H(elen)e**, College for Women, Western Reserve University, Cleveland, Ohio. *Mathematics*. Brooklyn, N. Y., May 21, 63. Ph.B, Cornell, 90, fellow, 90-91; Chicago, 96; Göttingen, 98-99. Instr. German and math, Horace Mann Sch, 91-92; *math, col. for women, Western Reserve*, 92-93, assoc. prof, 93-95, *prof, 95-* Math. Soc; Math. Ass.
- Palsgrove, Prof. Grand K(nauer)**, 1719 Highland Ave, Troy, N. Y. *Hydraulic engineering*. Pottstown, Pa, Oct. 1, 88. M.E, Rensselaer, 11. Asst. mech. eng, *Rensselaer*, 11-13, instr, 13-17, asst. prof, 17-20, *prof. hydraul. eng, 20-* Summers, engineer, Am. Locomotive Co, N. Y., 17, 18, 19; hydraul. dept, Wm. Cramp & Sons, S. & E. B. Co, Phila, 20, 22-26. A.A; Mech. Eng; Eng. Educ; Polit. Sci. Soc; East. N. Y. Soc. Eng. (chairman, subjects committee, 24, mem. board governors, 24-). Hydraulics.
- Pammel, Prof. L(ouis) H(ermann)**, Ames, Iowa. **Botany*. LaCrosse, Wis, April 19, 62. B.Agr, Wisconsin, 85, M.S, 89, hon. Sc.D, 25; Ph.D, Washington (St. Louis), 99. Private asst. to Dr. W. G. Farlow, Cambridge, Mass, 85, 86; asst, Shaw Sch. of Bot, Washington (St. Louis), 86-89; *prof. bot, Iowa Col, 89-* Special work, Texas Exp. Sta, div. veg. path, U. S. Dept. Agr, 89, div. agrost, 97, bur. forestry, 99-02, bur. plant indust, 02. Iowa Forestry Commission; Iowa Geol. Board, 94; chairman, Iowa State Board Conservation, 18-27. A.A. (v. pres, G, 19); Bot. Soc. (pres, taxon. sect, 20); Phytopath. Soc; Ecol. Soc; Soc. Foresters; Soc. Bact; Iowa Acad. (pres, 93, 23); Wash. Acad; Wash. Biol. Soc; St. Louis Acad; Ass. Cosmopolitan Clubs (pres, 24); British Ecol. Soc; Bot. Gesell. Anatomical characters of the seeds of Leguminosae; grasses of Iowa; gases produced by certain bacteria; flora of central Iowa and of the Uintahs; weeds and weed flora of Iowa; poisonous plants; ecology; seeds; fungi.
- Papanicolaou, Dr. G(eorge) N(icholas)**, Cornell Medical College, New York, N. Y. *Biology, Anatomy*. Coumi, Greece, May 13, 83. M.D, Athens; Ph.D, Munich. Asst, Oceanog. Museum, Monaco, 11; dept. path, N. Y. Hosp, 13-14; *dept. anat, med. col, Cornell*, 14-16, instr, 16-23, *asst. prof, 23-* Physiologist, Prince of Monaco oceanog. exped, 11. Ass. Anat; Soc. Zool; Soc. Exp. Biol. Sex; reproduction; endocrine glands; oestrus.
- Papez, Prof. James W(enceslas)**, Cornell University, Ithaca, N. Y. *Anatomy*. Glenco, Minn,
- Aug. 18, 83. A.B, Minnesota, 09, fellow, 09-11, M.D, 11. Prof. anat, histol. and embryol, Emory, 12-16, gross anat. and neur, 16-19, applied anat, 19-20; *asst. prof. anat. and neur, Cornell, 20-* Sec'y, Ga. Anat. Board, 13-19. Ass. Anat. Atrial musculature; abnormal position of the duodenum; reticulospinal tracts in the cat; sub-division of facial nucleus.
- Papish, Prof. Jacob**, Cornell University, Ithaca, N. Y. *Chemistry*. Russia, Aug. 4, 87. B.S, Valparaiso, 10; A.M, Indiana, 17; Ph.D, Cornell, 21. Prof. anal. chem, Valparaiso, 10-14; instr. chem, Indiana, 16-18; Purdue, 18-19; *Cornell*, 19-25, *asst. prof. chem. spectroscopy, 25-* Chemical spectroscopy; luminescence and chemical reactions; inorganic chemistry; chemistry of the rarer elements.
- Pappenhausen, Prof. L(ouis) A(bell)**, 705 W. State St, Alliance, Ohio. *Chemistry*. Perrysburg, N. Y., Feb. 27, 95. B.S, Allegheny, 15; M.S, Northwestern, 16; Ph.D, Ohio State, 25. Chemist, Nat. Transit Co, 18; asst. prof. chem, Ohio Wesleyan, 18-25; *prof, Mt. Union, 25-* Chem. Soc. Metallic silver as an ultimate standard in volumetric analysis; use of selenium cell in turbidimetry.
- Pappenheimer, Prof. Alwin M(ax)**, 437 W. 59th St, New York, N. Y. **Pathology*. New York, Dec. 4, 78. A.B, Harvard, 98; M.D, Columbia, 02. Intern, Bellevue Hosp, 03-05, pathologist, 05-10; visiting pathologist, Presb. Hosp, 05-12; demonstrator *path, Columbia*, 09, assoc, 09-14, asst. prof, 14-19, assoc. prof. and *prof, 19-* Soc. Exp. Path; Ass. Path. and Bact; Soc. Exp. Biol; N. Y. Path. Soc. (pres, 15-17); Harvey Soc. (treas, 19). Pneumococcus in human mouth and lungs after death; spirochaetal infection; filiform bacterium in case of vegetative endocarditis; progressive muscular dystrophy; histology of the thymus gland; tumors of the pineal gland; thymectomy in rats; lymphocytes; trench fever; war-gas poisoning; experimental rickets; rheumatic aortitis; fowl paralysis.
- Papworth, Prof. A(lfred) G(arlock)**, 4841 Cass Ave, Detroit, Mich. *Zoology*. Howell, Mich, June 29, 90. A.B, Alma, 16; fellow, A.M, Michigan, 17. Instr. zool, Mich. State Nor. Sch, 17; Detroit Junior Col, 19-20, head dept, 20-23; *prof. zool. and head dept. biol, Col. City of Detroit, 23-* A.A; Mich. Acad. Protozoa and invertebrates of the Detroit area.
- Paraskevopoulos, Dr. J(ohn) S(tefanos)**, Harvard College Observatory, Arequipa, Peru, S. A. *Astronomy*. Piraeus, Greece, June 20, 89. Sc.D, Athens, 10. Research asst, Yerkes and Mt. Wilson Observatories, 19-21; astronomer, Nat. Observatory, Athens, 12-19; prof. astron, Naval Sch, 17-19; meteor, Sch. Forestry, 18-19; *in charge Boyden Sta, Harvard Col. Observatory, Peru, 23-* Astron. exped, north. Chile, 23-24, south. Peru, 24-25. Astron. Soc; fel. Royal Astron. Soc; Soc. astron. de France; Greece Geog. Soc. (trustee, 22). Spectroscopic binary orbits; distances of Milky Way variable stars.
- Parcel, Prof. John I(ra)**, 622 S. E. Sixth St, Minneapolis, Minn. *Structural engineering*.

- A.B, Westfield Col, 03; B.S, Illinois, 09. Instr. *structural eng*, Minnesota, 09-13; asst. prof, Illinois, 13-14; assoc. prof, Minnesota, 14-19, prof, 19- Concrete Inst; Eng. Educ. Secondary stresses in bridges; theory of frames and arches; experimental determination of stresses in structures.
- Pardee, Prof. Arthur M(cCay)**, University of South Dakota, Vermillion, S. Dak. *Chemistry*, Rochester, N. Y, March 27, 85. A.B, Washington and Jefferson, 07; Ph.D, Hopkins, 16. Instr. chem, Tarkio, 07-08, prof, 08-10, chem. and physics, 11-18; chem, Washington and Jefferson, 18-20; *prof. and head dept*, South Dakota, 20- Chem. Soc. Conductivities of alcoholic solutions; alcoholysis; saponification numbers.
- Pardee, J(oseph) T(homas)**, U. S. Geological Survey, Washington, D. C. *Geology*, Salt Lake City, Utah, May 30, 71. California. *U. S. Geol. Surv*, 10- Wash. Geol. Soc. Metalliferous deposits in various parts of the western United States.
- Parfitt, Elliott H(ill)**, Purdue University, Lafayette, Ind. *Bacteriology*, Brooklyn, N. Y, 96. B.S.A, Ont. Agr. Col, 18; M.S, Purdue, 23. Instr. dairy husbandry, Ont. Agr. Col, 18; Maryland, 19-20; research asst, U. S. Dept. Agr, 20-21; *instr. dairy bacter*, Purdue and *dairy bacteriologist*, Exp. Sta, 21- Soc. Bact; Dairy Sci. Ass; Ind. Acad. Dairy bacteriology; enzyme action in dairy products; bacterial enzymes and their relationship to butter deterioration.
- Parham, Dr. Frederick William**, 1429 Seventh St, New Orleans, La. *Surgery*, New Orleans, 56. M.D, Tulane, 79, LL.D, 25. Prof. gen. and operative surg, New Orleans Polyclinic, 08-24; *chief surg*, *Touro Infirmary*, 12-; visiting surgeon, 79-24, *consulting surg*, 24- Board Administrators, Tulane Educational Fund, 06-15, 25- A.A; Surg. Ass; Am. Med. Ass; South. Surg. Ass. (pres, 07); La. State Med. Ass. (pres, 04); Int. Surg. Soc. Parham and Martin bands for treatment of fracture. [Died, 27.]
- Parish, S(amuel) B(onsall)**, 1668 Scenic Ave, Berkeley, Calif. *Botany*, Paterson, N. J, Jan. 13, 38. A.B, N. Y. Univ, 58. Coadjutor, desert lab, Carnegie Institution, 12-16; *hon. curator herbarium*, California, 20-; *lecturer Calif. bot*, Stanford, 22- A.A; Bot. Soc; hon. mem. S. Calif. Acad. Flora of southern California; Cactaceae of California; teratology; weed flora.
- Park, Prof. Charles F(rancis)**, Massachusetts Institute of Technology, Cambridge, Mass. *Mechanical engineering*, Boston, Mass, April 11, 69. B.S, Mass. Inst. Tech, 92. Asst. mech. eng, Mass. Inst. Tech, 92-94, instr, 94-00, asst. prof, 00-06, assoc. prof, 06-12, *prof. mechanism*, 12- Director mech. laboratories and Lowell Inst. Sch, Mass. Inst. Tech. A.A; Mech. Eng; Automotive Eng; Am. Acad.
- Columbia, 09-11; assoc. prof. *pediat*, Hopkins, 14-21; prof, Yale, 21-27; *sch. med*, Hopkins, 27- Chevalier, Order of Leopold. *Pediat. Soc*; Soc. Exp. Biol. Rickets.
- Park, Prof. Jay B(oardman)**, Ohio State University, Columbus, Ohio. *Agronomy*, Clarence, Ill, Jan. 30, 84. A.B, Illinois, 08, M.S, 12; Sc.D, Harvard, 16. Asst. chem, Ill. Exp. Sta, 08-11, assoc. plant breeding, 11-14; *prof. farm crops*, Ohio State, 16- Assoc. ed, 'Ohio Jour. Science,' 17- A.A; Soc. Agron; Bot. Soc. Plant genetics; self-sterility; cereal breeding.
- Park, Dr. O(scar) W(allace)**, 615 Ash Ave, Ames, Iowa. *Entomology*, Concordia, Kans, Jan. 14, 89. B.S, Kansas Col, 17; M.S, Iowa Col, 20, Ph.D, 24. Asst. zool, Kansas Col. and Exp. Sta, 17; *apiculture*, Iowa Exp. Sta, 18-20, instr, 21, asst. chief, Exp. Sta, 21-23; asst. prof, Illinois, 23-25; *assoc. prof*, Iowa Col, and *asst. chief*, Exp. Sta, 25- Lecturer, Florida, 22. A.A; Ass. Econ. Entom; Iowa Acad. The acquisition of food by the honeybee; activities of honeybees.
- Park, Dr. W(illia)m H(allock)**, 315 W. 76th St, New York, N. Y. **Bacteriology, Hygiene*, New York, Dec. 30, 63. A.B, Col. City of N. Y, 83; M.D, Columbia, 86; Vienna, 89-90; LL.D, Queen's (Can), 10; Sc.D, N. Y. Univ, 26. Director research lab, *Health Dept*, New York, 95-10, *bur. laboratories*, 10-; adjunct prof. *bacter. and hygiene*, *Univ. and Bellevue Hosp. Med. Col*, 98-01, *prof*, 01- Knight of Royal Order of Isabella the Catholic, 13. A.A; Soc. Bact; Ass. Path. and Bact; Soc. Exp. Path. (pres, 20); Soc. Pharmacol; Am. Physicians; Soc. Exp. Biol; Pub. Health Ass. (pres, 23); N. Y. Path. Soc. Diphtheria; pneumonia; influenza; tuberculosis; exanthemata; milk.
- Parker, Arthur C(aswell)**, Municipal Museum, Rochester, N. Y. *Archeology*, Iroquois, N. Y, April 5, 81. Williamsport Dickinson Sem, 98-01; special courses in anthropol. under Prof. F. W. Putnam, 01-03; hon. M.S, Rochester, 22. Special asst. archeol, Am. Museum Nat. Hist, 01-02; field archeologist, Peabody Museum Archeol. and Ethnol, 03; ethnologist, N. Y. State Dept. Educ, 04-06; archeologist, N. Y. State Museum, 06-24; *director*, Rochester Munic. Museum, 24- Indian commissioner, N. Y. State, 19-22. Ed, 'Am. Indian,' 12-16. Chief, N. Y. State Museum archeol. exped, 06-24. Cornplanter medal, Sociol. Soc, 18. A.A; Anthropol. Ass; Ethnol. Soc; Soc. Am. Indians (pres, 16); N. Y. Archeol. Soc. (founder); Albany Philos. Soc. (pres, 16). Anthropology; ethnology; New York Indians.
- Parker, Edward W(heeler)**, 437 Chestnut St, Philadelphia, Pa. *Mineralogy*, Port Deposit, Md, June 16, 60. High sch. Statistician, *U. S. Geol. Surv*, 91-07, chief div. mineral resources, 07-15, *director anthracite bur. information*, 16- Ed, 'Eng. and Min. Jour,' 01-02. Anthracite Coal Strike Commission, 02-03. Jury awards, Columbian Expos, 93; expert special agent, U. S. Census, 00-; La. Purchase Expos, 03-04. Silver medal, Paris Expos, 00; Pan-Am. Expos, 01; commemorative medal, La. Purchase Expos, 04. Min. and Metal. Eng;

- Statist. Ass; Min. Cong; Coal Min. Inst; Wash. Geol. Soc; Wash. Econ. Soc; Wash. Soc. Eng. Anthracite.
- Parker, Prof. Francis L(e Jan)**, Medical College of the State of South Carolina, Charleston, S. C. *Chemistry*. Charleston, Jan. 8, 76. B.S., Citadel, 94; A.B., South Carolina, 96; B.S., Chicago, 00; Ph.D., Hopkins, 01; M.D., Med. Col. of S. C., 09. Asst. prof. *chem*, Citadel, 96-00; *prof*, Col. of Charleston, 01-12; *Med. Col. of S. C.*, 12- V. dean, Med. Col. of S. C., lecturer, 09-12; chemist, Commission Pub. Works, Charleston, 06-; S. C. State Board Health, 07-Major, M.R.C., lieut. col., M.O.R.C. Chem. Soc; Pub. Health Ass; Water Works Ass; Am. Med. Ass. Sanitation; treatment of water supplies.
- Parker, Dr. F(rank) W(ilson)**, Alabama Polytechnic Institute, Auburn, Ala. *Soil chemistry*. Hamilton, Ill., Oct. 23, 97. B.S., Ala. Polytech, 18; Ph.D., Wisconsin, 21. *Soil chemist*, Ala. Exp. Sta., 22- Composition of soil solution; nature of soil acidity; absorption of inorganic elements by plants.
- Parker, Dr. Frederic, Jr.**, Bedford, Mass. *Pathology*. A.B., Harvard, 12, M.D., 16. Asst. path., Boston City Hosp., 16-18, asst. pathologist, 19-20; instr. bacter., col. physicians and surg., Columbia, 20-22, asst. prof., 22-23; *asst. pathologist*, Boston City Hosp., 23- Ass. Path. and Bact. Bacteriology.
- Parker, Prof. G(eorge) H(oward)**, 16 Berkeley St., Cambridge, Mass. *Zoology*. Philadelphia, Pa., Dec. 23, 64. Acad. Nat. Sciences, Phila., 79-82; B.S., Harvard, 87, Sc.D., 91, Parker fellow, Leipzig, Berlin, Freiburg and Naples, 91-93. Asst. *zool.*, Harvard, 86-88, instr., 88-91, 93-99, asst. prof., 99-06, *prof.*, 06-, *director zool. lab.*, 21- Clark lecturer, Amherst, 14; exchange prof., west. colleges, 21; U. S. investigator, Pribilof seals, 14. Nat. Acad; A.A. (v. pres, 16); Soc. Nat; Soc. Zool. (pres, 03); Physiol. Soc; Ass. Anat; Soc. Exp. Biol; Ecol. Soc; Philos. Soc; hon. mem. Otol. Soc; Am. Acad. (v. pres, 27); hon. mem. Calif. Acad; Wash. Acad; N. Y. Acad; Phila. Acad; Boston Soc. Nat. Hist; for. mem. London Linnean Soc; cor. mem. London Zool. Soc; assoc. mem. Soc. Belge de Biol. Biology and social problems; the elementary nervous system; anatomy and physiology of sense organs and of central nervous organs; reactions of organisms; smell, taste and allied senses; evolution of man.
- Parker, Prof. Gordon**, Colorado Springs, Colo. *Forestry*. Wantagh, N. Y., April 26, 79. A.B., Columbia, 00; M.F., Harvard, 11. Field asst., forest asst., forest examiner and forest supervisor, U. S. Forest Service, 10-19; asst. prof., assoc. prof. and *prof. forestry and director sch. forestry*, Colo. Col., 19- A.A.; Soc. Foresters; Forestry Ass; Am. Geog. Soc.
- Parker, Prof. H(arry) G(eorge)**, William Jewell College, Liberty, Mo. *Chemistry*. London, Eng., Nov. 15, 65. A.B., William Jewell, 92, A.M., 93; Ph.D., Harvard, 96. *Prof. chem. and physics*, William Jewell, 96-13, *chem.*, 13-, *head dept. science*. City chemist, Excelsior Springs, Mo. Chem. Soc; Soc. Bact; Pub. Health Ass; Mo. Soc. Math. and Sci. Teachers (v. pres). Atomic weight of magnesium; centrifugal quantitative analysis.
- Parker, Dr. H(arry) L(amont)**, Domaine du Mont Fenouillet, Hyeres, France. Spartanburg, S. C., Feb. 14, 93. B.S., Clemson, 14; Dr. de l'Univ., Paris, 25. Bur. entom., U. S. Dept. Agr., 14-26. Laureat, Soc. entom. de France, prix passet, 24. Capt., U.S.A., 17-19. Entom. Soc; Ass. Econ. Entom; Soc. entom. de France; Soc. d'Hist. nat. de Toulouse; Soc. Linnean de Lyon. Anatomy of chalcid larvae; ecology and biology of Hymenopterous parasites; biology and behavior of chalcid parasites.
- Parker, Dr. Henry C(ole)**, 4901 Stenton Ave., Philadelphia, Pa. *Physical chemistry*. Denver, Colo., Sept. 8, 91. B.S., Kalamazoo, 10; A.M., Clark, 16, Ph.D., 20. Nat. Research Council fellow physical chem., 20-23; *research dept.*, Leeds and Northrup Co., 23- Chem. Soc; Chem. Eng; Electrochem. Soc. Conductivity of aqueous solutions and hydrogen-ion concentration measurements and their application to industrial control of water treatment and waste disposal.
- Parker, Prof. Herschel C(lifford)**, Hotel Chapman, Fifth and Wall Sts., Los Angeles, Calif. **Physics*. Brooklyn, N. Y., July 9, 67. Ph.B., Columbia, 90, fellow, 90-91. Asst. physics, Columbia, 91-93, tutor, 93-01, instr., 01-03, asst. prof., 03-11. A.A.; Physical Soc; Am. Alpine Club; Explorers Club; fel. N. Y. Acad; Can. Alpine Club. Methods of electrical measurement; electrical resistances; electrical investigations with very brief intervals of contact; electrical properties of materials at high incandescence; method of reducing metallic iridium; formation and electrical properties of helium.
- Parker, Horatio Newton**, Engineer Building, Jacksonville, Fla. *Public health*. Cambridge, Mass., Feb. 3, 71. Mass. Inst. Tech. Asst. biologist, Boston Water Works, 96-99; asst. and chief biologist, Metropolitan Water Works, 00-01; health officer, Montclair, N. J., 01-04; asst. hydrographer and asst. engineer, U. S. Geol. Surv., 04-10; dairy bacteriologist, Illinois, and asst., Exp. Sta., 10-17; lecturer munic. sanit., Indiana, 17; bacteriologist and program ed., 'Delineator' seventh baby campaign, 17-18; *city bacteriologist and chemist*, Jacksonville, Fla., 18- A.A.; Soc. Bact; fel. Pub. Health Ass; Chem. Soc; Dairy Sci. Ass; Water Works Ass; New Eng. Water Works Ass; Ass. Food and Drug Officials Southeast, States (pres, 24); Int. Ass. Dairy and Milk Inspectors. Field work on surface water supplies; effect of dissolved gases in water on micro-organisms; water and milk supply and typhoid fever.
- Parker, Prof. J(ohn) B(ernard)**, 1217 Lawrence St., N. E., Washington, D. C. *Biology*. Danville, Ohio, Sept. 24, 70. A.B., Ohio State, 98, fellow, 98-00, A.M., 00, Ph.D., 15. Asst. English, Ohio State, 98-00; instr. biol., S. High Sch., Cleveland, Ohio, 00-06; asst. entomologist, Kansas Col., and Exp. Sta., 08-10; instr. *biol.*, Catholic Univ., 10-13, assoc. prof., 13-18, *prof.*, 18- A.A.; Entom. Soc; Ass. Econ. Entom; Wash. Entom. Soc. Entomology.

- Parker, Prof. John H(untington)**, 1728 Fairview Ave, Manhattan, Kans. *Agronomy*. St. Paul, Minn, Aug. 13, 91. B.S, Minnesota, 13; M.S.A, Cornell, 16. Sci. asst. cereal investigations, bur. plant indust, U. S. Dept. Agr, 13-17; *prof. crop improv, Kansas Col*, 17- A.A; Soc. Agron; Genetic Ass; Kans. Acad. Disease resistance in cereals; inheritance in wheat, oats and sorghum.
- Parker, Prof. J(ohn) R(obert)**, Bozeman, Mont. *Entomology*. Windsor, Conn, June 28, 84. B.S, Mass. Col, 08, M.S, 21; Minnesota, 22-24. Instr, Mass. Col, 09-10; assoc. entomologist, Mont. Exp. Sta, 10-22; asst. entomologist, Minn. Exp. Sta, 22-24; *prof. entom, Mont. Exp. Sta*, 24- A.A; Ass. Econ. Entom; Ecol. Soc. Effect of temperature and humidity on activities of grasshoppers; fruit insects; aphids.
- Parker, Prof. Matthew A(rchibald)**, University of Manitoba, Winnipeg, Man, Can. *Chemistry*. Glasgow, Scotland, 71. B.S, Glasgow, 02; Heidelberg, 07; LL.D, Manitoba, 24. Lecturer and demonstrator, Glasgow Tech. Col, 94-01; lecturer org. chem, Glasgow, 01-04; *prof. chem, Manitoba*, 04- A.A; Chem. Soc; Soc. Chem. Indust; fel. Inst. Chem; fel. Royal Soc. Can; Can. Inst. Chem; fel. London Chem. Soc.
- Parker, Prof. Ralph L(angley)**, Kansas State Agricultural College, Manhattan, Kans. *Entomology*. Brockton, Mass, April 12, 25. B.S, R. I. Col, 15; M.S, Brown, 17; M.S, Iowa Col, 22; Schuyler fellow, Cornell, 24-25, Ph.D, 25. Asst, Brown, 15-17; instr. physiol, Iowa Col, 19-23, asst. chief apiculture, 23-24; asst. *prof. entom. and apiculture, Kansas Col*, and asst. entomologist, *Exp. Sta*, 25-27, *assoc. prof. and assoc. entomologist*, 27- Field asst, bur. entom, U. S. Dept. Agr, 25; state apiarist, Kans, 25- A.A; Entom. Soc; Ass. Econ. Entom; Iowa Acad; Kans. Acad. Physiology; apiculture; fruit insects.
- Parker, Dr. R(alph) R(obinson)**, U. S. Public Health Service, Hamilton, Mont. *Entomology*. Malden, Mass, Feb. 23, 88. B.S, Mass. Col, 12, M.S, 14, Ph.D, 15. Asst. zool, Mass. Col, 11-12, instr, 12-13, lecturer entom, 13-14; asst. entomologist, Mont. State Board Entom, 15-21; *special expert, U. S. Pub. Health Service*, 21- A.A; Entom. Soc; Ass. Econ. Entom; Soc. Parasitol; Pub. Health Ass; Soc. Trop. Med; Ecol. Soc; Mont. Pub. Health Ass. (v. pres, 25). Sarcophagidae; flies; sanitation; house fly; Rocky Mountain spotted fever; tutaraemia; tick paralysis.
- Parker, Miss Sylvia L(ouise)**, 1829 Francisco St, Berkeley, Calif. *Poultry husbandry*. Foxcroft, Maine, April 17, 95. A.B, Mt. Holyoke, 16; Woods Hole, 16. Asst. zool, Mt. Holyoke, 16-17; asst. biologist, Maine Exp. Sta, 17-18; instr. and assoc. biometry and vital statistics, sch. hygiene and pub. health, Hopkins, 18-24; *instr. poultry husbandry, California*, 24- A.A; Poultry Sci. Ass. Duration of life in *Drosophila*; physiology of reproduction in poultry.
- Parker, Prof. Walter H(untington)**, University of Minnesota, Minneapolis, Minn. *Mining engineering*. Stillwater, Minn, Aug. 1, 84. E.M, Minnesota, 07. Mining engineer, Berlin, Wash, 07; Int. Coal Co, Mont, 08-12; Mont. Coal and Iron Co; consulting engineer, 12-17; assoc. *prof. mining, Minnesota*, 19-24, *prof*, 24- Capt, C.A.C, 17-19, staff, sch. of fire, F.A, 18. Min. and Metal. Eng; Eng. Educ; Minneapolis Eng. Club. Mining methods; safety work.
- Parker, W(illiam) E(dward)**, Kensington, Md. *Civil engineering*. Newton, Mass, March 21, 76. B.S, Mass. Inst. Tech, 99. Aid, asst. and *hydrog. and geod. engineer, U. S. Coast and Geod. Surv*, 01- Chief div. hydrog. and topog, U. S. Coast and Geod. Surv. Geophys. Union. Civil Eng. (pres, D. C. sect, 23); Wash. Soc. Eng. (sec'y, 19, director, 26); Wash. Philos. Soc; Wash. Acad. Hydrographic surveying; oceanography.
- Parker, Dr. William H(untington)**, 11 Bartlett St, Brooklyn, N. Y. *Physiological chemistry*. Worcester, Mass, July 31, 69. B.S, Worcester, 93; Mass. Inst. Tech, 93-94; Ph.D, Yale, 99. Instr. chem, sch. med, Yale, 94-00; asst. physiol, Harvard Med. Sch, 00-01; chemist in charge, U. S. Lab, Boston, 01-14; *chief control lab, Chas. Pfizer and Co*, 14- Chemist and bacteriologist, Conn. State Board Health, 94-00. Physiol. Soc; Soc. Biol. Chem; Soc. Bact; Soc. Chem. Indust. Lactose formation after complete removal of the mammary glands; maximum production of glycocoll in protein decomposition; occurrence of xanthin basic in the feces; osmotic properties of colloidal solutions; peripheral neurons on the course of vaso-dilator nerves; action of bile acids on solubility of soaps; arsenic in commercial hypophosphites.
- Parkins, Dr. A(lmon) E(rnest)**, George Peabody College for Teachers, Nashville, Tenn. *Geography*. Marysville, Mich, Jan. 10, 79. A.B, Mich. State Nor. Col, 11, hon. M.Ed; B.S, Chicago, 12, fellow, 13-14, Ph.D, 14. Asst. chem, Mich. State Nor. Col, 03-04; instr, high sch, Mich, 04-07; *geog, Mich. State Nor. Col*, 07-10; Missouri, 14; *prof, Peabody Col. Assoc. ed, 'Jour. Geog'*; map ed, A. J. Nystrom and Co. A.A; Ass. Geog. (ed, 'Annals'); Meteor. Soc; Nat. Council Geog. Teachers (past pres. and assoc. ed); Tenn. Acad. (past pres); Tenn. Hist. Soc. Historical geography of Detroit; development of transportation in Pennsylvania; geography for children.
- Parks, Rear Admiral C(harles) W(ellman)**, 1829 Mintwood Place, Washington, D. C. *Physics, Engineering*. Woburn, Mass, March 22, 63. C.E, Rensselaer, 84; LL.B, George Washington, 99, LL.D, 21. Instr. physics, Rensselaer, 86-93; civil engineer, U.S.N, 97-21, chief bur. yards and docks, Navy Dept, 17-21, rear admiral, U.S.N; *retired*, 21. Supt. liberal arts, Paris Expos, 89; special agent interior dept, Columbian Expos, 93. Officier de l'Instruction pub; commandeur, Légion d'honneur. D.S. medal. A.A; Civil Eng; Elec. Eng; Soc. Mil. Eng; Naval Eng; Naval Inst; Am. Geog. Soc. Heat and electricity as applied to industrial development.
- Parks, Prof. George S(utton)**, Stanford University, Calif. *Chemistry*. Tacoma, Wash, Jan. 7, 94. B.S, Washington (Seattle), 15, M.S, 16; Ph.D, California, 19. Asst. chem, California,

- 16-19; instr. anal. chem, Calif. Inst, 19-20; instr. chem, Stanford, 20-25, asst. prof, 25- Chemist, Hercules Powder Co, 18. A.A.; Chem. Soc. Physical chemistry; specific heats at low temperatures; the free energy of organic compounds; the physical-chemical properties of mixtures of organic liquids.
- Parks, Prof. L(ytle) R(aymond)**, 123 E. Fairmount Ave, State College, Pa. *Chemistry*. Aurora, Ind, April 13, 90. B.S., Purdue, 12; M.S., Pa. State, 14. Instr. chem, Pa. State, 13-17, asst. prof, 17-22, *assoc. prof. physical chem*, 22- Chem. Soc. The distribution of smelter fumes and their effect on soils and on plant and animal life; adsorption of electrolytes.
- Parks, Prof. T(haddeus) H(edges)**, Ohio State University, Columbus, Ohio. *Entomology*. Ashville, Ohio, Feb. 14, 87. B.S.A., Ohio State, 09; M.S., Illinois, 25. Sci. asst, bur. entom, U. S. Dept. Agr, 09-13; exten. entomologist, Idaho, 13-15; Kansas Col, 15-17; asst. prof. entom, exten. service, Ohio State, 18-19, *prof*, 19- A.A.; Entom. Soc; Ass. Econ. Entom; Ohio Acad. Economic entomology; cereal insects.
- Parks, Prof. W(illiam) A(rthur)**, 69 Albany Ave, Toronto, Ont., Can. *Geology, Paleontology*. Hamilton, Ont, Dec. 11, 68. B.A., Toronto, 92, fellow, 93, Ph.D., 00. Instr. geol, Toronto, 96-02, lecturer, 02-05, *assoc. prof*, 05-15, *prof. paleont*, 15-22, *geol*, 22- Director, Royal Ont. Mus. Paleont. Summers, geologist, Bur. Mines, Ont, 95-00; Can. Geol. Surv, 00- Geol. Soc; fel. Royal Soc. Can; Can. Inst; Can. Min. and Metal. Ass; British Ass. Stratigraphic geology; vertebrate and invertebrate paleontology.
- Parman, Dan(iel) C(leveland)**, Box 509, Uvalde, Texas. *Entomology*. Franklin, Tenn, March 5, 85. B.S.A., Tennessee, 11. Entom. asst, bur. entom, U. S. Dept. Agr, 11-24, *asst. entomologist*, 24- A.A.; Entom. Soc; Ass. Econ. Entom; Soc. Parasitol. Insecticides; biology of animal parasites; climatology and insect activity; chemotropism of flies affecting live stock.
- Parmelee, Prof. Cullen W(arnar)**, University of Illinois, Urbana, Ill. *Ceramics*. Brooklyn, N. Y, 74. B.S., Rutgers, 96, M.S., 26. Director dept. ceramics, Rutgers, 03-16; *prof. ceramic eng, Illinois*, 16-, *head dept*, 23- Ceramic Soc; Chem. Soc; Soc. Test. Mat; British Ceramic Soc. Clays, bodies and glazes.
- Parmelee, Dr. H(oward) C(oon)**, Tenth Ave. and 36th St, New York, N. Y. *Chemistry*. Omaha, Nebr, Dec. 4, 74. B.S., Nebraska, 97, A.M., 99; hon. Sc.D., Colo. Col, 17. Chief chemist, Globe plant, Am. Smelting and Ref. Co, 00-02; ed, 'Mining Reporter,' 05-07; 'West. Chemist and Metallurgist,' 07-10; west. ed, 'Metal. and Chem. Eng,' 10-16; pres, Colo. Sch. Mines, 16-17; ed, 'Chem. and Metal. Eng,' 17- Chem. Soc; Electrochem. Soc. (pres, 24); Chem. Eng. (sec'y); Colo. Sci. Soc. (sec'y, 10-16, pres, 16).
- Parmelee, Prof. Maurice**, Clarke Bros, 154 Nassau St, New York, N. Y. *Sociology, Anthropology*. Constantinople, Turkey, Oct. 20, 82. A.B., Yale, 04, A.M., 08; Ph.D., Columbia, 09. Prof. sociol. and econ, Kansas, 09-10; Missouri, 10-13; Col. City of N. Y, 13-14; sociol. and anthrop, Minnesota, 15-16; economist consul, Berlin, 20-23. Rep. in London, W. T. B, 18-19. Grant Squires prize, Columbia, 15. Inst. Int. de Sociol. Human behavior; social evolution.
- Parmenter, Prof. Charles L(eroy)**, University of Pennsylvania, Philadelphia, Pa. *Zoology*. Owens Station, Ohio, 82. A.B., Southern California, 10, A.M., 12; fellow, Pennsylvania, 17-18, Ph.D., 18. Instr. zool, Southern California, 10-12; asst, Wisconsin, 12-15; Minnesota, 15-16; Pennsylvania, 16-17, instr, 18-25, *asst. prof*, 25- Summers, instr, Woods Hole, 18-22, Southern California, 24. A.A. Cytology; amphibian cytology; chromosomes in parthenogenetic frogs.
- Parmenter, Dr. Geo(rge) F(reeman)**, Waterville, Maine. *Chemistry*. Dover, Mass, March 26, 77. B.S., Mass. Col. and Boston, 00; A.M., Ph.D., Brown, 03; Sc.D., Colby, 16. Instr. chem, Mass. Col; chemist, R. I. Exp. Sta, 01; instr. chem, Brown, 01-03; *assoc. prof*, Colby, 03-04, *prof*, 04- Asst. chemist, Hatch Exp. Sta, Mass. A.A.; Chem. Soc; New Eng. Ass. Chem. Teachers; Maine Sci. and Math. Ass. (pres). The action of acetic anhydrid on acids of the phenylpropionic series; the composition of casein; acids of the phenylpropionic series; quantitative methods.
- Parmley, Walter Camp**, 1270 Broadway, New York, N. Y. *Engineering*. Center, Wis, 62. B.Met.E., Wisconsin, 87, M.S., 93. Engineer, Calif. and Utah, 87-91; city engineer, Ogden, Utah, 91-93; asst. city engineer, Peoria, Ill, 93-95; Cleveland, Ohio, 96-04; *consulting engineer*, 04- Civil Eng; Cleveland Eng. Soc. (v. pres, 01-03, pres, 03). Hydraulics; sewers; arches; reinforced concrete.
- Parr, Prof. Harry L(ilienthal)**, Columbia University, New York, N. Y. *Mechanical engineering*. Yonkers, N. Y, March 20, 80. A.B., Columbia, 02, M.E., 04. Asst. mech. eng, Columbia, 05-06; eng. dept, Power Specialty Co, 06-07; instr. in charge mech. eng. exp. laboratories, Columbia, 07-12, asst. prof, 12-21, *assoc. prof*, 21- Consulting mech. engineer. A.A.; Mech. Eng. Steam and gas power generation; power plant economics; heat transfer.
- Parr, Prof. Leland W(ilbur)**, American University of Beirut, Beirut, Syria. *Bacteriology, Hygiene*. Cooksville, Ill, Nov. 2, 92. B.S., Chicago, 16, Ph.D., 23. Instr. physical sciences, Assiut Col, Egypt, 16-19; *assoc. bacter*, Chicago, 21-23; adjunct prof. bacter. and hygiene, American Univ, Syria, 23-26, *chairman path. sciences and assoc. prof. bacter. and hygiene*, 26- Soc. Bact. Intestinal spirochetes; isohemagglutination.
- Parr, Dr. Rosalie M(ary)**, University of Illinois, Urbana, Ill. *Chemistry*. Peoria Co, Ill. Ph.D., Illinois, 16. Asst. bot, Illinois, 10-16; *assoc. science*, Calif. State Nor. Sch, Santa Barbara, 16-17; *assoc. chem, Illinois*, 18- A.A.; Chem. Soc; Bot. Soc. Chemical factors in botanical problems; chemistry of rare elements.
- Parr, Prof. S(amuel) W(ilson)**, 1011 W. Green St, Urbana, Ill. *Chemistry*. Granville, Ill, Jan. 21, 57. B.S., Illinois, 84; M.S., Cornell, 85; Berlin and Zurich, 00-01. Instr. and prof. sci-

- ence, Ill. Col. 85-91; *prof. chem., Illinois*, 91-A.A.; Chem. Soc.; Electrochem. Soc.; Soc. Test. Mat.; Chem. Eng.; Min. and Metal. Eng.; Wash. Acad. Composition, weathering and spontaneous combustion of coals; calorimetry of fuels; metallurgical chemistry; boiler waters; low temperature carbonization of coals; acid-resisting alloys; platinum substitutes; potash shales of Illinois.
- Parrott, P(ercival) J(ohn)**, New York Experiment Station, Geneva, N. Y. *Entomology*. Croydon, Eng, May 28, 74. A.B, Kansas, 97, A.M, 98. Asst. entomologist, Kans. Exp. Sta, 98-99; entomologist, Kans. Hort. Soc, 99-00; asst. entomologist, N. Y. Exp. Sta, Geneva, 00-02; *entomologist*, Ohio Exp. Sta, 02-04; *N. Y. Exp. Sta, Geneva*, 04- A.A; Entom. Soc; Ass. Econ. Entom. (v. pres, 10, pres, 13). Economic entomology.
- Parshley, Prof. H(oward) M(adison)**, Smith College, Northampton, Mass. *Zoology*. Hal-lowell, Maine, Aug. 7, 84. A.B, Harvard, 09, A.M, 10, Sc.D, 17. Instr. *zool.*, Maine, 11-14; asst. prof, *Smith*, 17-19, assoc. prof, 19-25, *prof*, 25- Assoc. field zoologist, biol. lab, Cold Spring Harbor, 19-25, field zoologist, 26-; biologist, Nat. League Girls Clubs Summer Sch, 25- Summer, field zoologist and entomologist, Chicago, 27. Managing ed, 'Catalogue Hemiptera.' A.A; Soc. Zool; Entom. Soc; Soc. entom. de France; Soc. Entom. de Belg. North American Hemiptera.
- Parsons, Arthur L(eonard)**, University of Toronto, Toronto, Ont, Can. *Mineralogy*. Mt. Morris, N. Y, Sept. 16, 73. A.B, N. Y. Univ, 96. Asst. *miner.*, N. Y. State Museum, 00-02; field asst, U. S. Geol. Surv, 02-03; instr, Minnesota, 03-07; lecturer, *Toronto*, 07-13, asst. prof, 13-19, *assoc. prof*, 19- Asst. director, Royal Ont. Museum Miner, 20-; field geologist, Ont. Bur. Mines, 07, 10-12, 14-20. Asst. in charge, N. Y. State sci. exhibit, Pan-Am. Expos, 01. A.A; fel. Miner. Soc; Can. Min. Inst; London Miner. Soc.
- Parsons, Dr. Charles L(athrop)**, U. S. Bureau of Mines, Washington, D. C. **Chemistry*. New Marlboro, Mass, March 23, 67. B.S, Cornell, 88; hon. Sc.D, Maine, 11; hon. D.Ch, Pittsburgh, 14. Asst, N. H. Exp. Sta, 88; instr. chem, New Hampshire, 90-92, prof, 92-11; chief mineral chemist, U. S. Bur. Mines, 11-16, chief chemist, 16-19; *sec'y*, *Chem. Soc.* and *consulting chemist*, 19- Nitrate Commission; advisory board on gas warfare; chairman committee on use of zirconium in light armor; special investigator in Europe on nitrogen fixation, War. Dept, 19. Nichols medal, Chem. Soc, 04. Officier, Légion d'honneur, 25; Officer, Corona d'Italia, 26. Chairman inorg. sect, Eighth Int. Cong. Applied Chem; v. pres, Interallied Union of Pure and Applied Chem. A.A. (sec'y, C, 04-08); Chem. Soc. (sec'y, 07-); hon. mem. Roumanian Chem. Soc. Mineralogy; crystallography; blow pipe analysis; atomic weights; compounds of beryllium; solution in binary solvent; basic nitrate polyiodides; mineral waters; fuller's earth; extraction of radium from its ores; cyanids; nitrogen fixation; ammonia oxidation.
- Parsons, Cha(rlie)s W(esley) D(arwin)**, 1743 Wesley Ave, Evanston, Ill. *Physics*. Clifton Springs, N. Y, Aug. 25, 72. A.B, Cornell, 97; A.M, Northwestern, 09. Instr, secondary school, 97-07; prof. physics, Colo. Col, 07-09; asst, Northwestern, 09-10; *with Cent. Sci. Co, Chicago*, 10-18, 19- Lieut, A.S, 18-19, A.S.R, 19- Assoc. Physical Soc. Experimental evidence for the presence of ions.
- Parsons, Dr. Elizabeth I(ngersoll)**, 1014 N. Broadway, Baltimore, Md. *Immunology*. Colorado Springs, Colo, Sept. 8, 94. A.B, Vassar, 17; Sc.D, Hopkins, 25. Dept. pub. health, Am. Museum Nat. Hist, 18-19; *research fellow, Hopkins*, 25- Bacteriology.
- Parsons, Dr. Elsie Clews**, Harrison, N. Y. **Ethnology*. New York, N. Y, 75. A.B, Columbia, 96, A.M, 97, Ph.D, 99. Hartley House fellow, Barnard, Columbia, 99-02, lecturer, 02-05. A.A; Ethnol. Soc; Anthrop. Ass. (councilor, 19); Folk-Lore Soc. (asst. ed, 'Jour'); Southwest Soc. (sec'y, 18-); N. Y. Acad. (councilor, 25-). The family; American Indians; Negro folk-lore.
- Parsons, Miss Harriet McW(illiams)**, Vassar College, Poughkeepsie, N. Y. *Astronomy*. Troy, Pa, Dec. 17, 92. A.B, Vassar, 15, fellow, at Chicago, 15-16, 19-21, M.S, Chicago, 16. Asst. *astron.*, *Vassar*, 16-18, *instr*, 18- Astron. Soc. Photographic photometry; proper motions of stars.
- Parsons, Prof. H(arry) de B(erkeley)**, 22 William St, New York, N. Y. *Engineering*. New York, Jan. 6, 62. B.S, Columbia, 82; M.E, Stevens, 84, D.E. Prof. steam eng, *Rensselaer*, 91-07, *emer. prof. practical eng*, 07- Consulting engineer. Chairman, Commission on Street Cleaning and Waste Disposal, New York, 07; mem, Metropolitan Sewage Commission, 08-14. Rowland prize, Soc. Civil Eng, 25. Dist. appraisal officer, A.S, U.S.A, 18-19. Mech. Eng; Civil Eng; Consulting Eng. (pres, 26); Naval Archit. and Marine Eng. Theory and design of steam boilers; disposal of municipal refuse; displacement and the area curves of fish; influence of sugar on cement; fire-proofing tests; fire hazards; tidal phenomena of New York harbor.
- Parsons, Dr. John L(angdon)**, Hammermill Paper Co, Erie, Pa. *Chemistry*. Rye, N. H, June 3, 95. B.S, Mass. Inst. Tech, 18; Hammermill Paper Co. fellow, Yale, 23-25, Ph.D, 25. Instr. chem, Boston, 17-20; Mass. Inst. Tech, 18-19; *research chemist*, *Hammermill Paper Co*, 20-23, 25- A.A; Chem. Soc; Ass. Pulp and Paper Indust; British Textile Inst. Cellulose and its derivatives and degradation products; chemical wood pulp; paper.
- Parsons, Dr. J(oseph) G(reeley)**, Lewistown, Mont. *Ophthalmology*. Pawlet, Vt, 71. M.D, Minnesota, 98. *Practising physician*. Lecturer, S. Dak. Col; Sioux Falls Col; Lutheran Nor. Sch. Delegate, Fourth Int. Cong. Sch. Hygiene. A.A; Am. Med. Ass; fel. Acad. Ophthal. and Oto-Laryngol; S. Dak. Sch. Hygiene Ass. (pres). Otolaryngology; public health.
- Parsons, Mrs. Judson Aspinwall**, 90 N. Plymouth Ave, Rochester, N. Y. *Psychology*. A.B,

- Juniata; Ph.D, Pennsylvania, 19. Special agent, U. S. Inter-departmental Social Hygiene Board, 18-19; psychologist, White-Williams Foundation, 19-20; *director, dept. child study, Rochester Soc. Prev. Cruelty to Children, 21-* Instr. sch. med, Rochester; director, Rochester Council Social Agencies. Psychol. Ass. Clinical psychology.
- Parsons, Dr. Leon W(oodman)**, 245 Tuttle Parkway, Westfield, N. J. *Chemistry*. Newburyport, Mass, Sept. 22, 91. B.S, Mass. Inst. Tech, 13; A.M, Harvard, 16, Ph.D, 17. Asst. director, research lab. applied chem, Mass. Inst. Tech, 19-22; chief chemist, *Tide Water Oil Co, 22-25, technologist, 25-* Capt, C.W.S, 17-19. Chem. Soc. Petroleum technology; inorganic and physical chemistry; industrial chemistry.
- Parsons, Dr. Louis A(lexander)**, Whitman College, Walla Walla, Wash. *Physics*. Burlington, Iowa, April 9, 72. A.B, Iowa, 95, A.M, 99; fellow, Hopkins, 00-02, Ph.D, 02. Instr, high sch, Iowa, 95-98; asst. *physics*, Hopkins, 02-03; instr, Utah, 03-04; California, 04-07; prof, Gettysburg, 07-25; acting prof, Swarthmore, 25-26; *prof, Whitman, 26-* Physical Soc; Electrochem. Soc. The spectrum of hydrogen; electric discharge in gases.
- Parsons, Prof. S(amuel) R(aynolds)**, University of Arkansas, Fayetteville, Ark. *Physics*. North Amherst, Mass, June 23, 88. B.S, Mass. Col, 11; B.S, Boston, 11; M.S, Pa. State, 15; Ph.D, Michigan, 23. Asst. math, Mass. Col, 11-13; instr. and asst. prof. *physics*, Pa. State, 13-17; asst. physicist, Bur. Standards, 18-19, assoc. physicist, 19-20; instr. *physics*, Michigan, 20-23; asst. prof. and *assoc. prof, Arkansas, 23-* Asst. prof, George Washington, 18-19. Physical Soc; Wash. Philos. Soc. Radiators for aircraft engines; corona discharge.
- Parsons, Prof. T(homas) R(ichard)**, The University Clinic, Royal Victoria Hospital, Montreal, Que, Can. *Chemistry*. London, Eng, Dec. 14, 92. B.Sc, London, 14; M.A, Cambridge, 21. Demonstrator zool, London, 11-14; *physiol, Cambridge, 19-25; asst. prof. med. research, McGill, 25-* Acting prof, St. Bartholomew's Hosp, London, 21-22. British Soc. Exp. Biol; London Physiol. Soc; London Biochem. Soc. Ionic equilibria in the blood; the transport of carbon dioxide by the blood; surface charge of the red blood corpuscle.
- Parsons, W(illiam) Barclay**, 121 E. 65th St, New York, N. Y. **Engineering*. New York, April 15, 59. A.B, Columbia, 79, C.E, 82; LL.D, St. John's (Md), 09; Sc.D, Princeton, 20, Trinity (Conn), 21; D.Eng, Stevens, 21. Chief engineer, Rapid Transit Commission, New York, 94-05; Cape Cod Canal, 09-15. Advisory engineer, Royal Commission London Traffic, 04; Isthmian Canal Commission, 04-06; chairman, Chicago Transit Commission, 16. Engineer, surveys and explorations, China. Trustee, Carnegie Institution and Columbia. Telford and Norman gold medals. From major to brig. gen, U.S.A, 17-19. Civil Eng; Consulting Eng; Am. Acad; British Inst. Civil Eng; Soc. des Ing. civils de France. Hydraulics.
- Partridge, Dr. Edw(ard) A(nson)**, 250 Farragut Terrace, Philadelphia, Pa. *Mathematics, Physics*. Philadelphia, Feb. 18, 69. B.S, Pennsylvania, 89, Ph.D, 98. *Prof. physics and head dept. science*, Cent. Manual Training Sch, Phila, 91-12; *West Phila. High Sch, 12-* A.A; Math. Soc; Math. Ass; Physical Soc; Circolo Mat. di Palermo. Atomic weight of cadmium; radioactivity; color photography; electron theory; relativity.
- Partridge, Dr. G(eorge) E(verett)**, Sing Sing Prison, Ossining, N. Y. *Psychology*. Worcester, Mass, May 31, 70. Harvard, 89-90; Ph.D, Clark, 99. Instr. psychol, Minn. State Nor. Sch, Mankato, 00-04; lecturer, Clark, 04-06; *psychologist*, Pa. Hosp, 23-26; *Sing Sing Prison, 26-* Psychology of individuals, of intemperance and of nations; principles of sciences; personality.
- Partridge, Dr. Newton L(yman)**, Michigan Agricultural Experiment Station, East Lansing, Mich. *Horticulture*. Chicago, Ill, Dec. 10, 90. B.S, Illinois, 13, M.S, 14, Ph.D, 17. Research horticulturist, Del. Exp. Sta, 19-20; exten. asst. prof. pomol, Iowa Col, 20; *research asst. hort, Mich. State Col, 20-* Lieut. and capt, F.A. A.A; Soc. Hort. Sci; Bot. Soc; Ass. Econ. Entom. Grapes.
- Paschal, Prof. Franklin Cressey**, Vanderbilt University, Nashville, Tenn. *Psychology*. Chillicothe, Ill, Feb. 6, 90. A.B, De Pauw, 11; A.M, Pennsylvania, 16, fellow, 16-17, Ph.D, 18. Director research, Ind. Reformatory, 12-16; asst. *psychol*, Pennsylvania, 17-18; asst. prof, Arizona, 19-21, prof, 21-27, dean men, 22-25; *prof. and assoc. dean, Vanderbilt, 27-* Psychol. Ass. Attention; psycho-motor tests; racial psychology.
- Passano, Prof. L(eonard) M(agruder)**, Massachusetts Institute of Technology, Cambridge, Mass. *Mathematics*. Baltimore, Md, March 3, 66. A.B, Hopkins, 89. Asst. *math*, Hopkins, 89-90; instr, asst. prof. and *assoc. prof, Mass. Inst. Tech, 92-* A.A; Math. Ass.
- Patch, Clyde L(ouis)**, Victoria Memorial Museum, Ottawa, Ont, Can. *Biology*. Hiawatha, Kans, June 30, 87. Pub. schools. Taxidermist, Am. Museum Nat. Hist, 10-13; *chief taxidermist, Victoria Mem. Museum, 13-*, *herpetologist, 18-* Biol. exped, Vancouver Isl, 15; Queen Charlotte Islands, 19. Ottawa Field-Nat. Club (sec'y, 18-). Herpetology; ornithology; mammalogy.
- Patch, Dr. Edith M(arion)**, Maine Experiment Station, Orono, Maine. *Entomology*. Worcester, Mass, July 27, 76. B.S, Minnesota, 01; M.S, Maine, 10; Ph.D, Cornell, 11. Instr, high sch, Minn, 01-03; entom, Maine, 03-04, *entomologist, Maine Exp. Sta, 04-* A.A; Soc. Nat; Entom. Soc; Ass. Econ. Entom; Soc. Zool. Economic and ecological entomology; life histories and ecology of migratory aphids.
- Patch, Dr. F(rank) S(tewart)**, 33 Bishop St, Montreal, Que, Can. *Medicine*. Kingston, Ont, Sept. 19, 78. B.A, McGill, 99, M.D, C.M, 03; Bonn, Vienna and London, 05-06; Vienna, 11. Intern, Montreal Gen. Hosp, 03-05, med. supt, 07-09, genito-urinary surgeon, 16; *clin. prof.*

- urol, *McGill*, 20— Col. C.A.M.C. C.E.F., 15–19. Urol. Ass; Soc. Genito-Urinary Surg; Col. Surg; Can. Med. Ass. Urology.
- Patch, Dr. R(ichard) H(arkness)**, E. F. Houghton and Co, Philadelphia, Pa. *Chemistry*. Fitchburg, Mass., April 15, 88. A.B., Harvard, 10, Ph.D., 14. Austin teaching fellow, Harvard, 11–13; metal. engineer, Midvale Steel Co., 14–17, armor supt., 17–22, asst. open hearth supt., 22–26; asst. to pres, *E. F. Houghton and Co.*, 26— Steel; amino-aryl carbinols; alloy steels.
- Paterson, Donald G(ildersleeve)**, University of Minnesota, Minneapolis, Minn. *Psychology*. Columbus, Ohio, Jan. 18, 92. A.B., Ohio State, 14, A.M., 15, 16. Asst. psychol., Ohio State, 16; instr., Kansas, 16–17; applied psychologist, Scott Co., 19–21; *prof. psychol., Minnesota*, 21— Capt., Sanit.C., 17–19. Psychol. Ass. Applied psychology; business, educational and industrial psychology; mental tests.
- Paton, Miss Julia B(ayles)**, E. L. Patch Co, Boston, Mass. *Physiology, Biochemistry*. East Orange, N. J., Sept. 29, 74. A.B., Smith, 00, A.M., 12; Ph.D., Yale, 20. Head dept. biol., Constantinople Col., 02–06; head biol., high schools, Conn., 06–20; assoc. biochem. col. physicians and surg., Columbia, 20–22; research, State Inst. Hygiene, Warsaw, Poland, 23–24; fellow, Vassar, 26–27; *research biochemist, E. L. Patch Co.*, 27— A.A.; Bot. Soc.; Conn. Bot. Soc. Pollen enzymes; vitamins; malnutrition.
- Paton, Dr. R(obert) F(rederick)**, University of Illinois, Urbana, Ill. *Physics*. Opechee, Mich., Dec. 9, 92. A.B., Michigan, 15, A.M., 16, fellow, 18, Ph.D., 22. Teaching asst. *physics*, Michigan, 14–18; instr., Western Reserve, 19–20; Michigan, 20–22; *assoc., Illinois*, 22— Physical Soc. Spectra of HCl gas in the near infra-red, of silicon from vacuum spark source in the visible and ultraviolet and of beryllium; the lines of silicon in stellar spectra.
- Paton, Dr. Stewart**, Yale University, New Haven, Conn. *Psychiatry*. New York, N. Y., 65. A.B., Princeton, 86, A.M., 89; M.D., Columbia, 89. Assoc. psychiat., Hopkins; lecturer neur., Princeton, 11–26; *consultant in mental hygiene and lecturer psychiat., Yale*, 26— Director lab, Sheppard and Enoch Pratt Hosp; trustee, Carnegie Institution. A.A.; Soc. Nat.; Neur. Ass; Psychopath. Ass; Ass. Anat.; Eugenics Research Ass. (pres); Philos. Soc.; N. Y. Acad. Med. Development of cerebral cortex; clinical psychiatry; reactions of vertebrate embryo to stimulation and the associated changes in the nervous system; correlation of structure and function of the nervous system in vertebrate embryo; education in war and peace; human behavior; signs of sanity.
- Patrick, Austin L(athrop)**, 129 Ridge Ave, State College, Pa. *Agronomy*. Scranton, Pa., Aug. 23, 89. B.S., Pa. State, 13, M.S., 25; Cornell. Scientist, soil surv., U. S. Dept. Agr., 13–19; *assoc. prof. soil technol., Pa. State*, 19–26, *prof.*, 26— Soc. Agron; Ass. Soil Surv. Workers; Int. Soc. Soil Sci. Soils.
- Patrick, Prof. G(eorge) T(homas) W(hite)**, State University of Iowa, Iowa City, Iowa. **Philosophy, Psychology*. North Boscawen, N. H., Aug. 19, 57. A.B., Iowa, 78; B.D., Yale, 85; fellow, Ph.D., Hopkins, 88; Leipzig, 94. *Prof. philos., Iowa*, 87— Philos. Ass; Psychol. Ass; West. Philos. Ass. (pres, 03). Play; psychology of social reconstruction; philosophy of mind.
- Patrick, Dr. Walter A.**, Johns Hopkins University, Baltimore, Md. **Chemistry*. Syracuse, N. Y., Jan. 6, 88. B.S., Syracuse, 10; Ph.D., Göttingen, 14. Research assoc., Mass. Inst. Tech., 10–12; research asst., Univ. Col., London, 14–15; *instr. physical chem., Mass. Inst. Tech.*, 15–16; Syracuse, 16–17; *assoc., Hopkins*, 17–24, *prof.*, 24— Colloids; adsorption; silicic acid; reaction rate.
- Pattee, Prof. E(rnest) N(oble)**, 408 Euclid Ave, Syracuse, N. Y. *Chemistry*. Ottawa, Ont., Can., July 21, 64. B.S., Rochester, 86, M.S., 90; Sc.D., Syracuse, 22. Teacher, Greece, N. Y., 86–87; teacher science, Heyward Col. Inst., Ill., 89–90; *instr. chem., Syracuse*, 90–94, *adjunct prof.*, 94–95, *assoc. prof.*, 95–97, *prof.*, 97—, col. med., 08–19; *city chemist*, 20— Chem. Soc.
- Patten, Andrew J(arvis)**, Michigan Experiment Station, East Lansing, Mich. *Chemistry*. Cherryfield, Maine, July 1, 74. B.S., Maine, 97; Heidelberg, 02–03. Asst. chemist, Maine Exp. Sta., 97–00; N. Y. Exp. Sta., Geneva, 00–05; *chemist, Mich. Exp. Sta.*, 05— A.A.; Chem. Soc; Agr. Chem; Mich. Acad. Separation of histidin and arginin; phytin; acidity of soils.
- Patten, Prof. Bradley M(errill)**, Western Reserve University School of Medicine, Cleveland, Ohio. *Zoology, Embryology*. Milwaukee, Wis., June 14, 89. A.B., Dartmouth, 11; A.M., Harvard, 12, Ph.D., 14. *Instr. histol. and embryol., sch. med., Western Reserve*, 14–18, *asst. prof.*, 18–20, *assoc. prof.*, 20— Oceanographer, U. S. Fish Commission, 14. A.A.; Soc. Zool; Ass. Anat.; Ohio Acad. (v. pres, chairman, med. sci. sect, 23); Cleveland Acad. Med. Physiology of light reactions.
- Patten, Dr. Harrison E(astman)**, Silver Spring, Md. *Chemistry*. Crete, Ill., May 29, 73. A.B., Northwestern, 94, fellow, 95, A.M., 96; fellow, Wisconsin, 01–02, Ph.D., 02. Asst. chem., Northwestern, 93–94; *instr., Wisconsin*, 02–06; soil chemist, bur. soils, U. S. Dept. Agr., 06–11, physical chemist, bur. chem., 11–18, 19–20; chief chemist, Provident Chem. Works, Mo., and consulting chem. engineer, 20–21; chemist, C.W.S., 21–23; *consulting chemist*, 23—; U. S. Dept. Agr., 27— Teacher, high schools, Ill. Capt., U.S.A., 18–19, major, C.W.S.R., 24— Chem. Soc.; fel. Inst. Chem; Electrochem. Soc; Soc. Agron; Wash. Philos. Soc. Absorption and flocculation; electrical conductivity in non-aqueous solutions; decomposition point and single potential in aqueous and non-aqueous solutions; electrolytic reduction of nitric acid; percolation, leaching and heat conductance; hydrogen-ion concentration; purification of mercury; chemistry of gases, aluminum and alum; gels; catalytic nitration; carbon adsorption.
- Patten, Prof. William**, Dartmouth College, Hanover, N. H. **Biology*. Watertown, Mass., March 15, 61. B.S., Harvard, 83, Parker fellow,

- 83-86; Ph.D, Leipzig, 84. Asst, Lake Lab, Milwaukee, 86-89; *prof. biol.* North Dakota, 89-93; *zool.* Dartmouth, and *director course in evolution*, 93- Trustee, Woods Hole. Walker nat. hist. prize, 79. A.A. (v. pres, F, 19); Soc. Nat; Soc. Zool. (v. pres, 06); Ass. Anat; Ecol. Soc; Paleont. Soc; Am. Acad; Phila. Acad; St. Petersburg Imp. Soc. Nat. Anatomy and embryology of arthropods; embryology of mollusks; variation in *Limulus*; visual organs; origin of vertebrates; physiology of the nervous system of *Limulus*; embryology of arachnids; structure of the fossil fishes and arthropods of the Devonian and Silurian formations; the evolution of vertebrates and their kin; the grand strategy of evolution.
- Patterson, Prof. A(ndrew) H(enry)**, University of North Carolina, Chapel Hill, N. C. *Physics*. Winston-Salem, N. C, Sept. 28, 70. Ph.B, B.E, North Carolina, 91; A.B, Harvard, 92, A.M, 93, 23-24; Berlin and Charlottenburg Tech. Hochschule, 05-06; Cambridge, 06. Electrician, Consol. Traction Co, 93-94; instr. *physics*, Georgia, 94-97, adjunct prof, 97-98, *prof.*, 98-08; North Carolina, 08-, *dean sch. applied sciences*, 11-A.A; fel. Physical Soc; N. C. Acad. (pres, 19). X-rays; high tension phenomena; lightning discharges; atomic structure.
- Patterson, Dr. Austin M(cDowell)**, Xenia, Ohio. **Chemistry*. Damascus, Syria, May 31, 76. A.B, Princeton, 97; Ph.D, Hopkins, 00. Instr. chem, Centre (Ky), 00-01; Rose, 01-03; ed. for chem. and allied terms, 'Webster's New Int. Dict.', 03-07, ed. for chem, 08-; *prof. chem.* Antioch, 21- Assoc. ed, 'Chem. Abstracts', 08-09, ed, 09-14. Am. mem, Int. Commission on Org. Chem. Nomenclature, 24-; councilor, Int. Union Pure and Applied Chem, 25- Chemist, U. S. Bur. Mines and War Dept, 18-19. A.A; Chem. Soc; London Chem. Soc; Chem. Gesell; Soc. chim. de France. Permanganic acid and new permanganates; structure of camphor; organic nomenclature.
- Patterson, Mrs. Flora W(ambaugh)**, 1215 Ocean Ave, Brooklyn, N. Y. *Vegetable pathology*. Columbus, Ohio, Sept. 15, 47. Antioch, 60; Cincinnati Wesleyan, 65, A.M, 83; Radcliffe, 92-95; A.M, Iowa, 95. Asst, Gray Herbarium, Harvard, 95; instr. biol, private sch, Boston, 96; asst. pathologist in charge herbarium, div. veg. physiol. and path, U. S. Dept. Agr, 96-01, mycologist in charge path. collections, taxonomy of fungi and mycol. exchange, bur. plant indust, 01-23; *retired*, 23. Assoc. ed, 'Econ. Fungi', 94-95. A.A; Phytopath. Soc; Bot. Soc; Wash. Biol. Soc. Fungous diseases of plants and insects; systematic mycology.
- Patterson, Prof. George W(ashington)**, 2101 Hill St, Ann Arbor, Mich. **Electrical engineering*, *Physics*. Corning, N. Y, Feb. 1, 64. A.B, Yale, 84, A.M, 91; B.S, Mass. Inst. Tech, 87; Harvard Law Sch, 88-89; Ph.D, Munich, 99. Asst. math, Mass. Inst. Tech, 87-88; instr. physics, Michigan, 89-92, asst. prof, 92-98, junior prof, 98-01, elec. eng, 01-05, *prof.*, 05-14, *eng. mech.*, 14-, asst. dean col. eng, 22-27, *acting dean*, 27-A.A; fel. Elec. Eng; Physical Soc; Electrochem. Soc. Standards of electrical current.
- Patterson, Dr. G(uillermo), Jr**, Apartado 716, Panama City, Panama. *Chemistry*. Panama, Feb. 13, 84. B.C, Cooper, 10; Ch.E, N. Y. Univ, 11; M.S, Notre Dame, 11, Ph.D, 12; LL.B, Hamilton, 20. Asst. chemist, Lederle Laboratories, 06-08; med. col, Cornell, 08-10; asst. prof. chem, Notre Dame, 11-12; prof. math, Panama Nat. Inst, 12-13, chem. and in charge dept, 13-14, 16-24; prof. math. and chem. and in charge departments, Panama Nor. Col, 14-16, prof. chem. and in charge dept, 16-24; sch. pharmacy, 16-24; attaché, *Panama Legation*, Berlin, 24, *sec'y, Italy and Switzerland*, 25-Laudy prize, 08, 09. Int. Cong. Applied Chem, 08, 12. A.A; Chem. Soc; Pub. Health Ass. Determination of lead; electrolytic separation of lead from copper; analysis of alloys; antimony tetrasulphid; physiological effects of radium; experimental and inorganic chemistry; qualitative analysis.
- Patterson, Director H(arry) J(acob)**, Maryland Experiment Station, College Park, Md. *Chemistry, Agriculture*. Yellow Springs, Pa, Dec. 17, 67. B.S, Pa. State, 86; Sc.D, Maryland, 12. Asst. chemist, Pa. Exp. Sta, 86-88; chemist, Md. Exp. Sta, 88-98, *director and chemist*, 98-, pres, Md. Col, 13-17. Sec'y, Md. State Board Agr, 08-16. A.A; Chem. Soc; Agr. Chem. (pres, 12); Soc. Chem. Indust. Chemistry; feeding and fertilizing problems; methods of rendering phosphates available to crops.
- Patterson, I(rving) W**, The Lane Construction Corporation, Meriden, Conn. *Engineering*. B.S, C.E, Brown, 09. Res. and testing engineer, R. I. State Highway Dept, 09-10; asst. engineer, Arthur H. Blanchard, and consulting highway engineer, 10-11; construction engineer, Texas Co, 11-13; chief engineer, R. I. State Highway Dept, 13-24; *dist. engineer*, The Lane Construction Corp, 24- A.A; Nat. Highway Traffic Ass; Civil Eng; Road Builders' Ass. (director, 18-23). Highway engineering.
- Patterson, Dr. James L(awson)**, Chestnut Hill, Philadelphia, Pa. *Mathematics*. Savannah, Ohio, Aug. 18, 49. Ph.B, Lafayette, 77; hon. Sc.D, Princeton. Instr. math. and physics, Hill Sch, 76-83; math. master, Lawrenceville Sch, 83-94; prof. math, Union, 94-97; head master, Chestnut Hill Acad, 97-23. A.A; Math. Soc.
- Patterson, J(ohn)**, Meteorological Office, Toronto, Ont, Can. *Meteorology*. Ont, Jan. 3, 72. B.A, Toronto, 00; 1851 Exhib. scholar, Cambridge, 00-02, M.A, 06. Prof. physics, Univ. of Allahabad, India, 02-05; imp. meteorologist, govt. of India, 05-10; meteor. physicist, Can. Meteor. Service, 10-24, *asst. director*, 25- Fel. Meteor. Soc; fel. Royal Soc. Can; fel. Royal Meteor. Soc. Upper air; anemometry; extraction of helium from natural gas.
- Patterson, Prof. J(ohn) T(homas)**, University of Texas, Austin, Texas. **Zoology*. Piqua, Ohio, Nov. 3, 78. B.S, Wooster, 03; Ph.D, Chicago, 08. Prof. biol, Buena Vista, 03-05; asst. *zool.*, Chicago, 05-08; instr. Texas, 08-11, adjunct prof, 11-13, *prof.*, 13- A.A; Soc. Nat; Soc. Zool; Ass. Anat; Texas Acad. Avian embryology; embryology of the armadillo; polyembryony in insects; cytology of Cynipidae.

- Patterson, Prof. R(obert) A(lexander)**, Spring Ave. near Locust Ave, Troy, N. Y. *Physics*. Enfield, Conn, July 12, 90. A.B, Yale, 11, A.M, 12, Ph.D, 15. Instr. *physics*, Yale, 13-17, 19; Nat. Research Council fellow, Harvard, 19-20; asst. prof, Yale, 20-22; *prof*, *Rensselaer*, 22-Capt. and major, F.A, 17-18. A.A; Physical Soc. Spectroscopy; X-ray spectra; crystal structure of metals.
- Patterson, Dr. T(homas) L(eon)**, College of Medicine and Surgery, Detroit, Mich. *Physiology*. Madison, Maine, Jan. 15, 84. A.B, Clark, 09; A.M, Kansas City, 11; Yale, 10-11; M.S, Chicago, 15, Ph.D, 20. Agent and expert, bur. entom, U. S. Dept. Agr, 09-10; asst. biol, Sheffield Sci. Sch, Yale, 10-11; *prof*. biol. science and director micros. lab, Highland Park, 11-12; assoc. *prof*. biol. and physiol, Maryland, 12-15; asst. *prof*. *physiol*, Queen's (Can), 15-19; Iowa, 19-21; *prof*, *Detroit Col. Med*, 21- Summer, acting instr, Hopkins Marine Sta, Stanford, 22. A.A; *Physiol. Soc*; fel. Iowa Acad; Mich. Acad; assoc. Wayne Co. Med. Soc; Royal Soc. Arts; Royal Meteor. Soc. Movements of empty and filled stomach in mammals, reptiles, amphibians, fishes, cyclostomes and mollusks; gastric and pulmonary tonus; glands of internal secretion.
- Pattie, Dr. Frank A(cklen), Jr**, Harvard University, Cambridge, Mass. *Psychology*. Winchester, Tenn, Jan. 13, 01. A.B, Vanderbilt, 22; fellow, Princeton, 22-23, Procter fellow, 24-25, Macdonald fellow, at Harvard, 23-24, A.M, Ph.D, 25. Nat. Research Council fellow, *Harvard*, 25-26, *instr. psychol*, 26- Assoc. Psychol. Ass. Audition.
- Patton, Prof. H(orace) B(ushnell)**, 3111 W. 36th Ave, Denver, Colo. *Geology, Mineralogy*. Chicago, Ill, Sept. 18, 58. A.B, Amherst, 81; Ph.D, Heidelberg, 87. Instr. science and math, Howard, 81-83; asst. miner. and petrog, Heidelberg, 87; asst. *prof*. geol, Rutgers, 88-90; asst. geologist, Mich. Geol. Surv, and instr, Mich. Col. Mines, 91-93; *prof*. geol. and miner, Colo. Sch. Mines, 93-17. A.A. (sec'y, E, 01); *Geol. Soc*. (councilor, 07-10, v. pres, 14); Ass. Petrol. Geol; Colo. Sci. Soc. Economic geology.
- Patton, Prof. Leroy T(hompson)**, 2415 19th St, Lubbock, Texas. *Geology*. Fairpoint, Ohio, Dec. 5, 80. A.B, Muskingum, 05; B.S, Chicago, 13; M.S, Iowa, 16, Ph.D, 23. Prin. and supt, schools, 05-12; *prof*. chem. and geol, Geneva Col, 12-18; geol, Muskingum, 18-22; assoc. geologist, bur. econ. geol. and technol, Texas, 22-25; *prof*. and *head dept. geol*, *Texas Tech. Col*, 25- Field geologist, Okla. Geol. Surv. Tech. adviser, Texas State Board Water Engineers. A.A; Ass. Petrol. Geol; fel. Iowa Acad. Physiographic and economic geology.
- Patton, Commander R(aymond) S(tanton)**, 3920 McKinley St, Washington, D. C. *Engineering*. DeGraff, Ohio, Dec. 29, 82. Ph.B, Western Reserve, 04. Subordinate and commander surv. vessels, *U. S. Coast and Geod. Surv*, 04-15, *chief* sect. coast pilot, 15-17, *div. charts*, 19- Lieut. and lieut. commander, U.S.N, 17-19. Eng. advisory committee on coast erosion and protection, N. J. Board Commerce and Navigation.
- Civil Eng; Wash. Soc. Eng. Hydrographic and geodetic engineering; coast erosion and protection; physiography of United States continental shelves.
- Patty, Prof. Ralph L**, South Dakota State College, Brookings, S. Dak. *Agricultural engineering*. Redfield, Iowa, Aug. 28, 84. B.Di, Iowa State Teachers Col, 07; B.S, Iowa Col, 16. Teacher and prin, high schools, Iowa and S. Dak, 07-13; exten. specialist *agr. eng*, *S. Dak. Col*, 16-24, *head dept*, 24- Director relation of elec. to agr. project, S. Dak. Agr. Eng; Nat. Elec. Light Ass; S. Dak. Soc. Architects and Eng. Electric power and equipment and its use on the farm; building materials for farm structures; farm machinery.
- Paul, Arthur E(rnest)**, 218 N. Latrobe Ave, Chicago, Ill. *Chemistry*. Germania, Pa, Sept. 29, 74. B.S, Illinois, 97, M.S, 98; Ph.G, Chicago Col. Pharmacy. Chief chemist, Marnier and Hoskins, 99-09; chemist, *bur. chem*, *U. S. Dept. Agr*, 09-20, *chief*, Cincinnati Sta, 20-23, *Chicago Sta*, 23- Chem. Soc; Agr. Chem. (referee on drugs). Methods of drug analysis.
- Paul, Cha(rles) H(oward)**, Dayton Savings Building, Dayton, Ohio. *Engineering*. Rockport, Mass, March 10, 75. C.E, Mass. Inst. Tech. Mass. State Board Health, 95-96; Metropolitan Water Board, Mass, 96-00; Bur. Filtration, Phila, 00-04; U. S. Reclamation Service, 04-15; construction and *chief engineer*, *Miami Conservancy Dist*, 15-; *consulting engineer*, *Dayton*, 15- Trustee, Moraine Park Sch, Dayton. Norman medal, Soc. Civil Eng, 22. Civil Eng. (director, 24-). Hydraulic engineering; construction.
- Paul, Prof. H(enry) M(artyn)**, U. S. N. (retired), The Ontario, Washington, D. C. *Astronomy, Engineering*. Dedham, Mass, June 25, 51. A.B, Dartmouth, 73, C.E, 75. Asst. astronomer, Naval Observatory, 75-80; *prof*. astron, Tokyo, 80-83; asst. astronomer, Naval Observatory, 83-97; *prof*. math, U.S.N, 97-13, engineer, bur. yards and docks, 99-05, teacher math, U. S. Naval Acad, 05-12. Solar eclipse exped, W. Las Animas, Colo, 78. Jury awards, Elec. Expos, Phila, 84; Pan-Am. Expos, 01. A.A. (sec'y, A, 87); Astron. Soc; Wash. Acad; Wash. Philos. Soc. Transit of Mercury, May, 78; eclipse of July, 78; semidiameter of the moon; longitude of Princeton; variable stars.
- Paul, Dr. John R(odman)**, Pennsylvania Hospital, 8th and Spruce Streets, Philadelphia, Pa. *Pathology, Biochemistry*. Philadelphia, April 18, 93. A.B, Princeton, 15; M.D, Hopkins, 19. Asst. path, Hopkins, 19-20; *director*, *Ayer Clin. Lab*, *Pa. Hosp*, 22-; asst. and assoc. *surg. path*, *Post-Grad. Sch. Med, Pennsylvania*, 22- Fellow, Pennsylvania, 22- Soc. Exp. Path; Soc. Clin. Invest; Phila. Path. Soc; Phila. Physiol. Soc; fel. Phila. Col. Physicians and Surg; Int. Soc. Med. Museums. Considerations of optical activity of biological fluids in health and disease.
- Pauling, Linus (Carl)**, 175 Linda Rosa Ave, Pasadena, Calif. *Physical chemistry*. Portland, Oregon, Feb. 28, 01. B.S, Oregon Col, 22. *Teaching fellow*, *Calif. Inst. Tech*, 22- Chem. Soc. Crystal structures of complex fluorides,

- molybdenite, uranyl nitrate, magnesium stannide; theory of strong electrolytes.
- Paulus, Dr. Max G(eorge)**, Standard Oil Co, Casper, Wyo. *Chemistry*. Baltimore, Md, Sept. 25, 91. A.B, Hopkins, 12, Ph.D, 15. *Gen. supt, Casper plant, Standard Oil Co. of Ind.*
- Pawling, Jesse**, U. S. Naval Observatory, Washington, D. C. *Astronomy, Mathematics*. Lower Merion, Pa, Oct. 29, 65. A.B, Cent. High Sch. Phila, 88, A.M, 93; B.S, Cornell, 93, 93-94; George Washington, 94-95; Hopkins, 95-96; Pennsylvania, 00-01, 03-05. Computer, 'Nautical Almanac' Office, 94-96; U. S. Coast and Geod. Surv, 95; instr. physics, Cent. High Sch. Phila, 96-03; instr. and asst, Randal Morgan Lab. of Physics, Pennsylvania, 03-05; computer, Isthmian Canal Commission, 05; computer and asst, U. S. Naval Observatory, 05-24, asst. astronomer, 24-25, *assoc. astronomer*, 25- Astron. Soc; Philos. Soc. The metric system; legislation on weights and measures; transit circle observations.
- Pawlowski, Prof. Felix W(ladyslaw)**, University of Michigan, Ann Arbor, Mich. *Aeronautical engineering*. Near Warsaw, Poland, July 23, 76. Tech. Col, Mitweide, Saxony, 96; Tech. Col, Brunswick, Germany, 08; Paris, 10; M.S, Michigan, 14. Designer and chief engineer, machine industries, Europe, 97-08; motor car designer, 11-13; *prof. and head dept. aeronaut. eng, Michigan*. Aeronautics; aerodynamics; theory of propellers; mechanics of flight; stress analysis of aeroplane structures; design of internal combustion motors.
- Paxton, Prof. Earle K(erry)**, Washington and Lee University, Lexington, Va. *Mathematics*. Rockbridge Co, Va, Feb. 17, 86. A.B, Washington and Lee, 08, A.M, 09; A.M, Columbia, 25. Teacher, prin. and supt, schools, Va, 09-20; asst. prof. *math, Washington and Lee*, 20-23, *assoc. prof*, 23- Asst, Columbia, 24-25. Math. Soc; Math. Ass.
- Payne, Pres. Bruce R(yburn)**, George Peabody College for Teachers, Nashville, Tenn. *Education, Psychology*. Morganton, N. C, Feb. 18, 74. A.B, A.M, Trinity (N. C); A.M, Columbia, 03, Ph.D, 04. Prof. philos. and educ, William and Mary, 04-05; secondary educ, Virginia, 05-06, psychol, 06-11; *pres, Peabody Col*, 11-A.A; Psychol. Ass; Philos. Ass; Ass. Adv. Teaching; S. Soc. Philos. and Psychol. Comparison of elementary curricula of the United States, England, Germany and France; ethical theory and education.
- Payne, Dr. Cecilia H(elena)**, Harvard University, Cambridge, Mass. **Astrophysics*. Wendover, Eng, May 10, 00. B.A, Cambridge, 23; Ph.D, Radcliffe, 25. *Nat. Research Council fellow, Harvard*, 25- Astron. Soc; British Astron. Ass; Royal Astron. Soc. Constitution of stellar atmospheres.
- Payne, Prof. Fernandus**, Indiana University, Bloomington, Ind. **Zoology*. Shelbyville, Ind, Feb. 13, 81. A.B, Indiana, 05, A.M, 06; fellow, Columbia, 07-09, Ph.D, 09. Asst. *zool, Indiana*, 05-07, asst. prof, 09-12, *assoc. prof*, 12-19, *prof*, 19-, asst. dean grad. sch, 25- A.A; Soc.
- Nat; Soc. Zool; Ind. Acad. Cytology; genetics; embryology; fresh-water Coelenterata.
- Payne, H(enry) L(ansing)**, 3275 Monette Place, Los Angeles, Calif. *Chemical engineering*. Warrensville, Ohio, June 24, 62. B.S, Case, 86, M.S, 97. *Chem. director, Baverstock and Payne*. A.A; Chem. Soc. (pres. and sec'y, Cleveland and Los Angeles sections). Chemical analysis.
- Payne, Dr. Henry M(ace)**, 841 Munsey Building, Washington, D. C. *Mining engineering*. New York, N. Y, Aug. 26, 68. McGill, 85-88; C.E, hon. Ph.D, Ark. Nor. Col, 00; hon. Sc.D, Shenandoah Nor. Col, 01. V. prin, Milton Acad, Md, 96; pres. and prof. eng. and math, Stewartstown Col. Inst, Pa, 97-01; prof. mining eng, West Virginia, 07-10; asst. to pres, Bertha Coal Co, 17-20; consulting engineer, Anrade-Eyre, Inc, 20-21; gen. manager, Humboldt Mining Co, Mex, 21-22; *consulting engineer, Am. Mining Cong*, 22-; *geologist, G. M. and N. Ry*, 26- Consulting engineer, Fairmount Coal Co. and Beattyville Block Coal Co. Board Arbitration, Lena-Lenskoj, Siberia, 15-16. A.A; Min. and Metal. Soc; Min. Cong; Soc. Mil. Eng; Can. Min. Inst. Mine explosions; coal dust; the geology of West Virginia; comparative values of fuels; hygroscopic moisture; humidity in mine air; thawing frozen gold bearing gravels; coal mining; undeveloped mineral resources of the South.
- Payne, Prof. L(oyal) F(rederick)**, Kansas State Agricultural College, Manhattan, Kans. *Poultry husbandry*. Tecumseh, Nebr, July 14, 89. B.S, Okla. Agr. and Mech. Col, 12; M.S, Kansas Col, 25. In charge poultry investigations, Okla. Agr. and Mech. Col, 12-14; instr. poultry husbandry, Mass. Col, 14-21; *prof, Kansas Col*, 12-23, *head poultry dept*, 23- Summers, lecturer, Cornell, 20, 24. Poultry Sci. Ass. (sec'y-treas, 22-25, pres, 25). Poultry science; embryology.
- Payne, Dr. Nellie M(aria de Cottrell)**, University of Pennsylvania, Philadelphia, Pa. *Physiology, Entomology*. Cheyenne Wells, Colo, Dec. 11, 00. B.S, Kansas Col, 20, M.S, 21; Ph.D, Minnesota, 25. Asst. zool. and entom, Kansas Col, 18-21; instr. chem. and math, Lindenwood Col, 21-22; asst. and librarian, dept. entom, Minnesota, 22-25; *Nat. Research Council fellow zool, Pennsylvania*, 25- Physiol. Soc; Entom. Soc; Micros. Soc. Inheritance of colorblindness; life histories of alfalfa pests; effects of low temperature on insects; physico-chemical changes in insect body fluids associated with insect cold hardness; nutrition.
- Payne, Prof. V(irgil) F(rancis)**, Transylvania College, Lexington, Ky. *Chemistry*. Callaway Co, Mo, Jan. 28, 93. A.B, Westminster (Mo), 16; A.M, Missouri, 20; Chicago. Prin, high sch, Mo, 16-17; asst. agr. chem, Missouri, 17; asst. prof. chem, N. Mex. Col, 18-20; *prof. science, Palmer Col*, 20-23; *chem, Transylvania*, 23- A.A; Chem. Soc. (v. pres, Lexington sect, 24, sec'y-treas, 25); Ky. Acad. Phases of the teaching of chemistry.
- Payne, Prof. W(illiam) W(Wallace)**, Elgin, Ill. *Mathematics, Astronomy*. Somerset, Mich, May

- 19, 37. A.B., Hillsdale, 63, A.M., 65, hon. Ph.D., 91; Michigan, 64-65; LL.B., Chicago, 66. Prof. math. and astron., Carleton Col., 71-09, acting dean, 96-99, *director*, Goodsell Observatory, 79-09; *observatory*, Nat. Watch Co., Elgin, Ill., 09-Ed., 'Sidereal Messenger'; 'Astron. and Astrophys'; 'Popular Astron.' 93- Astron. Soc.
- Paynter, Dr. Richard H(enry), Jr.**, University of Pennsylvania, Philadelphia, Pa. *Psychology*. Brooklyn, N. Y., March 27, 90. A.B., Columbia, 12, A.M., 13, fellow, 13-14, Ph.D., 17. Psychologist, legal dept., Coca-Cola Co., 15-16; asst. psychol., Columbia, 16-17; merchant, 19-21; acting director psychol. dept., N. Y. Neur. Inst., 20-22; chief psychologist, Child Guidance Clinic No. 1, Nat. Committee Mental Hygiene, 23-27; *instr. psychol. grad. sch. med.*, Pennsylvania, 25-; *research psychologist*, Phila. Gen. Hosp., 27- Psychologist, hospitals, 20-22; psychological examiner, N. Y. Ass. Consulting Psychologists, 20-22. Contrib. ed., 'Educ. Measurements Rev.', 25- Sergt., Sanit.C., 18-19. A.A.; Psychol. Ass.; N. Y. Ass. Consulting Psychologists. Advertising; trademark and patent infringing; tests for judges; clinical psychology; mental hygiene; educational achievement and remedial treatment of problem children; changing behavior; job analysis of mental hygiene clinic organization; psychology of drug addicts.
- Payson, Dr. Edwin B(lake)**, University of Wyoming, Laramie, Wyo. *Botany*. Norwood, Colo., Feb. 18, 93. A.B., Wyoming, 17; A.M., Washington (St. Louis), 20, Ph.D., 21. Assoc. prof. bot., Wyoming, 21-25, *prof.*, 25- A.A.; Bot. Soc. Taxonomy of flowering plants. [*Died.*, May 15, 27.]
- Peabody, Prof. Cecil H(obart)**, Massachusetts Institute of Technology, Cambridge, Mass. *Naval architecture, Engineering*. Burlington, Vt., Aug. 9, 55. B.S., Mass. Inst. Tech., 77, D.Eng. Prof. math. and eng., Imp. Agr. Col., Japan, 78-80; asst. prof. mech. eng., Illinois, 81-83; steam eng., Mass. Inst. Tech., 84-93, *prof. naval archit. and marine eng.*, 93-20, *emer. prof.*, 20- Order of the Rising Sun, Japan. Naval Archit. and Marine Eng.
- Peabody, Dr. Charles**, 38 Rue de Province, Paris, France. *Archeology*. Rutland, Vt., Nov. 9, 67. A.B., Pennsylvania, 89; A.M., Harvard, 90, Ph.D., 93. *Curator European archeol.*, Peabody Museum, Harvard, 13-; *director dept. archeol.*, Phillips Acad., 01- Officier de l'Acad. Anthropol. Ass. (mem. council); Folk-Lore Soc. (sec'y); fel. Royal Anthropol. Inst.; mem. Prehist. Soc. East Anglia; cor. mem. Ass. pour l'Enseignement des Sci. anthrop.; Soc. préhistor. française. Prehistoric archeology in the Ozark region, in southern France and in Syria.
- Peabody, Dr. F(rancis) W(eld)**, Boston City Hospital, Boston, Mass. **Medicine*. Cambridge, Mass., Nov. 24, 81. A.B., Harvard, 03, M.D., 07. Asst. prof. med., Harvard Med. Sch., 15-20, assoc. prof., 20-21, *prof.*, 21-, physician, Peter Bent Brigham Hosp., 15-21, consulting physician, 21-; visiting physician, Boston City Hosp., and director, Thorndike Mem. Lab., 21-Mem., board directors, Rockefeller Inst., 26. Am. Med. Ass.; Am. Physicians; Soc. Clin. Invest.; Cong. Physicians and Surg. (treas., 17); Am. Acad. Internal medicine.
- Peabody, J(ames) E(dward)**, 93 Carhart Ave., White Plains, N. Y. *Biology*. Brookline, N. H., Aug. 21, 69. A.B., Williams, 92; A.M., Harvard, 96. Prin., high sch., Mass., 92-95; teacher biol., English High Sch., Boston, 96-97; *head dept. biol.*, Morris High Sch., New York, 97- Soc. Nat.; N. Y. State Sci. Teachers Ass. (committee on study of alcohol and narcotics, sec'y, 90-01). Physiology; hygiene; sense organs of selachians.
- Peacock, Dr. H(enry) B(ates)**, 914 E. Helen St., Tucson, Ariz. *Physics*. Keosauqua, Iowa, March 3, 94. A.B., Iowa, 21, M.S., 22, Ph.D., 25. *Instr. physics, Arizona*, 25- Physical Soc. Acoustic wave filters; Hall effect in evaporated metal films.
- Peacock, N(eal) D(ow)**, 2121 White Ave., Knoxville, Tenn. *Horticulture*. Kokomo, Ind., Jan. 27, 97. B.S., Purdue, 19; M.S., Tennessee, 23. Instr. and assoc. prof. hort., Georgia, 19-21; field rep., Tenn. Hort. Soc., 21-23; *instr. assoc. prof. and chief hort.*, Tennessee, 23- Soc. Hort. Sci.; Pomol. Soc.; Tenn. Hort. Soc.
- Peacock, Walter M(iller)**, 108 Baltimore Ave., Washington, D. C. *Horticulture*. Freiburg, N. J., June 15, 86. B.S., Cornell, 13, M.S.A., 15; Mass. Col. Instr., Cornell, 13-16; *instr. in charge farm management and cost accounting*, Mass. Col., 16-19; pres. and business manager, Peacock Tractor Service Co., 19-22; *horticulturist, bur. plant indust.*, U. S. Dept. Agr., 22-Summers, enumerator, L. I. and Steuben County Crop Surveys, 13, in charge surveys, Monroe, Clinton and Franklin Counties, 14; lecturer, N. Y. Cent. and Lehigh Valley Railways, 14, 15; investigator, N. Y. Food Supply Commission, and Mass. Milk Supply Commissions, 17. Ed. and business manager, 'Am. Potato Jour.', 26- A.A.; Potato Ass. (asst. sec'y-treas., 23-25, sec'y-treas., 26, sec'y, 27, managing ed., 'Potato News Bul.', 24, ed. and business manager, 24); N. Y. State Potato Ass. (sec'y, 14-16). Cost of producing potatoes; storage, respiration and rest period of potatoes; hastening of germination.
- Peairs, Prof. L(eonard) M(arion)**, West Virginia University, Morgantown, W. Va. *Entomology*. Lawrence, Kans., June 5, 86. B.S., Kansas Col., 05, M.S., 07; Cornell, 09; fellow, Chicago, 16-17, Ph.D., 25. *Instr. entom.*, Maryland, and *asst. entomologist*, Exp. Sta., 08-10; Kansas Col. and Exp. Sta., 10-12; *West Virginia and Exp. Sta.*, 12- A.A.; Entom. Soc.; Ass. Econ. Entom. Relation of temperature to insect development.
- Pearce, Pres. H(aywood) J(efferson)**, Brenau College, Gainesville, Ga. *Psychology*. Columbus, Ga., Aug. 26, 71. A.B., Emory, 91; A.M., Chicago, 00; Ph.D., Würzburg, 01. *Pres.*, Brenau, 93- Psychol. Ass.; S. Soc. Philos. and Psychol. Visual, tactual and aural illusions; suggestion; the law of attraction in subjective space; suggestive therapeutics.
- Pearce, Prof. J(ames) Newton**, 714 Iowa Ave., Iowa City, Iowa. *Chemistry*. Oswego, Ill., Dec.

- 21, 73. Ph.B, Northwestern, 96, Ph.M, 97; Ph.D, Hopkins, 07. Asst. chem, Northwestern, 96-97; chemist, Jas. S. Kirk and Co, 97-00; instr, high sch, Ill, 00-02; chem, Northwestern, 02-05; asst. prof, Iowa, 07-17, assoc. prof, 17-18, *physical chem*, 18-20, *prof*, 20- Committee on contact catalysis, Nat. Research Council, 27. A.A.; Chem. Soc. (sec'y, Iowa sect, 10-13, v. pres, 13, pres, 14-16, councilor, 16, 26); Electrochem. Soc.; Iowa Acad. Physical, thermo and electro chemistry; clays of glacial drifts of Iowa; adsorption; catalysis; free energy; electromotive forces.
- Pearce, J(oseph) A(lgernon)**, Dominion Astrophysical Observatory, Victoria, B. C, Can. *Astrophysics*. Brantford, Ont, Feb. 7, 93. B.A., Toronto, 20, M.A., 22. Asst, Toronto, 19-21, demonstrator, 21-22; fellow, Lick Observatory, 22-24; asst. astronomer, *Dominion Astrophysical Observatory*, 24-26, *astronomer*, 26- Signalling officer, lieutenant, capt. and major, C.E.F., 15-19. Astron. Soc.; Pacific Astron. Soc.; Royal Astron. Soc. Can.; Soc. astron. de France. Orbits of asteroids; spectroscopic binaries; stellar radial velocities.
- Pearce, Dr. Louise**, 444 E. 57th St, New York, N. Y. *Pathology*. Boston, Mass, March 5, 86. A.B, Stanford, 07; Boston, 07-09; M.D, Hopkins, 12. Med. house officer, Hopkins Hosp, 12-13; asst. *path. and bacter*, *Rockefeller Inst*, 13-15, assoc, 16-23, *assoc. mem*, 23- Trustee, N. Y. Infirmary for Women and Children. A.A.; Soc. Exp. Path; Ass. Path. and Bact; Soc. Exp. Biol; Soc. Pharmacol; Ass. Cancer Research; Social Hygiene Ass. (gen. advisory committee); Harvey Soc; Royal Soc. Trop. Med. and Hygiene; Soc. Belge de Med. Trop. Experimental trypanosomiasis and syphilis; chemotherapy; constitutional factors in disease.
- Pearce, Dr. Richard M(ills), Jr**, Rockefeller Foundation, 61 Broadway, New York, N. Y. **Pathology*. Montreal, Que, Can, March 3, 74. M.D, Harvard, 97; Leipzig, 02; Sc.D, Lafayette, 15. Res. pathologist, Boston City Hosp, 96-99; instr. path, Harvard Med. Sch, 99-00; demonstrator and asst. prof, Pennsylvania, 00-03; prof. path. and bacter, Albany Med. Col, Union, and director, Bender Hygienic Lab, 03-08; prof. path, Univ. and Bellevue Hosp. Med. Col, 08-10; Pennsylvania, 10-11, research med, 11-19; *director div. med. educ*, *Rockefeller Foundation*, 20- Hitchcock lecturer, California, 12. A.A. (v. pres, 15); Am. Physicians; Philos. Soc; Harvey Soc. Medical education.
- Pearce, Dr. R(oy) G(entry)**, 344 Merriman Road, Akron, Ohio. *Physiology*. Madison, Wis, Aug. 28, 84. A.B, Wabash, 08; M.D, Western Reserve, 12; Bern, 13. Demonstrator physiol, Western Reserve, 12-13, instr, 13-17, prof, dental sch, 12-17; asst. prof. med, Illinois, 17; mem. research lab. clin. med, Lakeside Hosp, 17-20; research div, health dept, B. F. Goodrich Co, 20-23; *practising physician*, 23- Major, C.W.S, 18, Physiol. Soc. Carbohydrate metabolism; innervation of the kidney; vasomotor nerves; internal medicine.
- Pearce, Prof. W(illiam) T(udor)**, Agricultural College, N. Dak. *Chemistry*. Norfolk, Va, Sept. 3, 90. A.B, Randolph-Macon, 10; M.S, Kentucky, 12; Ph.D, Chicago, 16. Asst. *chem*, Kentucky, 10-12; instr, Clemson, 12-13, asst. prof, 13-14; asst, Chicago, 14-15; prof, Fargo, 15-16; asst. prof, *N. Dak. Col*, 16-18, *prof*, 18-, head *sch. chem*, 19-26, *dean*, 26- Chem. Soc. (sec'y, div. paint and varnish chem, 24-26, chairman, 27); Chem. Eng; Soc. Test. Mat. Paint and varnish chemistry.
- Pearl, Dr. Raymond**, Institute for Biological Research, Johns Hopkins University, Baltimore, Md. **Biology, Statistics*. Farmington, N. H, June 3, 79. A.B, Dartmouth, 99, hon. Sc.D, 19; Ph.D, Michigan, 02; LL.D, Maine, 19. Asst. zool, Michigan, 99-02, instr, 02-06; Pennsylvania, 06-07; biologist and head dept. biol, Maine Exp. Sta, 07-18; *research prof. biometry and vital statist, sch. hygiene and pub. health, Hopkins*, 18-, *prof. biol, sch. med*, 23-, *director, Inst. Biol. Research*, 25- Lecturer, Iowa Col, 10; Mich. State Col, 12. Summers, asst, U. S. Fish Commission, 01-03. Exec. board, Nat. Research Council, 16-18, 20- Knight of the Crown, Italy. Chief statist. div, Food Ad, 17-19. Nat. Acad. (councilor, 19-24); A.A; Soc. Nat. (pres, 16); Soc. Zool. (sec'y, east. branch, 11, pres, 13); Statist. Ass. (v. pres, 26); Soc. Exp. Biol; Philos. Soc; Galton Soc; Am. Acad; Wash. Acad; cor. mem. Phila. Acad; hon. fel. Royal Statist. Soc; hon. mem. Imp. Russian Soc. Rural Avicul; Int. Ass. Poultry Husbandry (pres, 09, hon. sec'y, 12-19). Genetics; biometry; duration of life; population.
- Pearse, Prof. A(rthur) S(perry)**, Duke University, Durham, N. C. **Zoology*. Crete, Nebr, March 15, 77. B.S, Nebraska, 00, A.M, 04; Ph.D, Harvard, 08. Teacher, high sch, Nebr. and Ill, 00-06; Austin teaching fellow, Harvard, 07-08; instr. *zool*, Michigan, 08-10, asst. prof, 10-11; Philippines, 11; St. Louis, 11; Wisconsin, 11-12, assoc. prof, 12-19, *prof*, 19-27; *Duke*, 27- Staff, Woods Hole, 08, 09, 12; special investigator, Bur. Fisheries, 12-24; Int. Health Board, 25-26. A.A; Soc. Nat; Soc. Zool; Soc. Parasitol; Ecol. Soc. (pres, 25); Fisheries Soc; Wis. Acad; N. C. Acad; British Soc. Exp. Biol. Ecology; parasitology; behavior; Crustacea; fishes.
- Pearse, Prof. Langdon**, Sanitary District of Chicago, Chicago, Ill. *Sanitary engineering*. Boston, Mass, Nov. 12, 77. A.B, Harvard, 99; B.S, Mass. Inst. Tech, 01, M.S, 02. With Charles River Dam Commission; Additional Water Supply Commission, New York; private asst. to George C. Whipple; improved water and sewage works, Columbus, Ohio; water filtration, Oakland, Calif; *sanit. engineer, Sanit. Dist, Chicago*, 09- Consulting engineer. Aldred lecturer, Hopkins, 17. Civil Eng; Inst. Consulting Eng; Water Works Ass; Pub. Health Ass; West. Soc. Eng; New Eng. Water Works Ass; Boston Soc. Eng; Eng. Inst. Can; Civil Eng. London. Treatment of sewage, water and industrial wastes.
- Pearson, Prof. F(rank) A(shmore)**, Cornell University, Ithaca, N. Y. *Agriculture*. Dec. 31, 87. Ph.D, Cornell. Asst. prof. dairy husbandry, Illinois; *prof. farm management, Cornell*. Farm Econ. Ass; Statist. Ass; Econ. Ass.

- Pearson, Gustav A(dolph)**, Southwestern Experiment Station, Flagstaff, Ariz. *Forestry*. Holdrege, Nebr., Nov. 14, 80. B.S., Nebraska, 06, A.M., 07. Silviculturist, *U. S. Forest Service*, 07-08, director, *Southwest. Exp. Sta.*, 09- A.A.; Soc. Foresters (pres, southwest. sect, 16); Ecol. Soc. (v. pres, 23). Botany; growth and reproduction of forest trees; forest ecology; artificial reforestation; forest meteorology.
- Pearson, Joseph Cleaveland**, Lehigh Portland Cement Co, Allentown, Pa. *Physics*. Andover, Maine, May 25, 79. A.B., Bowdoin, 00; A.M., Harvard, 03. Instr. physics, Bowdoin, 03-06; magnetic observer, Carnegie Institution, 06-10; physicist, Bur. Standards, 10-24; *asst. to chem. engineer, Lehigh Portland Cement Co*, 24- Soc. Test. Mat.; Concrete Inst. Uses of concrete and cement.
- Pearson, Pres. Raymond A(llen)**, University of Maryland, College Park, Md. *Agriculture*. Evansville, Ind., April 9, 73. B.S., Cornell, 94, M.S., 99; LL.D., Alfred, 09; D.Agr., Nebraska, 17. Asst. dairy lab, Cornell, 94; asst. chief dairy div, U. S. Dept. Agr., 95-02; gen. manager, Walker-Gordon Lab. Co., 02-03; prof. dairy indust, Cornell, 03-08; N. Y. state commissioner agr., 08-12; *pres*, Iowa Col., 12-26; *Maryland*, 26-Medal, Paris Expos. Investigator food conditions in Europe, Fed. Committee, 17-19. A.A. (sec'y, I, 01); Ass. Land Grant Col. (pres, 20, chairman, exec. committee, 18). Agricultural production and cooperation.
- Pearson, Thomas Gilbert**, 1974 Broadway, New York, N. Y. *Ornithology*. Tuscola, Ill., Nov. 10, 73. B.S., Guilford; B.S., LL.D., North Carolina. *Pres*, *Nat. Ass. Audubon Societies*, 05-Ornith. Union; Explorers Club. Conservation of the wild bird and animal life of North America.
- Pearson, Prof. William A(lexander)**, 209 N. 50th St., Philadelphia, Pa. *Chemistry*. Van Wert, Ohio, April 6, 79. Ph.C., Ferris Inst., 98; Ph.D., Michigan, 02; M.D., Hahnemann Med. Col., 15. Research chemist, Parke, Davis and Co., 02-04; *prof. pharmacy*, Ferris Inst., 04-06; *chem. and toxicol.*, *Hahnemann Med. Col.*, 08- Chem. Soc. (chairman, Phila. sect); Pharmaceut. Ass. (chairman, Phila. sect); Pa. Pharmaceut. Ass. Physiological chemistry; nitrogen metabolism; pharmacodynamics of drugs acting mainly on the heart.
- Pease, Pres. A(rthur) S(tanley)**, Amherst College, Amherst, Mass. *Botany*. Somers, Conn., Sept. 22, 81. A.B., Harvard, 02, A.M., 03, Ph.D., 05. Instr. Harvard and Radcliffe, 06-09; asst. prof., assoc. prof. and prof. classics, Illinois, 09-24; Latin, *Amherst*, 24-27, *pres*, 27-New Eng. Bot. Club. Flora of Coös County, New Hampshire.
- Pease, F(rancis) G(ladheim)**, Mt. Wilson Observatory, Pasadena, Calif. *Astronomy, Engineering*. Cambridge, Mass., Jan. 14, 81. B.S., Armour, 01, M.S., 24, Sc.D., 27. Optician and observer, Yerkes Observatory, 01-03; instrument designer, *Mt. Wilson Observatory*, *Carnegie Institution*, 04-07, 08-13, *astronomer*, 11-, *in charge design*, 13- Supt. Sci. Shop Works, Chicago, Ill., 07-08; chief draftsman, eng. sect, Nat. Research Council, 18. Astron. Soc.; Optical Soc.; Mech. Eng. (chairman, Los Angeles sect, 17); Pacific Astron. Soc.; Franklin Inst.; fel. Royal Astron. Soc. Photography and spectroscopy of nebulae and clusters; moon and planets; rotation of spiral nebulae; precision instruments; stellar diameters with the interferometer; 25-foot reflector.
- Pease, Herbert D(odge)**, 39 W. 38th St., New York, N. Y. *Bacteriology, Hygiene*. Boston, Mass., Oct. 25, 70. M.B., Toronto, 93; Hopkins, 93-94, fellow, 94-95. Res. pathologist, Thomas Wilson Sanitarium for Children, Baltimore, 94; first asst. bacteriologist, Dept. Health, Phila., 95-98; bacteriologist, N. Y. State Path. Lab., Buffalo, 98-00; instr. bacter., Sheffield Sci. Sch., Yale, 01; director antitoxin hygienic lab, N. Y. State Dept. Health, Albany, 01-09; *consulting bacteriologist and hygienist*, 09-; sanit. expert, Board Water Supply, New York, 10-16; *director*, Lederle Laboratories, 09-18; *Pease Laboratories*, 18- Adjunct prof., Phila. Polyclinic, 97. Int. Cong. Tuber, 08 (sec'y, N. Y. State commission); Int. Cong. Hygiene and Demog., 12. A.A.; Ass. Path. and Bact.; Soc. Bact.; Chem. Soc.; Am. Med. Ass.; Pub. Health Ass. (recorder, lab. sect, 01-09, sec'y, sanit. eng. sect, 11-17); Water Works Ass.; N. Y. Acad. Med. Diphtheria and tetanus antitoxins and their standardization; bacteriology of summer diarrheas of children; malignant tumors; typhoid fever; sanitation of food supplies; water purification; effects of dyes and chemical products on skin and tissue; toxicity of metals.
- Pease, Dr. Robert N(orton)**, Princeton University, Princeton, N. J. *Physical chemistry*. Burlington, Vt., April 12, 95. B.S., Vermont, 16; Ph.D., Princeton, 21. Nat. Research Council fellow *chem*, Princeton, 21-22; asst. prof., Virginia, 22-24, assoc. prof., 24-26; *research assoc.*, *Princeton*, 26- Second lieut., research div, C.W.S., 17-19. A.A.; Chem. Soc. Contact catalysis; chemical equilibria; molecular volumes.
- Pease, Dr. V(innie) A(rah)**, U. S. Department of Agriculture, Washington, D. C. *Botany*. Blue Earth, Minn. B.S., Puget Sound, 07; M.S., Washington (Seattle), 16; Ph.D., Minnesota, 19. Teaching fellow, Washington (Seattle), 14-16; asst. bot., Minnesota, 16-20; *microanalyst, bur. chem.*, *U. S. Dept. Agr.*, 20- A.A.; Bot. Soc.; Agr. Chem.; Micros. Soc. Microscopy; economic plants; algae; evergreen leaves.
- Peaslee, Willis Dhu Aine**, 149 Harrison St., East Orange, N. J. *Electrical engineering*. Grass Valley, Calif., June 19, 87. A.B., Stanford, 09; E.E., Oregon Col., 16; diploma, Paris, 18. Test. engineer, Gen. Elec. Co., 10-11, asst. to sales manager, Portland branch, 11-14; asst. prof. elec. eng., in charge lab. and research, Oregon Col., 14-17; *elec. engineer and acting gen. manager*, *Jeffery-Dewitt Insulator Co*, 19-, gen. manager, 19-21; asst. to *pres*, *Daven Radio Corp.*, *director and v. pres.*, *Am. Construction Co.*, and *director*, *Interurban Elec. Co.*, 25- Consulting engineer, 14-17; chief engineer, Belden Mfg. Co., 22-24; *pres*, Terlee Elec. and Mfg. Co., 24. C.Eng., U.S.A., 17-19; tech. attaché, Am. Commission to

- Negotiate Peace. Elec. Eng; Illum. Eng. Soc; assoc. Mech. Eng; Nat. Elec. Light Ass; N. Y. Eng. Club; Soc. des Ing. civils de France; Soc. française des Elec. High voltage transmission; gas power; hydraulics.
- Peattie, Prof. Roderick**, 1601 Perry St, Columbus, Ohio. *Geography*. Omaha, Nebr, Aug. 1, 91. B.S, Chicago, 14; Ph.D, Harvard, 20. *Asst. prof. geol*, Williams, 19-20; *Ohio State*, 20-24, *geog*, 24- Lecturer, California, Clark. Fel. Geog. Soc; Meteor. Soc. Geography of lower St. Lawrence Valley and Ohio; college geography; geographic study in the origins of modern culture.
- Pechstein, Prof. L(ouis) A(ugustus)**, University of Cincinnati, Cincinnati, Ohio. *Psychology, Education*. Clinton, Mo, Oct. 30, 88. A.B, B.S, Missouri, 12; fellow, Chicago, 14-16, Ph.D, 16. Teacher, pub. and nor. schools, 08-14; asst. psychol, Chicago, 14-16; *prof. psychol. and educ. and head dept*, Rochester, 16-22; *educ. and dean col. educ*, Cincinnati, 22- Capt, Sanit.C. A.A. (v. pres, 25); Psychol. Ass; Nat. Educ. Ass. (pres, city training sect, 25); Soc. Col. Teachers Educ; Rochester Acad. Educational psychology; motor learning; mental tests; memory; retention; adolescent and child psychology.
- Peck, Prof. Albert B(ecker)**, University of Michigan, Ann Arbor, Mich. *Mineralogy*. Syracuse, N. Y, Sept. 19, 92. A.B, Syracuse, 14; A.M, Michigan, 15, Ph.D, 25. *Asst. miner*, Michigan, 14-16, instr, 17; asst. and assoc. physicist, Bur. Standards, 17-20; *asst. prof. miner*, Michigan, 20- Miner. Soc. (treas, 19-24); Ceramic Soc. (chairman, Detroit sect, 24-25); Mich. Acad. Crystallography; the application of petrographic-microscopic methods to industrial research, especially ceramic microstructures; changes in the microstructures of minerals and ceramic bodies upon heating.
- Peck, Dr. E(dward) B(ates)**, 180 Lincoln Ave, Elizabeth, N. J. *Chemistry*. Essex, Vt, Aug. 13, 91. Ph.B, Brown, 12; M.S, Mass. Inst. Tech, 14; Ph.D, Clark, 16. *Asst. chem*, Worcester, 12-13; instr, Minnesota, 16-17; asst. chemist, U. S. Bur. Mines, 17; *research chemist*, Roessler and Hasslacher Chem. Co, 19-22; *Standard Oil Co. of N. J.*, 22- Summer, junior chemist, Bur. Standards, 16. Lieut, C.W.S, 18. A.A; Chem. Soc. Metallic state; thermodynamics; catalysis.
- Peck, Prof. Morton E(aton)**, Willamette University, Salem, Oregon. *Botany*. La Porte City, Iowa, March 12, 71. A.B, Cornell (Iowa), 95, A.M, 11. Instr. *biol*, Marionville, 96-97; *prof*, Ellsworth, 97-05; Iowa Wesleyan, 07-08; *Willamette*, 08- Bot. collector, British Honduras, 05-07. Bot. Soc; Cooper Ornith. Club; fel. Iowa Acad. Taxonomy and distribution of seed plants.
- Peck, S(amuel) S(todole)**, Alexander and Baldwin, Honolulu, Hawaii. *Chemistry*. San Francisco, Calif, May 18, 70. B.S, California, 90, Ph.G, 92; Tulane, 99. Chemist, Exp. Sta, Hawaiian Sugar Planters' Ass, 00-15; *consulting chemist*, Alexander and Baldwin, Ltd, 15- A.A; Chem. Soc; Ass. Hawaiian Sugar Tech. Agricultural chemistry; manufacture of sugar in Hawaii.
- Pedersen, Dr. Frederick M(alling)**, 520 W. 114th St, New York, N. Y. *Mathematical physics*. New York, Feb. 12, 69. B.S, Col. City of N. Y, 89; E.E, Columbia, 93; M.S, N. Y. Univ, 02, Sc.D, 05. Asst. engineer, Crocker Wheeler Co, 93-99; tutor *math*, Col. City of N. Y, 99-02, instr, 03-10, asst. prof, 10-21, *assoc. prof*, 21- Math. Soc; Math. Ass. The influence of molecular structure upon the internal friction of gases.
- Peebles, Dr. Florence**, 481 N. Pasadena Ave, Pasadena, Calif. **Biology*. Pewee Valley, Ky, June 3, 74. A.B, Goucher, 95; Mary E. Garrett scholar, Bryn Mawr, 95-96, fellow, 96-97, Mary E. Garrett European fellow at Halle and Munich, 98-99, Ph.D, 00; Am. Woman's table, Naples Zool. Sta, 98, 01, 07, 13; Bonn, 05; Würzburg, 11; Freiburg, 13. Student asst. biol, Bryn Mawr, 97-98; instr, Goucher, 99-02, *assoc. prof*, 02-06; lecturer, Bryn Mawr, 13; *prof. biol*, Tulane, 15-17; *assoc. prof. physiol*, Bryn Mawr, 17-19. Soc. Nat. Regeneration of hydroids; embryology; life history of Haematococcus; acelous flatworms; growth accelerators.
- Peek, F(rank) W(illiam), Jr**, 35 Waverly St, Pittsfield, Mass. *Electrical engineering*. Mokenlumne Hill, Calif. A.B, Stanford, 05; M.E.E, Union, 11. *Consulting and research engineer*, Gen. Elec. Co. Thomas Fitch Rowland prize, Civil Eng, 23; Louis Edward Levy medal, 26. A.A; fel. Elec. Eng. (ed, 'Trans,' 11-25); fel. Physical Soc; Franklin Inst. Electrophysics; dielectric phenomena in high voltage engineering; law of corona; lightning; insulations.
- Peele, Prof. Robert**, 490 West End Ave, New York, N. Y. *Mining engineering*. New York, E.M, Columbia, 83. Field work, U. S. Peru, Bolivia, Colombia and Dutch Guiana, 83-92; adjunct *prof. mining*, Columbia, 92-04, *prof*, 04-25, *emer. prof*, 25- Min. Eng; Min. and Metal. Soc; hon. mem. British Min. and Metal. Inst. Compressed air plant; mining engineer's handbook.
- Peffer, Prof. H(arry) C(reighton)**, Purdue University, Lafayette, Ind. *Chemical engineering*. Enon Valley, Pa, Aug. 15, 73. B.S, Pa. State, 95, M.S, 08. Chemist, Carnegie Steel Co, Pa, 95-96; control chemist, Pa. Salt Mfg. Co, 96-00; chemist and supt, Aluminum Co. of Amer, Pa, 00-03, gen. supt. and director research, Ill, 03-08; consulting chemist, 08-11; *prof. and head sch. chem. eng*, Purdue, 11- Board management, Eng. Exp. Sta, Purdue; park commissioner, E. St. Louis, Ill; Ind. Gas Standards Commission, 16-18. Organization manager, U. S. Explosives Plant, 17- Soc. Test. Mat. (committee nat. building stones). Commercial metallurgy; fuel technology; electrochemistry; staining and efflorescence of Indiana limestone.
- Pegau, Dr. A(rthur) A(ugust)**, University of Virginia, University, Va. *Geology*. Port Walhall, Va, March 17, 94. A.B, Virginia, 19, A.M, 21; Ph.D, Cornell, 24. Asst. chem, Virginia, 19-20, *geol*, 20-22, *asst. prof*, 24- A.A; Miner. Soc; Va. Acad. The pegmatites and minerals of Virginia.
- Pegram, Dr. Geo(rge) B(raxton)**, Columbia University, New York, N. Y. **Physics*. Trinity, N. C, Oct. 24, 76. A.B, Trinity (N. C), 95,

- hon. Sc.D, 15; Columbia, 99-00, Ph.D, 03; Berlin; Cambridge. Teacher, high schools, N. C, 95-99; asst. *physics*, Columbia, 00-02, tutor, 02-05, instr, 05-09, adjunct prof, 09-13, assoc. prof, 13-16, *prof*, 16-, *dean faculty applied science*, 17- Magnetic observer, U. S. Coast and Geod. Surv. 02-06. A.A.; Physical Soc. (treas, 18-); Optical Soc; Eng. Educ. (pres, 25); assoc. Radio Eng; N. Y. Acad. (chairman, sect. astron, chem. and physics, 17-19). Radioactivity and electromagnetic theory.
- Pegram, Geo(rge) H(erndon)**, 165 Broadway, New York, N. Y. *Civil engineering*. Council Bluffs, Iowa, Dec. 29, 55. C.E, Washington (St. Louis), 77, hon. A.M, 05. *Chief engineer*, Edgemoor Iron Co, 80-86; U. P. Ry, 93-98; Manhattan Ry. Co, New York, 98-05; *Interborough Rapid Transit Co, Rapid Transit Subway Construction Co. and N. Y. Railways Co*, 05- Civil Eng. (v. pres, 09, pres, 17); Omaha Tech. Club (past pres). Bridges and track.
- Pellemeier, Prof. W(alter) H(enry)**, 234 S. Gill St, State College, Pa. *Physics*. Freelandville, Ind, Feb. 6, 89. A.B, Michigan, 16, A.M, 19. Instr. *physics*, Kansas Col, 16-18; Michigan, 18-20; asst. prof, Pa. State, 20-23, *assoc. prof*, 23- A.A.; Physical Soc. High frequency sound absorption.
- Pierce, Prof. G(eorge) J(ames)**, Stanford University, Calif. **Plant physiology*. Manila, P. I, March 13, 68. B.S, Harvard, 90, Parker fellow, 92-94; Ph.D, Leipzig, 94. Asst. bot, Harvard and Radcliffe, 90-92; asst. prof, Indiana, 95-97; *Stanford*, 97-00, assoc. prof. plant physiol, 00-10, *prof. bot*, 10- Collaborator, U. S. Forest Service, 09-10; special agent effects of smoke on vegetation, U. S. Dept. Justice, 10-11. A.A.; Bot. Soc; Bot. Gesell. Physiology; respiration; irritability; parasitic flowering plants; effect of smelting and other smoke, cement, etc, on vegetation.
- Pierce, Dr. Sidney J(ames) S(hepard)**, 1608 Lorne Ave, Brandon, Man, Can. *Pathology*. Southampton, Eng. B.A, Manitoba, 98, M.D, C.M, 04. Intern, Winnipeg Gen. Hosp, 04-06; voluntary path. asst, Mayo Clinic, 07-08; *pathologist*, Winnipeg Gen. Hosp, 08-17; *Bigelow Clinic, Brandon*, 17- Bacteriologist, Brandon, 18-; lecturer, Man. Med. Col, 08-15, assoc. prof, 15-17. Analyst, Man. Liquor Commission, 25- Board Governors, Brandon Gen. Hosp. A.A.; Ass. Path. and Bact; Soc. Bact; Soc. Control Cancer; Can. Med. Ass; Man. Med. Ass. (pres, 23); Int. Ass. Med. Mus. Anti-typhoid inoculation; cholesterol in bile and blood.
- Pearson, H(enry) B(yron)**, Maine Forest Service, Augusta, Maine. *Entomology*. Orange, Mass, Dec. 10, 94. B.S, Mass. Col, 19; M.S, Harvard, 20. Research asst, Harvard Forest Sch, 20-21; *state forest entomologist, Maine*, 21- Agent, U. S. Forest Service, 23-24. Ass. Econ. Entom; Soc. Foresters. Forest entomology.
- Pellett, Frank C(hapman)**, Box 376, Hamilton, Ill. *Apiculture*. Atlantic, Iowa, July 12, 79. State apiarist, Iowa, 12-17; *assoc. ed*, 'Am. Bee Jour', 18- A.A.; Ass. Econ. Entom; Iowa Acad; Apis Club, England (hon. v. pres).
- Productive beekeeping; practical queen rearing; American honey plants.
- Pellini, Prof. Emil J(ohn)**, 338 E. 26th St, New York, N. Y. *Pharmacology*. Dec. 6, 88. M.D, N. Y. Univ, 15. Asst. *pharmacol*, *Bellevue Med. Col*, 15, instr, 15-17, asst. prof, 17-23, *assoc. prof*, 23- Asst. prof, N. Y. State Vet. Col, Cornell, 19-20; assoc. prof, col. dent, N. Y. Univ. Am. Med. Ass; Soc. Exp. Biol; Ass. Mil. Surg; Soc. Prev. and Relief of Heart Disease; N. Y. Acad. Med; Harvey Soc. Diuretics; narcotic addiction; capillary poisons; acidosis; digitalis; cardiac disease; emetine.
- Peltier, Prof. Geo(rge) L(eo)**, University of Nebraska, Lincoln, Nebr. *Plant pathology*. Merrill, Wis, May 8, 88. A.B, Wisconsin, 10; A.M, Washington (St. Louis), 12; Ph.D, Illinois, 15. Teacher, high sch, Wis, 10-11; teaching fellow, Shaw Sch. Bot, Washington (St. Louis), 11-12; assoc. floricultural path, Illinois, 12-16; *prof. plant path*, Ala. Polytech, and *plant pathologist*, Exp. Sta, 16-20; *Nebraska and Exp. Sta*, 20- Summers, agent, bur. entom. U. S. Dept. Agr, 11, plant pathologist, bur. plant indust, 24, agent, 19-20. Assoc. ed, 'Phytopathology', 19-22. A.A.; Phytopath. Soc; Bot. Soc; Wis. Acad; Nebr. Acad. (pres, 27). Diseases of floricultural and ornamental plants; Rhizoctonia; citrus canker; stem rust of wheat; Ozonium relation of environment to disease.
- Peltier, Leslie C(opus)**, Delphos, Ohio. *Astronomy*. Delphos, Jan. 2, 00. High sch. Astron. Soc; Ass. Variable Star Observers. Variable stars and novae; comets; telescopic meteors; aurora borealis.
- Pelton, W(ard) C(leveland)**, University of Tennessee, Knoxville, Tenn. *Horticulture*. Erie, Pa, Aug. 27, 88. B.S, Pa. State, 11. Asst. horticulturist, Del. Exp. Sta, 11-13; exten. expert market gardening, Rutgers, 13-14; agr. agent, Sussex Co, Del, 14-17; investigator olericulture, Conn. Exp. Sta, 17-20; prof. veg. gardening, Pa. State, 20-23; instr. hort, rehabilitation div, Delaware, 23-25; *exten. horticulturist, Tennessee*, 25- Soc. Hort. Sci. Cover crops; uniformity of crops.
- Pember, F(rederick) R(ussell)**, Rhode Island Experiment Station, Kingston, R. I. *Botany*. Putney, Vt, Jan. 27, 77. B.S, Vermont, 00, M.S, 08. Asst. soil fertility, bur. soils, U. S. Dept. Agr, 03-06; plant physiol, R. I. Exp. Sta, 06-23. A.A. Toxicology; plant physiology; nutrient requirement of plants; availability of fertilizer ingredients.
- Pemberton, C(yril) E(ugene)**, Experiment Station, Hawaiian Sugar Planters' Association, Honolulu, Hawaii. *Entomology*. Los Angeles, Calif, Aug. 12, 86. A.B, Stanford, 11. Agent and expert, bur. entom. U. S. Dept. Agr, 11, sci. asst, 12-16, entom. asst, 16-18; asst. entomologist, *Exp. Sta, Hawaiian Sugar Planters' Ass, Honolulu*, 19-23, *assoc. entomologist*, 23- Beneficial insect exploration and collection, Australia and Fiji, 21-22, Malay Archipelago, 25-; rodent control, Hawaiian cane fields, 23-24. Assoc. Ass. Econ. Entom; Hawaiian

- Entom. Soc. (pres, 18). Citrus fruit insects; fruit flies in Hawaii; sugarcane leaf-hopper.
- Pemberton, Dr. Ralph**, 2122 Sansom St, Philadelphia, Pa. *Medicine*. Sept. 14, 77. B.S, Pennsylvania, 98, M.S, 99, M.D, 03, Woodward fellow, 08-10. Asst. visiting neurologist, Phila. Gen. Hosp, 05-08; out-patient physician, Presb. Hosp, Phila, 05-13; asst. instr. and instr. med, Pennsylvania, 06-11; asst. visiting physician, Univ. Hosp, 10-11; *visiting physician, Presb. Hosp, 13-*, director dept. *metabolic diseases*. Dept. Health, Phila, 20-22. Assoc. ed, 'Jour. Metabolic Diseases.' Major, M.C, 18-19. Am. Med. Ass. (council physical therapy); fel. Col. Physicians; Soc. Clin. Invest. (treas, 20-23); Soc. Exp. Biol; Acad. Nat. Sci. (ed, 'Jour'); Franklin Inst; Phila. Col. Physicians; Phila. Physiol. Soc; Phila. Acad. Internal medicine; biochemistry; chronic arthritis.
- Pence, Forrest K(izer)**, 1916 Jefferson St, Paducah, Ky. *Ceramic chemistry*. Sidney, Ohio, Nov. 30, 83. B.S, Ohio Northern, 03; A.B, Ohio State, 07, Cer.E, 09. Ceramic engineer, Am. Encaustic Tiling Co, 09-12; prof. ceramic eng, Ohio State, 12-13; ceramic engineer and supt. manufacture, Am. Encaustic Tiling Co, 13-21; *consulting ceramic engineer, 21-*; *pres, Paducah Tile and Pottery Co, 23-* Ceramic Soc; Chem. Soc. Matness in glazes; dust pressed bodies; colors produced by nickel oxid in ceramic mixtures containing zinc; hydrated silicic acid in clays; zinc in underglaze colors containing chromium; tiles; pyrometry of clay wares.
- Pender, Dr. Harold**, University of Pennsylvania, Philadelphia, Pa. **Electrical engineering*. Tarboro, N. C, Jan. 13, 79. A.B, Hopkins, 98, Ph.D, 01; Sorbonne, 03; hon. Sc.D, Pennsylvania. Teacher, McDonogh Sch, 01-02; instr. physics, Syracuse, 02-03; elec. engineer, Pittsburgh, 03-04; New York, 04-09; prof. theoret. and applied elec, Mass. Inst. Tech, 09-13; director research div, dept. elec. eng, 13-14; prof. in charge, *Pennsylvania, 14-23, dean, Moore sch. elec. eng, 23-* Ed-in-chief, 'Pender's Handbook for Elec. Engineers,' 14. Fel. Elec. Eng. (manager, v. pres, 15-18); Philos. Soc; Am. Acad; Franklin Inst. Electricity and magnetism for engineers; electrical convection; electric transmission of power; direct current machinery.
- Pendleton, Pres. Ellen Fitz**, Wellesley College, Wellesley, Mass. *Mathematics*. Westerly, R. I, Aug. 7, 64. A.B, Wellesley, 86, A.M, 91; Cambridge, 89-90; D.Litt, Brown, 11; LL.D, Mt. Holyoke, 12, Smith, 25. Tutor and asst. math, *Wellesley, 86-88, instr, 88-97, sec'y, 97-01, dean and assoc. prof. math, 01-11, pres, 11-A.A.*
- Pendleton, Dr. Robert L(arimore)**, College of Agriculture, Los Baños College P. O, P. I. *Agronomy*. Minneapolis, Minn, June 25, 90. B.S, California, 14, fellow, 16-17, Ph.D, 17. Asst. soil surv, California, 14-15; instr. soils, Ewing Christian, India, 18; asst. and officiating director agr, Gwalior State, India, 19-21, director, 21-23; *prof. soil technol. col. agr, Philippines, 23-* Indian Cent. Cotton Committee, 21-23;
- Indian Board Agr, 19-23. Capt, C.W.R.S. A.A; Soc. Agron; Chem. Soc. Soil surveys; soils of central India and the Philippines; tropical soils.
- Penland, Prof. C(harles) William (Theodore)**, 1332 N. Tejon St, Colorado Springs, Colo. *Biology*. Baggs, Wyo, Dec. 5, 99. A.B, Wyoming, 20; A.M, Harvard, 22, Ph.D, 25. Instr. *biol*, Colo. Col, 22-24; Austin teaching fellow, Harvard, 24-25; *asst. prof, Colo. Col, 25-A.A.* Cytology, morphology and taxonomy of the seed plants.
- Pennell, Dr. Francis W(hittier)**, Academy of Natural Sciences, Philadelphia, Pa. *Botany*. Wawa, Pa, Aug. 4, 86. B.S, Pennsylvania, 11, Ph.D, 13, fellow, 13-14. Assoc. curator, N. Y. Bot. Garden, 14-21; *curator plants, Phila. Acad. Nat. Sciences, 21-* Bot. expeditions, U. S, 12, 13, 15, 17, 20, 23-26; Colombia, 17-18, 22; Peru and Chile, 24-25. Bot. Soc; Am. Geog. Soc; Pa. Bot. Soc; Torrey Bot. Club (sec'y-treas, 19-21); Phila. Bot. Club; Phila. Geog. Soc. Scrophulariaceae.
- Pennington, Prof. L(eigh) H**, New York State College of Forestry, Syracuse, N. Y. *Botany*. Macon, Mich, Oct. 26, 77. A.B, Michigan, 07, Ph.D, 09. Asst. *bot*, Michigan, 06-09; instr, Northwestern, 09-10; asst. prof, Syracuse, 10-12, assoc. prof, 12-14; *prof, N. Y. State Col. Forestry, Syracuse, 14-* A.A; Bot. Soc; Phytopath. Soc; Soc. Foresters; N. Y. Forestry Ass. Mycology; forest pathology.
- Pennington, Dr. Mary E(ngle)**, 51 Chambers St, New York, N. Y. **Chemistry*. Nashville, Tenn, Oct. 8, 72. Ph.D, Pennsylvania, 95, fellow, 95-97, research, 98-01; fellow, Yale, 97-98. Director chem. lab, Woman's Med. Col. of Pa, 98-06; chief, Phila. Clin. Lab, 01-07; chief food research lab, bur. chem, U. S. Dept. Agr, 08-19; manager research and develop. div, Am. Balsa Co, Inc, 19-23. Bacteriologist, Bur. Health, Phila, 04-07; bacter. chemist, bur. chem, U. S. Dept. Agr, 05-07. A.A; Chem. Soc; Soc. Biol. Chem; Soc. Bact; Refrig. Eng. Columbium and tantalum; tungsten; chemico-physiology of *Spirogyra nitida*; diphtheria; chemico-bacteriology of milk; physiological chemistry; chemical, bacteriological and histological study of flesh foods; food refrigeration.
- Pennock, C(harles) J(ohn)**, Kennett Square, Pa. *Ornithology*. Kennett Square, Nov. 18, 57. Cornell, 76-79. *Ornithologist, Del. State Board Agr, 03-* Ornith. Union; Cooper Ornith. Club; Wilson Ornith. Soc; Del. Valley Ornith. Club (past pres); Del. Nat. Hist. Soc; cor. mem. N. Y. Linnean Soc. Birds of Delaware; migration of birds; birds of Wakulla County, Florida.
- Pennypacker, Dr. John Y(oung)**, 5730 N. 16th St, Philadelphia, Pa. *Botany*. Kimberton, Pa, May 29, 85. B.S, Pennsylvania, 11, A.M, 12, Ph.D, 15. Instr. *bot*, Cent. High Sch. Phila, 12-15; asst. prof, *Germantown High Sch, 15-20, prof, 20-* Pa. Bot. Soc. Plant morphology and variation.
- Penrose, Prof. R(ichard) A(lexander) F(ullerton)**, Jr, Bullitt Building, Philadelphia, Pa.

- **Geology*. Philadelphia, Dec. 17, 63. A.B, Harvard, 84, A.M, Ph.D, 86. U. S. Geol. Surv, 85-86; asst. geologist, Texas Geol. Surv, 88-89; Ark. Geol. Surv, 89-92; lecturer econ. geol., Stanford, 93; assoc. prof., Chicago, 92-95, prof., 95-11. Geologist, U. S. Geol. Surv, 94-96; assoc. museum, Harvard, 03-06, visiting committee, dept. geol. miner. and petrog, 15-23, 25-Co-editor, 'Jour. Geol.' Committee on Hayden Mem. Award, 02-; trustee, Pennsylvania, 11-; committees, div. geol. and geog, Nat. Research Council, 17-23. Delegate, Int. Geol. Cong, Stockholm, 10; Toronto, 13; Brussels, 22. A.A. (sec'y, E, 01); Geol. Soc. (councilor, 13-16, v. pres, 19); Soc. Econ. Geol. (pres, 20); Philos. Soc. (councilor, 13, publication committee, 03-); Wash. Geol. Soc.; Wash. Acad.; Phila. Acad. (pres, 22-26); Colo. Sci. Soc.; Royal Geog. Soc. Economic and chemical geology; nature and origin of ore deposits.
- Pepper, Dr. O(liver) H(azard) Perry**, 906 Medical Arts Building, Philadelphia, Pa. *Medicine*. St. Davids, Pa, 84. B.S, Pennsylvania, 05, M.D, 08. Asst. prof. med, Pennsylvania, 20-Asst. physician, Univ. Hosp, 12- Am. Med. Ass; Am. Physicians; Ass. Path. and Bact; Soc. Exp. Biol; Soc. Clin. Invest; Phila. Col. Physicians; Phila. Path. Soc.
- Pepper, Dean William**, Prospect Ave, Melrose Park, Philadelphia, Pa. *Medical education*. Philadelphia, 74. A.B, Pennsylvania, 94, M.D, 97. Asst. prof. clin. path, Pennsylvania, 08-18, dean sch. med, 12- Trustee, Phila. Free Library. Am. Med. Ass. (council on med. educ. and hospitals, 17-27); Ass. Med. Col. (pres, 20); Phila. Col. Physicians.
- Perdew, W(illiam) E(dward)**, 353 N. Lawrence St, Wichita, Kans. *Chemical engineering*. Monte Vista, Colo, May 1, 89. A.B, Stanford, 11. Chemist and chem. engineer, South. Pacific Ry. Co, 11-17; chem. engineer, U. S. Bur. Mines, 17-19; Union Petrol. Co, Pa, 19-24; Derby Oil Co, 24- Mem. inter-allied commissions on petroleum. A.A.; Chem. Soc; Petrol. Inst. Petroleum technology; oil shale.
- Perisho, Ellwood C(happelle)**, Guilford College, N. C. *Geology*. Westfield, Ind. B.S, Earlham, 87, A.M, 00; fellow, Chicago, 93-95, M.S, 95. Prof. math, Guilford, 88-93; geol, South Dakota, dean col. arts and sciences, and state geologist, S. Dak, 03-14; pres, S. Dak. Col, 14-19; lecturer, dept. educ, Inter-Church World Movement, 20-21; prof. geol, Guilford, 21-Govt. lecturer, 18-19; Educ.C, U.S.A, and mem. faculty, A.E.F. Univ. Beaune, 18-19. Early erosion history of southwestern Wisconsin; lead and zinc ores in southwestern Wisconsin; general geological conditions in South Dakota; geology of the Rosebud Reservation; South Dakota artesian basins and its wells.
- Perkins, Dr. Alfred T(homas)**, Kansas State Agricultural College, Manhattan, Kans. *Soil chemistry*. Lansdowne, Pa. B.S, Pa. State, 20; M.S, Rutgers, 22, Ph.D, 23. Asst. prof. soil chem, Kansas Col, 25- A.A.; Chem. Soc; Int. Soc. Soil Sci. Acidity and adsorption in soils; soil solutions and nodulation of legumes.
- Perkins, Dr. Cha(rle)s A(ibert)**, 1547 W. Clinch Ave, Knoxville, Tenn. **Physics*. Ware, Mass, Oct. 31, 58. A.B, Williams, 79; fellow, Hopkins, 83-84, Ph.D, 84. Prof. math, Lawrence, 80-81; asst. physics, Hopkins, 84-87; assoc, Bryn Mawr, 87-91; prof, Hampden-Sidney, 91-92; physics and elec. eng, Tennessee, 92-07, elec. eng, 07- Nat. Conference of Electricians, Phila, 84. Elec. Eng. Magnetism of nickel; vapor tension of sulphuric acid; electricity; magnetism.
- Perkins, Prof. Edward H(enry)**, Box 52, Waterville, Maine. *Geology*. Grasmere, N. H, June 2, 86. B.S, Wesleyan, 12; Ph.D, Yale, 19. Instr. chem. and geol, R. I. Col, 15-18, assoc. prof, 18-19; prof, Western Ontario, 19-20; assoc. prof, Colby, 20-25, prof, 25- Soc. Mammal; Ornith. Union. Ornithology; mammalogy; geology of Maine.
- Perkins, Prof. G(eorge) H(enry)**, University of Vermont, Burlington, Vt. *Geology, Anthropology*. Cambridge, Mass, Sept. 25, 44. A.B, Yale, 67, Ph.D, 69; LL.D, Vermont, 11; Litt.D, Knox, 12. Howard prof. nat. hist, Vermont, 69-, dean dept. arts, 95-, acting pres, 17-20; state geologist, Vt, 98- A.A. (sec'y, H, 82, 83, 96, v. pres, E, 17); Geol. Soc; Anthropol. Ass; Ethnol. Soc. Archeology of New England; geology of Vermont; building stones; geological survey of Vermont; Ordovician rocks.
- Perkins, Dr. Granville A(kers)**, Institute of American Meat Packers, 509 S. Wabash Ave, Chicago, Ill. *Chemistry*. Lin Ching, China, Oct. 2, 91. A.B, Cornell, 13; Ph.D, Pittsburgh, 17. Instr. chem, Porto Rico, 13-15; junior chemist, bur. chem, U. S. Dept. Agr, 15; instr. chem, Pittsburgh, 15-17; research chemist, E. I. du Pont de Nemours and Co, 17; chemist, Bur. Science, P. I, 19-22; chief chemist, Culion Leper Colony, 22-27; research chemist, Inst. Am. Meat Packers, 27- Lieut. C.W.S, 17-18. Chem. Soc. Phthalic acid derivatives; war gases; chaulmoogra-group oils and acid; chemistry of leprosy therapy.
- Perkins, Prof. Henry A(ugustus)**, 55 Forest St, Hartford, Conn. *Physics*. Hartford, Nov. 14, 73. A.B, Yale, 96, 00, 02; E.E, A.M, Columbia, 99; Paris, 08-09. Hartford Elec. Light Co, 99-00; lab. asst. physics, Yale, 01-02; prof, Trinity (Conn), 02-, acting pres, 15-16, 19-20. A.A; Physical Soc; assoc. Elec. Eng; Explorers' Club; Am. Alpine Club; Soc. de Physique. Velocity of propagation of magnetism; theory of Wheatstone's bridge sensibility; efficiency of sparking apparatus; rectification effect in Geissler tube discharge; discontinuity in electric discharges; variation of resistance of metallic films with electrostatic charge; thermodynamics.
- Perkins, Prof. H(enry) F(arnham)**, 205 S. Prospect St, Burlington, Vt. *Zoology*. Burlington, May 10, 77. A.B, Vermont, 98; Ph.D, Hopkins, 02. Instr. zool, Vermont, 02-05, asst. prof, 05-12, prof, 12- Research asst, Carnegie Institution, 03-04; sci. asst, U. S. Bur. Fisheries, 06, 08; director eugenics surv, Vt, 25- A.A; Soc. Nat; Soc. Zool; Eugenics Soc; Audubon Soc. Morphology and embryology of Medusae; freshwater mollusks; animal behavior; eugenics.

- Perkins, Dr. Jay**, 106 Waterman St, Providence, R. I. *Medicine, Anatomy*. Penobscot, Maine, Oct. 15, 64. Colby, 87-88; M.D., Harvard, 91; Vienna, 98. House physician, R. I. Hosp, 91-93; Boston Lying-in Hosp, 93-94; pathologist, R. I. Hosp, 94-00; demonstrator human anat., Brown, 97-05; physician to out-patients, dept. pulmonary tuber, R. I. Hosp, 00-20. Bacter. work, R. I. State Board Health, 94-05; med. examiner, Dist. No. 10, Providence Co, R. I, 96-09; visiting physician, St. Joseph's Hosp, 06-24; Providence City Hosp, 15-24; consulting physician, R. I. St. Joseph's and Pawtucket Mem. Hospitals. Am. Med. Ass; Climat. Ass; R. I. and Mass. Medico-Legal Soc. (pres, 97-99); Providence Tuber. League (pres, 06). Air embolism; tuberculosis; fresh-air schools; asthma; pituitary dysfunctioning.
- Perkins, Prof. Nellie L(ouise)**, 520 Thurston Ave, Ithaca, N. Y. *Psychology*. Chicago, Ill, Aug. 5, 89. A.B., Michigan, 12, Ph.D, 25; Chicago, 12-14. Instr. psychol, Michigan, 14-16; director, Wayne County Psychopath. Clinic, Mich, 16-25; *prof. child training and director nursery sch, Cornell*, 25- Exten. prof, Michigan, 21-23. Mich. Acad. Child training; mental hygiene of childhood; psychology of learning; emotional development; pathological reactions.
- Perkins, Dr. O(rman) C(larence)**, 1279 E. 19th St, Brooklyn, N. Y. *Medicine*. Newburg, Maine, April 23, 92. A.B., Bates, 15; A.M., Columbia, 17; M.D., L. I. Col. Hosp, 21. Instr. biol, Bates Col, 15-16; comp. anat, Columbia, 16-20, neur, 21-26; anat, L. I. Col. Hosp, 16-17, 20-21, bacter, 17-18, asst. prof, 21-23, assoc. prof. anat. and assoc. neur, 23-26, *prof. and attending neurologist*, 26- Attending neurologist, Kingston Ave. and Caledonian Hospitals; asst. neurologist, Kings Co. Hosp. A.A.; Am. Med. Ass; Ass. Anat; Brooklyn Neur. Soc; Brooklyn Path. Soc. Bacteriology; anatomy; neurology.
- Perkins, Prof. Perry B(laine)**, Standard Life Assurance Co, St. John, N. B., Can. *Physics*. Centreville, N. B., April 16, 77. B.A., New Brunswick, 02; Harvard, 03; A.M., Yale, 04, fellow, 06-08, Ph.D, 08; Göttingen, 12; fellow, Sir Ernest Rutherford's lab, Manchester, 13-14. Prin. schools, Can, 95-99; Leland and Gray Sem, 04-05; prof. physics, Western Maryland, 05-06; substitute prof, Trinity (Conn), 08-09; prof, Howard, 09-13; asst. prof, Brown, 14-17; prof, Mt. Allison; *manager, Standard Life Assurance Co*. Governor general's gold medal, 02. A.A.; Physical Soc; N. S. Inst. Radioactivity; ionization; action of X-rays and Y-rays on fungi.
- Perkins, Dr. R(oger) G(riswold)**, Western Reserve University School of Medicine, Cleveland, Ohio. *Preventive medicine*. Schenectady, N. Y., May 17, 74. A.B., Union (N. Y.), 93, A.M., 24; A.B., Harvard, 94; M.D., Hopkins, 98; fellow, Rockefeller Inst, 01-02. Res. pathologist, Lakeside Hosp, Cleveland, 98-01; demonstrator path, sch. med, *Western Reserve*, 99-01, asst. path. and lecturer bacter, 01-04, lecturer, dental sch, 01-04, prof, 04-06, asst. prof. path. and bacter, *sch. med*, 04-08, assoc. prof. path. and hygiene, 08-10, *prof. hygiene and prev. med*, 10- Chief bur. laboratories, Cleveland Div. Health, 12-, consultant to commissioner of health, 24- Major, Red Cross Commission, Roumania, 17-18, Balkans, 19; med. assoc. to sci. attaché, Am. Embassy, Paris, 18. A.A.; Soc. Bact; Pub. Health Ass; Am. Med. Ass; Water Works Ass; Cleveland Acad. Med. Scarlet fever epidemiology; seasonal variation of epidemics.
- Perlzweig, Dr. W(illiam) A(lexandre)**, Johns Hopkins Hospital, Baltimore, Md. *Biochemistry*. Ostrog, Russia, April 23, 91. B.S., Columbia, 13, A.M., 14, Ph.D, 15. Asst. biochem. and research asst, Columbia, 13-16; director chem. lab, Beth Israel Hosp, 16; research chemist, Rockefeller Inst, 16-17; asst. prof. elect. biochem, Creighton, 17; biochemist, U. S. Pub. Health Service, 19-21; instr. and *assoc. med, Hopkins, and chemist, med. clinic, Hopkins Hosp*. Lieut. Sanit.C, 17-19. A.A.; Soc. Biol. Chem; Soc. Exp. Biol; Chem. Soc. Nutrition; mineral metabolism; immunochemistry; pathological chemistry.
- Permar, Prof. H(oward) H(enry)**, University of Pittsburgh, Pittsburgh, Pa. *Pathology, Bacteriology*. Pittsburgh, Aug. 27, 89. M.D., Pittsburgh, 12. House pathologist, Mercy and Magee Hospitals, Pittsburgh, 13-16; instr. *path, Pittsburgh*, 16-19, asst. prof, 19-22, *assoc. prof*, 22- Capt. and major, M.C, 17-19. Ass. Path. and Bact; Soc. Bact; Soc. Exp. Path; Soc. Exp. Biol. Phagocytic mononuclear wandering cells in lung tissue; experimental pneumonia in the rabbit.
- Pernert, Dr. John C(arl)**, Phosphorus Compounds Co, Niagara Falls, N. Y. *Organic chemistry*. St. Louis, Mich, Oct. 15, 98. B.S., Michigan, 23, M.S., 24, Ph.D, 25. *Research and develop. chemist, Phosphorus Compounds Co*, 25- A.A.; Chem. Soc. Methylbiphenyls; free radicals.
- Perrin, Prof. F(leming) A(llen) C(lay)**, University of Texas, Austin, Texas. *Psychology*. La Harpe, Ill, April 29, 84. Ph.B., Chicago, 09, Ph.D, 13. Instr. *psychol*, Pittsburgh, 12-14, asst. prof, 14-17; adjunct prof, *Texas*, 17-25, *prof*, 25- Psychol. Ass. The learning process; character analysis; mental tests.
- Perrine, Prof. C(harles) D(illon)**, Argentine National Observatory, Cordoba, Argentina. *Astronomy*. Steubenville, Ohio, July 28, 67. High sch; Lick Observatory; hon. Sc.D, Santa Clara, 05. Business until 93; sec'y, Lick Observatory, 93-05, asst. astronomer, 95-05, astronomer, 05-09; *director, Arg. Nat. Observatory*, 09- Acting astronomer, Lick Observatory, 01. Lalande prize, Paris Acad, 97; gold medal, Soc. Astron. de Mex. A.A.; Astron. Soc; Pacific Astron. Soc. (pres, 02); for. assoc. Royal Astron. Soc; Astron. Gesell; Soc. astron. de France. Discovery, observations and orbits of comets; solar eclipse problems; observations for solar parallax; physical and other observations of the nebulae; discovery and observations of the sixth and seventh satellites of Jupiter; definitive orbit of comet 1895 IV; observations of southern nebulae and clusters; Wolf-Rayet and other early type stars.

- Perrine, Dr. Irving**, Petroleum Building, Oklahoma City, Okla. *Geology*. Wallkill, N. Y., Aug. 5, 84. A.B., Cornell, 07, A.M., 11, Ph.D., 12. Instr. geol., Cornell, 08-11; prof., Oklahoma, 12-15; chief geologist, Pierce Oil Corp., 15-16; *petrol. geologist and oil producer*, 17- Asst. state geologist, La., 08-09; field asst., U. S. Geol. Surv., 08-09; chief geologist, Marland Ref. Co., 13-14. A.A.; Ass. Petrol. Geol. (v. pres, 19); Okla. Acad.; Kans. Acad. Paleontology of the Claiborne Eocene; oil and gas in Louisiana, mid-continent and coastal fields; stratigraphy.
- Perrine, Dr. Norman**, U. S. Department of Agriculture, Washington, D. C. *Chemistry*. Lawrence, N. J., Jan. 14, 90. Ph.C., Phila. Col. Pharmacy, 12, Phar.D., 16. Laboratories, L. K. Liggett, N. Y., 12-14; biol. laboratories, H. K. Mulford, Pa., 14-18; *chem. and fumigation laboratories, fed. hort. board, U. S. Dept. Agr.*, 18- Wash. Entom. Soc. War gases as fumigants; gas absorption of foods; toleration of plant life toward fumigants; gases as insecticides.
- Perrott, G(eorge) St. J(ohn)**, U. S. Bureau of Mines, Pittsburgh, Pa. *Chemistry*. Grand Forks, N. Dak., July 29, 93. A.B., North Dakota, 11, A.M., 15; Princeton, 15-17. Chemist, Trent Process Corp., D. C., 20-21; physical chemist, *U. S. Bur. Mines*, 19-20, 21-25, *asst. chief explosives chemist*, 25- Consulting chemist, Co. de Real del Monte y Pachuca, Mex., 24; Cerro de Pasco Copper Corp., Peru, 25. Lieut., C.W.S., 18-19. Chem. Soc. Gas mask absorbents and fabrics; carbon black; coke carbonization and properties; liquid oxygen explosives; permissible explosives for use in coal mines.
- Perrow, Dr. Mosby G(arland)**, Lynchburg, Va. *Chemistry, Biology*. Campbell Co., Va., Sept. 20, 76. A.B., Washington and Lee, 97, A.M., 06, Ph.D., 08. Director science, pub. schools, Lynchburg, Va., 02-09, *city chemist and bacteriologist*, 06-, *health officer*, 10-, *director pub. welfare*, 20- A.A.; Am. Med. Ass.; Chem. Soc.; Pub. Health Ass.; Soc. Bact.; Anti-Tuber. League (pres, 05-15); Water Works Ass.; Va. Pub. Health Ass. (pres, 13); Va. Acad. Chemistry and bacteriology of milk; housefly; sewage; food preservation; infant mortality; filtration of water.
- Perry, Arthur C(ecil)**, 226 Halsey St., Brooklyn, N. Y. *Astronomy*. Rocky Hill, Conn., April 10, 52. Self-educated. *Cashier, U. S. Life Ins. Co.* Officer, astron. dept., Brooklyn Inst., 90-00. A.A.; British Astron. Ass. Variable stars.
- Perry, Dr. J(ohn) H(oward)**, E. I. du Pont de Nemours and Co., Wilmington, Del. *Chemistry*. Hampden, Maine, Nov. 10, 95. B.S., Maine, 17; M.S., Northwestern, 20; Ph.D., Mass. Inst. Tech., 22. Chemist, Maine Exp. Sta.; Am. Agr. Chem. Co.; U. S. Bur. Mines, 23-25; *E. I. du Pont de Nemours and Co.*, 25- Asst., Northwestern, 19-20. Ordnance dept., U.S.A., 18-19. Chem. Soc.; Chem. Eng. The Joule Thomson effect; vapor pressures at low temperatures; low temperature specific heats; chemical effect of alpha particles; catalysis; adsorption; thermodynamics; sulfuric acid manufacture.
- Perry, Joseph H(artshorn)**, 276 Highland St., Worcester, Mass. *Chemistry, Geology*. Dudley, Mass., March 23, 58. A.B., Amherst, 82. *Teacher chem. and geol.*, high sch., Worcester, 82-92, *English High Sch.*, 92- Asst. geologist, U. S. Geol. Surv., 88-02. Geol. Soc.; Chem. Soc.; Soc. Chem. Indust. Fossil coal plant in the graphite deposit in mica schist at Worcester, Massachusetts; geology of Mount Kearsarge and Monadnock Mountain, New Hampshire; green schists, associated granites and porphyries of Rhode Island; geology and physical geography of Worcester, Massachusetts.
- Perry, Prof. Lynn**, 828 McCartney St., Easton, Pa. *Civil engineering*. Millsboro, Del., Feb. 27, 84. B.S., Pennsylvania, 06, M.S., 07, C.E., 09. Asst. engineer, Board Water Supply, New York, 06; draughtsman, Shoemaker and Co., and Belmont Iron Works, Phila., 07; draughtsman and engineer, Bur. Surveys, Phila., 07-10; consulting engineer, civil improvements, 11-15; sanitary engineer, N. J. State Dept. Health, 16-17; *prof. in charge hydraul. and sanit. eng.*, Lafayette, 19- Consulting engineer. Capt., U.S.A., 18-19. Civil Eng. (chairman, program committee, 24, chairman, research committee, Lehigh Valley sect., 24-26); Mech. Eng. (v. chairman, Lehigh Valley sect., 25); Eng. Educ.; Soc. Mil. Eng. Flow of water in pipes; loss of head in pipes and standard connections; theory of electrochemical sewage treatment; sanitation and the prevention of goiter; treatment of water for industrial purposes; hydraulics.
- Perry, Margaret C(ampbell)**, Columbia Hospital, Milwaukee, Wis. *Chemistry*. Joliet, Ill., April 9, 94. A.B., Illinois, 15, A.M., 17, 19-20. Asst. chem., Illinois, 15-17; teacher, high sch., 17-18; bacteriologist, Ill. State Water Surv., 18-21; *chemist, Columbia Hosp., Milwaukee*, 21- Chem. Soc. Bacteriology; sanitary and physiological chemistry; medical problems.
- Perry, Prof. Ralph Barton**, 138 Irving St., Cambridge, Mass. *Philosophy*. Poultney, Vt., July 3, 76. A.B., Princeton, 96; A.M., Harvard, 97, Ph.D., 99. Instr. *philos.*, Williams, 99-00; Smith, 00-02; *Harvard*, 02-05, *asst. prof.*, 05-12, *prof.*, 12- Philos. Ass. (pres, 20). Introduction to philosophy; ethics; epistemology; contemporary philosophy; the philosophy of William James; theory of value.
- Perry, Prof. Winona M(erie)**, University of Nebraska, Lincoln, Nebr. *Educational psychology*. Holyoke, Mass., Dec. 28, 90. Ph.B., Brown, 14, A.M., 15; Ph.D., Columbia, 25. Prof. educ. and math., Judson, 15-17; teacher, high schools, R. I., Mo. and Idaho, 17-23; assoc. research, Lincoln Sch. Teachers Col., Columbia, 24-25; *assoc. prof. educ. psychol., Nebraska*, 25- Nat. Soc. Study Educ.; assoc. Psychol. Ass.; Nat. Council Math. Teachers. Psychology of learning in geometry.
- Pershing, Dr. Howell T(erry)**, 1169 Race St., Denver, Colo. *Medicine*. Johnstown, Pa., March 18, 58. Ph.B., Lafayette, 78, M.S., 81, LL.D., 08; M.D., Pennsylvania, 83. Teacher math. and nat. sciences, Wilkesbarre Acad., 78-80; science master, Lawrenceville Sch., N. J., 84-89; *prof. nervous and mental diseases*, Gross Med. Col., 90-92; Denver, 92-10; *neur. and psychiat., Colorado*, 11- A.A.; Am. Med. Ass. (chairman, sect. ner-

- vous and mental diseases, 04-13); Neur. Ass. Nervous and mental diseases; disorders of speech; optic atrophy and neuritis; pelvic measurements; treatment of neuralgia by alcohol injection.
- Person, Prof. Fred G(ilman)**, Colorado Agricultural College, Fort Collins, Colo. *Physics*. Rochester, Vt, Nov. 26, 69. A.B., Colorado, 05, A.M., 11; Chicago. Supt. schools, Colo., 97-99, 00-02, 05-08; Denver Nor. and Prep. Sch., 00; *prof. physics and head dept. Colo. Agr. Col.*, 08- Summers, instr., Colorado. Measurement of surface tension.
- Pertsch, Prof. J(ohn) G(eorge), Jr.**, 319 Mitchell St, Ithaca, N. Y. *Electrical engineering*. Baltimore, Md, Dec. 1, 87. Baltimore Polytech, 02-06; M.E., Cornell, 09. Instr. *elec. eng.*, Cornell, 09-16, asst. prof., 16-23, *prof.*, 23- Elec. Eng.
- Pervier, Prof. Norville C(larence)**, University of Minnesota, Minneapolis, Minn. *Biochemistry*. Clinton, Iowa, Feb. 26, 91. B.S., Iowa Col., 16, fellow, 16-17, M.S., 17; Ph.D., Minnesota, 22. Instr., Iowa Col., 18-19; chemist and asst. supt., Standard Chem. Co., Iowa, 19; instr., Minnesota, 20-23, *asst. prof. chem.*, 23- Chem. Soc.
- Pessin, Dr. L(ouis) J(erome)**, Agricultural and Mechanical College of Texas, College Station, Texas. *Botany*. Kremenichug, Russia, May 19, 93. B.S., Georgia, 16; Ph.D., Hopkins, 23. Instr. *bot.*, Miss. Agr. and Mech. Col., 20-21, asst. prof., 21-24; N. C. State, 24-25; *assoc. prof. Agr. and Mech. Col. Texas*, 25-, *plant pathologist*, *Exp. Sta.*, 27- Summer, sci. asst., bot. exped., Jamaica, B. W. I., 19. A.A.; Bot. Soc.; Soc. Plant Physiol.; Ecol. Soc. Plant physiology; physiology and ecology of Epiphytes; physiology of fungi; Mycorrhizas.
- Petch, C(harles) E(dgar)**, Canadian Department of Agriculture, Hemmingford, Que., Can. *Entomology*. Toronto, Ont, Jan. 22, 88. B.S.A., Toronto, 12. *Entomologist in charge fruit insect investigations for Que.*, Can. Dept. Agr., 12- Spraying and dusting; apple insects.
- Peter, Alfred M(eredith)**, Agricultural Experiment Station, Lexington, Ky. *Chemistry*. Lexington, May 25, 57. B.S., Kentucky, 80, M.S., 85, Sc.D., 13. Asst. chemist, Ky. Geol. Surv., 78-86; asst. chemist and chemist, *Ky. Exp. Sta.*, 86-07, *head dept. chem.*, 07-, acting director, 12, 15, 16-18. Adjunct prof., Transylvania, 78; Kentucky, 80. Reporter on soils and ash, 'Agr. Chem.', 94-95. Ky. Geol. Surv., 04-12; Ky. State Board Agr.; Ky. State Live-Stock Sanit. Board. A.A.; Chem. Soc.; Soc. Chem. Indust.; fel. Inst. Chem.; Ky. Acad. (sec'y, 16-). Agricultural analysis; soils; composition of Kentucky forage plants and mineral waters.
- Peter, Dr. Luther C**, 20th and Chestnut Sts, Philadelphia, Pa. *Ophthalmology*. St. Claireville, Pa., Feb. 14, 69. A.B., Pennsylvania Col., 91, A.M., 94; M.D., Pennsylvania, 94; Sc.D., Gettysburg, 26. *Prof. diseases of the eye*, Temple, 17-; *ophthal.*, Pennsylvania, 19- Acad. Ophthal. and Oto-Laryngol. (sec'y, 18-26, pres, 28); Ophthal. Soc.; Col. Surg.; Phila. Col. Physicians. Perimetry; the extra-ocular muscles.
- Peterkin, Albert G(ordon), Jr.**, Pembroke and Winsford Roads, Bryn Mawr, Pa. *Chemical engineering*. Northwich, Eng, Oct. 4, 81. Cooper Union; Brooklyn Polytech; Cornell, 08-10. Chemist and asst. supt., Benzol Products Co., 10-13; manager chem. dept., Barrett Co., 13-22; *develop. engineer*, *Atlantic Ref. Co.*, 23- Chem. Eng.; Chem. Soc. Manufacture of coal tar and petroleum products; distillation.
- Peterman, Dr. Florence I(rene)**, 333 Cedar St, New Haven, Conn. *Pharmacology*, *Toxicology*. Hamilton, Ill, April 29, 97. Ph.G., Iowa, 17, Ph.C., 20, B.S., 21; Ph.D., Yale, 25. Asst. instr. *pharmacol. and toxicol.*, Yale, 20-25, *instr.*, 25- Pharmacology and toxicology of aluminium.
- Peters, Prof. C(harles) A(dams)**, Sunset Place, Amherst, Mass. *Chemistry*. Worcester, Mass, June 29, 75. B.S., Mass. Col., 97; Ph.D., Yale, 01; Berlin, 08. Prof. chem., Idaho, 01-09; exchange teacher, Oberrealschule, Berlin, 09-10; *prof. inorg. and soil chem.*, Mass. Col., 11- A.A.; Chem. Soc. Analytical chemistry; insecticides; plant nutrient solutions.
- Peters, Chauncey G**, U. S. Bureau of Standards, Washington, D. C. *Physics*. Emerald, Wis, Feb. 6, 87. A.B., Ripon, 11; Wisconsin, 12. *Assoc. physicist*, *Bur. Standards*, 13- A.A.; Physical Soc.; Optical Soc.; Wash. Philos. Soc.; Wash. Acad. Interferometry; dimensional changes of materials; index of refraction; length standards; thermal expansion.
- Peters, Dr. Fredus N(elson)**, 1821 Muscatel Ave, Rosemead, Calif. *Chemistry*. Epworth, Iowa, Jan. 26, 64. A.B., Missouri, 87, A.M., 90; Chicago, 98, 01, 02; Ph.D., Ill. Wesleyan, 03. Prin. high schools, Mo., 87-92; supt., schools, Mo., 92-95; instr. chem. and v. prin., Cent. High Sch., Kansas City, Mo. A.A.; Chem. Soc.; Federation Teachers Math. and Nat. Sci.; Cent. Ass. Sci. and Math. Teachers (chairman, chem. sect, 08); Mo. Ass. Math. and Sci. Teachers (pres, 09). Acetylene; migration of ions; ionization; modern and applied chemistry.
- Peters, G(eorge) H(enry)**, U. S. Naval Observatory, Washington, D. C. *Astronomy*. Hartford, Conn, Nov. 25, 63. High sch. and special study in astron., physics and optics. *Assoc. astronomer*, U. S. Naval Observatory. Int. Astron. Union. A.A.; Astron. Soc. Total solar eclipses; spectroscopy; sun-spot record; solar corona; photographic observations of minor planets; properties of lenses and optical construction.
- Peters, Prof. John P(unnett)**, Yale University, New Haven, Conn. *Internal medicine*. Philadelphia, Pa., Dec. 4, 87. A.B., Yale, 08; M.D., Columbia, 13, Coolidge research fellow, 15-17. Med. house officer, Presb. Hosp., New York, 13-15, instr. med. col. physicians and surg., Columbia, and asst. physician, Presb. Hosp., 16-17; research fellow and instr. med. col. Cornell, 17-20; adjunct attending physician, Bellevue Hosp., 19-20; assoc. prof. med., Vanderbilt, 20-21; *internal med.*, Yale, 21-27, *prof.*, 27- Capt., M.C., 17-19. Am. Med. Ass.; Soc. Clin. Invest.; Soc. Exp. Biol.; Ass. Biol. Chem.; Ass. Physicians; Harvey Soc.; Inter-urban Clin. Soc. Electrolyte equilibrium of the

blood; cardiac dyspnea and the respiratory system; diabetes and nephritis.

Peters, O(rville) S(herwin), U. S. Bureau of Standards, Washington, D. C. *Electrical engineering*. Boone Co, Ill, Nov. 30, 83. B.S, Mont. Col, 09, E.E, 12. Instr. elec. eng, Mont. Col, 09; asst. physicist, *Bur. Standards*, 10-19, assoc. physicist, 19-22, *elec. engineer*, 22- *Elec. Eng.* Electrolysis in concrete; surface insulation of pipes; protection against lightning; ground connections for electrical systems; electrical telemeter; absolute measurements.

Peters, William J(ohn), Rosemary St, Chevy Chase, Md. *Terrestrial magnetism*. Oakland, Calif, 63. High sch. Expeditions, U. S. Geol. Surv; Ziegler polar exped; magnetic surv, Pacific Ocean. A.A; Wash. Philos. Soc; Wash. Acad.

Petersen, N(iels) F(rederick), Box 1313, Station A, Lincoln, Nebr. *Botany*. Faxe, Denmark, April 22, 77. A.B, Nebraska, 07, A.M, 11; Chicago, 14-16. Asst. and instr. bot, Louisiana, 09-13; teacher, high sch, C. Z, 13-14; asst. range management, Nev. Exp. Sta, 17-19; *bot. asst, dept. agron, Nebr. Exp. Sta*, 20- A.A; Bot. Soc; Soc. Agron; Mieros. Soc. Flora of Nebraska; plant poisoning; morphology and the chromosome number of corn.

Petersen, Dr. William F(erdinand), 508 S. Honore St, Chicago, Ill. *Pathology*. Chicago, March 25, 87. B.S, Chicago, 09, M.D, Rush Med. Col, 12; Harvard; Columbia. Asst. prof. path. and exp. med, Vanderbilt, 14-17; assoc. *path, Illinois*, 19-25, *prof*, 25- U.S.A., 18-19. Ass. Path. and Bact; Soc. Exp. Path; Am. Med. Ass; Soc. Exp. Biol; Soc. Clin. Invest. Enzymes; pellagra; tuberculosis; non-specific therapy; capillary permeability.

Peterson, Dr. Alvah, U. S. Department of Agriculture, Washington, D. C. *Entomology*. Galesburg, Ill, Sept. 13, 88. B.S, Knox, 11; A.M, Illinois, 13, Ph.D, 16. Assoc. prof. entom, Rutgers, 16-25; *entomologist, fruit insect investigations, bur. entom, U. S. Dept. Agr*, 25- A.A; Entom. Soc; Ass. Econ. Entom. Economic entomology; morphology.

Peterson, Prof. Ben H(arrison), 1561 Eighth Ave, Cedar Rapids, Iowa. *Chemistry*. Macedonia, Iowa, June 6, 93. B.S, Coe, 18; M.S, Iowa, 22, Ph.D, 26. Instr. *chem, Coe*, 22-24, *prof*, 24-, *head dept*, 26- Chem. Soc. Oxychloride cements; alum flocc; colloid coagulation.

Peterson, Pres. E(Immer) G(eorge), Agricultural College of Utah, Logan, Utah. *Bacteriology*. Plain City, Utah, Aug. 26, 82. B.S, Utah Col, 04; Chicago, 06; A.M, Cornell, 09, Ph.D, 11. Instr. bacter, Cornell, 09-10, asst. prof, 10; prof, Oregon Col, and bacteriologist, Exp. Sta, 10-11; prof. bacter, *Utah Col*, 11-12, bacteriologist and director exten. div, 12-16, *pres*, 16- A.A; Soc. Bact. Soil and pathogenic bacteriology.

Peterson, Dr. Frederick, 20 W. 50th St, New York, N. Y. *Neurology, Psychiatry*. Faribault, Minn, March 1, 59. M.D, Buffalo, 79; hon. Ph.D, Niagara, 88; LL.D, Pennsylvania, 19.

Prof. path, Buffalo, 82-84; nervous and mental diseases, Vermont, 88-89; chief clinic, Columbia, 88-03, clin. prof. psychiat, 03-15. Pres, board managers, Craig Colony for Epileptics, 94-01; pres, N. Y. State Lunacy Commission, 01-04. A.A; Neur. Ass. (pres, 25); Psychopath. Ass; Am. Med. Ass; N. Y. Neur. Soc. (pres, 99-01); N. Y. Acad. Med; fel. N. Y. Acad.

Peterson, Prof. H(arvey) A(ndrew), Illinois State Normal University, Normal, Ill. *Psychology*. St. Louis, Mo, 73. A.B, Chicago, 97; A.M, Harvard, 00; Ph.D, Chicago, 09. *Prof. psychol, Peabody Col*, 03-08; *Ill. State Nor. Univ, Normal*, 09- Psychol. Ass. Educational psychology.

Peterson, Dr. Joel B(igelow), 11618 S. Irving Ave, Chicago, Ill. *Chemistry*. Chicago, April 3, 97. B.S, Denison, 19; M.S, Ohio State, 20, Ph.D, 23. Asst. chem, Ohio State, 19-23; instr, Wisconsin, 23-24; *chemist, Am. Med. Ass*, 24- Chem. Soc. Absorption spectra of phenylazophenol and of some of its derivatives; medicinal chemistry.

Peterson, Prof. J(ohn) C(hristian), 1330 Laramie St, Manhattan, Kans. *Psychology*. Huntsville, Utah, Jan. 10, 84. A.B, Utah, 13; fellow, Chicago, 16-17, Ph.D, 17. Prin, high sch, Idaho, 09-11; teaching asst, Utah, 13-14; supt, schools, Utah, 14-15; *prof. psychol, Kansas Col*, 17- A.A; Psychol. Ass. The higher mental processes in learning; tests of ingenuity; persistence and special abilities.

Peterson, Prof. Joseph, George Peabody College for Teachers, Nashville, Tenn. **Psychology*. Huntsville, Utah, Sept. 8, 78. B.S, Chicago, 05, fellow, 05-07, Ph.D, 07. Prin, schools, Utah and Idaho, 99-04; *prof. psychol, Brigham Young*, 07-11; Utah, 11-15; professorial lecturer, Minnesota, 15-16, asst. prof, 16-18; *prof, Peabody Col*, 18- Summers, instr, Drake, 07, prof, Chicago, 14, 26. A.A; Psychol. Ass; S. Soc. Philos. and Psychol. (pres, 21); Tenn. Acad. Combination tones and binaural beats; musical harmony; selective factors in learning; intelligence tests; handling men in armies; transfer of learning in mental maze; comparative intelligence of negroes and whites; summation of stimuli in learning; history of tests; illusions and local signs.

Peterson, O(lof) A(ugust), Carnegie Museum, Pittsburgh, Pa. *Vertebrate paleontology, Geology*. Hellgum och Rådom, Westernorlands Län, Sweden, Jan. 2, 65. Common sch. Asst. field work in paleont. and geol, Yale, 88-92; Am. Museum Nat. Hist, 92-97; asst, Princeton Patagonian exped, 97-00; field collector and assoc. paleont, *Carnegie Museum*, 00-22, *curator mammalian paleont*, 22- A.A. Paleontology and geology of western United States.

Peterson, Prof. William, Utah Agricultural College, Logan, Utah. *Geology*. Bloomington, Idaho, May 24, 74. B.S, Utah Col, 99; Chicago, 01-03. Asst. prof. geol. and physics, Utah Col, 03-08; mining engineer, 08-10; *prof. geol, Utah Col*, 10-, *director, Exp. Sta*, 21-, *agr. exten. service*, 24- State geologist, 17-21. Utah Water Storage Commission, 25- A.A;

- Min. and Metal. Eng; West. Waters Ass. (v. pres, 25); fel. Utah Acad. Ground water; alkali; coal.
- Peterson, Prof. W(illiam) H(arold)**, University of Wisconsin, Madison, Wis. *Agricultural chemistry*. Libertyville, N. Y., Nov. 14, 80. B.S., Wesleyan, 07; A.M., Columbia, 09; Ph.D., Wisconsin, 13. Asst. agr. chem, Wisconsin, 09-10, instr., 10-14, asst. prof., 14-18, assoc. prof., 18-25, *prof.*, 25- Summers, asst., Columbia, 09-11; fellow, Kaiser Wilhelm Inst., 14. A.A.; Chem. Soc; Soc. Biol. Chem; Soc. Bact. Composition of plants; nutrition; fermentation; chemistry of bacteria.
- Petrenko, Serge N**, U. S. Bureau of Standards, Washington, D. C. *Mechanical engineering*. Saratoff, Russia, Oct. 19, 81. C.E., 14. Capt. artil., Russian Army, 06; engineer in charge improvement of Dnieper River, Russia, 14; research assoc., Sci. Tech. Research Lab, Petrograd, 14-15; chief inspector artil. munitions, Russian Imp. Committee, U. S., 15-17; *assoc. mech. engineer*, Bur. Standards, 19- Lecturer, Georgetown, 20- Soc. Test. Mat. Testing of metallic materials.
- Petrunkewitch, Prof. Alexander**, Yale University, New Haven, Conn. **Zoology*. Pliski, Russia, Dec. 22, 75. Moscow, 94-98; Ph.D., Freiburg, 00; hon. Sc.D., Porto Rico, 26. Privat-docent, Freiburg, 01-03; lecturer, Harvard, 03-04; acting prof. zool., Indiana, 06; hon. curator Arachnida, Am. Museum Nat. Hist., 09-11; *prof. zool.*, Yale, 17- Visiting prof., Porto Rico, 25-26. South. Mex. exped. Am. Museum Nat. Hist., 09. Int. Cong. Zool., Boston, 07 (chairman, sect. comp. physiol.). A.A.; Soc. Nat; Soc. Zool; Entom. Soc; Paleont. Soc; Ecol. Soc; Conn. Acad; fel. N. Y. Acad. Cytology; physiology; psychology; experimental zoology; paleontology; microphotography; morphology of invertebrates; heredity; synonymic catalogue of American spiders; anatomy of spiders; sense of sight; mating; taxonomy.
- Petry, Dr. E(dward) J(acob)**, Hendrix College, Conway, Ark. **Botany*. Gnadenhutten, Ohio, June 24, 80. B.S., Ohio State, 07; M.S., Purdue, 14; Ph.D., Mich. State Col., 25. Asst. bot., Cornell, 07-10; instr. agron., Purdue, 11-16, asst. prof. agr. bot., 16-18; instr. bot., Michigan, 18-20; prof. and head dept., S. Dak. Col., 20-23; consulting botanist, 23-24; surv. botanist, Geol. Biol. Surv., 24-25; *prof. and head dept. biol.*, Hendrix Col., 26- Field asst., U. S. Dept. Agr., 18, collaborator, 20-, temp. agent, 26. A.A.; Bot. Soc; Soc. Plant Physiol; Soc. Agron; Phytopath. Soc; Ecol. Soc; Genetic Ass; Eugenics Soc; S. Dak. Acad; S. Dak. Hort. Soc; Ind. Acad. Nutrients in green shoots of trees; resin content of Podophyllum; cherry gum; cytology of Dicaeoma; Ceanothus culture and nodule organism; nitrogen synthesis in non-legumes; flora of South Dakota; plant diseases, ornamentals and weeds of South Dakota; Bryophyllum psidia; seed certification; ecological reservation.
- Petry, Dr. Loren C(lifford)**, Cornell University, Ithaca, N. Y. *Botany*. New Paris, Ohio, Sept. 22, 87. B.S., Earlham, 07; Haverford, 08; M.S., Chicago, 11, fellow, 11-13, Ph.D., 13, 13-14. Instr. bot., Syracuse, 14-16, asst. prof., 16-20, assoc. prof., 20-25; *prof.*, Cornell, 25- A.A.; Bot. Soc. Vascular anatomy of Ophioglossaceae; paleobotany of the Devonian period.
- Pettee, Dean C(harles) H(olmes)**, University of New Hampshire, Durham, N. H. *Mathematics, Civil engineering*. Manchester, N. H., Feb. 2, 53. A.B., Dartmouth, 74, C.E., 76, A.M., 77; LL.D., New Hampshire, 13. Instr. civil eng., Thayer Sch. Civil Eng., Dartmouth, 76-77; *New Hampshire*, 76-80, prof. math., 80-17, *dean*, 80- A.A.; Eng. Educ. Road improvement.
- Pettibone, Dr. C(hauncey) J. V(allette)**, University of Minnesota, Minneapolis, Minn. *Biochemistry*. Fond du Lac, Wis., 84. B.S., Chicago, 07; Berlin and Koenigliche Tech. Hochschule, 07-08; Halle, 11-12; Ph.D., Harvard, 13. Instr. *physiol. chem.*, Minnesota, 12-17, asst. prof., 17-20, *assoc. prof.*, 20- Chem. Soc. (treas., Minneapolis sect., 17-); Soc. Biol. Chem.
- Pettit, Dr. Edison**, Mt. Wilson Observatory, Pasadena, Calif. **Astrophysics*. Peru, Nebr., Sept. 22, 89. B.E., Nebr. Nor. Sch., Peru, 11; Ph.D., Chicago, 20. Teacher, high sch., Nebr., 11-14; astron. and physics, Washburn, 14-15, astron., 15-18; *asst.*, Yerkes Observatory, 18-20; *Mt. Wilson Observatory, Carnegie Institution*, 20- Eclipse expeditions, Matheson, Colo., 18, Point Loma, 23, Middletown, 25. Astron. Soc; Optical Soc; Pacific Astron. Soc. Astronomy; solar physics; double stars; radiation measurements.
- Pettit, Dr. Hannah Steele**, Mt. Wilson Observatory, Pasadena, Calif. *Astronomy*. Coatesville, Pa., Nov. 6, 86. A.B., Swarthmore, 09, A.M., 12; Ph.D., Chicago, 19. Observer, Sproul Observatory, 12-16; *asst.*, Yerkes Observatory, 16-20; *Mt. Wilson Observatory, Carnegie Institution*, 20- Yerkes Observatory and Washburn Col. solar eclipse exped., Matheson, Colo., 18. A.A.; Astron. Soc. Astrophysics; stellar parallax; eclipse observations.
- Pettit, Prof. H(arvey) P(ierson)**, 1664 Bartlett Ave., Milwaukee, Wis. *Mathematics*. Chadron, Nebr., April 25, 93. A.B., Kalamazoo Col., 14; fellow, Kentucky, 18-19, A.M., 19; Ph.D., Illinois, 22. Teacher, high sch., Mich., 14-18; *asst. math.*, Illinois, 19-22, instr., 22-23; *prof.* and head dept., Ill. Wesleyan, 23-26; *Marquette*, 26- A.A.; Math. Soc; Math. Ass. Projective geometry.
- Pettit, Prof. R(ufus) H(iram)**, Michigan State College, East Lansing, Mich. *Entomology*. Baldwinsville, N. Y., Jan. 11, 69. B.S., Cornell, 95. Asst. state entomologist, Minn., 95-97; *prof. entom.*, Mich. State Col., and entomologist, *Exp. Sta.*, 97- A.A.; Entom. Soc; Ass. Econ. Entom.; Mich. Acad; Wash. Entom. Soc; Soc. Linnean de Lyon. Economic entomology; Coccidae.
- Pfanstiel, Dr. R(obert)**, 155 Bowne St., Flushing, N. Y. *Chemistry*. Morning View, Ky., Feb. 7, 86. B.S., Valparaiso, 10; B.S., Kentucky, 14; A.M., Pennsylvania, 20, du Pont fellow, 19-21, Harrison fellow, 21-22, Ph.D., 22. Prin. schools, Ill., 10-11; chemist, soils and geol.

- surv. lab, Ky. Exp. Sta, 14-16; E. I. du Pont de Nemours and Co, 16-19; sect. chief and asst. chief anti-gas div, C.W.S., 22-25; *research chemist, Gen. Chem. Co, 25-* A.A.; Chem. Soc. Analytical and physical chemistry.
- Pfeiffer, Dr. G(eorge) A(dam)**, 1110 Anderson Ave, Palisade, N. J. *Mathematics*. New York, N. Y., July 16, 89. M.E, Stevens, 10; Ph.D, Columbia, 14. Instr. *math*, Col. City of N. Y., 14-15; Harvard, 15-16; Princeton, 16-18; Columbia, 19-24, *asst. prof, 24-* Assoc. ed, 'Annals of Math.' Math. Soc. Conformal mapping; functional equations; point sets.
- Pfeiffer, Dr. J(ohn) Arthur F(ranklin)**, 2934 N. Calvert St, Baltimore, Md. *Pathology, Medicine*. Wilmington, Del, June 27, 83. M.D, Maryland, 08; A.M, George Washington, 16, Ph.D, 18. Physician and pathologist, City Hosp, Baltimore, 09-10; physician, Springfield State Hosp, Sykesville, Md, 10-11; asst, Munich and Frankfurt, 11-13; senior physician and director path. lab, Govt. Hosp, Washington, D. C, 13-17; lecturer path, Hopkins, 19-23; *practising physician*. Lecturer, George Washington, 14; med. officers training sch, U.S.A., 18. Ass. Path. and Bact; Am. Med. Ass; Soc. Exp. Biol; Ass. Anat; Psychiat. Ass; Md. Med. and Chirurg. Faculty. Bacteriology; chronic chorea; pernicious anemia; Landry's paralysis; choroid plexus; lenticular degeneration; spinal fluid; Treponema pallidum; hereditary ataxia; nephelometric study of proteins; neurosyphilis.
- Pfeiffer, Dr. Norma E(tta)**, Boyce Thompson Institute, Yonkers, N. Y. *Botany*. Chicago, Ill. B.S, Chicago, 09, fellow, 10-12, Ph.D, 13. Instr, asst. prof. and assoc. prof. bot, North Dakota, 12-23; *research morphologist, Boyce Thompson Inst, 24-* A.A.; Bot. Soc; N. Dak. Acad. (pres, 22). Microchemistry; morphological and chemical differences effected by light and carbon dioxide; Isoetes.
- Pfister, Prof. Jos(eph) C(lement)**, 240 Sixth Ave, Newark, N. J. *Mechanics, Mathematical physics*. Newark, March 10, 67. A.B, Columbia, 89, fellow, 89-92, A.M, 90. Asst. math. and astron, Columbia, 89-90, tutor higher math. and astron, 90-93, mech, 93-01, instr, 01-05, adjunct prof, 05-11. A.A.; Math. Soc; fel. N. Y. Acad. Bibliography of mechanics.
- Pfund, Prof. A(ugust) H(erman)**, Johns Hopkins University, Baltimore, Md. **Physics*. Madison, Wis, Dec. 28, 79. B.S, Wisconsin, 01; fellow, Hopkins, 05-06, Ph.D, 06. Carnegie research asst, Hopkins, 03-05, asst. physics, 06-07, Johnston scholar, 07-09, assoc, 09-10, assoc. prof, 10-27, *prof, 27-* Physical Soc; Optical Soc. Light and radiant heat; the wave lengths of standard iron lines; the electrical and optical properties of selenium; colorimetry.
- Phalen, Prof. H(arold) R(omaine)**, Annandale-on-Hudson, N. Y. *Mathematics*. Acton, Mass, April 21, 89. B.S, Tufts, 12; M.S, Chicago, 23, Ph.D, 26. Instr. *math*, James Millikin, 13-15; acting prof, Berea Col, 15-18; instr, Armour, 18-19, asst. prof, 19-22, assoc. prof, 23-26; *prof, St. Stephen's, 26-* Math. Soc; Math. Ass; Eng. Educ. Geometry.
- Phalen, Dr. W(illiam) C(lifton)**, Drawer 1 and 2, Syracuse, N. Y. *Geology*. Gloucester, Mass, Feb. 1, 77. B.S, Mass. Inst. Tech, 99, M.S, 02; Ph.D, George Washington, 09. Prof. chem. and geol, N. Mex. Sch. Mines, 99-01; asst. chem. and physical geol, U. S. Nat. Museum, 02-04; geol. aid, U. S. Geol. Surv, 04-07, asst. geologist and geologist, 07-16; mineral technologist, U. S. Bur. Mines, 16-20; *consulting geologist, Solvay Process Co, 20-* Geol. Soc; Min. and Metal. Eng; Wash. Geol. Soc. Stratigraphy; petrography; rocks of Greenland and Virginia; iron ores; coal and clay resources of northeastern Kentucky; iron ores, barite and graphite deposits of Georgia; areal and economic geology of Georgia, North Carolina and Tennessee; salt mining; geology and mineral resources of Johnstown, Pennsylvania; salt deposits and mineral resources of the United States.
- Phelan, Prof. J(oseph) W(arren)**, Massachusetts Institute of Technology, Cambridge, Mass. *Chemistry*. Boston, Mass, April 30, 71. B.S, Mass. Inst. Tech, 94. Instr. *chem, Mass. Inst. Tech, 94-14*, asst. prof. and *prof, 14-* Chem. Soc. Leather chemistry; manufacture of cerium and alloys.
- Phelan, Pres. W(arren) W(averly)**, 1812 N. Broadway, Shawnee, Okla. *Psychology, Education*. New York, N. Y., Sept. 20, 69. A.B, Columbia, 94, A.M, 96; Ph.D, George Washington, 05; LL.D, Okla. Baptist Univ, 21. Dean sch. educ, Chattanooga, 05-08; Baylor Univ, 08-12; Oklahoma, 12-26; *pres, Okla. Baptist Univ, 26-* Director, Mid-Continent Life Ins. Co; mem, educ. committee to reconstruct Univ. of Chung Chow, Honan, China, 22-23. A.A; Soc. Educ. Research; Nat. Educ. Ass; Nat. Soc. Col. Teachers; Relig. Educ. Ass. Adolescent psychology; character education; educational administration.
- Phelps, Prof. Earle B(ernard)**, 66 Cottage Place, Ridgewood, N. J. *Sanitary science*. Galesburg, Ill, July 10, 76. B.S, Mass. Inst. Tech, 99. Asst. bacteriologist, Lawrence Exp. Sta, Mass. State Board Health, 99-03; chemist and bacteriologist, sanit. research lab, Mass. Inst. Tech, 03-13, asst. prof. chem. biol, 05-13, assoc. prof, 13; *prof. chem, hygienic lab, U. S. Pub. Health Service, 13-19; sanit. science, col. physicians and surg, Columbia, 25-* Asst. hydrographer, U. S. Geol. Surv, 05-10; special expert, U. S. Census Bur, 10; consulting sanit. engineer, Int. Joint Commission; committee on sewage disposal, Nat. Research Council; N. Y. Ventilation Commission. A.A; Soc. Bact; Chem. Soc; Pub. Health Ass; Civil Eng; Water Works Ass. Ventilation; chlorination of water.
- Phelps, Prof. Edward P(arkhurst)**, Marshall College, Huntington, W. Va. *Chemistry*. Wakefield, Mass, 89. B.S, Tufts, 12, M.S, 14; A.M, Harvard, 17; Ph.D, Boston, 23. Asst. chem, Tufts, 12-14; asst. and Austin teaching fellow biochem, Harvard Med. Sch, 14-17; instr. chem, Syracuse, 17-19; N. Y. Univ, 19-21; Tufts, 21-24; research asst, Cornell, 24-25; *prof. chem, Marshall Col, 25-* A.A; Chem. Soc. Pandemic chemistry; anesthesia ether; quanti-

- tative determination of peroxide and aldehyde in ether.
- Phelps, Dr. Isaac King**, 76 Park Ave, E, Lowell, Mass. **Chemistry*. Enfield, Conn, Feb. 16, 72. A.B, Yale, 94, Silliman fellow, 94-97, Ph.D, 97; Thayer scholar, Harvard, 97-98; Heidelberg, 02. Asst. chem, Yale, 95-97, 98-99, instr, 99-08; asst. prof, George Washington, 09-10; asst. chemist, bur. chem, U. S. Dept. Agr, 10-12; org. chemist, U. S. Bur. Mines, 12-13; chemist in charge org. chem. investigations, bur. chem, U. S. Dept. Agr, 13-16, food control lab, 16-22; chemist, 22-23; chem. director, Wamesit Chem. Co, Mass, 23-25; *consulting chemist*, 25- Joint committee definitions and standards, U. S. Dept. Agr, 14-21. Collaborator, U. S. Pharmacopœia X. A.A; Chem. Soc; Ass. Cereal Chem; Wash. Acad. The determination of carbon dioxide; dehydromucic acid; inorganic and organic analytical methods; organic syntheses; catalysis; food analysis, production, preparation and conservation.
- Philbrick, Prof. H(erbert) S(haw)**, 2130 Sherman Ave, Evanston, Ill. *Mechanical engineering*. Waterville, Maine, April 13, 75. A.B, Colby, 97; B.S, Mass. Inst. Tech, 06. Asst. prof. *mech. eng*, Missouri, 07-12; *prof*, *Northwestern*, 12- Consulting engineer, Evanston; Chautauqua Inst. Pres, Waterville Iron Works. Trustee, Colby Col. Mech. Eng. (chairman, Chicago session, 20-21); Eng. Educ.
- Philips, Prof. A(llen) G(riffin)**, Purdue University, Lafayette, Ind. *Poultry husbandry*. West Chester, Pa, Jan. 5, 86. B.S.A, Kansas Col, 07; Cornell, 07-08. Asst. *poultry husbandry*, Kansas Col, 08-10; *prof. in charge dept*, *Purdue*, 10- Poultry Sci. Ass. (pres, 20); Int. Ass. Poultry Husbandry (director, 25). Feeding of animal and vegetable proteins to laying hens; temperature in incubation; cost of raising poultry.
- Phillips, Prof. Alexander H(amilton)**, 54 Hodge Road, Princeton, N. J. *Mineralogy, Chemistry*. Lawrenceville, N. J, May 15, 66. B.S, Princeton, 87, Sc.D, 99. Instr. biol. and miner, *Princeton*, 89-95, *miner*, 95-99, asst. prof, 99-03, *prof*, 03- A.A; Soc. Nat; Miner. Soc. (treas); Geol. Soc; Chem. Soc. Petrography; crystallography; chemical content and concentration of metals by organisms; radium.
- Phillips, Prof. Alfred E(dward)**, 1133 Maple Ave, Evanston, Ill. *Civil engineering*. Rouses Point, N. Y, June 18, 63. A.B, C.E, Union, 87, A.M, 90, hon. Ph.D, 94. Prof. civil eng, *Purdue*, 87-94; acting prof. bridge and hydraul. eng, *Wisconsin*, 95-96; *prof. civil eng*, *Armour*, 99- Asst. engineer, N. Y. State Board Health, 88; consulting engineer, 94-99. Civil Eng. Water supply; sewage treatment and disposal; streets and pavements.
- Phillips, Prof. Arthur**, 2141 Chapel St, New Haven, Conn. *Metallurgy*. Troy, N. Y, Feb. *Sheffield Sci. Sch*, *Yale*, 19- Metallurgist, Bridgeport Brass Co, 15-19; *asst. prof. metal*, *Sheffield Sci. Sch*, *Yale*, 19- Metallurgist, Henry G. Thompson and Son Co. Min. Eng; Chem. Soc; Soc. Steel Treat; Soc. Test. Mat.
- Structure and properties of brasses and bronzes; malleable cast iron and zinc.
- Phillips, Rev. Edward C(harles), S(J)**, Georgetown University, Washington, D. C. *Mathematics, Astronomy*. Germantown, Pa, Nov. 4, 77. A.B, St. Francis Xavier, 98; fellow, Hopkins, 06, fellow by courtesy, 07-08, Ph.D, 08. Prof. physics, Boston Col, 08-09; lecturer apologetics, Woodstock, 13-14, dogmatic theol, 15-19, prof. math. and astron, 19-25, dean faculty, 22-25; *director*, *Georgetown Col. Observatory*, 25- Astron. Soc; Math. Soc; Math. Ass; fel. Royal Astron. Soc; Soc. Sci. de Bruxelles. Photographic positional astronomy.
- Phillips, Prof. E(verett) F(ranklin)**, Cornell University, Ithaca, N. Y. *Apiculture*. Hannibal, Ohio, Nov. 14, 78. A.B, Allegheny, 99; fellow, Pennsylvania, 03-04, Ph.D, 04. Teacher, high sch, Pa, 99-00; Harrison research fellow, Pennsylvania, 04-05; acting in charge *apiculture*, bur. entom, U. S. Dept. Agr, 05-07, in charge, 07-24; *prof*, *Cornell*, 24- Collaborator, bur. entom, U. S. Dept. Agr, 24- Ed. board, 'Jour. Econ. Entom.' 23-; 'Am. Honey Producer,' 27- Langstroth Mem. Committee, 26- Apis Club medal, 24. A.A; Soc. Nat; Entom. Soc; Ass. Econ. Entom; Ecol. Soc; Nat. State, Local and Foreign Bee Keepers' Associations; Wash. Entom. Soc. (cor. sec'y-treas, 08); Phila. Acad; fel. Apis Club (int. pres, 25). Development of the compound eye of the honeybee; rearing of queen bees; bee diseases; beekeeping regions of the United States.
- Phillips, Prof. H(enry) B(ayard)**, Massachusetts Institute of Technology, Cambridge, Mass. *Mathematics*. Yadkin College, N. C, Sept. 27, 81. B.S, Erskine, 00; Ph.D, Hopkins, 05. Instr. *math*, Cincinnati, 05-07; *Mass. Inst. Tech*, 07-14, *asst. prof*, 14- Math. Soc; Physical Soc; Chem. Soc; Elec. Eng; Radio Eng; Am. Acad. Vector analysis; matrices; kinetic theory of gases.
- Phillips, Prof. James David**, 1915 Arlington Place, Madison, Wis. *Mechanical drawing*. Chicago, Ill, June 1, 69. B.S. (Archit), Illinois, 93. Instr. and asst. prof. pattern making and turning, machine design and gen. eng. drawing, 92-01; drawing, *Wisconsin*, 02-05, prof, 05-09, *asst. dean col. eng*, 10-, *business manager*. Director, U.S.A. Vocational Sch, Wisconsin, 18. A.A; Eng. Educ; Wis. Acad. Descriptive geometry; mechanical drawing; industrial, manual and trades training; removal of oxides from silver and other metals.
- Phillips, Dr. John C(harles)**, Wenham, Mass. *Zoology*. Boston, Mass, Nov. 5, 76. Harvard, 99, M.D, 04. *Assoc. curator birds, museum comp. zool*, *Harvard*. Private collecting expeditions for museum comp. zool, Harvard. A.A; Soc. Nat; Ornith. Union; Am. Acad; Boston Soc. Nat. Hist. General and systematic ornithology and genetics; hybridization of pheasants and ducks.
- Phillips, J(ohn) L(oyd)**, Piedmont Orchard Co, Linden, Va. *Entomology, Botany*. Nandua, Va, Dec. 30, 75. B.S, Va. Polytech, 97, M.S, 00. Instr. entom, Va. Polytech, 00; asst. entomologist, Va. State Crop Pest Commission, 00-

- 03, state entomologist, Va, 03-10; with *Piedmont Orchard Co. and consulting orchard expert*, 10- A.A.; Ass. Econ. Entom. Fumigation and other treatment for San Jose scale; crown gall; peach yellows; pear blight.
- Phillips, Dr. Max**, 513 Harvard St, N. W, Washington, D. C. *Chemistry*, Sopotskin, Russia, Oct. 1, 94. B.S, Wisconsin, 17, M.S, 18; Ph.D, George Washington, 23. *Assoc. chemist, color investigations lab, bur. chem, U. S. Dept. Agr*, 19- Chemist, Bur. Aircraft Production, War Dept, 18-19. Chem. Soc. Coal tar dyes and intermediates; alkali fusions; synthetic thymol; carvacrol; p-cymene; furfural resins; anthraquinone derivatives; lignin.
- Phillips, Prof. Paul C(hrysostom)**, Amherst, Mass. *Physical education, Hygiene*. Groton, Mass, Dec. 20, 65. A.B, Amherst, 88; M.D, Columbia, 95, hon. M.P.E, 23. Physical director, Y. M. C. A, Kansas City, Louisville, New York and Chicago, 88-96; *prof. physical educ. and hygiene, Amherst*, 96- Summers, instr, West. Secretarial Inst, 91-99. A.A; Physical Educ. Ass. (councilor); Soc. Col. Gym. Directors (past pres, sec'y-treas, 08-19); Soc. Research Physical Educ. Athletics and scholarship; relation of certain height measurements to stature; physical efficiency.
- Phillips, Ralph Oliver**, The Forestal Land, Timber and Railways Company, Ltd, 149 Leadenhall St, London E. C. 3, Eng, or The Tannin Corporation, 100 E. 42d St, New York, N. Y. *Chemistry*. Somerville, Mass, Feb. 2, 92. B.S, Tufts, 15, M.S, 16. Chemist and supt, Pittsburgh Plate Glass Co; chemist, War Dept, Picatinny Arsenal; chief inspector, smokeless powder and high explosives plant, Picatinny Arsenal; instr. in charge, U. S. Army Sch. for inspectors of powder and explosives; asst. inspector of powder and explosives, U. S. Navy; chemist and development engineer, The Barrett Co, New York; *chief chemist, The Tannin Corp; technical consultant, The Natal Tanning Extract Co, Pietermaritzburg, S. Africa; The Forestal Land, Timber and Railways Co, Ltd, London, Eng, and Buenos Aires, Argentina*. Chem. Soc; Soc. Test. Mat; Leather Chem. Ass; N. Y. Chem. Club; Soc. Leather Trades Chem. London. Powder and explosives; tannin extract industry.
- Phillips, Dr. T(homas) G(uthrie)**, University of New Hampshire, Durham, N. H. *Chemistry*. West Derby, Vt, Nov. 18, 87. B.S.A, Ohio State, 12, M.S, 13; Ph.D, Chicago, 18. Instr. *agr. chem*, Ohio State, 12-15, asst. prof, 15-23, *prof*, 23-25; *New Hampshire, and chemist, Exp. Sta*, 25- A.A; Chem. Soc; Bot. Soc. Biochemistry; chemical changes during geotropic response; the nitrogen metabolism of plants; fruit bud formation.
- Phillips, Dr. W(illiam) F(owke) R(avenel)**, Medical College of South Carolina, Charleston, S. C. *Anatomy, Medical climatology*. Bedford Co, Va, July 13, 63. M.D, George Washington, 90. Prosector anat, George Washington, 90-93; medico-climatologist, U. S. Weather Bur, 95-04; demonstrator anat, George Washington, 00-04, *prof. hygiene*, 95-09, practical anat. and dean, 05-09; *prof. anat*, Alabama, 11-15; *Med. Col. of S. C*, 15- A.A; Am. Med. Ass. (committee on preliminary educ. requirements); Climat. Ass. (v. pres, 02, pres, 04); assoc. Ass. Med. Col. (v. pres, 08, committee, med. educ. and pedagogics, 15-20, chairman, 19); Wash. Philos. Soc. Sun-stroke; relation of clothing to temperature; sensible temperature; seasonal prevalence of pneumonia; seasonal influence on suicide; relation of temperature, humidity and winds to chronic nephritis; anatomy of lungs and acute lobar pneumonia; innervation of axillary arch muscles; Rolandic angle in negro brains; orthograde posture and pulmonary tuberculosis.
- Phillips, Dr. W(illiam) J(eter)**, U. S. Entomological Laboratory, Charlottesville, Va. *Entomology*. Accomac Co, Va, Dec. 23, 79. B.S, Va. Polytech, 01, M.S, 03; Ph.D, Virginia, 25. Asst. state entomologist, Va, 03-04; *bur. entom, U. S. Dept. Agr*, 04- A.A; Entom. Soc; Ass. Econ. Entom. Jointworms of grains and grasses; the corn earworm.
- Philp, Guy L(ockhart)**, University Farm, Davis, Calif. *Horticulture, Plant physiology*. Federal, Pa, June 7, 90. B.S, Cornell, 14; M.S, Oregon Col, 16. Instr. pomol, *California*, 17-23, asst. prof, 23-25, *asst. pomologist*, 25- Pollination; pruning.
- Phinney, J(ohn) I(ngle)**, 9 Chauncy St, Cambridge, Mass. *Chemistry, Physics*. Machias, Maine, Nov. 25, 68. A.B, Yale, 92, Silliman fellow, 92-94; Thayer scholar, Harvard, 94-95. Asst, chem. lab, Yale, 92-94; private asst. org. chem, Harvard, 94-95; *head dept. chem. and physics*, Brockton High Sch, 95-97; Cambridge Latin Sch, 97-15; Browne and Nichols Sch, 15-25; *New Prep. Sch*, 25- Asst, Harvard, 17-22. Chem. Soc; East. Ass. Physics Teachers. Spectroscopic analysis; picryl malonic ester derivatives; electrolytical deposition of cadmium.
- Picard, Rev. Maurice**, 1106 Broadway, South Bethlehem, Pa. *Philosophy, Psychology*. Nyack, N. Y, July 18, 90. A.B, Columbia, 10, A.M, 11; Ph.D, N. Y. Univ, 19. Instr, Lincoln, 11-12; asst. prof. bot, Middlebury, 13-14; lecturer philos, Barnard, Columbia, 19-22; *asst. prof. philos. and psychol*, Wells, 23-25; *Lehigh*, 25- Philos. Ass. Value-philosophy.
- Pickard, Greenleaf W(hittier)**, 59 Dalton Road, Newton Center, Mass. *Electrical engineering*. Portland, Maine, Feb. 14, 77. Harvard, 99; Mass. Inst. Tech, 00; Blue Hill Observatory, 99-00. Elec. engineer, Am. Tel. and Tel. Co, 02-06; *consulting engineer*, 06- A.A; Radio Eng. (pres, 13); fel. Elec. Eng; Electrochem. Soc; fel. Radio Club; Meteor. Soc; Mech. Eng; Min. and Metal. Eng; Chem. Soc; London Soc. Chem. Indust. Radio communication.
- Pickens, Prof. E(arl) M(ax)**, University of Maryland, College Park, Md. *Pathology, Bacteriology*. Parish, N. Y, Jan. 29, 88. D.V.M, Cornell, 11, A.M, 13. Asst. prof. *path. and bacter*, Cornell, 11-18; *prof. in charge biol. lab. and live stock sanit. lab, Maryland*, 18- Soc. Bact; Vet. Med. Ass. (sec'y, sect. educ. and research); Genetic Ass; U. S. Live Stock Sanit. Ass; Md. Vet. Med. Ass. (sec'y-treas).

- Pickens, Dr. Russell M.**, du Pont Rayon Co, Buffalo, N. Y. *Chemistry*. Lincoln, Nebr, April 17, 98. B.S., Mont. Col; M.S., Iowa Col, Ph.D. *Research chemist, du Pont Rayon Co.* Chem. Soc. Organic chemistry.
- Pickering, Sam(uel) F(isher)**, U. S. Bureau of Standards, Washington, D. C. *Chemistry*. Warren, Ohio, Nov. 26, 92. B.S., Carnegie Inst. Tech, 15. Asst. chemist, Elyria Enameled Products Co, 15-17; *Bur. Standards*, 17-20, *assoc. chemist*, 20- Physical chemistry of gases.
- Pickering, Prof. W(illiam) H(enry)**, Mandeville, Jamaica, W. I. *Astronomy*. Boston, Mass, Feb. 15, 58. B.S., Mass. Inst. Tech, 79. Asst. and instr. physics, Mass. Inst. Tech, 80-87; asst. and asst. prof. *astron.*, *Harvard Col. Observatory*, 87, *emer. prof.* Lalande prize, Paris Acad, 05; Janssen medal, 09; two medals, Soc. Astron. de Mex. Chevalier, Order of Saint James of Portugal. Int. Astron. Union (committee on physical observations of the planets, committee on lunar nomenclature). Astron. Soc; Am. Acad; N. Y. Authors Club; Harvard Travelers Club; hon. mem. Soc. Astron. de Mex; hon. mem. Royal Astron. Soc. Can; British Astron. Soc; assoc. Royal Astron. Soc. Photography; the solar system; Phoebe, Saturn's ninth satellite; great nebula in Orion; the leonids; Themis, Saturn's tenth satellite; planet beyond Neptune; meteors and meteorites; photometry of sun and moon; volcanoes and volcanic phenomena; cometary investigations; the moon; the brighter satellites of Jupiter; Mars.
- Pickett, Prof. B(ethel) S(tewart)**, Iowa State College, Ames, Iowa. *Horticulture*. Tillsonburg, Ont, Can, June 4, 82. Assoc. grad, Ont. Agr. Col, 00; B.S.A., Toronto, 04; M.S., Illinois, 06. Sec'y and registrar, Ont. Agr. Col, 02-05; lecturer and asst. pomol, Illinois, 06-08; prof. hort, New Hampshire, 08-12; *prof. pomol*, Illinois, 12-23; *hort. and head dept. hort. and forestry*, Iowa Col, 23- Soc. Hort. Sci. Spraying of apple trees; cold storage of apples; correlation in foliage and fruit of strawberries; heredity in muskmelons and squashes; formation of fruit buds in apples; apple breeding.
- Pickett, Prof. F(ermen) L(ayton)**, Washington State College, Pullman, Wash. *Botany*. Bakers Corner, Ind, Jan. 10, 81. A.B., Indiana, 10, A.M., 12, fellow, 13-14, Ph.D., 15. Critic teacher *bot*, Indiana, 09-13, instr., 10-14; *assoc. prof.*, *Wash. Col*, 14-18, *prof. and head dept*, 18- A.A.; Bot. Soc; Ecol. Soc; Micros. Soc; Torrey Bot. Club; Fern Soc; Sullivant Moss Soc; West. Soc. Nat; Ind. Acad. Morphology; ecology of ferns and mosses.
- Pickwell, Gayle B.**, Northwestern University, Evanston, Ill. *Ornithology*. Murdock, Nebr, March 25, 99. A.B., Nebraska, 21, A.M., 22; Columbia, 24. Asst., Nebraska, 22; *instr. zool.*, *Northwestern*, 22- A.A.; Ornith. Union; Wilson Ornith. Club; Soc. Mammal. Zoology; nesting of the killdeer and belted piping plover; natural history of the prairie horned lark; spiders of Nebraska.
- Pidgeon, Dr. H(oward) A.**, Bell Telephone Laboratories, 463 West St, New York, N. Y. *Physics*. Pennsville, Ohio. B.S., Ohio (Athens), 11, M.S., 12; Ph.D., Cornell, 18. Instr. physics, Ohio (Athens), 10-12; Cornell, 13-18; *research physicist*, West. Elec. Co, 18-25, *Bell Telephone Laboratories*, 25- Physical Soc. Magnetostriction; electron emission from hot bodies.
- Piemeisel, R(obert) L(ouis)**, Bureau of Plant Industry, Washington, D. C. *Plant physiology*. Jordan, Minn, July 15, 89. A.B., Minnesota, 12. Sci. asst, alkali and drought investigations, *bur. plant indust*, U. S. Dept. Agr, 12-17, *assoc. plant physiologist*, 24- Plant geography; ecology; the deserts of Utah and Arizona; fungus fairy rings.
- Pienkowsky, Arthur T(haddeus)**, U. S. Bureau of Standards, Washington, D. C. *Physics*. Wisconsin, 73. Ph.B., Chicago, 98. Teacher, high schools, Ill. and Ind, 98-03; *assoc. physicist*, *Bur. Standards*, 05- A.A.; Physical Soc; Wash. Philos. Soc; Wash. Acad. Constancy of standards of mass; high precision weighing.
- Pierce, Prof. C(larence) A(lbert)**, Worcester Polytechnic Institute, Worcester, Mass. *Physics*. Redding, Conn, Nov. 4, 78. B.S., Wesleyan, 02, M.S., 04; Ph.D., Cornell, 08. Asst. physics, Wesleyan, 02-04; instr., Cornell, 04-11; *asst. prof. elec. eng.*, *Worcester*, 11- Lab. asst, *Bur. Standards*, 02-04, asst. physicist, 06. A.A.; Eng. Educ. Electrical engineering; fluorescence and phosphorescence.
- Pierce, Dr. G(eorge) W(ashington)**, Harvard University, Cambridge, Mass. *Physics*. Webberville, Texas, Jan. 11, 72. B.S., Texas, 93, A.M., 94; Harvard, 99, Ph.D., 00; Leipzig, 00-01. Instr. *physics*, *Harvard*, 03-07, asst. prof, 07-17, *prof. and director*, *Cruft Lab*, 17- Nat. Acad; Physical Soc; Radio Eng. (past pres); Elec. Eng; Inventors Guild; Am. Acad. Electrical resonance; electric waves; liquid diffusion and super-saturation; resonance in wireless telegraph circuits; measurement of intensity of sound; crystal rectifiers for alternating currents; electric oscillations and electric waves; transmission line phenomena; piezo electric crystal oscillators; sound; submarine detection.
- Pierce, Prof. H(arold) B(arnard)**, 404 W. Foster Ave, State College, Pa. *Agricultural and bio chemistry*. Kansas City, Mo, Oct. 15, 94. B.S., Mass. Col, 17; M.S., Pa. State, 21; research fellow, Rochester, 26-27. Asst. chemist, Mass. Exp. Sta, 18-19; *asst. prof. food and dairy chem.*, *Pa. State*, 19- Second lieut, Inf, 17-19, capt, C.W. R.S. Chem. Soc. (sec'y, Pa. State Col. sect, 24-). Butter fat; enzymes; milk and dairy products; changes in gastrointestinal contents and urine due to yeast ingestion.
- Pierce, Prof. J(ohn) Stanton**, Georgetown College, Georgetown, Ky. *Organic chemistry*. Catlettsburg, Ky, Oct. 4, 98. B.S., Georgetown (Ky), 20; M.S., Illinois, 21, Ph.D., 24. Grad. asst. *chem.*, Illinois, 20-22; instr., South Dakota, 22-23; *prof.*, *Georgetown (Ky)*, 24- Amino alcohols; catalytic reductions.
- Pierce, Prof. Norval H(arvey)**, 307 N. Michigan Ave, Chicago, Ill. *Medicine*. Washington, D. C, May 13, 63. M.D., Illinois, 85. Prof. otol, Chicago Post-Grad. Med. Sch, 91-95;

- Chicago Polyclinic, 95-00; *prof. laryngol, rhinol. and otol, col. med, Illinois*, 14- Surgeon, hospitals. Otol. Soc. (pres, 17); Laryngol. Ass. (pres, 19); Laryngol, Rhinol. and Otol. Soc. (pres, 04); Am. Med. Ass. (chairman, sect. laryngol. and otol, 15); Col. Surg. Otolology; rhinology; laryngology.
- Pierce, Roy G (ifford)**, U. S. Department of Agriculture, Washington, D. C. *Forestry, Plant pathology*. Norfolk, Nebr, Oct. 22, 84. A.B, B.S, Nebraska, 07; M.S, Michigan, 08. Forest asst. and acting forest supervisor, U. S. Forest Service, 08-12; tree surgeon, Pa. Chestnut Blight Commission, 12-13; *forest pathologist, office forest path. and blister rust control, bur. plant indust, U. S. Dept. Agr*, 13- Treas, Committee for Establishment Nat. Arboretum and Bot. Garden, 23-26. Advertising manager, 'Phytopath,' 21-24. Soc. Foresters; Phytopath. Soc; Wash. Bot. Soc. (sec'y, 20-23). Nursery practise; chestnut blight, white pine blister rust and nursery diseases; naturalizing of lilies of genus *Lilium*.
- Pierce, Prof. T(racy) A(ugustus)**, University of Nebraska, Lincoln, Nebr. *Mathematics*. Paso Robles, Calif, June 4, 91. B.S, California, 14, Ph.D, 16. Instr. *math*, California, 15-16; Harvard, 16-17; *Nebraska*, 19-20, asst. prof, 20-26, *assoc. prof*, 26- Officer, U.S.A, 17-19. Math. Soc; Math. Ass; Circolo Mat. di Palermo. Theory of numbers; algebra.
- Pierce, Dr. W(illiam) Dwight**, Banning, Calif. *Entomology, Biology*. Champaign, Ill, Nov. 16, 81. A.B, Nebraska, 04, A.M, 07; Ph.D, George Washington, 17. Asst. state entomologist, Miss, 04; special field agent, bur. entom, U. S. Dept. Agr, 04-19; v. pres, Gage-Pierce Research Laboratories, 19-20; third v. pres, trustee and managing director biol. dept, The Mineral Metal and By-Products Co, 20-23; *consulting biologist*, 23- A.A; Entom. Soc; Ass. Econ. Entom; Ecol. Soc; Pacific Coast Entom. Soc; Wash. Entom. Soc. Strepsiptera; Rhipiphoridae; Rhynchophora and their parasites; biology of the Rhynchophora of North America; catalogue of Rhynchophora of the world; reclamation of fruit products; fruit confections; laws of the reaction of living creatures to physical forces.
- Pierpont, Prof. James**, Yale University, New Haven, Conn. **Mathematics*. B.S, Worcester, 86; Ph.D, Vienna, 94; LL.D, Clark, 09. *Prof. math, Yale*. A.A; Math. Soc.
- Piers, Harry**, Provincial Museum, N. S. Technical College, Halifax, N. S., Can. *Zoology*. Halifax, Feb. 12, 70. High sch. Asst. librarian, Legislative Library, N. S, 89-92; special cataloguing work, 92-96; asst. librarian, Legislative Library, N. S, 96-99; *deputy keeper Pub. Records, and curator, Provincial Museum, N. S*, 99-; *librarian, Provincial Science Library*, 00-Supt. mines building, Provincial Exhib, 03-17; in charge N. S. exhib, Jamestown Expos, 07; Can. Nat. Exhib, Toronto, 08. N. S. Inst. (rec. sec'y, 94-, librarian, 02-, ed, 'Trans'); hon. mem. Min. Soc. N. S. (librarian, 02-07, and ed, 'Jour,' volumes, 6-19); N. S. Hist. Soc. (cor. sec'y, 07-24, pres, 24-27). Archeology; bibliography; reptiles; batrachians; Orthoptera; birds; fishes; mammals; geology.
- Piersol, Dr. G(eorge) Morris**, 1913 Spruce St, Philadelphia, Pa. *Medicine*. Philadelphia, Oct. 13, 80. B.S, Pennsylvania, 02, M.D, 05. Asst. instr. *med, Pennsylvania*, 07-09, instr, 09-12, assoc, 12-20, *prof, grad. sch. med*, 20- Prof, Woman's Med. Col. of Pa, 17-23. Med. director, Bell Telephone Co. Pa, 20- Asst. physician, Univ. Hosp, 12-17; physician, Phila. Gen. Hosp, 17-; Methodist Hosp, 23- Ed, 'Am. Jour. Med. Sci,' 11-22. A.A; Am. Physicians; Am. Med. Ass; fel. Col. Physicians; Gastro-Enterol. Ass; Climat. Ass; Phila. Path. Soc; fel. Phila. Col. Physicians. Internal medicine.
- Piersol, Dr. R(obert) J(ames)**, Westinghouse Electric and Manufacturing Co, Pittsburgh, Pa. *Physics*. Marion, Kans, Jan. 28, 90. A.B, Allegheny, 12; M.S, Tulane, 13; Tyndale fellow, Pennsylvania, 13-15; Ph.D, California, 16. Fellow, Mellon Inst, 16; research engineer, Engels Copper Mining Co, 17-19; research physicist, Standard Chem. Co, 19-21; asst. prof. physics, Pittsburgh, 21-23; *research physicist, Westinghouse Elec. and Mfg. Co*, 23- Summer, head dept. physics, Chautauqua, 14. A.A; Physical Soc; Min. and Metal. Eng; Math. Soc; Ill. Eng. Soc; British Ass. Photoelectric effect; oil flotation; concentration of radium ore; chromium plated reflectors; directive radio.
- Piersol, Prof. W(illiam) H(unter)**, 35 Dunvegan Road, Toronto, Ont, Can. *Embryology*. Philadelphia, Pa, Sept. 20, 73. B.A, Toronto, 95, M.B, 99; London and Edinburgh, 99-00. Demonstrator biol, McMaster, 96-98; lecturer biol. and histol, Toronto, 02-10, assoc. prof. *histol. and embryol*, 10-23, *prof*, 23- A.A; Ass. Anat; Royal Can. Inst. Embryology and natural history of Amphibia.
- Pierson, C(harles) J**, University of Maryland, College Park, Md. *Zoology*. Ohio, April 12, 66. A.B, Stanford, 96; B.Pd, Nebr. State Nor. Sch, Peru, 06; A.M, California, 16. Teacher, pub. schools, 92-13; zool, Calif. State Nor. Sch, San Jose, 13-14; instr. zool. and entom, and asst. in research, Maryland, 16-19, *prof. vert. morphol*, 19-21, *zool. and head dept. zool. and aquiculture*, 21- Asst. biol. surv, Panama Bay, 96; dept. educ, P. I, 01-05. Gold medal, La. Purchase Expos, 04. A.A; Soc. Mammal; Genetic Ass; Md. Acad. Vertebrate morphology and embryology.
- Pierson, Geo(rge) S(pencer)**, 1301 Grand Ave, Kalamazoo, Mich. *Engineering*. Bergen, N. Y. C.E, Union, 75. *Consulting engineer*, 85- Civil Eng. (director). Hydraulic and sanitary engineering; theory and practise of the separate system of sewerage.
- Pietenpol, Prof. W(illiam) B(rasser)**, 707 14th St, Boulder, Colo. *Physics*. Newkirk, Iowa, March 26, 86. A.B, Cent. Col. (Iowa), 09; A.M, Wisconsin, 14, Ph.D, 16. Asst. *physics*, Wisconsin, 12-16; prof, Hope, 16-18; asst. prof, Pittsburgh, 18-20; assoc. prof, Colorado, 20-22, *prof*, 22- A.A; Physical Soc. Radiation; absorption; linear expansion at high temperatures; radioactivity.

- Pieters, Dr. A(drian) J(ohn)**, 7206 Blair Road, Takoma Park, D. C. **Botany*. Alto, Wis, Nov. 18, 66. B.S. Michigan, 94, Ph.D, 15. Asst. botanist, U. S. Dept. Agr, 95-00, botanist in charge seed and plant introduction and distribution, 00-06, seed grower, 06-10; instr. bot, Michigan, 12-15; *agronomist*, U. S. Dept. Agr, 15- A.A.; Soc. Agron; Wash. Bot. Soc; Wash. Acad. Clover; green manuring.
- Piggot, Dr. Charles S(nowden)**, Carnegie Institution, Washington, D. C. *Physical chemistry*. Sewanee, Tenn, June 5, 92. A.B, B.S, Univ. of South, 14; Pennsylvania, 14-16; du Pont fellow, Hopkins, 19-20, Ph.D, 20. Instr. chem, Univ. of South, 13-14; chemist, E. I. du Pont de Nemours and Co, 15; Ramsay Mem. fellow, Univ. Col, London, 22-23; research chemist, U. S. Indust. Alcohol Co, 20-22, 23-25; *physical chemist*, *geophys. lab*, Carnegie Institution, 25- Chem. Soc; Wash. Philos. Soc. Radio-active disintegration in geology; catalysis; age of geologic formations.
- Pike, Clayton W(arren)**, 1520 Locust St, Philadelphia, Pa. *Electrical engineering*. Fryeburg, Maine, July 11, 66. Fryeburg Acad; Mass. Inst. Tech, 86-89. Elec. engineer, Merrimack Mfg. Co, Mass, 89-90; instr. elec. eng, Pennsylvania, 90-92; elec. engineer, Queen Co, Inc, Pa, 93-94; Falkenau Eng. Co, 94-00; v. pres. and gen. manager, Keller-Pike Co, 00-11; *chief*, *Elec. Bur*, Phila, 12- Consulting engineer, City of Pittsburgh, 19; Pub. Improv. Commission, Baltimore, 22; Phila. Rapid Transit Co, 23-Major, ordnance dept, 19. Elec. Eng; Illum. Eng. Soc; Soc. Munic. Eng. (v. pres, 14); Int. Soc. Munic. Electricians (v. pres, 12); Phila. Eng. Club (past pres). Power plants; electrical transmission.
- Pike, Prof. F(rank) H(enry)**, 437 W. 59th St, New York, N. Y. **Physiology*. Aurora, Ill, Jan. 20, 76. A.B, Indiana, 03; Ph.D, Chicago, 07. Instr. *physiol*, Chicago, 07-11; asst. prof, *Columbia*, 11-16, *assoc. prof*, 16- Instr. biol. sta, Indiana, 04; Woods Hole, 09. Committee on vestibular research, Nat. Research Council. A.A.; Physiol. Soc; Soc. Zool; Soc. Exp. Biol; Ecol. Soc; Harvey Soc; N. Y. Acad. (v. pres, 18). Effect of pressure in the coronary vessels upon the deportment of the heart; resuscitation of the central nervous system; automaticity of the respiratory and other bulbar nervous mechanisms; degenerate eyes of the Cuban cave shrimp; heredity of sex; mechanism of spinal shock; the phylogeny of function in the central nervous system, with special reference to the segmental theory and the theory of cerebral localization; the labyrinth, cerebellum and vertigo; adaptation and the theorem of Le Chatelier; the struggle for existence from the point of view of thermodynamics.
- Pilcher, Dr. J(ames) D(ouglas)**, Babies' and Children's Hospital, Cleveland, Ohio. *Pediatrics*. Guelph, Ont, Can, Nov. 2, 79. A.B, Western Reserve, 02, M.D, 05. Dept. pharmacol, Western Reserve, 08-14; Nebraska, 14-17; *dept. pediat*, *Western Reserve and Babies' and Children's Hosp*, 17- Soc. Pharmacol; Physiol. Soc. The effects of atropin, caffen and alcohol on the vaso-motor center; wheal reactions.
- Pilcher, Dr. Lewis Stephen**, 489 Washington Ave, Brooklyn, N. Y. *Anatomy, Surgery*. Adrian, Mich, July 28, 45. A.B, Michigan, 62, A.M, 63, M.D, 66, LL.D, 00; Dickinson, 00. Adjunct prof. anat, L. I. Col. Hosp, 79-83; prof. surg, N. Y. Post-Grad. Med. Sch, 85-95. Surgeon, M. E. Hosp, Brooklyn, 87-07; German Hosp, 00-08. Ed, 'Annals Surg', 85- Surg. Ass. (v. pres, 93, pres, 19); N. Y. State Med. Soc. (pres, 92); Kings Co. Med. Soc. (pres, 00); hon. mem. N. Y. Surg. Soc; hon. mem. Phila. Acad. Surg; assoc. fel. Phila. Col. Physicians.
- Pillsbury, Prof. W(alter) B(owers)**, University of Michigan, Ann Arbor, Mich. **Psychology*. Burlington, Iowa, July 21, 72. Penn (Iowa), 88-90; A.B, Nebraska, 92; Ph.D, Cornell, 96. Instr. math, Grand Island, 92-93; asst. psychol, Cornell, 95-97; instr, *Michigan*, 97-00, asst. prof. philos. and director psychol. lab, 00-05, junior prof, 05-10, *prof. psychol*, 10- Non-res. lecturer, Columbia, 08-09; summer, Chicago, 10. Collaborator, 'Am. Jour. Psychol.', 97; 'Psychol. Rev.', 10; 'Jour. Educ. Psychol.', 10. Nat. Research Council, 20-23. Nat. Acad; A.A; Psychol. Ass. (pres, 10); Physiol. Soc; West. Philos. Ass. (pres, 06); for. assoc. mem. Soc. française de Psychol. Reading; circulation in relation to consciousness; fatigue of sensory processes; attention; psychology of reasoning; standards of intensity of sound; psychology of nationality; language.
- Pilot, Dr. I(sadore)**, 3163 Pine Grove Ave, Chicago, Ill. *Pathology, Bacteriology*. Chicago, Oct. 16, 95. M.D, Illinois, 17; B.S, Chicago, 19. Instr. path. and bacter, *col. med*, *Illinois*, 20-24, assoc, 24-26, *asst. prof. path, bacter. and med*, 26- A.A; fel. Am. Med. Ass; Soc. Internal Med; Chicago Path. Soc; Chicago Inst. Med. Bacteriology of the upper respiratory tract; fusiform bacilli; spirochetes; streptococci.
- Pilsbry, Dr. H(enry) A(ugustus)**, Academy of Natural Sciences, Philadelphia, Pa. **Zoology, Paleontology*. Iowa City, Iowa, Dec. 7, 62. B.S, hon. Sc.D, Iowa. *Special curator dept. Mollusca*, Acad. Nat. Sciences, Phila, 88- Ed, 'The Nautilus', 89- Philos. Soc; Phila. Acad; cor. mem. London Zool. Soc; London Malacol. Soc; Soc. Belge de Zool. et Malacol; Real Acad. Cien. Madrid; Senckenberg. Naturforscher Gesell. Systematics; anatomy and phylogeny of land mollusks and of Cirripedes.
- Pinchot, Gifford**, Milford, Pa. **Forestry*. Simsbury, Conn, Aug. 11, 65. A.B, Yale, 89, hon. A.M, 01; Nancy, 90; hon. A.M, Princeton, 04; Sc.D, Mich. State Col, 07; LL.D, McGill, 09. Consulting forester, 92-98; in charge forestry, Biltmore estate, 92-94; Nat. Forest Commission, Nat. Acad, 95-96; confidential forest agent to Sec'y of the Interior, 97; forester, U. S. Dept. Agr, 98-10; state forester, Pa, 20-23, governor, 23-27. Committee on Organization of Govt. Sci. Work and of Commission on Pub. Lands, 03-; committee on Govt. Dept. Methods, 05-; Inland Waterways Commission, 07-; chairman, Nat. Conservation Commission, 08; Country Life Commission, 08-; chairman, Joint Committee on Conservation, 08. Medal, Nat. Acad, 16. A.A; Forestry Ass; Ass. Agr. Col; Nat. Conservation Ass. (pres,

- 10-); Min. Eng; Civil Eng; Am. Geog. Soc; Econ. Ass; Acad. Polit. Sci; Wash. Acad. (v. pres, 08-). Forestry in the United States.
- Pinckney, Dr. R(euben) M(arion)**, University Farm, St. Paul, Minn. *Soils*. Macksburg, Iowa, Dec. 3, 80. B.S. Nebr. Wesleyan, 06; A.M. Nebraska, 08; Ph.D. Minnesota, 24. Asst. chemist, Mont. Exp. Sta, 08-22; research asst, div. soils, *Minnesota*, 22-25, *asst. Exp. Sta*, 25- Chem. Soc. Bleaching of wheat flour; Portland cement; alkali soils; chemical uniformity of soils; requirements of corn and sunflowers; nitrogen supply and the cyanide content of sorghum plants; the moisture equivalent of soils; phosphorus fertilizers.
- Pinney, Prof. Mary Edith**, Milwaukee-Downer College, Milwaukee, Wis. *Biology*. Iowa City, Iowa. A.B. Kansas, 08, A.M. 10; Bonn and Heidelberg, 11-12; Bryn Mawr, 18. Instr. zool. Kansas, 12-13; demonstrator biol. Bryn Mawr, 13-17; instr. zool. Wellesley, 17-19; prof. biol. Lake Erie, 19-24; *asst. prof. zool. Milwaukee-Downer*, 24- A.A.; Soc. Zool. Cytology; spermatogenesis of insects; cytology of fish hybrids.
- Pintner, Prof. Rudolf**, Teachers College, Columbia University, New York, N. Y. **Psychology*. Lytham, Eng. Nov. 16, 84. M.A. Edinburgh, 06; Ph.D. Leipzig, 11. Prof. *psychol.* Toledo, 12-13; instr. Ohio State, 13-14, *asst. prof.*, 14-17, *prof.*, 17-21; *Teachers Col. Columbia*, 21-Ed. board, 'Psychol. Bul'; 'Jour. Educ. Psychol.' Psychol. examiner, U.S.A., 17. A.A.; Psychol. Ass. (councilor, 24-26). Educational psychology; reading attention and reaction time of children; tests for mental classification of children; mental tests of the deaf.
- Piper, Arthur M(aine)**, Idaho Bureau of Mines and Geology, Moscow, Idaho. *Geology*. Thomaston, Maine, Sept. 20, 98. B.S. Tufts, 19; M.S. Idaho, 20, 25. Topographer, *Idaho Bur. Mines and Geol.* 20-21, *asst. geologist*, 21-23, *geologist*, 23- *Asst. geologist*, U. S. Geol. Surv. 22. Min. and Metal. Eng. Ground water hydrology; geology of ore deposits.
- Pitman, Prof. John H(imes)**, 328 Vassar Ave, Swarthmore, Pa. *Astronomy*. Conshohocken, Pa, April 7, 90. A.B. Swarthmore, 10, A.M. 11, Lippincott fellow, 11-12; Lick Observatory fellow, California, 12-13. Instr. *math. and astron.* Swarthmore, 13-18, *asst. prof.*, 18- A.A.; Astron. Soc; Math. Ass; fel. Royal Astron. Soc. Stellar parallaxes; masses of binary stars; orbits of comets and asteroids.
- Pittier, H(enri François)**, Caracas, Venezuela, S. Amer. *Botany*, *Ethnography*. Bex, Switzerland, Aug. 13, 57. A.B. Lausanne, 75, B.S. A.M. 76; C.E. Swiss Polytech, 80; Jena, 80-81. Swiss Topog. Surv. 81-82; prof. nat. hist, Inst. Henchoz, 82-85; physical geog. Lausanne, 85-87; director, Geog. and Nat. Hist. Surv. Costa Rica, 87-04; expert, United Fruit Co, 04-05; bionomic investigator, U. S. Dept. Agr, 05-19; *director, Commercial Museum, Caracas*, 20- Officier de l'Instruction pub. A.A.; Bot. Soc; Ecol. Soc; Anthropol. Ass; Ass. Geog; Ass. Mus; Wash. Anthropol. Soc; Wash. Biol. Soc; hon. cor. mem. Royal Geog. Soc. and Royal Scottish Geog. Soc; hon. mem. Soc. des Sci. Nat; Berlin Gesell. Anthropol. und Ethnog; Zurich Geol. Gesell; Soc. Belge de Bot; Soc. Suisse de Bot; Soc. Cient. Ant. Alz; Acad. Cienc. y Let. de San Salvador; Soc. Geog. de Madrid; Soc. Helvétique des Sci. Nat. Geography; climate and native tribes of Costa Rica; flora of Central America and Venezuela; economic plants of tropical America; Indians of Colombia; flora of Central and South America; languages of Costa Rican Indians.
- Pittman, D(on) W(arren)**, Utah Agricultural College, Logan, Utah. *Agriculture*, *Agronomy*. Bloomfield, Iowa, Feb. 10, 91. B.S. Iowa Col, 14; M.S. Utah Col, 16. Instr. *asst. prof.* and *assoc. prof. agron.* Utah Col, 16- A.A.; Soc. Agron; fel. Utah Acad. Alkali soil; irrigation; soil fertility.
- Pittman, E(mest) E(dgar)**, 706 W. 32d St, Austin, Texas. *Bacteriology*. Mayfield, Ky, June 5, 88. B.S. Kentucky, 15; Ph.D. Cornell, 23. Prof. Brazil, 17-18; instr. Cornell, 18-23; *adjunct prof. bacter.* Texas, 25- Soc. Bact. Bacterial content of creamery wastes; the correlation between differential tests for colon bacteria and sanitary quality of water; anaerobic bacteria in milk; fermentation of cellobiose by the colon typhoid group of bacteria.
- Plank, H(arold) K(auffman)**, Box 5171, Station B, New Orleans, La. *Entomology*. Morgantown, Pa, May 4, 91. B.S. Pa. State, 14. Deciduous fruit insect investigations, *bur. entom.* U. S. Dept. Agr, 14-20; cacao and trop. fruit insect investigations, *dept. agron.* La Asociacion de Agricultores del Ecuador, 20-21; chief agr. dept. Trop. Oil Co, Colombia, 21-22; *in charge camphor scale, trop. and sub-trop. fruit insect investigations, bur. entom.* U. S. Dept. Agr, New Orleans, 23- Ass. Econ. Entom; La. Entom. Soc. (v. pres, 24). Life history and control of the codling moth and of the blackheaded fireworm of cranberry; the camphor scale; sub-tropical fruit insects.
- Plank, W(illiam) B(ertolette)**, 246 Taylor Ave, Easton, Pa. *Mining engineering*. Morgantown, Pa, June 24, 86. B.S. Pa. State, 08, E.M. 09. Instr. sch. mines, Pa. State, 08-09; mining engineer, Phila. and Reading Coal and Iron Co, 09-12; Pittsburgh Coal Co, 12-16; *asst. mining engineer, mining engineer and dist. mining engineer*, U. S. Bur. Mines, 16-20, consulting engineer, 23-24; *George B. Markle prof. mining eng. and head dept. Lafayette*, 20- Chairman, Emergency Fuel Commission, Easton, 25-26; Civil Service Commission. A.A.; Min. and Metal. Eng. (chairman, Lehigh Valley sect); Coal Min. Inst; Eng. Educ; Soc. Test. Mat. (committee, D-16); Lehigh Valley Eng. Club. Physical properties of slate.
- Plant, Dr. James S(tuart)**, Essex County Juvenile Clinic, 502 High St, Newark, N. J. *Psychology*. Minneapolis, Minn, August 3, 90. A.B. Hamilton, 12; A.M. Pennsylvania, 13, M.D. 18; Sorbonne, 19-20. Pathologist, McLean Hosp, Waverley, Mass, 20-22; *asst. Judge Baker Foundation*, Boston, 22-23; *director, Essex Co. Juvenile Clinic*, 23- Psychiat. Ass; Psychol. Ass; N. J. Med. Soc; Phila. Psychiat.

- Soc; Boston Soc. Psychiat. and Neur. Conduct disorders in adults and children.
- Plant, Prof. L(ouis) C(lark)**, Michigan State College, East Lansing, Mich. *Mathematics*. Nunica, Mich, Nov. 24, 70. Ph.B, Michigan, 97; Chicago, 97-98, M.S, 04. Asst. math, Bradley Polytech, 98-00, assoc, 00-04, instr, 04-07; assoc. prof, Montana, 07-08, *prof*, 08-13; *Mich. State Col*, 13- A.A; Math. Soc; Math. Ass; Eng. Educ. Geometrical applications of Jacobi's functions; optical transformations; introductory mathematical analysis; agricultural mathematics.
- Plaskett, H(arry) H(emley)**, Dominion Astrophysical Observatory, Victoria, B. C, Can. *Astrophysics*. Toronto, Ont, July 5, 93. B.A, Toronto, 16. *Astronomer*, *Dominion Astrophys. Observatory*, 19- Astron. Soc; Physical Soc; Royal Astron. Soc. O-type stars; wedge method in spectrophotometry.
- Plaskett, Dr. J(ohn) S(tanley)**, Dominion Astrophysical Observatory, Victoria, B. C, Can. *Astronomy*, *Astrophysics*. Near Woodstock, Ont, Nov. 17, 65. Woodstock Col. Inst, 78-80; B.A, Toronto, 99, D.Sc, 23; Sc.D, Pittsburgh, 13; LL.D, British Columbia, 25. Asst. physics, Toronto, 90-03; astronomer, Dept. Interior, Can, 05-17; *director*, *Dominion Astrophys. Observatory*, 17- Lecturer, Toronto, 01. In charge observational work, Can. eclipse exped, Labrador, 05. Fel. Royal Soc. Can; fel. Royal Astron. Soc. Can. (past pres); fel. Royal Soc; fel. Royal Astron. Soc. Orbits of spectroscopic binary stars; optical properties of the telescope and spectrograph; orthochromatic and color photography; radial velocities of stars; dimensions eclipsing variable stars; O-type stars.
- Plath, O(tto) E(mil)**, 688 Boylston St, Boston, Mass. *Entomology*. Grabow, Germany, April 13, 85. A.B, Northwestern Col, 10; A.M, Washington, 12; Carl Schurz fellow, Columbia, 14-15; M.S, Harvard, 25. Asst. German, Washington (Seattle), 11-12; teaching fellow, California, 12-14; instr. modern languages, Mass. Inst. Tech, 15-18, 21-23; asst. zool, Hopkins, 20-21; *instr*. German, *Boston*, 22-26, *German and biol*, 26- Asst, Harvard, 25. A.A; Entom. Soc; Friends Med. Progress; Pacific Coast Entom. Soc; East. Mass. Soc. Beekeepers; Boston Soc. Nat. Hist; Cambridge Entom. Soc. Biology of bumblebees.
- Platt, Dr. Charles**, Roberts Road, Ardmore, Pa. *Physiological chemistry*. Montclair, N. J, March 16, 69. B.S, Lehigh, 90; Ph.D, Ohio (Athens), 92; M.D, Hahnemann Med. Col, Phila, 00; Hopkins, 93-94; Edinburgh, Paris, London, 94-00. Chemist with Thomas A. Edison, 90-91; *prof. chem. and toxicol*, *Hahnemann Med. Col, Phila*, 94-09, *emer. prof*, 09- Practising physician, 09-19. A.A; fel. London Chem. Soc; hon. fel. London Soc. Biol. Chem. Social delinquency.
- Platt, Dr. Julia B(arlow)**, 105 Grand Ave, Pacific Grove, Calif. *Anatomy*. San Francisco, Calif, Sept. 14, 57. Ph.B, Vermont, 81; Ph.D, Freiburg, 97. Anat. Gesell. Morphology; origin of the nerves and head segments.
- Plaut, Dr. Alfred**, Eighth St, Bayside, N. Y. *Pathology*. Frankfurt-am-Main, Germany. M.D, Freiburg, 13. Asst. pathologist, Hamburg, 13-22; *pathologist*, Barnert Mem. Hosp, Paterson, N. J, 22-23; *Woman's Hosp*, New York, 24- Instr. med. col, Cornell. Ass. Path. and Bact; N. Y. Path. Soc; Int. Ass. Med. Mus; Path. Gesell. Pathology of hypophysis; ulcer of the stomach; cancer of the cervix; avitaminosis; development of medical thought; malformations of the heart; problems of respiration.
- Plitt, Prof. Charles C(hristian)**, 3933 Lowndes Ave, Baltimore, Md. *Botany*. Baltimore, May 6, 69. Baltimore City Col, 86; Ph.G, Maryland, 91; Sc.D, Md. Acad, 21. Teacher bot, Baltimore City Col, 04-24; assoc. bot. and mat. med. and *prof. veg. histol*, *Maryland*, 07-20, *bot. and mat. med*, 20- A.A; Bot. Soc; Ecol. Soc; Sullivant Moss Soc; Fern Soc; Md. Acad. (chairman, bot. sect). Microscopic investigation of drugs; lichens.
- Plough, Prof. Harold H(enry)**, Amherst College, Amherst, Mass. *Biology*. New York, N. Y, April 5, 92. A.B, Amherst, 13; A.M, Columbia, 15, fellow, 16-17, Ph.D, 17. Instr. *biol*, *Amherst*, 17-19, assoc. prof, 19-24, *prof*, 24- Instr, Woods Hole, 22- Managing ed, 'The Amherst Books,' 24- A.A; Soc. Nat; Soc. Zool; Soc. Bact; Eugenics Research Ass. Genetics; experimental embryology.
- Plowman, Dr. Amon B(enton)**, 346 Crown St, Akron, Ohio. *Botany*. Greenville, Ohio, May 14, 73. B.S, Ohio Wesleyan, 99; A.M, Ph.D, Harvard, 05. *Prof. nat. science*, Kans. State Nor. Sch, 05-06; *biol*, Beaver, 06-09; Carroll, 09-15; *Akron*, 15- Director pub. health educ, Akron, Ohio. A.A; Bot. Soc; Pub. Health Ass; Ohio Acad. Plant physiology and morphology; forestry; anatomy of the Cyperaceae and Juncaceae; biology applied to health education.
- Plum, Dr. H(arley) M(artin)**, Aluminum Co. of America, New Kensington, Pa. *Chemistry*. Ashville, Ohio. A.B, Ohio State, 02, A.M, 09; Ph.D, Chicago, 14. Teacher, high sch, Colo, 02-07; Ohio, 07-12; assoc. prof. agr. chem, Nebraska, 13-16, prof, 16-18; research chemist, Standard Chem. Co, 18-20, asst. pres, 20-25; *research*, *Aluminum Co. of Amer*, 25- A.A; Chem. Soc. Radio-active constituents of carnotite; toxicity in soils.
- Plumb, Prof. C(harles) S(umner)**, Ohio State University, Columbus, Ohio. *Animal husbandry*. Westfield, Mass, April 21, 60. B.S, Mass. Col, 82. Asst. ed, 'Rural New Yorker,' 83-84; first asst, N. Y. Exp. Sta, Geneva, 83-87; prof. agr, Tennessee, and asst. director, Exp. Sta, 87-90; prof. animal husbandry and dairying, Purdue, and director, Ind. Exp. Sta, 91-02; *prof. animal husbandry*, *Ohio State*, 02- A.A; Soc. Animal Production. Relationship of animal form to function; animal fibers and their uses; breed evolution.
- Plummer, F(rederik) B(yron)**, Amerada Petrol. Corporation, Fort Worth, Texas. *Geology*. Hanover, N. H, Aug. 31, 86. B.S, Dartmouth, 09; fellow, Chicago, 13-15. Asst. geol, Chicago, 10-11; instr, Vassar, 11-13; geologist, Roxana Petrol. Co, 15-20; Bataafsche Petrol. Co, The

- Hague, Holland, 20-23; Rycade Oil Corp, 23-26; *chief geologist, Texas Amerada Petrol. Corp*, 26-; Lecturer, Chicago, 24-27; summer, geologist, Wis. Geol. Surv, 14. A.A. Geology of the northern White Mountains, New Hampshire; iron ore districts in north-central Wisconsin; stratigraphy of Pennsylvanian formations of north-central Texas.
- Plummer, Dr. Henry S(tanley)**, Mayo Clinic, Rochester, Minn. *Internal medicine*. Hamilton, Minn, March 3, 74. Minnesota, M.D, Northwestern, 98. *Chief div. med, Mayo Clinic, pres, Mayo Foundation, and prof. med, grad. sch, Minnesota*. A.A.; Am. Med. Ass. (chairman, sect. practise med, 21); Am. Physicians; Col. Physicians (first v. pres, 22, regent, 24-26); Ass. Study Int. Secretions; Ass. Thoracic Surg. (v. pres, 20); Med. Library Ass; Pub. Health Ass; Interurban Clin. Club; Minn. Path. Soc.; Minn. Hort. Soc. Cardiospasm; diverticula of the esophagus; esophageal obstructions; diffuse dilatation of the esophagus; blood pressure and hyperthyroidization; function of the thyroid; classification of goiters; pathogenesis of goiter; exophthalmic goiter.
- Plummer, Dr. J(ames) K(emp)**, East Point, Ga. *Chemistry*. Middleburg, N. C, Sept. 20, 86. B.S, N. C. State, 07, M.S, 09; A.M, Cornell, 11, Ph.D, 15. Asst. chemist, N. C. Exp. Sta, 07-09; asst. chem, Cornell, 10-11; soil chemist, N. C. Exp. Sta, 11-18; state chemist, N. C, 18-21; *production manager, South. Agr. Chem. Corp*, 21-; Chem. Soc. (pres, N. C. sect, 15); Soc. Agron. Soil chemistry; mineralogy; bacteriology; manufacture of heavy chemicals.
- Plummer, Dr. S(amuel) C(raig)**, 4539 Oakenwald Ave, Chicago, Ill. *Surgery*. Rock Island, Ill, April 27, 65. A.B, Augustana, 83, A.M, 86, Ph.D, 00; M.D, Northwestern, 86. Prof. anat, Northwestern, 92-95, operative surg, 95-05, clin. prof. surg, 05-08; *senior attending surgeon, St. Luke's Hosp, Chicago*. Chief surg. service, U.S.A. Base Hosp, U.S.A., 18. Surg. Ass. Anatomy of the middle meningeal artery; dystopic kidney.
- Plunkett, Dr. C(harles) R(obert)**, New York University, New York, N. Y. *Biology*. New York, Nov. 3, 92. A.M, Columbia, 25, Ph.D, 26. Instr. *biol*, N. Y. Univ, 24-27, asst. prof, 27-; Physiology of development; genetics.
- Plunkett, Dr. Orda Allen**, 855 N. Vermont Ave, Los Angeles, Calif. *Botany*. Advance, Ind, Aug. 4, 97. A.B, Wabash, 20; A.M, Illinois, 22, Ph.D, 24. Asst. *bot*, Illinois, 20-23; asst. prof, Ill. State Nor. Univ, 24-25; *instr, California at Los Angeles*, 25-; A.A; Phytopath. Soc; Micros. Soc. Plant pathology; mycology.
- Plyler, Dr. E(arle) K(eith)**, Chapel Hill, N. C. *Physics*. Travellers Rest, S. C, April 26, 97. A.B, Furman, 17, A.M, 18; A.M, Hopkins, 23; Ph.D, Cornell, 24. Asst. *prof. physics*, Furman, 20-22; *North Carolina*, 24-; Physical Soc. Infra-red absorption of ice; growth of ice crystals; isotopic effect in infra-red spectra.
- Poffenberger, Prof. A(ibert) T(theodore), Jr**, Columbia University, New York, N. Y. **Psychology*. Dauphin, Pa, Oct. 23, 85. A.B, Bucknell, 09, Sc.D, 26; A.M, Columbia, 10, Ph.D, 12. Asst. *psychol*, Columbia, 11-12, lecturer, 12-14, instr, 14-19, asst. prof, 19-22, assoc. prof, 22-27, *prof. and exec. head dept*, 27-; Capt, Sanit.C, 17-19. A.A; Psychol. Ass. (councilor, 24). Applied psychology; fatigue; speed of nerve conduction; transfer of training; mental effect of drugs.
- Pogue, Dr. J(oseph) E(zekiel)**, 42 W. 12th St, New York, N. Y. *Petroleum engineering*. Raleigh, N. C, June 6, 87. A.B, North Carolina, 06, M.S, 07; Ph.D, Yale, 09; Heidelberg, 11. Asst. geologist, N. C. Geol. Surv, 06-08; asst. miner, Sheffield Sci. Sch, Yale, 08-09; asst. curator div. miner, U. S. Nat. Museum, 09-13; assoc. geologist, U. S. Geol. Surv, 13-19; assoc. prof. geol. and miner, Northwestern, 14-17; curator div. mineral technol, U. S. Nat. Museum, 17-19; director econ. research, Sinclair Consol. Oil Corp, 19-21; *consulting engineer*, 21-; Asst. director, bur. oil conservation, U. S. Fuel Ad, 17-19. Geol. Soc; Ass. Petrol. Geol; Min. and Metal. Eng; Mech. Eng; Automotive Eng; Petrol. Inst; Statist. Ass; Econ. Ass. Geology; geography; industrial economics; energy resources of the United States; petroleum economics.
- Pohl, Erwin R(obert)**, U. S. National Museum, Washington, D. C. *Paleontology*. Albany, N. Y, March 16, 04. A.B, George Washington, 24, A.M, 25. N. Y. Geol. Surv, 21-22; *div. paleont, U. S. Nat. Museum*, 22-; Fel. Paleont. Soc; Wash. Geol. Soc. Paleozoic paleontology and stratigraphy; middle Devonian paleontology of New York.
- Pohlman, Prof. Augustus G(rote)**, St. Louis University, St. Louis, Mo. *Anatomy*. Buffalo, N. Y, Feb. 21, 79. M.D, Buffalo, 00; Freiburg, 01-03. Asst. *anat*, Cornell, 00-01, instr, 01-03; asst, Hopkins, 03-04; asst. prof, Indiana, 04-06, assoc. prof, 06-07, junior prof, 07-08, prof, 08-13; *prof. and director dept, St. Louis*, 13-; Summer, instr, California, 18; assoc, Riverbank Laboratories, Geneva, Ill, 23. A.A; Ass. Anat; St. Louis Acad. Comparative anatomy and embryology; middle ear region in birds and mammals; vascular system; acuity for air and bone transmitted sound.
- Poitevin, Dr. Eugene**, Geological Survey of Canada, Ottawa, Ont, Can. *Mineralogy*. Montreal, Que, Dec. 2, 88. B.A.Sc, Polytech. Sch, Montreal, 11; Harvard, 14; Cornell, 15; D.Sc, Montreal, 21. Asst. mineralogist, *Can. Geol. Surv*, 13-19, assoc. mineralogist, 19-24, *chief div. miner*, 24-; Fel. Miner. Soc; Can. Min. Inst; fel. Royal Soc. Can; Soc. miner. de France. Optical mineralogy; crystallography; geochemistry of eastern asbestos camps in Quebec; mineralogy of the Black Lake Area.
- Pollard, Charles L(ouis)**, Bethel, Maine. *Botany*. New York, N. Y, March 29, 72. A.B, Columbia, 93, A.M, 94. Asst. curator, U. S. Dept. Agr, 94-95; div. plants, U. S. Nat. Museum, 95-03; consulting botanist, G. and C. Merriam Co, Springfield, Mass, 03-06; curator-in-chief, pub. museum, Staten Isl. Ass. Arts and Sciences, 07-13; *private tutor*, 13-; Ed, 'Plant World,' 99-07; contributor bot. terms, 'Suppl. Webster's

- Int. Diet,' 00; 'Century Diet,' 03; 'Webster's New Int. Diet,' 03-06. A.A.; Wild Flower Preservation Soc. (sec'y, 02); hon. mem. Wash. Biol. Field Club (pres, 00); hon. mem. Phila. Bot. Club. Entomology and botany of North America; genetics.
- Pollard, Prof. F(rank) H(owell)**, Box 17, Clemson College, S. C. *Chemistry*. Auburn, N. Y., Aug. 21, 92. Ch.B., Cornell, 16, Ph.D., 22. Prof. *chem*, Huron, 17-18; asst. prof., *Clemson*, 22-24, *assoc. prof.*, 24- Chem. Soc. Physical chemistry; adsorption of gases by platinum.
- Pollitzer, Dr. S(igmund)**, 1 W. 70th St, New York, N. Y. *Medicine*. Richmond Co, N. Y., June 12, 59. A.B., Col. City of N. Y., 79, A.M., 82; M.D., Columbia, 84; Heidelberg, Berlin and Vienna, 84-86; Hamburg, 89-90. Adjunct prof. dermat., N. Y. Post-Grad. Med. Sch., 06-09, prof., 10-15. A.A.; Am. Med. Ass.; Ass. Path. and Bact.; Dermat. Ass. (pres, 14); N. Y. Acad. Med. (chairman, sect. dermat., 09-11); Dermat. Gesell.; cor. mem. Ass. française de Dermat. Physiology; dermatology.
- Pollock, Dr. Ja(me)s B(arkley)**, 922 Church St, Ann Arbor, Mich. *Botany*, *Microbiology*. Orangeville, Ill., Nov. 10, 63. B.S., Wisconsin, 93, M.S., 96; Sc.D., Michigan, 97; Leipzig, 97-98. Teacher, high sch., Ill., 94-95; asst. *bot.*, *Michigan*, 95-97, instr., 98-06, asst. prof. and assoc. prof., 06-25, *prof.*, 25- A.A.; Soc. Nat.; Bot. Soc.; Bot. Cent. States; Mich. Acad. (sec'y and ed., 01-03, pres, 06). Traumatropic curvature of roots; transition from stem to root in *Echinocystis lobata*; the prothallium in pollen grains; *Polystichus hirsutus* as a wound parasite on mountain ash; fungi and soil biology; carbon nutrition of a fungus; the brown rot of stone fruits; deposition of marl by blue-green algae; coralline algae; coral reefs.
- Pollock, Dr. Lewis John**, 25 E. Washington St, Chicago, Ill. *Neurology*. Moscow, Russia, April 18, 86. M.D., Illinois, 06. *Practising neuropsychiatrist*; *prof. neur. and mental diseases*, *Northwestern*. Neur. Ass.; Ass. Research Nervous and Mental Diseases; Chicago Neur. Soc.; Chicago Inst. Med. Neuropsychiatry; pathological anatomy; physiology of the nervous system.
- Pomeroy, O(arl) S(tone)**, Box 586, Riverside, Calif. *Horticulture*. Franklin, Vt., May 31, 82. Ph.B., Vermont, 04, B.S., 06. Asst. hort., Vt. Exp. Sta., 06-07; Mass. Exp. Sta., 07-08; sci. asst. and asst. pomologist, fruit transportation and storage, *bur. plant indust.*, U. S. Dept. Agr., 08-13, assoc. pomologist and pomologist, fruit improvement investigations, 13-18, investigator, marketing fruits and vegetables, 18-20, *assoc. pomologist*, *fruit improvement investigations*, 20- A.A.; Genetic Ass.; Pomol. Soc. Bud variation and selection in citrus fruits.
- Pomeroy, Prof. Fred E(lmer)**, 342 College St, Lewiston, Maine. *Biology*. Lewiston, March 6, 77. A.B., Bates, 99; A.M., Harvard, 02; Mass. Inst. Tech. and Harvard, 13-14; hon. Sc.D., Hillsdale, 25. Asst. chem. and physics, *Bates*, 99-01, instr. bot., 00-01, *biol.*, 92-06, *prof.*, 06-, dean men, 21-26. A.A.
- Pomeroy, Prof. J(ohn) C(alvin)**, Yale University, New Haven, Conn. *Physics*. Kincardine, Ont., Can., 77. B.A., Queen's (Can.), 07; fellow, Princeton, 08-10, A.M., 09; McGill, 10-11; Iowa, 16, 17. Lecturer physics, Alberta, 11-12; instr., Iowa Col., 12-17; acting prof., Mil. Col. of S. C., 17-18; asst. prof., Syracuse, 19-21; *prof.*, Bethany, 21-23; *physics and chem*, Southwestern, 23-26; *Yale*, 26- Instr., S.A.T.C., Hedding Col., 18-19. A.A.; Physical Soc.; Chem. Soc.; Tenn. Acad. Electrification due to spraying; thermionics; selenium.
- Pomeroy, Dr. William C(yrus)**, 2534 College Ave, Berkeley, Calif. *Physics*. Chicago, Ill., Aug. 15, 91. B.S., California, 14, M.S., 20, Ph.D., 26. Supt. Univ. Apparatus Co., 14-18; asst. *physics*, California, 16-19, instr., 19-20, assoc., 20-22, teaching fellow, 22-25; *instr.*, *Calif. Col. Pharmacy*, 25- Instr., U.S.A. Sch. Vocational Training, 18. A.A.; Physical Soc.; Elec. Eng. Electricity; band spectra.
- Pond, Prof. F(rancis) J(ones)**, Stevens Institute, Hoboken, N. J. *Chemistry*. Hollister, Mass., April 8, 71. B.S., Pa. State, 92; Ph.D., Göttingen, 96. Instr. assaying, Pa. State, 96-01, metal, 99-01, asst. prof. assaying and chem., 01-03; *eng. chem.*, *Stevens*, 03-09, *prof. and director*, *Morton Lab.*, 09-, *dean freshmen*, 07- A.A.; Chem. Soc. (v. chairman, N. Y. sect., 07-09). Organic chemistry; chemistry of the terpenes; eugenol, safrol, anethol and apiol.
- Pond, Prof. Samuel E(rnest)**, University of Pennsylvania, Philadelphia, Pa. *Physiology*. Woonsocket, R. I., March 27, 90. B.H., Springfield Col., 12; fellow, Clark, 15-17, 19-21, A.M., 17, Ph.D., 21. Instr., Adelbert Col., Western Reserve, 18-19; physiologist and acting director, Research Inst., Nat. Dental Ass., 17-19; assoc. biologist, Nela Research Lab., 21-24; *instr. physiol.*, sch. med., Washington (St. Louis), 24-25; *asst. prof.*, sch. med., *Pennsylvania*, 25- Investigator, Woods Hole, 18-, custodian, 25- A.A.; Physiol. Soc.; Optical Soc.; Franklin Inst. General physiology; muscle contraction wave velocity; action of ultra-violet radiation on protoplasm; energy transformations in living tissues.
- Pool, Dr. Eugene H(illhouse)**, College of Physicians and Surgeons, Columbia University, New York, N. Y. *Surgery*. A.B., Harvard, 95; M.D., Columbia, 99. *Clin. prof. surg.*, *Columbia*; *attending surgeon*, *New York Hosp.* Consultant surg., French, Orthopedic, Ruptured and Crippled, Portchester and Central Islip Hospitals. Surg. Soc.; N. Y. Surg. Soc.; Int. Surg. Soc. Surgery.
- Pool, Prof. Raymond J(ohn)**, University of Nebraska, Lincoln, Nebr. *Botany*. Wabash, Nebr., April 23, 82. A.B., Nebraska, 07, A.M., 08, Ph.D., 13; Chicago, 08. Asst. *bot.*, *Nebraska*, 05-07, instr., 07-09, adjunct prof., 09-10, asst. prof. and curator herbarium, 10-11, assoc. prof., 11-14, *prof.*, 14-, *head dept.*, 15- Director, Nebr. Bot. Surv., 07-; on staff, biol. sta., Michigan, 10. A.A.; Bot. Soc. (chairman, systematic sect., 26); Ecol. Soc.; Micros. Soc.; Phytopath. Soc.; Torrey Bot. Club; Soc. Foresters; Forestry Ass.; Bot. Cent. States; Nebr. Acad. (treas., 09, pres., 17); Wash. Biol. Soc. Plant morphology,

phylogeny, ecology and physiology; mycology; relations of industrial operations to vegetation.

Poole, Prof. J(ames) P(lummer), Dartmouth College, Hanover, N. H. *Botany*. Gloucester, Mass, May 6, 89. B.S. Maine, 12; A.M. Harvard, 18, Ph.D. 21. Instr. bot. Washburn, 12-13; asst. Kansas Col. 13-16; Austin teaching fellow, Harvard, 16-18, 20-21; asst. prof. Wyoming, 18-20; instr. *evolution*, Dartmouth, 22-23, asst. prof. 23-27, *prof.* 27- Research asst. Bussey Inst. Harvard, 21-22. Bot. Soc. New Eng. Bot. Club. Paleobotany; evolution.

Poole, Dr. R(obert) Frank(lin), North Carolina State College, Raleigh, N. C. *Plant pathology*. Gray Court, S. C. Dec. 2, 93. B.S. Clemson, 16; M.S. Rutgers, 18, Ph.D. 21. Asst. plant path. Clemson, 16-17; Rutgers, 17-18, 19-21, asst. plant pathologist, N. J. Exp. Sta. 20-22, assoc. plant pathologist, 22-26; *assoc. prof. plant path.*, N. C. State, and *assoc. plant pathologist*, Exp. Sta. 26- A.A.; Phytopath. Soc.; N. C. Acad.; N. J. Hort. Soc. Vegetable and truck crop diseases.

Poole, Prof. S(idman) P, 832 Ackerman Ave, Syracuse, N. Y. *Geology, Geography*. Syracuse, Oct. 19, 93. B.S. Syracuse, 21, M.S. 25; Chicago, 21, 23, 24; Cambridge, 26. *Asst. prof. geol. and geog.*, Syracuse, 20- Capt. F.A. O.R.C. Fel. Am. Geog. Soc. Human geography of New York; flint beds of Onondaga limestone in central New York.

Poor, Dr. Charles Lane, 35 E. 69th St, New York, N. Y. **Astronomy, Astrophysics*. Hackensack, N. J. Jan. 18, 66. B.S. Col. City of N. Y. 86, M.S. 90; Ph.D. Hopkins, 92. Instr. math. Col. City of N. Y. 86-88; instr. assoc. and assoc. prof. astron. Hopkins, 91-00; lecturer, *Columbia*, 03-04, *prof.* 04-10, *celestial mech.* 10- A.A.; Astron. Soc.; Math. Soc.; Am. Acad.; fel. N. Y. Acad. (ed. 'Annals,' 01-04); fel. Royal Astron. Soc. Periodic comet of 1889, 1896 and 1903; perturbations due to elliptic figures of Jupiter; figure of the sun and possible variations in its size and shape; the photo-heliometer; tidal currents of the Atlantic coast; simplified methods of navigation; the line of position computer; the motions of Mercury; astronomical evidence and the relativity theory; methods of testing eclipse plates; the law of gravitation; mathematics of the relativity theory.

Poor, Prof. John M(errill), Shattuck Observatory, Hanover, N. H. *Astronomy*. West Newbury, Mass, Jan. 28, 71. A.B. Dartmouth, 97; fellow, Princeton, 00-02, Ph.D. 04. Prin. high sch. N. H. 97-98; instr. math. and astron. *Dartmouth*, 98-00, *astron.* 02-05, asst. prof. 05-15, assoc. prof. 15-17, *prof.* 17- A.A.; Astron. Soc.; Math. Soc.; Meteor. Soc.; Royal Astron. Soc. Definite orbit of comet 1900 b; orbits of asteroids; latitude of Shattuck Observatory; orbit planes of double stars.

Poos, Dr. F(rederick) W, Box 881, Norfolk, Va. *Entomology*. Potter, Kans, Nov. 12, 91. A.B. Kansas, 15, A.M. 16; Ph.D. Ohio State, 26. Agent, bur. plant indust. U. S. Dept. Agr. and asst. nursery inspector, Fla. 16-17, sci. asst. 17-22, asst. entomologist, in charge European corn borer lab, Sandusky, Ohio, 22-26; *ento-*

mologist, Va. Truck Exp. Sta. 26- Biol. surv. party, Univ. Kansas, 14. A.A.; Entom. Soc.; Ass. Econ. Entom.; Wash. Entom. Soc.; Ohio Acad.

Pope, Merritt N(ichol), U. S. Department of Agriculture, Washington, D. C. *Agronomy*. Odell, Ill, May 2, 83. B.S. Northwestern, 05; A.M. Harvard, 11; B.S.A. N. Dak. Col. 13. Instr. secondary and nor. schools, 05-16; biol. and agr. Wis. Nor. Sch. Eau Claire, 16-18; *barley investigations, bur. plant indust.*, U. S. Dept. Agr. 18- A.A.; Soc. Agron.; Bot. Soc.; Wash. Bot. Soc.; Wash. Biol. Soc. Physiology, cytology, breeding and inheritance in barley.

Pope, Dr. Philip H(untley), U. S. Veterans' Hospital, Walla Walla, Wash. *Herpetology*. Manchester, Maine, Oct. 24, 87. A.B. Bowdoin, 14; A.M. Harvard, 17; Ph.D. Pittsburgh, 21. Instr. biol. Pittsburgh, 19-21; Reed, 21-23; U. S. Veterans' Hosp. Walla Walla. A.A.; Soc. Ichthyol. and Herp.; Soc. Mammal.; Nature Ass. The introduction of West Indian Anura into Bermuda; life history and sense of smell in the water newt.

Popenoe, C(harles) H(olcomb), U. S. Department of Agriculture, Washington, D. C. *Entomology*. Manhattan, Kans, June 7, 84. Washburn, 99-00; B.S. Kansas Col. 05; Maryland, 23-25. Asst. entomologist, Va. Truck Exp. Sta. 08; agent and expert, *bur. entom.*, U. S. Dept. Agr. 09-13, entom. asst. 13-18, asst. entomologist, *truck crop insect investigations*, 18-19, *entomologist*, 19- A.A.; Ass. Econ. Entom.; Kans. Acad.; Wash. Entom. Soc.; Wash. Biol. Soc.; Wash. Anthropol. Soc. Economic and biological entomology; mammalogy; horticulture; insecticide chemistry.

Popenoe, Paul, Coachella, Calif. *Eugenics*. Topeka, Kans, Oct. 16, 88. Occidental; Stanford. Agr. explorer, expeditions, Algeria, India and Arabia, 11-13; ed. 'Jour. Heredity,' 13-17; law enforcement sec'y, Social Hygiene Ass. 19-20, exec. sec'y, 20; *date grower*, 20- Capt. Sanit.C. and director sect. on vice and liquor control; Commission on Training Camp Activities, 17-19. A.A.; Eugenics Research Ass.; Eugenics Soc.; Genetic Ass.; Social Hygiene Ass.; Oriental Soc.; Int. Gesell. Sexualforsch. Genetics; social hygiene; subtropical horticulture; Arabic language.

Popenoe, Dr. Wilson, Altadena, Calif. *Botany*. Topeka, Kans, March 9, 92. Pomona; hon. Sc.D. San Marcos (Peru), 25. Agr. explorer, office for. seed and plant introduction, bur. plant indust. U. S. Dept. Agr. 13-25; *supt. agr. experiments, United Fruit Co, Tela, Honduras*, 25- Decoration 'Al Merito,' Chile, 23; Ecuador, 25. U. S. delegate, Third Pan-Am. Sci. Cong. 24. A.A.; Soc. Nat.; Wash. Biol. Soc.; Wash. Acad.; hon. mem. Calif. Avocado Ass.; Soc. nat. d'Acclimatation de France. Tropical economic botany.

Popoff, Dr. Stephen (John), 643 Seventh Ave, Iowa City, Iowa. *Chemistry*. Samocov, Bulgaria, Sept. 10, 85. B.Ch. Cornell, 12; Lowenthal fellow, Ph.D. Chicago, 18. Head physics and chem, Dubuque, 13-17; research chemist, Air Nitrate Corp, 18; instr. chem, Iowa, 21-23,

- assoc. in charge anal. chem., 23-26, asst. prof. and head, 26- A.A.; Chem. Soc. (sec'y, Iowa sect, 26); Iowa Acad. Manganate and permanganates; standards in iodimetry; electrometric titration; alkaloids; standards in analytical chemistry; oxidation potentials; equilibrium constants.
- Popp, H(enry) W(illiam)**, Pennsylvania State College, State College, Pa. *Botany, Plant physiology*. Millvale, Pa., Nov. 19, 92. B.S., Pa. State, 17, M.S., 22; Carnegie Inst. Tech; Ph.D., Chicago, 26. Anal. chemist, Crucible Steel Co, Pa, 12-14; asst. zool. and entom. Pa. State, 16-17; head dept. biol. Cent. State Nor. Sch, Pa, 17-20; instr. bot. Pa. State, 20-23; asst. plant physiol., Boyce Thompson Inst, 23-25; asst. prof. bot., Pa. State, 25- Sub-committee, Nat. Research Council. A.A.; Bot. Soc; Pa. Acad. Effect of light on plants.
- Porte, W(illiam) S(olomon)**, U. S. Department of Agriculture, Washington, D. C. *Plant pathology*. Sergeantsville, N. J., Feb. 4, 91. B.S., Rutgers, 15, 16-17; Washington French Sch, 21, 24. Research asst. bot., Rutgers, 15-16; teacher, high sch., N. J., 16-18; asst. pathologist, bur. plant indust., U. S. Dept. Agr, 18- A.A.; Phytopath. Soc; Nature Ass. Plant breeding for disease resistance.
- Porter, Dr. Bennet A(llen)**, 10 W. Sycamore St, Vincennes, Ind. *Entomology*. Northampton, Mass, July 12, 92. B.S., Mass. Col, 14, Ph.D., 21. Assoc. entomologist, bur. entom., U. S. Dept. Agr, 17- A.A.; Entom. Soc; Ass. Econ. Entom; Wash. Entom. Soc; Ind. Acad. Economic entomology; fruit insects.
- Porter, Prof. C(harles) A(llen)**, 116 Beacon St, Boston, Mass. *Surgery*. Cambridge, Mass, Sept. 9, 66. A.B., Harvard, 88, A.M., M.D., 92. Instr. surg. *Harvard Med. Sch*, 97-09, asst. prof., 09-16, prof. clin. surg., 16-23, *Homans prof. surg.*, 23-; surgeon-in-chief, *Mass. Gen. Hosp.*, 24- Surg. Ass; Soc. Clin. Surg; Col. Surg; Am. Med. Ass; Soc. Cancer Research; hon. mem. Röntgen Ray Soc; Int. Soc. Surg. X-ray carcinoma; exophthalmic goiter; surgery of peripheral nerves; local anesthesia.
- Porter, Prof. Charles L(yman)**, 525 Hayes St, West Lafayette, Ind. *Plant pathology, Physiology*. Mackinaw, Ill, Feb. 22, 89. B.S., Ill. Wesleyan, 11; A.B., Illinois, 13, A.M., 21, Ph.D., 23. Instr. biol., Parsons Col, 14-16; head dept. biol., Fairmount, 16-19; asst. bot., Illinois, 19-21; botanist, Ill. State Nat. Hist. Surv, 22; assoc. prof. plant path. and physiol., *Purdue*, 23- A.A.; Bot. Soc; Phytopath. Soc; Ill. Acad; Ind. Acad. Mycology; ecological relations of fungi; inhibitions exhibited by fungi; leaf spots of corn.
- Porter, Prof. C(harles) W(alter)**, University of California, Berkeley, Calif. *Chemistry*. Morgan, Utah, May 16, 80. B.S., Utah Col, 05; A.M., Harvard, 09; Ph.D., California, 15. Prof. chem., Utah Col, 07-17; asst. prof., *California*, 17-20, assoc. prof., 20- Chem. Soc. Synthesis and resolution of optically active dyes; structural rearrangements; chemical effects produced by ultraviolet light.
- Porter, D(onald) R(ockwell)**, Iowa State College, Ames, Iowa. *Plant pathology*. Norden, Nebr., Dec. 24, 00. B.S., Iowa Col, 23, M.S., 25. Exten. plant pathologist, Iowa, 23-25; Kansas, 25-26; *plant path. sect.*, *Iowa Col*, 26- Diplodia and Basiporium dry rots of corn; sweet potato and watermelon diseases.
- Porter, Prof. Dwight**, 149 Hawthorne St, Malden, Mass. *Engineering*. Hartford, Conn., Aug. 28, 55. Ph.B., Yale, 80. Special agent, water power reports, tenth census, 80-83; instr. math., *Mass. Inst. Tech.*, 83-85, civil eng., 85-87, asst. prof., 87-90, assoc. prof., 90-96, prof. hydraul. eng., 96-14, *hydraul. and sanit. eng.*, 14-21, *emer. prof.*, 21- Trustee, Pub. Library, Malden. Civil Eng; Eng. Educ; New Eng. Water Works Ass; Boston Soc. Civil Eng. Hydraulic and sanitary engineering.
- Porter, Prof. Eugene L(yman)**, University of Texas School of Medicine, Galveston, Texas. *Physiology*. Springfield, Mass., May 10, 81. A.B., Harvard, 04, Ph.D., 12, research fellow, 12-13; A.M., Michigan, 08. Asst. prof. nat. science, Transylvania, 04-06; prof., Adrian, 06-07; asst. zool., Michigan, 07-08; teaching fellow *physiol.*, Harvard, 08-12; instr., Simmons, 13-15; Pennsylvania, 15-18; asst. prof., Western Reserve, 18-24; *prof. sch. med.*, *Texas*, 24- A.A.; *Physiol. Soc.* Reflex irritability of the spinal cord; reflex analysis; tonus.
- Porter, Dr. Frank**, Marland Oil Co, Ponca City, Okla. *Chemistry*. Auxvasse, Mo., June 11, 98. A.B., Missouri, 19; M.S., George Washington, 23, Ph.D., 26. Chemist, Cook Paint and Varnish Co, 20-21; asst. chemist, U. S. Helium Plant No. 3, Texas, 21; assoc. chemist, cryogenic research lab, bur. chem., U. S. Dept. Agr, 21-25; *assoc. research chemist*, *Marland Oil Co*, 26- Chem. Soc. Helium; natural gas.
- Porter, Harry F(rank)**, 636-640 E. State St, Trenton, N. J. *Electrical engineering*. Trenton, Feb. 28, 94. E.E., Princeton, 16. Sec'y, Pyroelectric Instrument Co, 16-20; *treas. and works manager*, *Ajax Electrothermic Corp*, 20- Electrochem. Soc; Franklin Inst. Measurement of high temperature; thermionic control of electrical and mechanical apparatus; fusion of refractory materials; electrical precision apparatus; high permeability alloys for audio frequency amplification.
- Porter, H(enry) Hobart**, 50 Broad St, New York, N. Y. *Civil engineering*. New York, March 12, 65. M.E., Columbia, 86, fellow, 86-87. *Pres.*, *Am. Water Works and Elec. Co.* Exec. committee, Nat. Research Council; mem., Eng. Foundation. Civil Eng; Mech. Eng; Min. Eng; Min. and Metal. Eng.
- Porter, H(olbrook) F(itz) J(ohn)**, 29 W. 39th St, New York, N. Y. *Industrial engineering*. New York, Feb. 28, 58. M.E., Lehigh, 78. Engineer, Delamater Iron Works, 78-82; N. J. Steel and Iron Co, 82-84; engineer and supt., Columbia, 84-90; asst. chief mech. dept., Columbian Expos, 90-94; sales manager, Bethlehem Steel Co, 94-01; v. pres. and gen. manager, Westinghouse Nerst Lamp Co, 01-04. Lecturer, tech. schools, 94-98; Harvard and N. Y. Univ; investigator social hygiene, Russell Sage Foundation,

10. Expert, fire prevention, N. Y. State Factory Invest. Commission, 14; sec'y, Nat. Museum Eng. and Industry, 18-28. Sec'y, organizing committee, Int. Cong. Test. Mat., 12. Mech. Eng.; N. Y. Efficiency Soc. (founder and sec'y, 12-). Cost accounting and business administration in factories.
- Porter, Dr. Horace C(hamberlain)**, 1833 Chestnut St, Philadelphia, Pa. *Chemistry*. Urbana, Ill, July 13, 76. A.B., Illinois, 97, B.S., 99, M.S., 00; A.M., Harvard, 01, Ph.D., 03. Chemist, Solvay Process Co., N. Y., 03-06; research chemist, fuel investigations, U. S. Bur. Mines, 07-15; The Koppers Co., 15-17; *consulting chemist and chem. engineer*, 20- Capt., ordnance dept., 17-19. Chem. Soc.; Soc. Test. Mat.; Gas Ass.; Franklin Inst. Organic chemistry; orthobenzoquinone; chemistry of fuels; fuel engineering and economics; coking and by-products; coal carbonization.
- Porter, Dr. J(ames) P(ertice)**, Ohio University, Athens, Ohio. *Psychology*. Hillsboro, Ind, Sept. 23, 73. A.B., Indiana, 98, A.M., 01; hon. fellow, Clark, 03-04, Ph.D., 05; Sc.D., Waynesburg, 17. Teacher, high sch., Ind., 93-94, prin., 95-97; teacher, Ill., 98-00; instr. *psychol.*, Indiana, 00-03; Clark Col., 03-07, asst. prof., 07-12, prof., 12-22, acting dean, 09-10, dean, 10-22; instr., Clark, 10-22; *prof.*, Ohio (*Athens*), 22- Summers, instr., biol. sta., Indiana, 01-03, lecturer, 08, 14, 17, Columbia, 13, Wash. Col., 15. Ed., 'Jour. Applied Psychol.' Int. Zool. Cong. A.A.; Psychol. Ass. Instinct in spiders; psychology of the English sparrow and other birds; intelligence tests of high school and college students; effect of social experience on perception and judgment; multiple choice methods of measurement.
- Porter, Dean James Temple**, University of Tennessee, Knoxville, Tenn. *Physics*. Bath Co, Va., Sept. 29, 73. A.B., Randolph-Macon, 95, A.M., 98; fellow, Hopkins, 04-05, Ph.D., 05. Asst. physics, Hopkins, 03-04; instr., Williams, 05-06; adjunct prof. *physics and astron.*, Randolph-Macon Woman's Col., 06-08; assoc. prof., Tennessee, 08-10, *prof.*, 10-, asst. dean, 19, *dean col. liberal arts*, 25- Selective reflection in the infra-red spectrum.
- Porter, Prof. J(ermain) G(ildersleeve)**, Cincinnati Observatory, Cincinnati, Ohio. *Astronomy*. Buffalo, N. Y., Jan. 8, 52. A.B., Hamilton, 73, A.M., 76, hon. Ph.D., 88; Berlin, 73-74. Asst. prof. astron., Hamilton, 75-78; with U. S. Coast and Geod. Surv., 78-84; *director, Cincinnati Observatory, and prof. astron.*, Cincinnati, 84- 'Astron. Jour.' comet prize, 94. Astron. Soc.; Wash. Acad. Proper motion of stars; motion of the solar system in space; variation of latitude; comet orbits.
- Porter, Dr. Lyman E(dwards)**, University of Arkansas, Fayetteville, Ark. *Chemistry*. New Haven, Conn., Nov. 7, 93. A.B., Yale, 16, A.M., 18, Ph.D., 20. Asst. chem., Yale, 16-18, 19-20; research dept., Barrett Co., Edgewater, N. J., 20-21; instr. *chem.*, Arkansas, 21-27, *asst. prof.*, 27-C.W.S., U.S.A., 18. Analysis of gallium and elementary chlorine.
- Porter, Prof. M(ilton) B(rockett)**, University of Texas, Austin, Texas. *Mathematics*. Sherman, Texas, Nov. 22, 69. B.S., Texas, 92; A.M., Harvard, 95, Ph.D., 97. Instr. *math.*, Texas, 97-99; Yale, 99-02, asst. prof., 02-04; *prof.*, Texas, 04-Math. Soc.; Math. Ass. Differential equations; function theory.
- Porter, Dr. Philip K(elsey)**, Mellon Institute, Pittsburgh, Pa. *Industrial chemistry*. Stuart, Iowa, March 22, 96. A.B., Grinnell, 18; A.M., Illinois, 21, Ph.D., 23. Asst., Illinois, 19-21, research asst. chem., 21-23; instr., Louisiana, 23-24; *indust. fellow, Mellon Inst.*, 24- Chem. Soc. Structure of isocampholactone; measurement of cup grease consistency by use of the plastometer.
- Porter, Prof. R(oyal) A(rthur)**, Syracuse University, Syracuse, N. Y. *Physics*. Adair, Ill., Feb. 8, 77. B.S., Northwestern, 01, M.S., 02; Ph.D., Göttingen, 12. Instr. *physics*, Syracuse, 03-05, asst. prof., 05-06, assoc. prof., 06-12, *prof.*, 12-A.A.; Physical Soc.; Illum. Eng. Soc.; Astron. Soc.; Radio Eng. Effect of atmosphere on arc spectra; vacuum tube rectifiers.
- Porter, Prof. Rupert Howard**, University of Nanking, Nanking, China. *Plant pathology*. Norden, Nebr., 92. B.S., Iowa Col., 18, M.S., 20. Instr. plant path., Iowa Col., 19, asst. prof. plant diseases, exten. service, 20-23; *plant pathologist, Nanking Univ.*, 23- Field asst., bur. plant indust., U. S. Dept. Agr., 19-20. Phytopath. Soc. Dry rot of corn; diseases of kaoliang.
- Porter, Prof. W(illiam) T(ownsend)**, Harvard Medical School, Boston, Mass. *Physiology*. Plymouth, Ohio, Sept. 24, 62. M.D., St. Louis Med. Col., 85; Kiel, Berlin and Breslau, 87-93; LL.D., Maryland, 07; Sc.D., Washington (St. Louis), 15. Acting supt., St. Louis City Hosp., 86-87; asst. prof. physiol., St. Louis Med. Col., 87-88, *prof.*, 88-93; asst. prof., *Harvard Med. Sch.*, 93-98, assoc. prof., 98-06, *prof. comp. physiol.*, 06- Physiology of growth; the circulation; the spinal cord; respiration; muscle; physiological apparatus.
- Porteus, Prof. S(tanley) D(avid)**, University of Hawaii, Honolulu, Hawaii. *Psychology*. Box Hill, Victoria, Australia, 83. Melbourne, 12. Supt., special schools, Victoria, Australia, 12; lecturer exp. educ., Melbourne, 16-17, research scholar and co-director lab. educ. anthrop., 17; director research, N. J. Training Sch., Vineland, 19-25; *prof. clin. psychol. and director clinic, Univ. Hawaii*, 22- Psychol. Ass.; Ass. Study Feeble-minded. Anthropometry; mental tests; racial psychology; educational measurements.
- Posey, Prof. C(hesley) J(ustin)**, University of Kansas, Lawrence, Kans. *Geography*. Troy, Ill., Jan. 26, 73. Illinois, 09; fellow, Chicago, 04-05, 11-12, M.S., 05. Prin. sch., Ill., 95-97; supt. and instr. schools, Ill. and Ind., 00-03; Univ. High Sch., Chicago, 03-04; head dept., Minn. State Nor. Sch., Mankato, 05-11; instr. geol., Wisconsin, 12-13; asst. prof. *geog.*, Minnesota, 13-20; *assoc. prof.*, Kansas, 20- A.A.; fel. Am. Geog. Soc. Regional geography.

- Posey, Dr. W(illia)m Campbell**, Radnor, Pa. *Medicine*. Philadelphia, Pa, July 5, 66. A.B, Pennsylvania, 86, M.D, 89; Berlin, Göttingen, Paris and London, 90-92. Surgeon, Wills Eye Hosp, 00-18; prof. ophthal, Phila. Polyclinic, 02-18; *consulting surgeon*, 18- Ophthal. surgeon, Howard Hosp. Ed, Am. edition, 'Nettleship's Ophthalmology'; co-editor, 'A System of Diseases of the Eye'; 'The Eye and Nervous System'; 'Hygiene of the Eye.' Chairman, Pa. Commission on Conservation of Vision. Am. Med. Ass. (chairman, ophthal. sect, 09); Ophthal. Soc; Phila. Col. Physicians. Ophthalmology.
- Posnjak, Dr. E(ugene) W(aldemar)**, Geophysical Laboratory, Washington, D. C. *Physical chemistry*. Moscow, Russia, June 23, 88. Ph.D, Leipzig, 12. Research assoc. physical chem, Mass. Inst. Tech, 12; *chemist, geophys. lab, Carnegie Institution*, 13- A.A; Chem. Soc; Wash. Acad. Colloidal and mineralogical chemistry; imbibition pressure; sulphides of copper; hydrated ferric oxides; ferric sulphates.
- Post, Dr. C(harles) Irwin**, 62 Hollywood Ave, East Orange, N. J. *Chemistry*. Atlanta, Ga, Sept. 14, 98. B.S, Rutgers, 21; Ph.D, Columbia, 25. Dist. sales manager, *Nat. Oil Products Co*, 25-27, *head chemist*, 27- Enzymes; fatty oils.
- Poteat, Dr. William Louis**, Wake Forest College, Wake Forest, N. C. *Biology*. Caswell Co, N. C, Oct. 20, 56. A.B, Wake Forest, 77, A.M, 89; Berlin, 88; Woods Hole, 93; LL.D, Baylor, 05; North Carolina, 06. Tutor classics, *Wake Forest*, 78-80, asst. prof. nat. science, 80-83, *prof. biol*, 83-, *pres*, 05- Gay lecturer, Theol. Sem, Louisville, Ky, 00; Brooks lecturer, Hamilton Theol. Sem, Colgate, 05; Holland Foundation lecturer, Southwestern (Texas) Theol. Sem, 15; McNair lecturer, North Carolina, 25. Pres, N. C. Teachers' Assembly, 97; State Board Examiners, 97, 98; *pres*, N. C. Col. Conf, 26. Fel. N. C. Acad. (pres, 02).
- Poth, Dr. Edgar J(acob)**, Johns Hopkins University, Baltimore, Md. *Physical chemistry*. Seguin, Texas, Feb. 1, 99. A.B, Texas, 22, A.M, 23; Ph.D, California, 25. Tutor chem, Texas, 22-23; teaching fellow, California, 23-25, *instr*, 25-26; fellow, Petrol. Inst, 26-27; *instr. pharmacol*, Hopkins, 27- Chem. Soc. Organic chemistry; soft X-radiation.
- Potsdamer, Louis S(amter)**, 1818 N. Broad St, Philadelphia, Pa. *Chemistry*. Philadelphia, Oct. 16, 91. B.S, Pennsylvania, 13, Ch.E, 18. Toch Brothers, 13-18; Chem. Pigments Corp, 20-22; *proprietor, Indust. By-Products and Research Corp*, 22- C.W.S, U.S.A, 18-19. Inst. Chem; Soc. Test. Mat. Chemical engineering; barium; sodium prussiate; tung oil; textiles.
- Pottenger, Dr. Francis M(arion)**, Monrovia, Calif. *Medicine*. Sater, Ohio, Sept. 27, 69. Ph.B, Otterbein, 92, Ph.M, 97, A.M, 05, LL.D, 09; Med. Col. of Ohio, 92-93; M.D, Cincinnati Col. Med. and Surg, 93-94; Europe, 94, 05, 07, 09. *Pres. and med. director, Pottenger Sanatorium, Monrovia*, 03- Lecturer, med. dept, Southern California, 03-04, *prof*, 05-09, 14-20. Trustee, Otterbein, 24- A.A; Am. Med. Ass; fel. Col. Physicians (councilor, 16-23, regent, 23-, ed, council, 'Annals'); Cong. Int. Med. (councilor, 16-23); Allergic Soc; Ass. Study Int. Secretions (sec'y, 17-); Miss. Valley Med. Ass. (pres, 17-19); Therapeut. Soc. (pres, 14); Tuber. Ass; Pub. Health Ass; Climat. Ass; Sanatorium Ass. (pres, 24); Eugenics Soc; S. Calif. Med. Soc. (pres, 12); S. Calif. Anti-Tuber. League (pres, 03-06); Los Angeles Co. Med. Ass. (pres, 06); Los Angeles Tuber. Ass. (director, 24); Los Angeles Clin. and Path. Soc. (pres, 23). Tuberculosis; vegetative nervous system; reflexes; asthma; visceral disease; light touch palpation.
- Potter, Alden A(rchibald)**, R. D. No. 11, Box 60, Bethesda, Md. *Plant pathology*. Minneapolis, Minn, Oct. 12, 84. B.Agr, Minnesota, 09. Asst. cereal pathologist, bur. plant indust, U. S. Dept. Agr, 09-20; special agent, div. agr, bur. census, U. S. Dept. Commerce, 20-21. A.A. Pathology of cereals.
- Potter, Dean A(ndrey) A(braham)**, Purdue University, Lafayette, Ind. *Engineering*. Vilna, Russia, Aug. 5, 82. B.S, Mass. Inst. Tech, 03; hon. E.D, Kansas Col, 25. Design, construction and research, Gen. Elec. Co, 03-05, 13; asst. prof. mech. eng, Kansas Col, 05-10, *prof*, 10-20, *dean eng. and director, Eng. Exp. Sta*, 13-20; *Purdue*, 20- Consulting engineer and advisory ed, companies, 10-; advisory ed, Ginn and Co, Boston, 24- Assoc. mem. Naval Consulting Board and director industries, 17-19; district educ. director, War Dept, 17-18. A.A; Mech. Eng. (power test committee, 20-, committee on relation with colleges, 25-, chairman, Indianapolis sect, 25); Eng. Educ. (v. pres, 20, pres, 24); Nat. Elec. Light Ass. (prime movers committee, 20-, indust. relations, 25-, chairman, foreign develop. committee, 25); hon. mem. Ass. Sta. Eng; Land Grant Col. Ass. (sec'y, 14-19, v. pres. and acting pres, 22); Ind. Eng. Soc. (pres, 23); Kans. Eng. Soc. (pres, 18). Power plant engineering; thermodynamics; fuels; engineering education.
- Potter, Dr. F(rederick) C(lyde)**, People's Hospital, Akron, Ohio. *Pathology*. Wyoming Co, Pa, July 10, 82. M.D, Medico-Chirurg. Col. Phila, 09. Asst. physician, Norristown State Hosp, 10-13; pathologist, Cent. Ind. Hosp. Insane, 13-18; asst. dept. nervous and mental diseases, Indiana, 13-16, assoc, 16-18; pathologist, Mich. State Hosp, Kalamazoo, 19-21; asst. med. director, Mercer Sanitarium, Pa, 21-23; *director clin. lab, People's Hosp, Akron*, 23- U.S.A, 18-19. A.A; Soc. Clin. Path; Am. Med. Ass; fel. Col. Physicians; fel. Psychol. Ass; Soc. Bact; Phila. Path. Soc. Spinal fluid in mental diseases; clinical pathology.
- Potter, Geo(rge) E(dwin)**, Baylor University, Waco, Texas. *Zoology, Embryology*. Fairport, Kans, Nov. 18, 98. B.S, Ottawa (Kans); M.S, Ph.D, Iowa. Asst. *zool*, Iowa, 21-23, *instr*, 23-27; *head dept, Baylor*, 27- A.A; Ecol. Soc; Soc. Exp. Biol; Iowa Acad. Development of the scales of bluegill; ecology of the garpike in Lake Okoboji, Iowa; swimbladder in Lepidosteus platystomus; respiration of Lepidosteus; food, scales, respiration and embryology of fish.

- Potter, Prof. Geo(rge) F(rederick)**, University of New Hampshire, Durham, N. H. *Horticulture*. Madison, Wis, Aug. 7, 91. B.S.A, Wisconsin, 13, M.S.A, 16; Cornell. Instr. hort, Wisconsin, 13-18, asst. prof, 18-20; *prof, New Hampshire, 20-* A.A; Soc. Hort. Sci. Winter injury to fruit trees; fruit bud formation in the apple.
- Potter, Dr. Paul D(avid)**, Sprague Warner and Co, Chicago, Ill. *Chemistry*. Webster City, Iowa, Sept. 20, 85. A.B, Wisconsin, 08, A.M, 10; Ph.D, Chicago, 12. Instr. chem, Pa. State, 06-10, asst. prof. physical chem, 11-12; *chief chemist, Sprague Warner and Co, 12-* Chem. Soc. Compounds of alkali metals with tellurium; equilibrium in the system water-arsenic pentoxid.
- Potter, Dr. Peter**, Murray Hospital, Butte, Mont. *Anatomy*. Dade Co, Mo, Nov. 24, 75. B.S, Missouri, 01, M.S, M.D, 03. Instr. acad, Mo, 96-99; high sch, 99-00; asst. anat, Missouri, 01-03; assoc. prof, St. Louis, 03-07; *practising surgeon, 07-* Board Selective Service, Butte, 17-19; Park and Playground Board, 19- Ass. Anat; St. Louis Biol. Soc. Topography of the thoracic and abdominal viscera (by the cross section method); the Comfort test as a method of refraction.
- Potter, W(illiam) B(ancroft)**, General Electric Co, Schenectady, N. Y. *Electrical engineering*. Thomaston, Conn, Feb. 19, 63. High sch. With E. H. Judd, Hartford, Conn, 81-87; steam and elec. construction, Thomson-Houston Elec. Co, 87-90, asst. ry. eng. dept, 90-95; *chief engineer, ry. dept, Gen. Elec. Co, 95-* A.A; Elec. Eng; Mech. Eng; Civil Eng; Naval Archit. and Marine Eng. Application of electrically transmitted power to transportation.
- Potts, Dr. Charles S(ower)**, 2018 Chestnut St, Philadelphia, Pa. *Neurology*. Philadelphia, Jan. 30, 64. M.D, Pennsylvania, 85. Assoc. neur, Pennsylvania, 00-07; prof, Medico-Chirurg. Col. Phila, 07-17; *prof, Pennsylvania, 17-* Neurologist, Phila. Gen. Hosp. Neur. Ass; Am. Med. Ass; Phila. Col. Physicians; Phila. Neur. Soc. (past pres); Phila. Psychiat. Soc. (past pres). Nervous and mental diseases; medical and surgical electricity.
- Potts, Dr. Louis M(axwell)**, 463 West St, New York, N. Y. *Physics*. Canonsburg, Pa, Oct. 30, 76. A.B, Washington and Jefferson, 96; Ph.D, Hopkins, 00. Teacher, high sch, Pa, 96-97; asst, Hopkins, 99-00; elec. engineer, Rowland Telegraphic Co, 00-02, constructing engineer, 02-04, chief engineer, 04-10; Universal Telegraphic Co, 10-15; Universal Machine Co, 15-20; engineer, West. Elec. Co, 20-25, *Bell Telephone Laboratories, 25-* A.A; Physical Soc; Elec. Eng. (sec'y, Baltimore sect, 09-20); Soc. de Physique. Measurements of alternating currents by the electro-dynamometer; printing and machine telegraphs.
- Poull, Dr. L(ouise) E(lizabeth)**, Children's Hospital, Randall's Island, New York, N. Y. *Psychology*. Port Washington, Wis, Nov. 19, 76. B.S, Columbia, 17, A.M, 19, Ph.D, 22. Psychol. examiner, Ungraded Classes, New York, 17-20; *psychologist, Children's Hosp, 20-* Summer, lectures and clinic, Wash. State Nor. Sch, Ellensburg, 19; instr, Columbia exten, 22- Psychol. Ass; N. Y. State Ass. Consulting Psychol. (exec. committee, 23-). Interests and intelligence; truants; intelligence quotients; practice effects; measures of social competence; mental age growth limit.
- Poulson, Prof. M(artin) Wilford**, 866 N. First E. St, Provo, Utah. *Psychology*. Pleasant Grove, Utah, Nov. 21, 84. A.B, Brigham Young, 14; A.M, Utah, 19; Chicago. Instr. edue, *Brigham Young, 10-16*, asst. prof, 16-22, assoc. prof. *psychol, 22-23, prof, 23-* A.A; assoc. Psychol. Ass; Utah Acad. Eyestrain in relation to reading; effect of different degrees of speed upon accuracy in the acquisition of skill.
- Poulter, Prof. Tho(mas) C(harles)**, 704 College Ave, Mt. Pleasant, Iowa. *Chemistry*. Salem, Iowa, March 3, 97. B.S, Iowa Wesleyan, 23; Chicago, 23-25. Asst. chem, Chicago, 23-25; *head dept, Iowa Wesleyan, 25-* A.A; Chem. Soc; Iowa Acad. Physical chemistry; rates of evaporation; dissociation of heated vapors into charged particles.
- Pound, Dr. Roscoe**, Harvard University, Cambridge, Mass. **Botany*. Lincoln, Nebr, Oct. 27, 70. A.B, Nebraska, 88, A.M, 89, Ph.D, 97, LL.D, 13; Harvard Law Sch, 89-90; LL.D, Michigan, 13, Chicago and Missouri, 16, Brown, 19, Harvard, 20, Cambridge, 22, Union (N. Y.), 23, Pittsburgh, 26. Asst. bot, Nebraska, 88-89; director, Nebr. Bot. Surv, 92-03; judge, Supreme Court, Nebr, 01-03; dean col. law, Nebraska, 03-07; prof. law, Northwestern, 07-09; Chicago, 09-10; *Harvard, 10-15, dean law sch, 15-* Ed, 'Ill. Law Review,' 07-09. A.A; Bot. Soc; Micros. Soc; Ecol. Soc; Am. Bar Ass; for. fel. Royal Soc. Naples. Phytogeography.
- Pound, Prof. V(ivian) Ellsworth**, 122 Berkshire Ave, Buffalo, N. Y. *Mathematics, Physics*. Ridgeway, Ont, Can, June 21, 85. B.A, Toronto, 07, M.A, 08, Ph.D, 13. Demonstrator physics, Toronto, 07-12; lecturer, Queen's (Can), 12-17; manager, Ridgeway Milling Co, Ltd, 17-22; instr. *math, Buffalo, 22-25, asst. prof, 25-* Math. Ass. Alpha rays from polonium; penetrability of the beta rays of radium; radio-active lead.
- Povah, Prof. Alfred H(ubert William)**, Northwestern University, Evanston, Ill. *Botany*. Detroit, Mich, March 25, 89. A.B, Michigan, 12, fellow, 15-16, Ph.D, 16. Instr. bot, Michigan, 16-17; special lecturer forest mycol, N. Y. State Col. Forestry, Syracuse, 17-18, asst. prof. forest bot, 18-21; assoc. prof. plant path. and assoc. plant pathologist, Ala. Polytech, 21-22; asst. prof. bot, *Northwestern, 22-25, assoc. prof, 25-* Summer, cryptogamic botanist, Mich. Biol. Surv, 14. A.A; Bot. Soc; Phytopath. Soc; Torrey Bot. Club; Mich. Acad; British Mycol. Soc. Mucoraceae; forest pathology; mycology.
- Powell, Dr. A(lfred) R(ichard)**, 737 N. Lombard Ave, Oak Park, Ill. *Chemistry*. Athens, Ohio, Feb. 1, 91. B.S, Kansas, 14; A.M, Nebraska, 15; Ph.D, Illinois, 18. Asst. chem, Nebraska, 14-15, Illinois, 15-18; asst. gas chemist, U. S. Bur. Mines, 18, *research chemist, 19-23, Koppers Co, 23-* Lieut, C.W.S, 18-19. Chem. Soc; Gas Ass. Organic compounds in the soil; sulphur in coal; coke; gas.

- Powell, Dr. H(orace) M(ann)**, 5807 Lowell Ave, Indianapolis, Ind. *Immunology*. Valparaiso, Ind, Aug. 5, 94. A.B, Ind. State Nor. Sch, 14; fellow, Hopkins, 22-23, Sc.D, 23. Teacher, schools, Ind, 14-20; instr. immunol, Hopkins, 23-25; *immunologist, biol. research dept, Eli Lilly and Co, 25- Bacteriology*.
- Powell, Dr. S(argent) G(astman)**, University of Washington, Seattle, Wash. *Chemistry*. Seattle, Dec. 21, 95. B.S, M.S, Washington (Seattle), 16; Ph.D, Illinois, 20. Grad. asst. *chem*, Illinois, 16-19; assoc, *Washington (Seattle)*, 19-20, instr, 20-26, *asst. prof, 26- Chém. Soc. Organic chemistry*.
- Powell, S(heppard) T(appen)**, 4103 Hawthorne Ave, Baltimore, Md. *Chemical engineering*. Troy, N. Y, Aug. 5, 83. Rensselaer. Chief chemist, James M. Caird Lab, 06-08; Baltimore County Water and Elec. Co, 08-21; *consulting chem. engineer, 17-; prin. sanit. chemist, Baltimore, 21- Div. engineer, Md. State Dept. Health; Pa. Water Power Co, 17- Chairman, boiler feed water studies committee, co-operative study, major eng. societies, 24- Chem. Eng; Chem. Soc. (sec'y and treas, Md. sect, 16-19, chairman, 21-23); Water Works Ass; Elec. Light Ass; Pub. Health Ass. Sanitation; boiler feed water purification*.
- Power, Prof. A(rchie) D(ayton)**, Lawrence College, Appleton, Wis. *Physics*. Baldwin City, Kans, Aug. 28, 87. B.S, Baker, 11; A.M, Kansas, 12; Hopkins, 14-16; Ph.D, Minnesota, 22. Dept. terrestrial magnetism, Carnegie Institution, 12-14, 16-18; instr, Minnesota, 19-24; *in charge physics, Lawrence Col, 24- Magnetic expeditions, S. Amer, 12-18. Ensign, U.S.N.R, 18-19. Physical Soc; Franklin Inst. Atmospheric electricity; fluorescence and resonance radiation*.
- Power, Prof. Carleton E(lderkin)**, New York State College for Teachers, Albany, N. Y. *Physics*. Palmyra, N. Y, Feb. 23, 85. B.S, Rochester, 08; Ph.D, Cornell, 15. Asst. instr. *physics, Cornell, 10-12, instr, 12-15; N. Y. State Col. Teachers, 15-18, asst. prof, 18- Physical Soc. Phosphorescence*.
- Power, Dr. Francis William, S.J.**, Fordham University, New York, N. Y. *Chemistry*. Worcester, Mass, June 19, 93. A.B, Holy Cross, 15; A.M, Clark, 17; Sc.D, Fordham, 26. Asst. prof. *chem, Fordham, 24-25, research asst. to Dr. C. P. Sherwin, 25- Asst. chief chemist, Army Ordnance Inspection Lab, Carney's Point, N. J., 17-19. The relation between the ballistics of the 75 mm. gun and the mean web of the powder; detoxication of putrefactive products by the human body; powder moistures; acetylation in vivo*.
- Power, Dr. M(arschelle) H(arnly)**, Mayo Clinic, Rochester, Minn. *Chemistry*. Edgar, Nebr, Sept. 1, 94. A.B, Nebraska, 17, M.S, 21, Ph.D, 23. Asst. *chem, Nebraska, 19-24; Nat. Research Council fellow, Chicago, 23-24; Mayo Clinic, 24- Chem. Soc. Organic and bio chemistry; oxidation of glucose in limewater; chemistry of sugars; carbohydrate metabolism*.
- Powers, Dr. Donald H(oward)**, P. O. Box 525, Wilmington, Del. *Chemistry*. Boston, Mass, March 31, 01. A.B, Boston, 21; A.M, Princeton, fellow, 24, Ph.D, 24. Asst. *chem, Princeton, 21-23; research chemist, E. I. du Pont de Nemours and Co, 24- Chem. Soc. Alkoxy and hydroxy hydroxamic acids; the guanidines as accelerators; the aging of rubber; dyestuff and rubber industries*.
- Powers, Prof. Edwin B(ooth)**, University of Tennessee, Knoxville, Tenn. *Zoology*. Waxahachie, Texas, Aug. 6, 80. A.B, Trinity (Texas), 06; M.S, Chicago, 13; fellow, Illinois, 15-16, Ph.D, 18; study and travel, 19-20; Cambridge, 22. Instr. and prof. *biol, Trinity (Texas), 08-15; asst. prof, Colo. Col, 18-19; instr. zool, Nebraska, 20-22; assoc. prof. anat, col. med, Tennessee, 22-23, acting prof. zool, 23-24, prof, 24-, head dept, 23- Summers, research asst, Puget Sound Biol. Sta, 14, instr, 18, prof, 19, 21, 23; entom. asst, Ill. State Lab, 17; asst, Illinois, 15-16. Assoc. ed, 'Ecology,' 25- A.A; Soc. Zool; Ecol. Soc; assoc. Entom. Soc; assoc. Ass. Eeon. Entom; Micros. Soc. Fish migration; toxicities; respiration of fishes; character of marine and fresh water in relation to fishes*.
- Powers, Dr. G(rover) F(rancis)**, 330 Cedar St, New Haven, Conn. *Pediatrics*. Colfax, Ind, Aug. 12, 87. B.S, Purdue, 08; M.D, Hopkins, 13; hon. A.M, Yale, 27. House officer and asst. *res. pediat, Hopkins Hosp, 13-16, instr. and assoc. clin. pediat, Hopkins, 16-21; med. director, Babies' Milk Fund Ass, Md, 16-21; asst. prof. pediat, Yale, 21-24, assoc. prof, 24-27, prof, 27- Assoc. pediatrician, New Haven Hosp, 21-27, pediatrician-in-chief, 27-; Henry Ford Hosp, Detroit, 27. Pediat. Soc; Soc. Exp. Biol; New Eng. Pediat. Soc. Clinical pediatrics*.
- Powers, Dr. Paul O(dell)**, 1010 Lusitania Ave, Cincinnati, Ohio. *Organic chemistry*. Boston, Mass, March 26, 97. A.B, Boston, 19; M.S, Pittsburgh, 22, Ph.D, 24. Dept. supt, Atlantic Dyestuffs Co, 18-19; asst. *chem, Pittsburgh, 20-23, fellow, Mellon Inst, 23-25; director mfg, Fries and Fries, Cincinnati, 25- Chem. Soc. The preparation and separation of o and p chloro-aniline; hydrolysis of light wood oil; perfume synthetics*.
- Powers, Prof. S(amuel) R(alph)**, 106 Morning-side Drive, New York, N. Y. *Science education*. Tice, Ill, May 16, 87. A.B, Illinois, 12; A.M, Minnesota, 19, Ph.D, 23. Instr, Minnesota, 16-23; *prof. natural science, Teachers Col, Columbia, 23- A.A; Educ. Research Ass; Soc. Study Educ; Chem. Soc*.
- Powers, Dr. Sidney**, Amerada Petroleum Corporation, Tulsa, Okla. **Geology*. Troy, N. Y, Sept. 10, 90. A.B, Williams, 11; M.S, Mass. Inst. Tech, 13; Sheldon traveling fellow, Harvard, 15, A.M, Ph.D, 15. Research fellow, Harvard, 15-16; div. geologist, Texas Co, 16-17; asst. geologist, U. S. Geol. Surv, 17-18; *chief geologist, Amerada Petrol. Corp, 19- Geol. officer, U.S.A, 18-19. Fel. Geol. Soc; Ass. Petrol. Geol; Soc. Econ. Geol; Inst. Petrol. Technol; Min. and Metal. Eng. Petroleum and structural geology; volcanoes; oils; buried hills*.

- Powers, Prof. W(allace) F(rank)**, 7 Allen St, Amherst, Mass. *Physics*. Spencer, Mass, March 27, 89. A.B, Clark, 10, A.M, 11, Ph.D, 14. Assoc. prof. math. and physics, Richmond, 14-16; instr. *physics*, N. Y. Univ, 17-20; asst. prof, Wesleyan, 20-25; *prof. and head dept*, Mass. Col, 25- Physical Soc. High frequency oscillations; applications of thermionic tubes.
- Powers, Dr. W(ilbur Louis)**, Oregon Agricultural College, Corvallis, Oregon. *Soils*. Tiskilwa, Ill, March 5, 87. B.S.A, 08; M.S, N. Mex. Col, 09; Ph.D, California, 26. Asst. soils and soil physics, N. Mex. Col, 09; asst. agronomist, Oregon Col, 09-15, *prof. irrig. and drainage*, 15-18, *soils*, 18- A.A. Irrigation; drainage; soil sulfur; plant nutrition.
- Powick, Wilmer C(hrisman)**, U. S. Department of Agriculture, Washington, D. C. *Biochemistry*. Daphin, Pa, July 4, 86. B.S, Pa. State, 07. From asst. to *assoc. bio-chemist, bur. animal indust*, U. S. Dept. Agr, 07- Lieut. and capt, Sanit.C, 17-19. Chem. Soc; fel. Inst. Chem. Cold storage of meats; rancidity of fats.
- Poynter, Dr. Charles W(illiam) M(cCorkle)**, 1306 S. 35th Ave, Omaha, Nebr. *Anatomy*. Eureka, Ill, 75. B.S, Nebraska, 98, M.D, 02. *Head dept. anat. col. med, Nebraska*, 12- A.A; Ass. Anat. (exec. council); Am. Med. Ass; Anthropol. Ass; Anat. Soc. Gt. Britain and Ireland. Cerebral anthropology; experimental teratology; arterial variations; tissue sensitization on embryos.
- Praeger, Prof. W(illiam) E(milius)**, 2 College Grove, Kalamazoo, Mich. *Botany*. Belfast, Ireland, Sept. 10, 63. B.S, Illinois, 00; M.S, Chicago, 03; Sc.D, Kalamazoo, 25. Instr, high schools, Ill, 03-05; *prof. biol. Kalamazoo*, 05- Lecturer, univ. exten, Chicago, 02-03; teacher, Deseret Summer Inst, Logan, Utah, 04; summers, teacher, West. State Nor, Kalamazoo, 06, 07, 22, 23. A.A; Bot. Soc; assoc. Ornith. Union; Genetic Ass; Ecol. Soc; Wilson Ornith. Club; Mich. Acad. (v. pres, pres, 11). Ecology.
- Prager, Dr. William L(ouis)**, College of the City of New York, New York, N. Y. *Chemistry*. New York, Jan. 8, 82. B.S, Col. City of N. Y, 00; M.S, N. Y. Univ, 04; fellow, Clark, 07-08, Ph.D, 08. Tutor, Col. City of N. Y, 02-07, instr. *chem*, 08-15, asst. prof, 15-21, *assoc. prof*, 21- A.A; Chem. Soc. Esterification and steric hindrance; organic synthesis; tautomerism; cacao.
- Prather, Prof. John M(cClellan)**, 3710 Page Boulevard, St. Louis, Mo. *Zoology*. Felicity, Ohio, Sept. 8, 64. A.B, Antioch, 91; Harvard, 94, A.M, 95; Ph.D, Chicago, 01. Asst. bot. and zool, Harvard, 95-97; embryol, Chicago, 00-01; *prof. biol. and physics*, Antioch, 97-99; *instr. biol*, Cincinnati, 01-02; *high sch*, St. Louis, 02- A.A. Anatomy; hypophysis in *Amia calva*; skeleton of *Salanx microdon*.
- Pratt, Arthur H(enry)**, 26 Rynda Road, South Orange, N. J. *Civil engineering*. Marlboro, Mass, July 9, 74. Metropolitan Sewerage Commission of Mass, 91-97; chief draftsman, eng. dept, Brookline, Mass, 97-03; draftsman and junior engineer, U. S. Eng. Dept, Delaware River and Bay, 03-04; U. S. lighthouse engineer, Atlantic Coast and Delaware River, 05-06; asst. engineer, highway office, Dept. State Engineer, Albany, N. Y, 06; Board Water Supply, New York, 06-13; N. Y. Sewer Plan Commission, 13-15; in charge drainage plans, New York, office chief engineer, Board Estimate and Apportionment, 16-17; Sewer Bureau, Manhattan, 17; designing engineer, North Jersey Dist. Water Supply Commission, 19-20, deputy engineer, 20-21; *chief engineer in charge design and construction, Wanaque Water Supply Project*, 21- Board Educ, South Orange, N. J; advisory eng. committee, Plan of New York and its Environs. Capt. and major, C. Eng, 17-19, lieut. col, O.R.C, 20- Civil Eng; Ass. Eng; Water Works Ass; New Eng. Water Works Ass. Water supply.
- Pratt, Dr. Carroll C(ornelius)**, Harvard University, Cambridge, Mass. *Psychology*. North Brookfield, Mass, April 27, 94. A.B, Clark, 15, fellow, 16, A.M, 16, fellow, 19-21, Ph.D, 21; Cambridge, 19. Asst. psychol, Clark, 19-20, instr. exp. psychol, 20-22; *instr. psychol, Harvard*, 22-27, *asst. prof*, 27- Organist and choir-master, Harvard, 25-26. A.A; Psychol. Ass. Experimental psychology; tone; audition; esthetics.
- Pratt, Prof. Frank R(andall)**, 41 N. Seventh Ave, New Brunswick, N. J. *Physics*. Warsaw, N. Y, 76. B.S, Rutgers, 06, M.S, 08; Ph.D, Princeton, 17. Instr. math, Rutgers, 07-10, *physics*, 10-12, asst. prof, 12-17, *assoc. prof*, 17-21, *prof*, 21- Physical Soc; N. J. Sci. Teachers Ass; New Brunswick Sci. Soc. (sec'y and treas, 10-13).
- Pratt, Dr. Frederick H(aven)**, 80 E. Concord St, Boston, Mass. *Physiology*. Worcester, Mass, July 19, 73. A.B, Harvard, 96, A.M, 98, M.D, 06; Göttingen, 99; Worcester, 00-01. Asst. physiol, Harvard, 01; instr. physiol. and hygiene, Wellesley, 09-12; *prof. physiol*, Buffalo, 12-19; hon. fellow biol, Clark, 19-20; teaching fellow *physiol*, Harvard, 20-21; *prof*, Boston, 21- A.A; Physiol. Soc; Soc. Exp. Biol. Cardiac nutrition; pore electrode; all-or-nothing law; nerve muscle physiology.
- Pratt, Prof. Henry S(herring)**, Haverford College, Haverford, Pa. *Zoology*. Toledo, Ohio, Aug. 18, 59. A.B, Michigan, 82; admitted to Ohio Bar, 85; Leipzig, Freiburg and Geneva, 88-92; zool. sta, Villefranche-sur-mer; Ph.D, Leipzig, 92; Harvard, 92-93; Innsbruck, 02-03; Graz, 09-10. Instr. *biol*, Haverford, 93-98, *assoc. prof*, 98-01, *prof*, 01- Instr, Cold Spring Harbor, 96-; Tortugas lab, Carnegie Institution, 08-09; investigator, forest zool, N. Y. State Col. Forestry, Syracuse, 17. Commission for relief in Belgium, 16-17. A.A; Soc. Nat; Soc. Zool. (sec'y-treas, east. branch, 05-07); Ecol. Soc; cor. mem. Wash. Helminth. Soc; Cambridge Entom. Soc. (pres, 97). Embryology and metamorphoses of insects; flatworms; structure and classification of trematodes and cestodes.
- Pratt, Prof. James B(issett)**, Williams College, Williamstown, Mass. *Psychology*. Elmira, N. Y, June 22, 75. A.B, Williams, 98; A.M, Harvard, 99, Ph.D, 05; Berlin, 02-03. Instr. *philos*,

- Williams*, 05-06, asst. prof, 06-13, *prof*, 13-
Psychol. Ass; Philos. Ass. (v. pres, 19); Ori-
ental Soc. Psychology of religion.
- Pratt, Dr. Joseph H(ersey)**, 270 Commonwealth
Ave, Boston, Mass. *Pathology, Medicine*. Mid-
dleboro, Mass, Dec. 5, 72. Ph.B, Yale, 94; M.D,
Hopkins, 98; A.M, Harvard, 01. Asst. path,
Boston City Hosp, 98-00, asst. visiting patholo-
gist, 01-02; instr. path, Harvard, 00-02, asst.
theory and practise of physics, 02-09, instr, 09-
18. A.A; Ass. Path. and Bact; Soc. Exp. Path;
Am. Physicians; Soc. Clin. Invest. (pres, 10);
Soc. Exp. Biol; Physiol. Soc; Soc. Pharmacol.
Histology of pneumonia; the blood platelets;
filaria sanguinis hominis; benign tumors of the
thyroid gland; typhoid bacillus in intestinal con-
tents; differentiating typhoid and colon bacilli;
blood platelets; metabolism in pancreatic dis-
ease; experimental anemia; tuberculosis among
the poor; thrombus formation; pancreatic dia-
betes; metabolism in gout; digitalis; heart dis-
ease; toxic cirrhosis of the liver.
- Pratt, Dr. Joseph Hyde**, University of North
Carolina, Chapel Hill, N. C. *Geology, Mineral-
ogy*. Hartford, Conn, Feb. 3, 70. Ph.B, Yale,
93, Ph.D, 96, hon. A.M, 23. Instr. miner, Yale,
95-97; state mineralogist, N. C. Geol. Surv, 97-
05, state geologist, 05-24; lecturer, *North Caro-
lina*, 98-04, *prof. econ. geol*, 04- Summer, instr,
Harvard, 95; field asst. geologist, U. S. Geol.
Surv, 99; coal-briquetting investigations, 05-06.
Col, C.Eng, 17-19. D.S. medal. A.A; Geol.
Soc; Min. Eng; Min. and Metal. Soc. (coun-
cilor); Civil Eng; Soc. Mil. Eng; Am. Peat Soc.
(pres, 07-09); Am. Geog. Soc; Forestry Ass.
(director); hon. mem. Appalachian Eng. Ass;
N. C. Acad; N. Y. Acad. The occurrence and
origin of ore deposits; chemical and physical
properties of minerals.
- Pratt, Dr. L(ester) A(lbert)**, 303 Washington
St, Winchester, Mass. *Chemistry*. Manchester,
N. H, Aug. 2, 85. B.S, New Hampshire, 09,
M.S, 11; Ph.D, Pittsburgh, 13. Asst. chem,
New Hampshire, 09-10, instr, 10-11; research
chemist, Mellon Inst, 13-16; director research
lab, *Merrimac Chem. Co*, Woburn, Mass, 16-27,
manager, Anderson Chem. Div, Boston, 27-
Chem. Soc; Electrochem. Soc; Soc. Chem. In-
dust; Chem. Eng; Ass. Textile Chem. and
Colorists; Chemists Club.
- Pratt, Prof. L(yde) S(tuart)**, 22 Ziegler Tract,
Penns Grove, N. J. *Chemistry*. Strong, Maine,
Jan. 5, 90. A.B, Bowdoin, 12; Ph.D, Hopkins,
15. Asst. chem, Hopkins, 13-15; instr. org.
chem, Virginia, 15-16, adjunct prof. chem, 16-
17; *research chemist, E. I. du Pont de Nemours
and Co*, 17- Summer, asst. state chemist, Maine,
14. A.A; Chem. Soc. Benzoic acid; thiocar-
banilid; dyestuff intermediates.
- Pratt, Merritt B(erry)**, 711 Forum Building,
Sacramento, Calif. *Forestry*. Paw Paw, Ill,
Oct. 3, 78. B.S, Chicago, 03; M.F, Yale, 05.
Forest asst, U. S. Forest Service, 05-09; deputy
forest supervisor, Tahoe Nat. Forest, Calif, 09-
14; asst. prof. forestry, California, 14-18;
deputy state forester, *Calif*, 18-21, *state for-
ester*, 21- Soc. Foresters. Forest utilization;
fire protection.
- Pratt, Wallace E(verette)**, 4407 Mount Vernon
St, Houston, Texas. *Geology*. Phillipsburg,
Kans, March 15, 85. A.B, Kansas, 07, B.S, 08,
A.M, 09, E.M, 14. Research asst, Kans. Geol.
Surv, 08-09; geologist, div. mines, Bur. Science,
P. I, 09-13, chief, 13-16; div. geologist, Texas
Co, 16-18; chief geologist, *Humble Oil and Ref.
Co*, 18-24, *director*, 24- A.A; fel. Geol. Soc;
Ass. Petrol. Geol. (pres, 20-); Seismol. Soc;
Min. and Metal. Eng; Houston Geol. Soc. (pres,
21). Areal and economic geology of the Philip-
pine Islands; vulcanism; seismology; structural,
stratigraphic and economic geology of Texas.
- Preble, Edward A(lexander)**, U. S. Department
of Agriculture, Washington, D. C. *Ornithology,
Mammalogy*. Somerville, Mass, June 11, 71.
High sch. *Field naturalist and biologist, biol.
serv, U. S. Dept. Agr*, 92- Ornith. Union; Soc.
Mammal; Soc. Herp; Am. Geog. Soc; Wash.
Biol. Soc. Biological investigation of the Hud-
son Bay, the Athabaska and Mackenzie regions,
Canada, British Columbia, the Pribilof Islands,
Alaska and the United States.
- Preble, Dr. Robert B**, 30 Michigan Ave, N, Chi-
cago, Ill. *Medicine*. Chicago, March 14, 66.
A.B, Michigan, 89, hon. A.M; M.D, Northwest-
ern, 91. *Prof. med, med. sch, Northwestern*, 00-
Chevalier, Légion d'honneur. Am. Physicians;
Am. Med. Ass.
- Prentice, C(harles) F(rederick)**, Singer Build-
ing, New York, N. Y. *Optics*. Brooklyn, N. Y,
June 24, 54. M.E, Royal Polytech, Karlsruhe,
Germany, 74. *Special lecturer optom, Columbia*,
10- Pres, N. Y. State Board Examiners in
Optom, Univ. State of N. Y, 08- Collaborator,
'Am. Ency. Ophthal,' 13- Optical Soc; N. Y.
Optical Soc. (pres, 95-97); hon. mem. London
Inst. Ophthal. Opticians. Physical and physio-
logical optics; ophthalmic lenses and prisms;
law of decentration.
- Prentice, Dean Donald B(ishop)**, Lafayette Col-
lege, Easton, Pa. *Mechanical engineering*.
Hartford, Conn, April 27, 89. Ph.B, Yale, 10,
M.E, 14. Instr. *mech. eng*, Yale, 12-17; asst.
prof, *Lafayette*, 17-18, *prof. and head dept*,
18-, *dean*, 24- Director, Camp Lafayette, 18.
Mech. Eng; Polit. Sci. Ass. Heating boilers;
low rate combustion of solid fuels.
- Prentiss, Dr. Elliott C(oues)**, 515 Roberts-Banner
Building, El Paso, Texas. *Medicine*. Washing-
ton, D. C, March 19, 77. B.S, George Wash-
ington, 96, M.D, 00, M.S, 04; Berlin. Intern
hosp. and sanitarium work; *practising physician*.
A.A. (pres, southwest div, 24); Am. Med. Ass;
South. Gastro-Enterol. Soc; Archeol. Inst; El
Paso Archeol. Soc. (pres, 22-24). Secretin;
flagellates; tuberculosis; tissue immunity.
- Prentiss, Dr. S(pencer) W(ard)**, Massachusetts
Institute of Technology, Cambridge, Mass.
Chemistry. Buffalo, N. Y, Aug. 5, 96. A.B,
Williams, 19; Ph.D, Mass. Inst. Tech, 25.
Chemist, Hercules Powder Co, 18-19; asst.
chem, Williams, 19-20; *Mass. Inst. Tech*, 21-
22, 25, *research assoc. org. chem*, 25- Chem.
Soc; Hist. Sci. Soc. Physico-organic chemistry;
the solvent in reaction velocity.

- Prescott, C(harles) H(older), Jr.**, California Institute, Pasadena, Calif. *Physical chemistry*. Cleveland, Ohio, Feb. 22, 00. A.B., Yale, 22; Ph.D., Calif. Inst., 26, research fellow, 26-27. Teaching fellow, *Calif. Inst.*, 23-26, *Nat. Research Council fellow*, 27- The high temperature equilibrium between zirconium oxide and carbon; the equilibrium between thorium oxide and carbon, and aluminum oxide and carbon, at incandescent temperatures.
- Prescott, Dr. D(aniel) A(lfred)**, 108 Packard Ave., West Somerville, Mass. *Educational psychology*. Manassas, Va., March 18, 98. B.S., Tufts, 20; Ed.M., Harvard, 22, Ed.D., 23. *Instr. science*, La Grange Col., 20-21; *educ.*, Harvard, 23- Psychological measurements; anatomical age in school children; standard tests in chemistry; psychology applied to school subjects.
- Prescott, Prof. Samuel C(ate)**, Massachusetts Institute of Technology, Cambridge, Mass. *Industrial microbiology*. South Hampton, N. H., April 5, 72. B.S., Mass. Inst. Tech., 94; Woods Hole, 96; Berlin and Copenhagen, 00; Sc.D., Bates, 23. *Asst. biol. Mass. Inst. Tech.*, 95-96, instr., 96-03, asst. prof., 03-09, assoc. prof., 09-14, *prof.*, 14-, *head dept. biol. and pub. health*, 22- Instr., Framingham Nor. Sch., 98-03; Simmons, 03-11; director, Boston Bio-Chem. Lab., 05-22; in charge div. dehydration, U. S. Dept. Agr., 19-20. Collaborator, 'Centralblatt für Bakter.' Trustee, Trop. Agr. Research Foundation, 24- Major, Sanit.C., 17-19, lieut. col., 20, col., 25. A.A.; Soc. Nat.; Soc. Bact. (v. pres, sec'y, 06, 07, pres, 19, rep., Nat. Research Council, 20); Chem. Soc.; Soc. Chem. Indust.; Am. Acad. Bacteriology, especially industrial; water and food bacteriology; enzymes; microbiology.
- Pressey, Dr. L(uella) C(ole)**, 18 Indianola Court, Columbus, Ohio. *Psychology*. Haverhill, Mass., April 1, 93. A.B., Vassar, 16; A.M., Indiana, 19, Ph.D., 20. Research fellow, Indiana, 20-21; *instr. psychol.*, Ohio State, 21- A.A.; Psychol. Ass.; Soc. Educ. Research. Mental and educational tests; abnormal psychology; scientific curriculum building; methods of teaching in college; study difficulties of college students.
- Pressey, Dr. Sidney L(eavitt)**, Ohio State University, Columbus, Ohio. *Psychology*. Brooklyn, N. Y., Dec. 28, 88. A.B., Williams, 12; A.M., Harvard, 15, Ph.D., 17. Asst. psychologist and intern, Psychopathic Hosp., Boston, 16-17; research asst. and *instr. psychol.*, Indiana, 17-21, asst. prof., 21; *Ohio State*, 21-26, *prof.*, 26- A.A.; Psychol. Ass.; Educ. Research Ass. Educational and abnormal psychology; curriculum building; tests.
- Preston, Dr. Carleton E(stev)**, Chapel Hill, N. C. *Botany*. Boston, Mass., Nov. 21, 78. A.B., Harvard, 99, A.M., 00, traveling fellow, 00-01, Ph.D., 02. Asst. bot., Harvard, 00, temporary asst., Gray Herbarium, 01; asst., Yale Forest Sch., 01-02; Manning Bros. landscape architects, Boston, 02-03; teacher, high sch., Mass., 03-07; submaster, Bennet Sch., Boston, 07-08, junior master biol. and chem., Charlestown High Sch., 08-11, biol., English High Sch., 11-25, head science dept., Dorchester High Sch. for Boys, 25-26; *assoc. prof. high sch. science teaching and head science dept., training sch.*, North Carolina, 27- Temporary asst., Conn. Exp. Sta., 02; prin., Boston Summer Rev. High Sch., 23-25. Structure of flowering plants, especially desert vegetation.
- Pretz, Harold W(illiam)**, 368 Union St., Allentown, Pa. *Botany*. Allentown, Nov. 18, 77. Pub. sch.; hon. M.S., Muhlenberg, 14. A.A.; Bot. Soc.; Ecol. Soc.; Fern Soc.; Torrey Bot. Club; Phila. Bot. Club. Pteridophytes; spermatophytes; systematic botany; plant distribution; flora of Lehigh Co., Pennsylvania.
- Prewitt, Prof. Pro. V**, 338 E. 26th St., New York, N. Y. *Physiology*. Slater, Mo., Jan. 13, 93. A.B., Missouri, 15, A.M., 16; M.D., N. Y. Univ., 20, Ph.D., 22. *Instr. physiol.*, Missouri, 15-16; *physiol. and path. physiol.*, N. Y. Univ., 16-20, asst. prof. *physiol.*, 20-23, *assoc. prof.*, 23- Soc. Exp. Biol.; Harvey Soc. Lipolytic activity of liver and blood.
- Price, D(avid) J(ames)**, 701 Whittier St., N. W., Washington, D. C. *Engineering*. Ashland, Pa., March 27, 84. B.S., Pa. State, 25, E.M., 27. Chairman, Lehigh Valley Coal Co., Pa., 00-02; res. mining engineer, Clearfield Bituminous Coal Corp., Pa., 02-12; asst. mining engineer, U. S. Bur. Mines, Pa., 12-14; *engineer in charge grain dust explosions and develop. work, bur. chem.*, U. S. Dept. Agr., 14- Eng. Standards Committee; Nat. Fire Protection Ass. (chairman, dust explosion hazards committee, 22-, farm fire protection committee, 25-). Dust explosions in industrial plants.
- Price, Prof. G(eorge) M(cCreedy)**, Union College, College View, Nebr. *Geology*. Havelock, N. B., Can., Aug. 26, 70. A.B., 12; A.M., 18. *Prof. geol.*, Pacific Union, 20-22; *Union (Nebr.)*, 22-, *on leave*, 24- A.A.; Calif. Acad.; London Victoria Inst. Evolutionary geology and the new catastrophism.
- Price, Prof. H(arvey) L(ee)**, Virginia Polytechnic Institute, Blacksburg, Va. *Horticulture*. Price's Fork, Va., March 18, 74. B.S., Va. Polytech, 98, M.S., 00. *Instr. hort.*, Va. Polytech, 00-03, *prof. and horticulturist, Exp. Sta.*, 03-, *dean agr. dept.*, 08- A.A.; Soc. Hort. Sci.; Pomol. Soc.; Va. Hort. Soc. Phenology; inheritance in vegetable hybrids.
- Price, H(omer) C(harles)**, Newark, Ohio. *Agriculture*. Newark, Feb. 13, 75. B.S.A., Ohio State, 97; M.S.A., Cornell, 99. Asst. hort., Ohio State, 99-01, *prof. hort. and forestry*, 01-03, *prof. rural econ. and dean col. agr.*, 03-15; *commercial apple orchardist*, 15- Ohio Board Agr., 17-; chairman, Fed. Milk Commission, Ohio, 18. Rural credit and cooperation in agriculture.
- Price, Melvin**, 1514 N. Grove St., Gainesville, Fla. *Engineering*. Lafayette, Ind., Sept. 14, 77. Purdue, 97, E.E., 02; A.M., Columbia, 04. Instr. machine design, Nebraska, 99-05; *prof.*, Rochester, 12-21; *head dept. mech. eng.*, Florida, 21- Mathematical curves; microstructure and friction of bearing metals.
- Price, Dr. T(homas) M(alcolm)**, District Building, Washington, D. C. *Physiological chemistry*. Darlington, Md., April 11, 79. B.S., Maryland, 99; M.S., George Washington, 00, Ph.D., 03.

- Chemist, Md. Exp. Sta, 99-02; instr. chem, *George Washington*, and biochem. med. sch, 02-05, asst. prof, 05-09, *prof. physiol. chem*, 09-Sci. asst, U. S. Dept. Agr, 02-08; senior biochemist, 08-10, chemist in charge meat inspection laboratories, 10-20; chemist, D. C. Dept. Health, 20- A.A.; Chem. Soc. Digestibility of plain, cooked and pasteurized milk; digestibility of milk treated with preservatives; effects of baking powders and preservatives on digestion; the isolation of animal and bacterial enzymes; vegetable enzymes and their toxic effects; anilin dyes; determination of starch in meats.
- Price, Prof. W(alter) A(llen)**, Purdue University, Lafayette, Ind. *Entomology*. Columbus, Ohio, Feb. 25, 87. B.S.A, Ohio State, 13, M.S, 16. Asst. *entom.* Ohio State, 12-14; *Purdue*, 14-15, instr, 15-17, asst. prof, 17-20, *assoc. prof*, 20- A.A.; Entom. Soc; Ass. Econ. Entom; Ind. Acad. Economic entomology; apiculture.
- Price, Dr. Walter V(an)**, Cornell University, Ithaca, N. Y. *Dairying*. Schenectady, N. Y., Dec. 10, 96. B.S, Cornell, 20, M.S, 21, Ph.D, 24. *Asst. prof, Cornell*, 24- Manufacture of the products of milk.
- Price, Dr. W(illiam) Armstrong, Jr**, 1312 Neils Esperson Building, Houston, Texas. *Geology*. Richmond, Va, March 27, 89. A.B, Davidson, 09; Ph.D, Hopkins, 13. Instr. geol. West Virginia, 13-14, asst. prof, 14-19; geologist, companies, 19-24; *consulting geologist*, 20-Summers, U. S. Geol. Surv, 10, 11; Md. Geol. Surv, 10-13, 16; W. Va. Geol. Surv, 13-20; Pa. Geol. Surv, 21; pyrite investigator, Bur. Mines, 18. Lieut. O.R.C, 18- A.A.; Geol. Soc; Paleont. Soc; Ass. Petrol. Geol; Min. Eng; Am. Geog. Soc; W. Va. Sci. Soc; Houston Geol. Soc. Invertebrate paleontology of the Pennsylvanian system of West Virginia and Maryland; stratigraphy and economic geology of the Carboniferous and Devonian of West Virginia; structural geology of the Gulf coast of Mexico; economic geology of the Texas coastal plains.
- Price, William B**, Box 534, Waterbury, Conn. *Metallurgy*. New Haven, Conn, Sept. 22, 77. Ph.B, Yale, 02. Chemist, *Scovill Mfg. Co*, 02-06, *chief chemist and metallurgist*, 06- Metal. advisory board, ordnance dept. Inst. Metals (past pres); Min. and Metal. Eng; Soc. Test. Mat. (past chairman, sub-committee IX on nomenclature); Chem. Soc; Electrochem. Soc; Automotive Eng; British Inst. Metals. Manganic periodates; the recovery of waste products; buffing and cleaning compounds; lacquers; metallurgy, physical properties and testing of brass, copper, nickel, silver and the non-ferrous alloys; corrosion, heat and electrical resistant alloys.
- Prichard, Henry S(ewall)**, 1511 Frick Building, Pittsburgh, Pa. *Engineering*. Philadelphia, Pa, June 26, 59. Pub. sch. Broker's clerk and asst. bookkeeper, 73-81; topographer, Pa. Ry. Co, 81-84; chief draughtsman, N. J. Steel and Iron Co, 84-91, chief engineer, 91-00; designing engineer, Am. Bridge Co, 00-01, statistician, 01-14; expert, ry. econ, U. S. Steel Corp, 14-16; *anal. engineer, Am. Bridge Co*, 16- Gold medal, West. Pa. Eng. Soc; Croes medal, Civil Eng. A.A.; Civil Eng. Steel railway bridge members; ideal and eccentrically loaded columns; flexure; elasticity, fatigue, and effects of straining iron and steel; utilizable capacity of steel members of structures.
- Priest, Irwin G(illespie)**, U. S. Bureau of Standards, Washington, D. C. **Physics, Psychophysics*. Holmes Co, Ohio, Jan. 27, 86. A.B, Ohio State, 07. *Bur. Standards*, 07-, *chief colorimetry sect*, 13- Munsell research assoc, 22-26. A.A.; Physical Soc; Optical Soc. (sec'y, 21-24, v. pres, 26); hon. mem. Oil Chem. Soc; Psychol. Ass; Wash. Acad; Wash. Philos. Soc. Interferometry; wave lengths; colorimetry; color standardization; spectrophotometry; photometry; visual psychophysics.
- Priest, Prof. Ward C(urtiss)**, 41 Judson St, Canton, N. Y. *Physics*. Canton, June 16, 86. A.B, St. Lawrence, 07; A.M, Harvard, 10. Teacher, high sch, N. Y, 07-08; instr. *physics*, St. Lawrence, 08-09; Tufts, 10-11; *St. Lawrence*, 11-12, *prof*, 12- A.A.; Radio Eng; Hist. Sci. Soc. Acoustics; radio.
- Prime, Dr. Frederick**, 131 E. 66th St, New York, N. Y. *Pathology*. Baltimore, Md, March 3, 81. B.S, Pennsylvania, 02, M.D, 05. Instr. surg, Pennsylvania, 07-11; *assoc. cancer research, col. physicians and surg, Columbia*, 13-20, *asst. prof*, 20- Assoc. radiotherapeut, St. Luke's Hosp, 23- Ass. Path. and Bact; Ass. Cancer Research; Harvey Soc. Cancer.
- Primrose, Prof. A(lexander)**, 100 College St, Toronto, Ont, Can. *Surgery*. Pictou, N. S, 61. M.B, C.M, Edinburgh, 86, LL.D; Middlesex Hosp, London, 87. Prof. anat, *Toronto*, 92-06, *assoc. prof. clin. surg*, 97-18, *prof*, 18-, *dean faculty med.* Consulting surgeon, Toronto Gen. Hosp. and Hosp. for Sick Children. Col, M.C, C.E.F, England, France and Salonika, 15-18. Companion of the Bath. Surg. Ass; fel. Royal Col. Surg; Royal Med. and Chirurg. Soc. Myology of the anthropoid ape; anatomy; tumors of the breast.
- Prince, Dr. Alexander L(ouis)**, 36 Pearl St, Hartford, Conn. *Physiology*. Paris, France, May 25, 84. M.D, Yale, 10. Instr. anat, Yale, 11-12, instr. med. and asst. physiol. and pharmacol, 12-13, instr. physiol, 13-16, asst. prof, 16-20; *asst. ophthalm. surgeon, Hartford Hosp*, 20- Lieut. and capt, M.C, 17-19. Physiol. Soc; Soc. Exp. Biol. Cardio-respiratory physiology; the otic labyrinth.
- Prince, Dean A(rthur) W(arren)**, 108 N. Hays St, Jackson, Tenn. *Chemistry, Physics*. Iron-ton, Mo, Nov. 4, 79. A.B, William Jewell, 04, A.M, 05; Chicago, 07, 14, 20, 22, 23, 25. Prin. pub. schools, Mo, 01-02; instr. physics, William Jewell, 04-05; head sci. dept, West. Mil. Acad, Ill, 05-08; *prof. chem. and dean, Union (Tenn)*, 08- A.A.; Chem. Soc; Tenn. Acad. (exec. board, 12-14). Catalysts in hydrolysis; complex ammonium compounds.
- Prince, Prof. E(dward) E(rnest)**, 206 O'Connor St, Ottawa, Ont, Can. *Zoology, Ichthyology*. Leeds, Eng, May 23, 58. St. Andrews, 80-84, LL.D, D.Sc; Edinburgh, 84-85; Cambridge, 86-98. Senior demonstrator zool, Edinburgh, 85; naturalist, marine lab, St. Andrews, 85-89;

- prof. zool. and comp. anat, Royal Infirmary Med. Col, Glasgow, 90-93; commissioner of fisheries, Can. Univ. exten. lecturer, St. Andrews, 86-90. Sec'y, Scottish Bait Commission, 87; examiner biol, Royal Col. Physicians, Edinburgh, 92-93; naturalist, Irish Deep Sea Investigations, 92; rep. for Can. Int. Fisheries Cong, Paris, 00; mem, Can. Biol. Board; Ottawa Wild Life Protection Board. Biol. committee, Stefansson exped, 13-18. Int. Fisheries Cong, Paris, 00; Can. delegate, Int. Fisheries Cong, Washington, 08. Fisheries Soc. (pres, 20-); Royal Soc. Can. (pres. biol. and geol. sect, 07); Ottawa Field Nat. Club (pres, 00-09); Authors' Club (pres, 25-27); British Ass. (sec'y, biol. sect, 97, v. pres, zool. sect, 09); Glasgow Nat. Hist. Soc. (v. pres, 93); Andersonian Nat. Hist. Soc. Glasgow (pres, 92). Embryology of fishes; animal morphology; fishing industries; embryology of teleosts; Canadian zoology; comparative psychology and esthetics.
- Prince, Prof. Morton**, Harvard University, Cambridge, Mass. **Medicine*. Boston, Mass, Dec. 21, 54. A.B, Harvard, 75, M.D, 79; LL.D, Tufts, 10. Physician nose and throat, Boston City Hosp, 82-85, neurologist, 85-17; instr. neur, Harvard Med. Sch, 95-98; prof, Tufts, 02-10, emer. prof, 10-; assoc. prof. *abnormal and dynamic psychol*, Harvard, 26- Consulting physician, 17-; dist. physician, Boston Dispensary, 81-82, neurologist, 81-86; lecturer, California, 10. Ed, 'Jour. Abnormal and Social Psychol.' A.A; Am. Med. Ass; Am. Physicians; Neur. Ass. (pres, 09); Psychol. Ass; Psychopath. Ass; Boston Soc. Neur. and Psychiat. (pres, 05); Boston Soc. Med. Improv. Neurology; abnormal and dynamic psychology.
- Prindle, Louis M(arcus)**, U. S. Geological Survey, Washington, D. C. *Geology*. Great Barrington, Mass, Aug. 28, 65. A.B, Williams, 87; Munich, 90-91; Hopkins, 93; Harvard, 00-01. Geol. aid, U. S. Geol. Surv, 02-03, asst. geologist, 04-07, assoc. geologist, 08-24. A.A; Geol. Soc; Wash. Geol. Soc.
- Prinz, Dr. Hermann**, University of Pennsylvania, Philadelphia, Pa. *Pharmacology*. Schwittersdorf, Germany, June 13, 68. D.D.S, Michigan, 96, M.D, 01, hon. A.M, 12, hon. Sc.D, 26; Berlin, 13-14. Prof. mat. med. and therapeut, Washington (St. Louis), 00-13, director research lab, 10-13; prof. *mat. med. and therapeut*, Pennsylvania, 14- Fifth Int. Cong. Dentistry, Berlin, 09. A.A; cor. mem. Cent. Verein Zahnärzte. Dental materia medica and therapeutics; dental formula; diseases of the soft structures of the teeth.
- Pritchard, F(rederick) J**, U. S. Department of Agriculture, Washington, D. C. *Botany*. Camanche, Iowa, Dec. 24, 74. B.S, 04. Instr. bot, N. Dak. Col, 04-05, asst. prof, 05-07; asst. plant breeding, Cornell, 07-09; bot, Wisconsin, 09-10; *plant physiologist, bur. plant indust*, U. S. Dept. Agr, 10- A.A; Bot. Soc; Wash. Bot. Soc; Wash. Acad. Plant pathology; plant breeding.
- Pritchett, Pres. Henry S(mith)**, The Carnegie Foundation, 522 Fifth Ave, New York, N. Y. **Astronomy, Geodesy*. Fayette, Mo, April 16, 57. A.B, Pritchett, 75; Ph.D, Munich, 94; LL.D, Hamilton, 00, Pennsylvania, Harvard and Yale, 01, Hopkins, 02, Michigan and Williams, 05, Toronto, 06, Brown, 08, Miami, 10, Vermont, 11, Washington (St. Louis), 15, McGill, 17, Western Reserve, 18, Dalhousie, 19, Colorado, 23, Union, 24; hon. Sc.D, Tufts, 05; Stevens, 08; D.Litt, Whitman, 19. Asst. astronomer, U. S. Naval Observatory, 78-80; astronomer, Morrison Observatory, 80-81; prof. astron. and director observatory, Washington (St. Louis), 81-97; supt, U. S. Coast and Geod. Surv, 97-00; pres, Mass. Inst. Tech, 00-06; *Carnegie Foundation for Adv. of Teaching*, 06- Board trustees, Carnegie Institution, 06-; Carnegie Corp, 11-; Metropolitan Museum Fine Arts, 16- Astron. Soc; Philos. Soc; assoc. fel. Am. Acad; Wash. Acad; Astron. Gesell. Positions of fixed stars; double star systems; comet orbits; orbits of satellites; stellar parallax.
- Probert, Prof. Frank H(olman)**, University of California, Berkeley, Calif. *Mining*. London, Eng, June 13, 76. Assoc, Royal Sch. Mines, London, 97. Mine manager and mining engineer, 97-16; prof. *mining and dean col*, California, 16- Consulting engineer, U. S. Bur. Mines. Min. and Metal. Soc; Min. and Metal. Eng; Can. Min. Inst; Inst. Min. and Metal. Gt. Britain. Copper deposits; outcrops; ground subsidence.
- Proctor, Prof. Cha(rlie)s A(lbert)**, Dartmouth College, Hanover, N. H. *Physics*. Hanover, Sept. 15, 78. A.B, Dartmouth, 00; Ph.D, Chicago, 09. Asst. physics, Chicago, 03; instr, Missouri, 04-07; asst. prof, Dartmouth, 07-18, prof, 18- A.A; Physical Soc; Optical Soc. Measurement of refractive indices with interferometer; variation of mass of an electron with change in velocity; physiological optics.
- Proebsting, Dr. E(dward) L(ouis)**, University Farm, Davis, Calif. *Pomology*. Phillipsburg, Mont, June 24, 97. B.S, California, 18; M.S.A, Cornell, 21, Ph.D, 24. Instr. hort, Minnesota, 18-19; manager, orchard, Medford, Oregon, 19-20; asst. bot, Cornell, 21, instr. plant physiol, 21-23; *pomol*, California, 23-26, asst. prof, 26- Soc. Hort. Sci; Bot. Soc. (sec'y, physiol. sect, Pacific div, 24); Chem. Soc; Eugenics Soc. Relation of food reserve to cambial activity in the apple; histology of the graft union; maintenance of orchard soil fertility; nutrition of deciduous fruits.
- Proskouriakoff, A(venir)**, 67 Fairview Ave, Lansdowne, Pa. *Chemistry*. St. Petersburg, Russia, July 23, 82. Ch.E, Imp. Inst. Tech, Tomsk. Asst. prof, Imp. Inst. Tech, Tomsk, 13-15; *research chemist, Dermat. Research Laboratories, Phila*, 18- Imp. Russian Art. Commis-sion, U. S, 16-18. Chem. Soc. Organic mercurials.
- Prouty, Prof. W(illia)m F(rederick)**, University of North Carolina, Chapel Hill, N. C. *Geology*. Putney, Vt, Aug. 15, 79. B.S, Syracuse, 03, M.S, 04; fellow, Hopkins, 05-06, Ph.D, 06. Instr. geol, Syracuse, 03-04; assoc. prof. geol. and miner, Alabama, 06-12, prof. geol, 12-19; chief asst. state geologist, Ala, 06-19; prof. *economic geol*, North Carolina, 19- Geologist, N. C. Geol. Surv, 19-22; paleontologist, W. Va. Geol. Surv, 22-25; summers, asst, Md. Geol.

- Surv, 04-06; U. S. Geol. Surv, 06. A.A.; fel. Geol. Soc; Soc. Econ. Geol; Min. Eng; N. C. Acad. Manlius formation of Onondaga County, New York; Meso-Silurian of Maryland; oil, marble, flake graphite and road materials of Alabama; structure and stratigraphy of crystalline in the southern Appalachians; Paleozoic stratigraphy of West Virginia; Triassic of North Carolina; relation of topography to geologic structure.
- Prucha, Prof. Martin J(ohn)**, University of Illinois, Urbana, Ill. *Bacteriology*. Bohemia, 74. Ph.B, Wesleyan, 03, M.S, 08; fellow, Cornell, 10-11, Ph.D, 13. Asst. bacteriologist, N. Y. Exp. Sta, Geneva, 03-08, assoc. bacteriologist, 08-12; instr. plant physiol, Cornell, 12-13, asst. prof, 13; *dairy bacter*, Illinois, 13-16, assoc. prof, 16-20, *prof*, 20-, acting head dairy dept, 20-21, asst. chief, *Exp. Sta*, 13-16, assoc. chief, 16-21, *chief*, 21- Bacteriologist, Penick and Ford Co, Iowa, 20. Dairy Sci. Ass; Pub. Health Ass. Bacterial control in dairy products.
- Pryor, Prof. Joseph W(illiam)**, University of Kentucky, Lexington, Ky. *Anatomy*. Palmyra, Mo, April 3, 56. M.D, Missouri, 76. *Prof. anat. and physiol*, Kentucky, 90- A.A; Am. Med. Ass; Ass. Anat; Ky. State Med. Soc. (first v. pres); Fayette Co. Med. Soc. (pres). Chronology and order of ossification of the bones of the human corpus; differences in the time of development of centers of ossification in the male and female skeleton; the bones of the hand of male and female; union of epiphyses with the diaphyses.
- Pucher, Prof. George W(alter)**, 22 Russell Ave, Buffalo, N. Y. *Biochemistry*. Lake La Barge, Alaska, May 13, 98. B.S, Washington (Seattle), 17, M.S, 18; Ph.D, Yale, 20. Research chemist, Nat. Aniline and Chem. Co, 20-21; biochemist, Buffalo Gen. Hosp; assoc. and *asst. prof. biochem*, Buffalo, 22- Chem. Soc; Soc. Exp. Biol. Synthesis in the glyoxaline series; carbohydrate metabolism and chemistry of the seasonal variations of adults.
- Puckner, W(illiam) A(ugust)**, 535 N. Dearborn St, Chicago, Ill. *Pharmaceutical chemistry*. New Holstein, Wis, Feb. 24, 64. Ph.G, Illinois, 85; Heidelberg, 93; hon. Phar.D, Pittsburgh, 10; hon. Phar.M, Phila. Col. Pharmacy, 18. Asst. bot. sch. pharmacy, Illinois, 88-90, prof. chem, 94-09; *sec'y council on pharmacy and chem*, Am. Med. Ass, 06-, director chem. lab, 06-25. Committee on revision, U. S. Pharmacopœia, 10, 20- A.A; Chem. Soc; Pharmaceut. Ass; Am. Med. Ass; Chem. Gesell. Alkaloidal estimations; decomposition of mydriatic alkaloids.
- Pulling, Prof. Howard E(dward)**, 201 Weston Road, Wellesley, Mass. *Botany*. Wausau, Wis, Feb. 3, 86. A.B, Beloit, 10; fellow, Wisconsin, 12-13, Ph.D, 15. Instr. bot, Wisconsin, 13-15; Hopkins, 15-19; asst. prof, Wellesley, 19-20, assoc. prof, 20-23, *prof*, 23-, *lecturer bio-physics*, 23- Summer, research asst, desert lab, Carnegie Institution, 13. A.A; Bot. Soc. Plant physiology; capillary water in soils; sunlight; growth in plants.
- Pulsifer, H(arry) B(ridgman)**, 7612 Dix Court, Cleveland, Ohio. *Chemistry, Metallurgy*. Lebanon, N. H, Dec. 23, 79. B.S, Mass. Inst. Tech, 03; Ch.E, Armour, 15; M.S, Chicago, 18. Instr. and asst. prof. metal, Armour, 11-17; prof, Mont. Sch. Mines, 17-20; asst. prof, Lehigh, 20-24; metallurgist, Beryllium Corp. Amer, 25-27. A.A; Chem. Soc; Electrochem. Soc; Min. and Metal. Eng; London Inst. Metals. Analytical chemistry; metallography.
- Punnett, Dr. P(ercy) W(ithers)**, 318 Allaire Ave, Leonia, N. J. *Chemistry*. Rochester, N. Y, Oct. 25, 89. B.S, Rochester, 11; A.M, Columbia, 12, fellow, 14-15, Ph.D, 15. Prof. chem, Western Maryland, 15-16; chem. pathologist, Bellevue Hosp, 16-17; *research chemist*, Butterworth-Judson Corp, 17-20; Rochester Button Co, 20-23; Anchor Cap and Closure Corp, 23-26; Maresi-Mazzetti Corp, 26-27; *Dry Ice Corp*, 27- Chem. Soc. Biochemistry, food chemistry; dyes and intermediates.
- Pupin, Prof. M(ichael) I(dvorsky)**, Columbia University, New York, N. Y. **Physics*. Idvor, Banat, Serbia, Oct. 4, 58. A.B, Columbia, 83, hon. Sc.D, 04; Ph.D, Berlin, 89; LL.D, Hopkins, 17; Sc.D, Princeton, 24. Instr. math. physics, Columbia, 90-91, adjunct prof. mech, 91-01, *prof. electromech*, 01- Director, Phoenix Research Lab, 11. Hébert prize, Paris Acad, 16; Edison medal; medals, Radio and Franklin Institutes. Nat. Acad; A.A. (pres, 25); Physical Soc. (assoc. ed, 'Bul'); Math. Soc; assoc. Elec. Eng. (v. pres, 97-00); Philos. Soc; Am. Acad; fel. N. Y. Acad. Electrical discharges through rarefied gases; electrical resonance; secondary X-ray radiation; wave propagation over non-uniform conductors; energy loss in weak and variable magnetic fields; rotation of conductors in alternating magnetic field.
- Purdum, Prof. R(aymond) B(randenburg)**, Elkins, W. Va. *Chemistry*. Providence Forge, Va, Nov. 17, 99. B.S, Virginia, 23, M.S, 24, du Pont fellow, 24-25, Ph.D, 26. Asst. chem, Virginia, 20-23, teaching fellow, 23-25; *prof*, Davis and Elkins, 25- Chem. Soc. Rapid electrolysis without rotating electrodes; hydrogenation of benzene; kinetics of the reduction of benzene to cyclohexane; equilibrium in the system; benzene, hydrogen, cyclohexane.
- Purdy, Ross C**, American Ceramic Society, Columbus, Ohio. *Ceramic engineering*. Jasper, N. Y, March 3, 75. Cer.E, Ohio State, 08. Chemist and asst. supt, Mosaic Tile Co, 99-01; chemist and foreman, glazing and burning departments, Roseville Pottery Co, 01-02; asst. ceramics, Ohio State, 02-05; instr, Illinois, 05-07; asst. prof. clayworking and ceramics, Ohio State, 07-08, assoc. prof. ceramic eng, 08-09, prof, 09-11; director research laboratories, Norton Co, 11-19; *consulting ceramic engineer*, 19-; v. pres, Dover Mfg. Co, 19-22; *gen. sec'y*, Am. Ceramic Soc, 22- Ceramist, Ill. Geol. Surv, 05-07. Ceramic Soc. (v. pres, 07, pres, 09, sec'y, 21-). Abrasives; abrasive products; white ware bodies and glazes; refractories.
- Purton, A(stley) B(loxam)**, 313 Federal Building, Salt Lake City, Utah. *Engineering*. Minneapolis, Kans, Oct. 17, 86. B.S, Kansas, 07.

- Aid, U. S. Coast and Geod. Surv., 07-09; from junior engineer to hydraulic engineer, U. S. Geol. Surv., 10-; *dist. engineer, Utah and Nev.*, 18- Assoc. Civil Eng. Water supply.
- Puryear, Prof. Charles**, College Station, Texas. *Mathematics*. Boynton, Va., Oct. 21, 60. A.M., Richmond, 81; B.S., C.E., Virginia, 85; LL.D., Daniel Baker. Teacher, schools, Va., 82-83, 85-88; instr. math, Michigan, 88-89; assoc. prof. civil eng. and physics, *Agr. and Mech. Col. Texas*, 89-90, *prof. math*, 90-, *dean col.*, 07-, *dean grad. sch.*, 24- A.A.; Eng. Educ.; Acad. Polit. Sci.; Texas Acad. Trigonometry.
- Pusey, Dr. William Allen**, University of Illinois College of Medicine, Chicago, Ill. *Dermatology*. Elizabethtown, Ky., Dec. 1, 65. A.B., Vanderbilt, 85, A.M., 86; M.D., N. Y. Univ., 88; LL.D., New Mexico, 25. *Prof. dermat. col. med., Illinois*, 94-15, *emer. prof.*, 15- Exec. committee, Nat. Research Council, 25- Am. Med. Ass. (pres, 23); Dermat. Ass. (pres, 09). Dermatology; the therapeutic applications of X-rays; syphilis.
- Putnam, Edward K(irby)**, Davenport Public Museum, Davenport, Iowa. *Archeology*. Scott Co, Iowa, Nov. 17, 68. A.B., Ill. Col., 91; Chicago; A.M., Harvard, 99. Instr., Stanford, 01-06; *acting director, Davenport Pub. Museum*, 06- A.A.; Archeol. Inst.; Ass. Mus.; Anthropol. Ass.; Folk-Lore Soc. American archeology.
- Putnam, Dr. George R(ockwell)**, U. S. Lighthouse Service, Washington, D. C. *Engineering*. Davenport, Iowa, May 24, 65. B.S., Rose, 90, M.S., 95; Sc.D., Stevens, 22. U. S. Coast and Geod. Surv., 90-10, *commissioner lighthouses*, 10- Director coast surveys, P. I., 00-06. Civil Eng.; Wash. Eng. Soc.; Wash. Acad.
- Putnam, Mark E(dson)**, 215 E. Buttles St., Midland, Mich. *Organic chemistry*. Ovid, Mich., Aug. 6, 86. A.B., Albion, 10; M.S., Michigan, 11. Instr. org. chem., Case, 12-15; *Dow Chem. Co.*, 15- Chem. Soc. (chairman, Midland sect, 25). Chemical engineering; manufacture of salicylates and synthetic organic chemicals.
- Putnam, Prof. T(homas) M(ilton)**, University of California, Berkeley, Calif. *Mathematics*. Petaluma, Calif., May 22, 75. B.S., California, 97, fellow, 97-98, M.S., 99; fellow, Chicago, 00-01, Ph.D., 01. Instr., Texas, 99-00; *asst. math., California*, 98-99, instr., 01-07, *asst. prof.*, 07-14, *assoc. prof.*, 14-19, *prof.*, 19-, *dean lower div.*, 14-19, *undergrad. div.*, 19- Summers, lecturer, Mass. Inst. Tech., 21; dean summer session, California at Los Angeles, 26- Board directors, Calif. Sch. for Blind, 17-21. A.A.; Math. Soc.; Math. Ass. Theory of groups; theory of numbers; mathematics of finance.
- Putnam, Dr. W(illis) S(umner)**, New Salem, Mass. *Physical chemistry*. Grafton, Mass., Feb. 21, 68. B.S., Worcester, 89; Ph.D., Hopkins, 15. Prof. chem., Woman's Col. of Del., 15-16; instr. physical chem., applied chem. and metallog., Cooper Union, 16-20; *asst. prof. applied chem., Illinois*, 20-22; *consulting chemist, New Salem*, 22- Instr., Brooklyn Polytech, 19-20. Chem. Soc.; Min. and Metal. Eng. Conductivity and ionization of solutions.
- Putt, Earl B**, 148 Daniel Low Terrace, New Brighton, Staten Island, N. Y. *Chemistry*. Doylestown, Ohio, Jan. 26, 86. Ph.C., Ohio State, 07, B.S., 09. Asst. chemist, N. Dak. Exp. Sta., 09-13; instr. mat. med., sch. pharmacy, N. Dak. Col., 09-10, *asst. prof.*, 10-11, *prof. mat. med. and therapist*, 11-13; *asst. chemist, div. drugs*, bur. chem., U. S. Dept. Agr., U. S. Appraiser's Stores, New York, 13-16, chemist in charge, Interstate Drug Lab., east. dist., 14-16; chief chemist, Youngstown Chem. Co., 16-20; *mem. firm, Seil, Putt and Rusby, Inc.*, 20- Assoc. referee, drugs, Ass. Official Agr. Chem., 12-13. A.A.; Chem. Soc.; Pharmaceut. Ass.; N. Y. Chemists Club. Microchemical and other analyses of drug products; manufacture of phthalic anhydride and phenolphthalein; development of formulas for pharmaceutical, toilet and food preparations.
- Pyle, Prof. L(indley)**, Washington University, St. Louis, Mo. *Physics*. Kennett Square, Pa., April 20, 79. A.B., Michigan, 01, A.M., 02. Instr., *asst. prof. assoc. prof. and prof. physics, Washington (St. Louis)*. A.A.; Physical Soc. Electromagnetic damping; dielectric absorption; magneto-optics.
- Pyle, Dr. W(illiam) H(enry)**, University of Missouri, Columbia, Mo. *Psychology*. Carmi, Ill., Feb. 27, 75. A.B., Indiana, 98; Ph.D., Cornell, 09. Prin. and supt. schools, Ill., 98-06; *asst. psychol.*, Cornell, 07-09; instr., *Missouri*, 09-14, *asst. prof. educ. psychol.*, 14- A.A.; Psychol. Ass. The effect of imperceptible shadows on the judgment of distance; after-images of subliminally colored stimuli; expectation; memory; mental development; learning.

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- Quaintance, Dr. A(ltus) L(acy)**, U. S. Department of Agriculture, Washington, D. C. *Entomology*. New Sharon, Iowa, Dec. 19, 70. B.S., Florida, 93; M.S., Ala. Polytech, 94, Sc.D., 15. Instr. biol., Florida, 94-97, *prof. entom.*, 98; biol. and hort., Ga. Exp. Sta., 99-01; zool. and entom., Maryland, and state entomologist, Md., 01-02; expert in charge deciduous fruit insect investigations, *bur. entom., U. S. Dept. Agr.*, 03-24, *assoc. chief bur. in charge research work*, 24- A.A.; Ass. Econ. Entom. (pres, 04); Wash. Entom. Soc.; Wash. Biol. Soc. (pres, 12); Wash. Acad. Economic entomology; Aleo-didae; insects destructive to deciduous fruit plants in the United States.
- Qualls, Dr. Guy L(ogan)**, Care Adjutant General, U.S.A., Washington, D. C. *Surgery*. Murphysboro, Ill., Feb. 18, 83. B.S., M.D., St. Louis, 09, M.S., 12; grad., Army Med. Sch., 12. Asst. anat. and physiol., St. Louis, 08-09; *asst. physician*, St. Louis City Hosp., 09-10, *res. pathologist*, 10-11; *lieut. M.R.C.*, 11-12, *capt. M.C.*, 15-17, *major*, 17, *lieut. col.*, 18- A.A.; Am. Med. Ass. Cactina and cactin; convalescent typhoid; rope in bread; syphilis.
- Quayle, Prof. H(enry) J(oseph)**, Citrus Experiment Station, Riverside, Calif. *Entomology*. Isle of Man, April 29, 76. A.B., Illinois, 03; M.S., California, 11. Asst. entom., California,

- 03-05; instr. zool, Iowa Col, 05-06; asst. prof. entom, California, 06-11, assoc. prof, 11-15, prof, 15- Collaborator, Fed. Hort. Board, 13. A.A.; Entom. Soc; Ass. Econ. Entom. (chairman, Pacific slope branch, 14, 23). Tropical fruit insects.
- Quayle, Prof. O(sborne) R(obinson)**, Emory University, Ga. *Organic chemistry*. Cleveland, Ohio, Dec. 15, 98. A.B, Swarthmore, 19; A.M, Harvard, 21; Ph.D, Hopkins, 24. *Asst. prof. chem, Emory, 24-* Chem. Soc. Benzoyl-benzoic acids and corresponding anthraquinones; organic syntheses.
- Quereau, Dr. Edmund C(hase)**, San Antonio, Texas. *Geology*. Aurora, Ill, March 18, 68. Ph.B, Northwestern, 88; Ph.D, Freiburg, 93. Instr. nat. science, Troy Acad, 88-90; paleont, Chicago, 93-95; prof. geol, Syracuse, 95-99; eng. and ry. work, 99-09; supt, schools, Bay City, Texas, 10-18; *retired*, 18. Assoc. ed, 'Jour. Geol,' 93-94. Geol. Soc. Physiography; stratigraphy.
- Quick, Dr. A(rmand) J(ames)**, 477 First Ave, New York, N. Y. *Biochemistry*. Theresa, Wis, July 18, 94. B.S, Wisconsin, 18, M.S, 19; Ph.D, Illinois, 21. Instr. biochem, Vanderbilt, 19-20; Pennsylvania, 22-26; *asst. surg. med. col, Cornell, 26-* Chem. Soc; Phila. Physiol. Soc. Organic arsenic compounds; chemical detoxication; glycuronic and hippuric acids.
- Quick, Prof. B(ert) E(dwin)**, Westminster College, New Wilmington, Pa. *Botany*. Lowell, Mich, April 30, 86. A.B, Michigan, 08, Ph.D, 16. *Prof. biol, Iowa Wesleyan, 08-10; Southwestern (Kans), 16-18; De Pauw, 18-19; Westminster (Pa), 19-* A.A.; Mich. Acad; British Ecol. Soc. Distribution of climax association in southern Michigan.
- Quillian, Prof. M(arvin) C(larke)**, Wesleyan College, Macon, Ga. *Ecology, Morphology*. Cleveland, Ga, Aug. 6, 74. A.B, Emory, 95; fellow, Vanderbilt, 99-00, A.M, 00; Ga. State Nor. Sch, 95, 97; Northwestern Sch. of Taxidermy, 11; Chicago; Columbia, 21; Emory, 25. Asst. prin. and prin, high schools, Ga, 95-98; *prof. Greek and science, Polytech. Col, 00-02; science and math, high sch, Texas, 02-05, univ. training sch, 05-06; biol. and geol, Wesleyan, 06-24, biol, 24-* A.A.; Bot. Soc; Micros. Soc; Ecol. Soc; Ga. Hort. Soc; Ga. Soc. Biol; Soc. Preservation Wild Flowers (director, 25-27). Tropisms of dorotocephala; the development of mollusks; the biology of ginseng; natural history; folk-lore.
- Quinby, Dr. William C(arter)**, Peter Bent Brigham Hospital, Boston, Mass. *Surgery*. Worcester, Mass, May 26, 77. A.B, Harvard, 99, M.D, 02. Asst. genito-urinary surgeon, Boston Dispensary, 05-09; asst. surgeon, New Eng. Baptist Hosp, 08-14; exp. surgeon, Brady Clinic, Hopkins Hosp, 14-16, assoc. surg, Hopkins, 15-16; director lab. surg. research, *Harvard Med. Sch, 17-21, asst. prof. genito-urinary surg, 21-26, clin. prof, 26-*; urol. surgeon, *Peter Bent Brigham Hosp, 17-* Col. Surg; Ass. Genito-Urinary Surg; Surg. Research Soc; Am. Med. Ass; Physiol. Soc; Soc. Clin. Invest. Physiology; physiology of the kidney.
- Quinland, Dr. William S(amuel)**, 1017 Second Ave, S, Nashville, Tenn. *Pathology*. All Saints', Antigua, B. W. I, Oct. 12, 85. B.S, 18; M.D, 19. Rosenwald fellow, Harvard Med. Sch, 19-21; asst. *path*, Peter Bent Brigham Hosp, Boston, 21-22; *prof. and head dept, Meharry Med. Col, 22-* Pathologist, George W. Hubbard Hosp, and Millie E. Hale Hosp, Nashville, 22- Ass. Path. and Bact; Nat. Med. Ass; Rock City Acad. Med, Tenn. Carcinoma of the kidneys; congenital malformation of the intestine; atresia and imperforate anus; syphilis; tuberculosis; post-mortem review of heart diagnosis; leiomyofibroma of the uterus complicating pregnancy.
- Quinn, Dr. Edmond John**, 28 Sterling Place, Edgewater, N. J. *Chemistry*. Antwerp, N. Y, July 12, 86. B.S, Notre Dame, 11; Ph.D, Columbia, 25. Ind. Geol. Surv, 11-14; Mont. Exp. Sta, 14-18, asst. prof. *chem, Mont. Col, 18-23; research asst, Columbia, 23-25, instr, 25-* Chem. Soc. The relative thermo stability of vitamin A; phosphorus in relation to age, growth and food.
- Quinn, Prof. Elton L(eroy)**, 1360 Browning Ave, Salt Lake City, Utah. *Chemistry*. Pittsfield, Maine, July 26, 87. A.B, Bates, 10; Ph.D, Princeton, 13. Research chemist, Bagdad Land and Lumber Co, 13-14; *prof. chem, N. Mex. Sch. Mines, 14-15; Utah, 15-* Summer, research chemist, U. S. Bur. Mines, 11. Chem. Soc; Utah Acad. Atomic weight of cadmium; liquid carbon dioxide as a solvent.
- Quinn, R(obert) J(ohn)**, 3348 N. 30th St, Flushing, N. Y. *Chemical engineering*. Chicago, Ill, Feb. 5, 90. B.S, Illinois, 12. Asst. chemist, Morris and Co, 12-16, chief chemist, 16; manager packing house dept, Wahl-Henius Inst, 16-17; chief chemist, Midland Chem. Co, 17-18; asst. sales manager, A. Daigger and Co, 18-20; Chicago dist. sales manager, *Mathieson Alkali Works, Inc, 18-23, asst. sales manager, 23-* West. ed, 'Chem. Age'; board editors, 'Chem. Bul.' Chem. Soc. (sec'y, Chicago sect, 16-20, councilor, 20); N. Y. Chemists Club. Anhydrous ammonia; fats and oils; alkali and bleach.
- Quirke, Prof. Terence T(homas)**, 705 W. Oregon St, Urbana, Ill. *Geology*. Brighton, Eng, July 23, 86. M.E, North Dakota, 12, fellow, 12-13. M.S, 13; fellow, Chicago, 13-15, Ph.D, 15. Instr. *geol, Minnesota, 15-17, asst. prof, 17-19; assoc. prof, Illinois, 19-25, prof, 25-, chairman dept, 19-* Summers, field asst, N. Dak. Geol. Surv, 10-13; geologist, Can. Geol. Surv, 14. A.A.; fel. Geol. Soc; fel. Am. Geog. Soc. Precambrian geology; structural and economic geology; meteorites.
- Quisumbing, Dr. Eduardo**, College of Agriculture, Los Baños, Laguna, P. I. *Botany*. Santa Cruz, Laguna, Nov. 24, 95. B.Agr, Philippines, 18, fellow, 20-23; M.S, Chicago, 21, Ph.D, 22. Asst. bot, Philippines, 18-19; instr, Chicago, 20-24; *asst. prof. plant physiol, Philippines, 24-* Nat. Research Council fellow, 26- A.A.; Bot. Soc. Stony layer in seeds of Gymnosperms; protoplasmic connections in seeds; life

histories of tropical plants; weeds; honey plants; ecology of bananas; taxonomy.

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- Rabak, Frank, U. S.** Department of Agriculture, Washington, D. C. *Biochemistry*. Madison, Wis, June 10, 81. Ph.G, Wisconsin, 03, B.S, 05. Asst. instr. pharmacog, Wisconsin, 03-04, pharmaceut. chem, 04-05, instr. pharmaceut. technique, 05-06; expert, *bur. plant indust, U. S. Dept. Agr.*, 06-09, chem. biologist, 09-24, *assoc. biochemist*, 24- A.A.; Chem. Soc.; Pharmaceut. Ass; Oil Chem. Soc. Volatile and fatty oils; drug plants; waste product utilization.
- Raber, Prof. Oran (Lee),** Wolcottville, Ind. *Plant physiology*. Wolcottville, Jan. 14, 93. A.B, Indiana, 12; A.M, Harvard, 15, Ph.D, 20. Fellow, Am. Field Service, Montpellier and Paris, 21-22, asst. prof, 22-23; Michigan, 23-24; Arizona, 24-26; *assoc. prof, World Travel Cruise*, 26-27; *prof, Univ. Travel Ass*, 27- A.A.; Bot. Soc. Permeability.
- Race, Dr. Henrietta V(iola),** Capitol, Madison, Wis. *Psychology*. Aurora, Ill, March 26, 69. A.B, Lawrence, 00; A.M, Baker, 09; hon. A.M, Columbia, 12, Ph.D, 22. Teacher, pub. schools, 86-03, supt, 03-07; head dept. educ, Southwestern (Kans), 07-14; director research, Board Educ, Louisville, 14-20; psychol. clinic, Kansas City, 20-21; research, Youngstown, 21-26; *clin. psychologist, State Dept. Pub. Instruction*, 26- A.A.; Psychol. Ass; Educ. Research Ass. Gifted children; improvement.
- Rachford, Dr. B(enjamin) K(nox),** 1961 Madison Road, Cincinnati, Ohio. *Medicine*. Alexandria, Ky, Nov. 28, 57. M.D, Cincinnati, 82, LL.D, 26; Germany, 90. Res. physician, Cincinnati Gen. Hosp, 82-83; demonstrator bacter, Ohio Med. Col, 94-95, *prof. physiol*, 95-98, mat. med. and therapist, 98-01; *pediat, Cincinnati, 01-* Director pediat. service, Cincinnati Gen. Hosp, 01-, pres. staff, 08- Am. Med. Ass; Pediat. Soc; Am. Physicians. Influence of bile on fat splitting properties of pancreatic juice; comparative anatomy of bile and pancreatic ducts; neuroses of childhood; diseases of children.
- Racicot, H(omé)ra N(oé),** Laboratory of Plant Pathology, St. Anne de la Pocatière, Que, Can. *Phytopathology*. Stukely, Que, March 9, 93. B.A, 21. *Plant pathologist and officer in charge, Dominion Field Lab. Plant Path*, 23- A.A.; Phytopath. Soc; Can. Soc. Tech. Agr. Plant pathology and physiology.
- Rackemann, Dr. Francis M(inot),** 263 Beacon St, Boston, Mass. *Medicine*. Milton, Mass, June 4, 87. A.B, Harvard, 09, M.D, 12. Asst. med, *Harvard Med. Sch*, 16-25, *instr*, 25-; *Mass. Gen. Hosp*, 16-24, *chief med, Out-patient Dept*, 24- Am. Med. Ass; Am. Physicians; Soc. Clin. Invest; Ass. Immunol; Soc. Study Asthma; Harvey Soc. Anaphylaxis; asthma; hay fever.
- Radasch, Dr. H(enry) E(rdmann),** Daniel Baugh Institute of Anatomy, 11th and Clinton Sts, Philadelphia, Pa. *Anatomy, Histology, Embryology*. Keokuk, Iowa, May 7, 74. B.S, Iowa, 95, fellow, 95-96, M.S, 97; M.D, Jefferson Med. Col, 01; Leipzig, 03. Asst. chem, Iowa, 95-96; lecturer inorg. chem. and director chem. lab, Keokuk Med. Col, 97-98; demonstrator *histol. and embryol, Jefferson Med. Col*, 01-03, *assoc*, 03-18, *assoc. prof*, 18-22, *prof*, 22-, asst. demonstrator anat, 05-09, demonstrator visceral anat, 09-14, *assoc. prof. biol*, 13-17. Instr, Pa. Col. Dental Surg, 06-09, adjunct prof, 09-10; instr, Pa. Acad. Fine Arts, 14-19. Ass. Anat. Red blood cell; muscle anomalies; histologic technique; ultramicroscopy; composition of bone; acid cells of the stomach; obliteration of the lumen of bloodvessels.
- Radcliffe, Lewis, U. S.** Bureau of Fisheries, Washington, D. C. *Ichthyology*. Savannah, N. Y, Jan. 2, 80. A.B, Cornell, 05; M.S, George Washington, 15. Teacher, high sch, N. Y, 05-07; asst. naturalist, 'Albatross,' 07-08; sci. asst, Bur. Fisheries, 09-12, director, Beaufort Lab, 12-14, sci. asst, 14-16, asst. in charge fishery industries, 16-22; special fisheries investigator, U. S. Tariff Commission, 22-23; *deputy commissioner, Bur. Fisheries*, 23- A.A.; Fisheries Soc; Soc. Ichthyol. and Herp; Wash. Biol. Soc. Commercial fisheries; fisheries economics; fishes of east Pacific, Peru, Philippines and the United States.
- Raddin, Charles S,** Northwestern Marble and Tile Co, Minneapolis, Minn. *Botany, Mineralogy*. Lynn, Mass, Jan. 29, 63. B.S, Northwestern, 84, M.S, 88. Chicago Acad. (v. pres, trustee, 08-); Chicago Nat. Hist. Surv. (sec'y); Evanston Hist. Soc. Flora of Chicago and vicinity.
- Raeder, J(ohn) Milford,** University of Idaho, Moscow, Idaho. *Plant pathology*. Wilkes-Barre, Pa, April 4, 92. B.S, Iowa Col, 15, M.S, 20. Instr. plant path, Iowa Col, 20-21; *asst. plant pathologist, Idaho Exp. Sta*, 21- A.A.; Phytopath. Soc; Crop Protection Inst; Iowa Acad.
- Rafferty, Rev. Patrick, S.J,** Convento, Davao, Davao, P. I. *Physics*. Leadgate, Eng, March 17, 77. A.M, Woodstock, 12. Prof. physics, St. Joseph's (Phila), 03-07; Fordham, 07-08; Boston Col, 12-13; Col. Holy Cross, 14; *missionary work, P. I.* A.A.; *assoc. Physical Soc*; Math. Ass. Magneto-optics.
- Rafton, Mrs. Harold R(obert), (Dr. Helen F(rances) Grayson),** 9 Summit Ave, Lawrence, Mass. *Organic chemistry*. New York, N. Y, Sept. 1, 97. B.S, Columbia, 18; Ph.D, Bryn Mawr, 22. *Assoc. chem. director, Rafton Co. of Amer*, 22- A.A.; Chem. Soc. Rearrangement, equilibrium and formation of the propyl bromides; alkali and alkaline earth carbonates.
- Rahn, Dr. Carl (Leo Stahr),** Loch Mirror Park, Baraboo, Wis. *Psychology*. Kletsko, Poland, July 3, 81. Ph.B, Chicago, 07, fellow, 10-11, Ph.D, 12; Bonn, 09-10. Instr. psychol, Colorado, 08-09; Pittsburgh, 11; Minnesota, 11-13; Chicago, 13-14; asst. prof, Wyoming, 14-15; *assoc. prof, Illinois*, 15-22. Psychol. Ass. Relation of sensation to other categories in contemporary psychology; social psychology; psychology of the affected life.

- Raiford, Prof. L(emuel) Charles**, State University of Iowa, Iowa City, Iowa. *Organic chemistry*. Southampton Co, Va, Aug. 2, 72. Ph.G, Maryland, 95; Ph.B, Brown, 00, A.M, 04; Ph.D, Chicago, 09. Instr. chem, Brown, 00-01; Clemson, 01-02; assoc. prof. textile chem. and dyeing, Miss. Agr. and Mech. Col, 02-07; assoc. chem, Chicago, 07-09; research chemist, Wyoming, 09-11; instr. chem, Chicago, 11-15; prof, Okla. Agr. and Mech. Col, 15-18; *assoc. prof, Iowa, 18-* A.A.; Chem. Soc; Okla. Acad. (v. pres, 16, pres, 17); Iowa Acad. Chloroimidoquinones; replacement of halogen by the nitro group; steric effects in acylation; halogenation of nitro cresols; the migration of acyl from nitrogen to oxygen in orthoaminophenols; O-acyl-N-acyl derivatives; the formation and reactions of phenyl ethers.
- Raines, Dr. M(orris) A(bel)**, 114 E. 25th St, New York, N. Y. *Botany*. Latvia, 94. B.S, Columbia, 15, A.M, 17, Ph.D, 22. A.A; Bot. Soc; Torrey Bot. Club. Physiology; mycology; microscopy.
- Rainich, G(eorge) Y(uri)**, 1618 Lawrence St, Ann Arbor, Mich. **Mathematics*. Odessa, Russia, March 25, 86. Odessa, 04, 07-08; Göttingen, 05-06; Munich, 06-07; M.Math, Kazan, 13. Privat-docent, Kazan, 12-17, prof, 17-18; instr, Odessa, 17-22; Johnston scholar *math*, Hopkins, 23-26; *asst. prof, Michigan, 26-* Math. Soc; Math. Ass; Soc. Naturalists, Odessa; Physico-math. Soc, Kazan (sec'y, 16-18); Circolo Mat. di Palermo. Mathematical physics; vector analysis; differential geometry; theory of numbers; electromagnetism in curved space-time.
- Raitt, Prof. Effie I(sabel)**, University of Washington, Seattle, Wash. *Home economics*. Paterson, Iowa, June 13, 78. B.S, Columbia, 12, A.M, 19. Dietitian, Mass. State Sanatorium for Tuber, 03-04; St. Luke's Hosp, New York, 02-05; house director, Northwestern, 05-11; *prof. and head dept. home econ, Washington (Seattle), 12-* Home Econ. Ass. (councilor, 15-18, chairman institution econ. sect, 21, 24-26); Dietetics Ass. (second v. pres, 23, first v. pres, 24). Home economics education; dietetics in hospitals; home activities of eighth grade girls.
- Raiziss, Dr. George W**, 1720 Lombard St, Philadelphia, Pa. *Chemotherapy*. Odessa, Russia, 84. Ph.D, Freiburg, 09. Physiol. chemist, Montefiore Home and Hosp, New York, 10-11; chemist, Matheson Lead Co, 11; Rockefeller Inst, 11-12; research chemist, Gen. Elec. Co, 12-13; assoc. prof. physiol. chem, Phila. Polyclinic, 13-14; *director, Dermat. Research Laboratories, 14-*; *prof. chemotherapy, grad. sch. med, Pennsylvania, 18-* Trustee, Research Inst. Cutaneous Med. Chem. Soc; Soc. Biol. Chem; Am. Med. Ass; Physiol. Soc; Soc. Exp. Biol; Phila. Path. Soc.
- Rakestraw, Dr. N(orris) W(atson)**, Brown University, Providence, R. I. *Chemistry*. Toledo, Ohio, Jan. 16, 95. A.B, Stanford, 16, A.M, 17, Ph.D, 21. Instr. chem, Stanford, 19-23, 24-25; *asst. prof, Oberlin, 25-26; Brown, 26-* A.A;
- Chem. Soc; Soc. Biol. Chem; Soc. Exp. Biol. Biochemistry; blood analysis.
- Ralston, Oliver C(aldwell)**, U. S. Bureau of Mines, Berkeley, Calif. *Metallurgy*. Colorado Springs, Colo, Sept. 6, 87. B.S, Colo. Col, 10. Instr, high sch, Colo, 10-11; research chemist, U. S. Bur. Mines, 12-14, metallurgist, 14-17; Hooker Electrochem. Co, 17-20; *supt, northwest. exp. sta, U. S. Bur. Mines, 20-21, Pacific exp. sta, 21-* Min. and Metal. Eng; Chem. Soc; Electrochem. Soc; Buffalo Soc. Eng; San Francisco Eng. Club. Oxidation and deterioration of coal; metallurgy of lead and zinc; flotation of ores; electrometallurgy of zinc.
- Ramage, Dr. W(illiam) D(ouglas)**, 2314 Marin Ave, Berkeley, Calif. *Physical chemistry*. Worthington, Minn, May 13, 97. B.S, California, 18, Ph.D, 22. Chief chemist, San Francisco Bay Marine Piling Investigation, 22-24; *research chemist, Calif. Ink Co, 24-* Chem. Soc. Specific heats of solutions; colorimetric determination of P_H; pigment colors.
- Ramaley, Prof. Francis**, University of Colorado, Boulder, Colo. **Botany*. St. Paul, Minn, Nov. 16, 70. B.S, Minnesota, 95, M.S, 96, Ph.D, 99. Instr. bot, Minnesota, 95-98; asst. prof. *biol, Colorado, 98-99, prof, 99-*, *director mountain lab, 09-* Acting pres, Colorado, 02, acting dean col. pharmacy, 17-19. A.A; Soc. Nat; Bot. Soc; Ecol. Soc; Am. Med. Ass. Genetics; anatomy of seedlings; plant ecology and vegetation of Colorado and California.
- Rambo, Prof. Susan Miller**, 12 Barrett Place, Northampton, Mass. *Mathematics*. Easton, Pa, April 3, 83. A.B, Smith, 05, A.M, 13; Ph.D, Michigan, 20. Asst, instr, asst. prof. and *assoc. prof. math, Smith, 08-* Math. Soc; Math. Ass; Statist. Ass. Pure mathematics.
- Ramler, Prof. Otto J(oseph)**, 12 Girard St, N. E, Washington, D. C. *Mathematics*. Richmond, Ind, June 12, 87. A.B, Canisius Col, 10, A.M, 12; Mass. Inst. Tech, 10-11; Ph.D, Catholic Univ, 18. *Prof. math, Canisius Col, 11-12; D'Youville, 12-13; Catholic Univ, 13-* Instr, Knights of Columbus evening sch, Washington, D. C, 20-26; lecturer, Inst. Cath. Parochial Sch. Teachers, Baltimore and Washington, 24. Expert examiner, U. S. Civil Service Commission, 16-17; computer, ordnance dept, U.S.A, 17. Math. Soc; Math. Ass. Application of complex variables to geometry.
- Ramsdell, Dr. Lewis S(tephen)**, University of Michigan, Ann Arbor, Mich. *Mineralogy*. Clinton, Mich, June 4, 95. A.B, Michigan, 17, Ph.D, 25. Instr. *miner, Michigan, 20-26, asst. prof, 26-* Miner. Soc; Mich. Acad. Crystal structure.
- Ramsden, Dr. Charles T(heodore)**, P. O. Box 146, Guantánamo, Cuba. *Zoology*. Santiago de Cuba, Feb. 11, 76. Ph.B, Yale, 96; Nat. Sci. Dr, Univ. de Cuba, 18. Private sci. expeditions, Cuba. Fel. Ornith. Union; Soc. Mammal; Entom. Soc; Soc. Ichthyol. and Herp; Wilson Ornith. Club; Phila. Acad; Soc. Cubana de Hist. Nat. (sec'y, zool. sect, 18); London Malacol. Soc; cor. mem. Mus. y Biblio. Pub. de Cárdenas; cor. mem. Mus. y Biblio. de Santiago de Cuba. Ornithology; entomology; conchology; herpetology; mammal-

ogy; taxonomy, distribution and ecology of Cuban forms.

Ramsey, Dr. G(len) B(laine), 1425 S. Racine Ave, Chicago, Ill. *Botany*. Hamilton Co, Ind, May 21, 89. A.B, Indiana, 13, A.M, 14; Ph.D, Chicago, 25. Asst. bot, Indiana, 13-14; instr, Maine, 14-16, asst. plant pathologist, Exp. Sta, 16-18, exten. pathologist, 18-19; asst. pathologist, U. S. Dept. Agr, 20-24, *assoc. pathologist*, 24- A.A.; Phytopath. Soc; Ind. Acad. Transit and market diseases of vegetables.

Ramsey, Prof. Rolla R(oy), Indiana University, Bloomington, Ind. *Physics*. Morning Sun, Ohio, April 11, 72. Miami, 91-92; A.B, Indiana, 95, A.M, 98; Clark, 98-99; Ph.D, Cornell, 01; Europe, 12-13. Teacher, high sch, Ind, 95-96; lab. asst. *physics*, Indiana, 96-97; prof, Westminster (Pa), 97-98; asst, Cornell, 99; instr, Indiana, 99-00; Missouri, 01-03; asst. prof, Indiana, 03-05, *assoc. prof*, 05-19, *prof*, 19- Specialist, Bur. Standards; chief instr, U. S. Sch. for Radio Mechanicians, Indiana, 18. A.A.; Physical Soc; Radio Eng; Ind. Acad. Electrolytic cells; radioactivity; N-rays; atomic model; properties of radio circuits.

Ramsperger, Dr. H(erman) C(arl), University of California, Berkeley, Calif. *Chemistry*. Salt Lake City, Utah, July 19, 96. B.S, Utah Col, 19; M.S, California, 23, Ph.D, 25. Asst. chemist, Utah Salduro Co, 20; teaching fellow *chem*, California, 22-25, *instr*, 25- Photochemistry; reaction rates; ultraviolet absorption spectra.

Rand, Dr. Frederick V(ernon), Biological Abstracts, University of Pennsylvania, Philadelphia, Pa. *Botany*, *Bacteriology*. Barnet, Vt, March 16, 83. B.S, Vermont, 08, M.S, 11; Hopkins, 12-13; Columbia, 13-14, Ph.D, 20. Instr. bot, Vermont, 06-08, asst, Exp. Sta, 07; sci. asst, *bur. plant indust*, U. S. Dept. Agr, 08-13, collaborator, 13-14, asst. pathologist, 14-20, pathologist, 20-24, *collaborator*, 24-; *assoc. ed-in-chief*, 'Bot. Abstracts,' 24-; *assoc. ed*, 'Biol. Abstracts,' 25- Asst, Columbia, 13-14; instr, Hopkins, 23-24, lecturer, 24- Exec. sec'y, div. biol. and agr, Nat. Research Council, 24. A.A.; Bot. Soc; Soc. Bact; Phytopath. Soc; Wash. Bot. Soc. Plant pathology; cytology.

Rand, Dr. G(ertrude), Bryn Mawr College, Bryn Mawr, Pa. *Psychology*. Oct. 29, 86. A.B, Cornell, 08; fellow, Bryn Mawr, 09-12, A.M, Ph.D, 11. Sarah Berliner research fellow, *Bryn Mawr*, 12-13, reader exp. and educ. psychol, 13-14, *assoc. exp. and applied psychol*, 14-24, *demonstrator exp. psychol*, 24- A.A.; Psychol. Ass; Optical Soc. Experimental and applied psychology; lighting in relation to the eye; hygiene and refraction of the eye; photometry; color sensitivity; psychological optics; mental measurement.

Rand, Prof. Herbert W(ilbur), Museum of Comparative Zoology, Cambridge, Mass. *Zoology*. Oil City, Pa, July 2, 72. A.B, Allegheny, 92; A.B, Harvard, 97, A.M, 98, Ph.D, 00. Asst. prin, high sch, Pa, 94-96; *instr. zool*, Harvard, 00-09, asst. prof, 09-19, *assoc. prof*, 19- Lecturer, Wellesley, 08-09, 14-15, 18-19. A.A. (sec'y, F, 21-25); Soc. Nat; Soc. Zool. (sec'y-treas, east. branch, 10); Am. Acad. Experi-

mental morphology; localized form-controlling agencies in Hydra and planarians; skin transplantation in amphibians; regeneration; histogenesis of regeneration in annelids.

Randall, Prof. B(urton) Alex(ander), 2320 De Lancey St, Philadelphia, Pa. *Ophthalmology*, *Otology*. Annapolis, Md, Sept. 21, 58. A.B, St. John's (Md), 77, A.M, 80; M.D, Ph.D, Pennsylvania, 80. Asst. demonstrator nor. histol, Pennsylvania, 80-82; eye and ear surgeon, Episcopal Hosp, 82-91; prof. diseases of the ear, Phila. Polyclinic, 88-01; clin. prof, Pennsylvania, 91-14, prof. otol, 14-25, *emer. prof*, 25- Eye and ear surgeon, Methodist Hosp, 96-01; Children's Hosp, 85-05, ear surgeon, 05- Int. Otol. Cong. (organization committee, 88, v. pres, 12). Ophthal. Soc; Otol. Soc. (v. pres, 98-01, pres, 02-04); Laryngol. Ass; Phila. Col. Physicians. Refraction of the eye; otology.

Randall, Prof. David L(indsey), Albion College, Albion, Mich. *Inorganic chemistry*. Athol, Mass, Dec. 8, 82. A.B, Yale, 04, A.M, 05, Ph.D, 07. Instr. *chem*, New Hampshire, 07-10; prof, Baker, 10-18; asst. prof, Wesleyan, 18-19; *prof*, Albion, 19- Summer, research chemist, Merriam Chem. Co, 18. Chem. Soc. (chairman, Mich. State Col. sect, 22); Mich. State Col. Chem. Teachers Ass. Analytical method for estimation of molybdenum; rare metals.

Randall, Dr. H(arrison) M(cAllister), University of Michigan, Ann Arbor, Mich. *Physics*. Burr Oak, Mich, Dec. 17, 70. Ph.B, Michigan, 93, Ph.M, 94, Ph.D, 02. Teacher, high sch, Mich, 94-99; instr. *physics*, Mich. State Nor. Sch, Ypsilanti, 99-00; asst, Michigan, 00-01, instr, 01-06, asst. prof, 06-09, junior prof, 09-15, *prof*, 15-, *director physical lab*, 17- A.A. (v. pres, B); Physical Soc; Optical Soc; Astron. Soc; Eng. Educ. Coefficient of expansion of quartz and nickel to 500° C. by Abbé-Fizeau dilatometer and of fused quartz to 1000° C; coefficients of expansion of other substances by the same method; measurements of wave-length in the infra-red spectra of the elements; fine structures of near-infra-red absorption bands of gases; molecular structure.

Randall, Prof. Merle, University of California, Berkeley, Calif. *Physical chemistry*. Poplar Bluff, Mo, Jan. 29, 88. A.B, Missouri, 07, A.M, 09; fellow, Mass. Inst. Tech, Ph.D, 12. Asst. *chem*, Missouri, 07-09; research assoc, California, 12-17, asst. prof, 17-22, *assoc. prof*, 22- Chemist, U. S. Kelp Potash Plant; sec'y, Am. Commission for Annual Tables of Numerical Data and Constants. Chem. Soc. Chemical technology; free energy of chemical substances; calorimetry; conductance of solutions; utilization of sea water bitterns and of kelp; decolorizing carbons; petroleum.

Randall, Prof. O(tis) E(verett), Brown University, Providence, R. I. *Applied mathematics*. North Stonington, Conn, Feb. 28, 60. A.B, Brown, 84, A.M, 87, Ph.D, 96; Charlottenburg, 99-00. Instr, high sch, R. I, 84-85; math. and eng, Brown, 85-90, asst. prof, 90-94, prof. mech. and mech. drawing, 94-12, *univ. dean*, 12- A.A.; Eng. Educ. Strength of long columns; shades and shadows and perspective; descriptive

geometry; construction of plates in mechanical drawing.

Randall, Dr. Wyatt W(illiam), Maryland State Department of Health, Baltimore, Md. *Chemistry*. Annapolis, Md, Jan. 10, 67. A.B, St. John's (Md), 84; Ph.D, Hopkins, 90. Asst. chem, Hopkins, 90-92, assoc, 92-98; science master, Lawrenceville Sch, N. J, 98-00; prof. chem, Tome Inst, 00-01; head master, Mackenzie Sch, 01-10; asst. chief *bur. chem*, *Md. State Dept. Health*, 10-16, chief, 16-; *assoc. chem*, *Hopkins*, 19- Joint Committee on Definitions and Standards, 17-26. Chem. Soc; Agr. Chem. (pres, 26). Food, water and drug analysis; methyl-saccharin; lead double-salts; argon; helium; oils; foods.

Randolph, C(harles) P(hilip), 727 Columbian Ave, Oak Park, Ill. *Physics*. Austin, Texas, Dec. 30, 88. A.B, Texas, 08, A.M, 09; Ch.E, Mass. Inst. Tech, 11. Research assoc, Mass. Inst. Tech, 10-11; engineer, Gen. Elec. Co, 11-18; chief engineer, *Edison Elec. Appliance Co, Inc*, 18- Elec. Eng. Heat transmission.

Randolph, Dr. L(owell) F(itz), Cornell University, Ithaca, N. Y. *Cytology*. Alfred, N. Y, Oct. 7, 94. Ph.B, Alfred, 16; Ph.D, Cornell, 21. Asst. and instr. bot, Cornell, 18-19, instr, 19-22; agent, *office cereal investigations, bur. plant indust, U. S. Dept. Agr*, 22-23, *assoc. cytologist*, 23- Cytology of chlorophyll types in maize; morphology of developing kernel in maize; chromosomes in maize and related genera.

Rands, Dr. R(obert) D(elafield), U. S. Department of Agriculture, Washington, D. C. *Plant pathology*. Falmouth, Ky, Nov. 19, 90. B.S, Nebraska, 13; M.S, Wisconsin, 15, Ph.D, 17. Instr. bot, Louisiana, 13-14; sci. asst, U. S. Dept. Agr, 17-18; botanist to Netherlands Govt, Java, 19-21; *pathologist, bur. plant indust, U. S. Dept. Agr*, 22- Asst. prof, Cornell, 17. A.A; Phytopath. Soc; Wash. Bot. Soc. Diseases of Irish potato; diseases of Para rubber, cinnamon and sugar cane.

Ranker, Dr. Emery R(omain), U. S. Department of Agriculture, Washington, D. C. *Plant physiology, Horticulture*. Calif, July 18, 96. B.S, A.M, Utah Col, 24; Lackland fellow, Washington (St. Louis), 24-26, Ph.D, 26. Asst. hort, Utah Col, 22-24; *assoc. physiologist, bur. plant indust, U. S. Dept. Agr*, 26- A.A; Soc. Hort. Sci; Bot. Soc. Physiology of the 'Delicious' apple; determination of nitrogen; nitrogen fixation by higher plants; modification of the Schreiner method of seed germination.

Rankin, George A(twater), Munitions Building, Washington, D. C. *Physical chemistry*. Ithaca, N. Y, Oct. 7, 84. A.B, Cornell, 07. Asst. physical chemist, Cornell, 06-07; chemist, geophys. lab, Carnegie Institution, 07-16; Pittsburgh Plate Glass Co, 16-17; *Chem. Warfare Service*, 17- Chem. Soc. Application of physical chemistry to rock magmas.

Rankin, J(ohn) O(wen), University of Nebraska, Lincoln, Nebr. *Agricultural economics*. Tarkio, Mo, April 17, 84. A.B, Tarkio Col, 04; B.S.A, Iowa Col, 08; A.M, George Washington; Wisconsin, 14-15. U. S. Dept. Agr. and Census Bur; teacher econ. agr, Iowa Col; asst. prof, Wisconsin,

14-15; research and administrator, Missouri, 15-16; *teacher and research*, Iowa Col, 16-18; *Nebraska*, 18- Farm Econ. Ass; Econ. Ass; Sociol. Soc. Farm land problems; costs and standard of living on farms.

Rankin, Prof. J(oseph) M(arshall), 1810 Ash St, Caldwell, Idaho. *Mathematics*. Knoxville, Tenn, Nov. 22, 90. A.B, Maryville, 11; Columbia; Chicago; California. Teacher, Lee's Collegiate Inst, Ky, 11-12; *prof. math, Col. of Idaho*, 12- A.A; Math. Soc; Math. Ass.

Rankin, Prof. Walter M(ead), Princeton, N. J. **Biology*. Newark, N. J, Dec. 1, 57. A.B, Williams, 79; M.S, Princeton, 84; Ph.D, Munich, 89. Instr. biol, *Princeton*, 89-95, asst. prof, 95-01, prof. invert. zool, 01-04, *biol*, 04-22, *emer. prof*, 22- Instr, Woods Hole, 90-95. A.A; Soc. Nat. Plant morphology; taxonomy.

Rankin, Dr. W(illiam) H(oward), N. Y. State Agricultural Experiment Station, Geneva, N. Y. *Plant pathology*. Richmond, Ind, April 3, 88. A.B, Wabash, 10; fellow, Cornell, 10-12, Ph.D, 14. Asst. bot, Ohio Exp. Sta, 08; Wabash, 09-10; state forest pathologist, N. Y. State Conservation Commission, 12-13; instr. plant path, Cornell, 13-14, asst. prof, 14-19; officer in charge, Dominion Lab. Plant Path, St. Catharine's, Ont, 19-22; *assoc. research plant path, N. Y. Exp. Sta, Geneva*, 22- A.A; Phytopath. Soc. Diseases of ginseng; Endothia canker of chestnut; diseases of small fruits and shade and forest trees.

Ransom, Dr. Ja(me)s H(arvey), James Millikin University, Decatur, Ill. *Chemistry*. Chazy, N. Y, Sept. 21, 61. B.S, Wabash, 90, A.M, 93; Ph.D, Chicago, 99. Asst. chem, Wabash, 90-93; prof, Chicago Manual Training Sch, 93-97; lecture asst, Chicago, 97-00; instr, Purdue, 00-02, asst. prof, 02-08, prof. gen. chem, 08-18; prof. chem. and director lab, Vanderbilt, 18-19; director research, Mich. Smelting and Ref. Co, 19-21; head dept, *James Millikin*, 21- Summers, prof, Chautauqua, 01-03. A.A; Chem. Soc; Chem. Eng; Ind. Acad. (asst. sec'y and sec'y, 03-09); Ill. Acad; British Inst. Metals. Molecular rearrangement of o-aminophenyl carbonate; methylation of halogen amides with diazomethane; isomeric hydrazones of benzoin; chemical action by electric waves; catalytic actions; development of chemical science in Indiana.

Ransom, Prof. William R(ichard), 29 Sawyer Ave, Tufts College, Mass. *Mathematics*. Chicago, Ill, Jan. 18, 76. A.B, A.M, Tufts; A.M, Harvard. *Prof. math, Tufts*, 00- Instr, Harvard, 02-04. A.A; Math. Soc; Math. Ass.

Ransome, Dr. F(rederick) L(eslie), California Institute, Pasadena, Calif. **Geology*. Greenwich, Eng, Dec. 2, 68. B.S, California, 93, fellow, 93-95, Ph.D, 96. Asst. miner. and petrog, Harvard, 96-97; asst. geologist, U. S. Geol. Surv, 97-00, geologist, 00-24; prof. econ. geol, Arizona, 23-27, dean grad. col, 26-27; *prof. econ. geol, Calif. Inst*, 27- Special lecturer, Chicago, 05; Silliman lecturer, Yale, 13. Assoc. ed, 'Am. Jour. Sci'; 'Econ. Geol.' Treas, Nat. Research Council, 19-24. Nat. Acad. (treas, 19-24); A.A; Geol. Soc; Soc. Econ. Geol. (pres, 26); Min. and Metal. Eng; Chem. Soc; Wash. Acad.

- (v. pres; 10, pres, 19); Wash. Geol. Soc; cor. mem. Soc. Belge de Géol. Mineralogy; petrography; economic geology in connection with gold, silver, lead and copper deposits in western United States.
- Ranson, Prof. S(tephen) Walter**, Washington University School of Medicine, St. Louis, Mo. **Anatomy*. Dodge Center, Minn, Aug. 28, 80. B.S., Chicago, 02, fellow, 03-05, Ph.D., 06, M.D., Rush Med. Col., 07. Assoc. anat., Northwestern, 08-09, asst. prof., 09-10, assoc. prof., 10-11, prof., 12-24; *neuroanat. sch. med., Washington (St. Louis)*, 24- A.A.; Ass. Anat.; Physiol. Soc. Anatomy of the nervous system; spinal nerves and ganglia; sympathetic nervous system; pyridine-silver stain; vasomotor reflex arcs; regeneration of peripheral nerves; vasodilator mechanisms; muscle tonus.
- Ranum, Prof. Arthur**, 3 Central Ave, Ithaca, N. Y. **Mathematics*. La Crosse, Wis, Dec. 13, 70. A.B., Minnesota, 92; Cornell, 93-95, fellow, 95-96; fellow, Chicago, 96-97, Ph.D. 06. Prof. math. and astron., Washington (Seattle), 97-04; instr. math., Wisconsin, 04-05; asst., Stanford, 05-06; instr., Cornell, 06-10, asst. prof., 10-23, prof., 23- Summer, prof., Chicago, 16. A.A.; Math. Soc. (assoc. ed., 'Bul.', 09-13, 'Trans.', 13-19); Circolo Mat. di Palermo. N-dimensional geometry; linear groups; non-Euclidean geometry; differential geometry; linear algebras.
- Rapp, Dr. I(saiah) M(arch)**, R. R. 3, Phoenixville, Pa. *Physics*. Warren Tavern, Pa, Nov. 22, 77. A.B., Ursinus, 03; Ph.D., Chicago, 15. Instr. physics, Ursinus, 04-09, asst. prof., 09-10, prof. and head dept., 10-15; asst. prof., Oklahoma, 15-19, acting head dept., 16-17, 18-19; assoc. physicist, Bur. Standards, 19-20; asst. prof. physics and chairman dept., Montana, 20-23. Acting head, Okla. State Bur. Standards, 16-17. A.A.; Physical Soc. Viscosity of air.
- Rappleye, Howard S(nyder)**, 6712 Fourth St, N. W., Washington, D. C. *Mathematics*. Ithaca, N. Y., May 19, 92. Cornell. Topog. aid, U. S. Geol. Surv., 16; field and hydrographic draftsman and computer, U. S. Coast and Geod. Surv., 17, computer and assoc. mathematician, 19- Acting chief computing div, Manila field sta, U. S. Coast and Geod. Surv.; summer, instr., Columbia, 25. Second lieutenant, E.O.R.C., 17-18, lieutenant and capt., U.S.G.N.A., 18. Wash. Soc. Eng; Wash. Philos. Soc. Geodetic surveying; reduction of observations.
- Rapport, Dr. David**, 2109 Adelbert Road, Cleveland, Ohio. *Physiology*. Pittsburgh, Pa, Aug. 29, 91. A.B., Harvard, 12, M.D., 16. Austin teaching fellow *physiol.*, Harvard Med. Sch., 19-20, instr., 20-21; research fellow, med. col., Cornell, 21-24; senior instr., *sch. med., Western Reserve*, 24-26, asst. prof., 26- Physiol. Soc. Circulation; endocrine glands; metabolism.
- Rask, Dr. Olaf Selmer**, 1924 Mt. Royal Terrace, Baltimore, Md. *Chemistry*. Hendrum, Minn., March 30, 91. A.B., Minnesota, 16, B.S., 17; fellow, Stanford, 22-23, Ph.D., 23. Junior chemist, U. S. Dept. Agr., 17-20, assoc. chemist, 20-21; *assoc. chem. hygiene, Hopkins*, 23- A.A.; Chem. Soc. Chemical hygiene; wheat flour; starch; cereals; biologically rare metals.
- Rasmussen, Dr. A(ndrew) T(heodore)**, 1055 14th Ave, S. E., Minneapolis, Minn. *Neurology*. Spring City, Utah, Aug. 10, 83. A.B., Brigham Young, 09; Chicago, 08, 11, 13; Ph.D., Cornell, 16. Instr. biol., Brigham Young, 09-11, head dept., 11-13; asst. physiol., Cornell, 13-14, instr., 14-16; *neur., Minnesota*, 16-18, asst. prof., 18-19, assoc. prof., 19-25, prof., 25- A.A.; Physiol. Soc.; Ass. Anat.; Soc. Mammal; Ass. Int. Secretions; Eugenics Research Ass. Changes in blood, nerve cells, mitochondria, hypophysis and interstitial cells of testis and ovary during hibernation; thyroparathyroidectomy and blood coagulation; human hypophysis.
- Rasmussen, Fred(erik)**, 2505 N. Second St, Harrisburg, Pa. *Agriculture*. Hals, Denmark, July 18, 76. B.S., Iowa Col., 05. Asst. dairying, Purdue, 05-06; asst. prof., Iowa Col., 06-07; prof., New Hampshire, 07-16; prof. dairy husbandry, Pa. State, 16-19; sec'y agr., Pa., 19-23; *exec. sec'y, Nat. Ass. Ice Cream Manufacturers*, 24- Delegate, Sixth Int. Dairy Cong, Bern. Dairy Sci. Ass. (pres, 16). Cost of milk production; economics in agriculture.
- Rasor, Prof. S(amuel) E(ugene)**, 1594 Neil Ave, Columbus, Ohio. *Mathematics*. Clayton, Ohio, Feb. 21, 73. B.S., Ohio State, 98, fellow, 98-99, M.S., 02; Chicago, 06; Berlin, 10-11. Instr. math., Ohio State, 00-06, asst. prof., 06-08, assoc. prof., 08-13, prof., 13- A.A.; Math. Soc. Differential geometry; theory of functions of a complex variable; calculus of variations and integral equations.
- Rathbun, J(ohn) Charles**, State School of Mines, Rapid City, S. Dak. *Civil engineering*. Mondovi, Wis, March 14, 82. A.B., 03, A.M., 04, B.S., 08, C.E., 09. Teacher science, Tung Wen Inst., China, 04-06; practising civil engineer, 06-19; asst. prof. *civil eng.*, Washington (Seattle), 19-25; *prof. and head dept., S. Dak. Sch. Mines*, 25- Research engineer, Columbia, 23-24. Civil Eng. Stress analysis in the ring of a concrete skew arch; ranking students from their literal grades.
- Rathbun, Dr. Mary J(ane)**, U. S. National Museum, Washington, D. C. **Carcinology*. Buffalo, N. Y., June 11, 60. Hon. A.M., Pittsburgh, 16; Ph.D., George Washington, 17. Clerk, U. S. Fish Commission, 84-87; copyist, aid and asst. curator, div. marine invert, U. S. Nat. Museum, 87-14, *hon. assoc. zool.*, 15- A.A.; Soc. Nat; Wash. Acad; Wash. Biol. Soc; cor. mem. Peking Soc. Nat. Hist. Classification of Crustacea; fresh-water crabs; decapods of Harriman Alaska expedition; Crustacea of New England; crabs of Gulf of Siam; crabs of 'Sealark' expedition; decapods of 'Albatross' East Pacific expedition; fossil decapods of America; North American crabs; crabs of the Philippine Islands, Congo and Australia.
- Rather, J(ames) B(urness)**, 412 Greenpoint Ave, Brooklyn, N. Y. *Chemistry*. Bullard, Texas, Oct. 16, 88. B.S., Agr. and Mech. Col. Texas, 07, M.S., 11; Chicago, 08, 10; A.M., Hopkins, 15. Asst. state chemist, Texas, 07-09; asst. chemist, Texas Exp. Sta., 09-12, first asst., 12-14; prof. agr. chem., Arkansas, and chemist, Exp. Sta., 15-18; asst. chief chemist, *Standard Oil Co. of N. Y.*, 18-19, *chief chemist*, 19- A.A.; Chem.

- Soc; Agr. Chem; Soc. Test. Mat. Humus; ether soluble constituents of plants; inositelphosphoric acids; cottonseed; ethylene; petroleum.
- Ratliff, Prof. R(yland) F(letcher)**, Missouri State School of Mines, Rolla, Mo. *Physics*. Marion, Ind, Jan. 6, 58. A.B, Indiana, 00, A.M, 03. Teacher science, Fairmont Acad, 90-99; prof. physical science, Cent. Nor. Col, Danville, Ind, 01-20; *assoc. prof. physics, Mo. Sch. Mines, 20-* Instr, Indiana, 05-06, asst. prof, 17-18. A.A.; Physical Soc; Ind. Acad. Effect of radium on electrolytic conductivity; electrochemistry; phosphorescence; damping of phosphorescence by red and infra-red waves.
- Rau, Prof. A(lbert) G(eorge)**, 63 Broad St, Bethlehem, Pa. *Physics*. Bethlehem, Aug. 7, 68. B.S, Lehigh, 88, M.S, 02, Ph.D, 10. Asst. science, Moravian Parochial Sch, 88-90, head master, 90-92, supt, 92-09; *prof. math. and physics, and dean, Moravian Col, 09-*, dean and prof. hist, 18. Lecturer, Columbia, 27. Reader, Col. Entrance Examination Board, 01. A.A. Limits of audible sound; elasticity of gases; ultra-red light measurement; formation of modern Europe; empirical sociology.
- Rau, Phil(ip)**, 549 E. Argonne Drive, Kirkwood, Mo. *Entomology*. St. Louis, Mo, April 12, 85. Entom. Soc; Ecol. Soc; St. Louis Acad. (curator, 10-15, chairman, entom. sect, 11-15). Ecology; animal behavior; wasp psychology.
- Raub, Prof. Leo G(erard)**, 1740 S. 18th St, Louisville, Ky. *Physics*. Ischua, N. Y, March 19, 93. A.B, Oberlin, 16; Ph.D, Nebraska, 21. Asst. *physics*, Nebraska, 16-21; instr, Cincinnati, 21-23; asst. prof, Louisville, 23-25, *assoc. prof, 25-* Physical Soc. Cathode fall in helium and argon with wire electrodes.
- Rauchenstein, Dr. E(mil)**, University of California, Berkeley, Calif. *Agricultural economics*. Rice Lake, Wis, April 7, 89. B.S, Wisconsin, 11; M.S, Illinois, 23; Ph.D, Minnesota, 26. Teacher, high schools, Wis, 11-16; farm manager, Va, 16-18; *staff, dept. farm management, Illinois, 18-24; agr. econ. div, California, 25-* Farm Econ. Ass. Threshing ring management; the cost of producing field crops; factors affecting the milk supply; the supply and prices of cantaloupes.
- Rautenstrauch, Prof. Walter**, Columbia University, New York, N. Y. *Mechanical engineering*. Sedalia, Mo, Sept. 7, 80. B.S, Missouri, 02; M.S, Maine, 03. Instr. *mech. eng*, Maine, 02-03; asst. prof, Cornell, 03-06; adjunct prof, Columbia, 06-07, *prof, 07-* Pres, Splitdorf-Bethlehem Elec. Co, Splitdorf Radio Corp; director, Hudson Ins. Co; consulting engineer, War Dept. Nat. Research Council. Mech. Eng; Refrig. Eng; Acad. Polit. Sci; N. Y. Acad. Polit. Sci; fel. N. Y. Acad. The economic characteristics of the manufacturing and construction industries.
- Ravenel, Prof. Mazyck P(orcher)**, University of Missouri, Columbia, Mo. *Bacteriology, Public health*. Pendleton, S. C. Grad, Univ. of South, 81; M.D, Med. Col. of S. C, 84; Scott fellow, Pennsylvania, 93; Pasteur Inst, Paris, and Inst. Hygiene, Halle, 96; Inst. Maragliano, Genoa, 04. Asst. demonstrator anat, Med. Col. of S. C; lecturer diseases of children, Charleston Med. Sch; asst. bacter, Pennsylvania, 95; director lab. hygiene, Princeton, 96; bacteriologist, Pa. State Live Stock Sanit. Board, 97-07; lecturer bacter, vet. dept, Pennsylvania, 98-03; asst. med. director and chief lab, Henry Phipps Inst, 03-07; prof. bacter, Wisconsin, 07-14; director, State Hygienic Lab, 08-14; *prof. prev. med. and bacter, Missouri, 14-* Summers, prof, California, 13-15; advisory board, hygienic lab, U. S. Pub. Health Service, 14; asst. surg. gen, O.R.C, Pub. Health Service. Int. Commission Bovine Tuberc. Nat. Commission Milk Standards. U. S. delegate, Int. Cong. Hygiene, Berlin, 08; Int. Cong. Alimentary Hygiene, Brussels, 10; official rapporteur, Int. Am. Cong, Buenos Aires, 10. A.A; Ass. Path. and Bact; Soc. Exp. Biol; Pub. Health Ass. (director, 15-19, pres, 20); Tuber. Ass. (pres, 11); Am. Med. Ass. (chairman, pub. health sect, 13); U. S. Live Stock Sanit. Ass. (pres, 13); Philos. Soc; Wis. Anti-Tuber. Ass. (pres, 09-14); Phila. Col. Physicians; hon. mem. Cleveland Acad. Med. Tuberculosis; rabies.
- Rawdon, Henry**, 5103 13th St, Washington, D. C. *Metallurgy*. Derby, Eng, 82. B.Ch.E, Michigan, 12. Asst. physicist, assoc. physicist and *physicist in charge metallolog, Bur. Standards, 12-* Min. and Metal. Eng; Soc. Test. Mat; Physical Soc; Wash. Acad; Wash. Philos. Soc. Microscopy of metals; structure of metals and alloys; corrosion of metals.
- Rawling, Dr. Francis G(eorge)**, 2241 Keyes Ave, Madison, Wis. *Industrial chemistry*. Stockton-Tees, Eng, Oct. 2, 90. B.S, Leeds, 10, M.S, 11, D.Sc, 22. Instr, Edinburgh, 11-13; research chemist and engineer, W. Va. Pulp and Paper Co, 13-23; U. S. Forest Service, 23-26; *research chemist and engineer, Mead Pulp and Paper Co, 26-* Lecturer, Wisconsin, 23-26. Chem. Soc; fel. Inst. Chem; fel. Inst. Chem. London. Manufacture of paper pulp; distillation.
- Rawlins, Dr. C(harles) H(enry), Jr**, 13 Franklin St, Annapolis, Md. *Mathematics*. Seaford, Del, Feb. 16, 89. Ph.B, Dickinson, 10, A.M, 13; Ph.D, Hopkins, 16. Instr. *math*, Dickinson Sem, Pa, 10-13; instr. and asst. prof, Delaware, 16-19; instr, U. S. Naval Acad, 19-22, *asst. prof, post-grad. sch, 22-* Math. Soc; Math. Ass. Concomitants of the three-point and the four-point in geometry.
- Rawlins, T(homas) E(lsworth)**, University of California, Berkeley, Calif. *Plant pathology*. Elk Creek, Calif, 95. B.S, California, 21, Ph.D, 26; M.S, Wisconsin, 22. Research asst. hort, Wisconsin, 21-22; plant path, California, 23-25, *junior plant pathologist, 26-* Phytopath. Soc; Bot. Soc. Cytology of mosaic diseases; root parasites.
- Ray, Dr. Arthur B(enning)**, Bayside Road, Bayside, N. Y. *Chemistry*. Leaksville, N. C, Sept. 12, 89. A.B, Wake Forest, 10, A.M, 11; Ph.D, Cornell, 16. Instr. applied math, Wake Forest, 10-11; prof. nat. sciences, Blue Ridge Col, 11-12; instr. chem, Cornell, 12-16; assoc. prof. indust. chem, Agr. and Mech. Col. Texas, 16-17; *research chemist, Union Carbide and Carbon*

Corp., 19— Capt, C.W.S., 17–19. Chem. Soc; Chem. Eng. Inorganic, physical and industrial chemistry; rare earths; toxic inorganic materials; reactions between gases; incendiary and pyrotechnic materials; activated carbon.

Ray, Dr. David H(eydorn), Bureau of Buildings, City Hall, Los Angeles, Calif. *Engineering*. New York, N. Y., July 14, 78. A.B., Col. City of N. Y., 97, B.S., 01; A.M., C.E., Columbia, 02; Sc.D., N. Y. Univ., 08. Instr. physics and eng., Col. City of N. Y., 05–10; engineer buildings, New York, 10–13; asst. prof. mech., Calif. Inst; *structural engineer, Bur. Buildings, Los Angeles*. Science examiner, Civil Service Board, New York, 02–04; Board Educ., New York. Sec'y, Planning Commission, Arcadia, Calif. Appraisal and valuating officer, War Dept., 18, capt, U.S.A. Civil Eng; Mech. Eng. Mechanics; materials of engineering; industrial and economic engineering and valuation.

Ray, Prof. Franklin Arnold, Citizens Bank Building, Columbus, Ohio. *Mining engineering*. Rome, Ohio, April 13, 62. E.M., Ohio State, 87. Chief engineer, coal and iron mining companies, 89–92; asst. mining and metal, *Ohio State*, 92–93, asst. prof. *mining*, 93–94, *prof.*, 94—, dean col. eng., 04–06. Consulting mining engineer. Ohio State Board Fuel Conservation, 16–17; investigator, coal reserves, Russia, 17–18; fuel supply, Ala. Power Co., 24; oil reserves, Hocking Valley, Ohio, 25–27. Delegate, Am. Min. Cong., San Francisco, 15. Min. Eng. Ohio coal reserves; use of power in mines; ventilation control of mines; coal reserves of Pacific Coast and possibility of manufacturing iron and steel; low-temperature carbonization of coal.

Ray, Dr. George B(urrill), 2109 Adelbert Road, Cleveland, Ohio. *Physiology*. Boston, Mass., May 9, 93. B.S., Mass. Col., 16; A.M., Harvard, 21, Ph.D., 22. Austin teaching fellow, Harvard, 19–22, instr. applied physiol., Harvard Med. Sch., 22–23, *physiol.*, sch. pub. health, 23–24; senior instr. *sch. med.*, *Western Reserve*, 24–26, *asst. prof.*, 26— *Physiol. Soc.* Plant and mammalian physiology.

Ray, Prof. Ward L(ow), 246 East Ave., N., Waukesha, Wis. *Chemistry*. Deer Lick, Pa., Dec. 21, 83. A.B., Oregon, 08; A.M., Wisconsin, 10, fellow, 20–22, Ph.D., 22. *Prof. chem.*, William and Vashti Col., 11–17; physics, New Mexico, 17–18; *chem.*, Drury, 18–20; *Carroll Col.*, 22— A.A.; Chem. Soc. Selenium.

Raymond, Dr. Albert L, Rockefeller Institute, New York, N. Y. *Biochemistry*. Berkeley, Calif., Feb. 12, 01. B.S., Calif. Inst., 21, M.S., 23, research fellow, 23–24, fellow, 24–25, Ph.D., 25. Teaching fellow, Calif. Inst., 21–22, research asst. *biochem.*, 22–23; instr., California, 25–26; *Nat. Research Council fellow, Rockefeller Inst.*, 26— Chem. Soc. Mechanism of carbohydrate metabolism in living organisms and by enzyme systems.

Raymond, H(arry), 318 New Scotland Ave., Albany, N. Y. *Astronomy*. LaGrange, Ohio, Feb. 17, 76. A.B., Harvard, 05. Asst., Dudley Observatory, 05–18; *dept. meridian astrometry, Carnegie Institution*, 07–18, *astronomer*, 18— Gold medal, Royal Danish Acad. Sci. A.A.;

Astron. Soc; Am. Geog. Soc. Meridian astronomy; sidereal motions.

Raymond, Pres. Howard Monroe, Armour Institute of Technology, Chicago, Ill. *Physics*. Grass Lake, Mich., Oct. 25, 72. B.S.(E.E.), Michigan, 93; Sc.D., Colo. Sch. Mines, 22. Instr. physics, *Armour*, 95–98, *assoc. prof.*, 98–03, prin., *Armour Sci. Acad.*, 99–03, *prof. exp. physics*, 03–13, *dean eng. studies*, 03–21, *acting pres.*, 21–22, *pres.*, 22— *Trustee, Armour*. A.A.; Eng. Educ.

Raymond, Dr. Percy E(dward), Museum of Comparative Zoology, Cambridge, Mass. *Invertebrate paleontology*. New Canaan, Conn., May 30, 79. A.B., Cornell, 02; Ph.D., Yale, 05. Asst. curator in charge invertebrate paleont., Carnegie Museum, 04–10; *prof.*, Pittsburgh, 09–10; *paleontologist*, Can. Geol. Surv., 10–12; *asst. prof. paleont.*, *Harvard*, 12–17, *assoc. prof.*, 17—, *curator invertebrate paleont.*, *museum comp. zool.*, 12— A.A.; Geol. Soc; Paleont. Soc; Ass. Mus; Am. Acad; Boston Soc. Nat. Hist; Boston Malacol. Club (past pres); Lunds Geol. Faltklub. Faunas and stratigraphy of the Ordovician formations; anatomy and classification of the Trilobita.

Raymond, Prof. William J(ames), 2622 Piedmont Ave., Berkeley, Calif. *Physics*. Utica, N. Y., July 27, 65. B.S., California, 87; Hopkins, 92–93. Asst. mech., *California*, 87–89, *physics*, 87–91, *instr.*, 91–92, 93–96, *asst. prof.*, 96–08, *assoc. prof.*, 08— *Physical Soc.* Electrical measurements; differential ballistic galvanometer; harmonic synthesizers.

Raymund, Dr. Bernard, Indian Run Farm, Dublin, Ohio. *Agriculture*. Columbus, Ohio, March 5, 93. A.B., Ohio State, 14, A.M., 15; Ph.D., Chicago, 20. Asst. *physiol.* and *physiol. chem.*, Ohio State, 16–17; teaching fellow *physiol.*, Chicago, 17–18, *asst.*, 18–19, *assoc.*, 19–20; *instr.* English, Ohio State, 20–24. A.A. Surgical shock; acidosis.

Rayner, Prof. W(illiam) H(orace), 715 W. Iowa St., Urbana, Ill. *Civil engineering, Education*. Ewing, Nebr., Feb. 16, 84. B.S., Illinois, 09, C.E., 13, M.S., 20. Topographer, U. S. Geol. Surv., 10–11; *instr.* and *asst. prof. surveying*, *Illinois*, 10— Summers, topographer, U. S. Geol. Surv., 12, 13, 17. Assoc. Civil Eng; Eng. Educ; Ill. Soc. Eng. Psychological tests for engineering students; errors in surveying measurements.

Raynor, Prof. G(eorge) E(mil), University of Oklahoma, Norman, Okla. *Mathematics*. San Francisco, Calif., Feb. 27, 95. B.S., Washington (Seattle), 18; A.M., Princeton, 20, Ph.D., 23. Instr. *math.*, Princeton, 20–23; *asst. prof.*, Wesleyan, 23–27; *assoc. prof.*, *Oklahoma*, 27— *Math. Soc.*; Math. Ass. Mathematical analysis; potential theory.

Raynor, Russell, Ekroth Laboratories, Inc., 461 Eighth Ave., New York, N. Y. *Engineering*. Oct. 29, 67. Ph.B., Columbia, 89. Asst. supt., Bushwick Chem. Works, N. Y., 89–92; chief div. chem., sanit. and foods, Dept. Health, New York, 92–14; *consulting chem. engineer*, 89—; *v. pres. and director, Ekroth Laboratories, Inc.*, 23— *Lecturer*, col. physicians and surg., Columbia, 11–14; N. Y. Univ., 15–19. Chem. Soc; Soc.

- Test. Mat. Sanitary engineering; industrial chemical engineering; technical processes; foods.
- Rea, Prof. Paul M(arshall)**, Cleveland Museum of Natural History, Cleveland, Ohio. *Zoology*. Cotuit, Mass, Feb. 13, 78. Woods Hole, 98, 99; A.B., Williams, 99, A.M., 01; Columbia, 99-00, 02-03. Asst. biol., Williams, 00-02; prof. biol. and geol., Col. of Charleston, 03-14; director, Charleston Museum, 03-20; prof. embryol. and physiol., Med. Col. of S. C., 11-19, embryol., 19-20; director, *Cleveland Museum Nat. Hist.*, 20-Field asst., bur. forestry, U. S. Dept. Agr., 02, 03; instr., Woods Hole, 06-11. A.A.; Ornith. Union; Anthrop. Ass.; fel. Ass. Mus. (sec'y and ed., 'Proc.', 07-17, pres., 19-21); fel. Ohio Acad. (pres., 25). Anatomy and physiology of Oligochaeta; Annelida; fauna of coastal region of South Carolina; museum administration.
- Rea, Dr. Samuel**, Waverly Heights, Bryn Mawr, Pa. *Engineering*. Hollidaysburg, Pa., Sept. 21, 55. Sc.D., Pennsylvania, 10; LL.D., Lafayette, 16; LL.D., hon. Sc.D., Princeton, 16. Chairman and rodman, Pa. Ry. Co., 71-74; Hollidaysburg Iron and Nail Co., 74-75; engineer, Pa. Ry. Co., 75; asst. engineer, Point Bridge, 77; Pittsburgh and Lake Erie Ry.; cashier, freight office and first ticket agent, Pittsburgh, 77-78; asst. engineer, Pittsburgh, Va. and Charleston Ry., 79; engineer in charge rebuilding the West. Pa. Ry., 79-83; prin. asst. engineer, 83-89; v. pres., Md. Cent. Ry. Co. and chief engineer, Baltimore Belt Ry., 89-91; asst. to pres., Pa. Ry. Co., 92, construction engineer, 92-97, first asst. to pres., 97-99, fourth v. pres., 99-05, third v. pres., 05-09, second v. pres., 09-11, v. pres., 11-13, pres., 13-25. In charge eng. and accounting dept. and Hudson River project; director and pres., corporations of Pa. Ry. System; pres., L. I. Ry. Co., 23; exec. committee, Nat. Defense, Ry. War Board, 17. Hon. mem. Civil Eng.; Phila. Eng. Club; hon. mem. Franklin Inst.; British Inst. Civil Eng. Railway engineering; railways terminating in London; bridging the Hudson River; the Hudson River Tunnel.
- Read, Prof. Bernard E**, Peking Union Medical College, Peking, China. *Pharmacology*. Brighton, Eng., May 17, 87. Ph.C., London, 09; Rockefeller fellow, Hopkins, 16, Chicago, 24, Yale, 17-19, M.S., 18, Ph.D., 24. Head dept. pharmacol. and chem., *Peking Union Med. Col.*, 09-15, assoc. prof. biochem., 18-20, biochem. and pharmacol., 20-24, *prof. pharmacol.*, 24- Soc. Exp. Biol.; China Med. Ass. Chaulmoogra; Chinese materia medica.
- Read, Dr. E(ffie) Alberta**, 2932 Upton St., N. W., Washington, D. C. *Histology*. Haverhill, Mass. A.B., Cornell, 03, A.M., 04, Ph.D., 07; M.D., George Washington, 12. Asst. histol., Cornell, 03-07; *microanalyst, bur. chem.*, U. S. Dept. Agr., 07- A.A.; Ass. Official Agr. Chemists; D. C. Med. Soc.
- Read, Dr. Harry S(tafford)**, 463 West St., New York, N. Y. *Physics*. Mankato, Minn., Sept. 11, 93. B.S., North Dakota, 15, fellow, 15-16, M.S., 16; Yale, 19-21, fellow, 21-22; Ph.D., Cornell, 24. Research, West. Elec. Co., 17-20; instr. physics, Cornell, 22-24; Nat. Research Council fellow, Chicago and Stanford, 24-25; *physicist, West. Elec. Co.*, 25- Physical Soc. Vacuum tube amplifier; a theory for the Bumstead electroscope; X-ray absorption.
- Read, Prof. J(ohn) W(illiam)**, University of Arkansas, Fayetteville, Ark. *Agricultural chemistry*. Near Mexico, Mo., Jan. 31, 84. B.S.A., Missouri, 07, fellow, M.S., 08; fellow, Illinois, 10-12. Teacher, pub. schools, 00-02; prof. chem. and physics, Ill. Col., 08-10; asst. chem., Illinois, 12-14; prof. science, Colo. State Teachers Col., Gunnison, 14-16; chem., Kans. State Teachers Col., Hays, 16-18; *prof. agr. chem. and head dept., Arkansas*, 18- Summers, instr., Michigan, 10, instr., Missouri, 15. Contrib. ed., 'Jour. Chem. Educ.' A.A.; Chem. Soc. (exec. committee, div. agr. and food chem., 22); Soc. Animal Production. Properties of ideal solutions; soil organic matter; animal nutrition; vitamins; mineral requirements for reproduction and lactation.
- Read, Prof. R(oland) R**, 3905 Gwynn Oak Ave., Baltimore, Md. *Organic chemistry*. Morton, Minn., March 9, 96. B.S., North Dakota, 17; Ph.D., Yale, 22. Chemist, Bridgeport Brass Co., 18-19; asst. prof. chem., Vermont, 22-27; *research director, Sharp and Dohme*, 27- Asst., Mass. Inst. Tech. Chem. Soc. Electro organic reactions; disinfectants.
- Read, Dr. Thomas T(hornton)**, American Institute of Mining and Metallurgical Engineers, 29 W. 39th St., New York, N. Y. *Metallurgy*. Monmouth Co., N. J., Feb. 10, 80. E.M., Columbia, 02, fellow, 04-05, Ph.D., 06. Assoc. prof. mining, Wyoming, 02-04; asst. miner, Columbia, 05-06; prof. mining and metal, Colo. Col., 06-07; metal, Pei Yang Univ, Tientsin, China, 07-10; assoc. ed., 'Mining and Sci. Press,' 01-15; chief service div., N. J. Zinc Co., 15-19; educ. information, U. S. Bur. Mines, 19-24, safety service director, 24-26; *asst. sec'y, Am. Inst. Min. and Metal. Eng.*, 26- A.A.; Min. and Metal. Eng. Amalgamation of gold ores; platinum in ores; copper ores and smelting; the phase rule applied to igneous magmas; mineral resources and production of the Chinese Empire; beneficiation of iron ores.
- Read, Prof. W(illiam) T(hornton)**, Texas Technological College, Lubbock, Texas. *Chemistry*. College Station, Texas, March 8, 86. A.B., Austin, 05, A.M., 08; A.M., Texas, 15; Ph.D., Yale, 21. Instr. chem., Texas, 14-15; research asst., Harvard, 15-16; chemist, bur. econ. geol., Texas, 16-18; instr. chem., Yale, 19-24, asst. prof., 24-25; *prof., Texas Tech.*, 25- Advisory committee and director students' course, Nat. Expos. Chem. Indust., 23-25. Lieut., C.W.S., 18- Chem. Soc. Organic and industrial chemistry; semicarbazide; hydrazine; hydantoin derivatives; composition, use and treatment of boiler feed waters.
- Reade, Prof. J(ohn) M(oores)**, University of Georgia, Athens, Ga. *Botany*. Markham, Ont., Can., Dec. 16, 76. B.S.A., Toronto, 00; Munich, 05; Goldwin Smith fellow, Cornell, 06-07, Ph.D., 08. Teacher, Philippine service, 02-04; instr. bot., Georgia, 07-08, *prof.*, 08-, director biol. lab., 19-26. A.A.; Bot. Soc.; Phytopath. Soc.; Ecol. Soc.; Ga. Acad.

- Readio, Philip A(dna)**, 1203 Oread Ave, Lawrence, Kans. *Entomology*. Northampton, Mass. B.S, Mass. Col, 20; M.S, Kansas, 22, Ph.D, 26. Instr. *entom*, Kansas, 20-23, *asst. prof*, 23- A.A; Entom. Soc; Ass. Econ. Entom. Biology of terrestrial Hemiptera.
- Reagan, Dr. Albert B**, Cornfields, Ganado, Ariz. *Geology, Ethnology*. Maxwell, Iowa, Jan. 22, 71. A.B, Indiana, 03, A.M, 04; Ph.D, Stanford, 25. *Prin*, *Cornfields Indian Sch*. Curio collector and ethnol. contributor, Bur. Am. Ethnol, 00-09; dept. anthropol, Victoria Mem. Museum, Can, 09- A.A; fel. Ethnol. Soc; Ind. Acad; Kans. Acad; Calif. Acad; fel. Iowa Acad; N. Y. Acad; Okla. Acad; Nebr. Acad; Ill. Acad. Paleontology; anthropology; archeology.
- Reagan, Dr. F(ranklin) P(earce)**, University of California, Berkeley, Calif. *Anatomy*. Sheridan, Ind, June 20, 90. A.B, Indiana, 13; Ph.D, Princeton, 16, Jacobus fellow, 17-18. Instr. gross anat, col. med, Illinois, 19; *asst. prof. zool*, *California*, 19- Instr. mil. aeronautics, U.S.A, 18-19. Ass. Anat. Origin of blood and endothelium; chondrification; embryonic castration; venous drainage.
- Reamer, Dr. Jeannette C(hase)**, Board of Education, Sixth and Rockwell Avenues, Cleveland, Ohio. *Psychology*. Columbus, Ohio, July 6, 92. A.B, 13, A.M, 16, Ph.D, 20. *Psychologist, Board Educ*, *Cleveland*, 21- Psychol. Ass; Cleveland Research Soc. Psychological tests for the deaf.
- Reamer, Ronald**, Georgia School of Technology, Atlanta, Ga. *Chemistry*. Toledo, Iowa, Nov. 1, 95. B.S, Allegheny, 20. Chemist, Gulf Ref. Co, Texas, 22-23; petrol. chemist, De Laval Separator Co, N. Y., 24-25; *instr. chem*, *Ga. Tech*, 25- Chem. Soc. Automobile crankcase oil; steam turbine lubricating oil.
- Reames, Dr. Eleanor Elmore**, Tulane University, New Orleans, La. *Physics, Biology*. New Orleans, Feb. 18, 83. A.B, Tulane, 05, A.M, 07, Ph.D, 13; Chicago, 14, 15. *Instr. physics*, *Newcomb, Tulane*, 09- A.A; New Orleans Acad.
- Reaves, Dean S(amuel) W(atson)**, University of Oklahoma, Norman, Okla. *Mathematics*. Marion, S. C, July 27, 75. B.S, North Carolina, 99; A.B, Cornell, 00, 00-01; A.M, Chicago, 12, Ph.D, 15. Teacher, S. C, 95-98; Mich. Mil. Acad, 01; *asst. prof. math*, *Clemson*, 01-05; *prof*, *Oklahoma*, 05-, *dean col. arts and sciences*, 23- Math. Soc; Math. Ass; Okla. Acad. (pres, 12). Differential geometry; metrical properties of flecnodes on ruled surfaces.
- Recknagel, Prof. A(rthur) B(ernard)**, 523 Highland Road, Ithaca, N. Y. *Forestry*. Brooklyn, N. Y, Dec. 15, 83. A.B, Yale, 04, M.F, 06; Forstakademie, Eberswalde, Germany, 11. U. S. Forest Service, 06-13; *prof. forestry*, *Cornell*, 13- Forester and sec'y, Empire State Forest Products Ass, 17. Board editors, 'Jour. Forestry,' 13-27. Soc. Foresters. Forest management.
- Record, Prof. Samuel J(ames)**, 205 Prospect St, New Haven, Conn. *Forestry*. Crawfordsville, Ind, March 10, 81. A.B, Wabash, 03, A.M, 06; M.F, Yale, 05. Forest asst, U. S. Forest Service, 04-07; forest supervisor, 07-10; instr. forestry, Yale, 10-11, *asst. prof. forest products*, 11-17, *prof*, 17- Ed, 'Trop. Woods.' A.A; Soc. Foresters. Structure and identification of woods; tropical woods.
- Records, Dr. Edward**, University of Nevada, Reno, Nev. *Veterinary science*. Los Angeles, Calif, March 15, 86. V.M.D, Pennsylvania, 09. Lab. asst, Pa. Stock Sanit. Ass, 10-11; bacteriologist, H. K. Mulford Co, 11-14; *veterinarian*, *Nev. Exp. Sta*, 14-, *director state vet. control service*, 18- Vet. Med. Ass; Soc. Bact; U. S. Live Stock Sanit. Ass. Infectious diseases of animals; poisonous range-plants.
- Reddick, Prof. Donald**, New York State College of Agriculture, Ithaca, N. Y. **Plant pathology*. Sheridan, Mo, March 1, 83. A.B, Wabash, 05; Ph.D, Cornell, 09. Asst. bot, Wabash, 03-05; *asst. mycol*, *Cornell*, 05-07, *instr. plant path*, *N. Y. State Col. Agr*, *Cornell*, 07-09, *asst. prof*, 09-11, *prof*, 11- Business manager, 'Phytopath,' 11-14, ed, 15-18; chairman board control, 'Bot. Abstracts,' 18-20, business manager, 22-24. Sec'y for path, Fourth Int. Bot. Cong, 26. A.A; Soc. Nat; Bot. Soc; Phytopath. Soc. (councilor, 19, pres, 20). General pathology.
- Reddick, Prof. H(arry) W(ilfred)**, Cooper Union Institute of Technology, New York, N. Y. *Mathematics*. Raysville, Ind, Feb. 6, 83. A.B, Indiana, 04; fellow, Illinois, 05-06, A.M, 06; Ph.D, Columbia, 10. Instr. schools, Ind. and Ill, 04-06; *asst. math*, *Columbia*, 07-09, tutor, 09-10, *instr*, 10-15; *prof. and head dept*, *Cooper Union*, 15- Math. Soc; Math. Ass. Differential geometry.
- Reddish, Dr. G(eorge) F(ults)**, Hynson, Westcott and Dunning, Baltimore, Md. *Bacteriology*. Somerset, Ky, June 30, 94. B.S, Kentucky, 19; Ph.D, Yale, 22. Asst. bacter, Yale, 19-22; *assoc. prof*, *Med. Col. of Va*, 22-24; *assoc. bacteriologist*, *bur. chem*, *U. S. Dept. Agr*, 24-27; *bacteriologist in charge dept*, *Hynson, Westcott and Dunning*, 27- A.A; Soc. Bact; Pub. Health Ass; Va. Med. Soc. Anaerobes; culture media; microbic flora of cream and butter; botulism; yeast; disinfectants.
- Reddy, Dr. Cha(rlie)s S(teven)**, 108 Dent Place, Lyon Park, Clarendon, Va. *Plant pathology*. Platteville, Wis, Nov. 19, 87. Wis. State Nor. Sch, Platteville; B.S, Wisconsin, 15, M.S, 16, Ph.D, 23. Teacher and prin, high sch, 07-13; *asst. plant path*, *Wisconsin*, 15-16; *plant pathologist*, *office cereal investigations*, *bur. plant indust*, *U. S. Dept. Agr*, 16- Phytopath. Soc; Wash. Bot. Soc. Diseases of barley, wheat, rye and corn; bacterial diseases of plants.
- Redenbaugh, Dr. H(erman) E(dward)**, Northwestern University Medical School, Chicago, Ill. *Physiological chemistry*. Tabor, Iowa, Oct. 2, 90. A.B, Tabor Col, 12; Ph.D, Northwestern, 24. Asst. chem, Northwestern, 12-14; *instr*, *Okla. Agr. and Mech. Col*, 14-16; *asst*, *Illinois*, 16-17; *assoc. med. sch*, *Northwestern*, 18-26, *asst. prof*, 26- Chemist, Yellow Fever Commission, Int. Health Board, Ecuador, 18. Chem. Soc. Vitamins; basal metabolism; enzymes of digestion.

- Bedfern, Ellsworth Lovejoy**, State Department of Agriculture, Des Moines, Iowa. *Chemistry*. Red Oak, Iowa, April 7, 75. B.Sc. Nebraska, 04. *State chemist*, Nebraska, 04-15; Iowa, 15-Chem. Soc.
- Bedfield, Prof. Alfred C(larence)**, Readville, Mass. *Physiology*. Philadelphia, Pa., Nov. 15, 90. B.S. Harvard, 14, Ph.D., 17. Instr. *physiol*, Harvard Med. Sch., 18-19; *asst. prof.*, Toronto, 19-20; *Harvard Med. Sch.*, 21- A.A.; *Physiol. Soc.*; Am. Acad. Chromatophores; physiological action of radiations from radium and of ultra-violet light; respiratory function of blood; muscular contraction.
- Redfield, Dr. Harry W(estfall)**, R. R. 1, Mendham, N. J. *Chemistry, Bacteriology*. Brooklyn, N. Y., Feb. 21, 78. B.S. Cornell, 00, Ph.D., 12. Chemist and supt. Davis and Quick, 00-06; *asst. chem.*, Cornell, 06-07, instr. sanit. chem., 07-15; bacteriologist, Ill. State Food Dept., 15-16; in charge inspection microbiol. bur. chem. U. S. Dept. Agr., 16-19, chief, N. Y. Sta., 19-26. Chem. Soc.; Soc. Bact.; Pub. Health Ass.; Int. Ass. Milk and Dairy Inspectors (third v. pres). Culture media for examination of water; production of hydrogen sulphid by bacteria in water; decomposition in frozen and liquid eggs; phenol sulphonic acid method for determining nitrates in water; cream and butter; remade milk and cream.
- Redfield, Dr. Helen**, Columbia University, New York, N. Y. *Genetics*. Archbold, Ohio, May 5, 00. A.B. Rice, 20; Ph.D. California, 24. Teaching fellow zool., California, 20-24; *Nat. Research Council fellow*, Columbia, 25- A.A. Maternal inheritance and crossing over in the autosomes of triploids in *Drosophila melanogaster*.
- Redman, Lawrence V**, 230 Grove St, Bloomfield, N. J. **Chemistry*. Oil Springs, Ont., Can., Sept. 1, 80. B.A. Toronto, 08, fellow, 08-10. Instr. Toronto, 08-09; indust. fellow and asst. prof. Kansas, 10-14; *pres*, *Redmanol Chem. Products Co.*, 14-; v. *pres.* and *director research*, *Bakelite Corp.*, 22- A.A.; Chem. Soc. (chairman, Chicago sect., 18-20); Soc. Chem. Indust. (chairman, N. Y. sect., 26); Inst. Chem. Eng.; N. Y. Chemists Club (v. pres., 26-). Phenol condensation products.
- Reed, Mrs. Bessie P(rice)**, 2635 Reagan St, Dallas, Texas. *Ornithology*. Petersburg, Ill. A.B. Kansas, 19, A.M., 24; Illinois. Asst. ornith., Illinois, 10-11; instr. zool., Kansas, 17-20. A.A.; Ornith. Union; Nat. Ass. Audubon Societies; Soc. Mammal; Wilson Ornith. Club. Bird migration; habits of the great horned owl; green heron colony; food habits of birds; nestling weights; banding; agricultural economic value of birds; nesting habits.
- Reed, Prof. Burleigh**, Washburn College, Topeka, Kans. *Chemistry*. Near Algona, Iowa, Jan. 18, 85. B.S. Cornell (Iowa), 09, A.M., 19; Iowa, 09-10. *Prof. chem.*, Washburn, 20- Chem. Soc.; London Soc. Chem. Indust. Analytical chemistry.
- Reed, Prof. C(arlos) I(saac)**, 2635 Reagan St, Dallas, Texas. *Physiology*. Batesville, Ohio, Oct. 7, 87. A.B. Ohio State, 15; A.M. Kansas, 23; Ph.D. Chicago, 25. Asst. *physiol.*, Ohio State, 12-15, instr., 15-18; sci. asst., U. S. Pub. Health Service, 19; asst. prof. and assoc. prof. *physiol. and hygiene*, Kansas, 19-24; Nat. Research Council fellow *physiol.*, Chicago, 24-25; *assoc. prof., col. med.*, Baylor, 25- Summer, asst., Chicago, 15. Pharmacologist, C.W.S., 18. A.A.; *Physiol. Soc.*; *assoc. Am. Med. Ass.*; *Soc. Exp. Biol.*; *Social Hygiene Ass.* Placodal ganglia of *Squalus acanthias*; pharmacology of war gases; adrenalin on frog heart; photophysiology; heparin; bilateral vagotomy; thyroid and parathyroid in dogs; digestive mechanism of Raptore; anaphylaxis.
- Reed, Charles D(ana)**, Weather Bureau Office, Des Moines, Iowa. *Climatology*. Carroll Co., Iowa, Feb. 27, 75. B.Agr. Iowa Col., 94, M.S.A., 96. Asst. in charge, Iowa Col. farm, 95-97; in charge field experiments, Iowa Exp. Sta., 98; farmer, 98-99; observer, U. S. *Weather Bur.*, Vicksburg, Miss., 99, all grades to *meteorologist*. Nat. Crop Reporting Board, Washington, D. C. Lecturer. A.A.; Meteor. Soc.; Iowa Acad. Soil physics; floods; weather forecasting; weather and crops.
- Reed, C(harles) J(ohn)**, Middle Ave, San Mateo, Calif. *Electrochemistry*. Jasper Co., Iowa, June 29, 58. A.B. Michigan, 81. Prof. physics and chem., high sch., Ill., 81-83; Iowa, 83-86; *consulting engineer*, 86- A.A.; Chem. Soc.; Electrochem. Soc. (sec'y, 02); Elec. Eng.
- Reed, C(larence) A(rthur)**, U. S. Department of Agriculture, Washington, D. C. *Horticulture*. Howell, Mich., Jan. 23, 80. B.S. Mich. State Col., 05, M.H., 13. Asst. hort., Maryland, 06-07; West Virginia, 07; *nut culturist*, *bur. plant indust.*, U. S. Dept. Agr., 07- A.A.; North. Nut Growers Ass.; Nat. Pecan Growers Ass.; Soc. Adv. Hort.; Pomol. Soc.; Genetic Ass.; Wash. Bot. Soc.; World Agr. Soc. Nut culture.
- Reed, Prof. E(dward) L(ooman)**, Texas Technological College, Lubbock, Texas. *Botany*. Chetopa, Kans., Nov. 28, 78. A.B. Okla. State Baptist Col., 12; M.S. Chicago, 22, Ph.D., 24. Asst. prof. chem. and physics, Okla. State Nor. Col., Edmond, 08-10, assoc. prof. biol. and chem., 10-11; prof. science, Okla. State Baptist Col., 11-13; instr. *biol.*, Agr. and Mech. Col. Texas, 13-17; prof., John Tarleton, 17-26; *assoc. prof.*, Texas Tech. Col., 26- A.A.; Bot. Soc.; Ecol. Soc.; N. Texas Biol. Soc. (v. pres., 24). Morphology of the extra floral nectar glands of the cotton plant and of the castor oil plant; morphology, ecology and embryology of the peanut plant; ecological study of meadow vegetation.
- Reed, Prof. Ernest**, Syracuse University, Syracuse, N. Y. *Botany*. Chicago, Ill., March 8, 90. A.B. Michigan, 17, M.S., 19, Ph.D., 22. Plant breeder, office sugar plant investigations, bur. plant indust., U. S. Dept. Agr., 20-22; asst. prof. *bot.*, Syracuse, 22-25, *assoc. prof.*, 25- Summer, exec. sec'y, Syracuse, 26- A.A. Plant physiology and pathology; genetics.
- Reed, Dr. F(rank) H(ynes)**, Tower Manufacturing Co, Newark, N. J. *Chemistry*. Logansport, Ind., Jan. 12, 90. A.B. Wabash, 11; fellow, Chicago, 15-17, Ph.D., 17. Instr. chem., Wabash, 13-14; Mich. State Col., 14-15; research chem-

- ist, Sherwin-Williams Co, 17-19; Butterworth Judson Corp, 19-22; *supt, dyestuffs dept, Tower Mfg. Co, 22- Chem. Soc. Physical chemistry; organic dyes.*
- Reed, Dr. F(rank) W(alker)**, University of Ohio, Athens, Ohio. *Mathematics, Astronomy.* Wytheville, Va, June 17, 81. A.B, Nashville, 02; Vanderbilt fellow, Virginia, 04-07, A.M, Ph.D, 07. Instr. astron, Illinois, 07-17, sch. mil. aeronautics, 17-18; *math*, Cornell, 19-23; asst. prof, Ohio (*Athens*), 23-24, *assoc. prof, 24- A.A; Math. Soc; Math. Ass; Astron. Soc.* Celestial mechanics; development of the perturbative function; integral invariants.
- Reed, Dr. George M(atthew)**, Brooklyn Botanic Garden, Brooklyn, N. Y. *Botany.* Ingleside, Pa, May 2, 78. A.B, Geneva, 00; A.M, Wisconsin, 04, Ph.D, 07. Prof. nat. science, Amity, 00-03; asst. bot, Wisconsin, 04-07, instr, 07; asst. prof, Missouri, 07-12, prof, 12-18; pathologist, bur. plant indust, U. S. Dept. Agr, 19-20; *curator, Brooklyn Bot. Garden, 21- Summers*, instr, N. Y. Univ, 12, res. investigator, Brooklyn Bot. Garden, 16. A.A; Bot. Soc; Phytopath. Soc; Wis. Acad; Torrey Bot. Club. Plant pathology; powdery mildews; cereal smuts and rusts; physiological specialization of parasites.
- Reed, Prof. Guilford B(evil)**, 218 Albert St, Kingston, Ont, Can. *Bacteriology, Plant physiology.* Port George, N. S, Nov. 27, 87. B.S, Harvard, 12, A.M, 14, Ph.D, 15. Asst. bot, Harvard, 10-15; asst. prof, *Queen's (Can)*, 15-19, *prof. bacter, 19- Instr*, N. S. Summer Sch. of Science, 12-14; botanist, Shaler Mem. exped, 11. Walker prize, 12; Bowdoin prize, 15. Capt, M.C, Can, 16-19. Soc. Nat; Bot. Soc; Soc. Bact; Ecol. Soc; Chem. Soc. Oxidase ferments and respiration; plant hormones; variation in bacteria; pernicious anemia.
- Reed, Prof. H(omer) B(losser)**, University of Pittsburgh, Pittsburgh, Pa. *Psychology.* Youngstown, Ohio, Aug. 16, 86. A.B, A.M, Indiana, 09; Ph.D, Chicago, 12; Columbia, 13-14. Instr. psychol, Illinois, 14-15; asst. prof. philos. and psychol, Idaho, 15-21; assoc. prof. psychol, Colo. State Teachers Col, Greeley, 21-22; prof. psychol. and educ, Minn. State Teachers Col, Moorhead, 22-23; Grinnell, 23-24; *asst. prof. educ. psychol, Pittsburgh, 24- Educational psychology; psychology of elementary school subjects.*
- Reed, Prof. Howard S(prague)**, Citrus Experiment Station, Riverside, Calif. **Plant physiology.* North East, Pa, Aug. 6, 76. Grove City, 98; Woods Hole, 02; A.B, Michigan, 03; Ph.D, Missouri, 07; Strassburg, 13. Asst. plant physiol, Michigan, 99-03; instr. bot, Missouri, 03-06; expert in soil fertility, bur. soils, U. S. Dept. Agr, 06-08; prof. mycol. and bacter, Va. Polytech, and plant pathologist, Exp. Sta, 08-15; *prof. plant physiol, Citrus Exp. Sta, California, 15- Smithsonian table, Naples Zool. Sta, 13. Delegate, Tenth Int. Cong. Agr, Ghent, 13. A.A; Soc. Nat; Bot. Soc; Phytopath. Soc.* (pres, Pacific div, 20-22); Soc. Biol. Chem; West. Soc. Nat. (pres, 23); West. Soc. Soil Sci. (sec'y, 26). Plant pathology; biochemistry; bacteriology; dynamics of growth; differentiation; plant nutrition; pre-Columbian botany.
- Reed, Prof. H(ugh) D(aniel)**, Cornell University, Ithaca, N. Y. *Zoology, Comparative anatomy.* Hartsville, N. Y, March 4, 75. B.S, Cornell, 99, fellow, 99-00, Ph.D, 03. Asst. *vert. zool, Cornell*, 00-02, instr, 02-06, asst. prof, 06-19, *prof, 19- Int. Zool. Cong, Graz, 10. A.A; Soc. Zool; Ass. Anat; Ass. Mus.* Animal morphology.
- Reed, John (Byron)**, U. S. Department of Agriculture, Washington, D. C. *Chemistry.* Lincoln Center, Maine, Aug. 15, 80. A.B, Michigan, 03. Instr. chem, Maine, 03-05; anal. and org. chem, Lowell Textile Sch, 05-09; asst. chemist and *assoc. chemist, bur. chem, U. S. Dept. Agr, 09- A.A; Chem. Soc.* By-products of rice milling; peanut oil; marine food products.
- Reed, Dr. Lowell J(acob)**, School of Hygiene and Public Health, Johns Hopkins University, Baltimore, Md. *Mathematics, Statistics.* Berlin, N. H, Jan. 8, 86. B.S, Maine, 07, M.S, 12; fellow, Pennsylvania, 13-14, Ph.D, 15. Instr. math, Maine, 07-13; Pennsylvania, 14-15; asst. prof, Maine, 15-17; *assoc. prof. biometry and vital statistics, Hopkins, 19-25, prof. and head dept, 25- Director bur. tabulation and statist, W.T.B, 17-18. Math. Soc; Math. Ass; Statist. Ass.* Vital statistics; biometry; statistical methods.
- Reed, O(llie) E(zekiel)**, Michigan State College, East Lansing, Mich. *Dairy husbandry.* Fayette, Mo, Aug. 19, 85. B.S, Missouri, 08, M.S, 10. Asst. dairy husbandry, Missouri, 08-09; asst. and instr, Purdue, 09-10; chief dairy dept, Kansas Col, 10-18; Purdue, 18-20, manager dairy farm, 20-21; *chief dairy dept, Mich. State Col, 21- Purchaser cattle, French High Commission, 19; studied live stock, Great Britain and Isles, 23. Dairy Sci. Ass. (pres, 25); Soc. Animal Production.* Dairy cattle; animal nutrition.
- Reed, Dr. Ralph (Wallace)**, 180 E. McMillan St, Cincinnati, Ohio. *Neuropsychiatry.* Middletown, Ohio, Dec. 30, 80. M.D, Pulte Med. Col, 02. Asst. Middletown State Hosp, N. Y, 02-03; Dr. Givens' Sanitarium for Mental and Nervous Diseases, 03-05; *practising physician, 06- Visiting neurologist, hospitals.* Psychopath. Ass; Psychoanal. Ass; Psychiat. Ass. Psychopathology; psychoanalysis; psychotherapy.
- Reed, W(endell) M(onroe)**, U. S. Bureau of Indian Affairs, Washington, D. C. *Civil engineering.* Moriah, N. Y, Dec. 28, 64. C.E, Vermont, 86. Ry. worker, 87-89; engineer, Pecos Valley Irrig. Co, 89-00; U. S. Reclamation Service, 02-12; *chief engineer, Indian irrig. service, U. S. Bur. Indian Affairs, 12- Second Pan-Am. Sci. Cong. Civil Eng; Ass. Eng. Reclamation of arid lands.*
- Reed, W(illiam) D(oyale)**, Dried Fruit Laboratory, 712 Elizabeth St, Fresno, Calif. *Entomology.* Eupora, Miss, Sept. 25, 97. B.S, Miss. Agr. and Mech. Col, 22; Cornell, 23, 24. Instr. zool. and entom, Clemson, 22-23, asst. prof, 23-25; *asst. entomologist, bur. entom, U. S. Dept. Agr, 25- Summers, asst. Delta Lab, La, 20-22, Malarial Control Exp. Sta, 21. Entom. Soc; Ass. Econ. Entom; Pacific Coast Entom. Soc.* Insect pests of dried fruits.

Reed, William G(ardner), 121 Chestnut St, Philadelphia, Pa. *Meteorology, Statistics*. Boston, Mass, Sept. 5, 84. A.B, Harvard, 06, A.M, 11. Asst. physiog, Harvard, 08-11; meteor, 09-11; instr. climat, California, 11-15; Chicago, 15; asst. agr. geol, U. S. Dept. Agr, 15-17; meteorologist, U. S. Weather Bur, 17-19; *statistician, Geo. H. McFadden and Brothers*, 19- Capt. and major, Sig.C, 18-19. A.A; Am. Geog. Soc; Ass. Geog; Seismol. Soc; Meteor. Soc; Statist. Ass; Pacific Astron. Soc; Royal Meteor. Soc. Climatology; rainfall distribution; cyclonic influence in climate; climate of California; weather and crops.

Reeds, Dr. Chester A(lbert), American Museum of Natural History, New York, N. Y. *Geology*. Lacygne, Kans, July 20, 82. B.S, Oklahoma, 05; M.S, Yale, 07, Ph.D, 10. Instr. miner. and petrol, Oklahoma, 08; lecturer geol, Bryn Mawr, 08-10, assoc, 10-12; asst. curator geol. and invert. paleont, *Am. Museum Nat. Hist.*, 12-17, assoc. curator invert. paleont, 17-27, curator, 27-, *observer in charge seismograph*, 21-, ed, div. I publications, 25- Exten. instr, Columbia, 14-17; summers, field asst, U. S. Geol. Surv, 03, 06, 08, collector, museum, Yale, 05, 07; leader, Am. Museum Nat. Hist. field party, Okla, 14, Porto Rico, 15. A.A; fel. Geol. Soc; Paleont. Soc; Seismol. Soc; Ass. Mus; N. Y. Acad. (v. pres, 25); N. Y. Zool. Soc. Water resources of East St. Louis district; stratigraphy, paleontology and the economic products of the Arbuckle Mountains, Oklahoma; paleontology and stratigraphy in Porto Rico; museum exhibits; seasonal records of geologic time; varved glacial clays of the Hackensack and Hudson Valleys; earthquakes; Virginia caverns.

Reedy, Prof. J(ohn) H(enry), University of Illinois, Urbana, Ill. *Chemistry*. Plano, Texas, May 1, 78. A.B, A.M, Southwestern (Texas), 00; M.S, Chicago, 14; Ph.D, Yale, 15. Prof. chem, Southwestern (Texas), 05-13; South. Methodist, 15-18; asst. prof, Illinois, 18- Chem. Soc; Electrochem. Soc. Inorganic and physical chemistry.

Rees, Dr. E(dwin) A(rthur), 51 S. Main St, Albany, N. Y. *Chemistry*. Denver, Colo, April 8, 91. A.B, Denver, 13, A.M, 14; fellow, Illinois, Ph.D, 18. Instr. chem, Denver, 13-14; asst, Illinois, 15-18; research chemist, E. I. du Pont de Nemours and Co, 19-20; *director research, F. C. Huyck and Sons*, 20- Summers, research chemist, Am. Smelting and Ref. Co, 12-17. A.A; Chem. Soc; Ass. Pulp and Paper Indust; Soc. Test. Mat. Heterogeneous equilibria between aqueous and metallic solutions; chemistry of wools; paper makers' felts.

Rees, Prof. Maurice H(olmes), University of Colorado School of Medicine, Denver, Colo. *Physiology*. Newton, Iowa, April 27, 82. A.B, Monmouth, 04; A.M, Illinois, 05; Ph.D, Chicago, 17; M.D, Washington (St. Louis), 21. Prof. biol, Tarkio, 07-14; asst. prof. physiol, Kansas, 14-16; assoc. prof, Chicago, 16-17; prof, South Dakota, 17-21; *physiol. and pharmacol, sch. med, Colorado*, 21-, asst. dean, 24-25, dean, 25- Physiol. Soc; Am. Med. Ass. Effect of pituitary extracts on urinary excretions and intes-

tinal absorption; uterine contractions; diuretic drugs; endocrine organs.

Reese, Prof. Albert M(ore), West Virginia University, Morgantown, W. Va. *Zoology*. Lake Roland, Md, April 1, 72. A.B, Hopkins, 92, Ph.D, 00. Teacher, high schools; lecturer, Homeop. Med. Col, Baltimore, 93-98; prof. biol, Allegheny, 01-02; instr, Syracuse, 02-03, assoc. prof. histol, 03-07; *prof. zool, West Virginia*, 07- Lecturer, Pennsylvania Col, 97; collaborator zool, Smithsonian Inst, 13. Smithsonian exped, Orient, 13; Carnegie Institution exped, S. Amer, 19. A.A; Soc. Nat; Soc. Zool; Ecol. Soc; Micros. Soc; Soc. Ichthyol. and Herp. Embryology, anatomy and habit of the American alligator; anatomy and habits of certain Amphibia.

Reese, Dr. Cha(rle)s L(ee), 1600 Brinkle Ave, Wilmington, Del. *Chemistry*. Baltimore, Md, Nov. 4, 62. Hopkins, 80-81; Virginia, 81-84; Ph.D, Heidelberg, 86; Göttingen, 86; hon. Sc.D, Pennsylvania, 19; Colgate, 19. Instr. chem, Hopkins, 86-88; prof, Wake Forest, 88; chem. and physics, S. C. Mil. Acad, 88-96; instr. chem, Hopkins, 96-00; chief chemist, N. J. Zinc Co, 01-02; East. Dynamite Co. and director east. lab, 02-04; chem. director, E. I. du Pont de Nemours Powder Co, 04-15, *E. I. du Pont de Nemours and Co*, 15-24, *director*, 17-, *consultant*, 24- V. chairman, div. chem. and chem. technol, and v. chairman, research information service, Nat. Research Council; board trustees, Int. Critical Tables. Advisory board, C.W.S, U.S.A. A.A; Chem. Soc. (chairman, Phila. sect, 18, Del. sect, 19); Soc. Chem. Indust; Chem. Eng. (pres, 23-25); Inst. Chem; Ass. Directors Indust. Research (director); Mfg. Chemists Ass. (pres, 20-23); Philos. Soc; Franklin Inst; Chem. Gesell; Chem. Verein. Origin of South Carolina phosphate rock; catalytic process of manufacture of sulphuric acid; manufacture of explosives; dyes and intermediates; informational needs in science and technology.

Reese, Dr. Herbert M(eredith), University of Missouri, Columbia, Mo. *Physics*. Baltimore, Md, Dec. 1, 73. A.B, Hopkins, 97, Ph.D, 00; fellow, Lick Observatory, 00-01. Asst. spectrosc, Lick Observatory, 01-03; Yerkes Observatory, 03-04; instr. physics, Missouri, 04-07, asst. prof, 07-12, assoc. prof, 12-21, *prof*, 21- A.A; Physical Soc; Optical Soc. The Zeeman effect; astronomical spectroscopy; investigations of stellar spectra; orbit of spectroscopic binary; optical rotation.

Reese, Dr. Stanley C(hester), 628 College Ave, E. E, Pittsburgh, Pa. *Engineering*. Pittsburgh, May 4, 74. A.B, Princeton, 96, fellow, 96-98, A.M, 97, Ph.D, 99. Prof. math, acad, Princeton, 98-99; research asst, Yerkes Observatory, 99-01; asst, eng. dept, Carnegie Steel Co, 01-02; mech. engineer, Riter Conley Mfg. Co, 02-07; Jones and Laughlin Steel Co, and other firms, 07-15; H. Koppers Co, 15-19; research engineer, Am. Steel and Wire Co, 19-20; *asst. engineer, Bur. Building Inspection, Pittsburgh*, 20- A.A; Astron. Soc. Orbits of minor planets; optics; rolling of steel.

- Reeside, Dr. John B(ernard), Jr.**, Hyattsville, Md. *Geology*. Baltimore, Md, June 24, 89. A.B., Hopkins, 11, Ph.D, 15. Asst. geologist, *U. S. Geol. Surv.*, 15-19, paleontologist, 19-20, *geologist*, 20- A.A.; Geol. Soc; Paleont. Soc; Wash. Acad; Wash. Geol. Soc; Wash. Biol. Soc. Stratigraphy; paleontology; Helderberg limestone; later Mesozoic ammonites; geology of San Juan County, New Mexico.
- Reeve, C(harles) S(nyder)**, Leonia, N. J. *Chemistry*. Philadelphia, Pa, 75. B.S., Pennsylvania, 97. Asst. chemist, Gen. Elec. Co, 97-00; chem. engineer, Indust. Water Co, 00-03; chemist, Phila. Bur. Surveys, 03-06; asst. inspector asphalt and cement, D. C, 06-09; asst. chemist and chemist, office pub. roads, U. S. Dept. Agr, 09-18; research chemist, *Barrett Co*, 18-22, *chief chemist, develop. dept*, 22- Committee 3, highway research board, Nat. Research Council. Chem. Soc; Soc. Chem. Indust; Soc. Test. Mat; Wood Preservers Ass. Manufacture, testing and use of coal tar products and bituminous paving, roofing and waterproofing materials.
- Reeve, Sidney A(rmor)**, 280 Broadway, New York, N. Y. *Mechanical engineering*. Dayton, Ohio, March 27, 66. Ph.B., Yale, 85, M.E., 87. Instr. Sheffield Sci. Sch, Yale, 87; Westinghouse, Church, Kerr and Co, 87-94; asst. ed, 'Progressive Age,' 95; adjunct prof. steam and hydraul. eng, Worcester, 96-98, prof, 98-06; lecturer eng, Harvard, 06-07; *consulting engineer, New York*, 08- Lecturer, Grad. Naval Officers' College, 11-12. Hydraulic interaction of passing ships; vacuum-cleaning; heat-engine cycles; power from continuous combustion under constant pressure; the physical nature of entropy; graphical thermodynamics; energetics; economic history; social energetics.
- Reeves, Dr. Frank, U. S. Geological Survey**, Washington, D. C. *Geology*. Triune, W. Va, Oct. 11, 86. A.B., West Virginia, 11; Ph.D, Hopkins, 16. Geol. aid, *U. S. Geol. Surv.*, 14, 17, asst. geologist, 18-21, *geologist*, 21- Research student, Hopkins, 16-17; geologist, Sinclair Cent. Am. Oil Co, 18. Geol. Soc; Wash. Geol. Soc. Petroleum and structural geology.
- Reeves, Geo(rge) I**, 473 Fourth Ave, Salt Lake City, Utah. *Entomology*. Morris, Ill, March 4, 79. A.B., Illinois, 02, fellow, 02-03. Asst. entom., Missouri and Exp. Sta, 03-04; *entomologist, bur. entom, U. S. Dept. Agr*, 04- Summer, instr, Illinois, 03; exten. lecturer, Utah, 25-26. A.A.; Ecol. Soc; Ass. Econ. Entom. Insects affecting cereal and forage plants; alfalfa weevil.
- Reeves, Dr. John R(ober)**, Empire Gas and Fuel Co, El Dorado, Kans. *Economic geology*. Anderson, Ind, March 17, 96. A.B., 20, A.M., 21, Ph.D, 23. Instr. geol, Indiana, 21-24; geologist, Ind. Geol. Surv, 23-24; *res. geologist, Empire Gas and Fuel Co*, 24- Cooperative research, U. S. Bur. Mines. Ass. Petrol. Geol; Kans. Geol. Soc; Ind. Acad. Petroleum geology; oil shale.
- Reeves, Prentice**, The Ohio Institute, Columbus, Ohio. *Psychology*. Joplin, Mo, Sept. 20, 88. A.B., Missouri; A.M., Princeton. Instr. psychol, Princeton, 12-16; research psychologist, Eastman Kodak Co, 16-18, 19-23; asst. prof. psychol, Ohio Wesleyan, 23-25; *dept. correction, Ohio Inst*, 25- Summer, research assoc, Munsell Research Lab, 25. Lieut, Sig.C, 18-19. Psychol. Ass. Physiological optics; pupillary reflex; psychology of delinquency and correction.
- Regan, Prof. W(illiam) M(ichael)**, University Farm, Davis, Calif. *Dairy husbandry*. Joplin, Mo, Feb. 18, 83. B.S., Missouri, 12, A.M., 14. Instr. dairy husbandry, Missouri, 14-16; asst. prof, Nevada, 16-18; prof. dairying, Rutgers, 18-22; *assoc. prof. animal husbandry, California*, 22- Dairy Sci. Ass; Soc. Animal Production. Dairy cattle breeding and feeding.
- Regan, Dr. W(illiam) S(wift)**, Yakima, Wash. *Entomology*. Williamsburg, Mass, Aug. 21, 85. B.S., Mass. Col, 08, Ph.D, 15. Chief deputy state nursery inspector, Mass, 09-13; asst. prof. entom., Mass. Col, 15-18, assoc. prof, 19-21; asst. entomologist, Mont. Col, 22-24; horticulturist, McIntosh-Morello Orchards, Inc, Mont, 24-25; *entomologist, northwest. dept, Calif. Spray-Chem. Co, Yakima*, 25- Special agent, white pine blister rust investigation, bur. plant indust, U. S. Dept. Agr, 18-21. Entom. Soc; Ass. Econ. Entom. Orchard insect pests; psammocharinae.
- Reger, David B(right)**, Morgantown, W. Va. *Geology*. Rural Dale, April 11, 82. A.B., West Virginia, 09, B.S., 11. Field asst, U. S. Geol. Surv, 03-06; hydrographic surveyor, U. S. Naval Station, Cuba, 06-07; field asst, *W. Va. Geol. Surv.*, 09-13, *asst. geologist*, 13-; *consulting geologist*, 19- A.A.; fel. Geol. Soc; Ass. Petrol. Geol; Min. Eng; W. Va. Acad. Economic geology; topography; geology of numerous counties of West Virginia; Mississippian stratigraphy of the Appalachian states.
- Rehder, Alfred**, Arnold Arboretum, Jamaica Plain, Mass. *Botany, Dendrology*. Waldenburg, Saxony, Sept. 4, 63. Gym, Zwickau, 76-81; Berlin, 84-85; Göttingen, 89-91; hon. A.M., Harvard. Asst. *Arnold Arboretum*, 98-18, *curator herbarium*, 18- A.A.; Bot. Soc; Soc. Hort. Sci; Am. Acad; New Eng. Bot. Club; Boston Nat. Hist. Soc; Bot. Gesell; Dendrol. Gesell. Taxonomy and bibliography of woody plants; Chinese ligneous plants.
- Rehn, James A(ram) G(arfield)**, Philadelphia Academy of Natural Sciences, Philadelphia, Pa. *Mammalogy, Orthopterology*. Philadelphia, Oct. 26, 81. Pa. Acad. Fine Arts. Asst. curator, *Acad. Nat. Sciences, Phila*, 03-25, *assoc. curator*, 25-, *sec'y*, 20- A.A.; Soc. Mammal; assoc. Ornith. Union; fel. Entom. Soc. (ed, 12-26); Entom. Soc. Amer; Phila. Acad. Faunistic and systematic studies in the Orthoptera at large; geographic distribution of North American Orthoptera.
- Reich, Dr. W(illiam) W(alter)**, 315 Medical Building, Oakland, Calif. *Pathology*. Independence, Mo, Aug. 6, 99. A.B., Philippines, 17, B.S., 19; A.M., California, 21, Ph.D, 23. Asst. and instr. math, Philippines, 18-19; asst. bacter, California, 20-21, instr. bacter. and exp. path,

- 21-24; *director, Physicians' Diagnostic Laboratories*, 24- Lecturer, California. Soc. Bact. Parasitology; protozoology; clinical pathology.
- Reichard, Miss Gladys A.**, Barnard College, Columbia University, New York, N. Y. *Anthropology*, Bangor, Pa, July 17, 93. A.B., Swarthmore, 19; A.M., Columbia, 20, Ph.D., 26; research fellow, California, 22-23. Asst. *anthrop.*, Barnard, Columbia, 21-22, *instr.*, 23- Gugenheim fellow, Hamburg, Germany, 26-27. Field trips, Arikara, Wiyot, Wailaki and Navajo Indians, 21-25. Folk-Lore Soc. (sec'y, 24-); Ethnol. Soc. (sec'y, 24-). Wiyot grammar and texts; Navajo social life.
- Reichert, Dr. Edward (Tyson)**, University of Pennsylvania, Philadelphia, Pa, or Los Angeles, Calif. **Physiology*. Philadelphia, Feb. 5, 55. M.D., Pennsylvania, 79, Sc.D., 13; Berlin, Leipzig and Geneva, 82-85. Prof. *physiol.*, sch. med., Pennsylvania, 86-20; *retired*, 20. Research assoc., Carnegie Institution. Physiology of the heat, respiratory and circulatory mechanisms; the toxic principles and physiological actions of serpent venoms; the differentiation and specificity of homologous proteins and other organic substances in relation to genera, species and organic evolution; the crystallography of hemoglobins; physiological apparatus; bio-chemic basis of problems of taxonomy and heredity.
- Reichert, Dr. Joseph S.**, Edgewood Arsenal, Edgewood, Md. *Chemistry*. Selden, Kans, Aug. 25, 89. A.B., Miami, 15; A.M., Minnesota, 17; Ph.D., Notre Dame, 22. Supervisor production, edible products dept., Procter and Gamble Co., 19-20; prof. chem. and asst. dean col. science, Notre Dame, 20-24; *sect. chief, anti-gas dept.*, C.W.S., Edgewood Arsenal, 24- Second lieut., C.W.S., 17-19. Chem. Soc. Acetylene syntheses; chemical warfare.
- Reid, Prof. Duncan H(enry)**, Agricultural and Mechanical College of Texas, College Station, Texas. *Poultry husbandry*. Montello, Wis, Feb. 19, 81. Grad. Wis. State Teachers Col., Stephens Point, 07; B.S., Wisconsin, M.S., 22. Instr., Wisconsin, 19-21, asst. prof., 21-23; *prof. and head dept. poultry husbandry, Agr. and Mech. Col. Texas*, 23- Summers, instr., Minnesota, 21-23. Poultry Ass; Genetic Ass. Feeding thyroid; feeding cottonseed meal to poultry; feeding sorghum grains to growing chicks.
- Reid, Dr. E. Emmet**, Johns Hopkins University, Baltimore, Md. **Chemistry*. Fincastle, Va, June 27, 72. A.M., Richmond, 92, LL.D., 17; fellow, Hopkins, 97-98, Ph.D., 98. Prof. chem., Charleston, 98-01; Baylor, 01-08; Carnegie asst., Hopkins, 08-09, Johnston scholar, 09-11; research chemist, Colgate and Co., 11-14; assoc. prof. chem., Hopkins, 14-16, *prof. org. chem.*, 16- Demonstrator, Maryland, 96-97. Consultant gas warfare, U. S. Bur. Mines, and War Dept., 18-19; consultant, Edgewood Arsenal, C.W.S., 20- A.A.; Chem. Soc. (chairman, div. org. chem., 20); Chem. Gesell. Organic chemistry; hydrolysis and alcoholysis of acid amids; perchromates; thio acids and alcohols and their esterification; the formation of nitriles; organic sulphur compounds; relative solubilities; organic catalysis; identification of acids, alcohols and phenols; anthraquinone thio-ethers; influence of sulphur on the color of dyes; ethylation of benzene; derivatives of 'mustard gas'; high speed stirring.
- Reid, Prof. Harry Fielding**, 608 Cathedral St., Baltimore, Md. **Geophysics*. Baltimore, May 18, 59. C.E., Pa. Mil. Acad., 76; A.B., Hopkins, 80, Ph.D., 85. Prof. math, Case, 86-89, physics, 89-94; lecturer, Hopkins, 94-96, assoc. prof. geol. physics, 96-01, *prof.*, 01-11, *dynamic geol. and geog.*, 11- Assoc. prof., Chicago, 95-96; chief highway div., Md. Geol. Surv., 98-05; special expert in charge earthquake records, U. S. Geol. Surv., 02-14; Hitchcock lecturer, California, 11. Mem. Commission Int. des Glaciers, 94-16, pres., 03-06. Pres., Geophys. Union, 24-26; delegate, Int. Geod. and Geophys. Union, 22- Nat. Acad.; A.A.; Physical Soc.; Geol. Soc.; Ass. Geog.; Seismol. Soc. (pres., 12-14); Philos. Soc.; Wash. Acad.; Phila. Acad.; hon. mem. Soc. Helvétique des Sci. nat.; Int. Seismol. Ass. (delegate, 06-22). Dynamic geology, seismology and glaciology; origin of mountain ranges; variations of glaciers.
- Reid, Dr. L(egh) W(ilber)**, Haverford College, Haverford, Pa. *Mathematics*. Alexandria, Va, 67. B.S., Va. Mil. Inst., 87; A.B., Hopkins, 89; M.S., Princeton, 96; Ph.D., Göttingen, 99. Instr. math., Princeton, 93-97, 99-00; *Haverford*, 00-01, assoc. prof., 01-07, *prof.*, 07- Math. Soc.; Math. Ass. Class numbers of cubic algebraic number realms; the elements of the theory of algebraic numbers.
- Reid, Prof. W(illiam) H(erbert) E(ddy)**, University of Missouri, Columbia, Mo. *Dairying*. Geneva, N. Y., 94. B.S., Wisconsin, 19; A.M., Missouri, 20. *Prof. dairy manufactures, Missouri*, 20- Ice cream; market milk.
- Reighard, Prof. Jacob (Ellsworth)**, 927 Cornwall Place, Ann Arbor, Mich. **Zoology*. La Porte, Ind., July 2, 61. Ph.B., Michigan, 82, 85-86; private student with Dr. E. L. Mark, Cambridge, 83-85. Teacher science, high sch., La Porte, Ind., 82-83; instr. zool., Michigan, 86-87, 88-89, acting asst. prof., 87-88, asst. prof., 89-91, *prof. animal morphol.*, 91-95, *zool.*, 95-, formerly director zool. lab., zool. museum and biol. sta. In charge sci. work, Mich. Fish Commission, 90-95; biol. surv. of Great Lakes, U. S. Fish Commission, 98-01; trustee, Woods Hole. Prize, Int. Fisheries Cong., Washington, 08. A.A. (v. pres., F, 10); Soc. Nat.; Soc. Zool. (v. pres., eastern branch, pres., central branch, 93); Ecol. Soc.; Fisheries Soc. (pres., 15); Mich. Acad. (pres., 00). Fresh water plankton; embryology of teleosts; breeding habits of fishes; warning coloration; sub-aquatic photography; breeding habits of Petromyzon, Catostomidae, Cyprinidae, Centrarchidae; evolution factors in relation to animal coloration.
- Reighley, H(enry) H(erbert)**, 2132 Indianola Ave., Columbus, Ohio. *Physics, Education*. Cherry Fork, Ohio, Nov. 18, 81. B.S., Ohio

- Northern, 02; A.B., Miami, 09; A.M., Ohio State, 13. Supt. schools, Ohio, 03-05; prin. high sch., 05-07; instr. Miami Acad., 07-09; physics, East High Sch., Columbus, 09-20, *prin., Highland Junior High Sch., and asst. to supt., pub. schools, 20-* Physical Soc; Ohio Acad; Ass. Math. and Sci. Teachers. The Weidemann effect in monel and nichrome wires; organization of the junior high school; the intelligence test in supervision; fine structure in infra-red radiation.
- Reilly, Prof. John F(ranklin)**, University of Iowa, Iowa City, Iowa. *Mathematics*. Summerside, P. E. I., Can., Dec. 11, 75. A.B., Dalhousie, 02; A.M., Harvard, 06; Ph.D., Iowa, 21. Instr. asst. prof. and *assoc. prof. math, Iowa, 06-* A.A.; Math. Soc; Math. Ass. (sec'y, Iowa sect, 20-); Am. Inst. Actuaries; Meteor. Soc; Iowa Acad. Interpolation.
- Reimann, Dr. Stanley P(hilip)**, Lankenau Hospital, Philadelphia, Pa. *Pathology*. Philadelphia, Oct. 13, 91. M.D., Pennsylvania, 13. Hanna research fellow path., Western Reserve, 16-17; *asst. prof. exp. path., Pennsylvania, 20-25, path., grad. sch., 20-*; chief laboratories, *Lankenau Hosp., 17-* Ass. Path. and Bact; Phila. Col. Physicians. Physiology; biochemistry.
- Reimer, Dr. Marie**, Barnard College, New York, N. Y. *Chemistry*. Northumberland, Pa. A.B., Vassar, 97; Berlin, 02-03; Ph.D., Bryn Mawr, 04. Instr. asst. prof. and *assoc. prof. and prof. chem., Barnard, Columbia, 03-* A.A.; Chem. Soc; Chem. Gesell. Addition reactions; action of light on unsaturated organic compounds.
- Reinhard, H(enry) J(onathan)**, Agricultural and Mechanical College of Texas, College Station, Texas. *Entomology*. Amherst, Ohio, Nov. 6, 92. B.S.A., Ohio State, 15. Asst. entomologist, Iowa Exp. Sta., 15-16; *entomologist, Texas Exp. Sta., 16-* Ass. Econ. Entom. Cotton, truck and forage crop insects; taxonomy of Muscoid flies.
- Reinke, Prof. E(dwin) E(ustace)**, 1702 Beechwood Ave, Nashville, Tenn. *Zoology*. Jamaica, W. I., June 27, 87. A.B., Lehigh, 08, A.M., 09; fellow, Princeton, 09-13, Ph.D., 13. Asst. biol., Lehigh, 08-09; Procter fellow, Princeton, 13-14; instr. *biol.*, Rice Inst., 14-15; asst. prof., *Vanderbilt, 15-17, assoc. prof., 17-22, prof., 22-* Research assoc., Carnegie Institution expeditions, Jamaica, 11, 12, Dry Tortugas Lab, 13-15. A.A.; Soc. Zool.; Ass. Anat; Tenn. Acad. Cytology; spermic dimorphism among the prosobranch snails; vertebrate embryology.
- Reinking, Dr. Otto A(ugust)**, United Fruit Co, Boston, Mass. *Plant pathology*. Madison, Wis., Feb. 11, 90. B.S.A., Wisconsin, 12, M.S., 15, Ph.D., 22. In charge dept. agr., Mid-Pacific Inst., Mills Sch., Honolulu, Hawaii, 12-13; instr., Colo. Agr. Col. and asst. botanist, Exp. Sta., 15-16; asst. prof. and prof. plant path., Philippines, and plant pathologist, Exp. Sta., 16-21; *pathologist, United Fruit Co, Cent. Amer. and research dept., Boston, 22-* Collaborator, U. S. Dept. Agr., China, Siam and the East; trop. committee, Nat. Research Council, 21. A.A.; Bot. Soc; Phytopath. Soc; Crop Protection Inst.
- Plant diseases in Colorado and the Philippines; bud rot of cocoanuts; diseases of citrus and tropical plants; diseases and disease resistance of the banana; tropical Fusaria; tropical Phytophthora.
- Reinsch, Prof. B(ernhard) P(aul)**, Southern Methodist University, Dallas, Texas. *Mathematics*. Malcom, Iowa, Nov. 22, 92. Iowa, 12-13; Mass. Inst. Tech., 15, 16; A.B., Illinois, 18, M.S., 20, B.S. (Archit), 21, fellow, 22-24, Ph.D., 24; Harvard, 20. Asst. math., Illinois, 18-22, instr., 24-27; *assoc. prof. in charge math., sch. eng., South. Methodist, 27-* Instr. sch. mil. aeronaut, Illinois, 18. Math. Soc; Math. Ass. Differential equations.
- Reisinger, Dr. E(mory) W(illiam)**, 1900 S St., N. W., Washington, D. C. *Anatomy, Medicine*. Washington, Sept. 16, 71. M.D., Georgetown, 93. *Demonstrator anat., Georgetown, 94-*, *lecturer osteol., 98-* Ass. Anat; Am. Med. Ass; Wash. Acad. Dermatitis due to quinin; aneurism of abdominal aorta; exfoliative dermatitis of neurotic origin; typhoid vaccination; cubeb poisoning.
- Reist, H(enry) G(erber)**, 1166 Avon Road, Schenectady, N. Y. *Electrical engineering*. Mt. Joy, Pa., May 27, 62. M.E., Lehigh, 86, hon. Eng.D., 22. Asst. supt., Harrisburg Foundry and Machine Co., 88-89; *Gen. Elec. Co., 89-99, chief designer, 99-* Lecturer, Union and Cornell. A.A.; Elec. Eng; Mech. Eng; East. N. Y. Soc. Eng. (past pres). Botany; electrical machinery.
- Reiter, Frank H(orace)**, Department of Public Instruction, Harrisburg, Pa. *Psychology*. Red Hill, Pa., Aug. 11, 83. Pa. State Nor. Sch., Kutztown; A.B., Muhlenberg; Lutheran Theol. Seminary; A.M., Gallaudet Col; Ph.D., Pennsylvania. Instr. Pa. Institution for Deaf, 09-14; instr. psychol., Pennsylvania, 14-20; psychologist, Board Educ., Newark, 20-25; *director special educ., Dept. Public Instruction, Harrisburg, 25-* Psychol. Ass; Ass. Study Feeble-Minded; Genetic Ass; Pa. Acad; Int. Council Study Exceptional Children.
- Rejall, Prof. Alfred E(rnst)**, 54 Thompsons Place, Brooklyn, N. Y. *Psychology*. Brooklyn, July 22, 85. Fellow, Columbia, A.B., 06, A.M., 07. Prof. psychol. and educ., N. Y. State Nor. Col., Albany, 09-12; asst. psychol., Columbia, 12-14; instr. dept. educ., Boston, 16-18; *super-visor immigrant educ., N. Y. State Dept. Educ., 18-* Psychologist, Sanit.C., 18-19. A.A.; Am. Acad. Practise in typewriting; individual differences in delinquent and normal children; literacy test for voters; word list for citizenship and voting.
- Remick, Prof. B(enjamin) L(uce)**, Kansas State Agricultural College, Manhattan, Kans. *Mathematics*. Athens, Maine, May 28, 67. Ph.B., Cornell (Iowa), 89, Ph.M., 92; Hopkins, 92-93; Chicago, 94-95, 96-98. Instr. *math.*, Cornell (Iowa), 89-92; Northwestern, 93-94; prof., Pacific, 95-96; assoc., Bradley Polytech, 98-00; *prof., Kansas Col., 00-* Teaching medal, Kansas Col., 25. Math. Soc; Math. Ass. Agricultural arithmetic; breeding properties of generalized Mendelian population.

- Remington, Dr. Lewis D.** 146 N. Primrose Ave, Monrovia, Calif. *Medicine*. Pontiac, Mich, Aug. 31, 69. M.D., California, 09. Prin, high sch, Mich, 90-02; instr. *diseases of chest*, Southern California, 12-15, lecturer, 15-16, asst. prof, 16-18; *Col. Med. Evangelists*, 18-20, *clin. prof.*, 20- Attending physician, Los Angeles Gen. Hosp, 12- A.A.; Am. Med. Ass; Los Angeles Co. Trudeau Soc. (pres, 23). Tuberculosis.
- Remington, Roe E(uene)**, Moorhead, Minn. *Biochemistry*. Northville, Mich, Sept. 3, 81. A.B, Colorado, 05; A.M, Minnesota, 24. Teacher, high sch, Colo, 05; instr. chem, Iowa, 05-07; asst. chemist, Armour and Co, Chicago, 07-08; food chemist, N. Dak. Food Commission, 08-18; manager, Remington Packing Co, 18-21; *assoc. prof. biochem. and quant. anal.*, N. Dak. Col, 21- A.A.; Chem. Soc.
- Remler, R(aymond) F(rederick)**, 2187 Lincoln Ave, Lakewood, Ohio. *Chemistry*. Beaver Falls, Pa, April 15, 98. Ch.B, Pittsburgh, 20. Ohio Exp. Sta, 20-21; U. S. Bur. Mines, Pittsburgh, 21; indust. fellow, Mellon Inst, 21-26; *Grasselli Chem. Co.*, 26- A.A.; Chem. Soc; Concrete Inst. Wood chemicals; curing of roads and streets.
- Renich, Dr. Mary E(mma)**, Augustana College, Sioux Falls, S. Dak. *Botany*. Woodstock, Ill, Nov. 15, 77. Grad, Ill. State Nor. Univ, 02; A.B, Illinois, 11, A.M, 12, Ph.D, 20. Teacher, high sch, 02-08; Mission Sch, Tenn, 08-10; instr, col, 12-15; asst. bot, Illinois, 16-20; asst. prof, Ill. State Nor. Univ, 20-24; asst. prof. *biol.*, Alma, 26-27; *head dept.*, Augustana, 27- A.A.; Bot. Soc; Ill. Acad. Plant physiology; growth.
- Renouf, Prof. Edward**, Monkton, Md. **Chemistry*. Lowville, N. Y, Sept. 4, 48. Heidelberg, 64; Jena, 65-66; Munich, 67-68, 77-80; Ph.D, Freiburg, 80. Asst. chem, Munich, 80-85; Hopkins, 85-86, *assoc.*, 86-88, *assoc. prof.*, 88-90, *collegiate prof.*, 90-11.
- Renshaw, Prof. R(aemer) R(ex)**, New York University, New York, N. Y. **Chemistry*. Sierraville, Calif, Aug. 31, 80. B.S, Oregon, 02, M.S, 03; fellow, Columbia, 04-05, Ph.D, 07. Instr. chem, Oregon, 02-04; Wesleyan, 07-12, *assoc. prof.*, 12-13; org. chem, Iowa Col, 13-19; asst. prof. chem. research, Harvard Med. Sch, 19-20; *prof. org. chem.*, N. Y. Univ, 24- Capt, C.W.S, 18-19. Chem. Soc. (v. pres, chairman, org. div, 24). Aminophthalic acids; cholin and its derivatives; bactericidal properties of lecithins and cholin; diglycerides; the action of heat on milk; hydrolytic decomposition of nitrobenzene; phosphates of 2,3-disterin; trimethylarsine selenid; preparation of zinc methyl; carbohydrates of the corn cob; dyes containing furane cycle; sulfur, phosphorus and arsenic analogues of cholin and betaines.
- Renshaw, Prof. Samuel**, 2156 Tuller St, Columbus, Ohio. *Psychology*. Sugar Grove, Ohio, March 10, 92. A.B, Ohio (Athens), 14; A.M, Ohio State, 23, Ph.D, 25. Instr. *psychol.*, Ohio (Athens), 14-15; prof, Rio Grande Col, 15-16; West. State Nor. Sch, Kalamazoo, Mich, 17-23; *asst. prof.*, Ohio State, 25- A.A.; *assoc.* Psychol. Ass; Mich. Acad. Experimental and comparative psychology; stability of bodily posture under conditions of rest and work; changes in hydrogen-ion concentration of the mixed saliva during rest, work and excitement; fundamental variables in human behavior.
- Rentschler, Dr. H(arvey) C(layton)**, Westinghouse Research Laboratory, Bloomfield, N. J. *Physics*. Hamburg, Pa, March 26, 81. A.B, Princeton, 03, fellow, 03-04, A.M, 04; Ph.D, Hopkins, 08. Instr. physics, Princeton, 04-05; Pa. State, 07; Missouri, 08-17; *in charge lamp research*, Westinghouse Lamp Co, 17- A.A.; Physical Soc; Optical Soc; Chem. Soc. Relative motion of ether and matter; dispersion of gases in ultraviolet; resonance and ionization of monatomic gases; arc phenomena in various gases; preparation and properties of ductile thorium and uranium.
- Resser, Dr. Cha(rie)s E(imer)**, U. S. National Museum, Washington, D. C. *Paleontology*. East Berlin, Pa, April 28, 89. Ph.D, George Washington, 17. Asst. curator *paleont.*, U. S. Nat. Museum, 15-23, *assoc. curator*, 23-; instr. *geol. and geog.*, George Washington, 15-23, *asst. prof.*, 23- A.A.; Paleont. Soc; Geol. Soc. Cambrian stratigraphy and paleontology.
- Ressler, Prof. Barton C. V.**, University of Tennessee, Knoxville, Tenn. *Zoology*. Shamokin, Pa, Dec. 6, 98. B.S, Lafayette, 22; M.S, Iowa, 23. Asst. *zool.*, Iowa Col, 22-23; *asst. prof.*, Tennessee, 23- A.A.; Ecol. Soc; Tenn. Acad; Iowa Acad. Invertebrate embryology; ecology of pond scum.
- Rettger, Prof. E(mest) W(illiam)**, Cornell University, Ithaca, N. Y. *Applied mechanics*. Huntingburg, Ind, April 6, 71. Grad, Ind. State Nor. Sch, 91; A.B, Indiana, 93; Ph.D, Clark, 98. Asst. prof. *applied mech.*, Cornell, 08-22, *prof.*, 22- A.A. Lie's theory of groups; applications of the theories of least work and of virtual work; the economic diameter of penstocks.
- Rettger, Prof. L(eo) F(rederick)**, 70 Ogden St, New Haven, Conn. *Bacteriology*. Huntingburg, Ind, March 17, 74. A.B, Indiana, 96, A.M, 97; Ph.D, Yale, 02; Strassburg, 03. Instr. *bacter.*, Sheffield Sci. Sch, Yale, 02-06, *asst. prof.*, 06-19, *prof.*, 19-; *non-res. bacteriologist in charge investigations of animal diseases*, Conn. Exp. Sta, 09- Research scholar, Rockefeller Inst, 01-03, fellow, 03-06; lecturer, Wesleyan, 17-18. Hygiene Referee Board. Consultant and bacteriologist, disinfection of army anti-gas mask, 17-18. A.A.; Soc. Bact. (councilor, 13, v. pres, 16, pres, 17); Soc. Exp. Biol; Pub. Health Ass; Am. Med. Ass. Chemical products of bacteria; milk and carbohydrate feeding; disinfection; bacterial variation, nutrition and metabolism; autolysis; anaerobes; infectious abortion of cattle; blackhead of turkeys; white diarrhea of chicks; bacteriology of eggs; putrefaction; bacterial classification; transformation of intestinal flora; carbon dioxide requirements; cellulose decomposition by bacteria; butyl alcohol production by bacteria.
- Rettger, Prof. L(ouis) J(ohn)**, 31 Gilbert Ave, Terre Haute, Ind. *Physiology*. Huntingburg, Ind, Oct. 19, 67. A.B, Hopkins, 88, Ph.D, 09; A.M, Indiana, 90. *Prof. physiol. and dean*

- science, *Ind. State Nor. Sch.*, 91- Fel. Ind. Acad. Coagulation of the blood; action of fluorid plasma.
- Rettger, R(obert) E(rnest)**, Sun Oil Co, Dallas, Texas. *Geology*. Terre Haute, Ind, April 6, 97. A.B, Wisconsin, 20, A.M, 22. Wis. Geol. Surv, 17-22, chief party, 19-20; asst. prof. geol, Cornell, 22-25; *geologist, Sun Oil Co*, 25- Bauxite exploration, Aluminum Co. of Amer, 23-24. Ass. Petrol. Geol; Min. and Metal. Eng. Bauxite deposits of southeastern Alabama; contemporaneous deformation of unconsolidated sediments.
- Reuter, Dr. Raymond**, Atlantic Refining Company, 3144 Passyunk Ave, Philadelphia, Pa. *Organic chemistry*. Rochester, N. Y, Jan. 21, 00. B.S, Rochester, 22; M.S, Mass. Inst. Tech, 23, Ph.D, 25. *Process div, Atlantic Ref. Co.* Summers, Arthur D. Little, Inc, 23. Chem. Soc. Rearrangements and cracking of the pentenes.
- Reuter Dahl, Dr. Arvid**, 148 Summit Ave, St. Paul, Minn. *Physics, Engineering*. Karlstad, Sweden, Feb. 15, 76. B.S, Brown, 97, A.M, 99; hon. D.Sc, Acad. of Nations, 23. Instr. math, Brown, 97; prof. physics, Colby, 04-05; asst. city engineer, Spokane, Wash, 05-09; pres, Board Pub. Works, 09-10; consulting engineer, 10-15; prof. theoret. and applied mech, Polytech. Inst, Kans, 15-17; dean dept. eng. and archit, Col. St. Thomas, 18-22; *pres, Ramsey Inst. Tech*, 22- A.A; Math. Ass. (past pres, Minn. sect); Mech. Eng. (pres, St. Paul sect); Minn. Fed. Archit. and Eng. Soc. (past v. pres); St. Paul Eng. Club Keplerbund; Swedish Physical Soc. Structure of the atom; celestial mechanics; the foundations of science; cosmological theories.
- Revell, Prof. Daniel G(raisberry)**, Edmonton, Alta, Can. *Anatomy, Criminology*. Ingersoll, Ont, Aug. 15, 69. B.A, Toronto, 94, M.B, 00; fellow, Chicago, 00-02. Teacher, high schools, Ont, 89-91, 94-97; instr. anat, Chicago, 02-07; provincial pathologist, Alta, 07-14; *prof. anat, Alberta*, 14- Med. Council Can; Can. Committee Mental Hygiene. A.A; Ass. Anat; Can. Med. Ass; Alta. Med. Ass. (pres). Pancreatic ducts in dog; human gastric mucosa; questioned documents; identification; handwriting; sweat glands and dermal papillae.
- Rexroad, Dr. Carl N(ewton)**, 28 Alhambra Court, Columbus, Ohio. *Psychology*. Darlow, Kans, Sept. 3, 96. A.B, McPherson Col, 18; B.D, Yale, 22, Ph.D, 24. Prof. chem, LaVerne Col, 18-19; asst. instr. *psychol*, Yale, 22-23; *instr, Ohio State*, 23- Assoc. Psychol. Ass. Experimental and comparative psychology.
- Reyerson, Dr. L(loyd) H(ilton)**, University of Minnesota, Minneapolis, Minn. *Chemistry*. Dawson, Minn, May 1, 93. A.B, Carleton Col, 15; A.M, Illinois, 17; Ph.D, Hopkins, 20. Instr. *chem, Minnesota*, 19-21, asst. prof, 21-26, *assoc. prof*, 26- Guggenheim Mem. fellow, 27-28. Second lieut, C.W.S, 18-19. A.A; Chem. Soc; Electrochem. Soc. Colloid chemistry; adsorption; catalysis.
- Reymert, Prof. Martin L(uther)**, Wittenberg College, Springfield, Ohio. *Psychology*. Holmestrand, Norway, Nov. 10, 83. A.B, Oslo, 03, A.M, 06; fellow, Clark, 16-17, Ph.D, 17. Fellow psychol, Iowa, 18-19, research assoc, child welfare research sta, 19-20; asst. prof. psychol, Oslo, 20-25; *prof. exp. psychol, head dept. and director psychol. lab, Wittenberg Col*, 25- Ed-in-chief, 'Scandinavian Sci. Review.' Scandinavian collaborator, 'Psychol. Abstracts.' Norwegian delegate, Second Int. Cong. for Moral Training, The Hague, 12. A.A. Experimental and child psychology.
- Reynders, John V(an) W(icheren)**, 120 Broadway, New York, N. Y. *Metallurgy, Engineering*. Hoboken, N. J, Dec. 17, 66. C.E, Rensselaer, 86, hon. D.E, 25. Managing head and organizer bridge building, Pa. Steel Co, 91-06; v. pres. in charge, 06-16; *consultant and adviser steel properties, companies*, 16- Div. eng. and indust. research, Nat. Research Council. Min. and Metal. Eng. (pres, 25); Engineers Soc. Pa. (past pres). Raw materials and manufacturing of steel and iron.
- Reynolds, Bruce D(odson)**, University of Virginia, University, Va. *Zoology*. Long Island, Va, June 28, 94. B.S, Virginia, 20; research fellow, Hopkins, 21-23, Sc.D, 23. Instr. animal biol, Iowa, 20-21; asst. prof. zool, Arkansas, 23-24; *Virginia*, 24-26, *assoc. prof. biol*, 26- A.A; Soc. Parasitol; Va. Acad. Physiology and genetics of Protozoa; life histories of Sarcodina; preferential feeding habits of Anopheles mosquitoes.
- Reynolds, Prof. C(larence) N(ewton), Jr**, 317 Brockway Ave, Morgantown, W. Va. *Mathematics*. Nashua, N. H, Feb. 6, 90. Ph.B, Brown, 13, A.M, 14; Ph.D, Harvard, 19. Instr. *math*, Wesleyan, 16-20; Dartmouth, 20-21; asst. prof, *West Virginia*, 21-25, *assoc. prof*, 25- Math. Soc; Math. Ass. Linear differential equations; map coloring; relativity; analysis situs.
- Reynolds, Prof. Ellen A(nn)**, Virginia Polytechnic Institute, Blacksburg, Va. *Home economics*. Lexington, Ky. B.S, Kentucky; A.M, Chicago, 19, Ph.D, 24. Instr. and head dept. science, high sch, Ky, 07-15; asst. prof, Kentucky, 15-18; Kansas Col, 19-20; Cornell, 20-24; *research prof, Va. Polytech*, 25- Housing investigator, Woman's Munic. League, Boston, 23; Red Cross dietitian. Supervisor, States Relation Service, 18. A.A; Home Econ. Ass. (chairman, educ. sect, 22); Pub. Health Ass. Hygiene of the home; sanitary aspects of food legislation; food costs and dietary habits.
- Reynolds, Prof. Ernest S(haw)**, Agricultural College, N. Dak. *Plant physiology*. Glendale, Mont, Dec. 7, 84. Ph.B, A.M, Brown, 07; fellow, Illinois, 07-09, Ph.D, 09. Instr. and asst. prof. *bot*, Tennessee, 09-12; *assoc. prof. and prof, N. Dak. Col*, 12- Summers, special agent, office forest path, U. S. Dept. Agr, 11, 17, 19; Minn. Dept. Forestry, 16. Fellow, Boyce Thompson Inst, 26-27. A.A; Bot. Soc; Soc. Plant Physiol; Phytopath. Soc; New Eng. Bot. Club. Nature of parasitism and resistance; nutritional physiology of fungi.

- Reynolds, Floyd W(ilson)**, 171 Madison Ave, New York, N. Y. *Chemistry*. Guyandotte, W. Va., June 18, 91. B.S., Cent. Wesleyan, 11; M.S., Central Col. (Mo.), 14-15. Instr. chem., Morris Harvey, 14-18; junior chemist, Bur. Standards, 18-19; instr. chem., Hopkins, 19-20; assoc. chemist, bur. chem., U. S. Dept. Agr., 20-26; *research chemist*, *Wallerstein Laboratories*, 26- Chem. Soc.
- Reynolds, Dr. Frederick G**, College of the City of New York, New York, N. Y. *Mathematics*. New York, Feb. 2, 72. B.S., Col. City of N. Y., 91; LL.B., N. Y. Univ., 96, M.S., 99, Sc.D., 04. *Prof. math*, *Col. City of N. Y.*, 91- A.A.; Math. Soc. Viscosity coefficient of air.
- Reynolds, Herbert B(yron)**, 600 W. 59th St, New York, N. Y. *Mechanical engineering*. Baltimore, Md, April 8, 88. M.E., Cornell, 11, M.M.E., 15. Apprentice, Westinghouse Elec. and Mfg. Co, 12; turbine tester, Gen. Elec. Co, 13; asst. engineer, Interborough Rapid Transit Co, 13-17; mech. asst. to supt. motive power, United Railways and Elec. Co, Baltimore, 17-18; fuel engineer, U. S. Bur. Mines, 18; *mech. research engineer*, *Interborough Rapid Transit Co*, 18- Mech. Eng. (chairman, power div, 26); Elec. Eng; Nat. Elec. Light Ass. The flow of air and steam through orifices.
- Reynolds, Prof. Jos(eph) B(enson)**, 721 W. Broad St, Bethlehem, Pa. *Mathematics*. New Castle, Pa., May 17, 81. A.B., Lehigh, 07, A.M., 10; Ph.D., Moravian Col., 19. Instr. math. and astron., *Lehigh*, 07-13, asst. prof., 13-21, assoc. prof., 21-27, acting head dept., 24-25, *prof. math. and theoret. mech.*, 27- A.A.; Math. Ass; Eng. Educ; Pa. Acad; Pa. State Educ. Ass. Elements of minor planets; applications of vector analysis; applied mathematics.
- Reynolds, Dr. M(yron) H(erbert)**, University Farm, St. Paul, Minn. *Veterinary science*. Wheaton, Ill., Nov. 5, 65. B.S., Iowa Col., 86, D.V.M., 89; Ph.G., Iowa Col. Pharmacy, 91; M.D., Iowa Col. Physicians and Surg., 91. Veterinarian, Minn. State Farmers Inst., 91-93; *prof. vet. med. and surg.*, *Minnesota*, 93-, chief vet. div., Exp. Sta., 93-17. Minn. Vet. Examining Board, 98-10; Minn. State Live Stock Sanit. Board, 03-22; sec'y, Int. Commission Control Bovine Tuber. Am. Med. Ass; Vet. Med. Ass; Live Stock Sanit. Ass. Live stock sanitation; stable ventilation; tuberculosis; tuberculin; hemorrhagic septicemia; hog cholera; hypodermic cathartics; veterinary studies; microbiology.
- Reynolds, Walter F(ord)**, 848 W. 37th St, Baltimore, Md. *Geodesy*. Baltimore, May 25, 80. A.B., Hopkins, 02. Instr. math., Baltimore City Col., 05-06; geod. computer, U. S. Coast and Geod. Surv., 07-08; Int. Can. Boundary Commission, 08-11; *U. S. Coast and Geod. Surv.*, 11-16, chief computer, *div. geod.*, 17-24, *chief sect. triangulation*, 24- Wash. Philos. Soc. Triangulation.
- Reznikoff, Dr. Paul**, 1379 Union St, Brooklyn, N. Y. *Biology, Medicine*. Brooklyn, N. Y., Feb. 1, 96. B.S., New York, 16; M.D., Cornell, 20. Teaching fellow med., Harvard Med. Sch., 22-23; Nat. Research Council fellow, 22-24; asst. physiol. sch. pub. health, Harvard, 22-24; asst. instr. med., *med. col.*, *Cornell*, 24-25, *assoc. anat.*, 25-; *adjunct asst. visiting physician*, *Bellevue Hosp.*, 24- Soc. Exp. Biol; Soc. Clin. Invest; Physiol. Soc; Harvey Soc; N. Y. Acad. Med. The specific gravity of red blood cells; lead poisoning; the effect of lead on muscle; microdissection and injection of cells; medical education.
- Rhine, Dr. J(oseph) B(anks)**, West Virginia University, Morgantown, W. Va. *Plant physiology*. Waterloo, Pa., Sept. 29, 95. Ohio Northern; Wooster Col; B.S., Chicago, 22, M.S., 23, Ph.D., 25. Asst. plant physiologist, Boyce Thompson Inst., 23-24; *instr. plant physiol.*, *West Virginia*, 24- A.A.; Soc. Plant Physiol; Bot. Soc; Soc. Psychical Research. Smoke injury; translocation of fats in plants; ascent of sap; catalase.
- Rhinehart, Prof. D(armon) A(rtelle)**, 1624 W. 21st St, Little Rock, Ark. *Anatomy*. Pulaski, Ind., June 5, 87. A.B., Indiana, 10, fellow, 10-11, A.M., 12, M.D., 13. Asst. anat., Indiana, 08-10, assoc., 11-12, instr., 13-14; assoc. prof., *Arkansas*, 14-17, *prof.*, 17-19, *applied anat.*, 20- Ass. Anat. Nerve supply of the thyroid and parathyroids; facial nerve of the Albino mouse; congenital anomalies of the stomach.
- Rhoads, Dr. Arthur S(tevens)**, Citrus Blight Laboratory, Cocoa, Fla. *Plant pathology*. Philadelphia, Pa., June 10, 93. B.S., Pa. State, 14, M.S., 15; Ph.D., Syracuse, 17. Asst. forest bot. and path., N. Y. State Col. Forestry, Syracuse, 15-17; asst. forest path., office forest path. investigations, bur. plant indust., U. S. Dept. Agr., 17-21, office cereal disease investigations, 21-22, office fruit disease investigations, 22; pathologist, Mo. State Fruit Exp. Sta., 22-23; *asst. plant pathologist*, *Fla. Exp. Sta.*, 23- Summer, forest asst., U. S. Forest Service, 14. Phytopath. Soc; Fla. Hort. Soc. Wood rotting fungi; wood decay; forest tree, deciduous fruit, grape and citrus diseases.
- Rhoads, Col. Thomas L(eidy)**, Surgeon General's Office, Washington, D. C. *Medicine*. Boyertown, Pa., April 10, 70. A.B., 91, M.D., Jefferson Med. Col., 93. Asst. demonstrator surg. path., Jefferson Med. Col., 94-98; asst. surgeon, U.S.N., 98; *med. officer*, *U.S.A.*, 00- Chief surgeon, first army, U.S.A., 18-19. Col. Surg; Ass. Mil. Surg. The dysenteries; liver abscess; lues; tracheotomy; appendicitis and adnexal disease; fractures; principles of evacuation of wounded; medical tactics.
- Rhodes, Dr. Fred H(ofmann)**, Cornell University, Ithaca, N. Y. *Chemistry*. Rochester, Ind., June 30, 89. A.B., Wabash, 10; Ph.D., Cornell, 14. Asst. English, Wabash, 09-10, math, 10; qual. anal., Cornell, 10-12, research asst., 12-14; instr. chem., Montana, 14-15; Cornell, 15-17; director research, chem. dept., Barret Co, 17-20; *prof. indust. chem.*, *Cornell*, 20- Chem. Soc; Chem. Eng. Industrial chemistry.
- Rhodes, Frederick Leland**, 195 Broadway, New York, N. Y. *Engineering*. Boston, Mass., 70. B.S., Mass. Inst. Tech., 92. Bell Telephone Co, 92-09; outside plant engineer, *Am. Tel. and Tel. Co.*, 09-19, *outside plant develop. engineer*, 19- Fel. Elec. Eng. Telephony; materials, ap-

paratus and methods used in outside plant of telephone systems.

Rhodes, Prof. Robert C(linton), Emory University, Ga. *Biology*. Magnolia, Ark, Oct. 12, 87. A.B. Henderson, 06; Vanderbilt, 07, A.M. 08; Ph.D. California, 17. Instr. Mississippi, 08-10, asst. prof. 10-12; prof. science, Henderson-Brown, 12-15, v. pres. and dean, 12-14; asst. zool. California, 15-17; *prof. biol.* Emory, 18- A.A.; Soc. Zool.; Soc. Parasitol.; West. Soc. Nat.; Ga. Acad. (councilor). Protozoology; algology; binary fission in Collodictyon triculium; Heteronema acus; the Euglenoidina; flagellates.

Rhodes, W(illiam) W(arren), E. I. du Pont de Nemours and Co, Inc, Wilmington, Del. *Chemistry*. Chester, Pa, Jan. 27, 88. B.S. Pennsylvania, 10. Chemist, Security Cement and Lime Co, W. Va, 10-11; chemist and geologist, Blair Limestone Co, 11-12; Woodville Lime and Cement Co, Ohio, 11-13; engineer, Wash. Bldg. Lime Co, Ohio, 13, manager, 14; chem. dept. E. I. du Pont de Nemours and Co, 17-22, *dyestuffs dept.*, 22-, *sales manager*, agr. and *miscellaneous chemicals*, 26- Pres. Del. Min. and Explor. Co, Mex, 25-26. A.A.; Chem. Soc.; Chem. Eng.; Soc. Test. Mat.

Ricard, Prof. J(erome) (Sixtus), University of Santa Clara, Santa Clara, Calif. *Astronomy*. Plaisians, France, Jan. 21, 50. France; Turin; Woodstock (Md); Santa Clara. *Prof. math.* Santa Clara, 78-11, *moral philos.* 79-, *director observatory*, 00- Trustee, Santa Clara. Ed. 'Sunspot.' A.A.; Seismol. Soc.; Pacific Astron. Soc.; Soc. astron. de France; Soc. Belge d'Astron.; Soc. Astron. de Mex. Long range forecasting by sunspots.

Rice, Arthur L(ouis), 53 W. Jackson Boulevard, Chicago, Ill. *Electrical and steam engineering*. Barre, Mass, May 14, 70. B.S.(M.E), Worcester, 91, B.S.(E.E), 93; fellow, Cornell, 95-96, M.M.E, 96. Instr. mech. eng, Worcester, 92-95; head dept. applied elec, Pratt Inst, 97-01; assoc. ed, 'Engineer,' 02-03, ed, 03-08; 'Practical Engineer,' 08-17; 'Power Plant Eng,' 17- A.A.; Mech. Eng. (v. pres, 22); West. Soc. Eng. Cylinder condensation in steam engines; liquid air phenomena; the economic limits of superheating of steam; steam pumps.

Rice, Calvin W(insor), 29 W. 39th St, New York, N. Y. *Electrical engineering*. Winchester, Mass, Nov. 4, 68. B.S. Mass. Inst. Tech, 90. Asst. engineer, Thomson-Houston Elec. Co, 90-93; Gen. Elec. Co, 93-95, dist. engineer, Cincinnati, 95; engineer, Anaconda Copper Mining Co, 98-99; N. Y. Edison Co, 00-02; second v. pres, Nernst Lamp Co, 03; engineer, Gen. Elec. Co, N. Y., 03-06; *sec'y*, Am. Soc. Mech. Eng, 06- *Sec'y*, Museums of the Peaceful Arts. V. pres, 'Am. Year Book.' Jury awards, Panama-Pacific Expos, 15; gold medal, Cent. Expos, Brazil, 22. Elec. Eng. (v. pres, 03-05); Mech. Eng. (sec'y, 06-); hon. mem. Safety Eng; British Inst. Elec. Eng; hon. mem. Holland Inst. Eng; hon. mem. Ass. Mem. Nat. Eng. Soc. Argentina; cor. mem. del Cent. Ing. Argentina; hon. mem. Club de Eng. Rio de Janeiro; cor. mem. Inst. de Ing. Chile. High

voltage phenomena; long distance electrical transmission of power.

Rice, Chester W(illiams), 3 Lowell Road, Schenectady, N. Y. *Engineering*. Lynn, Mass, Dec. 16, 88. B.S. Harvard, 10, M.E.E, 11. *Research engineer, research lab*, Gen. Elec. Co, 11- A.A.; Elec. Eng.; Physical Soc; Radio Eng; Chem. Soc; Math. Soc. Electrostatic problems; radio reception; free and forced convection of heat; loud speakers; windage losses; refraction of short radio waves.

Rice, Dr. David Edgar, 316 Broadway, New York, N. Y. *Psychology*. Chambersburg, Pa, Oct. 13, 75. A.B. Pa. State, 96, A.M. 99; Ph.D. Columbia, 12. Exec. sec'y, Pratt Inst, 10-18; educ. specialist, Gen. Staff, U. S. War Dept, 19-22; *director vocational advisement*, U. S. Veterans Bur, 22-24; *sales training*, Royal Typewriter Co, 25- Psychol. Corp. A.A.; Psychol. Ass; Indust. Eng; Management Ass. Education; measurement and rating of educational and vocational proficiency.

Rice, Prof. Edward L(oranus), 265 N. Sandusky St, Delaware, Ohio. *Zoology*. Middletown, Conn, March 18, 71. A.B. Wesleyan, 92; Ph.D. Munich, 95. Asst. zool. Wesleyan, 96; *prof.* Allegheny, 96-98; *Ohio Wesleyan*, 98- Instr. lake lab, Ohio State, 05, 06, 08, 09, 12. A.A. (v. pres, F, 23); Soc. Nat; Soc. Zool; Ass. Anat; Ohio Acad. (pres, 06, sec'y, 12-22). Gill structure of lamellibranchs; comparative embryology of vertebrate skull.

Rice, E(dwin) W(ilbur), Jr, 102 Lenox Road, Schenectady, N. Y. *Electrical engineering*. La Crosse, Wis, May 6, 62. A.M. Cent. High Sch. Phila, 85; hon. A.M. Harvard, 03; hon. Sc.D. Union, 06, Pennsylvania, 24; D.Eng. Rensselaer, 17. Supt. and tech. director, Thomson-Houston Elec. Co, 83-94; v. pres, Gen. Elec. Co, 94-13, pres, 13-23, *hon. chairman board directors*, 23- Nat. Research Council; Eng. Foundation; Eng. Council. Chevalier, Légion d'honneur; Order of the Rising Sun with Cordon, Japan, third class. A.A.; Elec. Eng. (pres, 17); Civil Eng; Illum. Eng. Soc; British Inst. Elec. Eng; British Inst. Civil Eng; British Iron and Steel Inst.

Rice, Prof. F(rancis) O(wen), Johns Hopkins University, Baltimore, Md. *Physical chemistry*. Liverpool, Eng, May 20, 90. B.Sc. Liverpool, 11, M.Sc, 12, 1851 Exhib. scholar, 14, D.Sc, 16; Princeton, 19. Instr. chem, N. Y. Univ, 19-20, asst. prof. 20-24; assoc. Hopkins, 24-26, *assoc. prof.*, 26- Chem. Soc. Reaction kinetics; photochemistry; explosives; catalysis.

Rice, Prof. Frank E(lmore), North Carolina State College, Raleigh, N. C. *Chemistry*. Cuba, Ind, July 31, 87. A.B. Indiana, 09; Ph.D. Cornell, 14. Asst. chem, Indiana, 08-09; asst. instr. and asst. prof, Cornell, 09-24; *prof.* N. C. State, 24- Summers, asst. chemist, Am. Steel and Wire Co, 08, N. Y. Exp. Sta, Geneva, 10-12; consulting chemist, Nestle's Food Co, 17-24. A.A.; Chem. Soc. (chairman, N. C. sect, 25); N. C. Acad. Biochemistry; agricultural, food and dairy chemistry.

- Rice, George S(amuel)**, U. S. Bureau of Mines, Washington, D. C. *Mining engineering*. Claremont, N. H., Sept. 8, 66. E.M., Columbia, 87. Mining engineer, 87-97; consulting mining engineer, Chicago, 97-08; mining engineer, U. S. Geol. Surv., 08-11; *chief mining engineer, U. S. Bur. Mines, 11-*, *chairman mine safety board, 24-* In charge party engineers to investigate European mines, 11; Can. Commission on Turtle Mountain rock slide, 11; organizer and sec'y, Int. Conf. Mine Exp. Stations, 12. Commission Post-war Mining and Indust. Conditions, France and Belgium, 19; organizer and liaison officer, safety in mines research, cooperation U. S. Bur. Mines and British Mines Dept, 24- A.A; Min. Eng; Min. and Metal. Inst. (chairman, committee on mine ventilation, sec'y, committee on ground movement and subsidence); Wash. Acad; hon. mem. British Inst. Min. Eng. Prevention of coal mine explosions; methods of mining coal for greater safety and waste prevention; ground movement and subsidence from mining.
- Rice, Grace Potter (Mrs. W. M.)**, 41 Washington Ave, Stamford, Conn. *Organic chemistry*. Stamford, July 18, 82. A.B., Smith, 04; A.M., Columbia, 05; Ph.D., Bryn Mawr, 10. Asst. chem, Smith, 05-06; *Barnard, 06-08*, instr, 18-27, *asst. prof, 27-* Unsaturated organic compounds.
- Rice, Commander H(erbert) L(ouis)**, U. S. Naval Academy, Annapolis, Md. *Mathematics*. Chicago, Ill., Dec. 18, 69. Michigan, 88-91; B.S., George Washington, 93, M.S., 94. Asst. 'Nautical Almanac' Office, 92-02; asst. astronomer, U. S. Naval Observatory, 02-07; *prof. math. U. S. Naval Acad, 07-* Instr, George Washington, 94-97, *prof, 97-04*.
- Rice, Prof. James E(dward)**, Trumansburg, N. Y. *Poultry husbandry*. Aurora, Ill., March 12, 65. B.S.A., Cornell, 90. Asst. prof. *poultry husbandry, Cornell, 03-06*, *prof, 06-* Poultry Sci. Ass; Poultry Ass. (chairman, committee on promotion and protection of poultry indust); Int. Ass. Poultry Husbandry.
- Rice, Dr. John L(evi)**, 644 Orange St, New Haven, Conn. *Public health*. Granby, Conn., Dec. 2, 87. B.S., Wesleyan, 21; M.D., Hopkins, 17. Field and state director, Int. Health Board, Rockefeller Foundation, 17-19, 21-23; health officer, Ky., 19-20; dist. health officer, N. Y. State Dept. Health, 20-21; *health officer, New Haven, 23-*; *lecturer, sch. med, Yale, 23-* Pub. Health Ass; Am. Med. Ass; Conn. Pub. Health Ass. Bacteriology; preventive medicine.
- Rice, L(epine) H(all)**, Massachusetts Institute of Technology, Cambridge, Mass. *Mathematics*. Lowell, Mass., Feb. 22, 70. A.B., Syracuse, 92; Harvard, 15-17. Instr. and asst. prof. *math, Syracuse, 07-15*; instr, Tufts, 17-19; *instr, Mass. Inst. Tech, 19-* A.A; Math. Soc; Eng. Educ; Circolo Mat. di Palermo. Determinants of higher class; polyadics; theory of matrices.
- Rice, Mabel A(gnes)**, Wheaton College, Norton, Mass. *Phytopathology*. Pittsfield, Mass., 75. A.B., Smith, 98; A.M., Columbia, 21, Ph.D., 27. Teacher, high sch, Mass; *biol, Columbia, 20-22*; asst. prof, *Wheaton, 22-25*, *assoc. prof, 25-* A.A; Bot. Soc; Torrey Bot. Club; Boston Soc. Nat. Hist; Boston Mycol. Soc. Uredineae.
- Rice, Prof. M(artin) E(verett)**, University of Kansas, Lawrence, Kans. *Physics*. Westfield, N. Y., Nov. 19, 70. B.S., Kansas, 91, M.S., 93; Chicago, 94, 96, Yerkes Observatory, 98. Instr. physics and math, *Kansas, 92-96*, asst. prof, 96-98, *physics and elec. eng, 98-06*, *assoc. prof, 06-*, acting head dept, 07-09. A.A; Physical Soc; Elec. Eng. The inverse of conics and conicoids from the center; effect of magnetism on spectral lines; alternating currents in Wheatstone's bridge; the ballistic electro-dynamometer as an instrument for testing iron.
- Rice, T(homas) D(onnely)**, U. S. Department of Agriculture, Washington, D. C. *Soils*. Arredondo, Fla., April 16, 78. Ph.B., North Carolina, 00. Asst. geol., North Carolina, 00-01; *soil scientist, bur. soils, U. S. Dept. Agr, 01-* Assoc. ed, 'Bot. Abstracts.' Agr. surv. exped, Alaska, 14. Soil Surv. Ass; Soc. Agron; Int. Soc. Soil Sci. Prairie soils of the United States.
- Rice, Prof. W(illiam) North**, Wesleyan University, Middletown, Conn. **Geology*. Marblehead, Mass., Nov. 21, 45. A.B., Wesleyan, 65; Ph.D., Yale, 67; Berlin, 67-68; LL.D., Syracuse, 86; Wesleyan, 15. Prof. geol. and nat. hist, *Wesleyan, 68-84*, *geol, 84-18*, *emer. prof, 18-*, acting pres, 07, 08-09, 18. Asst. geologist, U. S. Geol. Surv., 91-92; lecturer, Colgate, 97-00; supt., Conn. Geol. and Nat. Hist. Surv., 03-16. A.A. (v. pres, 05); Soc. Nat. (pres, 91); Geol. Soc. (v. pres, 11); Ass. Geog; Am. Acad; Conn. Acad. Geology of Bermuda; geology of the Connecticut Valley; relations of science and religion.
- Rich, Dr. Arnold R(ice)**, Johns Hopkins Hospital, Baltimore, Md. *Pathology*. Birmingham, Ala., March 28, 93. A.B., Virginia, 14, A.M., 15; M.D., Hopkins, 19. Asst. *path, Hopkins, 19-20*, instr, 20-21, *assoc, 21-23*, *assoc. prof, 23-* Res. pathologist, Hopkins Hosp, 20-26. Soc. Exp. Path. Pathological anatomy and physiology; blood coagulation; the palatal nerves and muscles; bile pigment metabolism; tuberculosis; capillaries; adrenal glands.
- Rich, Edward D(unbar)**, Michigan State Department of Health, Lansing, Mich. *Sanitation*. Marcellus, N. Y., Nov. 21, 68. C.E., Rensselaer, 95. Leveler, N. Y. State Canals, 96-98; asst. city engineer, Utica, 98-03; city engineer, Summit, N. J., 03-07; locating engineer, Rome and North. Ry., 07; deputy city engineer, Utica, 08; asst. prof. civil eng, Michigan, 08-13; *director bur. eng, Mich. State Dept. Health, 13-* Civil Eng; Pub. Health Ass; Mich. Eng. Soc. (pres, 18). Leakage into sanitary sewers; sewage disposal; tannery waste disposal; garbage collection and disposal; water filtration and chlorination.
- Rich, Prof. Gilbert J(oseph)**, 5736 Drexel Ave, Chicago, Ill. *Psychology*. New York, N. Y., Oct. 16, 93. A.B., A.M., Cornell, 15, Ph.D., 17. Instr. psychol., Hobart, 17-18; asst. prof., Drake, 19-20; instr., Pittsburgh, 20-24; *research psychologist, Inst. for Juvenile Research, Chicago, 26-* Psychol. examiner, U.S.A., 18-19. A.A; Psychol. Ass; Sociol. Soc. Experimental

psychology; audition; psycho-physics; personality traits.

Rich, Dr. John L(yon), Ottawa, Kans. *Geology*. Hobart, N. Y., Dec. 1, 84. A.B., Cornell, 06, fellow, 07-08, A.M., 07, Ph.D., 11. Asst. geol., Cornell, 06-07; geol. aid, U. S. Geol. Surv., 07-08, junior geologist, 09-18; instr. geol., Cornell, 09-11; Illinois, 11-18; oil geologist, 19-Summers, U. S. Geol. Surv., Ill. Geol. Surv. and N. Y. State Geol. Surv. Asst., Tarr exped, Alaska, 06. Capt., U.S.A., 18-19. A.A.; Geol. Soc.; Ass. Petrol. Geol. (ed., 'Bul,' 26-); Am. Geog. Soc.; Ass. Geog.; Min. Eng. Oil geology; methods of increasing recovery from oil sands; physiography of arid lands; glacial geology.

Rich, Stephen G(ottheil), 450 Bloomfield Ave, Verona, N. J. *Entomology*. New York, N. Y., Jan. 3, 90. B.S., N. Y. Univ., 14, Ph.D., 23; A.M., Cornell, 15. Instr. biol., Amanzimtoti Inst. Nor. Sch., Natal, S. Africa, 16-18; prof. biol. and chem., Concord Col., 21-22; instr., N. Y. Univ., 22-23; *educ. research*, 22- Entom. Soc.; N. Y. Entom. Soc.; S. African A. A. Anatomy of Odonata.

Rich, Willis H(orton), Stanford University, Calif. *Ichthyology*. Galesburg, Ill., March 15, 85. B.S., Lombard, 05; A.B., Stanford, 09, A.M., 18, Ph.D., 24. Instr. zool. and physiol., Stanford, 08-18; field asst., *Bur. Fisheries*, 18-22, in charge div. inquiry, 22-26, *chief investigator*, salmon fisheries, 26- Fish culture worker, Calif. Fish and Game Commission, 10-13. A.A.; Fisheries Soc.; Soc. Zool.; West. Soc. Nat.; Pacific Fisheries Soc.; Calif. Acad.; Wash. Biol. Soc. Life histories and development of Salmonidae.

Richards, Dr. Alfred N(ewton), University of Pennsylvania, Philadelphia, Pa. **Pharmacology*. Stamford, N. Y., March 22, 76. A.B., Yale, 97, A.M., 99; Ph.D., Columbia, 01; hon. Sc.D., Pennsylvania, 25. Asst. physiol. chem., Columbia, 98-02, tutor, 02-04, instr. *pharmacol.*, 04-08; *prof.*, Northwestern, 08-10; *Pennsylvania*, 10- Research scholar, Rockefeller Inst., 01-04; Herter lecturer, Univ. and Bellevue Hosp. Med. Col., 26. Ed. board, 'Jour. Biol. Chem'; assoc. ed., 'Jour. Pharmacol. and Exp. Therapeut'; sect. ed., 'Chem. Abstracts.' Attached to staff, British Med. Research Committee, 17-18; major, Sanit.C, and in charge physiol. lab., C.W.S., Chaumont, France, 18. Nat. Acad.; Soc. Pharmacol.; Am. Physicians; Physiol. Soc.; Soc. Exp. Biol.; Soc. Biol. Chem.; Harvey Soc.; Phila. Physiol. Soc. Chemistry of connective tissues; salivary digestion; adrenalin glycosuria; toxicity of indol; action of cyanids; delayed chloroform poisoning; adrenalin secretion; kidney function; action of histamin and other dilators; shock.

Richards, Arthur, City Hall, Altoona, Pa. *Engineering*. Johnstown, Pa., March 16, 83. C.E., Ohio State, 04. City engineer's dept, Columbus, Ohio, 04-06; construction, Panama Canal, U. S. Govt, 06-12; designing engineer, Water Bur., Schenectady, N. Y., 13; consulting engineer, 14-17; bridge engineer, Franklin Co., Ohio, 18-22; city engineer, Chillicothe, 23-25; *city planning engineer*, Altoona, 26- Mech.

Eng; Civil Eng; Ass. Eng. (nat. director, 24). Services and salaries of engineers.

Richards, Prof. A(ute), University of Oklahoma, Norman, Okla. *Zoology*. Tekamah, Nebr., Oct. 31, 85. A.B., Kansas, 08; A.M., Wisconsin, 09; fellow, Princeton, 09-11, Ph.D., 11. Teacher, high sch., Kans., 07-08; asst. zool., Wisconsin, 08-09; instr., Texas, 11-16, adjunct prof., 16; *prof.*, Wabash, 16-20; *Oklahoma*, 20- A.A.; Soc. Nat.; Soc. Zool.; Micros. Soc.; Ind. Acad.; Okla. Acad. (sec'y). Cellular physiology; cytology; comparative embryology.

Richards, Prof. B(ert) L(orin), Utah Experiment Station, Logan, Utah. *Botany, Plant pathology*. Farmington, Utah. B.S., 14; M.S., 16; fellow, Wisconsin, 18-19, Ph.D., 19. Asst. prof. bot., Utah Col., 15-16, assoc. prof., 20-24, *prof. bot. and plant path.*, 24-, acting dean sch. agr., 25-26. A.A.; Bot. Soc.; Phytopath. Soc. Soil temperature as a factor in plant diseases; virus diseases in plants; wilt resistance in tomatoes.

Richards, Pres. C(harles) R(uss), Lehigh University, Bethlehem, Pa. *Mechanical engineering*. Clarkshill, Ind., March 23, 71. B.M.E., Purdue, 90, M.E., 91; M.M.E., Cornell, 95; D.Eng., Nebraska, 20; LL.D., Lafayette, 22. Instr. mech. eng., Colo. Agr. Col., 91-92; adjunct prof. manual training, Nebraska, 92-95, assoc. prof. practical mech., 95-97, *prof. mech. eng. and director sch. mech. arts*, 97-06, head prof., 06-11, assoc. dean indust. col., 07-09, dean col. eng., 09-11; *prof. mech. eng.*, Illinois, 11-22, acting dean col. eng., 13-15, dean, 17-22, acting director, Eng. Exp. Sta., 13-15, director, 17-22; *pres*, *Lehigh*, 22- Consulting engineer. A.A. (v. pres, 25); Mech. Eng; Civil Eng; Elec. Eng; Eng. Educ; Franklin Inst; Pa. Acad. Heating value of corn and of the Nebraska coal supply; efficiency of throttling compound engines; reheating of compressed air; air-steam mixtures; combustion engines.

Richards, Dr. C(larice) Audrey, Forest Products Laboratory, Madison, Wis. *Forest pathology*. Mendon, Ohio. A.B., Miami, 12, A.M., 14; Ph.D., Wisconsin, 22. Asst. bot., Miami, 12-14; research asst., Ohio Biol. Surv., 15; asst. bot., Wisconsin, 15-17, *forest path.*, 17- A.A.; Bot. Soc.; Phytopath. Soc.; Wis. Acad. Toxicity of preservatives; deterioration of wood pulp due to fungi.

Richards, Dr. Ernest T(homson) F(raser), Miller Clinic, Hamm Building, St. Paul, Minn. *Medicine*. Kingstown, St. Vincent, B. W. I., July 28, 83. M.D., C.M., McGill, 05. Instr. path. and neur., Harvard Med. Sch., 07-11; *med.*, Minnesota, 11-17, asst. prof., 17-22, *assoc. prof.*, 22- Ed., 'Minn. Med.', 16-18. Chief div. med., Harvard surg. unit, B.E.F., 15-16. Ass. Path. and Bact; Am. Med. Ass; Minn. Acad. Med; Minn. Heart Ass; Interurban Clin. Club. Hemolytic jaundice; bacillary dysentery; typhoid meningitis; experimental arthritis; polycythemia; heart disease; tuberculosis; bronchiectasis; paratyphoid fever; infectious mononucleosis.

Richards, Dr. Harold F(rederic), Florida State College for Women, Tallahassee, Fla. *Physics*. Cincinnati, Ohio, Oct. 12, 94. A.M., Cincinnati, 17, Hanna fellow, 17-18, 19-20, Ph.D., 20.

- Instr. *physics*, Cincinnati, 20-22; Nat. Research Council fellow, Princeton, 22-23; prof, Lawrence Col, 23-25; *prof*, Florida State, 25-Physical Soc. Electrification by impact; contact electricity of solid dielectrics.
- Richards, Dr. Herbert M(aule)**, Barnard College, Columbia University, New York, N. Y. **Botany*. Philadelphia, Pa, Oct. 6, 71. B.S., Harvard, 91, Sc.D, 95, Parker fellow, 95-96. Asst. *bot*, Harvard, and instr, Radcliffe, 91-95; tutor, Barnard, Columbia, 96-98; instr, Harvard, 97-98; *Barnard, Columbia*, 98-03, adjunct prof, 03-06, *prof*, 06- Board sci. directors and board managers, N. Y. Bot. Garden. A.A. (v. pres, 08); Soc. Nat; Bot. Soc; Soc. Biol. Chem; Soc. Exp. Biol; Torrey Bot. Club (pres); New Eng. Bot. Club; N. Y. Acad. The structure and development of algae and fungi; reactions of plants to the stimulus of wounding and to chemical stimulus; influence of carbon monoxid upon plants; acidity and gas interchange in cacti and other succulents.
- Richards, Mrs. Herbert M. (Marion E)**, Barnard College, Columbia University, New York, N. Y. *Botany*. New York. A.B, Columbia, 03, A.M, 05. Asst. and instr. *bot*, Barnard, Columbia, 05-15, *lecturer*, 15- Torrey Bot. Club. Physiological botany.
- Richards, Prof. Horace C(lark)**, 4812 Fairmount Ave, Philadelphia, Pa. *Physics*. Philadelphia, Jan. 4, 68. A.B, Pennsylvania, 88, Ph.D, 91; Hopkins, 91-92. Instr. *physics*, Pennsylvania, 90; Bryn Mawr, 92-93; *Pennsylvania*, 93-03, asst. prof, 03-09, *prof. math. physics*, 09- As- soc. physicist, Bur. Standards, 18. A.A; fel. Physical Soc; Philos. Soc; Franklin Inst; Soc. de Physique. Mathematical physics; optics.
- Richards, Howard**, 156 Fifth Ave, New York, N. Y. *Metrology*. Elizabeth, N. J, June 27, 77. Ph.B, Yale, 00; E.E, Columbia, 03. Metropolitan St. Ry. Co, 00-01; N. Y. Edison Co, 01-02; Columbia, 02-04; Boone Col, China, 05-10; *sec'y*, Metric Ass, 16- Officier d'Acad. République française, 19. A.A. The correct use of metric weights and measures.
- Richards, Mrs. Mildred (Albro) Hoge**, 434 Chautauqua Ave, Norman, Okla. *Zoology*. Baltimore, Md, July 7, 85. A.B, Goucher, 08; A.M, Columbia, 12, Ph.D, 14. Teacher, high sch, Md, 08-11; instr. zool, Indiana, 14-18. A.A; Soc. Zool; Ind. Acad; Okla. Acad. Genetics; inheritance in *Drosophila*.
- Richards, Oscar W(hite)**, Harvard University, Cambridge, Mass. *Physiology*. Butte, Mont, Jan. 4, 02. A.B, Oregon, 23, A.M, 25. Teaching fellow zool, Oregon, 23-25, instr. zool. and med, 25-26; *fellow, grad. sch, Harvard*, 26- Summer, asst, Hopkins Marine Sta, 26. A.A; West. Soc. Nat. Pedagogy of biology; biomathematics; growth of organisms, especially yeast.
- Richards, R(alph) W(ebster)**, Standard Oil Co. of Venezuela, Apartado 85, Maracaibo, Venezuela, S. Amer. *Geology, Mineralogy*. Waterville, Maine, May 30, 79. A.B, Colby, 01; fellow, Tufts, 01-02, A.M, 02. Instr. geol, Tufts, 02-06; aid, U. S. Geol. Surv, 07-08, junior geologist, 08-10, asst. geologist, 10-12, as-
- soc. geologist, 12-13; geologist, foreign dept, Pearson and Son, Ltd, 13-15; Associated Geol. Engineers, 15-16; Petrol. Explor, Inc, 16-18; asst. valuation expert, bur. int. revenue, U. S. Treas. Dept, 18-19; consulting geologist, 19-24; geologist, Standard Oil Co. of Argentina, 24-27; *chief geologist, Standard Oil Co. of Venezuela*, 27- Asst, Harvard, 02-03, 04-07. Min. and Metal. Eng; Wash. Geol. Soc. Coal resources of the Bull Mountains, Montana; areal, structural and economic geology of phosphate deposits of Idaho, Utah, Wyoming, Morocco, Algeria and Tunisia; geology of petroleum deposits of Ecuador, Algeria, Oklahoma, Kentucky, Ohio, West Virginia, Louisiana, Wyoming, Montana, Argentina, Bolivia and Venezuela.
- Richards, Prof. Robert H(allowell)**, 32 Eliot St, Jamaica Plain, Mass. *Mining engineering, Metallurgy*. Gardiner, Maine, Aug. 26, 44. B.S, Mass. Inst. Tech, 68; LL.D, Missouri, 08. Asst. chem, *Mass. Inst. Tech*, 68-69, instr. assaying and qual. anal, 69-70, asst. prof. anal. chem, 70-71, prof. miner. and assaying and in charge mining and metal laboratories, 71-72, prof. mining eng, 73-84, head mining dept, 73-14, prof. *mining eng. and metal*, 84-14, *emer. prof*, 14-, sec'y faculty, 78-83. Gold medal, Min. and Metal. Soc. A.A; hon. mem. Min. Eng. (pres, 86); hon. mem. Min. and Metal. Soc; Am. Acad; Boston Soc. Civil Eng. Ore dressing.
- Richards, Prof. Theodore W(illiam)**, 15 Follen St, Cambridge, Mass. **Chemistry*. Germantown, Pa, Jan. 31, 68. B.S, Haverford, 85, LL.D, 08; A.B, Harvard, 86, A.M, Ph.D, 88, hon. Sc.D, 10; Göttingen, 88-89, 95; Dresden, 89; Leipzig, 95; hon. Sc.D, Yale, 05; hon. Ch.D, Clark, 09; hon. Ph.D, Prague, 09; hon. M.D, Berlin, 10; hon. D.Sc, Cambridge, 11, Oxford, 11, Manchester, 11; hon. Ph.D, Christiania, 11; LL.D, Pittsburgh, 15, Pennsylvania, 20; Sc.D, Princeton, 23. Asst. *chem, Harvard*, 89-91, instr, 91-94, asst. prof, 94-01, *prof*, 01-, chairman dept. chem, 03-11, *director, Gibbs Mem. Lab*, 12- Director summer sch. of chem, Harvard, 90; adviser, Carnegie Institution, 02, research assoc, 02-; acting director, Harvard Chem. Lab, 05; Harvard visiting prof, Berlin, 06-07; lecturer, Lowell Inst, 08; Faraday lecturer, London Chem. Soc, 11. Nat. Research Council, 16-19. Davy medal, Royal Soc, 10; Faraday medal, London Chem. Soc, 11; Willard Gibbs medal, Chem. Soc, 12; Franklin medal, 16; Le Blanc and Lavoisier medals, 22; Nobel prize chem, 14. Officier, Légion d'honneur. Consulting chemist, War Dept. and U. S. Bur. Mines, 18. Nat. Acad; A.A. (pres, 17); hon. mem. Chem. Soc. (pres, 14); Electrochem. Soc; Am. Acad. (pres, 19-21); Philos. Soc; hon. mem. Harvey Soc; hon. mem. Franklin Inst; hon. mem. N. Y. Chemists Club; for. mem. Royal Soc; hon. mem. Royal Inst; hon. fel. Royal Soc. Edinburgh; hon. and for. mem. London Chem. Soc; hon. mem. Royal Irish Acad; hon. mem. Soc. chim. de France; cor. mem. Royal Prussian Acad; for. mem. Royal Danish Acad; for. mem. Swedish Royal Acad; Accad. dei Lincei; cor. mem. Royal Bologna Acad. Atomic weights; isotopes; radioactive lead; cuprammonium compounds; occlusion and inclusion; taste of acids; spectra of gases; electrical re-

- sistance and thermal expansion of gases; electrochemical equivalents and silver voltameter; heat capacity; equilibrium of chromium solutions; birth and growth of crystals by microkinetoscope; electrochemistry of amalgams; apparatus and methods for exact investigation; energy relations of systems under varying conditions; standardizing thermometers by bicomponent systems; thermometry; thermochemical measurements; compressibilities; significance of atomic volume; internal pressures produced by cohesion and chemical affinity.
- Richards, Dr. William T (heodore)**, Princeton University, Princeton, N. J. *Physical chemistry*. Cambridge, Mass, March 24, 00. A.B, Harvard, 21, Ph.D, 24. Asst. physical chem, Harvard, 23, asst. to director, Gibbs Mem. Lab, 23-24; Int. Educ. Board fellow science, 24-26; *instr. chem*, Princeton, 26- Summer, instr, Harvard, 23. S.A.T.C, 18. Chem. Soc. Effect of magnetism of hydrogen occluded in iron; potential of the oxygen electrode; sedimentation of aluminum hydroxide; compressibility; distance effect of chemical affinity; liquid supersaturation; radon; affinities through vapor pressure measurements; supersonic waves.
- Richardson, A (lbert) S (tarnes)**, 335 Beech Ave, Wyoming, Ohio. *Chemistry*. Murfreesboro, Tenn, Dec. 11, 89. A.B, Princeton, 13, A.M, 15. Instr. chem, Princeton, 15-17, 19-20; research chemist, E. I. du Pont de Nemours and Co, 20-21; *in charge chem. research*, Procter and Gamble Co, 21- Chem. Soc; Oil Chem. Soc; Chem. Gesell. Soap; fats; catalysis.
- Richardson, Prof. C (harles) H (enry)**, Syracuse University, Syracuse, N. Y. *Mineralogy, Geology*. Topsham, Vt, Sept. 26, 62. A.B, Dartmouth, 92, A.M, 95, fellow, 95-98, Ph.D, 98; Chicago, 02; Hopkins, 06. Prin, Black River Acad, Vt, 92-93; Green Mt. Sem. and Minard Commercial Col, 93-95; asst. chem, Dartmouth, 95-98, instr. chem. and miner, 98-05, *miner. and geol*, 05-06; asst. prof, Syracuse, 06-07, assoc. prof, 07-09, *prof*, 09- Asst. geologist, Vt. Geol. Surv, 95-; Ky. Geol. Surv, 20- Gen. educ. commission, Paris Expos, 01. Eighth Int. Geog. Cong, U. S, 04; delegate, Twelfth Int. Geol. Cong, Ottawa, 13. A.A; Geol. Soc; Miner. Soc; Min. and Metal. Eng; Chem. Soc; Ky. Acad; Vt. Bot. Club; Rochester Acad. Economic geology; building stones; clays; anatomy and physiology of *Pinus sylvestris*; the calciferous mica schist of eastern Vermont; analysis of Washington marbles; the terranes of Orange County, Vermont; Washington limestone and its associated terranes; glass sands, molding sands, building stones and road materials of Kentucky; asbestos deposits of New England.
- Richardson, Charles H (oward)**, U. S. Department of Agriculture, Washington, D. C. *Entomology*. Pasadena, Calif, July 7, 87. A.B, Stanford, 12; M.S, Harvard, 13; Ph.D, Columbia, 21. Asst. entomologist, N. J. Exp. Sta, 13-16; instr. entom, Rutgers, 15-16; *entomologist, bur. entom*, U. S. Dept. Agr, 19- A.A; Entom. Soc; Ass. Eeon. Entom; Chem. Soc; Wash. Entom. Soc. Physiology and toxicology of insects; chemotropism in insects; relation of food constituents to growth of insects.
- Richardson, Dr. Charles W (illiamson)**, 1337 Connecticut Ave, N. W, Washington, D. C. *Medicine*. Washington, Aug. 22, 61. Pennsylvania; M.D, George Washington, 84. *Prof. laryngol. and otol*, George Washington, 00- A.A; Am. Med. Ass. (trustee); Laryngol. Ass; Otol. Soc. (pres, 14); Climat. ass; Wash. Acad; Wash. Biol. Soc; Wash. Anthropol. Soc. Keratosis of the tonsils; congenital obstruction of post-nasal orifice; vaso-motor catarrh.
- Richardson, Clifford**, 81 Promenade des Anglais, Nice, France. **Chemistry*. Worcester, Mass, March 6, 56. A.B, Harvard, 77. Field asst, U. S. Geol. and Geog. Surv, 78; asst. chemist, U. S. Dept. Agr, 78-83, prin. asst, 83-87; inspector asphalt and cements and chemist, Eng. Dept, D. C, 87-94; practising chem. engineer, 94-95; supt. tests, Barber Asphalt Paving Co, 96-00; proprietor, N. Y. Test. Lab, 00-10; consulting engineer; *retired*. Assoc. ed, 'Jour. Indust. and Eng. Chem,' 08-09. U. S. Assay Commission; commissions on tests and standards. Chemistry of the cereals and grasses; sugar; food adulteration; ceramics; petroleum; asphalts and native bitumens; hydraulic cements; constitution of Portland cement; uniformity in chemical analysis.
- Richardson, Dr. Edward (Peirson)**, Massachusetts General Hospital, Boston, Mass. *Surgery*. Boston, April 7, 81. A.B, Harvard, 02, M.D, 06. Asst. prof. *surg*, Harvard, 21-25, *assoc. prof*, 25-; *chief west surg. service*, Mass. Gen. Hosp. Surg. Ass; Am. Med. Ass; Soc. Clin. Surg; S. Surg. Ass; New Eng. Surg. Soc.
- Richardson, Dr. G (eorge) B (urr)**, U. S. Geological Survey, Washington, D. C. *Geology*. New York, N. Y, Aug. 21, 72. B.S, Harvard, 95, M.S, 97; Ph.D, Hopkins, 01. *Geologist*, U. S. Geol. Surv, 00- A.A; Geol. Soc; Ass. Petrol. Geol; Wash. Acad. Geology of the Appalachian oil and gas fields.
- Richardson, Prof. Henry B (arber)**, Cornell University Medical College, New York, N. Y. *Medicine*. Boston, Mass, 89. A.B, Harvard, 10, M.D, 14. Intern, Peter Bent Brigham Hosp, Boston, 15-16; asst. med, Hopkins, 16-18; Columbia, 19-21; *fellow*, Russell Sage Inst. Path, 21-; *asst. prof. med*, med. col, Cornell, 24- Adjunct asst. visiting physician, Bellevue Hosp, New York, 21, asst. visiting physician, 24- Lieut, M.C, 18-19. Soc. Clin. Invest; N. Y. Acad. Med. Electrocardiography; metabolism; microrespiration.
- Richardson, Prof. Leon B (urr)**, 11 North Park St, Hanover, N. H. *Chemistry*. Lebanon, N. H, April 14, 78. B.L, Dartmouth, 00, A.M, 02. Instr. chem, Dartmouth, 01-10, asst. prof, 10-19, *prof*, 19- Chem. Soc; N. H. Acad. (pres, 23). Complex compounds of cobalt; adsorption of single gases and mixtures in charcoal.
- Richardson, Dr. Mark W (yman)**, 100 Milk St, Boston, Mass. *Medicine*. Fitchburg, Mass, Dec. 27, 67. A.B, Harvard, 89, M.D, 94, Bullard fellow, 98; Berlin and Vienna, 94-95; Dalton scholar, Mass. Gen. Hosp, 98-01. Asst. path, Harvard, 97-99, theory and practise of med, 99-00; sec'y, Mass. State Board Health, 09-14; *chief examiner for Boston*, Equitable Life As-

- urance Soc. of the U. S. A.A.; Am. Physicians; Am. Med. Ass; Soc. Psychic Research. Bacteriology of and immunity in typhoid fever; epidemiology of infantile paralysis; psychic research and mediumship.
- Richardson, Dr. Oscar**, 22 Evans Way, Boston, Mass. *Pathology, Bacteriology*. East Boston, Jan. 22, 60. M.D., Harvard, 00. *Asst. pathologist, Mass. Gen. Hosp, Boston, 97-; instr, post-grad. sch. med, Harvard*. Ass. Path. and Bact; Am. Med. Ass. The cause of carcinoma; micro-organisms; status lymphaticus; psittacosis; tetanus; Pseudopneumococcus; a new chromogenic bacillus; Friedreich's ataxia; bundle of His in Stokes Adams disease; leprosy; the pathology of syphilitic aortitis; tetanus bacilli in lymphatic glands in tetanus.
- Richardson, Prof. O(wen) W(illans)**, 45 Haverstock Hill, Hampstead, N. W. 3, Eng. **Physics*. Dewsbury, Eng, April 26, 79. B.A., Cambridge, 00, fellow, 02-08, M.A., 04, Clerk Maxwell student, 04-06; D.Sc., London, 04. Prelector, Trinity, Cambridge, 01-06; director science studies, Corpus Christi, 05-06; prof. physics, Princeton, 06-14; Wheatstone prof. physics, Kings Col, London, 14-24, Yarrow research prof, Royal Soc, 24- Hughes medal, Royal Soc, 20. Physical Soc; Philos. Soc; fel. Royal Soc; London Physical Soc. (pres, 26-28); Cambridge Philos. Soc; Soc. de Physique. Thermionics; photo-electricity; discharge of electricity through gases; diffusion of gases through solids; effect of pressure on spectral lines; theory of magnetism; nature and energy of thermions; nature of electromagnetic radiations; thermal effects of the emission and absorption of electricity by bodies; electrons and chemical action; soft X-rays; hydrogen band spectrums.
- Richardson, Robert E(arl)**, Urbana, Ill. *Ichthyology*. Brighton, Ill, Nov. 22, 77. A.B., Illinois, 01, A.M., 03. Biol. asst, Ill. Nat. Hist. Surv, 03-06; research asst. ichthyol, Stanford, 06-07; preparator zool, California, 07-08; instr. bionomics, Stanford, 08-09; *zoologist, Ill. Nat. Hist. Surv, 09-* Bur. Fisheries, 07-08, 12. A.A.; Fisheries Soc; Ecol. Soc; Ill. Acad. Systematic ichthyology; ecology of fishes; general hydrobiology; sanitary biology.
- Richardson, Dean R(oland) G(eorge) D(wight)**, Brown University, Providence, R. I. **Mathematics*. Halifax, N. S., Can, May 14, 78. A.B., Yale, 03, A.M., 04, Ph.D., 06; Göttingen, 08-09. Instr. math, Yale, 04-07; asst. prof, Brown, 07-12, assoc. prof, 12-15, prof, 15-, dean grad. sch, 26- Summers, lecturer, Chicago, 18, California, 20. Int. Math. Union. A.A.; Math. Soc. (v. pres, 20, sec'y, 21-); Math. Ass. (v. pres, 19); Am. Acad; Math. Verein; Circolo Mat. di Palermo. Mathematical analysis.
- Richardson, W(illiam) D**, Swift and Co, Chicago, Ill. **Chemistry*. Jackson, Mich, Nov. 24, 76. Chicago, 94-99. Chemist, *Swift and Co*, 99-01, chief chemist, 01-, director research lab, 20-Ed, 'Jour. Indust. and Eng. Chem,' 09-12. A.A.; Chem. Soc; Electrochem. Soc; Chem. Eng; Soc. Test. Mat; Oil Chem. Soc; Ornith. Union; Cooper Ornith. Club; Wilson Ornith. Club.
- Richart, Frank Erwin**, University of Illinois, Urbana, Ill. *Civil engineering*. Lena, Ill, May 11, 92. B.S., Illinois, 14, M.S., 15, C.E., 22. Concrete designer, C. F. Massey Co, 15; Concrete Steel Products Co, 16; instr. *theoret. and applied mech, Illinois*, 16-18, research assoc, 19-21, research asst. prof, 21- Structural engineer, Emergency Fleet Corp, 18-19. Civil Eng; Soc. Test. Mat; Concrete Inst; Ill. Soc. Eng. Materials of construction; structural engineering; reinforced concrete.
- Richarz, Prof. St(ephens)**, St. Mary's College, Techy, Ill. *Geology*. Richrath, Germany, Nov. 25, 74. Vienna; Ph.D., Munich, 19. *Prof. geol, St. Gabriel's Col, Austria, 05-17; St. Mary's (Ill), 21-* Geol. Soc; Miner. Soc; Geol. Gesell; Wiener Geol. Gesell. Petrography.
- Richdorf, Dr. L(awrence) F(rancis)**, University of Minnesota, Minneapolis, Minn. *Pediatrics*. Kellnersville, Wis, Aug. 25, 91. B.S., Wisconsin, 17; M.D., Minnesota, 20, Ph.D., 24. Asst, clin. lab, Wisconsin, 16-17, instr. path, 17-18; teaching fellow *pediat, Minnesota and Mayo Clinic, 20-24, instr, Minnesota, 24-* Am. Med. Ass; Northwest. Pediat. Soc; Cent. States Pediat. Soc. Polyarthritis in the infant; tuberculosis in children; growth in the first year.
- Richey, F(rederick) D(avid)**, 106 E. Bradley Lane, Chevy Chase, Md. *Agronomy*. St. Louis, Mo, Sept. 3, 84. B.S.A., Missouri, 09. Sci. asst, bur. plant indust, U. S. Dept. Agr, 11-19, asst. agronomist, 20-21, agronomist, 21-23, in charge corn investigations, 23- Exploration for maize, S. Amer, 24. A.A.; Soc. Agron; Wash. Bot. Soc; Wash. Acad. Breeding, genetics and growth of maize.
- Richmond, Dr. Cha(rlie)s W(Wallace)**, U. S. National Museum, Washington, D. C. *Ornithology*. Kenosha, Wis, Dec. 31, 68. George Washington, 86-87; M.D., Georgetown, 97. Special agent, Census Office, 89-90; ornith. clerk, biol. surv, U. S. Dept. Agr, 90-91; asst. curator *div. birds, U. S. Nat. Museum, 94-18, assoc. curator, 18-* Fel. Ornith. Union; Soc. Mammal; Soc. Ichthyol. and Herp; Wash. Acad; Wash. Biol. Soc; Cooper Ornith. Club; Wilson Ornith. Club; Baird Ornith. Club; cor. Phila. Acad; hon. mem. British Ornith. Union; cor. mem. Bavarian Ornith. Union; China Soc. Arts and Sciences; cor. mem. Peking Soc. Nat. Hist. Exotic ornithology; bibliography of ornithology; catalogue of genera and species of birds, with synonyms.
- Richmond, E(dward) A(very)**, Riverton, N. J. *Entomology*. Brockton, Mass, June 10, 87. B.S., Dartmouth, 12; A.M., Cornell, 24. Sci. asst, Mass. Fish and Game Commission, 11-12; asst. zool, Dartmouth, 12; N. Y. Univ, 12-13; entom. and biol, Cornell, 13-15; instr. physiol. and anat, Simmons (Mass), 17-18; chemist, Great West. Sugar Co, 19-20; chem. supt, private sugar cane co, 20; instr. bot, R. I. Col, 20-22; prof. physiol, Gen. Med. Foundation, Chicago, 22-23; agent, *physiol. div, Japanese beetle lab, bur. entom, U. S. Dept. Agr, 24-* Physiologist, M.C., 18, lieut. Sanit.C., 18-19, capt, O.R.C., 24- Entom. Soc; Ass. Econ. Entom; Cambridge Entom. Soc. Braconidae; Hydro-

- philidae; chemotropism; phototropism; morphology; physiology.
- Richmond, Prof. Francis A.**, 456 W. Gray St, Elmira, N. Y. *Chemistry*. Adams, Mass, Aug. 15, 74. B.S. Cornell, 98. Instr. chem, Cornell, 98-99; *prof. chem. and physics, Elmira*, 99-*Chem. Soc.* Phenyl mustard oil as a reagent for the detection of the alcoholic hydroxyl group; sulphur in illuminating gas.
- Richter, Dr. Curt P(aul)**, Johns Hopkins Hospital, Baltimore, Md. *Psychobiology*. Denver, Colo, Feb. 20, 94. B.S. Harvard, 17; Ph.D. Hopkins, 21. Asst. *psychobiol. Hopkins*, 21-22, instr, 22-25, *assoc.*, 25-, *in charge psychobiol. lab, Hopkins Hosp.* Psychol. Ass; Physiol. Soc; Soc. Mammal. Animal behavior; spontaneous activity; action currents from smooth and striped muscle; decerebrate rigidity of sloth; sweating, salivation and other vegetative responses with relation to emotional conditions; the electrical resistance of the body with relation to physiological and mental conditions.
- Richtmann, Prof. W(illiam) O(scar)**, 1709 Adams St, Madison, Wis. *Pharmacognosy*. Arcadia, Wis, Nov. 30, 76. Ph.G. Wisconsin, 94, fellow, 94-97, B.S. 97, Ph.D. 19. Instr. practical pharmacy, Wisconsin, 98-00, pharmacog, 00-02; expert, U. S. Dept. Agr, 02-06; res. manager, Satsuma Co, 06-15; Am. Flavoring Extract Ass. research fellow, *Wisconsin*, 15-16, *pharmacognosist, Pharmaceut. Exp. Sta.*, 17-, asst. prof. *pharmacog*, 19-25, *assoc. prof.*, 25- A.A; Pharmaceut. Ass. (sec'y, sci. sect, 11, chairman, 12, sec'y, hist. sect, 19, chairman, 20); Chem. Soc. Practical pharmacy and pharmacognosy.
- Richtmyer, Prof. F(loyd) K(arker)**, Cornell University, Ithaca, N. Y. **Physics*. Cobleskill, N. Y., Oct. 12, 81. A.B. Cornell, 04, Ph.D. 10. Instr. *physics*, Drexel Inst., 04-06; *Cornell*, 06-10, asst. prof, 10-18, *prof.*, 18- Investigator, research lab, Gen. Elec. Co, 19-20; summers, physicist, Bur. Standards, 15, prof, California, 23, Stanford, 25. Exec. board, Nat. Research Council, v. pres, div. physical sciences. Radio engineer, Sig.C, 18. A.A; Physical Soc; Optical Soc. (pres, 20); Sigma Xi (nat. pres, 24-26). Heat of vaporization of liquid air; the photoelectric effect; heterochromatic photometry; properties of thin metal films; X-ray absorption; physiological optics.
- Rickards, Burt R(ansom)**, N. Y. State Department of Health, Albany, N. Y. *Bacteriology, Chemistry*. Cambridge, Mass, Sept. 28, 76. B.S. Mass. Inst. Tech, 99. Instr. anal. chem, Lowell Textile Sch, Mass, 99-00; first asst. bacter. and chem, Boston Board Health Lab, 00-05, director, 05-09; chief laboratories, Ohio State Board Health, 09-11; assoc. prof. munic. and sanit. dairying, Illinois, 11-12; asst. director biol. dept, Eli Lilly and Co, 12-15; *director develop. dept, Randall Faichney Co*, 15-17; *div. pub. health educ, N. Y. State Dept. Health*, 17- Lecturer, Albany Med. Col, Union; Mass. Inst. Tech. Ed, 'Pub. Health News'; 'Am. Jour. Pub. Health,' 05-12. Fel. Pub. Health Ass. (sec'y, lab. sect, 06-12). Public health; bacteriological methods; morphology of bacteria; longevity of B. tuberculosis in sputum; methods of disinfection and their value; value of shaking suspended sputum specimens; types and morphology of B. diphtheriae; methods of digestion of suspected tubercular sputum specimens.
- Ricker, Maurice (G)**, U. S. Department of the Interior, Washington, D. C. *Natural science*. Wataga, Ill, July 18, 69. B.S. Drake, 92. Teacher, high sch, Iowa, 92-99, prin, 99-18; asst. director educ. work, U. S. Pub. Health Service, 20-26; *director motion pictures, U. S. Dept. Interior*, 26- Lecturer, biol. sta, Montana, 01-06; photographer, Univ. Iowa exped, Barbados and Antigua, 18. In charge motion picture lab. and sch. projection, War Work Council, Y. M. C. A., 18-19; director motion picture activities, Int. Committee, 19-20. A.A; fel. Iowa Acad; fel. St. Louis Acad. Plankton in Montana lakes and rivers; hydra and hydrachnids; ecology; physiography; photography applied in biological problems; motion picture photography.
- Ricker, Dr. Norman H(urd)**, P. O. Box 1619, Houston, Texas. *Physics*. Galveston, Texas, Oct. 11, 96. A.B. Rice Inst, 16, fellow, 16-17, A.M. 17, fellow, 17-19, Ph.D. 20. Instr. physics, Rice Inst, 19-21; research physicist, West. Elec. Co, 21-23; director geophys. research, Humble Oil and Ref. Co, 23-25; *consulting physicist, oil companies*, 25- Torsion balance surv, Mex. Physical Soc; Radio Eng; Math. Soc. Seismology; electrical conductivity of flames; luminosity of ionized mercury vapor; propagation of explosive waves through the earth; passage of electric current through continuous and heterogeneous media.
- Ricker, P(ercey) L(eroy)**, U. S. Department of Agriculture, Washington, D. C. *Botany*. Brunswick, Maine, March 27, 78. B.S. Maine, 00, M.S. 01. Asst. biol. Maine, 01; sci. asst. agrost, U. S. Dept. Agr, 01-05, asst. office of botanist, 05-07, asst. botanist taxon. and range investigations, 08-17, *forage crop investigations*, 17- A.A; Bot. Soc; New Eng. Bot. Club; Wash. Bot. Soc; Wash. Biol. Field Club; Portland (Maine) Soc. Nat. Hist. Grasses; legumes; taxonomy of cultivated plants; conservation of native plants.
- Rickett, Prof. H(arold) W(illiam)**, University of Missouri, Columbia, Mo. *Botany*. Birmingham, Eng, July 30, 96. A.B. Wisconsin, 17, A.M. 20, Ph.D. 22. Asst. bot, Wisconsin, 19-22, instr, 22-24; *asst. prof, Missouri*, 24- A.A; Bot. Soc; Wis. Acad. Plant morphology and cytology; fertility in seed plants; taxonomy.
- Ricketts, Pres. Palmer C(hamberlaine)**, Rensselaer Polytechnic Institute, Troy, N. Y. *Mathematics*. Elkton, Md, Jan. 17, 56. C.E. Rensselaer, 75; hon. D.E. Stevens, 05; LL.D., N. Y. Univ, 11. Instr. math, *Rensselaer*, 75-82, asst. prof, 82-84, *prof. rational and tech. mech.*, 84-, *director*, 92-, *pres*, 01- Consulting engineer, Troy and Boston Ry. and R. W. and O. Ry; engineer, Pub. Improv. Commission, Troy, N. Y. Commander, Order of the Crown, Italy; commandeur, Légion d'honneur. A.A; Civil Eng. (director, 99-01, v. pres, 16); Mech. Eng; Min. and Metal. Eng; Philos. Soc; British Inst. Civil Eng. Constants of structural steel.
- Riddle, Dr. E(thel) M.**, 20 Westmoreland Place, St. Louis, Mo. *Psychology*. St. Louis, Jan. 2,

85. A.B. Vassar, 06; Ph.D. Columbia, 25. *Psychologist*, Psychiatric Clinic, St. Louis, 24-25; *Community and John Burroughs Schools*, 25- Assoc. Psychol. Ass. Clinical and social psychology; stealing as a form of aggressive behavior.
- Riddle, Dr. Oscar**, Cold Spring Harbor, N. Y. **Zoology, Physiology*. Cincinnati, Ind., Sept. 27, 77. A.B. Indiana, 02; Ph.D. Chicago, 07. Teacher biol. Training Sch., San Juan, P. R., 99-01; physiol. Cent. High Sch., St. Louis, Mo., 03-05; asst. Chicago, 04-07, assoc., 07-08, instr. exp. therapeut. and zool., 08-10; investigator in Europe, 10-11; research assoc., *Carnegie Institution*, 12-15, *investigator, sta. for exp. evolution*, 14- Nat. hist. exped. Orinoco River, 01. U.S.A., 18-19. A.A.; Soc. Nat.; Soc. Zool.; Physiol. Soc.; Chem. Soc.; Soc. Exp. Biol.; Pub. Health Ass.; Philos. Soc.; Wash. Acad.; Soc. Linnean de Lyon. Bionomic physiology; color development; physiology of reproduction; internal secretions; the nature and functional basis of sex.
- Rider, Prof. A(rthur) J(ohn)**, Drake University, Des Moines, Iowa. *Chemistry*. Kirkwood, N. Y., June 22, 77. B.S. Colgate, 12, M.S. 14; Ph.D. Cornell, 23. Instr. chem., Colgate, 12-15; Cornell, 16-23; assoc. prof., Drake, 23-24, *prof.*, 24-, *head dept.*, 26- A.A.; Iowa Acad. Hydrogen concentration of milk.
- Rider, Prof. Paul R(eece)**, Washington University, St. Louis, Mo. *Mathematics*. Independence, Mo., Oct. 14, 88. A.B. William Jewell, 09, A.M., 10; Yale, 14, Ph.D., 15. Instr. math., Sheffield Sci. Sch., Yale, 15-16; *Washington (St. Louis)*, 16-18, asst. prof., 18-21, *assoc. prof.*, 21-Summer, adjunct prof., Texas, 20. Second lieut., C.A., 18. A.A.; Math. Soc.; Math. Ass. (sec'y-treas., Mo. sect., 17-); Statist. Ass. Calculus of variations; statistics.
- Ridgway, Robert**, 1030 S. Morgan St., Olney, Ill. **Ornithology*. Mount Carmel, Ill., July 2, 50. Hon. M.S. Indiana, 84. Zoologist, U. S. Geol. explor. of 40th Parallel, 67-69; *curator div. birds*, U. S. Nat. Museum, 76- Walker prize, Boston Soc. Nat. Hist., 13; Daniel Giraud Elliot medal, Nat. Acad., 21; William Brewster medal, Ornith. Union, 21. Advisory council, World's Cong. Columbian Expos., 92; Int. Permanent Ornith. Committee, Vienna, 85; Int. Ornith. Cong. Budapest, 91. Nat. Acad.; A.A.; fel. Ornith. Union (v. pres., 84-91, 96-98, pres., 99-00); Forestry Ass.; hon. mem. Nuttall Ornith. Union; Wash. Acad.; Wash. Biol. Soc.; Wash. Philos. Soc.; Ill. Acad.; hon. mem. Mich. Ornith. Club; cor. mem. N. Y. Lyceum Nat. Hist.; cor. mem. Chicago Acad.; cor. mem. Phila. Acad.; cor. mem. Boston Soc. Nat. Hist.; cor. mem. Boston Zool. Soc.; cor. mem. Davenport Acad.; hon. mem. Brookville (Ind.) Acad.; hon. mem. Maywood (Ill.) Bird Club; hon. mem. Newton (Mass.) Nat. Hist. Soc.; hon. mem. British Ornith. Union; cor. mem. London Zool. Soc.; hon. mem. Manchester Lit. and Philos. Soc.; hon. mem. Australian Ornith. Union; hon. mem. Ornith. Gesell. Ornithology, especially systematic or technical; botany, principally geographic and with reference to that of the lower Wabash Valley; ornithology of Illinois; nomenclature of colors; birds of North and Middle America; ornithology of the fortieth parallel; color standards and nomenclature.
- Ridgway, Rob(er)t**, 49 Lafayette St., New York, N. Y. *Civil engineering*. Brooklyn, N. Y., Oct. 19, 62. Hon. M.S. N. Y. Univ., 15, hon. C.E., 19; hon. A.M. Harvard, 25. Chairman and instrumentman, North. Pacific Ry., 82-84; instrumentman and asst. engineer, Aqueduct Commission, New York, 84-00; asst. and div. engineer, Rapid Transit Ry. Commission, 00-05; div. and dept. engineer, Board Water Supply, 05-12; engineer subway construction, Pub. Service Commission and Transit Construction Commission, 12-21; *chief engineer, Transit Commission and Board Transportation*, 21- Chicago Traction and Subway Commission, 16-17. A.A.; Civil Eng. (director, 11, v. pres., 22, pres., 25); Soc. Munic. Improv.; New Eng. Water Works Ass.; Franklin Inst.; N. Y. Munic. Eng. (director, 03-06, v. pres., 06, pres., 08); British Inst. Civil Eng.
- Riegel, Prof. E(mil) Raymond**, 3435 Main St., Buffalo, N. Y. *Chemistry*. Metz, Germany, July 14, 82. B.S. Harvard, 08, M.S. 10, Ph.D., 11. Austin teaching fellow, Harvard, 08-10; chem. industries, 11-20; asst. prof. chem., Buffalo, 20-24, assoc. prof., 24-26, *prof.*, 26- Chem. Soc. (councilor, west. N. Y. sect., 25-); Ass. Prof. (sec'y, Buffalo chap., 24, pres., 25). Organic and inorganic chemistry; colloids; ultraviolet absorption of organic compounds; patterns in solid gels; constitution of Schiff's base.
- Rieman, Dr. William**, 3d, 17 Jones Ave., New Brunswick, N. J. *Chemistry*. Jersey City, N. J., Sept. 4, 99. B.S. Rutgers, 22, Ph.D., 25. Teaching fellow chem., Rutgers, 22-23, instr., 23-26, asst. prof., 26- Emulsions.
- Ries, Dr. Heinrich**, Cornell University, Ithaca, N. Y. **Geology*. Brooklyn, N. Y., April 30, 71. Ph.B. Columbia, 92, fellow, 93-95, A.M., 94, Ph.D., 96, Barnard fellow, 97-00. Asst. miner, Columbia, 96-97; instr. econ. geol., Cornell, 98-02, asst. prof., 02-06, *prof.*, 06-, in charge dept., 09- Summers, asst. geologist, N. Y. Geol. Surv., 91, 92, 95, geologist, Mich., 98, 06, Md., 00, N. J., 01, 02, Texas, 03, Wis., 04, Va., 05, 15, 16, Can., 10-14; special agent, U. S. Geol. Surv., 95-01, geologist, 18; lecturer, pub. schools, N. Y., 95-97. Jury awards, Atlanta Expos., 95; Pan-Am. Expos., 01; La. Purchase Expos., 04. A.A.; Geol. Soc. (first v. pres., 25); Min. Eng.; Am. Geog. Soc.; Soc. Econ. Geol.; Seismol. Soc.; Miner. Soc.; Eng. Ceramic Soc.; Ceramic Soc. (pres., 10); Foundrymen's Ass.; Ky. Acad.; Rochester Acad.; Can. Min. Inst. Clay, its occurrence, uses and geological distribution.
- Riesman, Dr. David**, 1520 Spruce St., Philadelphia, Pa. *Medicine*. Stadt-Langsfeld, Germany, March 25, 67. Michigan; M.D., Pennsylvania, 92. Demonstrator path., Pennsylvania, 97-01, instr. med., 01-08, asst. prof., 08-12, *prof. clin. med.*, 12- Prof. Phila. Polyclinic, 10-18; physician, Phila. Gen. Hosp. and Univ. Hosp. A.A.; Am. Med. Ass.; Am. Physicians; Gastro-Enterol. Ass. (pres., 24); North. Med. Ass. (past pres); Interurban Clin. Club (past pres); Phila. Co. Med. Soc. (pres., 23); Phila. Neur. Soc.; Phila. Col. Physicians (councilor, 13-17, past chairman,

sect. med, and chairman, med. hist); Phila. Path. Soc. (pres, 09). Internal medicine; medical history.

Rietz, Dr. H(enry) L(ewis), 128 E. Fairchild St, Iowa City, Iowa. **Mathematics*. Gilmore, Ohio, Aug. 24, 75. B.S., Ohio State, 99; fellow, Cornell, 00-01, Ph.D., 02. Asst. math, Cornell, 01-02; prof. math. and astron, Butler, 02-03; instr. math, Illinois, 03-04, asst. prof., 04-11, statistician, Exp. Sta, 07-18, assoc. prof., 11-13, prof., 13-18; *prof. and head dept*, Iowa, 18- Mem. and consulting actuary, Ill. Pension Laws Commission, 16, 18. A.A.; Math. Soc. (assoc. ed, 'Bul,' 20-); Math. Ass. (pres, 24); Inst. Actuaries (v. pres, 19); Statist. Ass. (v. pres, 25); Iowa Acad.; Royal Statist. Soc. Group theory; the mathematics of statistics; actuarial theory.

Rifenburgh, S(umner) A(dam), 246 Marsteller St, West Lafayette, Ind. *Zoology*. Rome, Pa, March 13, 96. B.S., Valparaiso, 15, A.B., 16, A.M., 21; M.S., Chicago, 22. Asst. bot, Valparaiso, 14-16; instr. and prin, high sch, Ind. and Mich, 15-19; asst. prof. zool, Valparaiso, 19-21, prof. and head dept, 22-23; *instr*, *Purdue*, 23- Summer, instr, Valparaiso, 18. Eugenics Research Ass; Soc. Parasitol; Ind. Acad. Digestion in Planaria dorotocephala; heredity in white rats; endoparasites of dogs; raising fleas in laboratory.

Riffenburg, Dr. H(arry) B(uchholz), 524 Baker St, Muskegon, Mich. *Chemistry*. Ward, Colo, Feb. 28, 91. Ph.B., Denver, 15, A.M., 17; Ph.D., American Univ, 24. Teacher, pub. schools, Colo, 15-16; head dept. science and athletics, Murray State Sch. Agr, Okla, 16-17; asst. prof. chem. and chem. eng. Agr. and Mech. Col. Texas, 17-20; chemist, U. S. Geol. Surv, 20-25; chem. engineer, special investigation, West. Elec. Co, 25-26; *chemist*, *Continental Motors Corp*. Summers, chemist, West. Chem. Co, 15, special investigator, Tomboy Gold Mines Co, Ltd, 17; instr, George Washington, 21-22. Chem. Soc. Ground waters; contamination of water samples by materials dissolved from glass containers.

Rigg, Prof. Geo(rge) B(urton), University of Washington, Seattle, Wash. *Botany*. Woodbine, Iowa, Feb. 9, 72. B.S., Iowa, 96, B.Di, 99; A.M., Washington (Seattle), 09; Ph.D., Chicago, 14. Assoc. prin, pub. schools, Iowa, 96-98; teacher science, Woodbine Nor. Sch, Iowa, 98-07; bot. and zool, high sch, Wash, 07-09; *instr. bot*, *Washington (Seattle)*, 09-13, asst. prof., 13-19, *assoc. prof.*, 19- Summers, asst. prof., Chicago, 17, Iowa, 25; scientist, kelp investigations, bur. soils, U. S. Dept. Agr, Puget Sound, 11-12, in charge party, Alaska, 13. A.A.; Bot. Soc.; Ecol. Soc.; West. Soc. Nat. Plant physiology; sphagnum bogs; physiology of evergreenness.

Rigg, Prof. Melvin (Gillison), Gambier, Ohio. *Psychology, Education*. Eureka, Kans, Oct. 20, 95. A.B., Baker, 16; Cornell, 16-17; Harrison fellow, Pennsylvania, 17-18, 19-20, A.M., 19, Ph.D., 20; Chicago, 22; Ohio State, 25. Asst. prof. psychol. and educ, Oklahoma City Col, 20-22; teacher, high sch, Mo, 22-23; *asst. prof. psychol. and educ*, *Kenyon Col*, 23- Summer, instr, Texas, 21. Intelligence, arithmetic and

reading scores of native and foreign children in St. Louis.

Riggs, E(mer) S, Field Museum of Natural History, Chicago, Ill. *Vertebrate paleontology*. Nineveh, Ind, 69. A.B., A.M., Kansas, 96; fellow, Princeton, 97-98; Chicago, 02-04. Asst. paleont, museum, Kansas, 96-97; asst. curator *paleont*, *Field Museum Nat. Hist*, 99-21, *assoc. curator*, 21- In charge Field Museum paleont. expeditions, Argentina, 22-27. Geol. Soc.; Paleont. Soc.; Ass. Mus; Kans. Acad. Dinosaurs; Carnivora; Miocene mammals; middle Eocene mammals.

Riggs, Dr. Lloyd K(endrick), 39 N. Fifth Ave, New Brunswick, N. J. *Biochemistry, Pharmacology*. Castalia, Iowa, June 12, 88. A.B., Leander Clark, 10, A.M., 14; M.S., Chicago, 15, Ph.D., 18. Prof. chem, Leander Clark, 11-14; instr. physiol. chem, Chicago, 17-18; biochem. and pharmacol. research, E. R. Squibb and Sons, 18-26; *director research and prof. physiol*, *N. J. Col. Pharmacy, Rutgers*, 26- Physiological chemistry; the action of salts on metabolism of nerves; organic compounds of arsenic; pharmacology of unsaturated hydrocarbons; anesthetics.

Riggs, Dr. Louis Warner, Yarmouth, Maine. *Chemistry, Toxicology*. Georgetown, Maine, April 13, 62. B.M.E., Maine, 85; Ph.B., Ill. Wesleyan, 87, A.M., Ph.D., 94. Instr. sciences, Greely Inst, Maine, 84-86; Mt. Hermon Sch, Mass, 87-89; Sch. for Boys, Englewood, N. J., 90-93; chem, N. Y. Univ, 93-98; chem. and exp. therapeut, med. col, Cornell, 98-11; *chemist*, 11- Trustee, North Yarmouth Acad; Merrill Mem. Library. Chem. Soc. Post-mortem imbibition of arsenic; testing various schemes of quantitative analysis, with special reference to toxicological separations; determination of iodine in protein combinations; human sweat.

Riggs, Prof. N(orman) O(olman), R. F. D. 9, S. Hills Branch, Pittsburgh, Pa. *Mechanics*. Bowling Green, Mo, Nov. 1, 70. B.S., Missouri, 95; M.S., Harvard, 98. Instr. math, Missouri, 94-95, acting asst. prof., 97-98; instr, Pa. State, 99-02; asst. prof, Armour Inst, 02-04, assoc. prof., 04-08; asst. prof, *Carnegie Inst. Tech*, 08-14, *prof. mech*, 14- A.A.; Math. Soc.; Eng. Educ.

Riggs, Dr. R(obert) B(aird), 35 Forest St, Hartford, Conn. *Chemistry*. Hazelwood, Minn, May 22, 55. A.B., Beloit, 76; Ph.D., Göttingen, 83. Chemist, U. S. Geol. Surv, 84-87; prof. chem, Nat. Col. Pharmacy, 85-87; Trinity (Conn), 87-20; *retired*, 20. A.A.; Chem. Soc. Constitution of tourmalin.

Riker, Prof. A(lbert) J(oyce), University of Wisconsin, Madison, Wis. *Plant pathology*. Wheeling, W. Va, April 3, 94. A.B., Oberlin, 17; A.M., Cincinnati, 20; fellow, Wisconsin, 20-22, Ph.D., 22. Asst. bot, Cincinnati, 17-18, instr, 19-20; plant path, Wisconsin, 22-23; Nat. Research Council fellow biol, 23-24; fellow, Crop Protection Inst, 24-25; asst. prof. plant path, *Wisconsin*, 25-26, *Int. Educ. Board fellow*, 26- Bacteriologist, U. S. Base Hosp. No. 25, 18-19. A.A.; Bot. Soc.; Phytopath. Soc.; Soc. Bact. Bacterial diseases of plants.

- Riker, Dr. Regina S(tockhausen)**, University of Wisconsin, Madison, Wis. *Plant pathology*. Philadelphia, Pa, Sept. 7, 94. A.B, Smith, 16; A.M, Mt. Holyoke, 18; Ph.D, Wisconsin, 23. Asst. bot, Mt. Holyoke, 16-18; Wellesley, 18-19, instr, 19-20; asst, Wisconsin, 20-23, instr, 23-24, *research asst. plant path*, 24- A.A. Plant physiology.
- Riley, Prof. C(harles) F(rederick) Curtis**, University of Manitoba, Winnipeg, Man, Can. *Biology*. Manchester, Eng, 79. A.B, Doane, 01, A.M, 13; Nebraska, 01-02; B.S, Michigan, 04; M.S, Illinois, 12, fellow, 12-14. Asst. biol, astron. and meteor, observatory, Doane, 97-00; prin. and instr, high schools, Nebr. and Ind, 01-02, 04-05; asst. zool, Michigan, 02-04; acting head dept. biol, Minn. State Teachers Col, Duluth, 05-06; prof. and head dept. nat. sciences, Kans. State Training Col. for Teachers, Pittsburgh, 06-07; head dept. biol. and curator museum, Minn. State Teachers Col, Mankato, 07-11; asst. zool, Illinois, 11-12; head dept. biol, Wis. State Teachers Col, Milwaukee, 13-17; asst. prof. and special lecturer animal behavior, N. Y. State Col. Forestry, Syracuse, 17-18, asst. prof. forest zool, 18-19, prof, 19-20; *asst. prof. zool, Manitoba*, 20- Assoc. prof. in charge biol, Simpson, 06; summer, asst, Illinois, 13. First rank award, Trans-Mississippi Expos. A.A; Soc. Zool; Entom. Soc; Ecol. Soc; Micros. Soc; Nature Study Soc; fel. Am. Geog. Soc; N. Y. Entom. Soc; N. Y. Acad; Mich. Acad; Ill. Acad; Brooklyn Entom. Soc; fel. London Entom. Soc; for. mem. Tokyo Zool. Soc. Animal behavior and ecology; responses of young toads; ecology, distribution and habits of aquatic insects; nature study; experimental zoology.
- Riley, Dr. Henry Alsop**, 870 Madison Ave, New York, N. Y. *Neurology*. New York, July 23, 87. A.B, Yale, 08; A.M, M.D, Columbia, 12. Instr, *col. physicians and surg*, Columbia, 16-18, assoc, 18-23, *asst. prof. neur*, 23- Neur. Ass. (sec'y, 25); Ass. Research Mental and Nervous Diseases (sec'y, 23); N. Y. Acad. Human and comparative morphology of the central nervous system; clinical neurology.
- Riley, Prof. H(oward) W(ait)**, Cornell University, Ithaca, N. Y. *Rural engineering*. Orange, N. J, May 2, 79. M.E, Cornell, 01. Chief draftsman, United Telferage Co, 01-04; engineer, Morse Chain Co, 04-06; instr. exp. eng, Cornell, 06-07, farm mech, 07-09, asst. prof, 09-12, *prof*, 12-13, *rural eng*, 13- Agr. Eng. (pres, 11). Farm machinery, power and buildings.
- Riley, Prof. J(oseph) C(ains)**, Massachusetts Institute of Technology, Cambridge, Mass. *Mechanical engineering*. Boston, Mass, 76. B.S, Mass. Inst. Tech, 98. *Assoc. prof. mech. eng*, Mass. Inst. Tech. Mech. Eng. Heat engineering; mechanical design.
- Riley, Prof. J(oseph) L(eslie)**, Arkadelphia, Ark. *Mathematics*. Port Royal, Ky, June 26, 80. A.B, A.M, Georgetown; hon. M.S, Southern Minnesota; fellow, Rice Inst, 14-15; M.S, Chicago. Instr. physics and math, Oklahoma, 13-14; *prof. math*, Northeast. Okla. Teachers Col, 15-17; John Tarleton, 17-23; *Ouachita Col*, 25-
- Math. Ass. Theory of numbers. [*Died July 5, 27.*]
- Riley, Prof. W(illiam) A(lbert)**, University of Minnesota, Minneapolis, Minn. *Zoology*. Mankato, Minn, Jan. 10, 76. B.S, De Pauw, 97, hon. Sc.D, 26; fellow, Cornell, 98-99, Ph.D, 03. Asst. zool, De Pauw, 96-98; entom, Cornell, 99-01, instr, 01-06, asst. prof, 06-12, *prof. entom.* and parasitol, 12-18; entom, and chief div. entom. and econ. zool, Minnesota, 18-25, *zool. and head dept*, 25- Hookworm investigations, Porto Rico, 22; Panama, 26. Ed. board, 'Jour. Parasitol.' A.A; Soc. Nat; Soc. Zool; fel. Entom. Soc. (ed. board, pres, 26); Ass. Econ. Entom; Soc. Parasitol. Insect histology and embryology; medical entomology; parasitology.
- Rinehart, Dr. H(erbert) W(ade)**, Yale University, New Haven, Conn. *Organic chemistry*. Baltic, Ohio, Sept. 9, 97. A.B, Oberlin, 19, A.M, 20; Ph.D, Yale, 22. *Instr. org. chem*, Yale, 22- Chem. Soc. The chemical behavior of the system; ammonia, formaldehyde and prussic acid.
- Rines, David**, 20 Kilby St, Boston, Mass. *Astronomy*. Russia, April 6, 84. A.B, Harvard, 07; LL.B, LL.M, M.P.L, National Univ, 16. Computer, U. S. Coast and Geod. Surv, 07-09; asst, U. S. Naval Observatory, 10-14; U. S. Patent Office, 14-17; asst. patent attorney, Westinghouse Elec. and Mfg. Co, 17-19; *patent attorney*, 19- A.A; Astron. Soc; Physical Soc; Optical Soc; Math. Soc; Radio Eng; Bar Ass; Patent Law Ass; Boston Bar Ass; Boston Patent Law Ass. Determination of time and fundamental star positions.
- Ringer, Dr. A(dolph) I(rving)**, 3 W. 73d St, New York, N. Y. *Internal medicine*. Wirbalen, Russia, Aug. 18, 83. M.D, N. Y. Univ, 08, fellow, 08-09; Munich, 11. Instr. pharmacol, Univ. and Bellevue Hosp. Med. Col, 08-09; asst. physiol, med. col, Cornell, 09-11; instr. physiol. chem, Pennsylvania, 11-13, asst. prof, 13-15; prof. clin. med, Fordham, 17-20; *attending physician*, Montefiore Home and Hosp. Lecturer, med. col, Cornell, 18-19; consulting physician, Lenox Hill Hosp. A.A; Physiol. Soc; Am. Med. Ass; Soc. Biol. Chem; Soc. Exp. Biol; Harvey Soc; N. Y. Acad. Med. Physiology of kidney; kidney and adrenal products; blood pressure; influence of adrenalin; diseases of metabolism; gluconeogenesis; nephritis; psoriasis; diabetes; carbohydrate and protein metabolism; diagnosis of diseases of metabolism.
- Ringo, Prof. Adolph R**, 1469 Grantham St, St. Paul, Minn. *Biology*. Ridgeway, Iowa, Jan. 1, 87. A.B, Iowa, 09; A.M, Minnesota, 13, Ph.D, 19. *Asst. prof. zool*, Minnesota. A.A; Ass. Anat. Embryology; histology; blood and blood-forming organs.
- Ripley, Prof. G(iles) E(mmett)**, 95 S. Duncan St, Fayetteville, Ark. *Physics*. Decatur, Ind, 74. B.S, Purdue, 99, M.S, 02; Chicago, 07-09. *Prof.* physics and chem, N. Dak. State Nor. Sch, Valley City, 05-08; *physics and head dept*, Arkansas, 08-, dean men, 23. A.A; Elec. Eng; Ind. Acad; Ark. Sci. Ass. Mechanics; continuous motion of moving pictures; effect of solvents on physical growth; temperature effects on decay; kindling temperature.

- Ripley, H(enry) C(lay)**, 175 S. Algonquin Ave, Detroit, Mich. *Hydraulics*. Montgomery Co, N. Y., July 15, 45. C.E., Michigan, 70, D.E., 13. U. S. asst. engineer, 70-90; in charge surveys of harbors, Mex, 92; engineer, Galveston West Bay Bridge and investigation cause of erosion of Galveston Beach, 94; chief engineer, improv. mouth of Brazos River, Texas, 95; harbor of Manzanillo, Mex, 97; in charge explor. Pacific side Isthmus of Panama, Isthmian Canal Commission, 00; mem. board engineers, improv. ports, Pará and Rio Grande do Sul, Brazil, 04-13. Board engineers, improv. Aransas Pass, Texas, 94. Silver medal, Paris Expos, 00. A.A.; Civil Eng; Am. Geog. Soc. The building of a stone jetty on a sand bottom in the open sea; beach erosion; economic location of jetties; relation of depth to curvature of channels; commercial value of a port as affected by the depth of the entrance channel.
- Ripperton, J(ohn) C(arson)**, Hawaii Experiment Station, Honolulu, Hawaii. *Chemistry*. Belle Plain, Kans, 91. A.B., 13; M.S., 16. Scientist, soil investigations, bur. soils, U. S. Dept. Agr, 17-20; *chemist, Hawaii Exp. Sta.*, 20- Hawaiian tree fern as commercial source of starch; manufacture of starch from the edible canna; Hawaiian vegetables.
- Rising, Prof. Mary M(eda)**, University of Chicago, Chicago, Ill. *Chemistry*. Ainsworth, Nebr, July 21, 89. A.B., Mt. Holyoke, 12; Ph.D., Chicago, 20. Instr. and asst. prof. chem, Chicago, 20- Chem. Soc. Organic chemistry; synthetic drugs.
- Rising, W(alter) H(amilton)**, Corning Glass Works, Corning, N. Y. *Chemistry*. Corning, Feb. 19, 93. B.S.(Ch), Michigan, 20. Physical lab, Corning Glass Works, 11-13, chem. lab, 16-17, 19; asst. chem, Michigan, 20; *chemist*, Spencer Lens Co, N. Y., 20-25; *Corning Glass Works*, 25- Sergt. C.W.S., 18. Chem. Soc. War gases; optical glass; large telescope discs.
- Risley, Prof. Walter J(ohn)**, 1522 Maple St, Golden, Colo. *Mathematics*. Logan, Ohio, March 4, 74. Ohio, 95-97; B.S., Michigan, 00; A.M., Illinois, 07; Harvard, 07-10. Instr. math, Ohio, 96-97; high sch, Ill, 00-03; math, Armour, 03-05; Illinois, 05-07; asst. astron, Harvard, 07-09, instr. math, 09-10; *prof. and head dept*, James Millikin, 10-22; *math. and mechanics, Colo. Sch. Mines*, 22- Capt. O.R.C. A.A.; Math. Soc; Math. Ass; Eng. Educ; N. Cent. Ass. Colleges and Secondary Schools (commission on higher institutions). Algebra; geometry; graphs; asymptotic series; envelopes of families of curves.
- Risteen, Dr. A(lan) D(ouglas)**, P. O. Box 70, Hartford, Conn. *Physics, Chemistry*. Ameshbury, Mass, Aug. 15, 66. B.S., Worcester, 85; Ph.D., Yale, 03. U. S. Coast Surv, 85-87; ed, Hartford Steam Boiler Inspection and Ins. Co, 87-11; *director tech. research, Travelers Ins. Co*, 11- Asst. ed, 'Ency. Americana.' Mech. Eng. Technology; industrial safety.
- Ritchey, Prof. G(eorge) W(illis)**, Solar Observatory Office, Pasadena, Calif. *Astronomy*. Tupper Plains, Ohio, Dec. 31, 64. Cincinnati, 83-84, 86-87. Asst., Cincinnati Observatory, 86-87; instr. manual training, Chicago Manual Training Sch, 88-96; optician, Yerkes Observatory, 96-99, supt. instrument construction, 99-04; instr. practical astron, Chicago, 01-04, asst. prof, 04-05; *astronomer and supt. instrument construction, Solar Observatory, Carnegie Institution*, 05- Astron. Soc; assoc. Royal Astron. Soc. Photography of nebulae and star-clusters in the attempt to detect evidence of development; the reflecting telescope as a photographic instrument; development of the horizontal telescope; the two-foot reflecting telescope; construction of a two-foot horizontal reflecting telescope of 145 feet focal length with coelostat; photography of star-clusters and the moon with 40-inch refractor of Yerkes Observatory with color screen; reflecting telescope of five-foot aperture and 25 feet focal length for astronomical photography; reflecting telescope of 100 inches aperture and 500 inches focal length for astronomical photography.
- Ritchie, John**, 115 Washington St, Malden, Mass. *Astronomy*. Boston, Mass, April 18, 53. English High Sch, Boston. Asst, Harvard Col. Observatory, 83-92; commissioner, Board Health, Boston, 08-10; assoc. ed, 'Am. Jour. Pub. Health,' 18-22. Meteor. Soc; Statist. Ass; Nat. Ass. Shell-Fish Commissioners; Library Ass; New Eng. Federation Nat. Hist. Soc. (pres, 07-); Mass. Ass. Boards Health; Boston Sci. Soc. (pres, 06-); Boston Malacol. Soc. (pres, 18). Conchology; ice caves; sanitation of schoolhouses.
- Ritchie, John W(oodside)**, World Book Co, Yonkers, N. Y. *Biology*. Near Sparta, Ill, Dec. 6, 71. A.B., Maryville, 98; fellow, Chicago, 04-05. Instr. biol, Maryville, 99-00; with Bur. Educ, P. I, 02-04; prof. biol, William and Mary, 05-19; *science ed, World Book Co*, 15- A.A.; Soc. Bact; Pub. Health Ass; Torrey Bot. Club. Sanitation; hygiene; physiology; botany.
- Ritchie, Prof. Walter S(tuntz)**, 1306 Ross St, Columbia, Mo. *Agricultural chemistry*. Ludlow, Ky, April 11, 92. B.S., Ohio State, 16; A.M., Missouri, 18, Ph.D., 22. Instr. agr. chem, Missouri, 16-20, asst. prof, 20- Chem. Soc. Animal nutrition.
- Ritt, Prof. J(oseph) F(els)**, 1023 46th St, Brooklyn, N. Y. *Mathematics*. New York, N. Y., Aug. 23, 93. Col. City of N. Y., 08-10; A.B., George Washington, 13; fellow, Columbia, 14-16, Ph.D., 17. Computer, U. S. Coast and Geod. Surv, 11; U. S. Naval Observatory, 12; Nautical Almanac Office, 13-14; asst. math, Columbia, 16-18, lecturer, 18, instr, 19-21, asst. prof, 21-27, *assoc. prof*, 27- Master computer, ordnance dept, U.S.A., 18-19. Math. Soc; Math. Ass. Theory of functions; functional equations.
- Ritter, Prof. W(illiam) E(merson)**, University of California, Berkeley, Calif, or Science Service, Washington, D. C. *Zoology, Biology*. Columbia Co, Wis, Nov. 19, 56. Wis. State Nor. Sch, Oshkosh, 84; B.S., California, 88; A.M., Harvard, 91, Ph.D., 93. Instr. biol, California, 91-93, asst. prof. zool, 93-98, assoc. prof, 93-02, prof, 02-23, *emer. prof*, 23-; *pres, Science Service*. Director, Scripps Inst. of Oceanography, 09-23, *emer. director*, 23- Assoc. ed, 'Jour. Ecol.' A.A.

- (v. pres, 09, pres, Pacific div, 20); Soc. Nat; Soc. Zool. (v. pres, 15); Soc. Mammal; Ecol. Soc; Am. Geog. Soc; Am. Acad; Pacific Biol. Soc. (pres, 12); West. Soc. Nat; fel. Calif. Acad. (pres, 98-00); Wash. Acad; cor. mem. Phila. Acad; fel. San Diego Nat. Hist. Soc. Pineal organ; eyes and sense organs of Point Loma blind fish; budding in ascidians; morphology and taxonomy of ascidians and Enteropneusta; habits of salamanders; resources and population of North Pacific area; organic growth and integration; animal activities; philosophical aspects of biology.
- Rittman, Dr. W(alter) F(rank)**, Carnegie Institute of Technology, Pittsburgh, Pa. *Chemical engineering*. Sandusky, Ohio, Dec. 2, 83. A.B. Swarthmore, 08, A.M., 09, M.E., 11, Ch.E., 16; Ph.D., Columbia, 14. Instr. chem., Swarthmore, 09-12; chief petrol. chemist, U. S. Bur. Mines, 14-16; consulting chemist, 16-21; *head dept. commercial eng., Carnegie Inst. Tech.*, 21- Lecturer, Columbia, 14. Consulting engineer, State of Pa., 24-25. Mem. administrative board, Am. Eng. Council. Chem. Soc; Chem. Eng; Min. Eng; Mech. Eng; Indust. Eng. (pres); Franklin Inst; N. Y. Eng. Club; N. Y. Chemists Club. Chemical and industrial engineering; fuel, oil and gas.
- Rivas, Dr. Dámazo de**, University of Pennsylvania, Philadelphia, Pa. *Medicine*. Diria, Granada, Nicaragua, C. Amer, Dec. 11, 74. M.D., Pennsylvania, 99, B.S., 08, M.S., 09, fellow, 10, Ph.D., 10; Paris and Lille, 99-00; Heidelberg, 00-02. Bacteriologist, Filtration Bur, Phila., 04-06; Pa. State Dept. Health, 07-10; *asst. director dept. comp. path. and sch. trop. med., Pennsylvania*, 10-, *asst. prof. parasitol.*, 16-22, *prof.*, 22- Serologist, Friends Hosp, Frankford, 16-; pathologist, Pa. State Dept. Health, 17- Co-worker, Pasteur Inst, 99-00; *asst. Koch Inst*, 00-02. Malaria and Trop. Disease Commission (Italy), 00-02. Pres, Nicaragua delegation, Sci. Pan-Am. Cong, Washington, 06-07; Pa. delegate, Int. Cong. Tuber, Washington, 08; Quinto Cong. Med. Nacional de Cuba, 21; Nicaragua delegate and hon. pres, Cong. Med. Latino-Amer, Havana, 22. Am. Med. Ass; Soc. Parasitol; Ass. Path. and Bact; Soc. Trop. Med; Phila. Path. Soc; cor. mem. Soc. de Path. exot. Human parasitology; bacteriology; pathology; tropical diseases; hematology; serology; tuberculosis; leprosy; hygiene; sanitation.
- Rivers, Dr. T(homas) M(ilton)**, Rockefeller Institute, New York, N. Y. *Medicine, Bacteriology*. Jonesboro, Ga, Sept. 3, 88. A.B., Emory, 09; M.D., Hopkins, 15. Asst. bacteriologist, Santo Tomas Hosp, Panama, 12-13; instr. pediat, Hopkins, 17-18, bacter, 19-20, assoc, 20-22; *Rockefeller Inst*, 22-24, assoc. mem, 24-27, *mem.*, 27- Soc. Bact; Soc. Exp. Path; Ass. Immunol; Soc. Clin. Invest; assoc. Am. Physicians. Bacteriology of respiratory diseases; classification of influenza bacilli; influenza meningitis; filterable viruses; chicken-pox; measles.
- Rixford, Dr. Emmet**, 1795 California St, San Francisco, Calif. *Surgery*. Bedford, Can, Feb. 14, 65. B.S., California, 87; M.D., Cooper Med. Col, 91. *Prof. surg., Cooper Med. Col.*, 98-; *sch. med., Stanford*, 09- Sec'y, board directors, Cooper Med. Col. A.A; Surg. Ass. (v. pres, 05, pres, 28); Soc. Clin. Surg; Calif. Acad. Med; Calif. Acad; Pacific Coast Surg. Ass; San Francisco Co. Med. Soc. (pres, 05, 23); Soc. int. de Chirurg.
- Rixford, G(ulian) P(ickering)**, 1813 Pierce St, San Francisco, Calif. *Horticulture*. East Highgate, Vt, Sept. 21, 38. C.E., McGill, 64. Journalist, San Francisco 'Evening Bul.', 68-89; office crop physiologist and breeding investigations, U. S. Dept. Agr. Lecturer, California. A.A; Calif. Acad. (sec'y, 95-01, counselor). Plant breeding; fig culture.
- Roadhouse, Prof. C(hester) L(inwood)**, 215 Rice Lane, Davis, Calif. *Dairying*. Watsonville, Calif, Jan. 5, 81. D.V.M., Cornell, 06. Vet. inspector, bur. animal indust, U. S. Dept. Agr, 06-08; chief dairy inspector, Dept. Pub. Health, San Francisco, 09; city veterinarian in charge milk supply, Berkeley, 10; instr. and assoc. prof. vet. science, *California*, 10-17, *prof. dairy indust*, 17- Pres, Pacific Slope Dairy Show. Medal, Pan-Pacific Indust. Expos. Dairy Sci. Ass. (ed. board, 'Jour.', 17-26); Int. Ass. Dairy and Milk Inspectors (past pres). The control of tuberculosis in certified dairies; the bacillus enteritidis as the cause of infectious diarrhea in calves; the relation of acidity to butterfat content in milk and cream; livestock conditions.
- Roark, Prof. Raymond J(efferson)**, University of Wisconsin, Madison, Wis. *Mechanics*. Greenville, Ky, July 25, 90. B.S., Illinois, 11, M.S., 12; Wisconsin. Detailer and designer, T. L. Condron Co, Ill, 12; instr., Wisconsin, 13-16; assoc. prof. mech. and hydraul, Iowa, 19-20; *asst. prof. mech., Wisconsin*, 20- Lieut. and capt, F.A., 17-19. A.A; Soc. Test. Mat; Eng. Educ. Theoretical and applied mechanics; properties of materials of construction; elasticity; stress analysis.
- Roark, Dr. R(uric) C(reegan)**, U. S. Department of Agriculture, Washington, D. C. *Chemistry*. Glasgow, Ky, March 13, 87. A.B., Cincinnati, 07; A.M., Illinois, 08; Ph.D., George Washington, 17. Asst. chemist, bur. chem, U. S. Dept. Agr, 08-17; chief chemist, U. S. Sanit. Specialties Corp, Ill, 18; research chemist, Gen. Chem. Co, 18-23; *assoc. chemist, bur. chem., U. S. Dept. Agr*, 23- A.A; Chem. Soc; Agr. Chem. (referee, insecticides, 14-16). Insecticides; chemotropic response of insects.
- Roback, Dr. A(braham) A(ron)**, Northeastern University, Boston, Mass. *Psychology*. June 19, 90. B.A., McGill, 12; A.M., Harvard, 13, Ph.D., 17; traveling fellow, at Princeton, 16. Instr. psychol, Pittsburgh, 17; *prof. psychol. and English, Northeastern*, 18- Instr., Harvard, 20-23; lecturer, Simmons, 19-; New Hampshire, 22; Clark, 22; Mass. Inst. Tech, 26; univ. exten, Mass. Dept. Educ, 26. Nat. Research Council fellow, 23-25. Psychol. Ass; Philos. Ass; Eugenics Research Ass. Experimental and applied psychology; interference of will impulses; the graphic mechanism; group tests; behaviorism; psychology of character; folk and ethnic psychology.
- Robb, Dr. W(illiam) L(ispenard)**, Rensselaer Polytechnic Institute, Troy, N. Y. **Physics, Elec-*

- trical engineering*. Saratoga, N. Y., 61. A.B., Columbia, 80, fellow, 80-83, Barnard fellow, 93-96; Ph.D., Berlin, 83; LL.D., Trinity (Conn), 02. Asst. math., Columbia, 84-85; *prof. physics*, Trinity (Conn), 85-02; *physics and elec. eng.*, Rensselaer, 02- Consulting elec. engineer, corporations. Physical Soc; Elec. Eng; Consulting Eng; Illum. Eng. Soc.
- Robbins, Dr. D(aniel) S(tucker)**, New Mexico College of Agriculture and Mechanic Arts, State College, N. Mex. *Physics*. Asbury, Pa, Sept. 21, 64. B.S., North. Ind. Nor. Sch, 89, M.S., 94; Rush Med. Col, 04, Chicago, 06; Ph.D., Valparaiso, 07. Prof. math., Chillicothe Nor. Sch, Mo, 90-97, pres, 97-98; Stanberry Nor. Sch, Mo, 98-03; consulting engineer, 08-18; *prof. gen. eng.*, N. Mex. Col, 18-22, *physics*, 22-A.A.; Math. Soc; Ass. Eng. (director and exec. committee, 20-24, treas., southwest. div., 21-23, v. pres, 23); N. Mex. A.A.S. (pres, 24). Electron theory of matter; X-ray spectroscopy.
- Robbins, Dr. Rainard B(enton)**, 1701 Connecticut Ave, Washington, D. C. *Mathematics*. Clinton Co, Ind, April 21, 86. A.B., Indiana, 09, A.M., 10; Ph.D., Harvard, 14. Instr. math., Harvard, 12-14; Sheffield Sci. Sch., Yale, 14-17; Michigan, 17-23; N. Y. Ins. Dept, 23-27; *Union Labor Life Ins. Co*, 27- Math. Soc; Actuarial Soc; Inst. Actuaries; Statist. Ass; Casualty Actuarial Soc. Statistics; actuarial science; applications of mathematics to biology.
- Robbins, Samuel D(owse)**, 40 Centre Ave, Belmont, Mass. *Psychology*. Belmont, Dec. 28, 87. A.B., Harvard, 11, A.M., 19. Prin. Robbins Sch. for Stammerers, 14-16; *director*, Boston Stammerers' Inst, 16- A.A.; Psychol. Ass. A plethysmographic study of shock and stammering; a comparative study of verbal imagery in stammerers and normal speakers; the prevention of stammering.
- Robbins, Dr. Wilfred William**, University Farm, Davis, California. *Botany*. Mendon, Ohio, May 11, 84. A.B., Colorado, 07, A.M., 09; Ph.D., Chicago, 17. Instr. biol., Colorado, 08-11; bot. and forestry, Colo. Agr. Col, 11-13, asst. prof, 13-14, prof. bot. and botanist, Exp. Sta., 14-19; plant physiologist and pathologist, Great West. Sugar Co, 19-21; botanist, office cereal investigations, bur. plant indust, U. S. Dept. Agr, 21-22; *assoc. prof. bot.*, California, 22- A.A.; Bot. Soc; Hort. Soc. Crop plants; plant physiology.
- Robbins, Dr. William J(acob)**, University of Missouri, Columbia, Mo. *Plant physiology*. North Platte, Nebr, Feb. 22, 90. A.B., Lehigh, 10; Ph.D., Cornell, 15. Instr. biol., Lehigh, 10-11; plant physiol., Cornell, 12-16; prof. bot., Ala. Polytech, and plant physiologist, Exp. Sta., 16-17; soil biochemist, bur. plant indust, U. S. Dept. Agr, 19; *prof. bot.*, Missouri, 19- Summers, asst., Woods Hole, 12-14; special investigator, citrus exp. sta., California, 24. Second lieut., Sanit.C, 18. A.A.; Bot. Soc; Chem. Soc. Plant nutrition; enzyme secretion by fungi; isoelectric points for plant tissue.
- Robbins, William K(eltner)**, 11 Brook St, Manchester, N. H. *Chemical engineering*. Redfield, Iowa. B.S., Iowa Col, 78, M.S., 80. Asst. instr. quant. and org. chem., Mass. Inst. Tech, 79-82; chemist, Amoskeag Mills, 82-02, supt. coloring, 02-24; *retired*, 24. Clerk, Board Health, Manchester, N. H., 94-19. A.A.; Chem. Soc; Ass. Textile Chem. and Colorists; N. H. Acad. Textile coloring and manufacturing; causes of uneven dyeing of all-wool worsted piece goods.
- Roberts, Dr. E(dith) A(delaide)**, Vassar College, Poughkeepsie, N. Y. *Botany*. Dover, N. H., 81. A.B., Smith, 05; M.S., Chicago, 11, Ph.D., 15. Instr. and assoc. prof. bot., Mt. Holyoke, 15-17; exten. worker with women, U. S. Dept. Agr, 17-19; assoc. prof. bot., Vassar, 19-21, *prof.*, 21- A.A.; Bot. Soc. Plant physiology and ecology; germination seeds and propagation of native plants.
- Roberts, Dr. E(dward) N(oel)**, Standard Oil Co. of Indiana, Casper, Wyo. *Chemistry*. Wind River, Wyo, March 1, 88. A.B., Wyoming, 11; B.A., Oxford, 13; Ph.D., Chicago, 18. Asst. research chemist, Wyo. Exp. Sta., 13-15; instr. chem., Chicago, 16-18; asst. prof., West Virginia, 19-20; research biochemist, U. S. Indust. Alcohol Co, 20-25; asst. research chemist, Wyoming, 25-26; *research chemist*, Standard Oil Co. of Ind., 26- Lieut., Sanit.C, 18-19. A.A.; Chem. Soc; Soc. Bact. Saponification of ethyl formate; fermentation; forage plants.
- Roberts, Dr. E(dwin) J(ay)**, 16 Fenton Ave, Laconia, N. H. *Chemistry*. Gilford, N. H., Feb. 2, 85. B.S., New Hampshire, 06; Ph.D., Yale, 11. Asst. chem., Yale, 08-10; instr., Colby, 11-14; asst. prof. anal. chem., Brooklyn Polytech, 14-18; *in business*, 18- A.A.; Chem. Soc; N. H. Acad. Rare earth metals.
- Roberts, Dr. Elmer**, 508 W. Iowa St, Urbana, Ill. *Genetics*. Burnside, Ky, June 29, 86. B.S., Illinois, 13, Ph.D., 17. Asst. *genetics*, Illinois, 13-14, instr., 14-18, assoc., 18-20, asst. prof., 20-25, *assoc. prof.*, 25- A.A.; Soc. Zool. Genetics; agriculture; physiology of reproduction; immunity.
- Roberts, Prof. Geo(rge)**, University of Kentucky, Lexington, Ky. *Agronomy*. Burnside, Ky, June 16, 73. B.Pd., Kentucky, 99, M.S., 01. Asst. chemist, Ky. Exp. Sta., 01-03; Calif. Exp. Sta., 03-06; Ky. Exp. Sta., 06-09, *agronomist and prof. agron.*, Kentucky, 09-, *asst. dean col. agr.*, 19- A.A.; Soc. Agron. (treas., 13-17); Ky. Acad. Soil fertility.
- Roberts, Helen H(effron)**, Yale University, New Haven, Conn. *Anthropology*. Chicago, Ill, 88. Grad., Chicago Musical Col; Am. Conservatory; A.M., Columbia. Instr. music, Kans. State Manual Training Nor. Sch, 12-15; asst. *anthrop.*, Barnard, Columbia, 17-18; *instr.*, Yale, 24- Vassar Col. Folk-lore Foundation exped, Jamaica; Hawaiian Legend and Folk-lore Commission Surv, Hawaiian ancient music. A.A.; fel. Ethnol. Soc; Anthropol. Ass; Eugenics Soc; Am. Geog. Soc. Salish basketry; Pawnee Indian music; Copper Eskimo songs; Jamaica negro songs; ancient Hawaiian music; California Indian music; songs of the Nootka.
- Roberts, Prof. H(erbert) F(uller)**, University of Manitoba, Winnipeg, Man, Can. *Botany*. Manhattan, Kans, Dec. 2, 70. A.B., Kansas, 91; LL.B., Northwestern, 93; M.S., Kansas Col, 98;

- Chicago, 98-99. Instr. bot. Washington (St. Louis), 99-01; prof. Kansas Col, 01-19, in charge exp. plant breeding, Exp. Sta, 10-19; asst. prof. bot, *Manitoba*, 20- A.A.; Soc. Nat. Plant physiology; genetics.
- Roberts, H(oward) S(hreve)**, 2d, Geophysical Laboratory, Washington, D. C. *Physical chemistry*. Philadelphia, Pa, Dec. 12, 90. E.E, Pennsylvania, 12; Drexel Inst, 13. Chemist, Wirt Co, 14-17; *physicist, geophys. lab, Carnegie Institution*, 17- Manufacturer optical glass, W. I. B, 18. Chem. Soc; Wash. Acad; Wash. Philos. Soc. Oxid of iron and copper; optical glass.
- Roberts, Hugh M(arine)**, 306 Lonsdale Building, Duluth, Minn. *Mining geology*. Superior, Wis. Wisconsin, 07-11. Explorations, Brazil and Hudson Bay, Can, 09-11; field and chief geologist, E. J. Longyear Co, 12-20; *mining geologist*, 20- A.A.; Min. and Metal. Eng; Can. Inst. Min. and Metal. Genesis of Sudbury nickel-copper ores.
- Roberts, Prof. I(saac) P(hillips)**, Palo Alto, Calif. *Agriculture*. East Varick, N. Y, July 24, 33. M.Agr, Iowa Col, 75. Prof. agr. and dean faculty, N. Y. State Col. Agr, Cornell, 73-94, director, Exp. Sta, 88-03, N. Y. State Col. Agr, 94-03, emer. prof. and lecturer agr, 03- Ass. Agr. Col; N. Y. State Agr. Soc. (pres); N. Y. State Dairymen's Ass. (pres). Conservation of moisture in the soil; tillage; clover crops; preservation of manures; effect of tillage on potatoes; Melilotus as a green manure crop; effect on production by continuous growth of intertilled crops.
- Roberts, Dr. John W(illiam)**, U. S. Department of Agriculture, Washington, D. C. *Plant pathology*. Alma, Nebr, July 4, 82. A.B, Nebraska, 04, fellow, 08, A.M, 09; Ph.D, George Washington, 17. Instr, high sch, Nebr, 05-06; asst. bot, Nebraska, 07-09; sci. asst, bur. plant indust, U. S. Dept. Agr, 09-11, asst. pathologist, 12-13, *pathologist*, 13- Fed. Insecticide and Fungicide Board. A.A; Phytopath. Soc; Bot. Soc; Wash. Bot. Soc. Diseases of apple, peach, plum and cherry.
- Roberts, Dr. Joseph K(ent)**, University of Virginia, Charlottesville, Va. *Geology*. Saltville, Va, July 11, 89. A.B, Emory and Henry, 10; A.M, Hopkins, 15, Ph.D, 22. Prof. geol. and biol, Emory and Henry, 16-20; asst. prof. geol, Vanderbilt, 22-24, assoc. prof, 24-26; prof, *Virginia*, 26- Summers, asst. geologist, Cent. Ga. Ry, 15, geologist, 16, asst. geologist, Va. Geol. Surv, 20-23, Tenn. Geol. Surv, 24, Ky. Geol. Surv, 26. A.A; fel. Geol. Soc; fel. Paleont. Soc; Min. and Metal. Eng; Tenn. Acad. Triassic stratigraphy, structure and lithology; tertiary sedimentology of West Tennessee; Triassic bibliography.
- Roberts, Prof. L(athrop) E(merson)**, University of Arizona, Tucson, Ariz. *Chemistry*. St. Joseph, Mo, Sept. 9, 88. B.S, Chicago, 14, Ph.D, 19. Instr. chem, Pittsburgh, 14-16; asst. director research, Am. Writing Paper Co, 20-22; physical chemist, U. S. Bur. Mines, 22-23; asst. prof. chem, *Arizona*, 23-24, assoc. prof, 24-26, prof, 26- C.W.S, U.S.A, 17-18. Chem. Soc.
- Physical chemistry; surface tension; entropy relations in vaporization; oxidation of ferrous salts; determination of magnetite in copper slags; effect of slag composition on solubility of matte.
- Roberts, Prof. Maria M**, Iowa State College, Ames, Iowa. *Mathematics*. Dunlap, Iowa, June 29, 67. B.Litt, Iowa Col, 90; Cornell; Chicago; Columbia. Instr, asst. prof, assoc. prof. and prof. math, *Iowa Col*, 13- Math. Soc; Math. Ass. Analytical geometry.
- Roberts, Dean Milnor**, 4501 15th Ave, N. E, Seattle, Wash. *Mining engineering*. New York, N. Y, March 10, 77. A.B, Stanford, 99, 00-01. Instr. miner, Stanford, 00-01; prof. *mining and metal. and dean col. mines, Washington (Seattle)*, 01- Consulting mining engineer, Pacific Northwest and Alaska, 01- Wash. Geol. Surv, 01, 02; consulting mining engineer, U. S. Bur. Mines. In charge collecting ores of Washington for La. Purchase and Portland Expositions; int. jury awards, Alaska-Yukon-Pac. Expos, 09. Min. and Metal. Soc. (councilor, 25-); Min. and Metal. Eng; Pacific Northwest Soc. Eng. (pres, 09). The mineral industry; the ores and non-metallic minerals of the Pacific Northwest, British Columbia and Alaska; ore dressing and coal washing methods.
- Roberts, Prof. R(ay) H(arland)**, University of Wisconsin, Madison, Wis. *Horticulture*. Lebanon, Oregon, April 4, 90. B.S, Oregon Col, 10, M.S, 12; Ph.D, Wisconsin, 24. Instr. hort, *Wisconsin*, 15-18, asst. prof, 18-22, assoc. prof, 22- Apple physiology; biennial bearing of apples; blossom bud formation; stock and scion relations.
- Roberts, Prof. R(obert) C(hester)**, 98 N. Forsythe St, Franklin, Ind. *Chemistry*. Onaga, Kans, March 2, 91. B.S, Ottawa (Kans), 12; fellow, Kansas, 12-13, A.M, 14; Ph.D, Yale, 21. Instr, Kansas, 13-14; prof. chem, Franklin, 15-20; teaching asst, Yale, 20-21; prof, *Franklin*, 21- A.A; Chem. Soc. Organic chemistry.
- Roberts, Dr. Tho(mas) S(adler)**, Zoological Museum, University of Minnesota, Minneapolis, Minn. *Medicine, Ornithology*. Philadelphia, Pa, Feb. 16, 58. Minnesota; M.D, Pennsylvania, 85. *State ornithologist, Minn*, 90-; prof. *pediat, Minnesota*, 01-06, clin. prof, 06-13, emer. prof, 13-, prof. *ornith. and director zool. museum*. Physician, Home for Aged Women and for Children. A.A; Am. Med. Ass; fel. Ornith. Union; Soc. Mammal; Wilson Ornith. Club; Cooper Ornith. Club; cor. mem. Wash. Biol. Soc; Minn. Acad. (trustee and past pres). Ornithology of Minnesota.
- Robertson, Prof. A(lbert) D(uncan)**, 454 St. James St, London, Ont, Can. *Zoology*. Wellington Co, Ont, Aug. 24, 76. B.A, Toronto, 10, fellow, 10-12. Lecturer *biol*, Toronto, 12-15; assoc. prof, *Western*, 15-19, prof, 19- A.A; Soc. Zool; Ass. Anat; Ecol. Soc; Can. Inst. Mollusca; oysters; Limnophila.
- Robertson, Dr. A(lfred) C(rawford)**, 940 Del Mar St, Pasadena, Calif. *Chemistry*. Dayton, Oregon, March 22, 00. B.S, Oregon Col, 22; M.S, Wisconsin, 24, du Pont fellow, 24-25, Ph.D,

25. Asst. chem, Wisconsin, 22-24; *Nat. Research Council fellow*, 25- O.R.C, U.S.A. Catalysis; promoter action in homogeneous catalysis; the causation of reactions.

Robertson, Prof. Burton J, University of Minnesota, Minneapolis, Minn. *Engineering*. Lyle, Minn, May 3, 82. B.S, Minnesota, 14, E.E, 15. Engineer, Lyle Culvert and Road Equipment Co, 15-18; asst. director exp. eng. laboratories, Minnesota, 18-24, asst. prof. gas eng, 24- Mech. Eng. (v. chairman, Minneapolis sect, 25, chairman, 26); Automotive Eng; Eng. Educ. (sec'y, Minneapolis sect, 25); Minneapolis Eng. Club. Combustion engineering; internal combustion engines.

Robertson, Prof. Charles, Carlinville, Ill. *Biology*. Carlinville, June 12, 58. Blackburn, Ill. Instr. bot. and Greek, Blackburn, 80-86, prof. biol, 97-09. A.A.; Ecol. Soc. Mutual relations of flowers and insects.

Robertson, Prof. D(avid) W(ield), Colorado Agricultural College, Ft. Collins, Colo. *Agronomy*. Penpont, Dumfriesshire, Scotland, Dec, 93. B.S.A, Manitoba, 18; M.S, Minnesota, 20. Assoc. prof. agron, Col. Exp. Sta, 20- Summer, instr, Man. Agr. Col, 18. A.A; Soc. Agron; Int. Soc. Soil Sci; Can. Soc. Tech. Agr. Plant breeding; plant physiology; soils.

Robertson, Prof. G(eorge) Ross, 1749 Edgemont St, Los Angeles, Calif. *Organic chemistry*. Toronto, Ont, Can, May 27, 88. A.B, Pomona, 09; B.S, California, 11; M.S, Chicago, 19, Ph.D, 21. Instr. chem, high sch. and junior col, Calif, 11-18; junior chemist, U. S. Pub. Health Service, 19-21; instr. and asst. prof. chem, California at Los Angeles, 21- Chem. Soc.

Robertson, Prof. H(arold) E(uгене), University of Minnesota, Minneapolis, Minn. *Pathology*. Waseca, Minn, Oct. 8, 78. A.B, Carleton, 99; Columbia, 00-01; M.D, Pennsylvania, 05; Berlin, 14; Freiburg, 15. Instr. path, Albany Med. Col, Union, 05-06; Harvard Med. Sch, 07; path. and bacter, Minnesota, 07-09, asst. prof, 10-11, assoc. prof, 11-13, prof. path, 13-, acting head dept. path, bacter. and pub. health, 13-15, director, 15-18, path. and pub. health, 18-21; prof. path, Mayo Foundation, and head dept. path. anat, Mayo Clinic, 21- Pathologist, Boston City Hosp, 06-07. Major, M.C, U.S.A, 17-18. A.A; Am. Med. Ass; Ass. Path. and Bact; Am. Acad. Med; Int. Ass. Med. Museums. Anterior poliomyelitis; ganglio-neuromata; ductus arteriosus; bacteriology; lipoma myxomatodes; tetanus; pleural endothelioma.

Robertson, Dr. Harold E(uгене), Solvay Club, Syracuse, N. Y. *Chemistry, Chemical engineering*. Rush Centre, Kans, Oct. 15, 97. Purdue, 17; A.B, Southwestern, 18; Ph.D, Columbia, 21. Asst. chem, Purdue, 17-18; chemist, Atlas Powder Co, 18-19; asst. chem, Columbia, 19-22; research chemist, Grasselli Chem. Co, Ohio, 22-24; chem. engineer, The Solvay Process Co, 24- Physical chemistry; industrial chemical engineering.

Robertson, H(oward) P(ercy), Princeton University, Princeton, N. J. *Mathematical physics*. Hoquiam, Wash, Jan. 27, 03. B.S, Washington

(Seattle), 22, M.S, 23, Denny fellow, 23-24; Ph.D, Calif. Inst, 25. Teaching fellow math. physics, Calif. Inst, 24-25; *Nat. Research Council fellow math*, Göttingen and Munich, 25-27; Princeton, 27- Math. Soc. Relativity.

Robertson, James, U. S. Naval Observatory, Washington, D. C. *Astronomy*. Rockford, Ill, May 1, 67. B.S, Michigan, 91. Asst, *Nautical Almanac Office*, U. S. Naval Observatory, 93-09, senior asst, 09-24, astronomer, 24- Elements of fifth satellite of Jupiter; improved methods of computing eclipses in American ephemeris.

Robertson, Prof. J(ohn) K(ellock), 105 Albert St, Kingston, Ont, Can. *Physics*. Perth, Ont, Jan. 2, 85. B.A, Toronto, 07, M.A, 08; Cambridge, 12-13. Asst. demonstrator and research student physics, Toronto, 07-09; lecturer, Queen's, 09-12, asst. prof, assoc. prof. and prof, 13- Fel. Physical Soc; Optical Soc; fel. Royal Soc. Can. Electrodeless discharge in gases and vapors; intensity measurement of spectral lines; methods and instruments used in teaching physical optics; history of science and relation of science to the humanities; X-rays and X-ray apparatus.

Robertson, Prof. O(swald) H(ope), University of Chicago, Chicago, Ill. *Medicine*. Woolwich, Eng, June 2, 86. B.S, California, 10, M.S, 11; M.D, Harvard, 13. Fellow path, Mass. Gen. Hosp, 14-15; asst. bacter. and path, Rockefeller Inst, 15-17; assoc. prof. med, Peking Union Med. Col, 19-23, prof. and head dept, 23-27; Chicago, 27- Am. Physicians; Soc. Exp. Biol; Soc. Clin. Invest. Blood destruction and transfusion; hemorrhage; blood volume; anemia and plethora in relation to antibody production; pneumococcus immunity.

Robertson, Dr. W(illiam) R(ees) B(rebner), University of Missouri, Columbia, Mo. *Zoology*. Manchester, Kans, 81. A.B, Kansas, 06, A.M, 07; Ph.D, Harvard, 15. Instr. zool, Kansas, 07-09, asst. prof, 12-20, assoc. prof, 20-23; Missouri, 23- A.A; Soc. Nat; Soc. Zool; Kans. Acad. Cytology; genetics.

Robeson, Prof. F(rank) L(eigh), Virginia Polytechnic Institute, Blacksburg, Va. *Physics, Spectroscopy*. Farmville, Va, June 24, 84. B.S, Va. Polytech, 04, M.E, 05; A.M, Columbia, 13; Ph.D, Hopkins, 23. Supt, Farmville Mfg. Co, 07-10; asst. math, Va. Polytech, 04-05, instr. math. and drawing, 05-07, math. and mech. eng, 10-12, assoc. prof. physics, 13-17, prof, 17- A.A; Physical Soc; Va. Acad. History and properties of the cycloid; infra-red spectrum of helium; pyrometry; thermal conductivities of refractories.

Robey, Dr. William Henry, 202 Commonwealth Ave, Boston, Mass. *Medicine*. Boston, July 3, 70. M.D, Harvard, 95. Asst. bacter. med, instr. and faculty instr. med, Harvard Med. Sch, 00-19, asst. prof, 19-27, clin. prof, 27- Visiting physician, Boston Dispensary, 00-09; physician-in-chief, second med. service and pres, senior staff, Boston City Hosp; consulting physician, Milton Hosp; Norwood Hosp. Pres, Mass. Cent. Health Council. Major and lieutenant, col, U.S.A, chief med. service, base hosp, Camp McClellan,

- consultant med, advance sect, U.S.A., 18-19, col. M.O.R.C, commanding officer, U.S.A. Gen. Hosp. No. 71. A.A.; Am. Med. Ass; Ass. Path. and Bact; Heart Ass. (v. pres); Climat. Ass; New Eng. Heart Ass. (pres); fel. Mass. Med. Ass; Boston Soc. Med. Sci. (past sec'y). Internal medicine; circulatory diseases.
- Robin, Dr. Albert**, Wilmington, Del. *Bacteriology*. Ouman, Russia, April 6, 75. M.D. West. Pa. Med. Sch, 97. Pathologist and bacteriologist, Del. State Board Health Lab, 99-03; *prof. path. and hygiene*, Temple, 02-; *bacteriologist*, City Water Dept, Wilmington, 03- Pathologist, Samaritan Hosp; med. director, Hope Farm Sanatorium. Asst. ed, 'Phila. Med. Jour,' 01-03; dept. ed, 'Therapeut. Monthly,' 02-03; assoc. ed, 'Atlantic Med. Jour.' Soc. Bact; Am. Med. Ass; Col. Physicians; Pub. Health Ass; Phila. Path. Soc. Pathology; laboratory methods; sanitary problems; internal medicine; Röntgenology.
- Robinson, Dr. B(enjamin) L(incoln)**, 3 Clement Circle, Cambridge, Mass. **Botany*. Bloomington, Ill, Nov. 8, 64. Williams, 83; A.B, Harvard, 87; Ph.D, Strassburg, 89; Bonn, 90. Asst, Gray Herbarium, Harvard, 90-92, curator, 92-, *Asa Gray prof. syst. bot.*, 00- Ed, 'Rhodora.' Nat. Acad; A.A; Bot. Soc. (pres, 00); Am. Acad; New Eng. Bot. Club (pres, 06-08); cor. mem. Mass. Hort. Soc; cor. mem. R. I. Hort. Soc; Vt. Bot. Club; Boston Soc. Nat. Hist; Wash. Acad; cor. mem. Phila. Acad; for. mem. London Linnean Soc; cor. mem. Bot. Gesell; cor. mem. Brandenburg Bot. Verein; cor. mem. Geneva Bot. Soc; for. mem. Soc. pro Fauna et Flora Fennica; cor. mem. Czecho-Slovakian Bot. Soc. Classification and distribution of the spermatophytes of North America, Mexico, northern South America and the Galapagos Islands; revision of the Compositae-Eupatoriace.
- Robinson, Dr. Benj(amin) W(elbourne)**, Armour and Co, Union Stock Yards, Chicago, Ill. *Psychology*. Cedar Falls, Iowa, Jan. 17, 91. A.B, Iowa State Teachers Col, 19; A.M, Iowa, 20, Ph.D, 21. Research asst, bur. personnel research, Carnegie Inst. Tech, 21-24; research assoc, research bur. retail training, Pittsburgh, 24-26; *asst. to chief of methods and standards*, Armour and Co, 26- Lecturer, Carnegie Inst. Tech, 24-26. Tests as measures of natural capacity and aptitude for typewriting; a new timing device for 'Work Limit' group tests; classifications of clerical workers for the purpose of salary adjustments.
- Robinson, Dr. Charles J(udson)**, 901 Clinton Ave, Des Moines, Iowa. *Chemistry*. Eureka, Ill, Dec. 12, 82. B.S, Ill. Wesleyan, 03; Ph.D, Hopkins, 06. Instr, Univ. and Bellevue Hosp. Med. Col, 06-09; *prof. chem*, Louisville, 09-17; research chemist, Saranac Lake, 17-21; *prof. chem*, Des Moines, 21-, dean col. arts and sciences, 26-27. Capt, Sanit.C, 18-19. Chem. Soc; Soc. Physiol. Chem; Chem. Gesell. Action of amins on camphoroxalic acid; combustion of halogen compounds in presence of copper oxid; phosphorus compounds in wheat bran; chemotherapy of tuberculosis; syntheses of dye-stuffs.
- Robinson, Dr. C(harles) S(ummers)**, Michigan Experiment Station, East Lansing, Mich. *Biochemistry*. Chicago, Ill, April 17, 85. A.B, Michigan, 07, M.S, 09, Ph.D, 17. Asst. chem, Michigan, 06-08; with West. Elec. Co, 09; research asst. chem, Mich. Exp. Sta, 09-15, *research assoc*, 15- Assoc, Rockefeller Inst. Hosp, 18. Chem. Soc; Soc. Exp. Biol; Soc. Biol. Chem. Organic nitrogenous compounds; osmosis and adsorption in soils; osmotic pressure with inert membranes; composition of plant sap; mineral metabolism of animals.
- Robinson, Dr. D(aisy) M(aude Orleman)**, U. S. Public Health Service, Washington, D. C. *Biology, Medicine*. Fort Riley, Kans. M.D, M.S, George Washington. Teacher, pub. schools, Fla; surgeon and assoc. prin, Peekskill Mil. Acad; lecturer, N. Y. Polyclinic Med. Sch; v. pres, North West. Dispensary, New York; pres, woman's auxiliary board, N. Y. Polyclinic Med. Sch; *A. A. surgeon, U. S. Pub. Health Service*. Service de Santé, France, 16-19; surgeon, M.R.C, U.S.A., A.A; Am. Med. Ass; fel. Pub. Health Ass; N. Y. Acad. Med; Soc. de Dermat. et Syphilol. Ill effects of Röntgen rays; diagnosis and treatment of herpes zoster; the Noguchi method and Vernes' method in the serum diagnosis of syphilis; early diagnosis and treatment of cancer; luetin reaction in dermatology; diagnosis and treatment of gonorrhoea and syphilis.
- Robinson, E(dmund) G(rubb)**, E. I. du Pont de Nemours and Co, Wilmington, Del. *Chemistry*. Wilmington, Feb. 23, 86. A.B, Swarthmore, 05. *Asst. gen. manager dyestuffs dept*, E. I. du Pont de Nemours and Co. Chem. Soc.
- Robinson, Prof. Edward**, 25 Colchester Ave, Burlington, Vt. *Mechanical engineering*. Vine-land, N. J, Dec. 23, 65. B.S, Mass. Inst. Tech, 90. Asst, Mass. Inst. Tech, 90-91; asst. supt, Hartford Cycle Co, Conn, 91-92; instr. drawing and descriptive geom, Mass. Inst. Tech, 92-96; *prof. mech. eng.*, Clarkson Tech, 96-02; *Vermont, 02-* Mech. Eng; Eng. Educ; Taylor Soc; Vt. Soc. Eng. (past pres).
- Robinson, Prof. Edward Stevens**, Yale University, New Haven, Conn. *Psychology*. Lebanon, Ohio, April 18, 93. A.B, Cincinnati, 16; fellow, Carnegie Inst. Tech, 16-17, A.M, 17; fellow, Chicago, 17-18, 19, Ph.D, 20. Asst. *psychol*, Cincinnati, 17-18; instr, Yale, 19-20; asst. prof, Chicago, 20-23, assoc. prof, 23-27; visiting assoc. prof, Yale, 26; visiting lecturer, Harvard, 27; *prof, Yale, 27-* Co-operative ed, 'Am. Jour. Psychol.' and 'Psychol. Bul.' Trade test div, W.D, U.S.A., 18-19. A.A; Psychol. Ass. (treas, 25). Learning; work and fatigue; ability.
- Robinson, Dr. Elliott S(tirling Andrew)**, 375 South St, Jamaica Plain, Boston, Mass. *Serology*. New Haven, Conn, Aug. 22, 94. A.B, Yale, 16, M.D, 18, Ph.D, 22. Asst. res. med, New Haven Hosp, 18-19; asst. path. and bacter, sch. med, Yale, 19-20, instr, 20-23; Nat. Research Council fellow med, 22-23; *asst. director antitoxin and vaccine lab*, Mass. Dept. Pub. Health, 23-; asst. pub. health, Harvard Med. Sch, 23-25, instr, 25- A.A; Am. Med. Ass; Pub. Health Ass; Soc. Exp. Biol. Serological

relationships of typhoid bacilli; diphtheria toxin and antitoxin.

Robinson, Dr. Florence Richardson, New Haven, Conn. *Psychology*. Hiawatha, Kans. A.B., Nebraska, 02; fellow, Chicago, 05-08, Ph.D., 08. Asst. prof. psychol., Drake, 08-10, prof., 10-18; lecturer, Chicago, 19-20, asst. prof., 20-21. A.A.; Psychol. Ass; Iowa Acad. Animal psychology; defective color vision; work and fatigue.

Robinson, Dr. G(eorge) Canby, Vanderbilt University School of Medicine, Nashville, Tenn. *Medicine*. Baltimore, Md., Nov. 4, 78. A.B., Hopkins, 99, M.D., 03; Munich, 08-09. Asst. demonstrator anat., Cornell, 03-04; res. pathologist, Pennsylvania Hosp., 04-06, res. physician, 06-08; director path. lab., Presb. Hosp., Phila., 09-10; assoc. med., Rockefeller Inst., and res. physician, Hosp., 10-13; assoc. prof. med., Washington (St. Louis), 13-20, acting dean and dean sch. med., 17-20; *prof. med. and dean sch. med., Vanderbilt*, 20- Acting prof., Hopkins, 21-22. Ed-in-chief, 'Jour. Clin. Invest.', 25-27. Am. Physicians; Am. Med. Ass; Physiol. Soc; Soc. Exp. Biol. Diseases of the heart; typhoid bacilli; meningococcus; treatment of tetanus by magnesium sulphate; tuberculous meningitis; the presphygmie period of the heart; the blood pressure in meningitis; electrocardiography; digitalis therapy; output of the heart.

Robinson, Dr. H(arold) C(unningham), Geneva, N. Y. *Bacteriology*. Riverside, Calif., April 21, 89. B.A., Acadia, 10; A.B., Yale, 13, Ph.D., 17. Asst. bacter., Yale, 15-16; bacteriologist, Quarantine Station, New York, 16-17; Lederle Antitoxin Lab., 17-21; *pathologist, Geneva Gen. Hosp., and bacteriologist in charge Ont. Co. Laboratories, Geneva*, 21-; *Yates Co. Lab., Penn Yan*, 25- A.A.; Soc. Bact; Soc. Exp. Biol; Ontario Co. Med. Soc; Geneva Acad. Med. Bacterial growth and metabolism in protein-free digestion products.

Robinson, Heath M(ontgomery), 304 American Exchange National Bank, Dallas, Texas. *Geology*. Pilot, Va., Oct. 11, 90. B.S., Va. Polytech., 10, M.S., 12; Yale, 14, 15. Geologist, U. S. Geol. Surv., 12-15, 17-18; with F. Julius Fohs, 16; F. Julius Fohs and Humphreys Oil Co., 19-23; *consulting geologist*, 23- Ass. Petrol. Geol; Min. and Metal. Eng; Wash. Geol. Soc. Structural geology; oil and gas; ozokerite.

Robinson, Prof. J(esse) M(atthews), Alabama Polytechnic Institute, Auburn, Ala. *Zoology, Entomology*. Higginsport, Ohio, Jan. 30, 89. A.B., Miami, 11; A.M., Ohio State, 16. Teacher and prin., schools, Ohio, 11-15, 16-17; asst. zool. and entom., Ohio State, 15-16; exten. worker, bur. entom., U. S. Dept. Agr., N. C. and Tenn., 17-18; asst. prof. zool. and entom., *Ala. Polytech.*, 19-21, assoc. prof., 21-24, *acting head dept. and acting entomologist, Exp. Sta.*, 24- A.A.; Entom. Soc; Ass. Econ. Entom; Ornith. Union; Wilson Ornith. Club; Eugenics Research Ass; Ohio Acad; Ala. Acad. Bird banding; boll weevil; belted bean beetle; strawberry root louse; turnip webworm.

Robinson, Prof. L(immye) V(ernon), Texas Technological College, Lubbock, Texas. *Mathematics*. Beechgrove, Tenn., Feb. 8, 98. A.B., Texas, 21,

A.M., 22; Vanderbilt fellow, Virginia, 23; Chicago. Asst. math., Texas, 20-22; instr., Meridian Col., 22-23; asst., McCormick Observatory, Virginia, 23-24; asst. prof. math. and astron., Oklahoma City Univ., 24-25, prof. astron., 25-26; *adjunct prof. math., Texas Tech. Col.*, 26- A.A.; Math. Soc; Math. Ass; Okla. Acad. Applied mathematics; nebulae and stellar evolution.

Robinson, Prof. P(ierre) G(ain), Iowa State College, Ames, Iowa. *Mathematics*. Pierre, S. Dak., 89. B.S., Chicago, 14, M.S., 22, Ph.D., 25. Instr., Colo. Agr. Col; high sch., Chicago; *Iowa Col.*, 22-23, *prof.*, 24- Math. Soc. Projective differential geometry; study of surfaces with constant absolute invariants.

Robinson, R(eginald) H(eber), Oregon Agricultural College, Corvallis, Oregon. *Chemistry*. Gladwin, Mich., Nov. 10, 86. A.B., Pacific, 09; M.S., California, 12. Asst. chemist, U. S. Dept. Agr., San Francisco, 10-11; *chemist, Oregon Col.*, 12- A.A.; Chem. Soc. Soils and fertilizers; spray materials.

Robinson, T(homas) Ralph, U. S. Department of Agriculture, Washington, D. C. *Horticulture*. Syracuse, N. Y., Aug. 25, 76. A.B., Syracuse, 98, A.M., 99. Plant physiologist, U. S. Dept. Agr., 01-10; in charge commercial citrus grove, 11-18; *crop physiologist, U. S. Dept. Agr.*, 18- Phytopath. Soc; Wash. Bot. Soc. Soil bacteriology; plant breeding; breeding of citrus fruits.

Robinson, Dr. W(ilbur) I(rving), South American Gulf Oil Co., 21 State St., New York, N. Y. *Geology*. Portland, Mich., May 15, 89. B.S., M.S., Michigan, 14; Ph.D., Yale, 16. Instr. and asst. prof. geol., Vassar, 16-18; asst. prof., Colo. Sch. Mines, 20-21; *geologist, Mich. Geol. Surv.*, 21-26; *S. Amer. Gulf Oil Co.*, 26- Ass. Petrol. Geol; Paleont. Soc. Stratigraphy; paleontology; oil geology.

Robinson, W(illiam) O(rrin), U. S. Department of Agriculture, Washington, D. C. *Soil chemistry*. Marlboro, N. H., Oct. 2, 84. B.S., New Hampshire, 05, M.S., 06. Instr. chem., New Hampshire, 05-06, Exp. Sta., 06; *assoc. chemist, bur. soils, U. S. Dept. Agr.*, 06- R.O.T.C., U.S.A., 17, capt., C.W.S., 17-19, major, C.W.S.R. Chem. Soc. Color and composition of soils; rare elements in soils; soil analysis; poison gas shell filling; composition of plant ash; quantitative determination and composition of soil colloids; action of hydrogen peroxide on soil organic matter.

Robinson, Dr. Winifred J(osephine), University of Delaware, Newark, Del. *Botany*. Johnstown, Mich., Oct. 17, 67. B.S., B.Pd., Michigan, 99, hon. A.M., Mich. Nor. Col., 12; A.M., Columbia, 04, Ph.D., 12. Instr. bot., training dept., Mich. State Nor. Col., 93-95; biol., Vassar, 00-07, bot., 09-13, asst. prof., 13-14; *dean, Women's Col., Delaware*, 14- Research fellow, N. Y. Bot. Garden, 03. A.A.; Soc. Nat; Bot. Soc; Fern Soc; Genetic Ass; Bryol. Club; Inst. Social Sci; Del. Nat. Hist. Soc; Torrey Bot. Club. Plant morphology; taxonomy of Hawaiian ferns; life history of Hymenophyllaceae.

Robinson, Col. Wirt, U. S. Military Academy, West Point, N. Y. *Explosives, Natural history*.

- Buckingham Co, Va, Oct. 16, 64. Grad, U. S. Mil. Acad, 87. Instr. French and Spanish, U. S. Mil. Acad, 91-92; mil. science, Harvard, 94-98; asst. prof. French and Spanish, U. S. Mil. Acad, 99-04, head dept. explosives, sch. submarine defense, 04-06, instr. chem, miner, geol. and elec, 06-11, prof, 11- Ornith. Union. Analysis and determination of high explosives, especially of nitro-substitution compounds.
- Robson, Dr. James T(homas)**, 310 W. Broad St, Columbus, Ohio. *Ceramics*. Cleveland, Ohio, Feb. 1, 95. B.Ch.E, Ohio State, 19, M.S., 20, Ph.D., 23. Instr. ceramic eng, Ohio State, 19-25; *director laboratories, Carl B. Harrop Co, 25-* Ceramic Soc. Ceramic engineering; chemistry of fuels.
- Rock, Prof. Joseph F(rancis Charles)**, U. S. Department of Agriculture, Washington, D. C. *Botany*. Vienna, Austria, Jan. 13, 84. Vienna. Botanist, Univ. of Hawaii, 11-19, prof. syst. bot, 19; with office of foreign seed and plant introduction, U. S. Dept. Agr, 20-24; director, Nat. Geog. Soc. Exped, Yunnan-Tibet, 23-24; *director Arnold arboretum, Harvard, Northwest China-Tibet Exped, 24-* Consulting botanist, Board Commissioners of Agr. and Forestry, Honolulu, 11-21; collaborator, U. S. Dept. Agr, 13-14. Bot. Soc; Torrey Bot. Club; Wash. Biol. Soc. Phytogeography; Hawaiian trees and plants; Chinese plants.
- Rockwood, Prof. E(lbert) W(illiam)**, University of Iowa, Iowa City, Iowa. *Chemistry, Toxicology*. Franklin, Mass, July 4, 60. B.S, Amherst, 84, hon. A.M., 01; Göttingen, 89; Strassburg, 90-91; Leipzig, 92, 94; M.D., Iowa, 95; Ph.D., Yale, 04. Instr. chem, Wesleyan, 84-86; Cornell, 86-87; chemist, Hatch Exp. Sta, 88; *prof. chem. and toxicol, Iowa, 88-* Instr, high sch, Mass. A.A.; Chem. Soc; Soc. Biol. Chem; Soc. Exp. Biol; Am. Med. Ass; Chem. Gesell. Physiological chemistry; absorption; nutrition; uric acid; enzyme action.
- Rockwood, L(awrence) P(eck)**, U. S. Entomological Laboratory, Forest Grove, Oregon. *Entomology*. Waterbury, Conn, Oct. 13, 86. B.S, Mass. Col, 12. Sci. asst, U. S. Dept. Agr, 12-23, *assoc. entomologist, 23-* A.A.; Entom. Soc; Ass. Econ. Entom; Wash. Entom. Soc. Economic entomology; cereal and forage crop insects.
- Roddy, Dr. H(arry) Justin**, 645 W. Chestnut St, Lancaster, Pa. *Ornithology, Paleontology*. Landisburg, Pa, May 25, 56. B.S, Pa. State Nor. Sch, 81, M.S., 96; Ph.D., Kansas City Univ, 98. Teacher, pub. schools, 86-91; geol, Pa. State Nor. Sch, Millersville, 93-02, head dept. nat. science, 02-26; *prof. geology and exec. curator museum, Franklin and Marshall, 26-* A.A.; Ornith. Union; fel. Geol. Soc; Lancaster Co. Linnean Soc. (sec'y, 06-12). Fossils of Lancaster County, Pennsylvania; geology and birds of Perry County; blue green algae concretions in streams.
- Rodebush, Dr. Worth H(uff)**, University of Illinois, Urbana, Ill. **Chemistry*. Selden, Kans, May 24, 87. A.B, Kansas, 12, A.M., 14; Ph.D., California, 17. Asst. chem. engineer, U. S. Bur. Mines, 18; chemist, U. S. Indust. Alcohol Co, 19; Nat. Research Council fellow, California, 19-20; assoc. prof. *physical chem.* in charge div, *Illinois, 21-24, prof, 24-* A.A.; Chem. Soc; fel. Physical Soc. Freezing points of solutions; low temperatures; atomic structure; specific heats; vapor pressure of metals; entropy of condensed gases; statistical mechanics; absolute charge on earth's surface; ionization of electrolytes; magnetic properties of atoms.
- Rodenbaugh, H(enry) N(athan)**, Marvinto, St. Augustine, Fla. *Civil engineering*. Norristown, Pa, Nov. 20, 79. M.E, Pennsylvania, 01; Wagner Inst, 08-09. Engineering practise, 00-20; chief engineer, *Fla. E. Coast Ry. Co, 20-23*, gen. manager, 23-25, *v. pres, 25-* Civil Eng; Mech. Eng; Ry. Eng; Wash. Soc. Eng. Elimination of railroad grade crossings; concrete.
- Rodewald, Dr. C(harles) W(illiam)**, Washington University, St. Louis, Mo. *Chemistry*. Rushville, Ill, Nov. 11, 98. B.S, Illinois, 20, M.S., 21, Ph.D., 24. Instr. chem, Nebraska, 23-25; *asst. prof, Washington (St. Louis), 25-* A.A.; Chem. Soc. Organic compounds of arsenic.
- Rodgers, Dean T(om) G(ladstone)**, 1018 Fourth St, East Las Vegas, N. Mex. *Mathematics*. Dorsetshire, Eng, 68. A.B, Tennessee, 00; A.M, Wisconsin, 10; Hopkins. Instr. math, Tennessee, 98-00; high schools, 00-10; prof, N. Mex. State Teachers Col, 10-14; *N. Mex. Nor. Univ, 14*, asst. dean, 14-23, *dean, 23-* A.A.; Math. Soc; Math. Ass. Reorganization of secondary mathematics.
- Rodman, C(larence) J(ames)**, Buckeye Jack Manufacturing Co, Alliance, Ohio. *Chemistry, Engineering*. Milwaukee, Wis, July 10, 91. Fellow, Ripon Col, 13; A.B, Wisconsin, 13, M.S., 14; fellow, Yale, 14-15, Ph.D., 15; Pittsburgh, 18. Instr. in charge dept. chem, Ripon Col, 12-13; instr, Yale, 14-15; research chemist, Eastman Kodak Co, 16-17; research engineer, Westinghouse Elec. Co, 17-24; chem. engineer and district manager, Reisert Auto Water Co, 25-26; *v. pres. and gen. manager, Buckeye Jack Mfg. Co, 26-* Consulting engineer, 24- Chem. Soc. (chairman, Pittsburgh sect); Electrochem. Soc. (sec'y-treas, 24-26); Inst. Chem. (district v. pres, 25); Min. and Metal. Eng; Soc. Test. Mat. (committeeman); West. Pa. Eng. Soc; Pittsburgh Ry. Club. Heats of formation and solution of organo-metallic salts; water penetration of nitrocellulose film support; electro-chemistry of reduction and oxidation of certain aromatic organic compounds; insulating oils.
- Rodman, Dr. Jessie A(bigail)**, 4933 Rubicam Ave, Philadelphia, Pa. *Physics*. Philadelphia, June 21, 87. B.S, Pennsylvania, 12, A.M., 18, Ph.D., 26. *Teacher physics, Germantown High Sch, 16-* Summers, asst. physicist, Bur. Standards, 18, 20, 21, 23. Physical Soc; Franklin Inst; Phila. Physics Club (sec'y-treas, 18-20, pres, 24, exec. board, 25). Luminescence of radium salts; temperature effects.
- Rodman, Prof. W(alter) S(heldon)**, University, Va. *Electrical engineering*. Wakefield, R. I, Sept. 1, 83. B.S, R. I. Col, 04, M.S., 07; Mass. Inst. Tech, 09, Saltonstall fellow, 09-10. A.A;

Elec. Eng; Eng. Educ; Illum. Eng. Soc. Transients in circuits with magnetic cores.

Roe, Prof. E(dward) D(rake), Jr, 123 W. Ostrander Ave, Syracuse, N. Y. **Mathematics, Astronomy*. Elmira, N. Y., Jan. 4, 59. A.B., Syracuse, 80; A.B., Harvard, 85, A.M., 86; Ph.D., Erlangen, 98. Instr. *math, acad, Media*, Pa., 86-88; instr. pro tem, Harvard, 90; instr., Boston, 90-92; assoc. prof., Oberlin, 92-99; *Syracuse*, 00-01, prof., 01-25, *research prof, 25-, director observatory, 19-* Summer, research assoc., Yerkes Observatory, 15. A.A.; Math. Soc.; Math. Ass; Astron. Soc; Optical Soc; Math. Verein; Soc. astron. de France; Circolo Mat. di Palermo. Symmetric functions; invariants; discovery and measurement of double stars; geometrical optics; testing of objectives; irreducible factors.

Roe, Prof. Joseph H(yram), 1335 H St, N. W., Washington, D. C. *Biochemistry*. Winchester, Va., Dec. 27, 92. A.B., Roanoke, 16; A.M., Princeton, 17; Ph.D., George Washington, 23. Asst. prof. *chem, med. sch, George Washington*, 19-22, *prof, 22-* Chemist, George Washington Univ. Hosp; lecturer, Central Nurses' Training Sch. A.A.; Soc. Biol. Chem; Chem. Soc. Cyanogen compounds; amygdalin; blood calcium and phosphorus; sugar threshold in diabetes.

Roe, Dr. J(osephine) R(obinson), 123 W. Ostrander Ave, Syracuse, N. Y. *Mathematics*. Meredith, N. H. A.B., Oberlin, 94; hon. A.M., Berea, 02; A.M., Dartmouth, 11; Ph.D., Syracuse, 18. Prin., high sch., N. H., 80-82; instr., Literary Inst., New Hampton, N. H., 82-90; preceptress, Kimball Union Acad., N. H., 94-97; dean women, Berea, 97-07, prof. *math, 97-11*; asst. prof., Syracuse, 20. A.A.; Math. Soc. Symmetric functions.

Roe, Dr. Mabel L(ewis), 257 Roswell Ave, Long Beach, Calif. *Botany*. Chicago, Ill., March 24, 81. A.B., Vassar, 03; M.S., Chicago, 14, fellow, 14-15, Ph.D., 15. Instr. *bot. and Latin*, Faulkner Sch. for Girls, Chicago, 09-13; bot., Carnegie Inst. Tech., 16-17; asst. prof., Kentucky, 17-18, asst. plant pathologist, Ky. Exp. Sta., 18-19; seed analyst, Dickinson Seed Co., 19; *instr, high sch, Calif, 20-23*; *bot, Long Beach Polytech. High Sch, 23-* A.A. Reproduction in brown algae.

Roebuck, Prof. John R(ansom), 2210 Hollister Ave, Madison, Wis. *Physics, Physical chemistry*. London, Ont., Can., Sept. 23, 76. B.A., Toronto, 02, Ph.D., 05. Lecturer *physics*, McGill, 02-07; instr., *Wisconsin*, 07-12, asst. prof., 12-19, *assoc. prof, 19-* A.A.; Chem. Soc; Physical Soc; Optical Soc. Porous plug work.

Roest, Dr. P(eter) K(ornelis), care of The Open Road, 2 W. 46th St, New York, N. Y. *Anthropology*. Vlaardingen, Holland, Oct. 17, 98. Cand. Med., Leyden, 20; Ph.D., Chicago, 25. First asst. *trop. hygiene*, Leyden, 22; *field sec'y, The Open Road, 22-* Nat. Research Council fellow, 25-26. Holland rep., European Student Mission to Amer. Colleges, 22-23. White magic and its theories; American whites; modern higher education.

Roever, Prof. W(illiam) H(enry), Washington University, St. Louis, Mo. **Mathematics*. St.

Louis, May 26, 74. B.S., Washington (St. Louis), 97; A.M., Harvard, 04, Ph.D., 06. Instr. astron., Washington (St. Louis), 99-01; *math, Mass. Inst. Tech, 05-08*; asst. prof., *Washington (St. Louis)*, 08-16, assoc. prof., 16-17, *prof, 17-* Prof. and instr., Chicago, 18. Master computer, Aberdeen Proving Ground, 18. A.A. (sec'y, A., 20-24, chairman, 25-); Math. Soc; Math. Ass; St. Louis Acad; Circolo Mat. di Palermo. Geometry; mechanics.

Rogers, Dr. Agnes I(ow), Bryn Mawr College, Bryn Mawr, Pa. *Psychology*. Dundee, Scotland, 84. M.A., St. Andrews, Scotland, 06; Cambridge, 08-11; Ph.D., Columbia, 17. Asst., St. Andrews, Scotland, 06-08; lecturer, Aberdeen, 11-14; asst. educ. psychol., Columbia, 16-17, lecturer, 17-18; *prof. educ, Goucher, 18-23*; *psychol. and educ, Smith, 23-25*; *Bryn Mawr, 25-* Psychol. Ass; British Ass. Educational psychology; measurement of class room products and mathematical intelligence; mental tests for college entrance.

Rogers, Dr. Allen, Pratt Institute, Brooklyn, N. Y. **Chemistry*. Hampden, Maine, May 22, 76. B.S., Maine, 97, M.S., 00; Ph.D., Pennsylvania, 02. Instr. *chem, Maine, 97-00*; senior fellow, Pennsylvania, 02-03, instr. org. *chem, 03-04*; research chemist, Oakes Mfg. Co., 04-05; *head dept. indust. chem. and supervisor indust. chem. eng. course, Pratt, 05-* Major, C.W.S. Chem. Soc. (chairman, N. Y. sect., 14); Soc. Chem. Indust. (sec'y, Am. sect., 15-25); Soc. Test. Mat. (chairman, committee D1); Leather Chem. Ass; N. Y. Chemists Club (trustee, 19). Complex inorganic acids; tanning and leather; elements of industrial chemistry; manual and laboratory guide of industrial chemistry; practical tanning.

Rogers, Allen H(astings), 26 Beaver St, New York, N. Y. *Engineering*. Marshfield, Mass., Feb. 19, 71. B.S., Mass. Inst. Tech., 90. Operating positions, 90-06; consulting mining and metal. engineer, 06-17; *partner, Rogers, Mayer and Ball, 17-* A.A.; Min. Eng; Min. and Metal. Eng. (past director); Min. and Metal. Soc. (past pres).

Rogers, Dr. Anna Sophie, Ohio State University, Columbus, Ohio. *Psychology*. Bushnell, Ill., July 3, 89. A.B., Illinois, 11, A.M., 14, Ph.D., 17. Demonstrator *biol, Bryn Mawr, 17-18*; instr. *psychol, Ohio State, 18-22*, asst. *prof, 22-* Psychol. Ass; Ohio Acad. Experimental psychology; perception; emotions; theoretical psychology.

Rogers, Dr. Austin F(lint), Stanford University, Calif. **Mineralogy, Crystallography, Petrography*. Lathrop, Mo., Aug. 15, 77. Sch. mines, Missouri, 96-97; A.B., Kansas, 99, A.M., 00; fellow, Columbia, 00-02, Ph.D., 02. Asst. miner., Kansas, 98-00; tutor, Columbia, 02-05; *prof. miner. and petrog, Stanford, 05-* Assoc. Columbia, 23; asst. geologist, Univ. Geol. Surv. of Kans., 98-00, 03, 08. Assoc. ed., 'Amer. Mineralogist,' 19- A.A.; fel. Geol. Soc; fel. Min. Soc; fel. Am. Acad. Graphical methods in crystallography; coal measures fauna; minerals of Kansas, California and Joplin lead and zinc district; calcite; silica minerals; copper sulphid

- ores; sericite; amorphous minerals; fossil bone; phosphorites; crystal symmetry; crystal optics.
- Rogers, Dr. Burton E(ay)**, 1800 Transportation Building, Chicago, Ill. *Veterinary science*. Polk City, Iowa, Nov. 1, 79. D.V.M., Iowa Col, 99; P.G., McKillip Vet. Col, 00. House surgeon and demonstrator vet. anat, Iowa Col, 00; meat inspector, bur. animal indust, U. S. Dept. Agr, 00-06; vet. anatomist, Kansas Col, 06-14; dean and sec'y, St. Joseph Vet. Col, 14-17; *veterinarian, West. Weighing and Inspection Bur*, 17- Prof., McKillip Vet. Col, 18-19. Vet. Med. Ass; U. S. Live Stock Sanit. Ass. *Veterinary anatomy; angiology; neurology; tuberculosis; pneumonia; influenza; hog cholera; infantile paralysis; milk; hogs as tuberculosis tests of cattle herd units; the prevention of livestock shipping losses.*
- Rogers, Prof. C(harles) G(ardner)**, 378 Reamer Place, Oberlin, Ohio. *Physiology*. Perry, N. Y., March 4, 75. A.B., Syracuse, 97, A.M., 99, hon. Sc.D, 20; Chicago, 02; Ph.D., California, 04. Instr. physiol, Syracuse, 99-02; asst, Chicago, 02; California, 03-04; Kansas, 04; asst. prof, Syracuse, 05-07, assoc. prof, 07-10, prof, 10-13; *prof. zool, Oberlin*, 13-15, *comp. physiol*, 15-, acting dean, 24-26. Summers, teaching staff, Woods Hole, 15-26. A.A.; Soc. Nat; Physiol. Soc; Zool. Soc; Am. Geog. Soc; Ohio Acad. Effects of saline solutions upon heart; physiology of nerve cells; fat digestion and absorption in lower animals; heat production in animal bodies; heat production during fertilization and cleavage of eggs.
- Rogers, Dr. David Camp**, Smith College, Northampton, Mass. *Psychology*. New Britain, Conn, May 25, 78. Amherst, 95-97; A.B., Princeton, 99; Hartford Theol. Sem, 99-01; A.M., Harvard, 02, Ph.D, 03. Asst. philos, Harvard, 02-05, instr. social ethics, 05-09; asst. prof. *psychol*, Kansas, 09-14; *prof, Smith*, 14- Capt, Sanit.C, med. research, A.S, 18-19. A.A; Psychol. Ass.
- Rogers, Donald G(aydon)**, 351 Abbott Road, Buffalo, N. Y. *Organic chemistry*. Worcester, Mass, Oct. 14, 92. B.S., Worcester, 15. *Research chemist*, Gen. Chem. Co, N. Y., 15-18; *Nat. Aniline and Chem. Co*, 18- Chem. Soc. Anthraquinone intermediates and colors.
- Rogers, Dr. F(rancis) M(itchell)**, Standard Oil Co, Whiting, Ind. *Chemistry*. Morganton, N. C, March 22, 83. A.B., Davidson, 03, A.M., 04; Ph.D, Hopkins, 07. Chemist, *Standard Oil Co. of Ind*, 08-14, *chief chemist*, 14- Asst. ed, 'Chem. Abstracts.' Chem. Soc.
- Rogers, Prof. Fred A**, 618 N. Elmwood Ave, Oak Park, Ill. *Physics*. Kent Co, Mich, Sept. 26, 69. B.S.(E.E), Michigan, 94. Instr. physics and elec. eng, *Lewis Inst*, 91-02, asst. prof, 02-08, *prof. physics and elec. eng*, 08- A.A; assoc. Elec. Eng; Illum. Eng. Soc; West. Soc. Eng.
- Rogers, Prof. Fred T(erry)**, Baylor University College of Medicine, Dallas, Texas. *Physiology*. Stevensport, Ky, May 24, 89. A.B., A.M., Baylor; Ph.D, Chicago, 16. Instr. and asst. *prof. physiol*, Chicago, 16-20; *prof, col. med*,
- Baylor*, 20- A.A; Physiol. Soc; Soc. Exp. Biol; Soc. Zool; Am. Med. Ass. *Physiology of the stomach, of body temperature regulation, of water balance of body; physiologic effects of X-rays; basal nuclei of the brain and comparative physiology of the brain.*
- Rogers, Prof. F(rederick) J(ohn)**, Stanford University, Calif. *Physics*. Neoga, Ill, Sept. 9, 63. B.S., Kansas Col, 85, M.S., 87; M.S., Cornell, 91. Asst. and instr. *physics*, Cornell, 91-00; asst. prof, *Stanford*, 00-08, assoc. prof, 08-24, *prof*, 24- A.A; Physical Soc; Seismol. Soc. Magnesium as a source of light; frequencies of a horizontally extended spring; earthquake experiments with a shaking machine; conditions involving a decrease of secondary current with increasing primary current; dielectric constant of silk; the heterostatic use of an electrometer with alternating E.M.F.'s.
- Rogers, Prof. H(erbert) W(esley)**, Lafayette College, Easton, Pa. *Psychology*. Kennebunkport, Maine, June 16, 90. B.S., Columbia, 15, A.M., 16, Ph.D, 21; Paris, 19. Psychologist, Charles Williams Stores, Brooklyn, 16-17; instr. psychol, Yale, 20-23; research asst. prof, Minnesota, 23-24; *director psychol. lab, Lafayette*, 24- A.A; Psychol. Ass; Statist. Ass. Vocational and experimental psychology.
- Rogers, Prof. J(ames) Speed**, University of Florida, Gainesville, Fla. *Animal ecology*. Dayton, Ind, Nov. 4, 92. Hanover Col, 10-13; A.B., Michigan, 15, A.M., 16. Asst. prof. zool, Grinnell, 19-22; *prof. biol. and head dept, Florida*, 22- Assoc. curator diptera, museum zool, Michigan, 18- Ecol. Soc; Entom. Soc. Distribution and ecology of crane-flies; revision of Erioptera; ecology of immature stages of crane-flies.
- Rogers, Prof. John**, 177 E. 71st St, New York, N. Y. *Endocrinology*. New York, Feb. 19, 66. A.B., Ph.D, Yale; M.D., Columbia, 91. *Surgeon, Gouverneur Hosp*, 96-; *St. Francis Hosp*, 01-; *Bellevue Hosp*, 08-; *prof. clin. surg, med. col, Cornell*, 08- N. Y. Surg. Soc. Physiology of the thyroid and other endocrine glands.
- Rogers, Dr. Lenette M(ay)**, 41 Boulevard Bischoffsheim, Brussels, Belgium, or South Carver, Mass. *Botany*. South Carver, March 30, 99. A.B., Mt. Holyoke, 21; A.M., Wisconsin, 22, Ph.D, 25. Asst. bot, Wisconsin, 21-25; *C. E. B. fellow, Belgium*, 25- Cytology; morphology, cytology and fertilization of *Lygodium palmatum*.
- Rogers, Dr. L(ore) A(lford)**, U. S. Department of Agriculture, Washington, D. C. *Dairy bacteriology*. Patten, Maine, Feb. 7, 75. B.S., Maine, 96, Sc.D, 25; Wisconsin, 97-98; Sc.D, Maryland, 23. Asst. bacteriologist, N. Y. Exp. Sta, Geneva, 99-02; *dairy bacteriologist, U. S. Dept. Agr*, 02- Nat. Research Council, 22-24. Chairman, program committee, World's Dairy Cong, 23. Soc. Bact. (pres, 22); Pub. Health Ass; Wash. Acad. Bacteria occurring in dairy products; changes in milk, butter and cheese.
- Rogers, Mrs. Margaret C(obb)**, 820 Burke St, Easton, Pa. *Clinical psychology*. Tarrytown, N. Y., Feb. 6, 95. A.B., Vassar, 17; A.M., Columbia, 18, Ph.D, 21. Psychologist, clearing

house for mental defectives, N. Y. Post-Grad. Hosp, 19; clin. and research asst, Psycho-Clinic, Yale, 20-22. Psychol. Ass. Effect of adenoids and tonsils on general intelligence.

Rogers, T(homas) Hunton, Standard Oil Company, Whiting, Ind. *Chemistry*. Clark Co, Ky, Jan. 20, 95. A.B., Centre Col, 14; Ph.D., Hopkins, 17. *Research chemist*, E. I. du Pont de Nemours and Co, 19-22; *Standard Oil Co. of Ind.*, 22- U. S. Bur. Mines and C.W.S., U.S.A., 17-19. Vapor pressure; catalytic oxidation of carbon monoxide; decolorization of oils.

Rogers, Prof. W(alter) E, 911 E. North St., Appleton, Wis. *Botany*. Greenview, Ill, Feb. 24, 90. A.B., James Millikin, 13; M.S., Iowa, 16; Michigan; Chicago. Asst. biol. James Millikin, 11-13; plant morphol. Iowa, 14-17; *prof. biol.* Westminster (Pa), 17-19; *bot.* Lawrence Col, 19- Summers, asst, Michigan, 15, field asst, lab. plant path., U. S. Dept. Agr, 18. A.A.; Bot. Soc; Micros. Soc; Iowa Acad. Plant morphology and ecology.

Rogers, Dr. W(illiam) M, Jr, 5513 Westford Road, Philadelphia, Pa. *Chemistry*. Nottingham, Eng, Jan. 17, 00. B.S., Princeton, 21, A.M., 22, Ph.D., 24. *Instr. chem.* Temple, 25- Sayre fellow. Chem. Soc. Physical chemistry.

Rogoff, Prof. J(ulius) M(oses), Western Reserve Medical School, Cleveland, Ohio. *Medicine*. Russia, 84. Ph.G, 04; M.D., Cleveland Col. Physicians and Surg, 08. Asst. physiol. Ohio Wesleyan, 08-10; demonstrator physiol. and pharmacol. Vanderbilt, 12-13, instr, 13-14, asst. prof. mat. med. and pharmacy, 14-15; instr. *exp. med.* Western Reserve, 15-17, assoc, 17-19, asst. prof, 19-22, *assoc. prof.*, 22- A.A.; Physiol. Soc; Soc. Pharmacol. Experimental medicine; internal secretions; the central nervous system.

Rohdenburg, Dr. G(eorge) L(ouis), 905 West End Ave, New York, N. Y. *Pathology*. New York, April 5, 83. M.D., Cornell, 05. Assoc. cancer research, Columbia, 10-27. Director laboratories, Lincoln Hosp, 10-20; Life Exten. Inst, 17-18; Lenox Hill Hosp, 17-; pathologist, hospitals. Ass. Path. and Bact; Am. Med. Ass; N. Y. Path. Soc. (sec'y, 18-23, v. pres, 24); Harvey Soc. Cancer.

Rohwer, S(ievert) A(llen), U. S. Department of Agriculture, Washington, D. C. *Entomology*. Telluride, Colo, Dec. 22, 87. Colorado, 07-09. *Entomologist in charge taxon. investigations*, bur. entom., U. S. Dept. Agr, 09- Ass. Econ. Entom; Wash. Acad. (v. pres, 19); Wash. Entom. Soc. (sec'y-treas, 10-); Wash. Biol. Soc. (pres, 25). Systematic entomology; Hymenoptera; distribution and classification of insects.

Rolfe, Prof. C(harles) W(esley), University of Illinois, Urbana, Ill. *Geology*. Arlington Heights, Ill, April 17, 50. B.S., Illinois, 72, M.S., 76. Asst. science, Illinois, 72-73; teacher, Jennings Sem, Ill, 74-76; supt, pub. schools, Ill, 77-81; instr. science, Illinois, 81-83, asst. prof. geol, 83-85, prof, 85-18, *emer. prof.*, 18- Director prelim. topog. surv, Ill, 91-92; organizer and director dept. ceramics, Illinois,

05-10. A.A.; Geol. Soc. Artesian wells of northeastern Illinois; genera of Paleozoic brachiopods; origin of the Illinois prairies; use of the aneroid barometer in geologic surveys; geology of clays; hydrography and topography of Illinois; altitudes in Illinois; the geology of Illinois in relation to its water supply; rocks and minerals.

Rolfe, Geo(rge) W(illiam), Oak Bluffs, Mass. *Chemistry*. Cambridge, Mass, Feb. 10, 64. A.B., Harvard, 85, A.M., 86; Mass. Inst. Tech, 95. Asst. chem. lab, Harvard, 86; chemist, glucose company, 86-89; sub-master, high sch, Brookline, 90; chemist and house supt, sugar companies, Cuba and Porto Rico, 91-22. Sewage investigations with Col. Geo. C. Waring, 95; instr, Mass. Inst. Tech, 95-15; instr, Boston Nor. Sch. Household Arts, 99. Int. Cong. Applied Chem, London, 09. Chem. Soc; Ass. chim. de Sucre et de Dist. de France (medalist). Cane and milk sugar manufactures; starch, glucose and allied products; hydrolysis of starch; optical analysis; sewage.

Rolfs, Prof. F(red) M(aas), Stillwater, Okla. *Botany*. Le Claire, Iowa, March 5, 75. B.S., Iowa Col, 97; M.S., Colo. Agr. Col, 03; Columbia, 07; Ph.D., Cornell, 13. Student asst. bot, N. Y. Exp. Sta, Geneva, 99-00; assoc. prof. bot. and hort, Colo. Agr. Col. and asst. botanist, Exp. Sta, 00-03; prof. bot. and hort, Florida, and botanist and horticulturist, Exp. Sta, 04-06; plant pathologist, Mo. Fruit Exp. Sta, 06-10; assoc. bot, plant path. and bacter, Clemson, and assoc. botanist and plant pathologist, S. C. Exp. Sta, 13-15; prof. hort, horticulturist and plant pathologist, Okla. Agr. and Mech. Col, 16-24, *head dept.*, 16-, *prof. bot. and plant path.* and botanist and plant pathologist, Exp. Sta, 16- A.A.; Bot. Soc; Ecol. Soc; Okla. Acad; Okla. Pecan Growers Ass. Diseases of plants.

Rolfs, Director P(eter) H(enry), Viçosa, 'E. F. Leopoldino,' Minas Geraes, Brazil. *Botany*. Le Claire, Iowa, April 17, 65. B.S., Iowa Col, 89, M.S., 91; Sc.D., Florida, 20. Asst. botanist, Iowa Col, 91, entomologist and botanist, 91-92; Fla. Exp. Sta, 92-98, botanist and horticulturist, 98-99; botanist and bacteriologist, Clemson and S. C. Exp. Sta, 99-01; plant pathologist in charge sub-trop. lab. and garden, bur. plant indust, U. S. Dept. Agr, Miami, 01-06; director, Fla. Exp. Sta, 06-21, agr. exten, Florida, 13-21, dean col. agr, 15-21; *on leave as organizer agr. institutions*, State of Minas Geraes, Brazil, 21- Prof, Florida State, 92-99; state supt, Fla. Farmers' Institutes, 07-19. A.A.; Bot. Soc; Phytopath. Soc; Soc. Hort. Sci; Ass. Econ. Entom; Pomol. Soc; Ass. Agr. Col; Fla. Hort. Soc. (pres, 07); Iowa Acad; St. Louis Acad; Wash. Entom. Soc; Int. Ass. Bot. Plant pathology and physiology; citrus and tropical plant diseases.

Rolle, Dr. Clifford J(ay), 3735 Aylesboro Ave, Cincinnati, Ohio. *Chemistry*. Cincinnati, Oct. 13, 94. A.B., Cincinnati, 15, A.M., 16, Ph.D., 18. Instr. physical and org. chem, Cincinnati, 18-20; chem. director, Van Schaack Bros. Chem. Works, 20-26; supt, pyroxylin lacquer dept, Ault and Wiborg Co, 26- A.A.; Chem. Soc.

- Organic chemistry; nitrocellulose lacquers, solvents and plasticisers; synthetic resins.
- Rollefson, Gerhard K(rohn)**, University of California, Berkeley, Calif. *Chemistry*. Grand Forks, N. Dak., Jan. 12, 00. A.B., Wisconsin, 20, A.M., 21; du Pont fellow, California, 22-23, Ph.D., 23. Prin., high sch., Wis., 17-18; asst. physics, Wisconsin, 19-20, *chem.*, 20-21; teaching fellow, *California*, 21-22, *instr.*, 23- Gugenheim Mem. fellow, 25-26. A.A.; Chem. Soc. Vapor pressures of mixed liquids; soft X-rays; emission of positive ions by hot substances.
- Roller, Duane E(merson)**, California Institute, Pasadena, Calif. *Physics*. Minerva, Ohio, Oct. 9, 94. A.B., Oklahoma, 23, M.S., 25. Supt. schools, Okla., 22-23; teaching fellow *physics*, Oklahoma, 23-24, *instr.*, 24-26; *Calif. Inst.*, 26- Lieut., A.S., 17-20. Physical Soc.; Okla. Acad. Electrolytic conduction; teaching of science.
- Roman, Dr. Benjamin**, 100 High St., Buffalo, N. Y. *Pathology*. Georgenburg, Lithuania, April 19, 76. M.D., Cornell, 03. Asst. and privat-docent, Prague, 12-17; chief pathologist, Am. Zionist Med. Unit, Palestine; director laboratories, Buffalo Gen. Hosp.; *asst. prof. path.*, *Buffalo*. Soc. Exp. Biol.; Ass. Path. and Bact. Portal of entry of tubercle bacillus in tuberculosis; diseases of the haematopoietic organs; distemper of dogs.
- Roman, Dr. Irwin**, Amerada Petroleum Corporation, Tulsa, Okla. *Mathematical physics*. St. Louis, Mo., May 2, 93. A.B., Washington, 13; A.M., Chicago, 15, Ph.D., 20. Instr. math., Northwestern, 16-18, 19-23; assoc. prof., Vanderbilt, 23-25; *math. physicist*, *Amerada Petrol. Corp.*, 25- A.A.; Math. Soc.; Math. Ass.; Physical Soc. Defects in optical instruments; wave transmission through optical systems; geophysics.
- Romberg, Prof. Arnold**, University of Texas, Austin, Texas. *Physics*. Muldoon, Texas, July 7, 82. A.B., Texas, 10; Ph.D., Harvard, 15. *Prof. physics*, Univ. of Hawaii, 15-22; *Texas*, 22- Physical Soc.; Seismol. Soc. Heat; seismology.
- Romer, Prof. Alfred S(herwood)**, University of Chicago, Chicago, Ill. *Vertebrate paleontology*, *Anatomy*. White Plains, N. Y., Dec. 28, 94. A.B., Amherst, 17; Ph.D., Columbia, 21. Instr. anat., Univ. and Bellevue Hosp. Med. Col. and mem. dept. comp. anat., Am. Museum Nat. Hist., 21-23; *assoc. prof. vert. paleont.*, *Chicago*, 23- Ass. Anat.; Paleont. Soc.; Ill. Acad.; N. Y. Acad. Vertebrate anatomy; myology; osteology; reptiles; amphibians.
- Rommel, Geo(rge) M(cCullough)**, Pleasantville, N. Y. *Animal husbandry*. Mt. Pleasant, Iowa, Feb. 26, 76. B.S., Iowa Wesleyan, 97; B.S.A., Iowa Col., 99. Asst. animal husbandry, Iowa Col., 00-01; manager, O. R. and N. Exp. Farm, Walla Walla, Wash., 01; expert animal husbandry, bur. animal indust., U. S. Dept. Agr., 01-05, animal husbandman, 05-09, chief animal husbandry div., 10-22; ed., 'Field Illust.', 22; *agr. consultant and writer*, 23- Lecturer, Illinois, 06; exten. lecturer, Columbia, 22. U. S. delegate, Pan-Am. Sci. Cong., Santiago, Chile, 08, Washington, D. C., 14-15. A.A.; Genetic Ass.; Acad. Polit. Sci.; Phila. Acad.; N. Y. Acad. Polit. Sci. Inheritance of fecundity; marketing of dairy products.
- Rood, Prof. James T(heron)**, University of Wisconsin, Madison, Wis. *Electrical engineering*. Worcester, Mass., March 26, 76. B.S., Worcester, 98; Ph.D., Clark, 06. *Prof. math. and physics*, Ursinus, 06-07; physics and elec. eng., Alabama, 07-09; elec. eng., Lafayette, 09-18; ry. elec. eng., Illinois, 18-20; *elec. eng.*, *Wisconsin*, 20- Delegate, Pan-Am. Cong., 16. A.A.; Elec. Eng.; Eng. Educ. Vibration of telephone diaphragms; magnetism and tension; noise measurements; electric traction; central stations.
- Roon, Leo**, Elm and Spruce Sts., Great Neck Estates, L. I., N. Y. *Chemistry*. New York, N. Y., Aug. 6, 92. Ph.Ch., Columbia, 10; M.S., N. Y. Univ., 16. Instr. chem., Columbia, 12-15; asst., N. Y. Univ., 15-16; chief chem. div., E. R. Squibb and Sons, 16-19; consulting chemist, 19-24; *pres.*, *Royalin Flexible Lacquer Co.*, 24- Chem. Soc.; Pharmaceut. Ass. Pharmaceutical colloid chemistry.
- Rooney, W(illiam) J(oseph)**, 36th St. and Broad Branch Road, Washington, D. C. *Physics*. Waltham, Mass., April 20, 90. A.B., Boston, 12; B.S., Mass. Inst. Tech., 15. Ballistic engineer, E. I. du Pont de Nemours and Co., 16-19; assoc. elec. engineer, U. S. Bur. Standards, 20-24; *assoc. physicist*, *Dept. Terrestrial Magnetism*, *Carnegie Institution*, 24- A.A.; Inst. Elec. Eng.; Wash. Philos. Soc. Electrical engineering; ballistics; earth currents and conductivity; mechanical stresses in gun mounts; electrical resistivity of earth.
- Roope, Percy M(artin)**, Clark University, Worcester, Mass. *Physics*. Swampscott, Mass., June 12, 97. A.B., Clark, 20, A.M., 24, fellow, 24-26, Ph.D., 27. Instr. *physics*, Kalamazoo, 20-21; *Clark*, 21-27, *asst. prof.*, 27- A.A.; Physical Soc. The velocity of gravitation; ether drift; relativity.
- Roorbach, Prof. G(eorge) B(yron)**, Harvard University, Cambridge, Mass. *Geography*. Utica, N. Y., Dec. 8, 78. A.B., Colgate, 03, D.S., 25; Harvard; A.M., Pennsylvania, 14. Prin., high sch., N. Y., 03-05; science master, Peddie Inst., 05-08; instr. geog., Pennsylvania, 11-15, asst. prof., 15-19; *prof. foreign trade, grad. sch. business administration*, *Harvard*, 19- Ed., 'Phila. Geog. Soc. Bul.', 12-19. Chief research div., Bur. Foreign and Domestic Commerce, 21-22. Special investigation, Carnegie Endowment Int. Peace, Venezuela. Am. Geog. Soc.; Ass. Geog. (treas., 20); Statist. Ass.; Econ. Ass. Geographic influences; Far East trade conditions.
- Root, Dr. F(rancis) M(etcalf)**, School of Hygiene and Public Health, Baltimore, Md. *Medical entomology*. Oberlin, Ohio, Sept. 24, 89. A.B., Oberlin, 11, A.M., 12; Ph.D., Hopkins, 17. Teaching fellow *med. entom.*, *sch. hygiene and pub. health*, *Hopkins*, 19-20, assoc., 20-26, *assoc. prof.*, 26- Summers, instr., Woods Hole, 16-18. A.A.; Soc. Nat.; Entom. Soc.; Soc. Trop. Med.; Soc. Parasitol.; Soc. Zool.; Micros. Soc. Genetics of Protozoa; flies and mosquitoes.
- Root, Dr. Howard F(rank)**, 32 Winchester St., Brookline, Mass. *Medicine*. Ottumwa, Iowa,

- Aug. 28, 90. A.B, Harvard, 13, M.D, 19. *Asst. physician, New Eng. Deaconess Hosp*; house officer, Peter Bent Brigham Hosp, 19-20, *assoc. med.*, 20-27; *instr.*, *Harvard Med. Sch.*, 27- May fellow, sch. med, Hopkins, 20. Metabolism in diabetes mellitus.
- Root, Prof. Ralph E(ugene)**, U. S. Naval Academy, Annapolis, Md. *Mathematics*. Trenton, Mo, July 18, 79. B.S, Morningside, 05; M.S, Iowa, 09; fellow, Chicago, 10-11, Ph.D, 11. Teacher, high sch, Iowa, 05-06; *instr. math*, Iowa, 06-10; Missouri, 11-13; *U. S. Naval Acad.*, 13-14, *prof. math. and mech.*, *post-grad. sch.*, 14- A.A.; Math. Soc; Math. Ass; Eng. Educ. Iterated limits in general analysis; theory of limits and continuity; mathematics of engineering.
- Root, Prof. William T(homas), Jr**, University of Pittsburgh, Pittsburgh, Pa. *Psychology*. Concordia, Kans, June 2, 82. A.B, Stanford, 12, A.M, 13, Ph.D, 19. *Instr. psychol*, Stanford, 13-18, Buckel Foundation Research, 18-20; *prof. educ. psychol*, *Pittsburgh*, 20- Mental examiner, Allegheny Gen. Hosp, Pittsburgh. Board directors, West. Penitentiary, Pa; advisory board, Community Sch, Pittsburgh. A.A; Psychol. Ass; Statist. Ass. Educational and clinical psychology; superior children; sub-normal children; psychology of crime.
- Root, Dr. William W(ebster)**, Slaterville Springs, N. Y. *Medicine*. Niagara Falls, N. Y, Aug. 19, 67. B.S, Cornell, 90, 92-94; M.D, Rush Med. Col, Chicago, 04. *Instr. nat. sciences*, Peddie Inst, 90-92; chem, Chicago Manual Training Sch, and Chicago, 95-03; *practising physician*, 04- In charge, Emergency Hospitals, and sec'y to director biol. dept, Parke, Davis and Co, 08-11. Lieut, M.R.C, 12-17, contract surgeon, Cornell, 18. A.A; Am. Med. Ass; Ass. Mil. Surg; fel. Am. Acad. Med. Serum sickness; smallpox vaccine; thymic death; anaphylaxis; medical education.
- Roper, Denney W(arren)**, 72 W. Adams St, Chicago, Ill. *Electrical engineering*. Grafton, Ill, Oct. 18, 69. M.E, Cornell, 93. Supt. elec. equipment, Mo. Edison Co, 97-01; consulting engineer, 01-03; eng. dept, Chicago Edison Co, 03-05; asst. to chief operating engineer, *Commonwealth Edison Co*, 05-15, *supt. street dept*, 15- Elec. Eng; West. Soc. Eng; Nat. Elec. Light Ass. Distribution of electricity; lightning protection; electrolysis.
- Ropp, Dr. Clarence D(aniel) L(uther)**, New York University, New York, N. Y. *Chemistry*. Martinsburg, W. Va, May 22, 98. A.B, West Virginia, 21, A.M, 23; Ph.D, N. Y. Univ, 25. Asst, West Virginia, 21-23; *teaching fellow chem*, *N. Y. Univ*, 23-25, *Wash. Square col*, 25- Solubilities and molecular addition products of lithium perchlorate; liesegang rings.
- Rorer, James Birch**, Casilla de Correo 216, Rionamba, Ecuador. *Plant pathology*. Ogontz, Pa, Dec. 29, 76. A.B, Harvard, 99, A.M, 01. Asst. bot, Harvard, 99-02, Austin teaching fellow, 01-02; sci. asst, bur. plant indust, U. S. Dept. Agr, 02-07, asst. pathologist, 07-09; mycologist, Board Agr, Trinidad, 09-18; chief dept. agron, Asoc. de Agr. del Ecuador, 18-22; *director, Compañia Agr. Panigón*, 22- A.A; Bot. Soc; Phytopath. Soc. Diseases of apples, peaches, cacao, coconuts and sugar-cane.
- Rorer, Dr. Jonathan T(aylor)**, 333 N. 34th St, Philadelphia, Pa. *Mathematics, Astronomy*. West Chester, Pa, Aug. 21, 71. A.B, Colorado, 95; Ph.D, Pennsylvania, 01. *Instr. math.* and English, Colo. Col, 94-95; math, Cent. High Sch. Phila, 95-99, asst. prof, 99-03, prof, 03-09; *head dept. math*, *William Penn High Sch*, 09- Prin, Cent. Evening High Sch, 21-; summers, instr, Hopkins, 20-22, 26, 27. Assoc. ed, 'The Math. Teacher,' 08-11. *Instr. math*, S.A.T.C, Pennsylvania, 18; supt. instruction, second div, U.S.A, 19. A.A; Math. Soc; Math. Ass; Ass. Teachers Math. Middle States and Md. (sec'y, 05-07, pres, 15-17). Mathematical astronomy; education; the orbit of Brooks's comet, 1898 X.
- Rosa, Dr. Joseph Tooker**, University Farm, Davis, Calif. *Horticulture*. Waverly Mills, S. C, July 16, 95. B.S.A, Clemson, 15; M.S, Iowa Col, 17; Ph.D, Missouri, 22. *Instr. hort*, Iowa Col, 15-16; asst. horticulturist, Va. Truck Exp. Sta, 16-17; asst. prof. hort, Missouri, 17-22; *truck crops, California*, 22-26, *assoc. prof*, 26-, *assoc. plant breeder*, 22- A.A; Bot. Soc; Soc. Hort. Sci. Physiology and genetics of vegetable crops; sex inheritance; dormancy in plants.
- Rosanoff, Dr. Aaron J(oshua)**, 2007 Wilshire Boulevard, Los Angeles, Calif. *Psychiatry*. Pinsk, Russia, June 26, 78. M.D, Cornell, 00. Med. intern, State Hosp, Kings Park, N. Y, 01-02, junior asst. physician, 02-05, asst. physician, 05-08, senior asst. physician, 08-11, clin. director, 11-22; *psychiatrist, Los Angeles Diagnostic Clinic*, 22- Major, M.C, 17-19, lieut. col, M.O.R.C. A.A; Am. Med. Ass; Psychiat. Ass; Psychol. Ass; Eugenics Research Ass. (exec. committee, 14). Syphilis and insanity; heredity in insanity; brain atrophy; mental measurement; war neuroses; personality; residuals of epidemic cerebro-spinal meningitis; association; epilepsy; recoverability of constitutional psychosis.
- Rosanoff, Dr. M(artin) A(ndré)**, The Sweetbrier, Valencia, Pa. *Chemistry*. Nicolaieff, Russia, Dec. 28, 74. Ph.B, N. Y. Univ, 95, Sc.D, 08; Berlin, 95-96; Paris, 96-98. Research asst. to Prof. Friedel, Paris, 97-98; to Dr. J. M. Crafts, Mass. Inst. Tech, 98-99; research fellow, N. Y. Univ, 99-00; ed. for exact science, 'New Int. Encyclopedia,' 00-03; research asst. to Mr. Thomas A. Edison, 03-04; *instr. theoret. chem*, N. Y. Univ, 04-05, asst. prof, 05-07; head dept. chem. and director chem. laboratories, Clark, 07-11, prof, 11-14; chem. research, Mellon Inst, 14-15, Willard Gibbs prof. research in pure chem, 15-19. Nichols medal, Chem. Soc, 11. Chem. Soc; Am. Acad. Classification of stereoisomers; principle of optical superposition; the quantitative determination of halogens in the presence of sulphocyanates; the Victor Meyer law in esterification; partial vapor pressures of binary mixtures; isopiestic study of partial vapor pressures; variation of vapors of binary mixtures with the temperature; fractional distillation; the steric hindrance hypothesis; kinet-

ics of certain inorganic reactions; theory of direct esterification; sugar inversion; homogeneous catalysis.

Rose, Dr. Anton R(ichard), Edgewater, N. J. *Biochemistry*. Minn. Feb. 22, 77. B.S., Minnesota, 04; M.S., Yale, 11; Ph.D., Columbia, 12. Instr. chem., New Hampshire, 05; asst. chem., N. Y. Exp. Sta., Geneva, 06-10; biochem., Columbia, 10-13; private research, 14-16; assoc. path. chem., N. Y. Post-Grad. Med. Sch., 16-18; prof. chem., Fordham, 20-24; *chemist, Prudential Ins. Co.*, 24- Capt., Sanit. C., 18-19. Chem. Soc.; Soc. Biol. Chem.; Soc. Exp. Biol. Nutrition; physiological chemistry.

Rose, Mrs. Anton R. (Prof. Mary Swartz), Teachers College, Columbia University, New York, N. Y. *Biochemistry*. Newark, Ohio, Oct. 31, 74. B.Litt., Denison, 01; diploma, Mechanics Inst., 02; B.S., Columbia, 06, Teachers Col. traveling fellow, 07-09; Ph.D., Yale, 09. Teacher, secondary schools, Ohio, 99-00; Fond du Lac, Wis., 02-05; asst. *nutrition, Teachers Col., Columbia*, 06-07, instr., 09-11, asst. prof., 11-18, assoc. prof., 18-21, *prof.*, 21- Deputy director bur. conservation, Food Ad., 18-19. A.A.; Soc. Biol. Chem.; Soc. Exp. Biol.; Home Econ. Ass.; Dietetic Ass.; Physiol. Soc.; Pub. Health Ass. Nutrition; dietetics.

Rose, Prof. B(ruce), Queen's University, Kingston, Ont., Can. *Geology*. Mountain, Ont., Jan. 5, 85. B.Sc., Queen's (Can.), 09; Ph.D., Yale, 13. Demonstrator geol., Queen's (Can.), 09-10; lecturer, forest sch., Yale, 12; geologist, Can. Geol. Surv., 13-20; Whitehall Petrol. Corp., 20-22; *asst. prof. geol., Queen's (Can.)*, 22- Summers, geologist, Ont. Dept. Mines, 23, Can. Geol. Surv., 24- Fel. Geol. Soc.; Can. Min. Inst.; fel. Royal Soc. Can. Geology of coal areas in Saskatchewan, Alberta and British Columbia.

Rose, Carlton R(aymond), The Alameda, Berkeley, Calif. *Chemistry, Metallurgy*. Ann Arbor, Mich., June 16, 73. Ph.B., Michigan, 94, A.M., 96. Instr. chem., Illinois, 96-00; prof. metal, Colo. Sch. Mines, 01-03; supt. smelters, U. S. Zinc Co., 03-14; consulting engineer, 14-19; *pres., Weed Control Co. of Calif.*

Rose, Dr. D(ean) H(umboldt), U. S. Department of Agriculture, Washington, D. C. *Botany*. Ionia, Kans., Dec. 15, 78. A.B., Kansas, 04; A.M., Washington (St. Louis), 05; fellow, Chicago, 16-17, Ph.D., 17. Instr. bot., Kansas Col., 09-12; pathologist, Mo. Fruit Exp. Sta., 13-18; asst. pathologist and *assoc. pathologist, office fruit disease investigations, bur. plant indust., U. S. Dept. Agr.*, 18- Phytopath. Soc. Plant pathology and physiology; diseases of fruits on the market.

Rose, Harold J(ames), Mellon Institute, Pittsburgh, Pa. *Chemistry*. Pierre, S. Dak., May 9, 96. A.B., Yankton Col., 17; Chicago; Carnegie Inst. Tech. Instr. chem., Yankton Col., 17; research chemist in charge coal and coke div., *The Koppers Co.*, 18-25, *asst. chief chemist*, 25-; *research fellow, Mellon Inst.*, 21- Chem. Soc.; Min. and Metal. Eng.; Gas Ass. Structure, analysis and utilization of coke; coal selection and analysis; by-product coking.

Rose, Miss Jessie P(erkins), University of Minnesota, Minneapolis, Minn. *Botany, Plant pathology*. Neosha Falls, Kans., 73. Oregon State Nor. Sch., 99; Calif. State Nor. Sch., 03; A.B., Stanford, 09, A.M., 10; Wisconsin, 21-23; Minnesota, 23-25. Teacher and prin. pub. and high schools, 95-18; sci. asst., bur. plant indust., U. S. Dept. Agr., 18, asst. pathologist, 19-21; asst. plant physiol., Minnesota, 23-25. A.A.; Bot. Soc.; Phytopath. Soc.; Soc. Plant Physiol. Geographical distribution of plants; relation of soil fungi to seed treatment; celery mosaic.

Rose, Dr. J(oseph) N(elson), 1812 Calvert St., N. W., Washington, D. C. **Botany*. Union Co., Ind., Jan. 11, 62. A.B., Wabash, 85, A.M., 86, Ph.D., 89, LL.D., 25. Asst. bot., Wabash, 86-88; bot. asst., U. S. Dept. Agr., 88-96; asst. curator *div. plants, U. S. Nat. Museum*, 96-05, *assoc. curator*, 05-12, *assoc. bot.*, 12- Research assoc. bot., Carnegie Institution, 12-23. A.A.; Bot. Soc. (v. pres., 03); Wash. Acad. (v. pres., 08, 18); Wash. Bot. Soc. (v. pres., 07); Wash. Biol. Soc. (v. pres., 09-18, pres., 18). Mexican and South American plants; Cactaceae Umbelliferae; Crassulaceae of North America.

Rose, Dr. Robert E(vstafieff), E. I. du Pont de Nemours and Co., Wilmington, Del. *Chemistry*. Palermo, Sicily, June 2, 79. Ph.D., Leipzig, 03. Research asst., St. Andrews, Scotland, 03-05; lecturer and demonstrator chem., Univ. Col., Nottingham, 05-07; asst. prof., Washington (Seattle), 07-17; fellow, Mellon Inst., 17; *org. chemist, E. I. du Pont de Nemours and Co.*, 17-, *director tech. lab.*, 21- A.A.; Chem. Soc. (councilor, S. Jersey sect., 25); Ass. Textile Chem. and Colorists (chairman, Phila. sect., 24, research council); Soc. Dyers and Colorists. Organic chemistry; alkylated sugars and glucosides; reduction of anhydroxims; wood decay; dyes.

Rose, Prof. W(illiam) C(umming), University of Illinois, Urbana, Ill. *Biochemistry*. Greenville, S. C., April 4, 87. B.S., Davidson, 07; Ph.D., Yale, 11; Freiburg, 13. Asst. chem., Davidson, 06-07; asst. physiol. chem., Sheffield Sci. Sch., Yale, 08-11; instr., Pennsylvania, 11-13; *assoc. prof. biochem.*, Texas, 13-14, *prof.*, 14-22; *physiol. chem., Illinois*, 22- A.A.; Soc. Biol. Chem.; Chem. Soc.; Soc. Exp. Biol.; Ill. Acad. Pepsin and creatin; creatinin; metabolism of mucic acid; origin of uric acid; enzymes in marine organisms; purine metabolism; amino acids and growth; nephrotoxic action of dicarboxylic acids; replacement of amino acids by synthetic products.

Rose, Brig. Gen. W(illiam) H(enry), U.S.A., Atmospheric Nitrogen Corporation, Syracuse, N. Y. *Electrical engineering*. Safe Harbor, Pa., Oct. 24, 81. Franklin and Marshall, 98-99; grad., U. S. Mil. Acad., 03; grad., U.S.A. Eng. Sch., 07. From second lieutenant to brig. gen., C.Eng., 03-19; director dept. elec. and mech. eng., U.S.A. Eng. Sch., 08-11; elec. engineer, Panama Canal, 12-17; dist. manager, Lockwood Greene and Co., 19-24; director and v. pres., Am. Machine and Foundry Co., 24-25; Lockwood Greene and Co., 25-26; *v. pres., Atmospheric Nitrogen Corp.*, 26- A.A.; Elec. Eng.; assoc. Civil Eng.

- Roseboom, Prof. B(enjamin) B(rokaw)**, Michigan State College, East Lansing, Mich. *Physiology*. Auburn, N. Y., June 8, 84. B.S., Hamilton, 08. Instr. zool. and physiol. and *assoc. prof. physiol. and pharmacol.*, Mich. State Col., 09–A.A. Physiology of intestinal movements.
- Rosen, Dr. Esther Katz**, 122 S. 49th St., Philadelphia, Pa. *Educational psychology*. Baltimore, Md., Jan. 8, 96. A.B., Goucher, 16; A.M., Columbia, 17, Ph.D., 25. Teacher, Minn. and Md., 17–21; asst. to Prof. E. L. Thorndike, Inst. Educ. Research, Teachers Col., Columbia, 22; *psychologist*, *All-Phila. Child Guidance Clinic*, 25– Psychological and educational measurement; comparison of the intellectual and educational status of neurotic and normal children in public schools.
- Rosen, Prof. H(arry) R(obert)**, University of Arkansas, Fayetteville, Ark. *Plant pathology*. Wilmington, Del., Aug. 8, 89. B.S., Pa. State, 13; M.S., Wisconsin, 15; Lackland fellow, Washington (St. Louis), 21–22, Ph.D., 22. Asst. bot., Pa. State, 12–13; Wisconsin, 13–15; sci. asst., Smithsonian Inst., 15–17; asst. botanist, Purdue Exp. Sta., 17–18; asst. prof. *plant path.* and asst. plant pathologist, *Ark. Exp. Sta.*, 18–21, *assoc. prof. and assoc. plant pathologist*, 21– A.A.; Bot. Soc.; Phytopath. Soc. (councilor, 21). Pathological anatomy of insect galls; morphology and cytology of bacteria; bacterial diseases of grasses; rusts; diseases of cotton.
- Rosen, Dr. I. Theodore**, 654 Putnam Ave., Brooklyn, N. Y. *Physiology*. New York, N. Y., June 14, 96. B.S., Columbia, 18, M.D., 22. Intern., Bellevue Hosp., 22–24, res. physician, 24–25; Nat. Research Council fellow med., 25–26. The relation of stroke volume of heart to the pulse pressure.
- Rosen, Dr. Raphael**, 42 Bellevue St., Elizabeth, N. J. *Chemistry*. Baltimore, Md., Aug. 31, 95. A.B., Hopkins, 16, A.M., 20; fellow, Clark, 21–23, Ph.D., 23. Foreman chemist, Hess Steel Corp., 18–19; *research chemist*, *Standard Oil Co. of N. J.*, 23– Chem. Soc.; Inst. Chem. Sesqui-mustard gas; reactions of compounds of triphenylmethyl and triphenyl siliclyl in liquid ammonia; specific heats of oils.
- Rosenau, Dr. M(ilton) J(oseph)**, Harvard Medical School, Boston, Mass. *Preventive medicine, Hygiene*. Philadelphia, Pa., Jan. 1, 69. M.D., Pennsylvania, 89; Hygienic Inst., Berlin, 92; Pasteur Inst., Paris, 00; hon. A.M., Harvard, 14. Asst. surgeon, U. S. Marine Hosp. Service, 90–95, past asst. surgeon, 95, surgeon, 07; quarantine officer, San Francisco, 95–98; Santiago and other Cuban ports, 98; director hygienic lab, U. S. Pub. Health and Marine Hosp. Service, 98–09; *prof. prev. med. and hygiene*, *Harvard Med. Sch.*, 09– Director sch. pub. health, Harvard and Mass. Inst. Tech., 13–22; lecturer, U. S. Naval Med. Sch., 04–09; Georgetown, 05–09. Commander, U.S.N.R.F. Sanit. attaché, Int. Conf. of Am. States, Mex., 02; delegate, Tenth Int. Cong. of Hygiene and Demog; Thirteenth Int. Med. Cong., Paris, 00; mem., Int. Commission to Revise Nomenclature of Causes of Death, Paris, 00; delegate, Int. Sanit. Conf., Wash., 02. A.A.; Am. Med. Ass.; Ass. Path. and Bact.; Soc. Bact.; Soc. Exp. Biol.; Pub. Health Ass.; Ass. Mil. Surg.; Am. Physicians; Am. Acad. Hygiene; the milk question; disinfection and disinfectants; anaphylaxis; bacteriology; immunology; public health.
- Rosenbach, J(oseph) B(ernhardt)**, 5836 Alderson St., Suite No. 5, Pittsburgh, Pa. *Mathematics*. New York, N. Y., Oct. 5, 97. A.B., New Mexico, 17; Colorado, 17; M.S., Illinois, 19. Instr. math., New Mexico, 17–18; Illinois, 18–20; *asst. prof.*, *Carnegie Inst. Tech.*, 20– Summers, engineer of maintenance, A. T. and S. F. Ry., 15, 16, 21. A.A.; Math. Soc.; Math. Ass.; Circolo Mat. di Palermo. Analysis; differential equations.
- Rosenbaum, Dr. J(oseph)**, 112 Gulf St., Milford, Conn. *Mathematics*. Russia, Jan. 15, 78. Ph.B., Yale, 07; Ph.D., Cornell, 14. Instr. math., *Milford Sch., Conn.*, 07–10, 13– Math. Soc.; Math. Ass. Elementary geometry; theory of numbers.
- Rosenberger, Dr. Randle C(ater)**, Jefferson Medical College, Philadelphia, Pa. *Medicine*. Philadelphia, March 4, 73. M.D., Jefferson Med. Col., 94. Director clin. lab., Phila. Gen. Hosp., 03–19; *prof. prev. med.*, *Woman's Med. Col.* of Pa., 09–15; *prev. med. and bacter.*, *Jefferson Med. Col.*, 09– Milk Commission, Phila., 10; Pneumonia Commission, Phila. A.A.; Am. Med. Ass.; Soc. Bact.; fel. Pub. Health Ass.; Phila. Col. Physicians; Phila. Path. Soc.; Phila. Acad.; Int. Ass. Med. Mus. Preventive medicine; tuberculosis; bacteriology.
- Rosendahl, Prof. C. O(tto)**, University of Minnesota, Minneapolis, Minn. *Botany*. Spring Grove, Minn., Oct. 24, 75. B.S., Minnesota, 01, A.M., 02; Ph.D., Berlin, 05. Instr. bot., *Minnesota*, 01–02, asst. prof., 05–10, *prof.*, 10– Asst., Minn. Geol. and Bot. Surv., 02–03. A.A.; Bot. Soc.; Ecol. Soc.; Am. Geog. Soc.; Wash. Biol. Soc.; Brandenburg Bot. Verein. Systematic botany; plant geography; morphology.
- Rosenfeld, Arthur H(inton)**, 1005 New Orleans Bank Building, New Orleans, La. *Entomology*. Petersburg, Va., July, 86. B.S., M.S., Va. Polytech. Asst., Va. State Crop Pest Commission, 05; state hort. inspector, Ill., 05–06; special field agent, bur. entom., U. S. Dept. Agr., 06; asst. entomologist, La. State Crop Pest Commission, 06–10; entomologist, Tucuman Sugar Exp. Sta., 10–11, sub-director, 11–13, director, 13–16, head dept. entom., Univ. Tucuman, 14–16; supt. agr., Ingenio Santa Ana, Tucuman, Argentina, 16–21; investigator artificial mulches, 22; special technologist for cane, Insular Exp. Sta., P. R., 23–27; *consulting technologist*, *Am. Sugar Cane League*, *New Orleans*, 27– Founding board mem. Univ. Tucuman; rep. investigating sugar and cotton industries, Trop. Plant Research Foundation, Peru, 26. Delegate, Pan-Am. Sci. Cong., 16. A.A.; for. mem. Ass. Econ. Entom. Agricultural engineering in the tropics; sugar cane varieties and culture.
- Rosengarten, George D(avid)**, P. O. Box 1625, Philadelphia, Pa. *Chemistry*. Philadelphia, Feb. 12, 69. B.S., Pennsylvania, 90; Ph.D., Jena, 92. *V. pres.*, Rosengarten and Sons, Inc., 01–05; *Powers-Weightman-Rosengarten Co.*, 05– Committee of revision, U. S. Pharmacopoeia, 10–,

- pres, 27. A.A.; Chem. Soc.; Chem. Eng. (past pres); Philos. Soc.; Franklin Inst.
- Rosenheim, Dr. Sylvan**, 1710 Linden Ave, Baltimore, Md. *Rhinology, Laryngology, Otolology*. Baltimore, Sept. 16, 74. A.B., Hopkins, 95, M.D., 99. Asst. laryngol, Hopkins, 02-07; consulting laryngologist and chief clinic, Hebrew Hosp; *aural surgeon, Baltimore Eye, Ear and Throat Hosp; consulting laryngologist and otologist, Endwood Hosp. for Consumptives; Jewish Hosp. for Consumptives*. Exec. committee, Hebrew Hosp; Baltimore Eye, Ear and Throat Hosp. Ass. Anat.; Am. Med. Ass.; Laryngol. Rhinol. and Otol. Soc.; Md. Med. and Chirur. Faculty (chairman, sect. otol. and laryngol); Md. Laryngol. Ass. Tracheal tumors; leuko-keratosis buccalis; compression myelitis; nasal tumors; tuberculous laryngitis; tonsillar ring; esophagoscopy; submucous resection of nasal septum; subcutaneous emphysema following tonsillectomy.
- Rosenkrans, Prof. D(uane) B.**, Clemson College, S. C. *Botany*. Edgewood, Iowa, March 21, 86. A.B., Upper Iowa, 11; A.M., Wisconsin, 17. Instr. bot., N. C. State, 11-13; *Clemson*, 13-16, asst. prof., 17-18, *assoc. prof.*, 18- Summers, field asst, white pine blister rust eradication, bur. plant indust, U. S. Dept. Agr, 17, plant disease surv, 18.
- Rosenow, Dr. Curt**, Institute for Child Guidance, New York, N. Y. *Psychology*. Berlin, Germany, Dec. 27, 76. B.S., Michigan, 97; Ph.D., Chicago, 16. Instr. psychol, Chicago, 16-20; biometrist, Juvenile Psychopathic Inst., 17-20; asst. prof. psychol, Kansas, 20-22, *assoc. prof.*, 22-27; *biometrist, Inst. Child Guidance*, 27- Biometry; abnormal and clinical psychology.
- Rosenow, Dr. E(dward) C(arl)**, Mayo Clinic, Rochester, Minn. **Bacteriology*. Alma, Wis, July 14, 75. M.D., Rush Med. Col, 02; hon. Sc.D., Cincinnati, 20. Fellow path, Rush Med. Col, 02-04, med, 04-09, instr, 07-15; mem, McCormick Inst. for Infectious Diseases, 04-15; *prof. exp. bacter*, Mayo Foundation, Minnesota, 15- Gold medal, Am. Med. Ass, 12. A.A.; Am. Med. Ass.; Ass. Path. and Bact; Soc. Clin. Invest; Soc. Exp. Path; Pub. Health Ass. Transmutation of Pneumococci and Streptococci; elective localization of bacteria; poliomyelitis; influenza; lobar pneumonia; focal infection.
- Rosenstein, Dr. Ludwig**, 112 Market St, San Francisco, Calif. *Chemistry*. Cologne, Germany, March 29, 86. B.S., Mass. Inst. Tech, 10; Ph.D., California, 14. Instr. chem, Mass. Inst. Tech, 10-12; California, 12-16; gen. manager, Chem. Specialties Co, 17-18; chem. director, Great West. Electrochem. Co, 19-24; *consulting chemist*, 24- A.A.; Chem. Soc. (sec'y and treas, north. Calif. sect, 24-). Theoretical chemistry.
- Rosenthal, Dr. S(anford) M(orris)**, McGill University, Montreal, Que, Can. *Pharmacology*. Albany, Ga, 97. M.D., Vanderbilt, 20; fellow, Hopkins, 22-24. Dispensary physician, Hopkins Hosp, 22-24; Nat. Research Council fellow, 22-24; *lecturer pharmacol, McGill*, 24- Soc. Pharmacol. Pharmacology of dyestuffs; liver function tests; hemoglobin and bile salt metabolism; adsorption; colloidal test upon spinal fluid.
- Rosenzweig, S(iegfried)**, 215 W. 88th St, New York, N. Y. *Mechanical engineering*. Berlin, Germany, April 27, 79. M.S., Polytech, Berlin, 02. Mech. engineer with Hugo Lentz, Erie City Iron Works, 04-13; *consulting engineer, steam engine dept, York Mfg. Co*, 14-; *consulting engineer and v. pres, The Korfund Co*, 23- Lecturer, colleges. A.A.; Mech. Eng; assoc. Nat. Ass. Cotton Manufacturers; N. Y. Building Cong; Verein Ing. High pressure and superheated steam; uni-flow engines; the isolation of noise and vibration caused by machinery.
- Rosett, Dr. Joshua**, 667 Madison Ave, New York, N. Y. *Neurology*. Russia, 75. M.D., Commission Tuber, Md, 03; officer, Dept. Health, Baltimore, 03-07; *instr. neur, Columbia*, 07- Asst. attending neurologist, Riverside Hosp, and fellow, Montefiore Hosp, 24-; attending neurologist, Vanderbilt Clinic. Ass. Research Nervous and Mental Diseases; Am. Med. Ass.; N. Y. Neur. Soc; N. Y. Acad. Med; N. Y. Soc. Clin. Psychiat. Anatomy of the cerebrum; the mechanism of the epilepsies; rigidity and abnormal movements; abnormal states; diagnosis in diseases of the spinal cord; the mechanism of myotonia congenita; osmotic growths.
- Rosewall, Prof. O(scar) W(aldemar)**, Louisiana State University, Baton Rouge, La. *Entomology*. Algona, Iowa, March 12, 89. Cornell (Iowa), 08-11; A.B., Iowa, 13; M.S., Louisiana, 16. Instr. entom, Louisiana, 13-17, asst. prof., 17-20, *assoc. prof.*, 20-24, *prof.*, 24- Summers, asst, Lakeside Lab, Iowa, 12, field asst, bur. entom, U. S. Dept. Agr, 13, asst, Bur. Fisheries, 14. A.A.; Entom. Soc; Ass. Econ. Entom; La. Entom. Soc; La. State Beekeepers Ass; Soc. entom. de France. Pentatomidae and Coleoptera of Louisiana.
- Rosin, Joseph**, 916 Parrish St, Philadelphia, Pa. *Chemistry*. Russia, Aug. 5, 80. B.S., Pennsylvania, 09; M.Pharm, Phila. Col. Pharmacy, 25. Chief chemist, Powers, Weightman, Rosengarten Co, 13- Nat. Research Council. Chem. Soc. (committee guaranteed reagents); Pharmaceut. Ass; Inst. Chem. Analytical chemistry; organic synthetic chemistry.
- Ross, Dr. Clarence Samuel**, U. S. Geological Survey, Washington, D. C. *Geology*. Eldora, Iowa, Sept. 20, 80. A.B., Illinois, 13, A.M., 15, Ph.D., 20. Asst, Illinois; *geologist, U. S. Geol. Surv.* Geol. Soc; Ass. Petrol. Geol; fel. Miner. Soc; Wash. Geol. Soc. Petrology; mineralogy; ore deposits.
- Ross, Dr. C(lay) C(ampbell)**, Apartment 6, Kentucky Manor, Lexington, Ky. *Psychology*. Church Hill, Tenn, June 12, 92. A.B., Carson-Newman Col, 14, Tennessee, 16; A.M., Columbia, 20, Ph.D., 25. Psychologist, div. tests, War Dept, 20-21; acting prof. educ, Furman, 21-22; asst. prof. psychol, Iowa Col, 23-25, *assoc. prof.*, 25-26; *prof. educ, Kentucky*, 26- Summers, asst. prof, Ohio State, 23-25. Nat. Soc. Study Educ. Educational prognosis and guidance.
- Ross, Clyde P(olhemus)**, 410 High St, Clarendon, Va. *Geology*. New York, N. Y., March 23, 91. B.S., Mass. Inst. Tech, 14, M.S., Mass. Inst. Tech. and Harvard, 15. Geologist, Old Dominion Cop-

- per Co, 16-17; asst. geologist, *U. S. Geol. Surv.*, 17-19, *assoc. geologist*, 19- Geol. surv, Santo Domingo, 19; Bolivia, 20. Min. and Metal. Eng; Wash. Geol. Soc. Mining; hydrology; geography.
- Ross, Edgar S(amuel)**, Mellon Institute, Pittsburgh, Pa. *Industrial chemistry*. Ironwood, Mich, April 18, 93. B.S, New Hampshire, 17, M.S, 20. Research lab, Welsbach Co, 17-18; chief chemist, Columbite Reduction Co, and Charlotte Chem. Lab, Inc, N. C, 18-19; private research, New Hampshire, and Pa. Salt Mfg. Co, 19-22; chemist and metallurgist, McKechnie Bros. Inc, 22-23; *senior fellow, Mellon Inst.*, 23- Chem. Soc; Chem. Eng; Electrochem. Soc; Soc. Test. Mat. Rarer metals; bituminous and asbestos roofings; waterproofings; paints; paving and structural products.
- Ross, Prof. Ellison Lloyd**, Northwestern University Medical School, Chicago, Ill. *Otolaryngology*. Dixon, Ill, June 13, 81. B.S, Iowa Col, 04; Ph.D, Illinois, 12; M.D, Northwestern, 18. Teacher, high sch, Nebr, 04-06; Wash, 07-10; research chemist, Ill. State Psychopathic Inst, 12-14; instr. pharmacol, *med. sch, Northwestern*, 14-18, asst. prof, 18-20, prof, 20-25, asst. prof. *otolaryngol.*, 25-27, *assoc. prof.*, 27- Soc. Pharmacol; Soc. Biol. Chem. Biochemistry; effect of anesthetics on carbohydrate metabolism; toxicity and treatment of cocaine; epinephrin and its poisonous effects; otitis media in scarlet fever; ephedrine and cocaine; synergy and toxicity.
- Ross, Dr. Frank E(lmore)**, Yerkes Observatory, Williams Bay, Wis. *Astronomy*. San Francisco, Calif, April 2, 74. B.S, California, 96, fellow, 97-98, Lick Observatory, 98-99, Ph.D, 01. Teacher math. and physics, Mt. Tamalpais Mil. Acad, Calif, 96-97; asst. prof. math, Nevada, 00; computer for Watson Trustees, 01-02; asst, 'Nautical Almanac' Office, 02-03; research asst, Carnegie Institution, 03-05; director, Int. Latitude Observatory, 05-15; physicist, Eastman Kodak Co, 15-24; *assoc. prof. astron.*, Chicago, 24- Astron. Soc; Optical Soc. The general perturbations of the Watson asteroids; orbits of satellites, of the moon and of Mars; lunar theory; variation of latitude; the photographic plate; photographic photometry; photographic and astronomical objectives; photography of the planets; stars of large proper motion; discovery of variable stars.
- Ross, Prof. H(arold) E(llis)**, New York State College of Agriculture, Ithaca, N. Y. *Agriculture*. Leadville, Colo, Oct. 23, 81. B.S.A, Cornell, 06, M.S.A, 09. Asst. *dairy indust.*, N. Y. State Col. Agr, Cornell, 06-07, instr, 07-10, asst. prof, 10-13, prof, 13- Dairy expert, Argentine Gov't, 25-26. Dairy Sci. Ass. Dairy industry; care and handling of milk.
- Ross, H(arry) A(lbert)**, Cornell University, Ithaca, N. Y. *Agricultural economics*. Greenville, Ill, Nov. 27, 92. B.S, Illinois, 17, M.S, 22; Ph.D, Cornell, 24. Asst. dairy economist, Illinois, 17-19, *assoc. dairy economist*, 20-22; instr. farm management, Cornell, 23-24, asst. prof. *marketing*, 24-26, *prof.*, 26- Research asst, Ill. Agr. Ass, 22; research agent, bur. agr. econ, U. S. Dept. Agr, 24-25. Econ. Ass; Farm Econ.
- Ass. Economics of dairy production; marketing milk in the Chicago and New York dairy districts.
- Ross, Dr. John F(ranklin)**, Eastman Kodak Co, Rochester, N. Y. *Chemistry*. Guinda, Calif, June 19, 00. B.S, Michigan, 21, M.S, 22, du Pont fellow, 21-24, Ph.D, 24. Teaching asst. anal. chem, Michigan, 20-21; *research chemist*, Eastman Kodak Co, 25- Chem. Soc. Analytical, metallurgical and photographic chemistry.
- Ross, Prof. L(uther) S(herman)**, 1308 27th St, Des Moines, Iowa. *Biology*. Reno, Ill, Sept. 6, 64. B.S, Illinois, 89, M.S, 90, fellow, 01-02; Ph.D, Chicago, 19. Prof. nat. science, Minn. State Nor. Sch, Winona, 90-91; prin, pub. sch, Ill, 91-92; *prof. biol.*, Drake, 92- Union Pacific geol. expd, Wyo, 99. A.A; Iowa Acad. (sec'y, 06-13, pres, 18). Crustacea; crayfish nerve cell; bacteria in dust of school rooms; bacterial content of desiccated egg; historical development of quarantine regulations in Iowa.
- Ross, Dr. P(erley) A(son)**, Stanford University, Calif. **Physics*. Panacea, Mo, April 6, 83. A.B, Stanford, 08, A.M, 10, Ph.D, 11. Instr. *physics*, Stanford, 10-16, asst. prof, 16-24, *assoc. prof.*, 24-27, *prof.*, 27- Cornell, 26-27. A.A; *assoc. Physical Soc.* Refractive index of metals; scattered X-rays; critical potentials M series.
- Ross, Dr. Victor**, Lehn and Fink, Inc, Bloomfield, N. J. *Biochemistry, Bacteriology*. Brooklyn, N. Y, Dec. 13, 93. B.S, Col. City of N. Y, 16; A.M, Columbia, 18, Ph.D, 23; fellow, Montefiore Hosp, 20-21. Asst. chemist, Montefiore Hosp, 16-18; asst. physiol. chem, col. physicians and surg, Columbia, 17-18, 19-20; *Plaut Research Lab, Lehn and Fink, Inc*, 23- Soc. Exp. Biol; Chem. Soc. Endocrinology; immunization to pneumonia.
- Ross, Dr. W(illiam) H(orace)**, U. S. Department of Agriculture, Washington, D. C. *Chemistry*. Louisville, N. S, Can, Dec. 27, 75. B.S, Dalhousie, 03, M.S, 04, 1851 Exhib. scholar, 04-07; Hopkins, 04-05; Ph.D, Chicago, 07. Demonstrator chem, Dalhousie, 03-04; research asst, Chicago, 05-07; asst. chemist, Ariz. Exp. Sta, 07-12; *chemist in charge concentrated fertilizer investigations, bur. soils, U. S. Dept. Agr*, 12- Abstractor, 'Chem. Abstracts,' 06- Capt, C.W.S.R. A.A; Chem. Soc. Potash extraction and recovery; preparation of phosphoric acid; analysis of mixtures of acetylene and ethylene; preparation and properties of concentrated fertilizer materials.
- Rossbacher, Dr. H(enry John)**, 316 Fourth St, Hinsdale, Ill. *Chemistry*. Kendallville, Ind, Dec. 19, 89. B.S, Purdue, 12, M.S, 17; Loewenthal fellow, Chicago, 18-19, Ph.D, 19. Chief chemist, Chicago Paving Lab, 15-20; *develop. engineer, West. Elec. Co*, 21- A.A; Chem. Soc; Physical Soc. M-tolyl-ethyl barbituric acid; facitious asphalts; insulators and dielectrics; carbon products; vacuum lamps and tubes.
- Rossiter, Prof. R(ichard) A(lfred)**, University of Michigan, Ann Arbor, Mich. *Astronomy*. Oswego, N. Y, Dec. 19, 86. A.B, Wesleyan, 14; A.M, Michigan, 20, Ph.D, 23. Teacher math, Genesee Wesleyan Sem, 14-18; telescope asst.

- astron, *Michigan*, 19-20, asst. astronomer, 20-22, asst. prof. *astron*, 23-25, *assoc. prof.*, 26-A.A.; *Astron. Soc.*; *S. African A.A.S.*; *S. African Astron. Soc.*; *fel. Royal Astron. Soc.* The orbital motion; velocity of the center of mass; rotation effect; masses; spectrum study of Beta Lyrae.
- Rost, Dr. C(layton) O(rd)**, University Farm, St. Paul, Minn. *Chemistry*. Ord, Nebr., Nov. 24, 85. B.S., Nebraska, 11, A.M., 12; Ph.D., Minnesota, 18. Research asst. agr. chem., Nebr. Exp. Sta., 12-13; instr. *soils*, Minnesota, 13-18, asst. prof., 18-23, *assoc. prof.*, 23-, asst. soils chemist, *Exp. Sta.*, 13-18, *assoc. soils chemist*, 18- A.A.; *Chem. Soc.*; *Soc. Agron.* Soil chemistry; prairie and glacial soils; soil phosphorus; soil acidity; lime deficient soils.
- Roth, Charles F(erdinand)**, Grand Central Palace, New York, N. Y. *Chemistry*. New York, Dec. 24, 86. B.S., Cooper Union, 12. Control chemist, Nat. Brewers Acad., N. Y., 07-10; chemist and chief chemist, Standard Oil Co. of N. Y., 11-14; chemist and mfg. manager, Hartford Cast Stone Co., 14-15; *organizer and manager*, *Nat. Expos. Chem. Indust.*, 15-; *manager*, *Nat. Expos. Power and Mech. Eng.*, 22- Consulting chemist, Int. Filtration Corp., 15-16; director, Beckman and Linden Eng. Corp., 19-25; manager, Paper Industries Expos., 23-; sec'y-treas., Int. Expos. Co., 23-26, v. pres., 26-; pres., Roth-Pinehurst Corp., 24- Officer in charge adjustment branch of personnel, C.W.S., 18-19. Nichols medal award jury; Perkin medal award committee, 16-18. Cooper medal, 12. Eighth Int. Cong. Applied Chem. Chem. Soc. (sec'y-treas., N. Y. sect., 16, 17, mem. tolul committee, 17, counselor, 21); Electrochem. Soc. (chairman, committee in charge of Appalachian tour, 18); Min. and Metal. Eng.; N. Y. Chemists Club (ed. staff, 'The Percolator,' 17, trustee, 21); Soc. de Chim. indust. Chemical industries.
- Roth, Dr. George B(yron)**, 1335 H St., N. W., Washington, D. C. *Pharmacology*. Mt. Eaton, Ohio, May 22, 79. A.B., Michigan, 06, Parke-Davis fellow, 07-08, M.D., 09. Instr. pharmacol., Michigan, 09-13; pharmacologist, hygienic lab., U. S. Pub. Health Service, 13-21; asst. prof. pharmacol., Western Reserve, 21-24; *prof. physiol. and pharmacol.*, *George Washington*, 24- Soc. Pharmacol. (counselor, 16); *Physiol. Soc.*; *Soc. Exp. Biol.*; *Chem. Soc.* Camphoric acid; action of quinin on the leucocytes; aconite; pituitary preparations; curare and physostigmin; barium chlorid; nitroglycerin tablets; digitalin tablets; fluid extract of ergot; arsphenamine and neoarsphenamine; age and resistance; intravenous injections; barium-epinephrine antagonism; autonomic nervous system and drugs.
- Rothrock, Dean David A(ndrew)**, University of Indiana, Bloomington, Ind. *Mathematics*. Milltown, Ind., Jan. 31, 64. A.B., Indiana, 92, A.M., 93; Chicago, 94-95; Ph.D., Leipzig, 98. Instr. *math.*, *Indiana*, 92-95, asst. prof., 95-99, *assoc. prof.*, 99-05, junior prof., 05-08, *prof.*, 08-, *dean col. arts and sciences*, 20- Summer, prof., West. State Nor. Sch., Mich., 04. Ind. State Conservation Commission. A.A.; *Math. Soc.* Plane and spherical trigonometry; logarithmic, trigonometric and other tables; the point invariants of the groups of the plane; differential invariants derived from point invariants; the essentials of algebra.
- Rothrock, Prof. E(dgar) P(aul)**, 312 Lewis St., Vermillion, S. Dak. *Geology*. Garrettsville, Ohio, Aug. 26, 89. A.B., Oberlin, 12, A.M., 14; Ph.D., Chicago, 22. Asst. prof. *geol.*, Oklahoma, 19-20; *acting prof. and state geologist*, *South Dakota*, 22- A.A.; Ass. Petrol. Geol. Glacial geology.
- Rothrock, Dr. J(oseph) T(rimble)**, West Chester, Pa. *Botany*, *Forestry*. McVeytown, Pa., April 9, 39. B.S., Harvard, 64; M.D., Pennsylvania, 67. Prof. bot., Pa. State, 67-69; Pennsylvania, 79-09; commissioner of forestry, Pa., 93-04. Surgeon, Wheeler explor. exped., 73-75. Forestry Ass.; Soc. Foresters; Philos. Soc.; Pa. Forestry Ass.; Phila. Acad. Medicine; forestry for Pennsylvania.
- Rothschild, Dr. M(arcus) A(dolphus)**, 930 Park Ave., New York, N. Y. *Medicine*. Woodville, Miss., July 4, 87. A.B., Columbia, 08, M.D., 11. Asst. physiol. chem., *Mt. Sinai Hosp.*, *New York*, 12, asst. cardiographist, 12-, *assoc. attending physician*, 20- Ass. Path. and Bact.; Soc. Exp. Biol.; N. Y. Acad. Med. Physiology of the heart; electrocardiography; cholesterol metabolism.
- Rothschild, S(tanford) Z(adoc)**, Sun Life Building, Baltimore, Md. *Actuarial science*. Richmond, Va., June 7, 94. Pennsylvania; A.B., Michigan, 16. Asst. instr. actuarial science, Michigan, 15-16; *actuary*, *Sun Life Ins. Co.*, 16-, *third v. pres.*, 19- Lecturer, night sch., Hopkins, 16-17. Capt., U.S.A., 17-19. Assoc. Actuarial Soc.; assoc. Inst. Actuaries; Math. Soc.; Statist. Ass.; Acad. Polit. and Social Sci. Life insurance.
- Rouiller, Dr. Cha(rls) A(ugust)**, Buck's Lane, Arlington, Md. *Chemistry*. Paraje, N. Mex., June 10, 83. A.B., Stanford, 03; Ph.D., Hopkins, 06. Fellow, Rockefeller Inst., 06-07; asst. chem., Hopkins, 07-14; asst. and assoc. pharmacol., 14-18; chemist, Hynson, Westcott and Dunning, 18-20; *assoc. pharmacol.*, *Hopkins*, 20- Chem. Soc.
- Round, Dr. Eda May**, 139 Superior St., Providence, R. I. *Paleobotany*. Providence, March 4, 71. Ph.B., 97; A.M., 99; Ph.D., 20. *Teacher and head dept. biol.*, *Technical High Sch.*, *Providence*. Carboniferous paleobotany; fossil plants of Rhode Island.
- Round, Dr. Lester A(ngell)**, State Board of Health, Providence, R. I. *Bacteriology*. Foster, R. I., Nov. 5, 88. A.B., Brown, 10, A.M., 11, Ph.D., 14; Harvard, 13-14, 20-21. Asst. bacteriologist and biologist, R. I. Commissioners Shell Fisheries, 11-14, sanit. inspector, 12-14; asst. bacteriologist, Health Dept., Providence, 12-14; bacteriologist, bur. chem., U. S. Dept. Agr., 14-18; *pathologist*, *R. I. State Board Health*, 18- Soc. Bact.; Pub. Health Ass.; hon. mem. Nat. Ass. Fisheries Commissioners; hon. mem. Providence Med. Soc. Biology; shellfish; food and industrial bacteriology; sanitary and pathogenic bacteriology; serology.
- Roundy, P(aul) V(ere)**, U. S. Geological Survey, Washington, D. C. *Geology*, *Paleontology*.

- Cooperstown Junction, N. Y., Jan. 8, 84. Syracuse; A.B., George Washington, 12. *Geologist*, *U. S. Geol. Surv.*, 09— Ass. Petrol. Geol.; Paleont. Soc.; Wash. Geol. Soc. Carboniferous paleontology; oil and gas geology; stratigraphy.
- Rous, Dr. (Francis) Peyton**, Rockefeller Institute, New York, N. Y. **Medicine*. Baltimore, Md., Oct. 5, 79. A.B., Hopkins, 00, M.D., 05. Res. house officer, Hopkins Hosp., 05–06; instr. path., Michigan, 06–08; asst. and assoc. mem., *Rockefeller Inst.*, 09–12, assoc. mem. *path. and bacter.*, 12–20, mem., 20— Co-editor, 'Jour. Exp. Med.' V. chairman, div. med, Nat. Research Council, 18–19, exec. committee, 19–26, fellow. John Scott medal and premium, Philadelphia, 27. Nat. Acad.; A.A.; Am. Physicians; Soc. Exp. Biol. (councilor, 24–27, v. pres, 27—); Soc. Exp. Path. (see'y, 15); Harvey Soc. (councilor, 17); N. Y. Path. Soc. Cancer; immunity; physiology and pathology of the blood and of the liver; reaction of living tissues.
- Roush, Gar A.**, R. F. D. 3, Bethlehem, Pa. *Metalurgy*. Harrisburg, Ind., Oct. 21, 83. A.B., Indiana, 05; M.S., Wisconsin, 10. Chemist, indust. companies, 05–09; research chemist, W. Va. Exp. Sta., 11–12; asst. prof. metal, Lehigh, 12–20, assoc. prof., 20–26; acting prof., Mont. Sch. Mines, 26–27; *min. and metal. expert*, *Museum of the Peaceful Arts*, New York, 27— Ed., 'Mineral Indust.', 13— Capt., ordnance dept., 18–19, major, Staff Specialist Reserve, 24— Min. Eng. (temp. ed., 'Bul.', 17); Electrochem. Soc. (asst. sec'y, 12–16, in charge ed. work, 'Trans.', 12–16); Chem. Soc. Electrochemistry; electro-metallurgy.
- Rousseau, Rear Admiral H(arry) H(arwood)**, 3238 R St, Washington, D. C. *Civil engineering*. Troy, N. Y., April 19, 70. C.E., Rensselaer, 91. Civil engineer, *U.S.N.*, 98–26, chief bur. yards and docks, 07, served on Isthmus of Panama, 07–16, *rear admiral, corps civil eng.*, 14— Isthmian Canal Commission, 07–14; given thanks of Congress for services at Panama Canal, 14. A.A.; Civil Eng.; West. Pa. Eng. Soc.
- Roussel, Prof. Albert E**, 2108 Pine St, Philadelphia, Pa. *Internal medicine*. Philadelphia, Sept. 17, 63. M.D., Jefferson Med. Col., 82; Paris; Berlin; Heidelberg; Vienna. Intern, Orthop. Hosp. and Infirmary for Nervous Diseases, 82; Phila. Hosp., 83; extern, Salpêtrière and Hosp. St. Louis, Paris, 84–86; chief nervous clinic, lecturer physical diagnosis, assoc. prof. practice and clin. med, and prof. clin. med, Medico-Chirurg. Col. Phila.; *prof. med.*, *grad. sch. med.*, *Pennsylvania*. Visiting physician, Polyclinic, Medico-Chirurg. and Howard Hospitals; Eagleville Sanitarium for Tuber; pres. staff, Howard Hosp. Past assoc. ed., 'Phila. Med. Times and Register.' U. S. Med. Advisory Board, 17–19; special examiner for French Govt, State of Pa. Officier d'Acad.; chevalier, Légion d'honneur. A.A.; fel. Am. Med. Ass.; fel. Col. Physicians; fel. Cong. Int. Med.; Therapeut. Soc. (v. pres); Phila. Pediat. Soc.
- Rowe, Prof. A(llan) W(inter)**, St. Botolph Club, Boston, Mass. *Chemistry*. Gloucester, Mass., July 31, 79. B.S., Mass. Inst. Tech., 01, fellow, 04–06; M.S., Wesleyan, 04; Ph.D., Göttingen, 06. Asst. *chem.*, Wesleyan, 02–04; lecturer, *sch. med.*, Boston, 06–08, *prof.*, 08— Grad. sch., Harvard, 07–14; chief research service, Evans Mem. Hosp. A.A.; Chem. Soc.; Electrochem. Soc.; Biochem. Soc.; Physiol. Soc.; fel. Physical Soc.; Soc. Exp. Biol.; Soc. Bact.; Soc. Internal Secretions; fel. Eng. Econ. Foundations; hon. mem. Mass. Med. Soc.; London Chem. Soc.; Soc. chim. de France; Soc. biochim. de France; Int. Anaesthetic Research Soc. Thermo chemistry; metabolism; diagnosis; endocrine glands; acoustics.
- Rowe, Bertrand P(erry)**, 911 Ramsey Ave, Wilkensburg, Pa. *Electrical engineering*. Ithaca, N. Y., Sept. 2, 68. M.E., Cornell, 92. Engineer, Hotel Sheldrake, N. Y., 90–92; erection engineer, Short Elec. Ry. Co., 92–93; asst. to engineer, Trenton Passenger Ry. Co., 93–94; with Gen. Elec. Co., 93; elec. engineer, Creston Colo. Min. and Milling Co., Mex., 94; *engineer*, *Westinghouse Elec. and Mfg. Co.*, Pa., 94— Fel. Elec. Eng. (past sec'y, Pittsburgh sect); Am. Geog. Soc.; Soc. Mil. Eng. Switchboard engineering; control equipment for power plants.
- Rowe, Prof. E(ugene) C(harles)**, 514 S. Main St, Mount Pleasant, Mich. *Psychology*. Monroe, Mich., March 8, 70. A.B., 97; Ph.D., 08; Hamburg, Vienna and Tübingen, 22–24. *Head dept. psychol.*, *Cent. Nor. Col.*, Mich., 02— Clin. psychologist, New York Police Dept., 15–16. Chief psychol. examiner and clin. psychologist, U.S.A., 17–19. A.A.; Psychol. Ass.; Eugenics Research Soc. Mental testing and hygiene; voluntary movement; hygiene of sleep; psychology of language.
- Rowe, Prof. J(esse) (Perry)**, University of Montana, Missoula, Mont. *Geology*. Salem Centre, Mich., May 5, 71. B.S., Nebraska, 97, fellow, 97–98, A.M., 03, Ph.D., 06. Asst. geol., Nebraska, 94–98; asst. prin., high sch., Mont., 98–99, prin., 99–00; instr. physics and geol., *Montana*, 00–01, *prof.*, 01–08, *geol.*, 08—, *director summer session*, 16–18, 20— Asst., U. S. Geol. Surv., 06, 07; acting prof., Michigan, 21–22, summer, 23, prof., Columbia, 22, 25, 26. Mont. State Text Book Commission. War Camp Community Service, 18–19. A.A.; fel. Geol. Soc.; Ass. Petrol. Geol.; Min. Eng.; Mont. Ass. Sch. Trustees (pres, 15–17); Mont. Acad.; Mont. State Teachers Ass. (pres, 08). Coal; clay; copper; lead; gypsum; coals and lignites of the northwest; petroleum, chromite and molybdenum deposits of Montana.
- Rowe, Prof. Joseph E(ugene)**, 134 Jamestown Road, Williamsburg, Va. *Mathematics*. Emmitsburg, Md., March 21, 83. A.B., Gettysburg, 04; Virginia, 04–05; fellow, Hopkins, 09–10, Ph.D., 10. Teacher math, Mercersburg Acad., 05–06; Jefferson Sch., Baltimore, 06–09; instr., Goucher, 10–11; Haverford, 11–12; Dartmouth, 12–14; asst. prof., assoc. prof. and prof., Pa. State, 14–20; math. and dynamics expert, ordnance dept., U.S.A., and chief ballistician, Aberdeen Proving Ground, 20–21; *prof. math.*, *head dept. and director exten.*, *William and Mary*, 21— A.A.; Math. Soc.; Math. Ass.; Mech. Eng. Rational curves; covariants and invariants of rational quartic; bicombinants; pencils of tan-

- gents and their parameters; cusp and undulation invariants; point equation; collinear relation; quinqueseant line; theory of numbers; Fermat's theorem; formation of combinants; ballistics; plane and spherical trinometer.
- Rowe, Dr. Stuart H(enry)**, 104 Hillcrest Ave, Yonkers, N. Y. *Pedagogy, Psychology*. New Haven, Conn, May 24, 69. A.B, Yale, 90; fellow, Columbia, 92-94; Ph.D, Jena, 95. Instr. Latin and Greek, Pennington, N. J, 90-92; prof. pedag. and director practise, Minn. State Nor. Sch, Mankato, 95-98; supervising prin, Lovell Sch. Dist, New Haven, 98-04; lecturer pedag, Yale, 01-04; head dept. psychol. and pedag, Brooklyn Training Sch. for Teachers, 04-10; *prin, Wadleigh High Sch, New York, 10-* Lecturer, Brooklyn Inst, 08-09; Adelphi, 09-10. A.A; Psychol. Ass; Soc. Exp. Study Educ. Hygiene and child-study in methods of school procedure; lighting of schoolrooms; habit formation; physical nature of the child; educational principles; secondary education.
- Rowe, Dean Walter Ellsworth**, University of South Carolina, Columbia, S. C. *Civil engineering*. Bristol, Ind, Sept. 18, 75. Oregon; B.S, Nebraska, 96; Chicago. Prof. math, Trinity Hall Sch, Ky, 98; supt. prof. and prin, schools, Nebr. and Mont, 97-04; prof. math. and physics, New Mexico, 04-05; civil eng, Okla. Agr. and Meech. Col, 05-06; head prof. and dean col. civil eng, Kentucky, 06-17; acting dean, South Carolina, 17-18; major prof, Drexel Inst, Phila, 18-20; engineer and manager, John E. Hand and Sons Co, La. and Md, 20-22; *dean sch. eng, South Carolina, 22-* With pub. utility and commercial companies. Civil Eng; Ass. Eng; Eng. Educ. Reinforced concrete; structural steel.
- Rowland, Dr. Arthur J(ohn)**, 27 Watson Ave, Wauwatosa, Wis. *Electrical engineering*. Cincinnati, Ohio, Feb. 19, 67. Pennsylvania, 83-84; Hopkins, 84-86, 90-93; Sc.D, Bucknell, 06. Instr. elec. eng, Drexel Inst, Phila, 93-94, prof, 94-18, director sch. eng, 06-13, dean, 13-18; dist. officer, Fed. Board Vocational Educ, 18-19; *educ. director, Milwaukee Elec. Ry. and Light Co, 19-* Nat. Ass. Vocational Educ. Industrial education.
- Rowland, Prof. Floyd E(lba)**, Oregon Agricultural College, Corvallis, Oregon. *Chemistry*. Hartwick, Iowa, Dec. 18, 85. B.S, Oregon Col, 07; A.B, Illinois, 14, A.M, 15, Ph.D, 18. Instr. chem, Oregon Col, 10-13; asst, Illinois, 15-18; asst. prof, Oregon Col, 18; Kansas, 19-20; *head chem. eng, Oregon Col, 20-* Lieut, C.W.S, 18. A.A; Chem. Soc; Electrochem. Soc; Eng. Soc. Effect of temperature, pressure and steam on hydrocarbon vapors; war gases; fish waste of the Northwest; menthol from peppermint oil; crystallization of menthol; cedar oil from the cedars of the Northwest; chemical resources of Oregon.
- Rowley, John**, 403 S. First St, Alhambra, Calif. *Zoology*. Hastings-on-Hudson, N. Y, March 11, 66. Brooklyn Polytech, 84-87. Chief dept. taxidermy, Am. Museum Nat. Hist, 89-04; taxidermist, Stanford; *curator mammals, Calif. Acad. Sciences; director, Oakland Pub. Museum.* Ornith. Union; Soc. Mammal; Audubon Soc;
- N. Y. Zool. Soc; N. Y. Linnean Soc; Cooper Ornith. Club. Taxidermy; mammals.
- Rowley, Prof. R(obert) R(ossell)**, 1115 North Carolina St, Louisiana, Mo. *Zoology*. Near Louisiana, Jan. 4, 54. Missouri. Teacher, high sch, Ark, 91-93; prin. and teacher, high sch, Mo, 94-11; supt, schools, Louisiana, Mo, 11-25. Summers, expert paleontologist, Mo. Geol. Surv. A.A; Entom. Soc; Paleont. Soc. Invertebrate morphology; paleontology; Lepidoptera; Crinoidea; Blastoidea; Sphingidae; Catocala.
- Rowntree, Prof. L(eonard) G(eorge)**, Mayo Foundation, Rochester, Minn. **Medicine*. London, Ont, Can, April 10, 83. M.D, West. Med. Col. (Can), 05; D.Sc, Western Ontario, 16. Res. physician, Victoria Hosp, London, Ont, 05-06; asst. med, Hopkins, 07-08, instr. pharmacol, 08-10, assoc. exp. therapist, 10-13, assoc. prof, 13-14, med, 14-16; *prof. med. and chief dept, Minnesota, 16-20, Mayo Foundation, 20-* Col, M.R.C. A.A; Am. Med. Ass; Am. Physicians; Physiol. Soc; Soc. Pharmacol; Soc. Biol. Chem; Soc. Exp. Path; Soc. Clin. Invest. Clinical medicine; water balance; water intoxication; blood volume; renal and hepatic functional tests; absorption from pleural and peritoneal cavities; vividiffusion; plasmapheresis; radium; antimonials in trypanosomiasis; subcutaneous purgatives.
- Roy, Prof. Arthur J(ay)**, 369 Morris St, Albany, N. Y. *Astronomy*. Clyde, N. Y, Nov. 7, 69. C.E, Union, 93, A.M, 97. *First asst, Dudley Observatory, Albany, 93-* chief astronomer, dept. meridian astron, Carnegie Institution, 07- A.A; Astron. Soc; Albany Philos. Soc. (v. pres, 21). Comets; asteroids; meridian observations of stars and their reduction; star positions and motions; cosine flexure from the reflected minus direct observations.
- Royster, Dr. Hubert A(shley)**, 808 Professional Building, Raleigh, N. C. *Surgery*. Raleigh, Nov. 19, 71. A.B, Wake Forest, 91; M.D, Pennsylvania, 94. Intern, Mercy Hosp, Pittsburgh, 94-95; dean and prof. gynec, sch. med, North Carolina, 02-10; *surgeon-in-chief, St. Agnes Hosp. Surgeon, Rex Hosp; South. Ry; consulting surgeon, Seaboard Air Line; Dix Hill State Hosp. Fel. Col. Surg; Am. Med. Ass; S. Surg. Ass. (sec'y, 16-25, pres, 26); Tri-State Med. Soc. (pres, 06); N. C. Med. Soc. (pres, 22); Raleigh Acad. Med. Gynecology; appendicitis.*
- Ruark, Dr. Arthur Edward**, Yale University, New Haven, Conn. **Physics, Civil engineering*. Washington, D. C, Nov. 9, 99. A.B, Hopkins, 21, A.M, 23, Ph.D, 24. Mem. atomic structure sect, Bur. Standards, 22-26; *asst. prof. physics, Yale, 26-* Physical Soc; Astron. Soc; Optical Soc; Wash. Philos. Soc. Critical potentials; thermodynamics; spectroscopy; aeronautics.
- Rubey, W(illiam) W(alden)**, U. S. Geological Survey, Washington, D. C. *Geology*. Moberly, Mo, Dec. 19, 98. A.B, Missouri, 20; Hopkins, 22; Yale, 22-24. Asst. valuation engineer, Johnson and Huntley, Pa, 20; geol. aid, U. S. Geol. Surv, 20-21, asst. geologist, 21-22; instr. geol, Yale, 22-24; *assoc. geologist, U. S. Geol.*

- Surv.*, 24- A.A.; Ass. Petrol. Geol.; Wash. Geol. Soc.; Wash. Biol. Soc. Petroleum geology; origin of sediments; structure of Black Hills and Oklahoma-Kansas regions.
- Ruby, Dr. Charles E(mest)**, Beattie, Ruby and Smith, 79 Sudbury St, Boston, Mass. *Chemical engineering*. Louisville, Ky, Nov. 20, 93. B.S., Kentucky, 16; Ph.D., Mass. Inst. Tech., 20. Fellow, Mellon Inst., 16-17; asst. physical chem., Mass. Inst. Tech., 17-18, 19-20, instr., 18-19, research assoc., 20-22; *consulting chem. engineer*, 22- Thermodynamics; industrial applications of theoretical physics and chemistry; commercial process for making wool goods unshrinkable; waste-oil recovery processes.
- Ruch, Prof. G(iles) M(urrel)**, University of California, Berkeley, Calif. *Psychology, Education*. Guthrie Center, Iowa, July 7, 92. A.B., Oregon, 14; research fellow, Stanford, 20-22, Ph.D., 22. Instr. educ., Oregon, 17-18, asst. prof., 18-19; asst. prof. psychol. and educ., Iowa, 22-24, assoc. prof., 24-26; *prof. educ., California*, 26- A.A.; Psychol. Ass. Mental measurements; psychology of education.
- Rucker, Dr. Augusta**, 145 E. 36th St, New York, N. Y. *Zoology*. Paris, Texas, May 24, 73. A.B., Texas, 96, fellow, 96-97, A.M., 99; M.D., Hopkins, 11. Tutor biol., Texas, 97-99, instr., 99-00, zool., 00; *practising physician*. Assoc. surg. Ruptured and Crippled Hosp. A.A.; fel. Texas Acad. Peripatus eisenii; the Texan Koenenia; the anatomy of Koenenia and its position among the Arachnida.
- Rucker, George**, Call Building, San Francisco, Calif. *Engineering*. Atlanta, Ga, March 22, 85. *Pacific coast manager and engineer, Holophane Co, San Francisco*. A.A.; Illum. Eng. Soc. Artificial illumination.
- Ruckes, Herbert**, 1171 Sherman Ave, New York, N. Y. *Vertebrate morphology*. New York, Feb. 1, 95. B.S., A.M., Cornell, 17. Head dept. biol., Grove City, 17-18; *instr. mil. sanit.*, Columbia, 18-19; *comp. anat. Col. City of N. Y.*, 20- Summer, instr., Columbia, 19. A.A.; Entom. Soc.; N. Y. Acad. Limnology; insect histology; vertebrate osteology.
- Ruckmick, Prof. Christian A(lban)**, Manville Heights, Iowa City, Iowa. *Psychology*. New York, N. Y., Sept. 4, 86. A.B., Amherst, 09, A.M., 12; Ph.D., Cornell, 13. Instr., high sch., Mass., 09-10; *psychol.*, Cornell, 11-13; Illinois, 13-15, assoc., 15-17, asst. prof. and acting head dept., 17-19, assoc. prof., 19-21; Wellesley, 21-24; *prof. Iowa*, 24- Summers, lecturer, Harvard, 15, Kentucky, 22. A.A.; Psychol. Ass.; Iowa Acad. Psychology of rhythm and music; historical and systematic psychology; emotion; esthetics.
- Rudd, Prof. Wortley F(uller)**, 2416-A Grove Ave, Richmond, Va. *Chemistry*. Chesterfield Co, Va., Oct. 6, 76. A.B., Richmond, 98; Ph.B., Univ. Col. Med., 02; A.M., Columbia, 11. *Prof. chem. Med. Col. of Va.*, 10- Lecturer, Richmond, 18- Chem. Soc. (chairman and sec'y, Va. sect); Pharmaceut. Ass. (chairman, sect. on educ. and legislation, 18); Ass. Col. Pharmacy (pres, 19). Vegetable oils.
- Ruddiman, Dr. E(dsel) A(lexander)**, 3324 Virginia Park, Detroit, Mich. *Pharmacy*. Dearborn, Mich., Dec. 27, 64. Phar.C., Michigan, 86, Phar.M., 87; M.D., Vanderbilt, 93. Asst. in charge pharmacog., Michigan, 86-87; chemist in charge lab., Williamson, Ingram and Griggs, 87-90; prof. pharmacy and mat. med., Vanderbilt, 90-20; chief chemist, John T. Milliken and Co, 21-26; *research chemist, Ford Motor Co*, 26- Chemist, Tenn. Board Pharmacy, 97-20; U. S. food and drug inspection chemist, 07-14. Pharmaceut. Ass.; Chem. Soc. Prescriptions; materia medica.
- Rude, G(ilbert) T(homas)**, U. S. Coast and Geodetic Survey, Washington, D. C. *Geodesy*. Sharps, Va, Sept. 13, 81. Washington (Md). Field officer, hydrog. and geod. engineer, surveys, U. S. Coast and Geod. Surv., 03-17, *chief div. tides and currents*, 19- Lieut. and lieutenant commander, U.S.N., 17-19. Geophys. Union (sec'y, sect. E, 23-26). Ass. Geog. (chairman, committee on finance, 26); Civil Eng.; Wash. Soc. Eng.; Wash. Philos. Soc. Tides and currents.
- Rudisill, Dr. W(illiam) A(ugustus)**, 96 Oakwood Ave, Elmira, N. Y. *Chemistry*. Cherryville, N. C., March 31, 90. A.B., Lenoir Col., 09; B.S., North Carolina, 11, M.S., 14; Ph.D., Pittsburgh, 25. Head dept. chem. and physics, Lenoir Col., 11-13; instr., Purdue, 16-19; head dept. chem., Guilford Col., 19-21; asst. prof. anal. chem., Vanderbilt, 21-23; *chief chemist, Thatcher Mfg. Co*, 25- Chem. Soc. Arsenates of sodium; catalytic activation of titania; glass.
- Rudis-Jicinsky, Dr. John**, 239 E. Roosevelt Road, Wheaton, Ill. *Pathology*. Bohemia, 62. A.M., Prague Acad., 94; M.D., Rush Med. Col., 96; M.E., Lima, 04. Director, Mil. Hosp., Skoplje, Serbia, and lieut.-col., Serbian M.C., 14-15. Int. Commission on Typhus, Serbia, 14-15; Am. Red Cross med. exped., Siberia, 19-20. A.A.; Am. Med. Ass.; Röntgen Ray Soc. (founder, sec'y, 00-). Radiology; electrology; epidemiology; typhus exanthematicus, febris recurrence, dysentery and cholera in Serbia and Siberia; serology.
- Rudolf, Dr. R(obert) D(awson)**, 100 College St, Toronto, Ont., Can. *Therapeutics, Medicine*. Pictou, N. S., June 29, 65. M.B., C.M., Edinburgh, 89, M.D., 96. *Prof. therapist, Toronto*, 03- Asst. physician, Toronto Gen. Hosp.; Sick Children's Hosp. Col. and consulting physician, M.C. Can. Army. Therapeut. Soc. (pres, 25); Am. Physicians; Toronto Acad. Med.; fel. Royal Soc. Med.; fel. Royal Col. Physicians; fel. Royal Geog. Soc.; Royal Med. Soc. Edinburgh (past pres). Clinical medicine.
- Rudolfs, Dr. Willem**, Rutgers University, New Brunswick, N. J. *Biochemistry*. Wageningen, Holland, Feb. 13, 86. L.E., Holland, 11; research fellow, Rutgers, 18, Ph.D., 19. Soil chemist, Illinois, 16-17; research fellow, Pasteur Inst., 19-20; biochemist, N. J. Exp. Sta., 20-24, chief sewage investigations, 21, *prof. waste and waste disposal*, 26- A.A.; Chem. Soc.; Pub. Health Ass. Plant nutrition; soil biology and chemistry; insecticides; sewage biology.

- Rudolph, Dr. B(ert) A(lexander)**, 1125 Settle Ave, San Jose, Calif. *Plant pathology*. San Jose. B.S, California, 14, M.S, 15; Ph.D, Stanford, 25. Sci. asst, office fruit disease investigations, U. S. Dept. Agr, 15-20. Fruit and vegetable inspector, U.S.N, 18-19. Phytopath. Soc; Crop Protection Inst. Diseases of the cranberry, cherry and apricot; interhost relations of *Verticillium* species of bush fruits, stone fruits and truck crops; walnut blight.
- Rudy, R(obert) B(artel)**, 720 Webster St, Washington, D. C. *Chemistry*. Lancaster, Pa, Sept. 5, 00. B.S, Franklin and Marshall, 20. *Chemist*, *Bur. Standards*, 20- Chem. Soc. Inorganic chemistry; analytical methods.
- Ruedemann, Dr. R(udolf)**, Education Building, Albany, N. Y. **Paleontology, Geology*. Georgenthal, Germany, Oct. 16, 64. Ph.D, Jena, 87; Strassburg, 89. Asst. geol. Strassburg, 87-92; teacher, high schools, N. Y, 92-99; asst. state paleontologist, N. Y, 99-26, *state paleontologist*, 26- Curator paleont, N. Y. State Museum, 13- Walker prize, Boston Soc. Nat. Hist, 01. A.A; Geol. Soc. (v. pres, 16); Paleont. Soc. (v. pres, 11, pres, 16); Halle Akad. der Naturforscher. Fossils and geology of the Ordovician and Silurian of New York; graptolites; cephalopods, eurypterids; inliers; Precambrian continents.
- Ruediger, Dr. E(rnest) Henry**, 918 Taft Building, Hollywood, Calif. *Pathology*. Fountain City, Wis, 75. M.D, Rush Med. Col, 03. Serologist, Bur. Science, P. I. and assoc. prof. path. and bacter, Philippine Med. Sch, 04-16; pathologist, Bismarck Hosp, Bismarck, N. Dak, 16-23; Angelus Hosp, Los Angeles, Calif, 23-25; *director, Hollywood Clin. Lab*, 25- A.A; Am. Med. Ass. Bacteriology of the blood in typhoid fever; virulent pseudodiphtheria bacilli in gangrenous laryngitis; *Bacillus typhosus* associated with pyonephrosis; Wassermann reaction.
- Ruediger, Dr. Gustav F(erdinand)**, 2974 Mount Curve, Pasadena, Calif. *Pathology, Bacteriology*. Fountain City, Wis, June 9, 76. B.S, Wisconsin, 00; M.D, Rush Med. Col, 03; Ph.D, Chicago, 07. Assoc. Mem. Inst. for Infectious Diseases, Chicago, 03-06; prof. path. and bacter, North Dakota, 07-14; director, State Pub. Health Lab, 07-14; *director*, Hygienic Inst. for LaSalle, Peru and Oglesby, Ill, 14-17; state hygienic lab, Nev, 17-21; *Pasadena Clin. Lab*, 21- A.A; Ass. Path. and Bact; Am. Med. Ass; Pub. Health Ass. The self-purification of streams; streptococcus infections; purity of natural ice from polluted waters.
- Ruediger, Prof. W(illiam) C(arl)**, George Washington University, Washington, D. C. *Psychology, Education*. Fountain City, Wis, March 29, 74. Ph.B, Wisconsin, 99, Ph.M, 03; Ph.D, Columbia, 07. Prof. methods, Mont. Nor. Col, Dillon, 03-05; asst. psychol, Columbia, 06-07; asst. prof. educ. psychol, *George Washington*, 07-11, *prof*, 11-, *dean teachers col*, 12-, *director summer sch*, 15-25. Summers, lecturer, Virginia, 08-10, West Virginia, 12-24, Dartmouth, 14, Cornell, 21, 26, Southern California, 25, 27. A.A; Psychol. Ass; S. Soc. Philos. and Psychol. The field of distinct vision; the period of mental reconstruction; formal culture through ideals; improvement of teachers; principles of education; vitalized teaching.
- Ruehe, Prof. Harrison A(ugust)**, 808 W. Iowa St, Urbana, Ill. *Dairy husbandry*. Gilman, Ill, June 26, 88. B.S, Illinois, 11, M.S, 16; Ph.D, Cornell, 21. Instr. California, 11-12; assoc. dairy husbandry, *Illinois*, 12-18, asst. prof, 18-21, *prof. and head dept*, 21- Ill. rep, World's Dairy Cong, Washington, D. C, 23. Dairy Sci. Ass. (sec'y, dairy manufacturers sect, 22, chairman, 23). Condensed milk; ice cream; butter.
- Ruehle, G(odfrey) L(eonard) A(lvin)**, 650 East A St, Moscow, Idaho. *Bacteriology*. Stillwater, Minn, Oct. 30, 84. Ph.G, Washington (Seattle), 06, B.S, 08, M.S, 10. Asst. bacteriologist, N. Y. Exp. Sta, Geneva, 11-18; research assoc. bacter, Mich. Exp. Sta, 18-26; *prof, Idaho*, 26- Soc. Bact; Dairy Sci. Ass; Pub. Health Ass. Dairy bacteriology; germ content of milk; bacterial analysis of air and milk; bacteriology of butter; intestinal bacteriology.
- Ruffner, Charles S(humway)**, 126 State St, Albany, N. Y. *Electrical engineering*. Chicago, Ill, June 22, 80. B.S, Missouri, 00. Engineer, Telluride Power Co, 00-09; supt. operation, Cent. Colo. Power Co, 09-11; gen. manager, Miss. River Power Distributing Co, 11-13; v. pres. and gen. manager, Elec. Co. of Mo, 13-17; Union Elec. Light and Power Co, 17-21; v. pres, N. Am. Co, 19-21; v. pres. and gen. manager, *Adirondack Power and Light Corp*, 21-25, *pres*, 26-; *Mohawk Hudson Power Corp*, 25- Fel. Elec. Eng; Electrochem. Soc. High voltage electrical phenomena; business administration.
- Rufus, Prof. W(ill) Carl**, Detroit Observatory, Ann Arbor, Mich. *Astronomy*. Chatham, Ont, Can, July 1, 76. A.B, Albion, 02, A.M, 08; fellow, Michigan, 13-15, Ph.D, 15. Asst. math, Albion, 01-02; teacher, high sch, Mich, 02-05; instr. math. and astron, Pyeng Yang Col, Korea, 07-11; supt. educ, Meth. Mission, Seoul, 11-13; prof. math. and astron, Seoul Col, 15-17; instr. astron, Michigan, 17-20, asst. prof, 20- Prof, Univ. World Cruise, 26-27. A.A. (v. pres, L, 26); Astron. Soc; Royal Asiatic Soc. Astrophysics; stellar spectroscopy; the celestial planisphere of King Yi Tai Jo; place of class R stars in the evolutionary sequence; atmospheric pulsation of Cepheids.
- Ruger, Prof. Henry A(lford)**, Teachers College, Columbia University, New York, N. Y. *Psychology*. Janesville, Wis, Sept. 18, 72. A.B, Beloit, 95; fellow, Wisconsin, 01-03; A.M, Chicago, 05; Ph.D, Columbia, 10. Prin. acad, Port Byron, Ill, 96-00; asst. psychol, Columbia, 03-04; asst. prof, Colo. Col, 04-10; *educ. psychol, Teachers Col, Columbia*, 10- A.A; Psychol. Ass; Math. Soc; Statist. Ass. Psychology of efficiency; learning processes; growth curves.
- Rugg, Dr. Harold Ordway**, 400 W. 118th St, New York, N. Y. *Psychology*. Fitchburg, Mass, Jan. 17, 86. B.S, Dartmouth, 08, C.E, 09; Ph.D, Illinois, 15. Instr. civil eng, James Millikin, 09-11; Illinois, 11-15; educ, Chicago, 15-17, asst. prof, 17-18, assoc. prof, 18-19; *prof. educ. and educ. psychologist, Lincoln Sch, Teachers Col, Columbia*, 19- Specialist, investigation of U. S. Civil Service Commission, 19. Statistician,

- committee on classification of personnel, U.S.A., 18. A.A.; Soc. Col. Teachers Educ. Educational measurement; statistics; mental tests; the school curriculum.
- Ruggles, Prof. Arthur Gordon**, University Farm, St. Paul, Minn. *Entomology*. Annapolis Royal, N. S. Can, May 30, 75. B.S.A., Cornell, 01, A.M., 04. Asst. prof. entom., Minnesota, and asst. to state entomologist, 02-13, assoc. prof., 13-18, *prof. and state entomologist*, Minn., 18- Entomologist, Pa. Chestnut Blight Commission, 12-13. A.A.; Entom. Soc.; Ass. Econ. Entom. Economic entomology.
- Ruhräh, Dr. J(ohn)**, 11 E. Chase St., Baltimore, Md. *Pediatrics*. Chillicothe, Ohio, Sept. 26, 76. M.D., Col. Physicians and Surg., Baltimore, 94. *Prof. diseases of children*, Maryland. Co-editor, 'Bul. Med. Library Ass'; assoc. ed., 'Annals Med. Hist.' *Pediat. Soc.* (pres, 25); Am. Med. Ass; Md. Med. and Chirurg. Faculty (pres, 19); Med. Library Ass. (v. pres, 26, pres, 27). Medical history; nutrition; clinical pediatrics; poliomyelitis; dietetics.
- Rumbold, Dr. Caroline (Thomas)**, Office of Forest Pathology, Madison, Wis. *Plant pathology*. St. Louis, Mo, July 27, 77. B.L. Smith, 01; A.M., Washington (St. Louis), 03, Ph.D., 11, fellow, Mo. Bot. Garden, 10-11; Dr. oec. publ. Munich, 07. Sci. aid, bur. plant indust., U. S. Dept. Agr., 03-05; asst. bot., Missouri, 08-10; expert and collaborator, *bur. plant indust., U. S. Dept. Agr.*, 11-17, asst. pathologist, sugar plant investigations, 17-19, plant pathologist, 19-24, *asst. pathologist, office forest path.*, 24- Plant physiologist, Pa. Chestnut Blight Commission, 12-13. A.A.; Phytopath. Soc.; Soc. Plant Physiol; Wash. Bot. Soc. Fungous diseases of trees; injection of chemicals into chestnut trees; blue stain of wood.
- Ruml, Dr. Beardsley**, Room 2601, 61 Broadway, New York, N. Y. *Psychology*. Cedar Rapids, Iowa, Nov. 5, 94. B.S., Dartmouth, 15; Ph.D., Chicago, 17. Instr. psychol., Carnegie Inst. Tech., 18; sec'y, Scott Co, 19-20; asst. to pres, Carnegie Corp, 20-22; *director, Laura Spelman Rockefeller Mem.*, 22- Co-director trade test div, U.S.A., 18. A.A.; Psychol. Ass.
- Rumsey, Dr. L(ouys) A.**, American Bakers Association, 1135 Fullerton Ave, Chicago, Ill. *Chemistry*. Stryker, Ohio, May 7, 89. B.S., Denison, 12, M.S., 13; Ph.D., Minnesota, 22. Instr. chem., Iowa Col., 13-17; asst. prof., Denison, 17-20; fel., Am. Inst. Baking, 20-22, research chemist, 22-23; Wheat Council of U. S., 23-24; director trade promotion, *Am. Bakers Ass*, 24-25, *sec'y*, 25- Chem. Soc.; Soc. Bakery Eng. Cereal technology; baked products.
- Runkle, Prof. Erwin W(illiam)**, State College, Pa. *Psychology*. Lisbon, Iowa, May 20, 69. A.B., Leander Clark, 90; Ph.D., Yale, 93; hon. fellow, Clark, 99. Lecturer hist. philos., Yale, 92-93; *prof. psychol. and ethics, Pa. State*, 93-24, *philos.*, 24- Librarian, Carnegie Library, Pa. State, 04-24. A.A.; Psychol. Ass; Philos. Ass; Hist. Sci. Soc. The phenomenalism of Berkeley; psychology of confession; psychology of prejudice and prejudgment.
- Runnells, Dr. Russell A(iger)**, Virginia Polytechnic Institute, Blacksburg, Va. *Animal pathology*. Oceana, Va., June 21, 91. D.V.M., Mich. State Col., 16; Michigan, 21, 22, 23. Asst. prof. animal path., Mich. State Col., 19-24; *assoc. animal pathologist, Va. Exp. Sta.*, 24- Officer, V.C., 17-19. Vet. Med. Ass; Poultry Sci. Ass; Ass. Exp. Sta. Vet; Va. Acad. Histopathological study of udders of cows in abortion infection.
- Runner, Dr. J(oseph) J(ames)**, State University of Iowa, Iowa City, Iowa. *Geology*. Aurora, Ill., July 17, 89. A.B., Nebraska; Ph.D., Chicago. Prof. *geol.*, S. Dak. Sch. Mines; *asst. prof., Iowa*. A.A.; fel. Miner. Soc. Precambrian, structural, metamorphic and igneous geology.
- Running, Prof. Theodore R(udolph)**, 1019 Michigan Ave, Ann Arbor, Mich. *Mathematics*. Colfax, Wis., Dec. 14, 66. B.S., Wisconsin, 92, fellow, 95-97, M.S., 96, Ph.D., 99. Prof. math., physics and chem., St. Olaf, 93-95; asst. math., Wisconsin, 97-99, instr., 99-00; prof. math. and nat. science, St. Olaf, 00-03; instr. *math, Michigan*, 03-07, asst. prof., 07-13, assoc. prof., 13-20, *prof.*, 20- A.A.; Math. Soc.; Math. Ass; Eng. Educ. Graphical methods.
- Runyan, E(imer) G(ardner)**, 419 Tenth St., N. W., Washington, D. C. *Chemistry*. Disco, Mich. Ph.C., Michigan, 86; B.S., George Washington, 89. Asst. chemist, bur. chem., U. S. Dept. Agr., 90-03; *inspector gas and meters for D. C.*, 03- A.A.; Chem. Soc.; Soc. Chem. Indust. Agricultural chemistry; method of fertilizer analysis; gas analysis; photometry; gas calorimetry.
- Rupert, Dr. F(rank) F(inch)**, Mellon Institute, Pittsburgh, Pa. *Chemistry*. Caledonia, N. Y., Oct. 18, 83. A.B., Kansas, 06, A.M., 08; Ph.D., Mass. Inst. Tech., 12. Instr. chem., Kansas, 07-09; asst., Mass. Inst. Tech., 10-11; instr., Kansas, 11-12; junior physical chemist, U. S. Bur. Mines, 12-13; *indust. fellow, Mellon Inst.*, 13- Chem. Soc. Colloid chemistry; phase rule; electrical potential; catalysis; inks; silvering of glass.
- Rupert, Dr. R(ichard) R(oot)**, Oakland, Calif. *Surgery*. Buchanan, Mich., Jan. 1, 82. M.D., Illinois, 12. Demonstrator anat., departments med. and dentistry, Illinois, 11-12, asst. prof., 12-13, instr., 13-14, asst. clin. surg., col. med., 14-16; prof. gross anat., Utah, 16-20. Ass. Anat. Irregular kidney vessels; innervation; variations in blood supply to thyroid gland.
- Rupp, Dr. Alice**, 501 Washington Ave, S. E., Minneapolis, Minn. *Physiology*. Pittsburgh, Pa., April 13, 98. A.B., Wellesley, 20, A.M., 22; Shevlin fellow, Minnesota, 22-23, Ph.D., 25. Asst. *physiol.*, Wellesley, 20-22; teaching fellow, *Minnesota*, 23-25, *instr.*, 25-
- Rupp, Dr. Philip**, 1225 L St., N. W., Washington, D. C. *Biochemistry*. New York, N. Y., Dec. 22, 62. Ph.B., Columbia, 84, M.D., 87; Ph.D., Freiburg, 01. *Research chemist, bur. dairy industry, U. S. Dept. Agr.*, 08- Nutrition and physiology of bacteria; streptococci and proteolytics.
- Ruprecht, Dr. R(udolf) W(illiam)**, 743 N. Bay St., Gainesville, Fla. *Chemistry*. Brooklyn, N.

- Y, June 2, 89. B.S, R. I. Col, 11; M.S, Mass. Col, 14, Ph.D, 16; Cornell, 15-16. Asst. chemist, Mass. Exp. Sta, 11-16; chemist and supt, F. W. Tunnel and Co, Pa, 16-19; *chemist, Fla. Exp. Sta, 19- A.A*; Chem. Soc; Soc. Agron. Agricultural chemistry.
- Rusby, Prof. Henry H(urd)**, 115 W. 68th St, New York, N. Y. **Botany, Materia medica*. Franklin, N. J, April 26, 55. M.D, N. Y. Univ, 84; hon. Phar.M, Phila. Col. Pharmacy, 23. *Prof. bot, physiol. and mat. med, and dean faculty, N. Y. Col. Pharmacy, 88- Prof, Am. Vet. Col, 89-96; Univ. and Bellevue Hosp. Med. Col, 97-02; board managers and sci. director, N. Y. Bot. Garden, and hon. curator econ. museum; pharmacologist, U. S. Dept. Agr, 07-14. Agent, Smithsonian Inst. bot. explor, N. Mex. and Ariz, 80-83; explored Madeira River Valley and Bolivia, S. A, 85-87, 21-22, delta of Orinoco, 96, Mex. rubber forests, 08-10, south. Colombia, 17. Committee of revision, U. S. Pharmacopœia, 90-20. Medal, Centennial Expos, 76. Committee on med. flora, Pan-Am. Med. Cong. A.A; Pharmaceut. Ass. (past pres); fel. N. Y. Acad; N. Y. Sci. Alliance; Torrey Bot. Club (past pres); hon. mem. Mex. Inst. Med. Nac; cor. mem. Gt. Britain Pharmaceut. Soc. South American flora; vegetable materia medica.*
- Rush, Prof. Grace Preyer (Mrs. Charles Wilfred)**, 2212 Delaware Road, Cleveland Heights, Ohio. *Psychology*. Denver, Colo, Jan. 31, 82. A.B, Western Reserve, 15, A.M, 16; Columbia, 20-22. Asst. psychol, *Western Reserve, 15-16, instr. philos, 16-21, asst. prof. exp. psychol, 21-* The scientific measurement of classroom products; social psychology.
- Rush, Dr. J(ames) E(dwain)**, University of Kentucky, Lexington, Ky. *Preventive medicine, Biology*. Dorchester, Mass, May 20, 87. B.S, Mass. Inst. Tech, 12; C.P.H, N. Y. Univ, 15; M.D, Pittsburgh, 20. Asst, Mass. Inst. Tech, 12-13; instr. bacter, Wisconsin, 13-14; asst. prof. sanit. eng, Carnegie Inst. Tech, 14-22; field director, Nat. Cancer Soc, 22-23; Narcotic Surv, 23-24; *director dept. hygiene and pub. health, Kentucky, 24-* Asst. bacteriologist, Boston Biochem. Lab; chemist, Springfield Water Supply; director health, Edgeworth, Pa, 16-Fel. Am. Med. Ass; Pub. Health Ass; fel. Royal Inst. Pub. Health. Bacteriology; death rate of B. coli at low temperatures; ptomaine poisoning; statistics of cancer; statistics of the physical conditions of students; ventilation.
- Rushmore, David B(arker)**, 1 W. 54th St, New York, N. Y. *Electrical engineering, Economics*. Old Westbury, N. Y, Aug. 21, 73. B.S, Swarthmore, 94, C.E, 97, Sc.D, 23; M.E, Cornell, 95. Pond Machine Tool Co, 93; Westinghouse Elec. and Mfg. Co, 94, 95-96; Royal Elec. Co, Montreal, 96-97; Stanley Elec. Mfg. Co, 99-05; chief engineer, power and mining dept, Gen. Elec. Co, N. Y, 05-25; *consulting engineer, 25-A.A*; Elec. Eng; Mech. Eng; Civil Eng; Min. Eng; Electrochem. Soc; Franklin Inst; Soc. française des Elec. Electricity in industrial plants.
- Rushmore, Prof. Stephen**, 520 Commonwealth Ave, Boston, Mass. *Medicine*. Rochester, N. Y,
- Oct. 19, 75. A.B, Amherst, 97; M.D, Hopkins, 02. Asst. res. gynecologist, Hopkins Hosp, 03; house physician, Hudson St. Hosp, New York, 03-04; house surgeon, St. Mary's Hosp. for Children, 04-05; res. gynecologist, Hopkins Hosp, 05-06; house officer, Boston Lying-in Hosp, 07-08; instr. *gynec, med. sch, Tufts, 09-12, assoc. prof, 12-22, prof. and dean, 22-* Instr, Hopkins, 06; gynecologist, Symmes' Arlington Hosp; surgeon, Mass. Women's Hosp. A.A; Am. Med. Ass; Col. Surg; Gynec. Soc; New Eng. Surg. Soc; Boston Surg. Soc; Boston Obstet. Soc. Gynecology; obstetrics.
- Rusk, Prof. G(lanville) Y(eisley)**, 117 Alton Ave, San Francisco, Calif. *Pathology*. Baltimore, Md, Feb. 15, 75. A.B, Hopkins, 96, M.D, 00. Med. house officer, Hopkins Hosp, 00-01; Enoch Pratt Hosp, 01-02; pathologist, Manhattan State Hosp, N. Y. City, 02-10; asst. prof. *path, California, 10-14, assoc. prof, 14-* Ass. Path. and Bact. Oidiomycotic meningitis; antibody production; glycogen determination; neoplasms.
- Rusk, Hester M(ary)**, Brooklyn Botanic Garden, 1000 Washington Ave, Brooklyn, N. Y. *Physiology*. Kansas City, Mo, Dec. 26, 90. Nebraska, 08-09; A.B, Columbia, 12, A.M, 17; Wisconsin, 19; Chicago, 19. Instr. bot, agr. high sch, Nebraska, 13-15; asst, Barnard, 15-18, instr. bot, 18-20; tech. asst, N. Y. Bot. Garden, 20-26; *curatorial asst, Brooklyn Bot. Garden, 26-* A.A; Torrey Bot. Club. Physiology; stimulation.
- Rusk, Dr. Rogers D**, Naperville, Ill. *Physics*. Washington, D. C, Nov. 17, 92. B.S, Ohio Wesleyan, 16; A.M, Ohio State, 17; Ph.D, Chicago, 25. Instr. physics, acad, Ohio Wesleyan, 15-16; head dept. science, high sch, Ohio, 17-18; *prof. physics, North-Cent. Col, 19-* Sig.C, U.S.A, 18-19. A.A; Physical Soc; Meteor. Soc; Royal Soc. Arts. Combination of oxygen and hydrogen by electric discharges and X-rays; aerology; low voltage arcs.
- Rusk, Prof. W(illiam) J(ames)**, Grinnell College, Grinnell, Iowa. *Mathematics*. Ont, Can, Sept. 30, 69. B.A, Toronto, 95, fellow, 95-98, M.A, 98; Chicago, 00-01, fellow, 01-02. Instr. *math, Bishop's Col, 98-00; assoc. prof, Grinnell, 02-05, prof, 05-* A.A; Math. Soc.
- Russell, Ernest Edward**, City Hall, Yuma, Ariz. *Entomology*. Springerville, Ariz, Dec. 24, 91. *Asst. entomologist, Ariz. Commission Agr. and Hort, 19-21; cereal and forest insect investigations, bur. entom. U. S. Dept. Agr, 21-* Ass. Econ. Entom. Alfalfa seed chalcis.
- Russell, Dr. F(rederick) F(uller)**, 7 W. 43d St, New York, N. Y. **Pathology, Hygiene, Public health*. Auburn, N. Y, Aug. 17, 70. M.D, Columbia, 93; Sc.D, George Washington, 17. Intern, Bellevue Hosp, New York, 93-95, res. physician, 95-96; Sloane Maternity Hosp, 95; lieut, M.C, U.S.A, 98-03, capt, 03-08, major, 09, 17, col, 17-20; curator, Army Med. Museum, 08-20, instr, Army Med. Sch, 08-20; prof. *path. and bacter, George Washington, 09-20; director pub. health lab. service, Int. Health Board, Rockefeller Foundation, 20-23, gen. director, 23-27, director int. health div, 27-* Director lab, Board Health, Ancon, C. Z, 15-17; in charge div. laboratories infectious and venereal diseases,

M.C. Nat. Board Med. Examiners, 19-20; div. med. sciences and govt. relations, Nat. Research Council. D.S. medal, 19. Col. M.O.R.C., 20-21, brig. gen, 21- Ass. Path. and Bact; Am. Med. Ass; Am. Physicians; Soc. Exp. Path; Soc. Trop. Med; Ass. Mil. Surg; Col. Surg. Anchylostomiasis; malaria; opsonins; typhoid vaccination; dysentery bacilli; the prevention of typhoid fever.

Russell, Prof. G(eorge) E(dmond), 191 Park Ave, Arlington, Mass. *Civil engineering*. Boston, Mass, Dec. 25, 77. B.S., Mass. Inst. Tech, 00. Mech. engineer, Am. Car and Foundry Co, 00-04; instr. civil eng, Cornell, 04-05; *Mass. Inst. Tech*, 05-07, asst. prof, 07-13, assoc. prof. hydraulic eng, 13-21, *prof. hydraulics*, 21- Lecturer, Lowell Sch, 06-; examiner, Civil Service Commission, Mass, 10-; consulting hydraulic engineer. Civil Eng; New Eng. Water Works Ass; Boston Soc. Civil Eng. Hydraulics.

Russell, Dean H(arry) L(uman), University of Wisconsin, Madison, Wis. **Bacteriology*. Poynette, Wis, March 12, 66. B.S., Wisconsin, 88, fellow, 88-90, M.S., 90; Berlin, 90; Pasteur Inst, Paris, and Naples Zool. Sta, 90-91; fellow, Chicago, 92-93; Ph.D., Hopkins, 92. Asst. prof. bacter, *Wisconsin*, 93-96, prof, 96-07, *dean col. agr*, 07-, bacteriologist, *Exp. Sta*, 93-07, *director*, 07- Consulting bacteriologist, Wis. State Board Health, 94-08; bacteriologist, Wis. Live Stock Sanit. Board, 01-07; lecturer, dairy sch, Minnesota, 01-16; director, Wis. State Hygienic Lab, 03-08. Mem. staff, U. S. Food Ad, 18- A.A.; Soc. Bact. (chairman, 08); Pub. Health Ass. (chairman, lab. sect, 03); Land Grant Col. Ass. (pres, 20). Dairy bacteriology; bovine tuberculosis; bacterial plant diseases; pasteurization of milk; the curing of cheese.

Russell, Dr. Henry N(orris), 79 Alexander St, Princeton, N. J. **Astronomy*. Oyster Bay, N. Y., Oct. 25, 77. A.B., Princeton, 97, fellow, 97-00, A.M., 98, Ph.D., 00; hon. Sc.D., Dartmouth, 23. Carnegie research asst, Cambridge Observatory, 03-05; instr. astron, *Princeton*, 05-08, asst. prof, 08-11, prof, 11-27, *research prof*, 27-, *director observatory*, 12- Gold medal, Royal Astron. Soc, 21; Lalande medal, French Acad, 22; Draper medal, Nat. Acad, 22; Bruce medal, Pacific Astron. Soc, 25; Rumford medal, Am. Acad, 25. Engineer, Bur. Aircraft Production, 18-19. Nat. Acad; A.A.; Astron. Soc; Physical Soc; Philos. Soc; Am. Acad; for. assoc. and fel. Royal Astron. Soc. Sidereal astronomy; spectroscopy; general astrophysics; stellar evolution.

Russell, Dr. H(erbert) E(dwin), University of Denver, Denver, Colo. *Mathematics*. Paris, Maine, April 7, 60. A.B., Wesleyan, 84, A.M., 87; Sc.D., Denver, 14. Assoc. prof. *math*, *Denver*, 91-96, *prof*, 96- A.A.; Math. Soc; Math. Ass.

Russell, Dean James E(arl), Teachers College, Columbia University, New York, N. Y. *Education*. Hamden, N. Y., July 1, 64. A.B., Cornell, 87, 91-93; Jena, 93-94; Leipzig, 94-95, Ph.D., 94; LL.D., Dickinson, 03, Colorado, 05, McGill, 09, Iowa, 23. Teacher and prin, secondary schools, 87-93; *prof. philos.* and *pedag*, Colorado, 95-97; *hist. of educ*, *Teachers Col*, *Columbia*, 97-, *dean*, 98-, *Barnard prof. educ*, 04-

Special agent, U. S. Bur. Educ, 93-94; European commissioner for Univ. State of N. Y., 93-95. A.A. (v. pres, 09); Psychol. Ass; Nat. Council Educ. German higher schools; university extension in England and America; education in Porto Rico and the South; technical education.

Russell, Prof. J(ohn) W(illiam), 230 Sherwood Ave, London, Ont, Can. *Geology, Mineralogy*. B.A., McMaster, 95, M.A., 00; Harvard, 96. Science master, Woodstock Col, 98-07, 12-19; gen. manager, Kerry Mining Co, 07-11; *prof. geol*, *Western Ontario*, and *managing director*, *Oxford Cobalt Silver Mines*, 19- Deposition of the ores of the monetary metals.

Russell, Dr. Richard Joel, Texas Technological College, Lubbock, Texas. *Geology*. Hayward, Calif, 95. A.B., California, 20, Ph.D., 26. Teaching fellow geog, California, 20-22, assoc, 23-25; *assoc. prof. geol*, *Texas Tech. Col*, 25- Paleont. Soc. Geomorphology and structure of the Great Basin; climatic map of California.

Russell, Prof. R(obert) P(rice), Massachusetts Institute of Technology, Cambridge, Mass. *Chemistry*. Worcester, Mass, July 16, 98. A.B., Clark, 17; M.S., Mass. Inst. Tech, 22. Research assoc, *lab. applied chem*, *Mass. Inst. Tech*, 22-23, div. director, 23-24, in charge eng. investigations, 24-25, *asst. director*, 25- Chem. Soc. (v. chairman, northeast. sect, 26); Soc. Test. Mat; Refrig. Eng; Soc. Practising Refrig. Eng. Corrosion; combustion; fuels and their combustion.

Russell, Prof. W(alter) C(harles), Rutgers University, New Brunswick, N. J. *Agricultural biochemistry*. Bellaire, Ohio, 92. B.S., Ohio Wesleyan, 14; fellow, Harvard, 19-20; M.S., Syracuse, 23; Swift fellow, Chicago, 23-25, Ph.D., 27. Teacher, high sch, Ohio, 14-15; instr. chem, Ohio Wesleyan, 15-17; instr, Syracuse, 20-23; *asst. prof. agr. biochem*, *Rutgers*, 25- U.S.A., 17-19. Chem. Soc. Cellulose chemistry; nutrition; vitamins.

Russell, Prof. W(illiam) P(olk), Pomona College, Claremont, Calif. *Mathematics*. Gaylesville, Ala, Dec. 29, 63. A.B., Cumberland, 85, A.M., 09. Prof. math. and astron, Lincoln (Ill), 89-04; instr. *math*, *Pomona*, 04-08, asst. prof, 08-12, assoc. prof, 12-24, *prof*, 24- A.A.; Math. Soc; Math. Ass.

Russum, Dr. B(enjamin) Carl, 4301 Barker Ave, Omaha, Nebr. *Pathology*. Topeka, Kans, Jan. 6, 92. A.B., Creighton, 12, M.D., 16. Intern, Kings County Hosp, Brooklyn, N. Y., 16-17; res. pathologist, *St. Joseph's Hosp*, *Omaha*, 20-21, *attending pathologist*, 21-; instr. *path. col. med*, *Creighton*, 23, *prof*, 23- Lieut. and capt, M.C., 17-19.

Ruth, Dr. W(arren) A(lbert), University of Illinois, Urbana, Ill. *Horticulture*. St. Joseph Co, Ind, May 23, 84. A.B., Wabash, 06; fellow, Ohio State, 06-07; A.M., Wabash, 09; Ph.D., Illinois, 19. Asst. bot, Washington (St. Louis), 07-08; instr. chem, Wabash, 08-09; asst. chemist hort, *Illinois*, 09-12, assoc, 12-13, assoc. pomol, 18-19, asst. prof. *pomol. physiol*, 19-25,

- assoc. prof, 25- Bot. Soc; Soc. Hort. Sci. Physiological effects of sprays; pruning.
- Rutherford, Dr. Ralph L(eslie)**, University of Alberta, Edmonton, Alta, Can. *Geology*. Middleville, Ont, March 14, 94. B.Sc, Alberta, 19, M.Sc, 20; Ph.D, Wisconsin, 23. Field asst, Can. Geol. Surv, 17, 19; asst. *geol.*, Wisconsin, 23; *lecturer, Alberta, 23-* Field geologist, Sci. and Indust. Research Council of Alberta, 20- Miner. Soc. Geology of coal areas in the foothills of Alberta.
- Ruthven, Dr. Alexander G(rant)**, University Museum, Ann Arbor, Mich. **Zoology*. Hull, Iowa, April 1, 82. B.S, Morningside, 03; Ph.D, Michigan, 06. Instr. zool. and curator museum, *Michigan, 06-10*, instr. zool. and head curator museum, 10-12, *prof. zool. and director museum, 12-* Chief field naturalist, Mich. Geol. and Biol. Surv, 08-26. A.A.; Soc. Nat; Soc. Zool; Ecol. Soc; Ass. Mus; Ass. Geog; Am. Acad; Mich. Acad. (pres, 13). Herpetology and geographic distribution; variations and relationships in Reptilia.
- Rutledge, Prof. George**, 29 Bellevue Road, Belmont, Mass. *Mathematics*. Jacksonville, Ill, Dec. 18, 81. A.B, Illinois, 10, Ph.D, 15. Instr. *math, Mass. Inst. Tech, 15-23*, asst. *prof, 23-* Math. Soc; Math. Ass. Interpolation theory.
- Rutledge, Dr. John J(oseph)**, 22 Light St, Baltimore, Md. *Geology*. Alton, Ill, March 10, 70. B.S, Illinois, 94; Ph.D, Hopkins, 04. Mine supt, 94-00; geologist, Md. Geol. Surv, 00-04; consulting engineer and geologist, 04-09; dist. mining engineer, U. S. Bur. Mines, 09-21; supt, Cent. Dist. Mining Exp. Sta, 21-22; *chief mining engineer, Md. Bur. Mines, 22-* Geol. Soc; Min. Eng. Economic geology; coal, iron, lead and zinc mining; mine accidents; origin of iron ores.
- Rutstein, Leo**, Milburn, N. J. *Chemistry*. Yonkers, N. Y, April 13, 96. Newark Tech. Sch; N. Y. Univ. Asst. chemist, Clark Thread Co. and J. and P. Coats Co, 11-13; *assoc, Worden Laboratories, 11-*, manager and sec'y, 16-18. Assoc. ed, 'Cellulose Acetate,' 15; 'Technol. Cellulose Esters,' 16-18. Nat. Research Council. Asst. to chief wing coating sect, bur. aeronaut, Sig.C, U.S.A. Chem. Soc. Analytical chemistry; nitrocellulose industry; technology cellulose esters; carbohydrate carboxylates.
- Ruttan, Prof. R(obert) F(ulford)**, McGill University, Montreal, Que, Can. *Chemistry*. Newburg, Ont, July 15, 56. B.A, Toronto, 81; M.D, C.M, McGill, 84; Berlin, 85-86; D.Sc, Toronto, 14. Prof. practical chem, med. faculty, *McGill, 94-02*, chem, 02-08, org. and biochem, 08-12, *director dept. chem, 12-*, *dean faculty grad. studies and research, 24-* Fellow of corporation, McGill, 91-27. A.A.; Chem. Soc; Soc. Biol. Chem; Soc. Chem. Indust. (v. pres, 14, pres, 22); Royal Soc. Can. (pres, 20); Ont. Col. Physicians and Surg; British Ass. Organic bases; artificial alkaloids; medical chemistry; artificial fats; products of distillation of pine and spruce; margarine acid and glycol fats; constants of fat acids.
- Ryan, Dr. A(ndrew) H(oward)**, Tufts Medical School, Boston, Mass. *Physiology, Pharmacology*. Silex, Mo, Dec. 30, 85. M.D, Washington (St. Louis), 10. Asst. physiol. and pharmacol, Washington (St. Louis), 08-10; instr, Pittsburgh, 10-13; *prof, Alabama, 13-16*; *physiol, med. sch, Tufts, 16-* Physiologist, U. S. Pub. Health Service, 18-; director indust. hygiene, Scoville Mfg. Co, 19- Mem, committee on fatigue in indust. pursuits, Nat. Research Council. Physiol. Soc; Soc. Pharmacol; Am. Med. Ass. Physiological effects of anesthetics; goiter; site of action of strychnin in the spinal cord; absorption of drugs from gastric mucous membranes; muscular power, tonus and fatigue; rhythm in industry.
- Ryan, Prof. Harris J(oseph)**, Stanford University, Calif. **Electrical engineering*. Powells Valley, Pa, Jan. 8, 66. Baltimore City Col, 79-80; Lebanon, 80-82; M.E, Cornell, 87. Instr. physics, Cornell, 88-89, *prof. elec. eng, 89-05*; *Stanford, 05-* Consulting engineer, Los Angeles Aqueduct Power Project, 09-24. Judge, board awards, elec. dept, Columbian Expos, 93; U. S. delegate, Int. Elec. Cong, St. Louis, 04; jury awards, Panama-Pacific Expos, 15. Nat. Acad; A.A.; Elec. Eng. (pres, 23); Physical Soc; Illum. Eng. Soc; Electrochem. Soc; Radio Eng. Methods for electrical engineering tests and measurements; laws governing relation of size and separation of conductors and voltage at which corona and power waste appear in power transmission lines; dielectric strength of insulators for practical requirements at high voltage in electrical engineering apparatus; durability of high voltage line insulators; development of supersonic source projectors.
- Ryan, Dr. L(eon) A(lonzo)**, 1234 S. 57th St, Philadelphia, Pa. *Chemistry*. La Grange, Ohio, 69. Ph.B, Oberlin, 93; Ph.D, Pennsylvania, 97. Asst. demonstrator chem. and asst. *prof. chem. and toxicol, med. dept, Pennsylvania, 97-* Copper in the human liver; volumetric testing for glucose; nitrogen evolved from uric acid; influence of oxygen, nitrogen and sunlight on olive oil; test for cocaine; arsenic poisoning; retention of arsenic by animal charcoal.
- Ryan, Dr. Roger W(illiam)**, Consolidated Gas Co. of N. Y, Astoria, N. Y. *Physical chemistry*. Auburn, Wash, Sept. 26, 93. B.S, Washington (Seattle), 16; Swift fellow, Chicago, 22-23, Ph.D, 23. Factory and research chemist, Carnation Milk Product Co, Wis, 17-20; physical chemist, Hercules Powder Co, 23-27; *senior research chemist, Consolidated Gas Co. of N. Y, 27-* C.W.S, U.S.A, 18. Chem. Soc. Atomic structure and stability; application of physical chemical methods to explosives; stability tests for nitro cotton.
- Ryan, Dr. Ruth W(inifred)**, College of New Rochelle, New Rochelle, N. Y. *Botany*. Appleton, Wis, June 19, 99. A.B, St. Clara Col, 21; A.M, Illinois, 23, Ph.D, 25. Asst. bot, Illinois, 21-24; *head dept. biol, Col. New Rochelle, 25-* Taxonomy and morphology of the microthyriaceae of Porto Rico and Hawaii; development of perithecium in the microthyriaceae and a comparison with meliola.

- Rydberg, Dr. P(er) A(xel)**, New York Botanical Garden, New York, N. Y. **Botany*. Odh Parish, Sweden, July 6, 60. Grad, Royal Gymnasium, Skara, Sweden, 81; B.S., Nebraska, 91, A.M., 95; fellow, Columbia, 96-97, Ph.D., 98. Instr. math. and nat. science, Luther Acad., Nebr., 84-90, 91-93; Upsala Col., 95-96, 97-99; asst. curator, N. Y. Bot. Garden, 99-06, *curator*, 07- Summers, field agent, div. bot. and agrost., U. S. Dept. Agr., 91-96, N. Y. Bot. Garden, 97. A.A.; Bot. Soc.; Ecol. Soc.; Am. Geog. Soc.; Torrey Bot. Club. Flora of the Rocky Mountain region prairies and plains; Saxifragaceae; Rosaceae; Fabaceae; Compositae; phytogeography.
- Ryerson, Knowles A(ugustus)**, Service Technique, Port-au-Prince, Haiti. *Horticulture*. Seattle, Wash., Oct. 17, 92. B.S., California, 16, M.S., 24. Asst. agr. exten., California, 19-22; asst. farm adviser, Los Angeles Co., 22-24, farm adviser, 24-25; *horticulturist*, *Service Technique, Haiti*, 25- Chevalier du Mérite agricole. Tropical and subtropical horticulture.
- Ryerson, William Newton**, United Gas Improvement Co., Broad and Arch Streets, Philadelphia, Pa. *Electrical engineering*. New York, N. Y., Dec. 7, 74. E.E., Columbia, 96. Asst. supt. motive power, Interborough Rapid Transit Co., 00-05; gen. supt., Ont. Power Co., 05-09; gen. manager and chief engineer, Great North. Power Co., 09-22; asst. manager pub. utility management dept., Day and Zimmerman, Inc., 22-25; *asst. to v. pres.*, *United Gas Improv. Co.*, 25- Elec. Eng.; Mech. Eng.; Can. Inst. Eng. Applications of electrical power.
- Rykenboer, Dr. Edward A(ugust)**, 19 Mentz Apartments, Niagara Falls, N. Y. *Chemistry*. Rochester, N. Y., July 19, 89. B.S., Rochester, 12, M.S., 13; Ph.D., Michigan. Teaching asst. chem., Michigan, 13-17; research chemist, *Roessler and Hasslacher Chem. Co.*, 17-26, *production supt.*, 26- Chem. Soc.; Electrochem. Soc.
- Ryland, Prof. Garnett**, University of Richmond, Richmond, Va. *Chemistry*. King and Queen Co., Va., Dec. 17, 70. A.M., Richmond, 92; Ph.D., Hopkins, 98. Instr. chem., Maine, 98-99, asst. prof., 99-01; *prof.*, Converse, 01-03; Georgetown (Ky.), 03-17; *Richmond*, 17- A.A.; Chem. Soc. Boiling-points of mixtures of liquids.
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- Sabin, Dr. A(lvah) H(orton)**, 432 Sanford Ave., Flushing, N. Y. **Chemistry*. Norfolk, N. Y., April 9, 51. B.S., Bowdoin, 76, M.S., 79, Sc.D., 17. Prof. chem. and physics, Ripon, 76-80; chem., Vermont, 80-86; *chemist*, Edward Smith and Co., N. Y., 88-05; *Nat. Lead Co.*, 10- State chemist, Vt., 82-86; lecturer, N. Y. Univ., 96-25; Mass. Inst. Tech., 98-06; Michigan, 98-02; Purdue, 99, 02; Wisconsin, 01-02. A.A.; Chem. Soc. (chairman, N. Y. sect., 92, ed. resins and pigments, 'Abstract Jour.', 07-); Soc. Chem. Indust.; Oil and Color Chem. Ass.; Mech. Eng.; Civil Eng.; Naval Archit. and Marine Eng.; Soc. Test. Mat.; Am. Geog. Soc.; Forestry Ass.; London Soc. Arts. Process by which all sugar of milk is produced; corrosion of iron and steel; drying oils; technology of paints and varnishes.
- Sabin, Dr. Florence R(ena)**, Rockefeller Institute, New York, N. Y. **Anatomy, Pathology*. Central City, Colo., Nov. 9, 71. B.S., Smith, 93; M.D., Hopkins, 00, fellow, 02; Sc.D., Smith, 10; Sc.D., Michigan, 26. Teacher math., Wolfe Hall, Denver, Colo., 94-95; asst. zool., Smith, 96; intern, Hopkins Hosp., 01, asst. anat., Hopkins, 03, assoc., 03-05, assoc. prof., 05-17, prof. histol., 17-25; *mem.*, *Rockefeller Inst.*, 25- Naples Table Ass. prize, 03. Nat. Acad.; A.A.; Ass. Anat. (v. pres., 09, pres., 24-26); Soc. Physiol.; Soc. Exp. Biol. Tracts in the medulla oblongata; lymphatic system; blood vascular system; blood; tuberculosis.
- Sabin, L(ouis) C(arlton)**, 905 Rockefeller Building, Cleveland, Ohio. *Engineering*. Memphis, Mich., June 25, 67. B.S., Michigan, 90, C.E., 94, hon. M.Eng., 16. Construction inspector, 87-92; asst. engineer, U. S. Eng. Dept., 93-04; sec'y, Am. Sect. Int. Waterways Commission, 05-06; gen. supt., St. Marys Falls Canal, 06-25; v. pres., *Lake Carriers Ass.*, Cleveland, 25- U. S. Board Engineers on Cement Specifications, 10-12. Civil Eng.; Soc. Naval Archit.; Mich. Eng. Soc.; Int. Ass. Navigation Congresses. Cement and concrete; lake level regulation; inland shipping.
- Sabine, Dr. Paul E(arls)**, Riverbank Laboratories, Geneva, Ill. **Physics*. Albion, Ill., Jan. 22, 79. A.B., McKendree, 99; Harvard, 03, A.M., 11, Ph.D., 15. Master science, Worcester Acad., 03-11; asst. physics, Harvard, 15-16; asst. prof., Case, 16-18; *director*, *Wallace Clement Sabine Lab. of Acoustics*, 19- Physical Soc.; Franklin Inst. Architectural acoustics; photo-electricity.
- Sachs, Dr. B(ernard)**, 116 W. 59th St., New York, N. Y. *Neurology*. Baltimore, Md., Jan. 2, 58. A.B., Harvard, 78; M.D., Strassburg, 82; Berlin, Vienna, Paris and London, 81-04. Prof. nervous and mental diseases, N. Y. Polyclinic; *consulting neurologist*, *Mt. Sinai Hosp.*; *consulting physician*, *Manhattan State Hosp.* Alienist and neurologist, Bellevue Hosp. A.A.; Am. Physicians; Neur. Ass.; N. Y. Neur. Soc.; N. Y. Acad. Med.; hon. mem. Moscow Neur. Soc.; cor. mem. Paris Neurol. Soc. Nervous diseases of children; nervous and mental disorders from birth through adolescence; infantile palsies; amaurotic family idiocy; epilepsy; syphilis of central nervous system; vasomotor disorders; cerebellar tumors; spinal cord tumors; the Wassermann reaction; lethargic encephalitis.
- Sachs, Prof. Ernest**, Washington University Medical School, St. Louis, Mo. *Surgery*. New York, N. Y., 79. A.B., Harvard, 00; M.D., Hopkins, 04. Neur. surgeon, Montefiore Home and Hosp., New York, 09-11; Beth Israel Hosp., 09-11; assoc. surg., *Washington (St. Louis)*, 11-14, assoc. prof., 14-19, *prof. clin. neur. surg.*, 19- Adjunct asst. surgeon, Bellevue Hosp., New York, 09-11; surgeon, Barnes and St. Louis Children's Hospitals; assoc. surgeon in charge neur. surg., Jewish Hosp., 20- Am. Med. Ass.; Physiol. Soc.; Ass. Anat.; Neur. Ass.; S. Surg. Ass.; West. Surg. Soc. Neurological surgery; optic thalamus; cerebral temperature centers; regeneration of nerves; anatomy of the eighth nerve; sugar metabolism in pituitary lesions.

- Sachs, Dr. John H(arrison)**, 707 Coverdale Road, Wilmington, Del. *Chemistry*. Gettysburg, Pa., April 14, 89. B.S., Pennsylvania Col, 10; Ph.D., Hopkins, 16, Carnegie fellow, 16-17. Research chemist, *E. I. du Pont de Nemours and Co*, 17-20, *supt. anthracene colors dept, du Pont Dye Works*, 20- Chem. Soc. Anthracene dyes and intermediates.
- Sacia, C(harles) F(red)**, 463 West St, New York, N. Y. *Physics*. Grand Rapids, Mich, June 7, 93. B.S.(E.E), Michigan, 16. *Eng. dept*, West. Elec. Co, 16-25, *Bell Telephone Laboratories*, 25- Sig.C. and A.S., U.S.A., 18-19, radio officer, A.S., O.R.C., 19-25. Physical Soc; assoc. Elec. Eng; assoc. Radio Eng. Dynamics of vowel sounds; photo-mechanical analyzer applied to Fourier analysis; power of speech sounds; speech transmission.
- Sackett, Dean R(obert) L(emuel)**, State College, Pa. *Engineering*. Mt. Clemens, Mich, Dec. 2, 67. B.S.(C.E), Michigan, 91, C.E, 96. Asst. prof. math, Earlham, 91-96, prof. applied math. and astron, 96-07; sanit. and hydraul. eng, Purdue, 07-15; *dean eng, director eng. exten, and exp sta, Pa. State*, 15- Consulting engineer, state commissions and boards. A.A.; Water Works Ass; Civil Eng; Mech. Eng; Ind. Eng. Soc. (pres, 07). Sanitary and hydraulic engineering.
- Sackett, Dr. Walter G(eorge)**, Fort Collins, Colo. *Bacteriology*. Sterling, Ill, July 5, 80. Ohio State, 98-99; B.S., Chicago, 02; Logan research fellow, 17-18, Ph.D., 18. Prof. nat. sciences, Meredith Col, N. C., 02-04; asst. prof. bacter. and hygiene, Mich. State Col, and asst. bacteriologist, Exp. Sta., 04-08; *bacteriologist, Colo. Exp. Sta.*, 08- Water analyst, Chicago, 99-00; summer, special agent plant breeding, bur. plant indust, U. S. Dept. Agr, 04. A.A.; Soc. Bact; Colo. Sci. Soc. Bacterial diseases of plants; a bacterial disease of alfalfa; bacteriology of alkali soils; food poisoning.
- Saderra, Rev. M(ichael) Maso, S(J)**, Manila Observatory, Manila, P. I. *Geology*. Olot, Spain, Dec. 13, 65. Tarazona, Spain, 82-87; Tortosa, 96-00; D.D., Paris, 01. *Asst. director, Manila Observatory*, 90-96, *Weather Bur*, 02- A.A.; Seismol. Soc; Zelanti Acad, Italy; Plata Seismol. Soc. Philippine seismology and vulcanology; magnetic force lines.
- Sadler, Prof. Herbert C(harles)**, 1510 Hill St, Ann Arbor, Mich. *Naval architecture*. London, Eng, 72. London, 86-90; B.Sc., Glasgow, 93, D.Sc., 02. Practical shipbuilding, 90-96; asst. prof. naval archit, Glasgow, 96-00; *prof. naval archit. and marine eng, Michigan*, 00- Consulting naval architect, Emergency Fleet Corp, U. S. Shipping Board, 18-19. Two silver medals, Inst. Eng. and Shipbuilders, Scotland. Automotive Eng; N. Y. Soc. Naval Archit. and Marine Eng. (councilor, 08-); British Inst. Naval Archit; Inst. Eng. and Shipbuilders Scotland. Resistance of ships.
- Sadtler, S(amuel) S(chmucker)**, 210 S. 13th St, Philadelphia, Pa. *Chemistry*. Gettysburg, Pa., Nov. 15, 73. B.S., Mass. Inst. Tech, 95. Chemist, U. S. Customs Service, 95-00; *consulting chemist*, 00- Pres, Samuel P. Sadtler and Son, Inc. Ed, 'Allen's Commercial Org. Chem.' Chem. Soc; Soc. Chem. Indust; Electrochem. Soc. (sec'y, 04-07); Ass. Leather Chemists; Chem. Eng; Franklin Inst. Industrial, technical and organic chemistry; chemistry of familiar things.
- Saeger, Prof. Albert (C)**, Junior College of Kansas City, Kansas City, Mo. *Plant physiology*. St. Charles, Mo, July 16, 95. A.B., Missouri, 20, A.M., 23. Instr. *biol, Junior Col. of Kansas City*, 20-23, *prof. and head dept*, 23- A.A.; Soc. Plant Physiol; Bot. Soc. Nutrition and growth of duckweeds.
- Saegmüller, Frederick B**, 72 Huntington Park, Rochester, N. Y. *Optical science*. Va, 78. B.S., C.E., Virginia, 02. Sci. bur, *Bausch and Lomb Optical Co*, 05-07, *supt. precision optical div*, 07-, *mil. dept*, 21- Optical Soc.
- Safford, Dr. F(rederick) H(ollister)**, University of Pennsylvania, Philadelphia, Pa. *Mathematics*. Lawrence, Mass, June 20, 66. B.S., Mass. Inst. Tech, 88; A.M., Harvard, 94, Ph.D., 97; hon. fellow, Clark, 01-02. Instr. *math*, Harvard, 95-99; asst. prof., Cincinnati, 99-01; instr, *Pennsylvania*, 02-07, asst. prof., 07-20, *prof*, 20- A.A.; Math. Soc; Math. Ass; Astron. Soc; Franklin Inst. Cyclids of revolution; orthogonal surfaces; Weierstrass P-function curves.
- Safford, H. R(obinson)**, Missouri Pacific Lines, Houston, Texas. *Engineering*. Madison, Ind, Feb. 7, 75. B.C.E., Purdue, 95, C.E., 17, D.E., 19. Eng. dept, I. C. Ry, 95; chief engineer, maintenance of way, 08; asst. to pres, Edgar Allen Manganese Steel Co, 10-11; asst. regional director, U. S. Ry. Administration, 18-20; asst. to pres, C. B. and Q. Ry, 20-21, v. pres, 21-25; *exec. v. pres, Mo. Pacific Lines*, 25- Civil Eng. (develop. committee, 21, pres, local chap, 24); Ry. Eng. Ass. (pres, 11-23); Eng. Inst. Can. (councilor, 16-18).
- Safir, Dr. Shelley R(ay)**, 1646 Weeks Ave, New York, N. Y. *Zoology, Genetics*. June 20, 90. A.B., Col. City of N. Y., 12; A.M., Columbia, 13, Ph.D., 20. Instr. *biol*, high sch, N. Y., 13-26; *Col. City of N. Y.*, 26- Prin, Talmudical Acad, N. Y., 18-; summer, sci. asst, Bur. Fisheries, 12, Woods Hole, 15-18, 19, 22-24, Cold Spring Harbor, 11, 14. A.A.; N. Y. Biol. Teachers Ass. Animal behavior.
- Safro, V(ictor) I**, California Cyanide Co, Los Angeles, Calif. *Entomology*. New York, N. Y., Aug. 26, 88. B.S.A., Cornell, 09. Agent and expert, bur. entom., U. S. Dept. Agr, 09-10; research asst. entomologist, Oregon Exp. Sta, 10-14; asst. prof. entom., Oregon Col, 11-14; entomologist, Ky. Tobacco Products Co, 14-22; v. pres. and entomologist, Nicotine Production Corp, 22-24; entomologist, Am. Cyanamid Co, 24-25; *chief entomologist, Calif. Cyanide Co*, 25- Entomologist, Oregon Exp. Sta, Hood River, 14. Entom. Soc; Ass. Econ. Entom. Sprays; spray injury; nicotine as an insecticide; cyanide fumigation.
- Sailer, Dr. Joseph**, 250 S. 18th St, Philadelphia, Pa. *Medicine*. Philadelphia, Oct. 1, 67. Ph.B., Pennsylvania, 86, M.D., 91; Paris, Zurich and Vienna, 93-95. Asst. demonstrator path, *Pennsylvania*, 98-99, assoc. *clin. med*, 99-08, asst.

- prof, 08-14, *prof*, 14- Prof, Phila. Polyclinic, 02-08; physician, Phila. and Presb. Hospitals. Asst. ed, 'Phila. Med. Jour.' A.A; Am. Physicians; Soc. Clin. Invest. (v. pres); Gastro-Enterol. Ass. (v. pres, pres); Phila. Acad; Phila. Col. Physicians. Clinical medicine; experimental medicine.
- St. George, Dr. Armin**, Bellevue Hospital, New York, N. Y. *Pathology*. Jersey City, N. J, March 9, 92. Ph.G, Ph.C, Columbia, 10, M.D, 14. *Asst. director laboratories, Bellevue and allied hospitals*, 19- Capt, M.C, 18-19. Ass. Path. and Bact; Soc. Clin. Path; Am. Med. Ass; N. Y. Path. Soc.
- St. George, R(aymond) A(lexander)**, East Falls Church, Va. *Entomology*. Lynn, Mass, Sept. 19, 94. B.S, Mass. Col, 18; M.S, George Washington, 23. Sci. asst, *forest insect investigations, bur. entom, U. S. Dept. Agr*, 18-24, *asst. entomologist in charge east. field sta*, 24- Ass. Econ. Entom; Wash. Entom. Soc; Wash. Biol. Soc. Insects injurious to living forest trees; the immature stages of Tenebrionidae.
- St. John, Dr. Ancel**, 162 Harris Ave, Long Island City, N. Y. *Physics*. Plainfield, N. J, June 20, 82. Ph.B, Rochester, 06; Ph.D, Clark, 17. Instr. physics, Syrian Protestant Col, 06-09; asst, Columbia, 09-10; acting prof, Emory and Henry, 10-12; instr, Worcester, 12-17; prof, Lake Forest, 17-18; research physicist, Nat. Carbon Co, 18-21; Union Carbide and Carbon Research Laboratories, 21-24; *consulting physicist*, 24- Assoc. Physical Soc; Min. and Metal. Eng; Soc. Test. Mat; Soc. Steel Treat. Applied physics; X-ray crystal analysis; X-ray examination of materials.
- St. John, Dr. Charles E(dward)**, Mt. Wilson Observatory, Pasadena, Calif. **Physics, Astronomy*. Allen, Mich, March 15, 57. B.S, Mich. State Col, 87; Michigan, 90-92; A.M, Harvard, 93, Ph.D, 96; Berlin, 94-95. Instr. physics, Mich. Nor. Col, 86-92; Michigan, 96-97; assoc. prof, Oberlin, 97-99, prof, 99-08, dean col. arts and sciences, 06-08; *astronomer, Mt. Wilson Observatory, Carnegie Institution*, 08- Pres, commission on solar physics, Int. Astron. Union; committee on relationships between solar and terrestrial phenomena, Int. Research Council. Nat. Acad; A.A; Astron. Soc. (councilor, 22-); Physical Soc; Optical Soc; Math. Soc; Hist. Sci. Soc; Pacific Astron. Soc; assoc. Royal Astron. Soc; Soc. astron. de France. Solar physics; rotation; the sun's atmosphere; limb effect; gravitational displacement of solar lines; solar wave lengths in the international system.
- St. John, Prof. Fordyce B(arker)**, 41 E. 70th St, New York, N. Y. *Surgery*. Hackensack, N. J, Feb. 10, 84. B.S, Princeton, 05; M.D, Columbia, 09. Assoc. prof. *surg, Columbia*, 19-26, *prof*, 26- Hon. mem, Am. Museum Nat. Hist. Surg. Ass; N. Y. Surg. Soc. Abdominal surgery; fractures.
- St. John, Prof. Harold**, State College of Washington, Pullman, Wash. *Botany*. Pittsburgh, Pa, July 25, 92. A.B, Harvard, 14, A.M, 15, Ph.D, 17. Asst. bot, Harvard and Radcliffe, 13-15; Can. Geol. Surv, 15-17; asst, Gray Herbarium, Harvard, 13-17, 19-20; asst. prof. *bot*, Wash. Col, 20-24, *assoc. prof. and curator herbarium*, 24- Bot. Soc; Geog. Soc; Eugenics Soc; Wash. Biol. Soc; Northwest Sci. Ass; New Eng. Bot. Club. Taxonomy and phytogeography of vascular plants; flora of Labrador and Washington; Elodea; Potamogeton.
- St. John, J(ames) L(eonard)**, 206 Columbia Ave, Pullman, Wash. *Biochemistry*. Janesville, Iowa, Feb. 12, 91. A.B, Iowa State Teachers Col, 15; M.S, Purdue, 18; Illinois; Ph.D, Minnesota, 27. Asst. chem, Purdue, 15-17; chemist, *Exp. Sta*, Illinois, 17-19; Wash. Col, 19-21, *head div. chem*, 21- State chemist, Wash, 21- A.A; Chem. Soc. Soil fertility; inorganic salts in nutrition; cereal chemistry; sulfur as a plant food; dry milk and the colloidal properties of bread doughs.
- Sajous, Prof. C(harles) E(ucharist) de M(edicis)**, 2043 Walnut St, Philadelphia, Pa. *Medicine, Endocrinology*. At sea, under American flag, Dec. 13, 52. California, 61-76; M.D, Jefferson Med. Col, 78; A.B, France, 92; LL.D, St. Joseph's Col, 09; Sc.D, Temple, 15. Prof. anat. and physiol, Wagner Free Inst, 81; lecturer, Jefferson Med. Col, 83-91; prof. and dean, Medico-Chirurg. Col, 97; *prof. therapeut*, Temple, 10-22; *endocrinol, sch. med, Pennsylvania*, 21- Ed, 'Annual of Universal Med. Sciences', 88-96; 'Cyclop. of Practical Med.', 97-27. Officier d'Acad, 89; Order of Leopold, Belgium, 90; officier, Légion d'honneur, 22. Gold medal, Am. Med. Ass, 22. A.A; Laryngol. Ass. (v. pres, 88); Ass. Study Int. Secretions (pres, 17); Therapeut. Soc. (pres, 19); Col. Physicians; Philos. Soc; Am. Med. Editors' Ass. (pres, 03); Phila. Col. Physicians; Phila. Laryngol. Soc. (pres, 85); hon. mem. various American and foreign societies. Applied therapeutics; physiology and pathology of the internal secretions.
- Saklatwalla, Dr. B(eram) D**, 14 Creighton Ave, Crafton, Pa. *Metallurgy*. Bombay, India, July 20, 81. B.S, Bombay, 02; Carnegie research scholar, British Iron and Steel Inst, 08-09; D.Ing, Royal Polytech, Berlin, 09. Research chemist and metallurgist, Am. Vanadium Co, 10-11, gen. supt, 11-24; *v. pres, Vanadium Corp. of Amer*, 24- Grasselli medal, 24. A.A; Min. and Metal. Eng; Soc. Steel Treat; Soc. Test. Mat; Chem. Soc; Electrochem. Soc; British Iron and Steel Inst; British Inst. Metals. Metallography of iron and steel; production and measurement of high temperatures electrically.
- Salant, Edward O(liver)**, Johns Hopkins University, Baltimore, Md. *Physical chemistry*. New York, N. Y, 00. A.B, Columbia, 22; Univ. Col, London, 22-24. Research, *Hopkins*, 24-27, Johnston fellow, 25-27, *Nat. Research Council fellow physics*, 27- Chem. Soc. Quantum theory of the heat capacity of solids of non-polar compounds; applications of the quantum theory to organic compounds; membrane hydrolysis; infrared spectra.
- Salant, Dr. William**, University of Georgia, Augusta, Ga. *Pharmacology, Physiology*. Feb. 2, 70. B.S, Cornell, 94; M.D, Columbia, 99. Asst. physiol, Cornell, 02-03; physiol. chem, Columbia, 05-07; adjunct prof, Alabama, 07-08; chief pharmacologist, bur. chem, U. S. Dept. Agr, 08-

- 18; acting prof. *physiol. and pharmacol.*, Wisconsin, 19-20; *prof.*, Georgia, 20- Fellow, Rockefeller Inst, 01-07. A.A.; Soc. Pharmacol; Physiol. Soc; Soc. Exp. Biol; Soc. Biol. Chem. Effect of alcohol on muscle, on the secretion of bile, on metabolism and hepatic glycogen and on the composition of urine; effects of strychnin on nephrectomized rabbits; influence of nephrectomy on absorption and on coagulation of the blood; toxicity of bile; pharmacology of caffeine and of the alcohols; influence of ions, temperature, diet and other factors on the action of drugs.
- Salathe, Prof. Albert**, Syracuse University, Syracuse, N. Y. *Chemistry*. New York, N. Y., Nov. 1, 87. A.B. Colgate, 10, A.M. 12; Columbia, 11-12; fellow, Chicago, 19-20, Ph.D. 22. Asst. chem, Columbia, 11-12; instr, Union, 12-19; asst, Chicago, 19-20; *prof.*, Albany Col. Pharmacy, Union, 20-21; physics, Iowa Wesleyan, 22; chem, Sweet Briar, 22-24; science, Centenary Col, La, 24-26; *chem. eng. col. applied sciences*, Syracuse, 27- Chem. Soc. (sec'y-treas, east. N. Y. sect, 16-18, v. chairman, 20, chairman, north. La. sect, 25, councilor, 27). Rare earths; absorption spectra; sulfuric acid; chemical education; petroleum.
- Sale, J(ohn) W(alter)**, 1337 Parkwood Place, N. W., Washington, D. C. *Chemistry*. Axtell, Kans, Aug. 29, 83. A.B. De Pauw, 07; fellow, Ohio State, 07-08, A.M. 09. Instr. anal. chem, Ohio State, 08-09; asst. chemist, Filtration Plant, Columbus, Ohio, 09-10; chemist, *bur. chem.*, U. S. Dept. Agr, 10-21, in charge water and beverage lab, 21- Chem. Soc; Agr. Chem. (committee on editing methods of anal, 22-). Mineral waters; soft drinks; fruit juices; fruit syrups; flavoring extracts.
- Sales, Reno H(aber)**, P. O. Box 457, Butte, Mont. *Geology*. Storm Lake, Iowa, Sept. 10, 76. B.S. Mont. Col, 98; E.M. Columbia, 00. Asst. geologist, *Anaconda Copper Mining Co*, 01-06, *chief geologist*, 06- A.A.; Geol. Soc; Min. Eng; Min. and Metal. Soc. Ore deposits of Butte, Montana.
- Salisbury, Henry M(ilburn)**, 15 Alpine Ave, Tompkinsville, S. I., N. Y. *Chemistry*. Penfield, Mich, Sept. 20, 91. B.S. Michigan, 20. Chemist, Postum Cereal Co, 11, 14-16; *research chemist*, *Nat. Biscuit Co*, 20- Capt, C.W.S.R., U.S.A. Chem. Soc. Food products; proteins; potassium-acid-phthalate; hydrogen-ion measurements.
- Salls, Dr. Carroll M(organ)**, 124 E. 28th St, New York, N. Y. *Chemical engineering*. Burlington, Vt, Dec. 19, 93. B.S. Vermont, 16; indust. fellow, McGill, 20; Goldschmidt fellow, Columbia, 22, Ph.D. 23. Anal. chemist, rubber industry, 16; plant supervisor and research chemist, explosives, 17-19; *chem. engineer*, N. Y. *Labor Dept.*, 24- Asst. Columbia, 23. Chem. Soc; Pub. Health Ass. Industrial hygiene; chlorine and allied products; industrial health and safety hazards; preventative measures; estimation of atmospheric impurities.
- Salter, Robert M(undhenk)**, Ohio Experiment Station, Wooster, Ohio. *Agronomy*. Huntington, Ind, March 31, 92. B.S.A. Ohio State, 13, M.S. 14. Asst. soil chemist, W. Va. Exp. Sta., 16-17, soil chemist, 17-19, agronomist, 19-21, asst. prof. soil chem, West Virginia, 17-19, prof. agron, 19-21; soils, Ohio State, 21-25; *chief agron.*, *Ohio Exp. Sta.*, 25- Soc. Agron; Soc. Test. Mat. (committee, C 7); Int. Soc. Soil Sci.
- Sammis, Dr. J(ohn) L(anglely)**, 234 Breeze Terrace, Madison, Wis. *Chemistry*. Winona, Minn, Jan. 1, 73. B.S. Illinois, 97, M.S. 99; fellow, Wisconsin, 05-06, Ph.D. 06. Asst. chem, Illinois, 97-99, instr, 99-05; expert in dairying, U. S. Dept. Agr, 06-07; asst. prof. *dairy husbandry*, *Wisconsin*, 07-17, *assoc. prof.*, 17- A.A.; Chem. Soc. Action of mercaptids on quinones; dietetics; chemistry of milk curdling; chemistry and physics of the cheese-making process; pasteurization applied to the cheese industry.
- Sampey, Dr. John R(ichard), Jr**, Howard College, Birmingham, Ala. *Chemistry*. Louisville, Ky, Aug. 5, 96. B.S. Chicago, 20, M.S. 21, Ph.D. 23. Grafflin scholar *chem*, Hopkins, 23-24; *assoc. prof.*, *Howard*, 24-26, *prof.*, 26- A.A.; Chem. Soc. (senator, chem. educ, Ala. sect, v. chairman); Ala. Acad. (pres). Positive halogens; polar effects in halogen-phenols and halogen-naphthols; rates of reduction of nitro compounds; polar effects in halogen-naphthylamines.
- Sampson, Prof. Arthur W(illiam)**, University of California, Berkeley, Calif. *Forestry*. Oakland, Nebr, March 27, 84. B.S. Nebraska, 06, A.M. 07; Hopkins, 14-15; Ph.D. George Washington, 17. Plant ecologist, U. S. Forest Service, and director, Great Basin Forest Exp. Sta, Utah, 12-22; *assoc. prof. forestry*, *California*, 22- Lecturer, Syracuse, 16; *California*, 21. A.A.; Soc. Foresters; Bot. Soc; Ecol. Soc; Am. Acad. Botany; ecology; physiology; range and pasture management; American forage plants.
- Sampson, Prof. Edward**, Princeton University, Princeton, N. J. *Geology*. Oxford, Eng, May 31, 91. C.E. Princeton, 14, M.S. 15, Sc.D. 20; Mass. Inst. Tech, 17. Instr, Rutgers, 19-20; asst. geologist, *U. S. Geol. Surv.*, 20-21, *geologist*, 21-; *asst. prof. geol.*, *Princeton*, 25- Princeton geol. expeditions, Newfoundland, 15, in charge, 16, 20. Geol. Soc; Soc. Econ. Geol. (sec'y, 26-); Miner. Soc. Origin of ferruginous cherts; mining geology; microscopy of the metallic minerals; mineral resources.
- Sampson, Prof. Homer C(leveland)**, Ohio State University, Columbus, Ohio. *Botany*. Wheeler, Ill, Jan. 21, 85. B.S. Chicago, 14, Ph.D. 17. Asst. biol. E. Ill. State Nor. Sch, 09-12; nat. science, Chicago, 12-17; *instr. bot.*, *Ohio State*, 17-19, asst. prof, 19-22, *prof.*, 22- Summer, research asst, desert lab, Carnegie Institution, 14. A.A.; Bot. Soc; Ecol. Soc; Ill. Acad; Ohio Acad. Plant physiology and ecology.
- Sampson, Miss Myra M(elissa)**, Smith College, Northampton, Mass. *Physiology*. Fall River, Mass, Jan. 31, 87. A.B. Brown, 09; traveling fellow, Smith, 13-14; A.M. Michigan, 14, Ph.D. 26. Demonstrator *zool.*, *Smith*, 09-10, asst, 10-13, instr, 13-18, asst. prof, 18-24, *assoc. prof.*, 24- Summer, asst, Cold Spring Harbor, 10; Univ. Michigan ecol. exped, Texas, 14; Am. Ass. Univ. Women traveling fellow, Smith, 20-21. British Ass. Physiology; Protozoa; fertilization and development; circulatory system and fluids.

- Sanborn, Prof. Charles Emerson**, 423 Duck St, Stillwater, Okla. *Entomology*. LaPlata, Mo, April 16, 77. A.B., Kansas, 03, A.M., 04. Entom. expert, bur. entom, U. S. Dept. Agr, 05-09; cooperative entomologist, Texas Col, 06-08; acting state entomologist, Texas, 08; Ill. State Entom. Dept, 09; *prof. entom, Okla. Col. and entomologist, Exp. Sta, 09- Okla. Acad. (pres, 24)*. Field crop and horticultural insects; apiculture; Aphididae.
- Sanborn, Prof. Frank B(erry)**, 37 Arlington St, Cambridge, Mass. *Engineering*. Hampton Falls, N. H., Jan. 15, 65. B.S., Dartmouth, 87, C.E., 89; M.S., Harvard, 98. Inspector, Factory Ass. East. States and Can, 90-99; asst. prof. civil eng, Tufts, 99-01, prof, 01-18; *proprietor, Sanborn Co, 18- Substitute prof, Illinois, 08-09*; lecturer, Dartmouth, 06- Civil Eng. Mechanics; hydraulics; fire protection; pitometer measurement of water; low pressure gage; marine speedometer; blood pressure testing; heart testing.
- Sanborn, Prof. Herbert (Charles)**, Vanderbilt University, Nashville, Tenn. *Psychology*. Winchester, Mass, Feb. 18, 73. Ph.B., Boston, 96, Jacob Sleeper fellow, 01-02; A.M., Tufts, 97; Heidelberg; Berlin; Halle; Leipzig; Ph.D., Munich, 08. Teacher, Concord Sch, 97-99; high sch, Conn, 99-00, prin, 00-01; *prof. philos. and psychol, Washington (Md), 09-11*; assoc. prof, *Vanderbilt, 11-21, prof, 21- A.A.; Psychol. Ass; Philos. Ass; S. Soc. Philos. and Psychol. (pres, 22)*; Tenn. Acad; Gesell. Aesthetik und allgemeine Kunstwissensch. Esthetics; animal psychology; instinct.
- Sander, Dr. F(rank) V**, 64 Lawrence Ave, New Brunswick, N. J. *Chemistry*. Wheeling, W. Va, April 19, 90. B.S., West Virginia, 12; Ph.D., Chicago, 21. Instr. physiol. chem, Chicago, 21-22; chief chem. research laboratories, Wis. Psychiat. Inst, and instr, Wisconsin, 22-24; *research chemist, Johnson and Johnson, 24- Chem. Soc. Saccharinic acids; the preservation of blood for chemical analysis; antiseptics; germicides.*
- Sanders, J(ames) G(lossbrenner)**, Sun Oil Co, Philadelphia, Pa. *Entomology*. Louisville, Ohio, July 17, 80. Ph.B., Otterbein, 01; fellow, Ohio State, 01-04, A.M., 03. Asst, lake lab, Ohio State, 04; expert, bur. entom, U. S. Dept. Agr, 05-09; asst. prof. in charge dept. econ. entom. and chief nursery inspector, Wisconsin, 09-10, prof, 10-15; state entomologist, Wis, 15-16; econ. zoologist, Pa. State Dept. Agr, 16-19, director bur. plant indust, 19-23; *entomologist and manager spray oil dept, Sun Oil Co, 23- Collaborator, fed. hort. board, U. S. Dept. Agr, 19. A.A.; Entom. Soc; Ass. Econ. Entom. (pres, 22); Ass. Hort. Inspectors (sec'y, 13-19)*; Ohio Acad; Pa. Acad; Wash. Entom. Soc. (cor. sec'y, 06-09). Homoptera; Coccidae; poison bait control of onion and cabbage maggot; nicotin solutions for leaf-mining insects; European potato wart disease; miscible oils and oil emulsions.
- Sanderson, Dr. Everett S(hovelton)**, University of Virginia, University, Va. *Bacteriology, Pathology*. Fall River, Mass, June 22, 94. B.S., Mass. Col, 16; M.S., Yale, 21, Ph.D., 22. Asst. instr. bacter, sch. med, Yale, 22-23; asst, Rockefeller Inst, 23-25; asst. prof, *Virginia, 25- Va. Acad. The bacteriophage.*
- Sanderson, Prof. (Ezra) Dwight**, 212 Overlook Road, Cayuga Heights, Ithaca, N. Y. *Entomology*. Clio, Mich, Sept. 25, 78. B.S., Mich. State Col, 97; B.S.A., Cornell, 98; Ph.D., Chicago, 21. Asst. state entomologist, Md, 98; entomologist, Del. Exp. Sta, 99-03; assoc. prof. zool, Delaware, 01-02; asst. state entomologist, Texas, and prof. entom, Agr. and Mech. Col. Texas, 03-04; prof. zool. and entom, New Hampshire, 04-10, director, Exp. Sta, 07-10; dean col. agr, West Virginia, and director, Exp. Sta, 10-15; *prof. rural social organization, N. Y. State Col. Agr, Cornell, 18- A.A.; Ass. Econ. Entom. (pres, 10). Rural sociology; economic entomology.*
- Sandground, Dr. J(ack) H(enry)**, Harvard University Medical School, Boston, Mass. *Helminthology*. Johannesburg, S. Africa. B.Sc., South Africa, 19, M.Sc., 20, Porter overseas scholar; Sc.D., Hopkins, 25. Lecturer zool, Witwatersrand, 20-22; asst. med. zool, sch. hygiene and pub. health, Hopkins, 23-25; *dept. trop. med, Harvard, 25- Capt. Scott medalist, South Africa Biol. Soc. A.A.; Soc. Parasitol; Wash. Helminth. Soc; S. African A.A.S. Biology of parasitic nematodes.*
- Sandiford, Prof. Peter**, 14 Rosemount Ave, Toronto 10, Ont, Can. *Educational psychology*. Hayfield, Eng, Jan. 15, 82. B.Sc., Manchester, 05, Univ. scholar, 05-06, M.Sc., 07; fellow, Columbia, 08-09, A.M., 09, Ph.D., 10. Junior lecturer, Manchester, 06-08; tutor, Teachers Col, Columbia, 09-10; lecturer, Manchester, 10-13; assoc. prof. educ, *Toronto, 13-20, prof. educ. psychol, 20- Specialist testing, British Columbia Sch. Surv, 24-25; commissioner on length of elementary educ, 25-27. A.A. (sec'y, sect. Q, 22)*; British Ass. (sec'y, sect. L, 24). Teacher training; comparative education; heredity in man; mental and educational measurements.
- Sando, Dr. Cha(rie)s E(arl)**, U. S. Department of Agriculture, Washington, D. C. *Biochemistry*. Bernville, Pa, Feb. 18, 94. B.S., Maryland, 16, Ph.D., 20; fellow, Michigan, 17-18, M.S., 20. Junior biochemist, office hort. and pomol, *bur. plant indust, U. S. Dept. Agr, 17-18, office physiol. and fermentation investigations, 18-24, assoc. biochemist, office plant physiol. investigations, 24- Chem. Soc; Bot. Soc. Plant pigmentation; ripening of fruits and vegetables.*
- Sands, Dr. H(arold) C(ollender)**, Spaulding, Maine. *Plant pathology*. New York, N. Y., Nov. 16, 84. B.S., Cornell, 12; A.M., Columbia, 18, Ph.D., 23. Asst. landscape design, Cornell, 11; pathologist, bur. plant indust, N. Y. State Dept. Agr, 15-23; Salmon Lake Seed Co, Maine, 23-24; Maine Potato Growers Exchange, 24-25; *pres, Hugh Meadow Seed Co. and Salmon Lake Seed Co, 25- Asst, Columbia, 22. A.A.; Bot. Soc; Phytopath. Soc; Torrey Bot. Club; N. Y. Micros. Soc. Cytology; bacteriology; pathology of potatoes and celery; chemical action of various soil waters on canned goods.*
- Sands, Dr. Lila**, 1048 N. Second Ave, Tucson, Ariz. *Chemistry*. Friend, Nebr, Aug. 30, 88. B.S., Nebraska, 19, fellow, 19-20, A.M., 20, Ph.D.,

24. Asst. instr. *chem.*, Nebraska, 20-24; instr. *Arizona*, 24-25, *asst. prof.*, 25- Chem. Soc. Amines in the vapor stage; l-mannonic and l-gluconic acids; hydrolysis of plant gums; composition of mesquite gum; isolation of d-galactose and l-arabinose.
- Sands, Prof. (Minnie) Jane**, 3414 Haverford Ave, Philadelphia, Pa. *Physiology*. Corning, N. Y., Nov. 20, 93. A.B., Syracuse, 15; M.D., Woman's Med. Col. of Pa, 18; Sc.D., Pennsylvania, 24. Intern, Phila. Gen. Hosp, 19-20, asst. res. physician, 21-23; asst. and instr. med. and cardiologist, Woman's Med. Col. of Pa, 21-23; Nat. Research Council fellow med, Edinburgh, Cambridge and Western Reserve, 23-25; acting prof, *Woman's Med. Col. of Pa*, 25-26, *prof.*, 26- Instr., Pennsylvania, 22-24; physician, Bryn Mawr, 20-21. *Physiol. Soc.*; Am. Med. Ass.; Ass. Prevention Heart Disease; Phila. *Physiol. Soc.* Pulse wave velocity; aortic regurgitation; reflexes from the veins; effect of anoxemia on the heart; circulation rates in hyperthyroid disease; carbon monoxide poisoning.
- Sandsten, Prof. E(mil) P(eter)**, Colorado Agricultural College, Fort Collins, Colo. *Horticulture*, *Entomology*. Nybro, Sweden, Sept. 15, 68. B.S., Minnesota, 95, M.S., 98; Ph.D., Cornell, 03. Botanist, Am. Grass Twine Co, 99-00; assoc. prof. hort, Maryland, 01-02; prof. hort. and econ. entom., Wisconsin, 02-13; prof. hort, Alabama, and state horticulturist, 13; *prof. hort, Colo. Agr. Col.*, and *state horticulturist*. A.A.; Soc. Hort. Sci.; Pomol. Soc.; fel. Royal Hort. Soc. Physiological botany; pollination; self-sterility; conditions which affect the production and fertility of pollen.
- Sanford, Dr. A(rthur) H(awley)**, Mayo Clinic, Rochester, Minn. *Clinical pathology*. New Albin, Iowa, Jan. 12, 82. A.B., Northwestern, 04, A.M., M.D., 07. Assoc. prof. *physiol.*, Marquette, 07-09, *prof.*, 09-11; *head sect. clin. laboratories, Mayo Clinic*, 11-; *prof. clin. path., Mayo Foundation, Minnesota*. A.A.; Soc. Clin. Path. (pres, 27); Soc. Immunol.; Soc. Trop. Med.; Soc. Bact.; Soc. Exp. Biol. Diagnostic methods.
- Sanford, Prof. Fernando**, 450 Kingsley Ave, Palo Alto, Calif. **Physics*. Taylor, Ill, Feb. 12, 54. B.S., M.S., Carthage, 79, hon. Sc.D., 20; Berlin, 86-88. Prof. science, Mt. Morris, 79-82; supt, schools, Ill, 82-86, instr., 88-90; *prof. physical science*, Lake Forest, 90-91; *physics, Stanford*, 91-19, *emer. prof.*, 19-; *private research*, 19- Engineer, ry. construction, 79, 80. A.A.; Physical Soc. The electrical conductivity of wires in different dielectrics; electric photography in alternating condenser field; an acoustic pyrometer; an undescribed form of radiation; a possible change of weight in chemical reactions; physical lines of force in electrical theory; contact E.M.F. and cohesion; the emission of ultra-violet radiation in an alternating condenser; electrical charges of atoms and ions; characteristic charges of metals; orbital motion of radiating electrons; a physical theory of electrification; electrical induction of the sun and moon upon the earth.
- Sanford, H(erbert) L(uther)**, U. S. Department of Agriculture, Washington, D. C. *Entomology*. Ithaca, N. Y., Aug. 6, 83. B.S.A., Cornell, 10. Agent and expert, bur. entom., U. S. Dept. Agr., 10-12, entom. asst., 12-15; entom. inspector, *Fed. Hort. Board*, 15-24, *assoc. entomologist*, 24- Entom. investigator, Cuba and Isle of Pines, 24. Ass. Econ. Entom.; Wash. Entom. Soc. Hydrocyanic gas and subterranean larvae; chrysanthemum midge; pests collected from imported plants and plant products.
- Sanford, R(aymond) L(araway)**, U. S. Bureau of Standards, Washington, D. C. *Physics*. Auburn, N. Y., Aug. 29, 84. B.S., Vermont, 07. Instr. physics and elec. eng., Vermont, 08-10; lab. asst, *Bur. Standards*, 10-11, asst. physicist, 11-18, assoc., 18-19, *physicist*, 19- Soc. Test. Mat.; Wash. Acad.; Wash. Philos. Soc. Magnetic measurements and properties of materials; magnetic analysis.
- Sanford, Dr. R(oscoe) F(rank)**, 1295 Sinaloa Ave, Pasadena, Calif. *Astronomy*. Faribault, Minn., Oct. 6, 83. A.B., Minnesota, 05; fellow, Lick Observatory, California, 15-17, Ph.D., 17. Instr. high sch., Minn., 05-06; asst., Lick Observatory, 06-08; observer, South. Observatory, Carnegie Institution, San Luis, Argentina, 08-11; asst. astronomer, D. O. Mills exped. of Lick Observatory to Santiago, Chile, 11-15; *astronomer, Mt. Wilson Observatory, Carnegie Institution*, 18- Astron. Soc.; Pacific Astron. Soc. Astrophysics; astronomical photography.
- Sanford, S(amuel)**, U. S. Bureau of Mines, Washington, D. C. *Geology*. Middletown, R. I., Aug. 5, 65. A.B., Harvard, 90. Rodman, F. L. Olmstead and Co, 90; field asst., Lake Superior Surv., 91-92; geologist, Duluth Iron Co, 93; asst. and assoc. ed., 'Eng. and Mining Jour.', 97-05; hydrol. aid, U. S. Geol. Surv., 05-07; geologist, Fla. East Coast Ry., 07-08; asst. engineer, U. S. Geol. Surv., 08-10; asst. engineer and engineer, U. S. *Bur. Mines*, 10- A.A.; Wash. Geol. Soc.; Wash. Acad. Economic and Pleistocene geology; mining.
- Santayana, Prof. George**, 123 Pall Mall, Brown Shipley and Co, London, Eng. **Philosophy*. Madrid, Spain, Dec. 16, 63. A.B., Harvard, 86, A.M., Ph.D., 89; Litt.D., Wisconsin, 11. Instr. philos., Harvard, 89-98, asst. prof., 98-07, *prof.*, 07-12. A.A.; Philos. Ass.; Psychol. Ass. History of philosophy.
- Santee, Dr. H(arris) E(llett)**, R. R., Box 72, High Lake, West Chicago, Ill. *Neurology*. Snodes, Ohio, Oct. 15, 64. A.B., N. E. Ohio Nor. Col., 89; A.M., 00; Ph.D., Taylor, 01, hon. A.M., 07; M.D., Pennsylvania, 92. Prof. anat., Harvey Med. Col., 96-05; Col. Physicians and Surg., Ill, 00-10; Jenner Med. Col., 05-19; Chicago Col. Med. and Surg., 10-17; neur., Chicago Med. Sch., 19-24. Ass. Anat.; Am. Med. Ass. Anatomy of brain and spinal cord.
- Santos, Dr. F(rancisco) O**, Los Baños College, University of the Philippines, Laguna, P. I. *Biochemistry*. Calumpit, Balucan, P. I., June 2, 92. A.B., Philippines, 14, M.S., 19; Philippines fellow, Yale, 19-22, Ph.D., 22. Asst. math, *Philippines*, 15-17, instr., 17-19, asst. prof. *chem.*, 22-26, *assoc. prof.*, 26-, *acting head dept. agr. chem.*, 25- A.A.; Los Baños Biol. Club.

Nutrition of the Filipinos; nutritive value of Philippine food materials.

Santos, Prof. José K(abigting), University of the Philippines, Manila, P. I. *Botany*. Arayat, Pampanga, P. I., Feb. 4, 89. *Phar.G*, Philippines, 16, B.S., 21, M.S., 22; Philippines fellow, Chicago, 20-23, Ph.D., 23. *Instr. bot, Philippines*, 18-20, asst. prof., 24-27, *assoc. prof. and acting head dept.*, 27- *Botanist*, Bur. Science, P. I., 24- Philippines Pharmaceut. Ass; Philippines Sci. Soc. Sex chromosomes in plants; pharmacognosy and microchemistry of the Philippine medicinal plants.

Sapir, Dr. Edward, University of Chicago, Chicago, Ill. **Anthropology*. Lauenburg, Germany, Jan. 26, 84. A.B., Columbia, 04, A.M., 05, Ph.D., 09; fellow, Pennsylvania, 08-09. Research asst. anthrop., California, 07-08; instr., Pennsylvania, 09-10; chief div. anthrop., Can. Geol. Surv., 10-25; *assoc. prof. anthrop, Chicago*, 25- Summers, field work among Am. Indians, Bur. Am. Ethnol., 05-07, California, 07, 15, Pennsylvania, 09, Can. Geol. Surv., 10, 11, 22, 23, 13-14. A.A.; Anthrop. Ass; Ethnol. Soc; Folk-Lore Soc; Linguistic Soc; Royal Soc. Can; Soc. de Linguistique de Paris; Paris Soc. des Américanistes; Reale Accad. delle Sci., Bologna. American Indian ethnology and linguistics; comparative linguistics.

Sardeson, Dr. F(rederick) W(illiam), 414 Harvard St., Minneapolis, Minn. *Paleontology*. Owego Mills, Wis., Feb. 22, 66. B.L., Minnesota, 91, M.S., 92; Ph.D., Freiburg, 95. *Instr. paleont.*, Minnesota, 92-94, 98-05, asst. prof., 05-14; *expert geologist*, Minn. *State Securities Commission*, 18- U. S. Geol. Surv., 89, 91, geologist, 11-24. Int. Geol. Cong. Zurich, 94. A.A.; Paleont. Soc; Geol. Soc; Minn. Acad. Stratigraphic geology; fauna of Saint Peter sandstone; fossil corals; Gastropoda; Cephalopoda; Crinoidea; glacial deposits; loess; paleontologic evidence and the theory of evolution; oilfields; road materials; drainage.

Sargent, C(harles) E(liotte), 843 College Ave., Racine, Wis. *Mechanical engineering*. Carlinville, Ill., Sept. 12, 62. B.S., Blackburn, 82, M.S., 86; B.S., Illinois, 86. Consulting engineer, 86-95; chief engineer, Chas. F. Elmes Eng. Works, 95-00; gen. manager, Sargent Eng. Co., 00-07; *engineer, gas engine dept.*, Wis. *Engine Co*, 07- Octave Chanute medal, West. Soc. Eng., 05; John Scott medal premium, Franklin Inst., 07. Mech. Eng; Franklin Inst; West. Soc. Eng. Complete expansion internal combustion engine; calorimetry of gases; metering of gas and steam.

Sargent, F(rederick) L(eRoy), 47 Prentiss St., Cambridge, Mass. *Botany*. Boston, Mass., Dec. 25, 63. Col. City of N. Y., 79-82; Lawrence Sci. Sch., Harvard, 83-86. Head dept. bot., Wisconsin, 86-87; instr. bot., med. sch., Boston, 94-95; asst. bot. museum, Harvard, 02-04. Summer, instr., Harvard, 86. Pres. Nat. Flower Convention, Asheville, N. C., 96. A.A.; Bot. Soc. Ecological botany; color notation.

Sargent, Paul D(udley), 83 Western Ave., Augusta, Maine. *Engineering*. Machias, Maine, May 8, 73. C.E., Maine, 96, D.Eng., 26. Con-

struction, Wash. Co. Ry., 97-98, maintenance of way engineer, 98-02; state highway commissioner, Maine, 05-11; asst. director, bur. pub. roads, U. S. Dept. Agr., 11-13; *chief engineer, State Highway Commission, Maine*, 13- Delegate, Int. Road Cong., Milan, Italy, 26. Civil Eng. (exec. committee, highway div., 25-); Soc. Test. Mat. (committee, D4, 15-23); Road Builders Ass. (director, 13-16); Mass. Highway Ass; Maine Ass. Eng. (v. pres, 15, pres, 16, director, 17-20, chairman, committee on transportation); Ass. State Highway Officials (pres, 20, exec. committee); Ass. Highway Officials N. Atlantic States (v. pres, 15, director); Permanent Int. Ass. Road Congresses.

Sarton, Dr. George (Alfred Léon), Harvard Library, 185, Cambridge 38, Mass. *History and philosophy of science*. Ghent, Belgium, Aug. 21, 84. B.Sc., Ghent, 06, D.Sc., 11. *Lecturer hist. science*, George Washington, 15-16; *Harvard*, 16-18, 20-; *research assoc, Carnegie Institution*, 18- *Lecturer*, Lowell Inst., 16. Ed., 'Isis,' 13- Gold medal, four Belgian universities, 07; Prix Binoux, Acad. des Sciences, Paris, 15. A.A.; Hist. Sci. Soc; Hist. Ass; India Soc. London; Newcomen Soc; Gesell. Geschichte Med; Gesell. Med. und Naturwissenschaft; Halle Akad. der Naturforscher; Soc. Hist. Med. de Paris; Soc. d'Hist. et d'Arch. Gand; Statist. Soc. de Paris; Soc. di Storia Sci; Soc. Ital. Statist. Sci; India Soc. Medieval science; unification of scientific knowledge; history of physics; Leonardo da Vinci.

Sartoris, Dr. G(eorge) B(artholomew), 313 W. Bradley Lane, Chevy Chase, Md. *Botany*. Marshfield, Oregon, Oct. 20, 96. B.S., Washington (Seattle), 20, M.S., 21; Ph.D., Michigan, 23. *Office sugar plant investigations, bur. plant indust.*, U. S. Dept. Agr., 23- Bot. Soc. Mycology; plant pathology; physiology and cytology of smuts; cytology of ascomycetes.

Sarvis, J(ohnson) T(hatcher), Northern Great Plains Field Station, U. S. Department of Agriculture, Mandan, N. Dak. *Agriculture, Botany*. Highmore, S. Dak., June 1, 86. B.S., S. Dak. Col., 09, M.S., 11. Asst. bot., S. Dak. Col., 09-13; *asst. dry land agr. and assoc. agron.*, bur. plant indust., U. S. Dept. Agr., 13- A.A.; Soc. Agron; Ecol. Soc. Agronomy; ecology; dry land agriculture, crop rotation and grazing in the great plains area.

Sasscer, E(rnest) R(alph), 9 Raymond St., Chevy Chase, Md. *Entomology*. Waldorf, Md., Oct. 25, 83. B.S., Maryland, 04, M.S., 13. Sci. aid, bur. entom., U. S. Dept. Agr., 04-06, sci. asst., 06-12, *chief inspector, fed. hort. board*, 12-, *entomologist in charge port inspection*, 20-, *exec. officer*, 24- A.A.; Entom. Soc; Ass. Econ. Entom. (v. pres, 24, sec'y, sect. hort. inspection, 20-23, chairman, 24); Wash. Acad; Wash. Biol. Soc; Wash. Entom. Soc. (rec. sec'y, 12, second v. pres, 14, pres, 18). Coccidae; fumigation methods; plant quarantine.

Satina, Miss S(ophia), Carnegie Institution, Cold Spring Harbor, N. Y. *Botany*. Russia, 79. Grad. Moscow, 04. Asst. prof., second univ., Moscow, 07-21; *research worker, sta. for exp. evolution, Carnegie Institution*, 23- A.A.; Bot.

- Soc; Russian Bot. Soc; Moscow Soc. Nat; Moscow Mycol. Soc. Mycology.
- Satterfield, Prof. G(eorge) Howard**, State College Station, Raleigh, N. C. *Chemistry*. Mount Airy, N. C., Dec. 2, 94. Yale Army Lab. Sch., 18; A.B., Trinity (N. C.), 19, A.M., 20, indust. fellow, 20-21. Asst., Trinity (N. C.), 19-20, instr., 21-22; teaching fellow, Northwestern, 22-23, research fellow, 23-24; *asst. prof. chem*, N. C. State, 24- Chemist, Velvo-Touch Company, 26-; summer, instr., Trinity (N. C.), 20. Lab. technician, U.S.A., 18. Chem. Soc; N. C. Acad. Tobacco; organic arsenicals; cosmetics.
- Satterfield, Prof. H(oward) E(rnest)**, West Raleigh, N. C. *Mechanical engineering*. Fairmont, W. Va., May 11, 77. B.S., Purdue, 04, M.E., 09. Supt., exp. factory, Am. Window Glass Co., 05-06; Standard Sanit. Mfg. Co., 06-07; director sch. applied science, Winona Tech. Inst., 07-08; prof. mech. eng., N. C. State, 08-20; *gen. builder*, 20- Mech. Eng.
- Satterlee, Dr. G(eorge) Reese**, 285 Madison Ave., New York, N. Y. *Medicine*. Dobbs Ferry, N. Y., 73. A.B., Columbia, 94, A.M., M.D., 98. Instr. histol. and embryol., Univ. and Bellevue Hosp. Med. Col., 03-10, med. and gastro-enterol., 10-16; *attending physician*, Fordham Hosp., 13- Consulting physician, N. J. State Hosp., 20-; asst. pathologist, St. Vincent's Hosp., 05-08; pathologist, Gouverneur Hosp., 06-08; attending physician and pathologist, Washington Heights Hosp., 06-13; St. Bartholomew's Hosp., 20-22. Therapeut. Soc; Gastro-Enterol. Ass; Stomatol. Ass; N. Y. Acad. Med; N. Y. Path. Soc. Internal medicine; gastro-enterology.
- Satterly, Dr. John**, University of Toronto, Toronto, Ont., Can. *Physics*. Ashburton, Devon, Eng., Nov. 29, 79. B.Sc., London, 01, D.Sc., 10; B.A., Cambridge, 08, M.A., 12. Demonstrator, Royal Col. Science, London, 01-03; tutor, univ. correspondence col., Cambridge, 03-12, asst. demonstrator, Cavendish lab., 10-12; lecturer *physics*, Toronto, 12-16, asst. prof., 16-22, assoc. prof., 22-25, *prof.*, 25- Tyndall prize, Royal Col. Science, 99. Physical Soc; Royal Soc. Can; Royal Astron. Soc. Can; London Physical Soc. Thermomagnetic analysis of iron alloys; radioactivity of the air, water, soils, radium and thorium, helium; viscosity; surface tension; theory of measurements; heat; light; sound; electricity and magnetism.
- Satterthwait, A(lfred) F(ellenberg)**, Webster Groves, Mo. *Entomology*. Fairville, Pa., April 9, 79. Jessup scholar, Phila. Acad., 98-00. Clerk, div. zool., Pa. State Dept. Agr., 05-07, asst. econ. zoologist, 07-10; field asst., *bur. entom.*, U. S. Dept. Agr., 13-14, sci. asst., 14-24, *assoc. entomologist*, 24-, in charge *entom. lab.*, Webster Groves, 16- A.A.; Entom. Soc; Ass. Econ. Entom; Ecol. Soc; Soc. Parasitol; Genetic Ass; Nature Study Soc; Iris Soc; Wash. Entom. Soc; N. Y. Entom. Soc; S. Calif. Acad; St. Louis Acad. Economic entomology; life histories, ecology and parasites of the genus *Calendra*; distinguishing characters in pupae and larvae.
- Satterthwaite, Dr. Thomas E(dward)**, 7 E. 80th St., New York, N. Y. *Medicine*. New York,
- March 26, 43. A.B., Yale, 64; Harvard, 64-65; M.D., Columbia, 67; Vienna, 69-70; LL.D., Maryland, 08; Sc.D., St. John's (Md.), 12. Intern., N. Y. Hosp., 67-69; pathologist, St. Luke's Hosp., 72-82; Presb. Hosp., 73-88; prof. path. anat., N. Y. Post-Grad. Med. Sch., 82-83, med., 04-08; pres., Babies' Hosp., 94-99; *consulting physician*, Post-Grad. Babies', *Orthopedic and Manhattan Hospitals*. Lecturer, Columbia, 81-82; surgeon, Prussian army, Franco-Prussian War, 70-71, iron cross, 73. Lieut., M.R.C., 11-17. Therapeut. Soc. (pres., 02); Col. Physicians; N. Y. Acad. Med; N. Y. Path. Soc. (pres., 80); Greater N. Y. Med. Ass. (pres., 04-08). Comparative histology and pathology; bacteriology; diseases of heart and aorta; cardiovascular diseases.
- Sauer, Prof. Carl O(rtwin)**, University of California, Berkeley, Calif. *Geography*. Warrenton, Mo., Dec. 24, 89. A.B., Cent. Wesleyan, 08; Northwestern, 08-09; Ph.D., Chicago, 15. Instr., Mass. State Nor. Sch., Salem, 13-14; *geog.*, Michigan, 15-18, asst. prof., 18-20, assoc. prof. and director field courses, 20-22, *prof.*, 22-23; *California*, and *chairman dept.*, 23- Asst. geologist, Ill. Geol. Surv., 10-12; agent, office farm management, U. S. Dept. Agr., 19; Mich. Land Econ. Surv., 22-23; Ky. Geol. Surv., 23- Ass. Geog. Regional geography.
- Sauer, Dr. Louis W(endlin)**, 636 Church St., Evanston, Ill. *Pathology, Pediatrics*. Cincinnati, Ohio, Aug. 13, 85. A.B., Cincinnati, 07, A.M., 08; Freiburg, 09; Berlin, 12; M.D., Rush Med. Col., 12, Ph.D., Chicago, 24. Attending pediatrician, Chicago Infant Welfare, 13-17; *senior attending pediatrician*, Evanston Hosp., 15- Asst. attending physician, Children's Mem. Hosp., 13-18. Am. Med. Ass; Cent. States Pediat. Soc; Chicago Inst. Med. Pylorus of infants; histology of pyloric stenosis; coeliac; insensible perspiration; surface temperature of infants.
- Saunders, Dr. A(rthur) P(ercy)**, Clinton, N. Y. **Chemistry*. London, Ont., Can., March 22, 69. B.A., Toronto, 90; Ph.D., Hopkins, 94; Göttingen, 96; Berlin, 97; hon. fellow, Cornell, 99. Instr. *chem.*, Wisconsin, 94-96; asst. prof., *Hamilton*, 00, *prof.*, 00-, dean, 09-26. Research asst., McGill, 98. A.A.; Chem. Soc. Chlorides of orthosulphobenzoic acid; double salts; allotropic forms of selenium; reaction velocities.
- Saunders, Dr. Cha(rles) E(dward)**, 459 Gilmour St., Ottawa, Ont., Can. *Chemistry, Agriculture*. London, Ont., Feb. 2, 67. B.A., Toronto, 88, hon. D.Sc., 25; fellow, Hopkins, 90-91, Ph.D., 91; hon. LL.D., Western Ontario, 21. Prof. chem. and geol., Cent. Univ. of Ky., 92-93; Dominion cerealist, Can., 03-22; *retired*, 22. Flavelle medal, 25. Fel. Royal Soc. Can. Double halides; hybridization in the *Pyrus*, *Berberis* and *Triticum* families; breeding improved varieties of wheat, oats, barley and peas.
- Saunders, Prof. E(dwin) J(ames)**, University of Washington, Seattle, Wash. *Geology, Geography*. Petrolia, Ont., Can., Jan. 30, 72. B.A., Toronto, 97; Ont. Nor. Col., 98; A.M., Harvard, 07. Teacher physical science and geog., Wash. State Nor. Sch., Ellensburg, 98-05, 07-

09; *asst. prof. geog. and geol.* Washington (Seattle), 09- A.A.; Meteor. Soc.; Am. Geog. Soc. Climatology; coal fields; geography of Washington.

Saunders, Prof. F(rederick) A(lbert), Harvard University, Cambridge, Mass. **Physics*. London, Ont, Can, Aug. 18, 75. B.A., Toronto, 95; fellow, Hopkins, 98-99, Ph.D., 99; Cambridge (Eng), 13; Tübingen, 13-14. Instr. *physics*, Haverford, 99-01; Syracuse, 01-02, assoc. prof., 02-05, prof., 05-14; Vassar, 14-19; assoc. prof., Harvard, 19-23, *prof.*, 23- War work, Nat. Research Council, 17-18. Nat. Acad.; A.A.; Physical Soc.; Am. Acad. Radiation; spectroscopy; spectrum series and atomic structure.

Saunders, Dr. Paul C(anfield), Alfred, N. Y. *Chemistry*. Doland, S. Dak, Sept. 17, 90. Colorado; B.S., Alfred, 14; M.S., Pittsburgh, 22, Ph.D., 24. Teacher, high sch, Pa, 14-16; instr. chem, Milton Col, 16-18; anal. chemist, E. I. du Pont de Nemours and Co, 18-19; prof. chem, Coker Col, 19-20; asst., Pittsburgh, 20-24; Howard Col, 24; *prof.*, Alfred, 24- Consulting and anal. chemist; summer, prof., R. I. Col. Educ, 24. Chem. Soc. Composition and energy relations in ozone formation; chlorination of methane; hydrolysis of methyl chloride.

Saunders, Prof. Samuel J, Clinton, N. Y. *Physics*, *Astronomy*. Nanticoke, Ont, Can, Aug. 3, 62. B.A., Toronto, 88, M.A., 94; fellow, Cornell, 88-89, Sc.D., 94. Instr. physics, Cornell, 89-92; *prof. physics and astron.*, Hamilton, 92-, registrar, 07- Summer, prof., Wisconsin, 91; Cornell, 92. Physical Soc. Electrical waves; penetration by X-rays; the relative value of Holtz machine and induction coil in X-ray work.

Saunders, William Edwin, 240 Central Ave, London, Ont, Can. *Ornithology*, *Mammalogy*, *Botany*. London, Aug. 16, 61. Phila. Col. Pharmacy, 80-83. Chairman, Civic Committee on Hort, London, 02-03. Fel. Ornith. Union; Ont. Entom. Soc. (sec'y, 93-05); McIlwraith Ornith. Club (sec'y, 99-05).

Saunders, W(illiam) L(awrence), 11 Broadway, New York, N. Y. *Mining engineering*. Columbus, Ga, Nov. 1, 56. B.S., Pennsylvania, 76, Sc.D., 11. In charge hydrog. work, Nat. Storage Co, 78-82; pres, Ingersoll-Sargeant Drill Co; N. Y. chairman, board directors, Ingersoll-Rand Co. Mayor, North Plainfield, N. J.; director, indust. concerns and domestic and foreign financial organizations. Ed, 'Compressed Air Magazine,' and pres, company. Min. and Metal. Eng. (past pres); Min. and Metal. Soc.; Civil Eng.; Mech. Eng.; Iron and Steel Inst; Eng. Soc. (past pres. and trustee); Acad. Polit. Sci.; Am. Geog. Soc.; N. Y. Eng. Club. Compressed air; technology of quarrying and drilling.

Saurel, Dr. Paul (Louis), College of the City of New York, New York, N. Y. **Mathematics*. New York, May 10, 71. B.S., Col. City of N. Y., 90; Cornell, 90-92; Sc.D., Bordeaux, 00. Instr. *math.*, Cornell, 92-96; tutor, *Col. City of N. Y.*, 96-98, instr., 00-05, asst. prof., 05-06, assoc. prof., 06-14, *prof.*, 14-, *head dept.*, 19- A.A.; Math. Soc.; Physical Soc. Mathematical theory

of the equilibrium of chemical systems; theory of radiation; classification of crystals; types of crystal symmetry.

Sauveur, Prof. Albert, 20 Elmwood Ave, Cambridge, Mass. *Metallurgy*. Louvain, Belgium, June 21, 63. Sch. mines, Liège, 81-86; B.S., Mass. Inst. Tech, 89; hon. Sc.D., Case, 21, Grenoble, 24, San Marcos (Peru), 25; hon. D.Eng., Lehigh. Chemist and metallurgist, steel companies, 89-97; instr. metal, Harvard, 99-00, asst. prof. *metal. and metallog.*, 01-06, *prof.*, 06- Howe lecturer, 24. Ed, 'Metallographist,' 98-03; 'Iron and Steel Mag,' 04-06. Director div. metal, A.S., 17-18. Elliott Cresson gold medal; Bessemer gold medal, Iron and Steel Inst. Officier d'Acad; chevalier, Légion d'honneur; officer, Order of Leopold. Delegate, Third Pan-Am. Sci. Cong, Lima, Peru, 24. Nat. Acad; A.A.; Min. Eng. (v. pres, 10-12, chairman, Boston sect, 19); Philos. Soc.; Soc. Test. Mat; Am. Iron and Steel Inst; Am. Acad; British Iron and Steel Inst. The metallography and heat treatment of iron and steel; chemical properties and structure of steel.

Savage, Prof. E(lmer) S(eth), Cornell University, Ithaca, N. Y. *Animal husbandry*. Lancaster, N. H, June 15, 84. B.S.A., New Hampshire, 05; M.S.A., Cornell, 09, Ph.D., 11. Instr., Baron DeHirsch Sch, Woodbine, N. J., 05-07; asst. *animal husbandry*, Cornell, 07-09, instr., 09-11, asst. prof., 11-13, *prof.*, 13- A.A. Animal nutrition.

Savage, Dr. H(iram) N(ewton), 2532 Durant Ave, Berkeley, Calif. *Civil engineering*. Lancaster, N. H, Oct. 6, 61. B.S., New Hampshire, 87, C.E., 92, Sc.D., 13. Practising engineer, 88-03; engineer, S. Calif. Mt. Water Co, 93-03; *consulting engineer*, U. S. Reclamation Service, 03- Consulting engineer, The Research Service; Sweetwater Water Co, 16; hydraulic engineer, City of San Diego. Civil Eng.

Savage, Prof. T(homas) E(dmund), University of Illinois, Urbana, Ill. *Geology*. Salem, Iowa, Jan. 8, 66. A.B., Iowa Wesleyan, 95; B.S., Iowa, 97, M.S., 98; Ph.D., Yale, 09. Prof. biol. and geol., Western, and asst. geologist, Iowa Geol. Surv, 99-03; asst. state geologist, Iowa, 03-06; asst. prof. stratig. geol., Illinois, 06-19, *prof. geol.*, 19-; *geologist*, Ill. Geol. Surv, 06- Geologist, Navy Alaskan Coal Commission, 20-21. A.A.; Geol. Soc.; Paleont. Soc.; Ill. Acad; Iowa Acad. Geology, areal and stratigraphic; the Devonian paleontology and stratigraphy in Illinois; the Alexandrian series; the geology and paleontology of the Paleozoic rocks in the Hudson and James Bay region.

Savage, Dr. Watson L(ewis), 253 Madison Ave, New York, N. Y. *Physical education*. Cromwell, Conn, Nov. 26, 59. A.B., Amherst, 82, A.M., 85; M.D., L. I. Col. Hosp, 85. Intern, St. Peter's Hosp, 85-87; med. director, Berkeley Sch. and Club, 87-90; *pres. and physician*, Dr. Savage's Physical Development Inst, 90-; director gym, Columbia, 97-03; pres, N. Y. Nor. Sch. Physical Educ, 99-14; supervisor athletics and director dept. health, Carnegie Tech. Schools, 10-13; *pres.*, The Savage Sch. for Physical Educ, 14-, Dr. Savage Exercise

- Inst.** Ed, therapy of exercise, 'Jour. Adv. Therapeut.' Director athletics, Pittsburgh Athletic Ass; director physical training, Pittsburgh pub. schools, 12-13. A.A; fel. Am. Med. Ass; Physical Educ. Ass. (pres, 01-03); Soc. Col. Gym. Directors (sec'y, 98-02, pres, 03). Effect of marathon running.
- Saville, C(aleb) M(ills)**, Pilgurd Building, Hartford, Conn. *Hydraulic engineering*. Melrose, Mass, May 27, 65. A.B, Harvard, 89. Div. engineer, Metropolitan Water Board, Mass, 95-05; engineer in charge third div, Isthmian Canal Commission, 07-12; *manager and chief engineer, Hartford Water Works, 12-* Norman medal, Civil Eng, 14; Brackett medal, New Eng. Water Works Ass, 15. Civil Eng. (pres, Conn. sect, 19); Water Works Ass; New Eng. Water Works Ass. (pres, 16); Boston Soc. Civil Eng. Water supply; dam construction; foundation of Gatun Dam; hydrology of Chagres River and the water supply of the Panama Canal; geology; hydraulics of foundations.
- Saville, Prof. Marshall H(oward)**, Columbia University, New York, N. Y. **American archeology*. Rockport, Mass, June 24, 67. Peabody Museum, Harvard, 89-94, fellow, 91-93; Sc.D, San Marcos (Peru), 24. Asst, Peabody Museum, Harvard, 89-94; asst. curator anthrop, Am. Museum Nat. Hist, 94-02, curator Mex. and Cent. Am. archeol, 02-05, hon. curator, 07-10; *prof. Am. archeol, Columbia, 03-* Staff, Museum Am. Indian, 18- Officier d'Acad, 01. Gen. sec'y, Int. Cong. Americanists, 02. A.A. (sec'y, H, 98, v. pres, 04); fel. Ethnol. Soc. (cor. sec'y, 99, v. pres, 03, rec. sec'y, 05-10, v. pres, 10-12); Anthropol. Ass. (pres, 27-); Antiq. Soc; Hispanic Soc; Explorers Club (v. pres, 07-12); Boston Soc. Nat. Hist; Wash. Anthropol. Soc; Soc. d'Anthropol. de Paris; Paris Soc. des Américanistes; Swedish Soc. Anthropol. and Geog; cor. mem. Soc. Cient. Ant. Alz; Soc. Mex. de Geog. y Estadística; Acad. Nac. de Hist, Ecuador; Soc. Geog. de Lima; hon. mem. Inst. Hist. del Peru; Madrid Royal Acad. Hist. Archeology of Mexico, Central America and South America; ruins of southern Mexico; the antiquities of Mexico, Central America, Ecuador, Colombia and Peru.
- Saville, Prof. Thorndike**, Box 352, Chapel Hill, N. C. *Engineering*. Malden, Mass, Oct. 3, '92. A.B, Harvard, 14, M.S, 17, Sheldon traveling fellow, England and France, 19; B.S, Dartmouth, 14, C.E, 15; M.S, Mass. Inst. Tech, 17. Asst. physics and surveying, Dartmouth, 15-16; geol. and eng, Harvard, 16-17; assoc. prof. and *prof. hydraulic and sanit. eng, North Carolina, 19-* Chief hydraulic engineer, N. C. Dept. Conservation and Develop, 20-; consulting engineer, Int. Health Board, Rockefeller Foundation, Venezuela, 26-27. Lieut, U.S.A, 17-19. Civil Eng. (sec'y, N. C. sect, 22-); Water Works Ass. (sec'y, N. C. sect, 21-); fel. Pub. Health Ass; New Eng. Water Works Ass; Boston Soc. Civil Eng. Nature and removal of color in water; filter sands; flood characteristics of North Carolina streams; rainfall in North Carolina; corrosion from filtered water.
- Sawtelle, W(illiam) O(tis)**, Box 398, Haverford, Pa. *Physics*. Bangor, Maine, July 7, 74. Maine, 92-93; B.S, Mass. Inst. Tech, 99; A.M, Harvard, 07. Instr, high sch, Maine, 99-00, director math, 00-03; instr. physics, Mass. Inst. Tech, 03-05; asst, Harvard, 12-13; instr, Haverford, 13-15, asst. prof, 15-18. Exam. board, U. S. Naval Acad, Third Cong. Dist, Maine, 02. Acting prof, Swarthmore, 17-18; Haverford, 18-19; asst. physicist, Bur. Standards, 18. A.A; Franklin Inst. (science and arts committee). Electrolysis of certain cyanid solutions; electrical resistance of thin films; electrical oscillations; spark discharge; ultraviolet light; spectrum of oscillatory sparks.
- Sawyer, C(harles) B(aldwin)**, 2345 Bellfield Ave, Cleveland, Ohio. *Physics, Metallurgy*. Cleveland, July 15, 94. A.B, Yale, 15; Ph.D, Mass. Inst. Tech, 21. Instr, Mass. Inst. Tech, 17-19; *assoc, Brush Laboratories Co, 21-* Min. and Metal. Eng; Soc. Steel Treat; British Inst. Metals. Physics; nitrogen in steel.
- Sawyer, Col. D(onald) H(ubbard)**, 1150 Munsey Building, Washington, D. C. *Civil engineering*. Mt. Pulaski, Ill, Aug. 26, 78. B.S, Illinois, 02. Draftsman and asst, Alvord and Shields, Ill, 97-98; supervisor eng, Johnson City, Tenn, Home for Disabled Volunteer Soldiers, 02-03; city engineer, Paris, Ill, 03-04; chief engineer, Ill. Traction System, 04-08; mem. firm, Sawyer Brothers, Wash, 08-17; engineer, James Stewart Co, N. Y, 19-22; Frank N. Gobel, Inc, 22-23; *sec'y, Associated Gen. Contractors of Amer, Washington, D. C, 23-* Summers, asst, Iowa Eng. Co, 00, draftsman, Ozark and Cherokee Cent. Ry, 01; with Alexander Potter, N. Y. and N. J, 02. Major and lieut. col, Q.C, 17-19, col, Q.R.C, 21- Civil Eng. (director).
- Sawyer, E(dmund) J(oseph)**, Yellowstone National Park, Wyo. *Natural history*. Detroit, Mich, March 1, 80. Pub. schools. Councilor art and bird study, Yellowstone Park Forest and Trail Camp, 22-24; *park naturalist, Yellowstone Nat. Park, 24-* Ed, 'Seeing and Knowing' dept, 'Guide to Nature Mag'; ed. and illustrator, 'Nature Notes from Yellowstone Park'; natural history illustrator, books and magazines. Hon. cor. mem, Agassiz Ass; Ornith. Union; Wilson Ornith. Club; Cooper Ornith. Club; Soc. Mammal; Am. Inst. Park Executives (committee on preservation of wild life, 25); Watertown Bird Club (hon. pres, 16). Drumming of the ruffed grouse; land birds of northern New York.
- Sawyer, Prof. M(ary) Louise**, Wellesley College, Wellesley, Mass. *Botany*. Lake Geneva, Wis, Sept. 1, 76. B.S, Beloit, 02; M.S, Chicago, 15, Ph.D, 22. Teacher, high sch, Ill, 05-12; instr. bot, Beloit, 13-17; Grinnell, 17-19; asst. prof, Knox, 19-22; *asst. prof, Wellesley, 22-* Teaching fellow, Chicago, 21-22. A.A; Bot. Soc. Morphological botany; spermatogenesis; hybridization.
- Sawyer, Prof. Ralph A(lanson)**, University of Michigan, Ann Arbor, Mich. *Physics*. Atkinson, N. H, Jan. 5, 95. A.B, Dartmouth, 15; Ph.D, Chicago, 19. Asst. physics, Chicago, 17-18; instr, Michigan, 19-22, *asst. prof, 22-* Guggenheim Mem. fellow, 26-27. Ensign, U.S.N.R.F,

- 18-19. Fel. Physical Soc; Astron. Soc. Spectroscopy of the extreme ultraviolet spark spectra.
- Sawyer, Dr. W(ilbur) A(ugustus)**, International Health Board, Rockefeller Foundation, 61 Broadway, New York, N. Y. *Public health*. Appleton, Wis, Aug. 7, 79. A.B, Harvard, 02, M.D, 06. Intern, Mass. Gen. Hosp, 06-08; med. examiner, California, 08-11; director hygienic lab, Calif. State Board Health, 10-15, sec'y and exec. officer, 15-18; lecturer hygiene and prev. med, California, 14-16, clin. prof, 16-19; senior state director, *Int. Health Board, Rockefeller Foundation*, 19-23, asst. regional director for the East, 23-24, *director pub. health lab. service*, 24- Major, M.C. 18-19. Fel. Pub. Health Ass; Soc. Trop. Med; Soc. Parasitol. Public health administration; tropical hygiene.
- Sawyer, W(illiam) H(ayes), Jr**, 138 Nichols St, Lewiston, Maine. *Botany*. Limington, Maine, Feb. 4, 92. A.B, Bates, 13; A.M, Cornell, 16. *Instr. biol*, Bates, 13-15, 16- Bacteriologist and clin. pathologist, base lab, A.E.F, Marseilles, 18-19. A.A; Bot. Soc; Micros. Soc. Mycology; embryology of Basidiomycetes.
- Sax, Dr. Karl**, Maine Agricultural Experiment Station, Orono, Maine. *Botany*. Spokane, Wash, Nov. 2, 92. B.S, Wash. Col, 16; M.S, Harvard, 17, Sc.D, 22. *Instr. genetics*, California, 19; plant breeder, Geneva, Ill, 19-20; *biologist in charge plant breeding, Maine Exp. Sta*, 20-Bot. Soc; Soc. Nat. Genetics; cytology.
- Sax, Mrs. Karl (Dr. Hally Jolivette)**, Maine Agricultural Experiment Station, Orono, Maine. *Botany*. La Crosse, Wis. A.B, Wisconsin, 06, A.M, 09; Ph.D, Stanford, 12. Asst. bot, Wisconsin, 07-10; Stanford, 10-12; instr, Wash. Col, 12-14; sci. asst. plant path, bur. plant indust, U. S. Dept. Agr, 14-15; instr. bot, Wellesley, 16-18. A.A; Wis. Acad. Cytology and physiology of fungi.
- Saxer, Prof. Arthur H(erbert)**, Utah Agricultural College, Logan, Utah. *Physics*. Wausau, Wis, Aug. 20, 80. B.S, Utah Col, 10; M.S, California, 12, Whiting fellow, 12-13, Ph.D, 15. *Instr. physics, Utah Col*, 10-11, *prof. math*, 13-, *dean basic arts and science*, 21-, director sch. home econ. Math. Ass. The constitution of matter.
- Saxton, Prof. Blair**, 24 W. Elm St, New Haven, Conn. *Physical chemistry*. Huron, S. Dak, Nov. 4, 90. A.B, Wabash, 12; Ph.D, Yale, 15. *Instr. chem, Yale*, 15-18, *asst. prof*, 19- Chemist, U. S. Bur. Mines and C.W.S, 19. Co-operating expert, *Int. Critical Tables*, 24- Chem. Soc. Inorganic and organic hydrogels; solid solutions; solubility; boiling and freezing points of solutions.
- Saxton, Dr. Lynn M(ateer)**, College of the City of New York, New York, N. Y. *Economics, Mathematics*. Mechanicsburg, Pa, Dec. 4, 74. B.S, Lafayette, 97, M.S, 00; Pd.M, N. Y. Univ, 08, Pd.D, 09; C.P.A, 21. *Instr. math*, Bles Mil. Acad, 00-02; prin, high sch, Pa, 02-03; *instr. math, Col. City of N. Y*, 03-12, *asst. prof. accounting and business finance*, 12, *assoc. prof. econ.* Accounting; auditing.
- Saxton, Prof. Ren G(eorge)**, Oklahoma Agricultural and Mechanical College, Stillwater, Okla. *Civil engineering*. Berlin, Wis, 86. B.S, Wisconsin, 09, C.E, 15; M.S, Iowa Col, 24. Practising engineer, ry. and highway, 09-13; instr. and asst. prof. civil eng, Mich. State Col, 13-23; *prof, Okla. Agr. and Mech. Col*, 23-Summers, highway experimentation, Iowa Col, 23-25; consulting engineer. Soc. Eng; Ass. Eng; Eng. Educ. Highway engineering; rolling friction; wind resistance; temperature effects; hard and soft auto casings.
- Sayers, Dr. R(oyd) R(ay)**, U. S. Bureau of Mines, Washington, D. C. *Preventive medicine*. Crothersville, Ind. A.B, A.M, Indiana; M.D, Buffalo, 14. Chief chemist, Gould Storage Battery Co, 07-10; prof. electro-chem. and physical chem, Buffalo, 10-12; *surgeon, U. S. Pub. Health Service*, 14-, *chief surgeon, U. S. Bur. Mines*. Lecturer, Pittsburgh, 25-27. Am. Med. Ass; Pub. Health Ass; Ass. Mil. Surg; Min. and Metal. Eng. Poisoning from gases in mining and other industries; use of synthetic atmosphere for prevention of caisson disease; silicosis and other diseases occurring among miners; lead poisoning; abnormal temperatures and humidities with reference to their physiological effects.
- Sayles, R(obert) W(ilcox)**, University Museum, Cambridge, Mass. *Geology*. Pawtucket, R. I, Jan. 29, 78. A.B, Harvard, 01. *Curator exhib. collections, geol. sect, museum, Harvard*, 07-, *trustee, Children's Museum*; v. pres. and sec'y, Baltic Mills Co. A.A; fel. Geol. Soc; Seismol. Soc; Meteor. Soc; Am. Geog. Soc; Acad. Polit. Sci; Am. Acad; Boston Soc. Nat. Hist. General and Pleistocene geology; seasonal deposition in glacial and other deposits; Permian tillite in the Boston basin; seasonal banding in slates; glacial control theory for the origin of Bermuda.
- Sayre, Prof. Charles B(ovett)**, N. Y. Agricultural Experiment Station, Geneva, N. Y. *Horticulture*. Chicago, Ill, Jan. 3, 91. B.S, Illinois, 13, M.S, 24. Asst. olericulture, Illinois, 13-14; asst. prof. veg. gardening, Purdue, 14-17; olericulture, Illinois, 20-25; *assoc. hort*, N. Y. *Exp. Sta, Geneva*, 25- Soc. Hort. Sci. Commercial onion growing; rhubarb forcing; morphology of celery in relation to quality.
- Sayre, Dr. J(asper) D(ean)**, 617 Spink St, Wooster, Ohio. *Botany*. Townville, Pa, May 19, 93. A.B, Ohio State, 17, A.M, 20, Ph.D, 22. Asst. bot, *Ohio State*, 16-20, instr, 20-25, *asst. prof*, 25-, *asst. pathologist, Ohio Exp. Sta*, 26-Summers, asst, Katmia expeditions, 17-20. Bot. Soc; Ecol. Soc; Ohio Acad. Plant physiology; microchemistry; physiology of Stomata.
- Sayre, Prof. M(ortimer) F(reeman)**, Union College, Schenectady, N. Y. *Mechanical engineering*. Newark, N. J, July 14, 85. E.M, Columbia, 07, A.M, 12. Eng. work, 07-10, 11-14; instr, asst. prof. and *assoc. prof. applied mech, Union (N. Y.)*, 14- Mech. Eng; Min. Eng; Soc. Test. Mat; Soc. Steel Treat; Eng. Educ; British Inst. Metals. Corrosion; aluminum alloys; stresses in vibrating bodies; busbars; springs.
- Scacciaferro, Prof. S(alvator) J(ohn)**, 506 Highland Ave, Clifton, N. J. *Sanitary engi-*

- neering. C.E., Cornell, 21. *Prof. sanit. eng., Manhattan Col.* Consulting engineer. A.A.; Civil Eng.; Pub. Health Ass; Royal Sanit. Inst; Ital. Soc. Eng. Biochemical oxygen demand of sewage; treatment of trade wastes; oxygen consumed test for sewage.
- Scales, F(reeman) M(ontague)**, 27 Overlook St, Mount Vernon, N. J. *Bacteriology.* Hoboken, N. J., June 20, 85. Mass. Inst. Tech; George Washington. Chemist and bacteriologist, Louisville Water Co; bacteriologist and mycologist, bur. plant indust, U. S. Dept. Agr; biochemist in charge yeast culture research, Fleischmann Research Laboratories; *consulting biochemist.* A.A.; Chem. Soc; Soc. Bact; Soc. Agron. Cellulose destroying bacteria and fungi; dissolving and precipitation of cellulose; determination of reducing sugars and nitric nitrogen; larvacides; morphological variation and differential staining of bacteria; Tyndallmeter reading of soil dispersoids; yeast culture in cane molasses; wheat and sour rye breads.
- Scammell, H(arold) B(esnard)**, Toms River, N. J. *Entomology.* Brooklyn, N. Y., Oct. 7, 85. B.S., Colo. Agr. Col, 10. Asst. to state entomologist, Minnesota, 11-12; asst, bur. entom, U. S. Dept. Agr, 12-18. Ass. Econ. Entom. Deciduous fruit insects; cranberry industry.
- Scammon, Prof. Richard E(veringham)**, University of Minnesota, Minneapolis, Minn. **Anatomy.* Kansas City, Mo, July 9, 83. A.B., Kansas, 04, A.M., 06; Ph.D., Harvard, 09. Asst. zool, Kansas, 05-06, instr, 06-07; Austin teaching fellow comp. anat, Harvard Med. Sch, 07-09, instr. histol. and embryol, 09-10; asst. prof. anat, Kansas, 10-11; *Minnesota*, 11-13, assoc. prof, 13-14, *prof*, 14-, acting director, 23-24. A.A.; Ass. Anat; Soc. Exp. Biol; Physiol. Soc; Statist. Ass; Math. Ass. Embryology of selachians; development of liver and pancreas; anatomy of fetus and child; growth of man; graphic methods applied to study of growth and form.
- Scarborough, Dr. J(ames) B(laine)**, Annapolis, Md. *Mathematics, Mathematical physics.* Mt. Gilead, N. C., June 22, 85. A.B., North Carolina, 13, fellow, 13-14, A.M., 14; Ph.D., Hopkins, 23. Asst. physics, North Carolina, 12-13; instr. math, N. C. State, 14-18; *U. S. Naval Acad*, 18-21, *asst. prof*, 21- A.A.; Math. Soc; Math. Ass. Hydrodynamics; aerodynamics; numerical mathematics.
- Scarborough, Dr. Marvin McRae**, New Haven, Conn. *Medicine.* Creswell, Oregon, Sept. 10, 78. A.B., Oregon, 02; A.M., Yale, 05, M.D., 07. Instr. biol, Oregon, 02-03; pharmacol, Yale, 08-12, therapeut, 12-19, lecturer med. juris, 14-22; *med. examiner for New Haven*, 10- Pathologist, Grace Hosp, New Haven, 16-22, attending physician, 17- A.A. Internal medicine.
- Scarlett, Prof. A(ndrew) J(ackson), Jr**, Balch St, Hanover, N. H. *Physical chemistry.* West Boylston, Mass, March 17, 89. A.B., Dartmouth, 10; A.M., Columbia, 14, Ph.D., 17. Instr. chem, Dartmouth, 11-13; asst, Columbia, 14-17; instr, Dartmouth, 17-18, asst. prof, 18-25, *prof*, 25- Chem. Soc. Surface tension of mixed liquids.
- Scarth, Prof. G(eorge) W(illiam)**, McGill University, Montreal, Que, Can. *Botany.* Orkney, Scotland, 81. M.A., Edinburgh, 03. Asst. bot, Edinburgh, 07-11; *lecturer and asst. prof, McGill*, 20- A.A. Cell physiology; action of electrolytes on contraction, viscosity, adhesiveness, permeability of protoplasm, and on elasticity of gelatine; physiology of Stomata.
- Scatchard, Prof. George**, Massachusetts Institute of Technology, Cambridge, Mass. *Chemistry.* Oneonta, N. Y., March 19, 92. A.B., Amherst, 13; fellow, Columbia, 15-16, Ph.D., 17. Asst. chem, Columbia, 14-15, research asst, 16-17; assoc. prof, Amherst, 19-23; Nat. Research Council fellow, *Mass. Inst. Tech*, 23-24, asst. prof, 24-26, *assoc. prof*, 26- Lieut, Sanit.C, 17-19. A.A.; Chem. Soc. Organic and physical chemistry; synthesis of quinazolins; war gases; physical properties of mixtures of optically active components; reaction rate in solutions; mixtures of non-electrolytes; electrolytes in solution; liquid junction potentials.
- Scattergood, E(zra) F(rederick)**, Department of Water and Power, 207 S. Broadway, Los Angeles, Calif. *Electrical engineering.* Burlington Co, N. J., April 9, 71. B.S., Rutgers, 93, M.S., 96; fellow, Cornell, M.M.E., 99. Instr, Rutgers, 95-98; prof. elec. eng, Ga. Tech, 99-01; elec. engineer, Calif, 01-09; *chief elec. engineer, and gen. manager bur. power and light, dept. water and power, Los Angeles*, 09- Lecturer, Stanford, 26- Elec. Eng; Seismol. Soc.
- Schaak, Dr. Milton Franklin**, 520 N. Eighth St, Lebanon, Pa. *Chemistry.* Lebanon, April 13, 67. Ph.G., Phila. Col. Pharmacy, 91; Ph.D., Strassburg, 97. Indust. chemist in charge control and research lab, Charles Pfizer and Co, 98-14; *consulting chemist*, 14- A.A.; Chem. Soc; Pharmaceut. Ass. Unsaturated aliphatic acids and lactones; boric acid determination; citric acid; citrus by-products.
- Schaeffer, Prof. Asa A(rthur)**, University of Kansas, Lawrence, Kans. **Zoology, Physiology.* Kunkletown, Pa, May 9, 83. A.B., Franklin and Marshall, 04; fellow, Hopkins, 08-09, Ph.D., 09. Instr. zool, Tennessee, 09-10, asst. prof, 10-13, assoc. prof, 13-17, *prof*, 17-23; biol, Clark, 23-24; *zool, Kansas*, 24- Summers, instr, marine biol. lab, Brooklyn Inst, 08-12. A.A.; Soc. Zool; Tenn. Acad. Feeding habits of Stentor, Paramecium and amoeba; spiral movements in organisms.
- Schaeffer, Charles (Frederic August)**, Museum of the Brooklyn Institute of Arts and Sciences, Brooklyn, N. Y. *Entomology.* London, Eng, July 12, 60. Germany, 76. Asst, dept. entom, Am. Museum Nat. Hist, 98-02; asst. curator, *dept. entom, Brooklyn Inst. Museum*, 02-05, *assoc. curator*, 05- N. Y. Entom. Soc. (recording sec'y, 99-01, librarian, 01-11, ed, 'Jour,' 15-18); Brooklyn Entom. Soc. Coleoptera of the United States.
- Schaeffer, Elmer Raymond**, Johns-Manville Corporation, Madison Ave. and 41st St, New York, N. Y. *Physics.* Greenville, Ohio, 85. A.B., Harvard, 13, Bayard Cutting fellow, 19-20. Asst. physics, Jefferson Physical Lab, Harvard, 17-18,

- instr. 18-19, asst. director, 17-19, instr. physics, Harvard, 20-24; *director research, Johns-Manville Corp.*, 24- Ultraviolet region of spectrum; energy measurements; evaporator losses.
- Schaeffer, Prof. J(acob) Parsons**, Jefferson Medical College, Philadelphia, Pa. *Anatomy, Embryology.* Shamokin Dam, Pa, Aug. 20, 78. Cent. Pa. Col, 97; B.E, Keystone Nor, 01, M.E, 03; M.D, Pennsylvania, 07; A.M, Cornell, 09, Ph.D, 10; hon. A.M, Yale, 13; hon. Sc.D, Susquehanna, 25. Prin. pub. schools, Pa, 01-03; demonstrator med. anat, Cornell, 07-08, instr. 08-10, asst. prof. 10-11; anat, Yale, 11-12, prof. 12-14; *prof. anat. and director, Daniel Baugh Inst., Jefferson Med. Col.*, 14- A.A; Ass. Anat; Am. Med. Ass; cor. fel. Laryngol. Ass; Genetic Ass; Philos. Soc; Phila. Col. Physicians; Phila. Acad. The human nose; the olfactory organ; paranasal sinuses and nasolacrimal passageways in man; nasofrontal region; elastic tissue; ductus arteriosus; obliteration of bloodvessels; lacrimal apparatus; the visual pathway; the hypophysis cerebri; ligature of bloodvessels; intravascular clotting; respiratory system.
- Schafer, Prof. E(dwin) G(eorge)**, State College of Washington, Pullman, Wash. *Agronomy.* Jewell, Kans, Feb. 18, 84. B.S, Kansas Col, 07; M.S, Illinois, 10. Asst. agron, Kansas Col, 07-09, instr. farm crops, 10-13; *prof. and head dept. farm crops, Wash. Col. and agronomist, Exp. Sta.*, 13- A.A; Soc. Agron. Farm crops; crop improvement and rotation.
- Schaffner, Prof. John H(enry)**, Ohio State University, Columbus, Ohio. **Botany.* Agosta, Ohio, July 8, 66. A.B, Baker, 93, M.S, 96; A.M, Michigan, 94; Chicago, 96-97; Zurich, 07-08. Asst. bot, Michigan, 94-95; prof. nat. science, South Dakota, 95-96; asst. bot, Ohio State, 97-99, asst. prof, 99-02, assoc. prof, 02-11, *prof.*, 11-, in charge bot. dept, 08-18. Ed, 'Ohio Naturalist,' and 'Ohio Jour. Science,' 00-18. A.A; Bot. Soc; Ecol. Soc; Fern Soc; Genetic Ass; Ohio Acad. (v. pres, 08, pres, 09); Kans. Acad. Plant cytology; life histories of various angiosperms; flora and ecology of Ohio and Kansas; taxonomy; nature of sex; phylogeny of plants; environmental control of sex; reduction division; equisetaceae; flora of Ohio.
- Schaller, Dr. Waldemar T(heodore)**, U. S. Geological Survey, Washington, D. C. **Mineralogy.* Oakland, Calif, Aug. 3, 82. B.S, California, 03; Ph.D, Munich, 12. *Chemist and geologist, div. chem. and physical research, U. S. Geol. Surv.*, 03- A.A; Miner. Soc; Chem. Soc; Geol. Soc; Am. Acad; Wash. Geol. Soc; Wash. Acad; Miner. Soc. Gt. Britain and Ireland; Miner. Gesell; Wien. Miner. Gesell; Soc. miner. de France. Chemical, crystallographical and optical mineralogy; petrography.
- Schaus, Dr. William**, U. S. National Museum, Washington, D. C. *Entomology.* New York, N. Y, Jan. 11, 59. A.M, 21; Sc.D, 25. Hon. asst. curator div. insects, U. S. Nat. Museum; *specialist in Lepidoptera, bur. entom.*, U. S. Dept. Agr. Wash. Entom. Soc; Wash. Biol. Soc; cor. mem. Phila. Entom. Soc; cor. Phila. Acad; fel. London Entom. Soc; fel. London
- Zool. Soc; life mem. Soc. entom. de France; hon. mem. Soc. Entom. de Brazil. Lepidoptera of the world.
- Schear, Prof. E(dward) W(aldo) E(merson)**, 107 W. Park St, Westerville, Ohio. *Biology.* New Philadelphia, Ohio, Oct. 31, 80. A.B, Otterbein, 07; A.M, Columbia, 15. Prof. nat. science, Westfield, 07-11, pres, 11-12; *prof. biol.*, Otterbein, 12- A.A; Ornith. Union; Soc. Mammal; Entom. Soc; Micros. Soc; Ohio Acad. Hereditary relations of reaction time; influence of cocaine and temperature changes on blood sugar; self and cross pollination.
- Scheffel, Prof. Earl R(ead)**, West Virginia University, Morgantown, W. Va. *Economic geology.* Dayton, Ohio, Sept. 19, 81. B.S, Denison, 07, M.S, 08; Chicago. Instr. geol, Lawrence Col, 08-11; asst, Illinois, 11-12; private practise, 12-19; asst. prof. geol, West Virginia, 19-24, *assoc. prof.*, 24- A.A; Ohio Acad; W. Va. Acad. Glacial geology.
- Scheffer, Theo(philus) H.** Puyallup, Wash. *Biology.* Lamartine, Pa, Feb. 21, 67. A.B, Kansas, 95; A.M, Cornell, 03. Supt. schools, Kans, 95-02; asst. and asst. prof. zool, Kansas Col, 03-10; asst. and *assoc. biologist, U. S. Dept. Agr.*, 10- Soc. Mammal; Pacific N. W. Bird and Mammal Soc; Kans. Acad. Life histories of moles and burrowing rodents; classification of Arachnids.
- Scheidenhelm, F(rederick) W(illiam)**, 50 Church St, New York, N. Y. *Hydraulic engineering.* Mendota, Ill, June 16, 84. A.B, Cornell, 05, C.E, 06. Structural and hydraulic engineer, private companies, 06-14; *consulting engineer*, 14-16; *Daniel W. Mead and F. W. Scheidenhelm*, 16- Fuertes gold medal, Cornell, 17; Rowland prize, Soc. Civil Eng, 18. Lieut. col, U.S.A., 17-19. Civil Eng. (chairman, power div, 26). Hydraulic construction; dams; foundations for dams.
- Schenck, Hubert G(regory)**, 580 Addison Ave, Palo Alto, Calif. *Paleontology.* Memphis, Tenn, Sept. 24, 97. A.B, Oregon, 22, A.M, 23; Ph.D, California, 26. Geol. asst, div. mines, Bur. Science, P. I., 20-21; *assoc. paleont.*, California, 23-24; *instr. geol., Stanford*, 24-27, *asst. prof.*, 27- Stratigraphy; geologic reconnaissance; micropaleontology; molluscan paleontology.
- Scherago, Dr. Morris**, University of Kentucky, Lexington, Ky. *Bacteriology.* Roman, Roumania, Dec. 25, 95. B.S, Cornell, 17, D.V.M, 19. Asst. path. and bacter, N. Y. State Vet. Col, Cornell, 18-19; *instr. bacter., Kentucky*, 19-20, asst. prof. and acting head dept, 20-22, *assoc. prof.*, 22-24, *prof.*, 24-, *head dept.*, 22-Summers, lab. asst, U. S. Pub. Health Service, 18, bacteriologist, Life Exten. Inst, 19, div. laboratories and research, N. Y. State Dept. Health, 20. A.A; Soc. Bact; Vet. Med. Ass; Ky. Vet. Med. Ass; Ky. Acad. Poultry diseases; food bacteriology; immunology; trans-formation of the intestinal flora.
- Scherer, Dr. Philip C(arl), Jr.**, Denison University, Granville, Ohio. *Organic chemistry.* Brooklyn, N. Y, June 21, 93. Ph.B, Brown, 15, M.S, 23, du Pont fellow, 23-24, Metcalf

- fellow, 24-25, Ph.D, 25. Teacher, N. Y. Mil. Acad, 16-17, 20-22; asst. *physical and org. chem.*, Brown, 22-24; *instr.*, Denison, 25- Anal. chemist, Stillwell and Gladding, New York, 15-16; research chemist, Century Color Corp, N. J., 17-18; night supt, Zobel Color Co, Brooklyn, 19-20. Sergt, C.W.S., 18-19. Chem. Soc. Benzylpseudothiourea salts of naphthalene sulfonic acids; reactions of phenyl tin compounds, ketones and aldehydes in liquid ammonia.
- Schereschewsky, Dr. Joseph William**, 87 School St, Belmont, Mass. *Medicine*. Peking, China, March 6, 73. A.B, Harvard, 95; M.D, Dartmouth, 99. Asst. surgeon, U. S. Pub. Health Service, 99-04, past asst. surgeon, 04-12, surgeon, 12-15, asst. surgeon gen, 18-22; *assoc. prev. med. and hygiene*, Harvard *Med. Sch.*, 22- Assoc. ed, 'Jour. Indust. Hygiene,' Exec. committee, 15th Int. Cong. Hygiene and Demog. Am. Med. Ass; Pub. Health Ass. (chairman, sect. indust. hygiene, 19); Ass. Indust. Physicians and Surg. (pres, 16); Wash. Acad. Industrial hygiene and medicine; infant mortality; occupational diseases; hygiene of illumination; cancer.
- Schermerhorn, Lyman G(ibbs)**, 109 N. Sixth Ave, Highland Park, New Brunswick, N. J. *Horticulture*. Malden, Mass, June 28, 87. B.S, Mass. Col, 10. Asst. prof. hort, Mont. Col, 10-14; veg. gardening, N. J. State Col, Rutgers and Exp. Sta, 14-20, assoc. prof. and olericulturist, 20-25, *prof. veg. gardening*, 25- Vegetable crops.
- Schertz, Dr. F(rank) M(ilton)**, U. S. Department of Agriculture, Washington, D. C. *Biochemistry*. Stanford, Ill, Jan. 8, 89. B.S, Nebr. Wesleyan, 14; fellow, Northwestern, 14-15, A.M, 15; Ph.D, Chicago, 18. Asst. bot, Nebr. Wesleyan, 11-14; instr, Northwestern, 15-17; *biochemist, bur. plant indust, U. S. Dept. Agr.*, 19- C.W.S., 18-19. A.A; Chem. Soc; Bot. Soc. Soil fertility; plant morphology and chemistry; chloroplast pigments.
- Schiedt, Dr. R(ichard) C(onrad Francis)**, 1043 Wheatland Ave, Lancaster, Pa. *Biology, Geology*. Weissenfels, Germany, Sept. 21, 59. Erlangen, 78-80; Berlin, 81; Ph.D, Pennsylvania, 99; hon. Sc.D, Franklin and Marshall, 10. Instr. sciences, Calvin Col, Ohio, 81-82; prin, Int. Acad, Oregon, 82-85; prof. nat. sciences and chem, Franklin and Marshall, 87-00, biol. and geol, 00-18; temporary prof. comp. anat, Tennessee, 19; *research chemist, Armstrong Cork Co*, 24- Entomologist, Pa. State Board Agr, 93-00. A.A; Soc. Zool. Pigmentation in animal tissue; regeneration and sex of Ostrea; causes of pigmentation.
- Schiffelin, Dr. William Jay**, 620 Park Ave, New York, N. Y. *Chemistry*. New York, April 14, 66. Ph.B, Columbia, 87; Ph.D, Munich, 89. V. pres, *Schiffelin and Co*, 03-06, pres, 06- V. pres, N. Y. Col. Pharmacy. Int. Cong. Applied Chem, London, 09. A.A; Chem. Soc; Soc. Chem. Indust. (v. pres); life mem. London Chem. Soc. Chemicals used in medicine and their manufacture.
- Schierz, Dr. E(rnest) R(udolf)**, The Sprucellyn, Laramie, Wyo. *Organic chemistry*. Milwau-
- kee, Wis, March 9, 94. B.S, Wisconsin, 16, M.S, 17, Ph.D, 22. Instr. chem, Pittsburgh, 17-19; Wisconsin, 19-22; asst. research chemist, Exp. Sta, Wyoming, 22-24, *in charge dept. org. chem.*, 24- Lieut, C.W.S. Chem. Soc. Decomposition of formic acid in acetic anhydride solution and in sulfuric acid.
- Schlapp, Dr. M(ax) G(ustave)**, 121 E. 60th St, New York, N. Y. *Pathology*. Fort Madison, Iowa, Nov. 4, 69. Bellevue Med. Col, 89-90; Cornell, 91-92; Heidelberg, 93-94; M.D, Berlin, 96. Instr. histol. and path. of nervous system, Cornell, 00-10; *prof. neuropath.*, N. Y. *Post-Grad. Med. Sch.* Ass. Path. and Bact; Neur. Ass; N. Y. Acad. Med; N. Y. Path. Soc. Histology and pathology of nervous system; syringomyelia; microscopic structure of cortical areas in man and mammals; ascending myelomalacia; neuroepithelioma with syringomyelia; theoretical considerations of mental deficiency; mental deficiency and criminality; causes of defective children; behavior and gland disease; Mongolism as a chemical phenomenon.
- Schlatter, Dr. Carl**, care of S. Slater and Sons, Webster, Mass. *Physical chemistry*. Winterthur, Switzerland, Aug. 31, 96. C.E, Fed. Inst. Tech, Zurich; Sc.D, Geneva. Chemist, cotton printing mills, Switzerland, 18-20; gas plant, Winterthur, 22-23; research assoc. chem, Mass. Inst. Tech, 23-26; *research engineer, S. Slater and Sons*, 26- Soc. Suisse de Chim. Compressibility; molecular weight of gases.
- Schlesinger, Dr. Frank**, Yale Observatory, New Haven, Conn. *Astronomy*. New York, N. Y., May 11, 71. B.S, Col. City of N. Y, 90; A.M, Columbia, 97, Ph.D, 98; Sc.D, Pittsburgh, 20, Cambridge, 25. Observer in charge, Int. Lat. Observatory, Ukiah, Calif, 99-03; astronomer, Yerkes Observatory, 03-05; director, Allegheny Observatory, and prof. astron, Pittsburgh, 05-20; *director, Yale Observatory*, 20- Collaborating ed, 'Astrophys. Jour.' V. pres, Int. Astron. Union. Valz prize, French Acad, 26; gold medal, Royal Astron. Soc, 27. Nat. Acad; A.A. (past v. pres, A); Astron. Soc. (past pres); Philos. Soc; hon. mem. Royal Astron. Soc. Can; for. assoc. Royal Astron. Soc; hon. mem. Soc. degli Spettroscop. Ital; Astron. Gesell. Stellar parallax; reduction of astronomical photographs; variation of latitude; motion in the line of sight; solar rotation; spectroscopic binaries; determination of star places by photography.
- Schlesinger, Prof. H(ermann) I(rving)**, University of Chicago, Chicago, Ill. *Chemistry*. Minneapolis, Minn, Oct. 11, 82. B.S, Chicago, 03, Ph.D, 05; Berlin and Strassburg, 05-07. Asst. physiol. chem, Hopkins, 07; assoc. chem, Chicago, 07-10, instr, 10-11, asst. prof, 11-17, assoc. prof, 17-22, *prof. and sec'y dept.*, 22- Cooperating expert, Int. Critical Tables. A.A; Chem. Soc. (asst. ed, 'Chem. Abstracts'). Inorganic and physical chemistry; behavior of electrolytes in anhydrous formic acid solution; agreement of some strong electrolytes with the mass law; manganates and permanganates; inorganic sulphur compounds; application of absorption spectra to inorganic chemistry; complex fluorides of plati-

num group metals; complex chromium compounds; equilibrium relations in complex ions; nitroso sulfonic acid; complex salts containing nitric oxide.

von Schlichten, Prof. Otto Charles, University of Cincinnati, Cincinnati, Ohio. *Geology*. Cincinnati, July 19, 86. A.B., Cincinnati, 11; Wisconsin, 12-13. Instr. geol. and German, Cincinnati, 11-12; geologist, Mo. Bur. Geol. and Mines, 13-15; instr. geol., Cincinnati, 15-16; Lehigh, 16-17; *asst. prof. geol. and miner.* Cincinnati, 17-Abstractor, 'Jour. Miner. Soc'; 'Jour. Chem. Soc.' Mineralogy; nickel; cobalt.

Schlink, F(rederick) J(ohn), American Engineering Standards Committee, 29 W. 39th St, New York, N. Y. *Physics*, *Mechanical engineering*. Peoria, Ill., Oct. 26, 91. B.S., Illinois, 12, M.E., 17. Asst. mech. engineer, 12-13; lab. asst., asst. physicist, assoc. physicist and tech. asst. to director, Bur. Standards, 13-19; physicist in charge instruments control dept., Firestone Tire and Rubber Co., Ohio, 19-20; mech. engineer and physicist, West. Elec. Co., 20-22; *asst. sec'y, Am. Eng. Standards Committee*, 22- Practising engineer. Edward Longstreth medal, Franklin Inst., 19. A.A.; fel. Physical Soc; Mech. Eng. (chairman, research committee on measuring instruments, 19-24); Wash. Philos. Soc. Measuring instruments; variant and hysteretic types of error; physical methods in engineering measurements; high speed displacements; pressures; mechanical instruments; preferred numbers; industrial standards and specifications.

Schlomovitz, Dr. B(enjamin) H(erman), U. S. Hospitals National Home, Milwaukee, Wis. *Physiology*, *Internal medicine*. Milwaukee, May 18, 89. B.S., Wisconsin, 14; M.S., Iowa, 16; M.D., Rush Med. Col., 17. Instr. pharmacol., Iowa, 14-16; asst., Illinois, 16-17; instr. physiol., Marquette, 17; Wisconsin, 18-19, asst. prof. pharmacol., 19-20; prof. physiol. and director dept., Marquette, 20-22; *director clin. research lab, U. S. Hospitals Nat. Home*, 23- Am. Med. Ass; Physiol. Soc; Soc. Pharmacol; Milwaukee Acad. Med. Physiology and pharmacology of specialized tissue of the heart; gas poisoning; experimental lung edema; relative blood cell volume.

Schloss, Prof. O(scar) M., 39 E. 61st St, New York, N. Y. *Medicine*. Cincinnati, Ohio, June 20, 82. B.S., Ala. Polytech., 01; M.D., Hopkins, 05. Asst. diseases of children, Univ. and Bellevue Hosp. Med. Col., 08-12; instr. pediat., Columbia, 12-18; *prof. diseases of children*, med. col., Cornell, 18-21; Harvard Med. Sch., 21-23; *med. col., Cornell*, 23- Pediat. Soc. (ed. and recorder, 15); Soc. Clin. Invest; Ass. Immunol. Diseases of children; intestinal diseases of children; allergy; acidosis.

Schlundt, Dr. Herman, University of Missouri, Columbia, Mo. *Physical chemistry*. Two Rivers, Wis., July 16, 69. B.S., Wisconsin, 94, M.S., 96, fellow, 00-01, Ph.D., 01; Leipzig, 99-00; Cambridge, 21. Asst. chem., Wisconsin, 94-96; teacher, high sch., Wis., 96-99; instr. chem., Wisconsin, 01-02; *physical chem., Missouri*, 03-05, asst. prof., 05-07, *prof.*, 07-, *chairman dept. chem.*, 11- A.A.; Chem. Soc; Electrochem. Soc;

Wis. Acad. Dielectric constants of solvents; non-aqueous solutions; radioactivity of mineral waters; radioactivity.

Schmeisser, Dr. Harry Christian, Pathological Institute, University of Tennessee, Memphis, Tenn. *Pathology*, *Bacteriology*. Baltimore, Md., Sept. 20, 85. A.B., Hopkins, 08, M.D., 12, fellow, 12-14, Ph.D., 14; Marburg, 08; Freiburg, 10. Asst. instr. and assoc. path., sch. med., Hopkins, 12-19; prof. and director dept. path. and bacter., sch. med., Emory, 19-21; *prof. path. and bacter., chief div. and director path. inst.*, and *prof. bacter. and chief div., sch. pharmacy, Tennessee*, 21- Visiting pathologist, Grady and Wesley Mem. Hospitals, Atlanta, Ga., 19-21; chief pathologist and bacteriologist, Memphis Gen. Hosp. and visiting pathologist, Baptist Mem. Hosp., Memphis, 21- Assoc. ed., 'Memphis Med. Jour.', 24- Lieut. capt. and major, M.C., 17-19, O.R.C., 19- Ass. Path. and Bact; fel. Am. Med. Ass. Syphilis; leukemia of the fowl; Gaucher's disease; relation of fowl typhoid to leukemia of the fowl; heart block caused by gumma of the septum; miliary tubercles of the choroid; mesarteritis of the pulmonary artery.

Schmidt, Dr. Carl F(rederic), University of Pennsylvania, Philadelphia, Pa. *Pharmacology*. Lebanon, Pa., July 29, 93. A.B., Lebanon, 14; M.D., Pennsylvania, 18. Instr. *pharmacol.*, Pennsylvania, 19-22; assoc., Peking Union Med. Col., 22-24; *asst. prof., Pennsylvania*, 24- Soc. Pharmacol; Soc. Exp. Biol; Phila. Physiol. Soc. Glomerular circulation in the frog's kidney; action of drugs on respiration; action of ephedrine; relation of cerebral circulation to respiration.

Schmidt, Prof. Carl L(ouis) A(ugust), University of California, Berkeley, Calif. *Biochemistry*. S. Dak., 85. B.S., California, 08, M.S., 10, Ph.D., 16. Chemist, Metropolitan Light and Power Co., Calif., 08-09; expert chemist, referee board, U. S. Dept. Agr., 09-12; bacteriologist and chemist, Board Health, Berkeley, 13-14; asst. path., *California*, 15-18, asst. prof. chem. path., 18, *biochem.*, 18-21, assoc. prof., 21-24, *prof. and chairman dept. biochem. and pharmacol.*, 24- Chem. Soc; Soc. Exp. Biol; Soc. Biol. Chem. Metabolism; proteins and amino acids; immuno-chemistry.

Schmidt, Prof. Edward C(harles), 905 W. California Ave, Urbana, Ill. *Mechanical engineering*. Jersey City, N. J., May 14, 74. M.E., Stevens, 95. Kalbfleisch Chem. Co., Brooklyn Edison Elec. Co. and Am. Stoker Co., 95-98; instr. mech. eng., Illinois, 98-01, asst. prof. eng., 01-03; asst. engineer, Am. Hoist and Derrick Co., 03-05; engineer tests, Kerr Turbine Co., 05-06; assoc. prof. ry. eng., Illinois, 06-10, prof., 10-17; mech. engineer, The North Am. Co., 19-21; *prof. ry. eng., Illinois*, 21- Major, ordnance dept. on detached service, Fuel Ad. and Ry. Ad., 17-19. Mech. Eng; Eng. Educ; Ry. Ass; Int. Ry. Fuel Ass; West. Ry. Club. Locomotive performance; train resistance; tonnage rating.

Schmidt, Karl Patterson, Field Museum of Natural History, Chicago, Ill. *Zoology*. Lake Forest, Ill., June 19, 90. A.B., Cornell, 16. Research asst., Am. Museum Nat. Hist., 16-18, *asst. cura-*

- tor, 19-22; reptiles and amphibians, *Field Museum Nat. Hist.*, 22- Sect. ed, reptilia, 'Biol. Abstracts.' Cornell geol. exped, Santo Domingo, 16; N. Y. Acad. Sci. Surv, P. R, 19; capt, Marshall Field exped, Cent. Amer, 23; Brazilian exped, 26. Soc. Ichthyol. and Herp; Soc. Mammal; Wash. Biol. Soc; N. Y. Explorers Club. Reptiles and amphibians; zoogeography.
- Schmidt, Dr. M(aurice) R(oland)**, 1131 Lake Ave, Whiting, Ind. *Chemistry*. Baltimore, Md, Dec. 3, 85. A.B, Hopkins, 06, fellow, 08-09, Ph.D, 09. Research chemist, Sharp and Dohme, 09-11; ed. worker, 11-14; anal. and research chemist, Chas. Pfizer and Co, 14-17; research chemist, *Standard Oil Co. of Ind.*, 17-19, plant chemist, 19-22, *dept. supt.*, 23- Pharmaceutical chemistry; petroleum; lubrication.
- Schmidt, Walter A(ugust)**, 1016 W. Ninth St, Los Angeles, Calif. *Chemistry*. Los Angeles, Aug. 26, 83. B.S, California, 06. Engineer, *West. Precipitation Co.*, 08-11, *pres.* and *gen. manager*, 11-; *pres.*, *Int. Precipitation Co.*, 11- A.A; Chem. Soc; Electrochem. Soc; Chem. Eng; Elec. Eng; Min. and Metal. Eng. Electrical precipitation of suspended particles from gases.
- Schmiedel, Prof. Oscar (Robert Paul)**, Box 222, Atascadero, Calif. *Mathematics*. Gölzow, Germany, Dec. 1, 61. B.S, Bethany (W. Va), 86, A.M, 88. Prof. math, Bethany (W. Va), 86-02; Bellevue (Nebr), 05-19; Parsons, 19-20; Nebr. Wesleyan, 20-24. Math. Soc.
- Schmieder, Prof. O(scar)**, University of California, Berkeley, Calif. *Geography*. Bonn, Germany, Jan. 27, 91. Ph.D, Heidelberg, 15. Privat-docent geog, Bonn, 19-20; prof. and director miner. geol. inst, Univ. Cordoba, Argentine, 20-26; *assoc. prof. geog. California*, 26- Lecturer, California, 25. Sci. exped, Argentine and Bolivia. Cor. mem. Soc. Geog. Argentina. Regional geography of the Spanish countries.
- Schmitt, Dr. Clara**, Chamber of Commerce, Los Angeles, Calif. *Psychology*. Elderville, Ill, Aug. 3, 78. A.B, B.S, Missouri, 05; fellow, Chicago, 11, Ph.D, 14. Teacher, pub. schools, 95-02; high schools, 05-08; psychologist, juvenile court, Chicago, 10-12; asst. director dept. child study, Board Educ, Chicago, 12-26; *supervisor psychol. clinic, pub. schools, Los Angeles*, 26- Instr, Chicago, 18-26; Southern California, 27. A.A; Psychol. Ass. Child study; mental tests.
- Schmitt, Dr. Waldo L(asalle)**, U. S. National Museum, Washington, D. C. *Zoology*. Washington, June 25, 87. B.S, George Washington, 13, Ph.D, 22; A.M, California, 16. Aid econ. bot, U. S. Dept. Agr, 07-10; div. marine invertebrates, U. S. Nat. Museum, 10; sci. asst, 'Albatross', 10-13, naturalist, 14-15; *instr. zool. George Washington*, 15-; asst. curator *div. marine invertebrates, U. S. Nat. Museum*, 15-20, *curator*, 20- Bur. Fisheries exped, Lower Calif, 11; salmon investigations, Alaska, 11; biol. surv, San Francisco Bay, 12-13; halibut surv, coasts Wash, and Oregon, 14; Walter Rathbone Bacon scholar, Smithsonian Inst, 25-27. A.A; Soc. Mammal; Soc. Parasitol; Pacific Fisheries Soc; West. Soc. Nat; Wash. Biol. Soc. Fisheries; taxonomy and life history of Crustacea.
- Schmitter, Dr. Ferdinand**, 71 Second St, Troy, N. Y. *Anatomy*. Albany, N. Y, Feb. 20, 76. A.B, Union, 99; M.D, Hopkins, 03. Instr. anat, Wisconsin, 03-05; from first lieut. to col, U.S.A., 05-22; *retired*, 22. A.A. Cytology of the kidney; syphilography; medical mycology.
- Schmitz, Henry**, University of Minnesota, St. Paul, Minn. *Forestry*. Seattle, Wash, March 25, 92. B.S, Washington (Seattle), 15, M.S, 16; Ph.D, Washington (St. Louis), 19. Asst. prof. forestry, Idaho, 19-22, *assoc. prof. forest products*, 22-24, *prof.*, 24-25; *prof. and chief div. forestry, Minnesota*, 25- A.A; Soc. Foresters; Bot. Soc; Phytopath. Soc. Physiology of fungi; wood decay; forest products.
- Schmoll, Hazel M(arguerite)**, State Museum, Denver, Colo. *Botany*. McAllister, Kans, Aug. 23, 91. A.B, B.E, Colorado, 13; Mich. Biol. Sta, 13; Vassar table, Woods Hole, 14; M.S, Chicago, 19. Asst. biol, Vassar, 13-14, bot. and biol, 14-17; curator, Colo. State Bur. Mines, 20-21; asst. curator *nat. hist. State Museum, Denver*, 19-20, 21-23, *curator*, 23- Ecol. research, Colo. State Hist. and Nat. Hist. Soc, Chimney Rock, Pagosa Springs, Colo, 24, Mesa Verde Nat. Park, 25. A.A; Bot. Soc. Ecological botany; ecological survey of the forests in the vicinity of Glencoe, Illinois; ecological survey of Chimney Rock area in the Pagosa-Piedra region, Colorado.
- Schmucker, Prof. S(amuel) C(hristian)**, Rose-dale Ave, West Chester, Pa. *Biology*. Allentown, Pa, Dec. 18, 60. A.B, Muhlenberg, 82, A.M, 85, M.S, 91, Sc.D, 13; Ph.D, Pennsylvania, 93, hon. fellow, 99-00. *Prof. sciences*, Carthage, 83-84; nat. science, high sch, Pa, 84-89; *Pa. State Nor. Sch.*, Indiana, 89-95; *West Chester*, 95-24, *emer.*, 24-; *zool. Wagner Inst.*, 08- A.A; Pa. Bot. Soc; Phila. Acad. Anthropology; constitution of American people.
- Schnable, George L**, 144 N. Delaplaine Road, Riverside, Ill. *Chemistry, Physics*. Horton, Kans, March 20, 89. B.S, Northwestern, 11, M.S, 12. Instr. physics, Northwestern, 13-18; *chief process inspector, West. Elec. Co.*, 18- Chem. Soc; Physical Soc. Insulating paper; telephone cable insulation.
- Schneider, Dr. Albert**, North Pacific College, Portland, Oregon. *Bacteriology, Pharmacology, Public health*. Granville, Ill, April 13, 63. M.D, Col. Physicians and Surg, Chicago, 87; B.S, Illinois, 94; M.S, Minnesota, 94; fellow, Columbia, 94-96, Ph.D, 97. Instr. crypt. bot, Minnesota, 93, 94; lecturer bot, Brooklyn Inst, 96; prof. bot, pharmacog. and bacter. sch. pharmacy, Northwestern, 97-03; Col. Pharmacy, San Francisco, 03-19; pharmacognosist, Port of San Francisco, 09-19; *prof. pharmacog. and pharmacol.*, Nebraska, 19-21; *bot, mat. med, pharmacol. and hygiene, and dean sch. pharmacy, North Pacific Col.*, 22- Head teacher and res. physician, Spencer's Acad, I. T, 89; asst. state zoologist, Minn, 92; asst. bacteriologist, Ill. Exp. Sta; microanalyst, Calif. Food and Drug Lab; dean, Berkeley Sch. Police Officers, 17. Int. jury awards, Pan-Pacific Expos. A.A; Pharmaceut. Ass. Sanitary science; free nitrogen assimilating bacteria and their significance in agriculture; vegetable drugs; Pullman car ven-

tilation; protein and endocrinal therapy; criminalology.

Schneider, Prof. Edward C(hristian), 97 Broad St, Middletown, Conn. **Physiology*. Wapello, Iowa, Aug. 21, 74. B.S, Tabor, 97; Ph.D, Yale, 01; Sc.D, Denver, 14. Instr. chem, Tabor, 97-99, prof. biol. and physiol. chem, 01-03; *biol*, Colo. Col, 03-07, head prof, 07-19; *Ayres prof, Wesleyan*, 19- Anglo-Am. exped, Pike's Peak, 11. Capt. and major, Sanit.C, U.S.A; physiologist, Sch. Aviation Med, Mitchel Field, 19-26. A.A; Physiol. Soc; Soc. Exp. Biol; Soc. Biol. Chem; Pub. Health Ass. Influence of high altitudes and low oxygen on man; physical staleness; aviation physiology.

Schneider, Dr. R(alph) F(red), Sherwin-Williams Co, Cleveland, Ohio. *Chemistry*. Jan. 20, 95. Ph.G, Iowa, 15, Ph.C, 16; B.S, Illinois, 19, M.S, 20, fellow, 21-22, Ph.D, 22. Asst. chem, Illinois, 19-21; state drug chemist, Ky, 22-23; *chemist*, Portland Cement Ass, 23; *Sherwin-Williams Co*, 23- Chem. Soc. Physical chemistry; metallography.

Schober, Dr. William B(ush), Coconut Grove, Fla. *Chemistry*. Cumberland, Md, Nov. 28, 64. B.S, St. John's (Md), 86, A.M, 90; Ph.D, Hopkins, 92. Instr. sciences, Allegany Acad, Cumberland, 86-88; asst. chem. lab, Hopkins, 90-92; instr. org. chem, Lehigh, 92-04, asst. prof. chem, 04-06, acting prof, 06-07, prof, 07-14; *retired*, 14. Diazo-compounds; sulphonic acids.

Schoch, Dr. Eugene P(aul), 2212 Nueces St, Austin, Texas. *Chemistry*. Berlin, Germany, Oct. 16, 71. C.E, Texas, 94, A.M, 96; fellow, Chicago, 99-00, Ph.D, 02. Instr. chem, Texas, 97-06, adjunct prof, 06-11, *prof*, 11-, *director*, *Indust. Chem. Exp. Sta*, 14- A.A; Texas Acad. (pres, 08). Physical and industrial chemistry; oxides of mercury; oxidation reactions that lead to equilibrium; the nickel anode and passivity; E.M.F. of nickel and occluded hydrogen; electric deposition; iron and nickel anodes in various electrolytes; the oxygen electrode; kinetics of reactions in heterogeneous systems; lignite as a fuel; analytical methods for waters and fuels.

Schochet, Dr. Sydney Sigfried, 4716 Ellis Ave, Chicago, Ill. *Pathology, Gynecology*. New Iberia, La, Oct. 23, 92. M.D, Tulane, 14. Instr. gynec, Northwestern, 17-19; assoc. prof. path, Emory, 21-22; *practising physician*, 22- Prize essay, Chicago Gynec. Soc, 19. Ass. Path. and Bact; Ass. Anat; Am. Med. Soc; Chicago Path. Soc; Chicago Gynec. Soc; Phila. Path. Soc. Physiology of ovulation; parotid ganglion; empyema; granuloma ingranulatae.

Schoder, Dr. E(rnest) W(illiam), 220 Willard Way, Ithaca, N. Y. *Hydraulic engineering*. Fidalgo Island, Wash, Aug. 17, 79. B.S, Washington (Seattle), 00; Ph.D, Cornell, 03. Station asst, U. S. Geol. Surv, 00; engineer on construction, Ithaca Water Works Pumping Sta. and Cornell Water Purification Plant, 03-04; *engineer in charge hydraulic lab*, Cornell, 04-, asst. prof. *exp. hydraul*, 05-19, *prof*, 19- Capt. C.Eng, 17-19. A.A; Civil Eng. Flow of water in pipes; effects of curvature, size, roughness, temperature; critical velocity; effects of abnormal flow on piezometric indications; hydraulics

of Panama sea-level canal without locks; the Pitot tube; flow of water over weirs; flow of air.

Schoemaker, Prof. D(aniel) M(artin), 1402 S. Grand Ave, St. Louis, Mo. *Anatomy*. Muscatine, Iowa, Oct. 7, 67. B.S, Chicago, 98, fellow, 99-00, M.D, Rush Med. Col, 04; Rockefeller Inst, 02-03. Asst. anat, Chicago, 98-99; asst. prof. bacter, St. Louis, 04-05; asst. city bacteriologist, St. Louis, 06-07; assoc. prof. anat, St. Louis, 07-11, *prof*, 11- A.A. A cross-section anatomy.

Schoen, Dr. Max, Carnegie Institute of Technology, Pittsburgh, Pa. *Psychology, Education*. Austria-Hungary, Feb. 11, 88. A.B, Col. City of N. Y, 11; Ph.D, Iowa, 21. Director dept. music, East. Tenn. State Nor. Sch, 14-20; research asst, Iowa, 20-21; asst. prof. psychol, Carnegie Inst. Tech, 21-23, assoc. prof, 23-25, *prof. and head dept. educ. and psychol*, 25- Psychol. Ass. Psychology of music; esthetics.

Schoenberg, Dr. Mark Joseph, 1160 Park Ave, New York, N. Y. *Medicine*. Pitesci, Roumania, Dec. 23, 74. A.B, Lyceum, Bucharest; M.D, Bucharest. *Surgeon, Knapp Mem. Eye Hosp*; *adjunct consultant ophthalmologist, Presb. Hosp*; *instr. ophthal, col. physicians and surg, Columbia*. Lucien Howe prize, N. Y. State Med. Soc, 14. Am. Med. Ass; Ophthal. Soc; fel. N. Y. Acad. Med. Glaucoma; intra-ocular pressure; ocular anaphylaxis and ocular tuberculosis; ciliary body.

Schoene, William Jay, Virginia Experiment Station, Blacksburg, Va. *Entomology*. Henderson, Ky, July 27, 79. B.S, Kentucky, 05; M.S, Chicago, 10. Entomologist, N. Y. Exp. Sta, 05-13; state entomologist, Va, 13-26; *entomologist, Va. Exp. Sta*, 26- Entom. Soc; Ass. Econ. Entom. Insect pests; life history of insects.

Schoepfle, Prof. C(hester) S(eitz), 1102 Forest Ave, Ann Arbor, Mich. *Chemistry*. Sandusky, Ohio, March 13, 92. Sc.D, Michigan, 18. Instr. org. chem, Michigan, 16-19, asst. prof, 19-24, *assoc. prof*, 24- Organic chemistry; trivalent carbon.

Schoewe, Dr. Walter Henry, University of Kansas, Lawrence, Kans. *Geology*. Milwaukee, Wis, Jan. 15, 91. A.B, Wisconsin, 14, M.S, 15; Ph.D, Iowa, 20. Instr. geol, Iowa, 18-19; geol. and miner, Colo. Sch. Mines, 19-20; asst. prof. *geol, Kansas*, 20-24, *assoc. prof*, 24- A.A; Iowa Acad; Kans. Acad. Pleistocene geology.

Schofield, Dr. Stuart J(ames), University of British Columbia, Vancouver, B. C, Can. *Geology*. Gravesend, Eng, Sept. 3, 83. M.A, Queen's (Can), 06, B.Sc, 08; Ph.D, Mass. Inst. Tech, 12. Geologist, Can. Geol. Surv, 06-21; *prof. structural geol, British Columbia*, 21- Consulting geologist. A.A; fel. Geol. Soc; fel. Soc. Econ. Geol; fel. Royal Soc. Can; Can. Min. Inst; fel. Geol. Soc. China. Structural and economic geology; Beltian and Cambrian rocks, ore deposits and fissure system of British Columbia; areal geology of Cranbrook, Ainsworth and Salmon river districts; origin of granite; geologic record of Cordillera in Canada; origin of Rocky Mountain and Purcell trenches; Mesozoic period

- of mineralization in British Columbia; Britannia mines; geology of Crown Colony of Hong Kong.
- Scholes, Dr. S(amuel) R(ay)**, Federal Glass Co, Columbus, Ohio. *Chemistry*. Marquette, Wis, Jan. 22, 84. A.B, Ripon, 05; Loomis fellow, Yale, 10-11, Ph.D, 11. Instr, high sch, Wis, 05-08; asst. chem, Yale, 08-10; fellow, Pittsburgh, 11-13; chemist, H. C. Fry Glass Co, 13-20; manager, Utility Glass Works, 20-21; *chemist, Fed. Glass Co, 21-* Asst. director, Mellon Inst, 14-17; lecturer, Ohio State, 25-26. Chem. Soc; Ceramic Soc. Inorganic colloids; vapor pressure of hydrates; glass; potash from feldspar.
- Scholl, Ernest E(mmett)**, Oklahoma Agricultural and Mechanical College, Stillwater, Okla. *Entomology*. Hunter, Texas, Oct. 14, 81. B.S, Agr. and Mech. Col. Texas, 07. Instr. invert. zool, Agr. and Mech. Col. Texas, 08, apiculture inspector, Exp. Sta, 08-09, assoc. prof. entom, 09-11; entomologist, Texas Dept. Agr, 11-15, chief entomologist, 16-21, chief inspector orchards and nurseries, 21-22; exten. entomologist, Okla, 22-25; *asst. director agr. exten. Okla. Agr. and Mech. Col, 25-* Entom. expeditions, U. S, 15, 16, 18-19, 22, 25, 26. A.A; Ass. Econ. Entom. Control of injurious insects and fungous diseases; grasshoppers; boll weevil; destructive rodents; honey plants; agate snail; pink boll worm of cotton; orchard pests; nursery inspection laws.
- Scholz, Carl**, 1309 Quarrier St, Charleston, W. Va. *Mining engineering*. Slaventzitz, Germany, July 2, 72. Royal Gym. Beuthen. Manager min. and fuel dept, Rock Island Lines, 01-18; *v. pres, Raleigh Wyoming Coal Co, 19-* Lecturer, Chicago; consulting engineer, U. S. Bur. Mines, 10-20; C. B. and Q. System, 18-22. Min. and Metal. Eng; Min. Cong. (pres, 14-17). Prevention of coal mine explosions; extraction of coal; development of large tonnage mines; design and construction of mines.
- Schoonhoven, J(ohn) J(ames)**, 773 Eastern Parkway, Brooklyn, N. Y. *Biology*. McIntyre, N. Y, July 3, 64. A.B, St. Francis Xavier, 93, A.M, 94; N. Y. Univ, 00-01. *Mem. council, Brooklyn Inst, 04-* Lecturer, Brooklyn Inst; Boards Educ, New York, Jersey City and Newark. Research information service, Nat. Research Council. A.A; Soc. Parasitol; N. Y. Micros. Soc; Brooklyn Entom. Soc; fel. Brooklyn Inst. (pres, dept. zool); fel. Royal Micros. Soc. Parasitism; entomogenous fungi; marine biology; insects as carriers of disease.
- Schorer, Dr. E(dwin) H(enry)**, 822 Rialto Building, Kansas City, Mo. *Bacteriology, Pathology, Pediatrics*. Plymouth, Wis, Dec. 13, 81. B.S, Wisconsin, 02; M.D, Hopkins, 06; D.P.H, Harvard, 12. Asst, Rockefeller Inst, 06-07; *asst. prof. parasitol. and hygiene, Missouri, 07-09*; bacter. and path, Kansas, 09-10; dept. prev. med, Harvard, 10-12; *pediat, Kansas City, 12-* Summers, investigator, Rockefeller Inst, 03, pathologist and bacteriologist, Thomas Wilson Sanitarium, Md, 04-06, serum lab, Harvard Med. Sch, 09. Lieut. col, M.C, and director lab. div, port of embarkation, Hoboken, N. J, 17-19. Am. Med. Ass; Ass. Path. and Bact; Soc. Bact; Pub. Health Ass; Am. Teachers Diseases of Children; Royal Inst. Pub. Health, London. Hygiene; children's dysentery; milk investigation; rhabdomyoma of the heart; immunity to tuberculosis; vaccine and serum therapy; diphtheria; allergy; epidemic meningitis; influenza.
- Schorger, Dr. A(rlie) W(illiam)**, 2021 Kendall Ave, Madison, Wis. *Chemistry*. Republic, Ohio, Sept. 6, 84. Ph.B, Wooster, 06; A.M, Ohio State, 08; Ph.D, Wisconsin, 16. Lab. asst, Bur. Standards, 08; asst. chemist, Bur. Int. Revenue, 09; chemist, U. S. Forest Service, 09-17; *director chem. research, C. F. Burgess Laboratories, 17-* Chem. Soc; Ornith. Union; Soc. Mammal; Wis. Acad; Wis. Archeol. Soc. Terpenes; abietic acid; carbohydrates; action of aluminum chlorid on cymene; gelatinization of lignocellulose; chemistry of cellulose and wood.
- Schorling, Prof. Raleigh**, 1617 Brooklyn Ave, Ann Arbor, Mich. *Education, Mathematics*. Morris, Ind, Aug. 15, 87. A.B, Michigan, 11; M.S, Chicago, 14; Ph.D, Columbia, 25. Prin, high schools; Lincoln Sch, Teachers Col, Columbia; *prof. educ. and in charge lab. schools, Michigan*. Demonstration teacher, Columbia, Chicago, Michigan; summer, Harvard, 20. Nat. Council Math. Teachers (pres, 23-25). Objectives in the teaching of junior high school mathematics and determination of their validity.
- Schrader, Dr. A(lbert) Lee**, University of Maryland, College Park, Md. *Horticulture*. Kaukauna, Wis, May 9, 96. B.S, Wisconsin, 20, fellow, 20-21, M.S, 21; Ph.D, Maryland, 25. *Asst. pomologist, Maryland, 21-* Summer, research asst, Wisconsin, 21. Radio service, U.S.N, 17-19, ensign, U.S.N.R.F, 19. Soc. Hort. Sci. Physiology and pruning of the Concord grape; regeneration with cuttings of the tomato; apple spurs and biennial bearing; apple pollination.
- Schrader, F(rank) C(harles)**, U. S. Geological Survey, Washington, D. C. *Geology, Geography*. Sterling, Ill, Oct. 6, 60. M.S, Kansas, 91; A.M, Harvard, 93. Asst. entom, Kansas, 89-91; Mass. State Board Agr, 93-94; teacher geol, Harvard, 95-96; asst. geologist and *geologist, U. S. Geol. Surv, 96-* A.A; fel. Geol. Soc; Min. and Metal. Eng; Forestry Ass; Min. and Metal. Soc. (sub-committee on antimony, 24-26); Soc. Econ. Geol; Miner. Soc; Wash. Acad; Wash. Petrol. Club. Mining geology; geography; entomology; the geology, physiography and mineral resources of Alaska and western United States.
- Schrader, Dr. Franz**, Bryn Mawr College, Bryn Mawr, Pa. *Zoology*. Magdeburg, Germany, March 11, 91. B.S, Columbia, 14, Ph.D, 19. Asst, U. S. Bur. Fisheries, 15-16; zool, Columbia, 17-19; pathologist, U. S. Bur. Fisheries, 20; assoc. *biol, Bryn Mawr, 20-25, assoc. prof, 25-* Soc. Zool. Cytology; sex determination; symbiosis; parthenogenesis.
- Schramm, Prof. E. Frank**, University of Nebraska, Lincoln, Nebr. *Geology*. DeWitt, Nebr, Sept. 7, 83. A.B, Oklahoma, 06; A.M, Nebraska, 08. *Nebraska, 06-*, *prof. geol.* Summers, field asst, U. S. Geol. Surv, 07-10; mineral expert, U. S. Forest Service, 10-12; Nebr. Geol. Surv, 06-15; geologist, Union Pacific Ry, 17-19; geologist and mining engineer, oil and mining companies. Morrill geol. expeditions, 06, 14. A.A;

Ass. Petrol. Geol; Min. and Metal. Eng; Forestry Ass; Nebr. Acad. Mineralogy; oil shales and coal of Wyoming; oil and gas possibilities of Nebraska; agate anticline.

Schramm, Dr. Edward, Onondaga Pottery Co, Syracuse, N. Y. *Chemistry*. New York, N. Y., Dec. 22, 86. B.S., Col. City of N. Y., 06; Ch.E., Columbia, 09, Ph.D., 13. Asst. chemist, Bur. Standards, 13-17; *research chemist*, Am. Zinc, L. and S. Co, 17-19; Bridgeport Brass Co, 19-20; *Onondaga Pottery Co*, 20- Chem. Soc; Ceramic Soc. Physical and inorganic chemistry; metallurgy; electrochemistry; zinc; sulphuric acid; ferrous and non-ferrous metals; ceramics.

Schramm, Dr. J(acob) R(ichard), University of Pennsylvania, Philadelphia, Pa. **Botany*. Hancock Co, Ind, Feb. 6, 85. A.B., Wabash, 10; Lackland fellow, Washington (St. Louis), 10-12, Ph.D., 13. Asst. to director, Mo. Bot. Garden, 12-15; instr., Shaw Sch. of Bot, Washington (St. Louis), 13-15; asst. prof. bot, Cornell, 15-17, prof, 17-25; *ed*, 'Biol. Abstracts,' 26- *Ed*, 'Bot. Abstracts,' 21-26. Exec. sec'y, div. biol. and agr, Nat. Research Council, 22-24; trustee, Woods Hole, 23-27. A.A.; Soc. Nat; Bot. Soc. (sec'y, 18-22, v. pres, 23, pres, 25). Physiology of algae.

Schreiber, Edwin W(illiam), 417 S. Second Ave, Maywood, Ill. *Mathematics*. Saginaw, Mich, Jan. 20, 90. A.B., Michigan, 11; California, 13; A.M., Chicago, 24. Instr. math. and science, Univ. Sch. for Boys, Chicago, 11-12; *head dept*, high sch, Ariz, 12-14; *math*, high sch, Pa, 14-17; *Proviso Township High Sch*, Maywood, 17- Chairman math. sect, High Sch. Conference, Ill, 24. A.A.; Math. Ass; Nat. Council Math. Teachers; Hist. Sci. Soc; Cent. Ass. Sci. and Math. Teachers; Chicago Math. Club (pres, 24). Solid geometry; first year algebra; history of the metric system; elementary mathematical instruments of two hundred years ago.

Schreiner, Dr. B(ernard) F(rancis), 231 Humboldt Parkway, Buffalo, N. Y. *Surgery*. Buffalo, Dec. 26, 86. M.D., Buffalo, 09. Asst. surgeon, Gen. Hosp, Buffalo, 14-22; City Hosp, 18-23; *surgeon*, State Inst. for Study of Malignant Diseases, 16-; *Buffalo Hosp. Sisters of Charity*, 25- Instr, Buffalo, 13-22. Fel. Col. Surg; Am. Med. Ass; Soc. Cancer Research; Radium Soc. (v. pres, 25-); Radiol. Soc; Buffalo Acad. (treas, 13-18, chairman, path. sect, 11-13). Cancer.

Schreiner, Dr. Oswald, U. S. Department of Agriculture, Washington, D. C. **Chemistry*. Nassau, Germany, May 29, 75. Baltimore Polytech, 92; Ph.G., Maryland, 94; Hopkins, 94-95; U.S.P. research fellow, 95-96; B.S., Wisconsin, 97, M.S., 99, Ph.D., 02. Asst. pharmaceut. technique, Wisconsin, 96, instr, 97-02, physical chem, 02-03; chemist, U. S. Dept. Agr, 03-06, *chief soil fertility investigations*, 06- Summer, expert physical chem, U. S. Dept. Agr, 02. Ebert prize, 00; Longstreth medal, Franklin Inst, 12. A.A.; Chem. Soc; Soc. Biol. Chem; Bot. Soc; Soc. Agron. Chemistry of soils; characterization and classification of sesquiterpenes; complex nitroso-compounds of unsaturated hydro-carbons; photo-chemical action;

complex boric acids and borates; colloid solutions; colorimetric methods; soil fertility; organic compounds in soils; oxidizing powers of roots; toxic effects of organic compounds on plants; action of fertilizers; biochemistry of soils and plants.

von Schrenk, Dr. H(ermann), Missouri Botanical Garden, St. Louis, Mo. **Vegetable pathology*. College Point, N. Y., March 12, 73. B.S., Cornell, 93; A.M., Harvard, 94; Ph.D., Washington (St. Louis), 97. Asst. bot, Harvard, 93-94; instr, St. Louis Manual Training Sch, 94-96; Shaw Sch. of Bot, 96-03; in charge, Miss. Valley lab, bur. plant indust, U. S. Dept. Agr, 01-07; *consulting timber engineer*, 07-; *pathologist*, Mo. Bot. Garden, 07- In charge div. forest products, bur. forestry, U. S. Dept. Agr, 03-05, special agent, div. veg. physiol. and path, bur. plant indust, 98-01; tech. expert, South. Cypress Mfg. Co; lecturer, Yale Forest Sch, 02-09; Wisconsin, 09. Ed. veg. path. for U. S. and sec'y, Am. board editors, 'Bot. Centralblatt,' 07-13. Chairman, Mo. Forest Commission, 08-16. Eng. div, Nat. Research Council. A.A. (sec'y, G, 02); Soc. Nat. (treas, 04-12); Bot. Soc; Civil Eng; Ry. Eng; Soc. Test. Mat; Mo. Forestry Ass. (pres, 24); St. Louis Acad; Bot. Gesell. Diseases of plants, chiefly of trees and timber; preservation of timber.

Schriever, Dr. William, University of Oklahoma, Norman, Okla. *Physics*. Dakota City, Nebr, Jan. 16, 94. A.B., Morningside, 16; M.S., Iowa, 17, fellow, 17-18, 20-21, Ph.D., 21. Asst. prof. physics, Oklahoma, 19-24, *assoc. prof*, 24- Summer, instr, Iowa, 21. A.A.; Physical Soc; fel. Okla. Acad. Elastic properties of metals at high temperatures; electrical measurements; electrolytic conduction.

Schroeder, Dr. E(rnest) C(harles Henry), U. S. Experiment Station, Bethesda, Md. *Medicine, Animal breeding*. Baltimore, Md, April 3, 65. Baltimore Col, 80; Maryland, 83; M.D.V., Harvard, 87. Inspector, *bur. animal indust*, U. S. Dept. Agr, 87-90, asst. and field agent, div. path, 90-95, *supt*, *Exp. Sta*, 95- Delegate, Int. Cong. Tuber, Rome, 12. A.A.; Vet. Med. Ass; Soc. Bact; Tuber. Ass; Int. Commission Tuber. Texas fever; cattle ticks; antitoxic sera; tuberculosis; human and bovine tuberculosis; heredity; bacillus of infectious abortion in the milk of cattle; food value and bacteriology of milk; standardization of tuberculin.

Schubert, Prof. G(eorge) P(eter), Michigan College of Mining and Technology, Houghton, Mich. *Civil engineering*. Houghton, Feb. 8, 83. B.S., M.E., Mich. Col. Mines, 05. Construction engineer, Mich. Smelting Co; instr, asst. prof, assoc. prof. and *prof. civil eng*, Mich. Col. Min. and Tech, 05- Mech. Eng; Eng. Educ. Mining engineering.

Schuchardt, R(udolph) F(rederick), 72 W. Adams St, Chicago, Ill. *Electrical engineering*. Milwaukee, Wis, Dec. 14, 75. B.S. and E.E., Wisconsin, 97. Wis. Elec. Light and Power Co, 97; engineer, Mysenberg and Badt, Ill, 97-98; operator, Commonwealth Edison Co, 98-09; *elec. engineer*, 09- Chanute medal, West. Soc. Eng, 07. Fel. Elec. Eng. (v. pres, 23); Illum. Eng.

- Soc; Nat. Elec. Light Ass. (chairman, tech. sect, 22, power surv. committee, Great Lakes div); West. Soc. Eng; British Inst. Elec. Eng.
- Schuchert, Prof. Charles**, Peabody Museum, Yale University, New Haven, Conn. **Paleontology*. Cincinnati, Ohio, July 3, 58. Pub. schools; hon. A.M., Yale, 04; LL.D., N. Y. Univ., 14. Asst. to E. O. Ulrich, Newport, Ky, 85-89; to Prof. James Hall, Albany, N. Y., 89-91; Minn. Geol. Surv., 91-92; to Prof. C. E. Beecher, Yale, 92-93; asst. paleontologist, U. S. Geol. Surv., 93-94; asst. curator, U. S. Nat. Museum, 94-04; prof. paleont., Yale, hist. geol., Sheffield Sci. Sch., and curator geol. collections, Peabody Museum, 04-23, *invert. paleont.* 23-26, *emer.* 23- Nat. Acad.; A.A. (v. pres, 27); Soc. Nat.; Geol. Soc. (v. pres, 10, pres, 22); Paleont. Soc. (pres, 10); Am. Acad.; Conn. Acad.; Wash. Geol. Biol. and Geog. Societies. Invertebrate paleontology; stratigraphy; American paleogeography; historical geology.
- Schuerman, Prof. W(illiam) H(enry)**, Vanderbilt University, Nashville, Tenn. *Mechanics*. Cincinnati, Ohio, Nov. 8, 59. C.E., Cincinnati, 81; Hopkins, 82-83. Instr. physics, Missouri, 83-85, asst. prof. physics and eng., 85-88; construction of water works, Ky, 88-90; irrigation canal work, Calif., 90-93; *prof. civil eng.*, *Vanderbilt*, 94-, *dean eng. dept.*, 95- Summer, preliminary ry. surv., southeast, Ky, 80; drafting on ry. construction work, 81-82; calculation of ry. bridges, 82; in charge designing and construction of sewerage systems, Monroe, La., and Oxford, Mass., 00-02. A.A.; Civil Eng; Eng. Educ; Eng. Ass. of Nashville; Tenn. Acad. Estimation of probable volume of local traffic on railways; greatest bending moments and shears produced by a system of concentrated loads on railway bridges; ideal and practical columns; greatest stresses in railway bridge members due to a system of concentrated wheel loads; hydraulic diagrams; reinforced concrete beams.
- Schuette, Prof. H(enry) A(ugust)**, Maple Bluff, Madison, Wis. *Chemistry*. Green Bay, Wis., Jan. 11, 85. B.S., Wisconsin, 10, M.S., 12, Ph.D., 16. Asst. chem., *Wisconsin*, 10-14, instr., 14-18, *asst. prof.*, 18- Chemist, Wis. Nat. Hist. Geol. Surv; Wis. Dairy and Food Commission; forest products lab, U. S. Dept. Agr., 19; Bur. Aircraft Production, 18. A.A.; Chem. Soc; Wis. Acad. Sanitary chemistry; organic analysis; plankton and aquatic vegetation of lakes; fatty oils; chemistry of foods; flavoring extracts.
- Schuh, Prof. R(ichard) E(dwinn)**, Howard University, Washington, D. C. *Botany*. Kent, Ind., Nov. 17, 60. A.B., Hanover, 82, A.M., 85, Ph.D., 99; B.D., Drew Theol. Sem., 85, 85-86; A.M., Harvard, 94; Chicago, 08; Michigan, 10. V. prin., E. Greenwich Acad., 03-04; head dept. biol., Southwest. State Nor. Sch., Pa., 04-07; biol. and geol., *Howard*, 07-22, *prof. geol.*, 22- A.A.; Torrey Bot. Club; New Eng. Bot. Club; Wash. Bot. Soc; Wash. Biol. Soc. Marine algae.
- Schulte, Prof. H(ermann) von W(echlinger)**, Creighton University Medical School, Omaha, Nebr. *Anatomy*. Utica, N. Y., Aug. 9, 76. A.B., Trinity (Conn.), 97; M.D., Columbia, 02. Demonstrator *anat.*, Columbia, 04-07, adjunct prof., 07-10, assoc. prof., 10-17; *prof.*, *col. med.*, *Creighton*, 17-, junior dean, 17-18, *dean*, 18- Alumni Ass. fellow *anat.*, Columbia, 06-10; pres., Nebr. State Anat. Board, 17-; chief-of-staff, St. Joseph's Hosp., Omaha, 18- Lieut. col., M.R.C., in command, Gen. Hosp. No. 55, 23-A.A.; Ass. Anat; fel. Am. Med. Ass; Eugenics Soc; Eugenics Research Ass; Neur. Ass; Pub. Health Ass; Ass. Study Int. Secretions; Soc. Mammal; Tuber. Ass; Harvey Soc; Nebr. Acad; fel. N. Y. Acad. (v. pres, 16-18); fel. N. Y. Zool. Soc. Vascular and nervous systems; salivary glands; Cetacea; Ungulata.
- Schulte, Rev. Theo(dore) J(ohn), S.J.**, St. Louis University, St. Louis, Mo. *Chemistry*. St. Louis, Oct. 5, 80. A.B., St. Louis, 00, A.M., 06, M.S., 10. *Prof. chem.*, St. Louis, 10-11; Loyola, 11-12; *St. Louis*, 18-, *dean dept. science*, 18-24, *dean men*, 24- St. Louis Univ. exped., south. Colo., 10; Glacier and Yellowstone Parks, 13. A.A.; Chem. Soc. Education.
- Schultz, Dr. Adolph H(ans)**, Johns Hopkins Medical School, Baltimore, Md. *Anthropology*. Zurich, Switzerland, Nov. 14, 91. Ph.D., Zurich, 16. Asst. Zootech. Inst., Bern, 11; research assoc., dept. embryol., Carnegie Institution, 16-25; *assoc. prof. physiol. anthrop. sch. med.*, *Hopkins*, 25- Assoc. ed., 'Am. Jour. Physiol. Anthrop.', 25- A.A.; Ass. Anat; Soc. Mammal. (chairman, committee on anat. and phylogeny, 21-); fel. Galton Soc. Physical anthropology; fetal growth in man; evolution of primates.
- Schultz, Dr. Alfred R(eginald)**, 800 Vine St., Hudson, Wis. *Geology*. Tomah, Wis., March 26, 76. B.S., Wisconsin, 00; fellow, Chicago, 04-05, Ph.D., 05. Teacher, high sch., Wis., 00-02; res. hydrologist, Wis., 03; geologist in charge Leith exploration party, Ont., Can., 04; field asst., U. S. Geol. Surv., 05, hydrol. aid., 05-06, geol. aid., 06-07, asst. geologist, 07-10, chairman phosphate and metalliferous boards land classification, 12-16, geologist, miner. div., 16-18; manager, Burkhardt Milling and Elec. Power Co., 18-27; pres., Willow River Power Co., 22-27; Afton Power Co., 21-27; *consulting geologist*. Oil div., U. S. Fuel Ad., 18. A.A.; Geol. Soc; Min. and Metal. Eng; Wash. Acad; Wash. Geol. Soc. Physics; stratigraphic and economic geology; gold; soda; oil; coals; leucite flows; classification and valuation of public coal lands.
- Schultz, Dr. Alfred S.**, Fleischmann Laboratories, 158th St. and Mott Ave., New York, N. Y. *Chemistry*. Palm, Pa., Nov. 26, 95. B.S., Lehigh, 18; Loomis fellow, Yale, 23-24, Ph.D., 24. Chemist, J. L. Mott and Co., 19-20; junior chemist, bur. chem., U. S. Dept. Agr., 20-21; Fleischmann fellow chem., Rochester, 24-25; *research chemist*, *Fleischmann Laboratories*, 25- A.A.; Chem. Soc. Yeast; the synthesis of oxindole derivatives from isatin.
- Schultz, E(ugene) S.**, U. S. Department of Agriculture, Washington, D. C. *Plant pathology*. Pa., May 14, 84. B.S., Wisconsin, 13, M.S., 15; Ph.D., Columbia, 25. *Plant pathologist*, *bur. plant indust.*, U. S. Dept. Agr., 17- A.A.; Phytopath. Soc; Bot. Soc; Torrey Bot. Club; Wash. Bot. Soc; Wash. Acad. Phytopathology; plant cytology; mosaic and similar diseases.

- Schultz, Dr. Oscar (John) T(heodore),** Nelson Morris Institute, Michael Reese Hospital, Chicago, Ill. *Pathology, Medicine.* Mount Vernon, Ind, Sept. 28, 77. A.B, Indiana, 93; M.D, Hopkins, 03; Brooklyn Inst. and Columbia, 04. Res. pathologist, Charity Hosp., Cleveland, Ohio, 03-04; demonstrator path. and protozool, Western Reserve, 04-05, instr., 05-06, lecturer, 07-10, asst. prof. path., 10-13; prof. path. and bacter., Nebraska, 13-16; *director, Nelson Morris Mem. Inst. and laboratories, Michael Reese Hosp.*, 16-U.S.A., 98-99; capt., M.C., 18-19. A.A.; Ass. Path. and Bact.; fel. Am. Med. Ass.; Soc. Exp. Biol.; Acad. Polit. Sci.; Chicago Path. Soc. (pres., 22); Chicago Inst. Med. Etiology and pathology of syphilis; dermatopathology; protozoology; biology of tumor cells; histopathology of syphilis; pathogenesis of tuberculosis; bacteriology; immunology.
- Schultz, Prof. W(illiam) H(enry),** Green Spring Ave. and Tany Road, Mt. Washington, Baltimore, Md. *Pharmacology.* Canal Fulton, Ohio, Sept. 28, 73. Ph.B, Baldwin, 99; Chicago, 00, 01, 05; fellow, Hopkins, 05, Ph.D, 07. In charge science, Shorter Col., 99-03; dept. biol., Southwestern Baptist, 04; instr. physiol. and pharmacol., Missouri, 07-08; assoc. pharmacol., hygienic lab, U. S. Pub. Health and Marine Hosp. Service, 08-13; *prof. pharmacol. and mat. med.*, West Virginia, 13-18; George Washington, 19-20; *Maryland*, 20- A.A.; Soc. Pharmacol.; Pharmacol. Ass.; Chem. Soc.; Physiol. Soc.; Soc. Exp. Biol.; Md. Chem. Soc. Physiology of heart; pharmacology of chloralhydrate and animal pigments; biological assaying of drugs; the atropin group; pharmacodynamics of anaphylactic shock; anthelmintics; hookworm larvae; toxic action of certain chemicals for rhabditic larvae.
- Schultze, Dr. Otto H(enry),** Cornell University Medical College, New York, N. Y. *Pathology.* New York, March 10, 67. A.B, Col. City of N. Y., 86; M.D, Columbia, 89. Coroner's physician, County of New York, N. Y., 96-98; *instr. path. med. col. Cornell*, 98-, *prof. med. juris*, 15- Prof., Vermont, 00-03; curator, Bellevue Hosp., 99-04; coroner's physician, Borough of Manhattan, N. Y., 02-15; med. asst. to district attorney, County of N. Y., 15- Ass. Path. and Bact.; Soc. Med. Juris; N. Y. Path. Soc. Causes of sudden death; medico-legal relations of autopsies.
- Schulz, J(ohn) A(dolph),** Iowa State College, Ames, Iowa. *Chemistry.* Elmwood, Ill., Oct. 15, 94. B.S, Illinois, 17. Chemist, dept. nutrition, Ohio Exp. Sta., 17-21; *asst. chemist, Iowa Exp. Sta.*, 21-, *asst. chief animal nutrition*, 26- A.A.; Chem. Soc. Nutrition and metabolism of mineral salts and elements.
- Schulz, Dr. William F(rederick),** University of Illinois, Urbana, Ill. *Physics.* Baltimore, Md., Jan. 11, 72. Proficient in elec. eng., Hopkins, 93, Ph.D, 08; E.E, Illinois, 00. Instr. *physics, Illinois*, 01-06, asst. prof., 08-25, *assoc. prof.*, 25- A.A.; Physical Soc.; London Optical Soc. Effect of magnetic field upon absorption spectra of rare earths; the photo-electric cell in stellar photometry.
- Schumacher, Earle E(dward),** Bell Telephone Laboratories, Inc, 463 West St, New York, N. Y. *Chemistry.* Chelsea, Mich., May 10, 96. A.B, Michigan, 18. Asst. chem., Michigan, 16-18; *research chemist, Bell Telephone Laboratories*, 18- Chem. Soc. Measurements on gases evolved from glass; crack development in glass under electrical stress; wetting of glasses by mercury; photomicrographic evidence of the crystal structure of pure cerium; melting points of barium, strontium and calcium oxides; thermionic activity.
- Schumann, Dr. Carl Louis, Kreuter-Faasen Varnish Co, Grand Rapids, Mich. Chemistry.** Morris, Minn., Oct. 11, 88. B.S, N. Dak. Col., 13; M.S, Michigan, 14, fellow, Ph.D, 16. Instr. chem., Minnesota, 15-16, org. chem., 16-19; chief chemist, Pratt and Lambert Varnish Co, 19-25; *chief chemist and manager, Kreuter-Faasen Varnish Co*, 25- Vegetable oils; China-wood oils.
- Schumb, Prof. W(alter) C(ecil),** 9 Garden St, East Milton, Mass. *Chemistry.* Boston, Mass, Sept. 10, 92. A.B, Harvard, 14, Sheldon traveling fellow, 14-15, A.M, 16, Ph.D, 18. Asst. prof. chem., Vassar, 19-20; *Mass. Inst. Tech.*, 20-27, *assoc. prof.*, 27- Chem. Soc. Inorganic and physical chemistry.
- Schur, Milton O(scar),** Research Department, Brown Co, Berlin, N. H. *Chemical engineering.* Boston, Mass, Sept. 5, 95. B.S, Mass. Inst. Tech., 16. Research chemist, Mass. Inst. Tech., 16-17; chem. engineer, Chem. Products Co, Washington, D. C., 17-18; *chem. engineer, Brown Co*, 19- Research chemist, U. S. Bur. Mines and C.W.S., 18-19. Chem. Eng. The hydrolysis of mustard gas; the conversion of cellulose fibers into paper products; physical characteristics of fibers; gelatinization of cellulosic material during the beating process; purification of wood pulps; an electric steam generator of high efficiency.
- Schurman, Dr. J(acob) G(ould),** American Embassy, Berlin, Germany. **Philosophy, Education.* Freetown, P. E. I., Can., May 22, 54. B.A., London, 77, M.A., 78; D.Sc, Edinburgh, 78, Hibbert fellow at Heidelberg, Berlin, Göttingen and Italy, 78-80, LL.D, 02, Columbia, 92, Yale, 01, Williams, 08, Dartmouth, 09, Harvard, 09, Brown, 14, Pennsylvania, 17. Prof. English lit, polit. econ. and psychol., Acadia, 80-82; metaphysics and English lit, Dalhousie, 82-86; Sage prof. philos., Cornell, 86-92, pres., 92-20; U. S. minister to China, 21-25; *U. S. ambassador to Germany*, 25- Senior ed., 'Philos. Rev.', 92-02; ed., 'Sch. Rev.', 93-95. Chairman, first U. S. Philippine Commission, 99; U. S. Minister to Greece and Montenegro, 12-13; first v. pres., N. Y. State Constitutional Convention, 15. A.A.
- Schuster, Prof. Geo(rge) L(ee),** University of Delaware, Newark, Del. *Agronomy.* Middletown, Ind, May 25, 91. B.S, Ohio State, 16, M.S, 18. Asst. agron., Ohio State, 16-18; instr., West Virginia, 18-19; *prof, Delaware*, 19- A.A.; Soc. Agron. Farm crops; soils.
- Schuyler, Prof. William H(illiard),** 26 S. Fourth St, Lewisburg, Pa. *Chemical engineering, Chemistry.* Milton, Pa, Sept. 6, 90. B.S, Bucknell, 15; Columbia, 17; du Pont fellow, Virginia, 21-23, M.S, 23. Instr. chem., Bucknell, 15-18, asst. prof., 18-26, *prof. chem. eng.*, 26-

- Chem. Soc; fel. Inst. Chem. (junior membership committee). Organic and physical chemistry; esterification equilibria in the gaseous phase.
- Schwab, Dr. Charles M(ichael)**, 25 Broadway, New York, N. Y. *Mechanical engineering*. Williamsburg, Pa, Feb. 18, 62. St. Francis (Pa); hon. D.Eng. Lehigh, 14, Stevens, 21; LL.D. Lincoln Mem. Univ, 17, St. Francis Col, 23, Franklin and Marshall Col, 24, Juniata Col, 26; D.Com.Sci. N. Y. Univ, 18. Supt, Edgar Thomson Steel Works and Homestead Steel Works, 92-96; mem, board managers, Carnegie Steel Co, 96-97, pres, 97-01; U. S. Steel Corp, 01; *chairman, Bethlehem Steel Corp*. Director-gen, Emergency Fleet Corp. Trustee, Cornell; Lehigh; Pa. State. Légion d'honneur. Mech. Eng; Min. Eng; Soc. Steel Treat; Naval Archit; Am. Iron and Steel Inst. (director); Acad. Polit. Sci; British Iron and Steel Inst.
- Schwab, Dr. Sidney I(saac)**, 5859 Clemens Ave, St. Louis, Mo. *Neurology*. M.D, Harvard, 96; Berlin, Paris, Vienna, 96-99. Prof. nervous and mental diseases, St. Louis, 04-12; *prof. clin. neur, Washington (St. Louis)*, 13- Neur. Ass; Psychopath. Ass.
- Schwartz, Dr. Benjamin**, 1349 Kenyon St, N. W, Washington, D. C. *Zoology*. Austria, Nov. 25, 89. A.B. Col. City of N. Y, 11; A.M, Columbia, 13; Ph.D, George Washington, 20. Sci. asst, Bur. Fisheries, 13; instr. biol, Arkansas, 13-15; *prof. parasitol, Philippines*, 20-23; junior zoologist, *bur. animal indust, U. S. Dept. Agr*, 15-20, asst. zoologist, 20, 23-25, *assoc. zoologist*, 25- Director research, hookworm surveys, Philippine Health Service, 22-23. Co-ed, 'Philippine Jour. Science,' 23; asst. ed, 'Bacter. Abstracts,' 25- A.A; Soc. Parasitol; Soc. Trop. Med. (acting sec'y-treas, 25, sec'y-treas, 26-); Wash. Helminth. Soc. (sec'y, 24-26, pres, 26-); Wash. Acad. Toxic products and physiology of parasitic worms; trichinosis; taxonomy, morphology and life histories of cestodes and nematodes; immunity in parasitic diseases.
- Schwartz, Prof. Frederick W(illiam)**, 439 Hamilton St, Albany, N. Y. *Chemistry*. Albany, Sept. 2, 83. B.S, Rensselaer, 05; Ph.D, Columbia, 11. Asst. chem, Rensselaer, 05-10; physical chem, Columbia, 10-11; instr. chem, *Rensselaer*, 11-13, asst. prof. *anal. chem*, 13-19, *prof*, 19- A.A; Chem. Soc; Pub. Health Ass. Drop weights and surface tension of esters; nitroso compounds; chlorin in potable water; terpenes; fermentation; plant products.
- Schwartz, Prof. G(eorge) M(elvin)**, University of Minnesota, Minneapolis, Minn. *Geology*. Oakfield, Wis, Sept. 23, 92. A.B, Wisconsin, 15, A.M, 16; Ph.D, Minnesota, 23. Asst. geol, Wisconsin, 15-16; geologist, Copper Range Co, 16-18; instr. *geol, Minnesota*, 19-23, *asst. prof*, 23- Geologist, Wis. and Minn. Geol. Surveys. Second lieut, U.S.A, 18-19. A.A; Geol. Soc. Relations of the ore minerals; contact metamorphism; formation of high temperature sulphides.
- Schwartz, Harry A(dolph)**, 2585 Euclid Boulevard, Cleveland, Ohio. *Metallurgy*. Oldham Co, Ky, April 13, 80. B.S, Rose, 01, M.S, 03, M.E, 05. Instr, Rose, 01-02; acting supt, Indianapolis works, Nat. Malleable Castings Co, 02-20, *manager research, Nat. Malleable and Steel Castings Co*, 20- Lecturer, Case, 24- Chem. Soc. (sec'y, Ind. sect, 06-09); Soc. Steel Treat. (chairman, Cleveland sect, 23-25); Foundrymen's Ass. (chairman, committee on metallog, 23-); Mech. Eng; Min. Eng. (v. chairman, Ohio sect, 24-); Automotive Eng; Soc. Test. Mat; Cleveland Eng. Soc; British Iron and Steel Inst. Physical metallurgy of malleable cast iron.
- Schwartz, Dr. Erich W(ilhelm)**, Mellon Institute, Pittsburgh, Pa. *Pharmacology*. Cairo, Ill, Jan. 14, 91. A.B, Illinois, 12; M.D, Chicago, 14. Instr. physiol. and pharmacol, Univ. and Bellevue Hosp. Med. Col, 14-16; junior pharmacologist, bur. chem, U. S. Dept. Agr, 16-18, in charge pharmacol. lab, 18-26; *Mellon Inst*, 26- Nat. Research Council fellow, London, 23-24. Soc. Pharmacol; D. C. Med. Soc; Soc. Exp. Biol; Wash. Biol. Soc; Wash. Bact. Soc. Habituation to arsenic; pharmacology and chemistry of cottonseed poisoning; strychnine; pharmacology of sulphites and of local emetics; chemistry of g-strophanthin; physiological standardization of drugs.
- Schwarz, Herbert F(erlando)**, American Museum of Natural History, New York, N. Y. *Entomology*. New York, Sept. 7, 83. A.B, Harvard, 04, A.M, 05; A.M, Columbia, 07. *Research assoc. Hymenoptera, Am. Museum Nat. Hist*, 21- Ed, 'Nat. Hist,' 21-24. Anthropol. Ass; N. Y. Entom. Soc; fel. N. Y. Acad. (ed, counselor). Hymenoptera.
- Schwarz, Dr. Carl Alois**, 8610 Ferriss St, Woodhaven, L. I, N. Y. *Plant pathology*. Brooklyn, N. Y, Sept. 27, 86. B.S, Missouri; A.M, Columbia, Ph.D, 22. Asst. bot, Columbia, 11-12, 19-21; asst. state plant pathologist, N. J. Exp. Sta, 12-18; *consulting plant pathologist*, 23- Summers, lecturer, Columbia, 20-22. M.C, U.S.A, 18-19. Phytopath. Soc. Parasitic fungi of New Jersey.
- Schwatt, Prof. I(saac) J(oachim)**, University of Pennsylvania, Philadelphia, Pa. *Mathematics*. Mitau, Russia, June 18, 67. Ph.D, Pennsylvania, 93. Instr. *math, Pennsylvania*, 93-97, asst. prof, 97-09, *prof*, 09- A.A; Math. Soc; Math. Verein. Operation with series.
- de Schweinitz, Prof. George Edmund**, 1705 Walnut St, Philadelphia, Pa. *Ophthalmology*. Philadelphia, Oct. 26, 58. A.B, Moravian Col, 76, A.M, 82, L.H.D, 20; M.D, Pennsylvania, 81, LL.D, 14; Sc.D, Michigan, 23. Prosector anat, Pennsylvania, 83-88, lecturer med. ophthalmoscopy, 91-92; *prof. ophthal*, Phila. Polyclinic, 91-94; Jefferson Med. Col, 92-02; sch. med, *Pennsylvania*, 02-24, *grad. sch. med*, 24- Consulting ophthal. surgeon, Phila. Gen. Hosp; Orthop. Hosp; Bowman lecturer, London, 23; lecturer, Soc. française d'Ophthal, 24. Director, Pa. Inst. Instruction Blind. Trustee, Pennsylvania, 24- Alvarenga prize, Phila. Col. Physicians, 94. First lieut, M.R.C, 08, major, 17-18, lieut. col, 18-19, col, M.C, 19, brig. gen, O.R.C, 22. Pres, Int. Cong. Ophthal, Washington, 22. A.A; Am. Med. Ass. (pres, 22, ophthal. sect, 97); Ophthal. Soc. (pres, 15); Philos. Soc; Phila. Acad; Phila. Med, Neur. and Path. Societies; Phila. Col. Physicians (pres, 10-13);

Ophthal. Soc. United Kingdom; Soc. française d'Ophthal; Soc. d'Ophthal. de Belg. Toxic amblyopias; the relation of auto-intoxication to ocular disorders; pathology of various ocular diseases; relation of cerebral decompression to cure of choked disc; ocular angio-sclerosis; pathogenesis of choked disc; relation of focal infection to ocular diseases; diseases of the eye.

Schwitala, Prof. Alphonse M(ary), 1402 S. Grand Ave, St. Louis, Mo. *Physiology*. Beuthen, Upper Silesia, Germany. A.B., St. Louis, 06, A.M., 07; Ph.D., Hopkins, 21. Instr. chem, St. Xavier Col, 07-10; biol, St. Louis, 11-12; chem, Rockhurst Col, 17-18; assoc. prof. biol, St. Louis, 21-25, *prof. and director*, 25-, *regent*, St. Louis Schools of Med. and Dentistry, 24-, *acting dean*, grad. sch., 25- St. Louis Univ. exped. for Study of Trop. Diseases, British Honduras, 15. A.A.; Soc. Zool; Ecol. Soc; St. Louis Acad; St. Louis Soc. Anthrop. General physiology; influence of temperature on physiological processes; endocrine extracts and reproduction in the Protozoa; environmental factors in their influence on the organism.

Scootes, Prof. D(aniels), College Station, Texas. *Agricultural engineering*. Crown Point, Ind, Jan. 27, 82. B.S., Iowa Col, 10, A.E., 15. Asst. agr. eng, Mont. Col, 10; *prof*, Miss. Agr. and Mech. Col, 10-19; *Agr. and Mech. Col. Texas*, 19- Agr. Eng. (pres, 18). Farm buildings; farm mechanics; home conveniences.

Scotfield, C(arl) S(churz), Lanham, Md. *Botany, Agriculture*. Bloomington, Minn, Feb. 5, 75. B.S.A., Minnesota, 00. Asst. bur. plant indust, U. S. Dept. Agr, 00-05, *agriculturist in charge west. irrig. agr*, 05- A.A.; Ass. Geog; Wash. Bot. Soc; Wash. Acad. Wild rice; varieties of wheat; commercial grading of corn; dry farming in the Great Basin; problems of irrigation farming; movement of water in irrigated soils.

Scott, Prof. Alfred W(itherspoon), 180 Westview Drive, Athens, Ga. *Chemistry*. Macon, Ga, June 25, 96. B.S., Georgia, 18; Ph.D., Princeton, 21. Assoc. prof. chem, Georgia, 22-26, *prof*, 26- Chem. Soc. Beckman rearrangement of hydroxamic acid derivatives; hyponitrites.

Scott, Capt. A(ndrew) H(umbert), Box 777, Lovelock, Nev. *Chemical engineering, Metallurgy*. Los Angeles, Calif, July 9, 87. Stanford, 11; Nevada. Chemist-assayer, Alpha Mining Co, 12-15; consulting engineer, Lovelock, Nev, 15-17, *custom chem. eng*, 20- Capt. A.S., 17-20. A.A.; Chem. Soc; Ass. Eng; Seismol. Soc; Meteor. Soc. Aero-dynamics; metallurgy; mineralogy; non-metallies.

Scott, Dr. Arthur Curtis, Bush Temple, Dallas, Texas. *Electrical engineering*. Belmont, N. Y, Aug. 31, 73. B.S., R. I. Col, 95; Ph.D., Wisconsin, 02. Instr. chem, R. I. Col, 94-95, physics, 95-97, *prof*, 97-03; elec. eng, Texas, 03-11; *consulting engineer*, 11- Valuation, construction and designing engineer, indust. concerns. Elec. Eng; Mech. Eng; Refrig. Eng. Rotations produced by current from a single-phase alternator; summary of glacier work; lignite producer gas and gas engines; hydroelectric plants; Texas fuel properties; refrigeration; water works; irrigation; steam and gas engineering.

Scott, Prof. C(harles) C(arrington), Austin College, Sherman, Texas. *Chemistry*. Lexington, Va, Dec. 7, 66. A.B., Hampden-Sidney, 88; Virginia, 89; Hopkins, 96-98; Chicago, 04; Heidelberg, 07-08; hon. Sc.D, Austin, 18. Prof. chem, Austin, 89-96, 00-26, *emer. prof*, 26- A.A.; Chem. Soc. Hydronitric acid.

Scott, Prof. Charles F(elton), 19 Trumbull St, New Haven, Conn. **Electrical engineering*. Athens, Ohio, Sept. 19, 64. A.B., Ohio State, 85; Hopkins, 86-87; D.Eng, Stevens, 12; Sc.D, Pittsburgh, 12. Westinghouse Elec. and Mfg. Co, 88, asst. electrician, 91-93, electrician, 93-96, chief electrician, 96-04, consulting engineer, 04-11; *prof. elec. eng*, Yale, 11- A.A.; Elec. Eng. (pres, 02); Eng. Educ. (pres, 21-23); Philos. Soc; West. Pa. Eng. Soc. (pres, 02); British Inst. Elec. Eng. Electricity, particularly alternating current in the transmission and utilization of power.

Scott, Prof. C(harlotte) A(ngas), Cambridge, Eng. **Mathematics*. Lincoln, Eng, June 8, 58. Girton, 76-80; B.Sc, London, 82, D.Sc, 85. Lecturer math, Girton, 80-84; assoc. prof, Bryn Mawr, 85-88, prof, 88-17. Head examiner, Col. Entrance Exam. Board, 02, 03. Staff, 'Am. Jour. Math.' U. S. delegate, Int. Cong. Math, Paris, 00. Math. Soc; London Math. Soc; Edinburgh Math. Soc; Math. Verein; hon. mem. Amsterdam Math. Soc; Circolo Mat. di Palermo. Theory of plane algebraic curves; singularities; intersections; systems of curves; transformation; nature of circuits.

Scott, Prof. Ernest, Ohio State University, Columbus, Ohio. *Pathology*. Athens, Ohio, July 30, 75. B.S., Ohio State, 97; M.D., Ohio Med. Univ, 00. Asst. physician, Columbus State Hosp, 00-01; bacteriologist, Columbus Board Health, 04-08; prof. path, Starling Ohio Med. Col, 07-13; asst. prof. vet. path, Ohio State, 10-14, *prof. path*, 14- Pathologist, University and St. Francis Hospitals, and consulting pathologist, White Cross Hosp, 08- A.A.; Am. Med. Ass; Soc. Clin. Path; Ass. Path. and Bact; Ass. Cancer Research; Int. Ass. Med. Mus. Botulism; cancer; lymphoblastoma; ochronosis; polycystic liver.

Scott, Dr. Ernest L(yman), 437 W. 59th St, New York, N. Y. *Physiology*. Kinsman, Ohio, Aug. 18, 77. B.S., Ohio Wesleyan, 02; fellow, Chicago, 09-11, M.S., 11; Ph.D., Columbia, 14. Teacher, high sch, Mich, 03-09; asst. *physiol*, Chicago, 09-11; asst. prof, Kansas, 11-12; instr. and assoc, Columbia, 12-19, asst. prof, 19-22, *assoc. prof*, 22- Aid, U. S. Coast and Geod. Surv, 02. Capt. and major, U.S.A., 17-19. A.A.; Physiol. Soc; Soc. Exp. Biol; Soc. Biol. Chem; Chem. Soc; Harvey Soc. Carbohydrate metabolism.

Scott, E(ugene) W(iley), Rockville, Md. *Entomology*. Sugar Grove, Va, March 17, 86. B.S., Va. Polytech, 09; Cornell, 01-11. Asst. bur. entom., U. S. Dept. Agr, 09- A.A.; Entom. Soc; Ass. Econ. Entom; Wash. Entom. Soc. The lesser bud-moth; lime-sulphur concentrate.

Scott, Dr. F(lora) Murray, University of California at Los Angeles, Los Angeles, Calif. *Botany*. Craig Manse, Scotland, Sept. 6, 91. M.A.,

- St. Andrews, Scotland, 11, B.Sc., 14, Carnegie research scholar, 14-15; fellow, Stanford, 23-25, Ph.D., 25. Demonstrator bot, St. Andrews, Scotland, 13-15; assoc. prof. *biol.*, American Col., Constantinople, 20-21; asst., Stanford, 22-23; *instr.*, *California at Los Angeles*, 25- A.A.; Bot. Soc. Limnology; paleobotany; flora of Tesla; fossil cones.
- Scott, Prof. F(rederick) H(ughes)**, University of Minnesota, Minneapolis, Minn. *Physiology*. Toronto, Ont., Can., Feb. 19, 76. B.A., Toronto, 97, Ph.D., 00, M.B., 04; MacKinnon student, Royal Soc. London, 06-07; D.Sc., London, 08. Demonstrator physiol., Toronto, 00-04; Sharpey student and asst., Univ. Col., London, 07-08; asst. prof. *physiol.*, *Minnesota*, 08-12, assoc. prof., 12-18, *prof.*, 18- A.A.; *Physiol. Soc.*; *Soc. Biol. Chem.*; *Soc. Exp. Biol.*; *London Physiol. Soc.* Microchemistry; chemistry of phosphorus bodies; respiration and nervous activity; phosphorus compounds of tissues and their metabolism; interchange of tissue fluids and blood.
- Scott, Prof. Gayle**, Texas Christian University, Fort Worth, Texas. *Paleontology*. Lamkin, Texas, Oct. 1, 94. A.B., Texas Christian, 17, A.M., 20; D.Sc., Grenoble, 25. *Instr. biol. and geol.*, *Texas Christian*, 19-21, asst. prof. and assoc. prof., 21-25, *prof.*, 25- Lieut., F.A., 17-19. A.A.; *Paleont. Soc.*; *Ass. Petrol. Geol.*; *Soc. géol. de France*. *Paleontology and stratigraphy of Texas Cretaceous*; areal geology of Texas Comanchean.
- Scott, Prof. George G(ilmore)**, College of the City of New York, New York, N. Y. *Biology*. Geneseo, N. Y., May 3, 73. A.B., Williams, 98, A.M., 99; Ph.D., Columbia, 13. *Prof. biol.*, *Col. City of N. Y.* Investigator, U. S. Bur. Fisheries, 13-14, 18; summer, Hawaii, 27. A.A.; *Soc. Nat.*; *Soc. Zool.*; *Soc. Exp. Biol.*; *Ass. Med. Progress*; *fel. N. Y. Zool. Soc.* Regeneration in fishes; osmotic relations and oxygen utilization of aquatic animals; conservation of fish food; general physiology; biologic law in social organization.
- Scott, Dr. Gordon H(atler)**, Loyola University, Chicago, Ill. *Anatomy*. Winfield, Kans., April 10, 01. A.B., Southwestern (Kans.), 22; A.M., Minnesota, 25, Ph.D., 26. Asst. zool., Hopkins, 22-23; teaching fellow *anat.*, Minnesota, 23-26; *asst. prof.*, *Loyola (Ill.)*, 26- Growth of the human stomach and intestinal tract.
- Scott, Prof. I(rving) D(ay)**, University of Michigan, Ann Arbor, Mich. *Geology, Physiography*. Omaha, Nebr., Sept. 16, 77. A.B., Oberlin, 00; A.M., Michigan, 07, Ph.D., 12. Teacher, high sch., N. Y., 01-06; asst. miner. and geol., *Michigan*, 06-07, *instr. physiol. geol.*, 07-13, asst. prof., 13-20, *assoc. prof.*, 20- A.A.; *Geol. Soc.*; *Mich. Acad.* American minerals; physical geology.
- Scott, Dr. J(ohn) T(errell)**, 449 High St., Denver, Colo. *Anatomy*. Lynchburg, Va., July 25, 93. A.B., Randolph-Macon, 14; A.M., Harvard, 15; M.D., Colorado, 22. Assoc. physician, Cragmor Sanatorium, 22-23; *instr. anat. sch. med.*, *Colorado*, 23- Ass. Anat.; Am. Med. Ass. Secondary carcinoma of the lung; effect of hydrogen-ion concentrations on mitochondria in the liver cell.
- Scott, Prof. John W(illiam)**, University of Wyoming, Laramie, Wyo. *Zoology, Parasitology*. Lewis Co., Mo., July 1, 71. A.B., Missouri, 96, A.M., 97; Carnegie fellow, Woods Hole, 02; fellow, Chicago, 02-04, Ph.D., 04. Teacher, high sch., Mo., 97-01, head dept. biol., 04-11; *instr. zool.*, *Kansas Col.*, 11-12, asst. prof., 12-13; *prof. zool. and research parasitologist*, *Wyoming*, 13- *Instr.*, *Woods Hole*, 08-11. Ed. board, 'Jour. Parasitol.', 14- A.A.; *Soc. Nat.*; *Soc. Zool.*; *Soc. Parasitol.*; *Ass. Anat.*; *Ecol. Soc.*; *Genetic Ass.*; *Micros. Soc.*; *Ass. Med. Progress*; *cor. mem.* Wash. Helminth. Soc. Economic zoology; embryology; parthenogenesis and egg-laying habits of Amphitrite; insect transmission of swamp fever; Sarcosporidia; life histories of tapeworms of sheep and cattle; transmission of equine infectious anemia.
- Scott, Prof. Joseph M(ehollin)**, 724 W. Harts-horn St., Alliance, Ohio. *Parasitology*. New Alexandria, Ohio, May 17, 90. B.S., Mt. Union Col., 13; Michigan, 14-16; Sc.D., Hopkins, 23. *Prof. biol.*, *Dakota Wesleyan*, 16-18; *M. J. Lichty prof.*, *Mount Union Col.*, 18- Nat. Research Council fellow, Hopkins, 23-24. Second lieut., Sanit. C., 18-19. A.A.; *Soc. Zool.*; *Soc. Parasitol.*; *Ohio Acad.* Smallpox; measles; filterable viruses.
- Scott, Dr. L(eonard) C(ase)**, 442 Lowerline St., New Orleans, La. *Public health, Medicine*. Shiloh, Ill., July 15, 80. B.S., Case, 00; Ph.D., Berlin, 08, M.D., 12. Chemist, Grasselli Chem. Co., 00-02; asst. and chief chemist, Kennicott Water Softener Co., 02-04; *instr. trop. med.*, *Tulane*, 13-14, asst. prev. med. and hygiene, 21-25; *director bur. venereal diseases*, *La. State Board Health*, 22-25, *bur. information and research*, 25- Summer, lecturer, Tulane, 25. Mc-Millan exped., Sudan and Abyssinia, 04-05. Fel. Am. Med. Ass. Iodine compound in sponges; electrolytic decomposition of organic acids; comparative anatomy of racial hands; influenza; beri-beri; dengue fever; morphine poisoning and addiction; salivary digestion.
- Scott, Louis Mollyneaux**, Federal Horticultural Board, Washington, D. C. *Horticulture*. Logansport, Ind., March 4, 86. A.B., Lake Forest, 09; Oregon Col., 10; B.S., Winona Col., 12; Purdue, 13. Teacher hort. and plant path., Winona Col., 12-13; manager and owner fruit farms, Mich., 13-20; *assoc. chief plant quarantine inspection service*, *fed. hort. board*, U. S. Dept. Agr., 21-
- Scott, Dr. Norman D(unshee)**, 150 Lexington Ave., Cambridge, Mass. *Chemistry*. Maxwell, Iowa, Jan. 6, 94. B.S., Drake, 16; Rhodes scholar, Oxford, 16, B.A., M.A., 20, B.Sc., 21; Ph.D., Wisconsin, 24. Demonstrator physics, Oxford, 20-21; *instr. chem.*, *Wisconsin*, 22-23; *Harvard*, 23-24; *Middlebury*, 24-25; *research on Milton Fund*, *Harvard*, 25- Chem. Soc. Cata-phoresis of proteins; electro-chemical study of haemoglobin.
- Scott, Dr. R(oy) W(esley)**, City Hospital, Cleveland, Ohio. *Clinical medicine*. New Albany, Ind., March 20, 88. A.B., Indiana, 10; M.D., Western Reserve, 13, A.M., 17. *Instr. physiol.*, *Western Reserve*, 15-17, senior instr., 17-18, asst.

prof. med, 22-25, assoc. prof, 25- Am. Physicians; Ass. Clin. Invest; Physiol. Soc; Soc. Exp. Biol; Soc. Pharmacol. Physiology and internal medicine.

Scott, Pres. Walter Dill, 1729 Chicago Ave, Evanston, Ill. **Psychology*. Cookville, Ill, May 1, 69. A.B, Northwestern, 95; McCormick Theol. Sem, 95-98; Ph.D, Leipzig, 00. Instr. psychol. and pedag, *Northwestern*, 00-01, asst. prof. psychol, 01-08, prof, 08-20, director psychol. lab, 01-20, pres, 20-; pres, The Scott Co, 18-20. Cooperating ed, 'Psychol. Bul.' Director bur. salesmanship research, Carnegie Inst. Tech, 16-17; div. psychol. and anthrop, Nat. Research Council, 19-20. D.S. medal, 19. Director committee on classification of personnel, U.S.A., 17-19, col, 18-19. A.A; Psychol. Ass. (pres, 19); Taylor Soc; Indust. Relations Ass; Nat. Ass. Adv. Teachers (pres, 15). Theory of advertising; psychology of public speaking; efficiency; influencing men in business; individual differences; motivation; vocational selection; occupational descriptions; personnel administration.

Scott, Dr. Walter M(oody), Cheney Brothers, South Manchester, Conn. *Chemistry*. Pequabuck, Conn, June 13, 92. Ph.B, Yale, 12, Ph.D, 15. Chief chemist, *Cheney Bros*, 15- Prize, Ass. Textile Chemists and Colorists, 25. Capt, C.W.R.S. Chem. Soc. (senate of chem. educ, 26-); Ass. Textile Chemists and Colorists (board governors and research committee, 21-); Textile Inst. Methods for testing the strength of dyestuffs and their fastness when applied to silk; applications of chemistry to the manufacture of silk.

Scott, Dr. Wilfred W(elday), University of Southern California, Los Angeles, Calif. *Chemistry*. Zanesville, Ohio, Aug. 13, 76. A.B, Ohio Wesleyan, 97, A.M, 01; Cornell, 03-05; Chicago, 09; Sc.D, Colo. Sch. Mines, 23. Instr, Philander Smith, India, 98-01; prof. chem, Morningside, 05-09; chief chemist, Baldwin Locomotive Works, Pa, 10-11; chemist, Gen. Chem. Co, N. Y, 11-21; prof. chem, Colo. Sch. Mines, 21-25; chem, *South. California*, 25- A.A; Chem. Soc; Soc. Test. Mat. Combustion pipettes; fertilizers; ferrous sulphate method for determination of nitrates; volumetric determination of aluminum and fluorine; determination of lead; determination of uranium in carnotite; catalysts for oxidation of ammonia; methods of chemical and metallurgical analysis; inorganic quantitative analysis; qualitative analysis.

Scott, Prof. Will, Indiana University, Bloomington, Ind. *Zoology*. Houston, Ind, April 20, 77. Fellow, Indiana, 07-08, A.B, A.M, 08, Ph.D, 11. Instr. zool, *Indiana*, 08-11, asst. prof, 11-19, assoc. prof, 19-21, prof, 21- Director biol. sta, Indiana. A.A; Soc. Zool; Ecol. Soc; Ind. Acad. Cave plankton; ecology of ponds; limnology.

Scott, Prof. W(illiam) B(erryman), 56 Bayard Lane, Princeton, N. J. **Paleontology*. Cincinnati, Ohio, Feb. 12, 58. A.B, Princeton, 77; Ph.D, Heidelberg, 80; LL.D, Pennsylvania, 06; Sc.D, Harvard, 09, Oxford, 12. Asst. geol, *Princeton*, 80, *Blair prof. geol. and paleont*, 84- Trustee, Woods Hole; Woodrow Wilson Foundation. Wollaston medal, London Geol. Soc, 10;

Hayden medal, Phila. Acad, 26. Nat. Acad; Soc. Nat; Paleont. Soc. (pres, 11); Geol. Soc. (pres, 25); Philos. Soc. (v. pres, 10, pres, 18-25); Am. Acad; Wash. Acad; British Ass; London Geol. Zool. and Linnean Societies. Vertebrate paleontology; the extinct mammalian fauna of Patagonia.

Scott, Dr. W(illiam) J(ustus) Merle, University of Rochester, Rochester, N. Y. *Surgery*. Cleveland, Ohio, 94. A.B, Oberlin, 14; M.D, Hopkins, 18; Arthur Tracy Cabot fellow, Harvard, 22; A.M, Columbia, 22. Asst. surg, Harvard, 23; instr, Western Reserve, 24-25; asst. prof, *Rochester*, 26- Fel. Am. Med. Ass; Ass. Path. and Bact; Soc. Exp. Path. The influence of the adrenal glands on resistance; massive collapse of the lung.

Scott, W(illiam) M(oore), Sanford, Fla. *Horticulture*. Sugar Grove, Va, May 30, 73. B.S, Va. Polytech, 96, M.S, 98. Asst. horticulturist, Va. Polytech, 96-98; state entomologist, Ga, 98-03; pathologist, bur. plant indust, U. S. Dept. Agr, 04-12; Gen. Chem. Co, 12-16; grades and standards specialist, bur. markets, U. S. Dept. Agr, 16-19; horticulturist, *Am. Fruit Growers, Inc*, 19- A.A; Phytopath. Soc; Bot. Soc; Ass. Econ. Entom; Wash. Biol. Soc. Orchard diseases; fruit industries.

Scoville, Wilbur L(incoln), Parke, Davis and Co, Detroit, Mich. *Chemistry, Pharmacy*. Bridgeport, Conn, Jan. 22, 65. Ph.G, Mass. Col. Pharmacy, 89, hon. Phar.D, 27; hon. Phar.M, Phila. Col. Pharmacy, 24. Prof. pharmacy, Mass. Col. Pharmacy, 91-04; anal. chemist, Boston, Mass, 04-07; head anal. dept, *Parke, Davis and Co*, 07- Committee of revision, U. S. Pharmacopœia, 00-10, v. chairman, 20-; Nat. Formulary, 3d and 4th editions, chairman, 4th revision and 5th edition. Ebert prize, 23. A.A; Pharmaceut. Ass; Chem. Soc; Soc. Chem. Indust. Drug assays; pharmaceutical manufacturing and practice; art of compounding.

Scripture, Prof. E(dward) W(heeler), Strudelhofgasse 4, Vienna, Austria. **Psychology, Phonetics*. Mason, N. H, May 21, 64. A.B, Col. City of N. Y, 84, A.M, 90; Ph.D, Leipzig, 91; M.D, Munich, 06. Instr. exp. psychol, Yale, 92-01, director psychol. lab, 98-03, asst. prof, 01-03; assoc. psychiat, Columbia, 09-14; hon. lecturer phonetics, King's Col, London; prof. exp. phonetics, *Vienna*. Asst. ed, 'Am. Jour. Psychol,' 91-92; ed, 'Studies from the Yale Psychol. Lab,' 92-03. Gold medal, Paris, 00; Longstreth medal, Franklin Inst, 02. Association of ideas; applications of psychology to education; curves of speech of various languages and dialects; experimental psychology of nervous and mental diseases; experimental phonetics; nature of verse; mechanism of song; diagnosis of epilepsy and other diseases by speech records.

Scudder, Dr. Charles L(ocke), 144 Commonwealth Ave, Boston, Mass. *Surgery*. Kent, Conn, Aug. 7, 60. A.B, Yale, 82, Ph.B, 83; M.D, Harvard, 88. Asst. prof. surg, Harvard Med. Sch; consulting surgeon, *Mass. Gen. Hosp*, Boston. Consulting surgeon, Melrose, Fitchburg, Natick, Gloucester and Milford Hospitals. Fel.

- Col. Surg; Surg. Ass; Soc. Thoracic Surg; Soc. Clin. Surg; Am. Med. Ass.
- Seago, Prof. Dorothy W(ilson)**, Hollins College, Hollins, Va. *Psychology*. New Orleans, La., July 27, 99. A.B., Tulane, 20, fellow, 20-21; Ph.D., Hopkins, 24. Research asst, Bur. Educ. Experiments, New York, 21-22; asst. psychol., Hopkins, 22-23, 24; psychologist, Vocational Service for Juniors, New York, 24-25; *assoc. prof. psychol., Hollins, 25-* Mental measurements; animal psychology.
- Seagrave, F(rank) E(vans)**, Observatory, North Scituate, R. I. *Astronomy*. Providence, R. I., March 29, 60. Harvard Col. Observatory, 75-77; A.M., Brown, 10. Solar eclipse expeditions, Texas, 78, Germany, 87, N. C., 00. A.A.; Soc. Astron. de Mex; British Astron. Ass; Soc. astron. de France. Theoretical astrophysics; orbits; Ephemerides of various comets; asteroids; variable stars of third type; ring system of Saturn.
- Seal, J(ames) L(ewis)**, Glades Experiment Station, Belle Glade, Fla. *Plant pathology*. Greenwood Co, S. C., Jan. 25, 93. B.S., Clemson, 13; M.S., Iowa Col, 16; Minnesota. Asst. bot., Clemson, 13-14; instr., Iowa Col, 14-16; exten. plant pathology, S. C., 16-20; instr. plant path., Minnesota, 20-24; *plant pathologist, Fla. State Plant Board, 25-27, Glades Exp. Sta, 27-* Phytopath. Soc. Root and ear rot of corn; fruit and vegetable diseases; molds in silage; biologic forms in sclerotinias; coconut bud rot.
- Seale, Alvin**, Steinhart Aquarium, California Academy of Sciences, San Francisco, Calif. *Ichthyology*. Fairmount, Ind., July 8, 73. A.B., Stanford, 05. Curator fishes, Bishop Museum, Honolulu, 01-04; asst, Smithsonian Inst, 05; chief, Div. of Fisheries, P. I., 07-16; *assoc. ichthyol. museum comp. zool., Harvard, 16-19; supt., Steinhart Aquarium, Calif. Acad., 23-* Stanford exped, Point Barrow, Alaska; chief, Bishop Museum exped, South. Pacific, New Zealand and Australia, 01-03; chief, California Alexander exped, Alaska, 06. West. Soc. Nat; Wash. Biol. Soc; San Francisco Aquarium Soc. (pres, 26-); Far East. Med. Soc. Systematic ichthyology; ichthyology of the Philippine Islands; clupeoid fishes; aquarium building and management.
- Seaman, Prof. A(rthur) E(dmund)**, Michigan College of Mining and Technology, Houghton, Mich. *Geology, Mineralogy*. Casnovia, Mich., Dec. 29, 58. B.S., Mich. Col. Mines, 95, E.M., 18. Asst. miner. and geol., Mich. Col. Min. and Tech, 90-93, instr., 93-95, asst. prof., 95-97, prof., 97-27. Mich. Geol. Surv, 85-93. A.A.; Geol. Soc; Am. Geog. Soc; Mich. Acad; Lake Superior Min. Inst. Stratigraphy of Lake Superior region.
- Seamans, H(oward) L(oomis)**, Post Office Building, Lethbridge, Alta., Can. *Entomology*. Wauwatosa, Wis., Aug. 11, 91. B.S., Mont. Col, 16. Asst. state entomologist, Mont, 16-17; special field agent, U. S. Dept. Agr, 17-18; asst. prof. zool., Mont. Col, 19-21; *Dom. entomologist in charge Alberta, Dom. Dept. Agr, 21-* Entom. Soc; Ass. Econ. Entom; Ont. Entom. Soc. Economic entomology; wheat insects; grain cutworms; cereal and forage insects.
- Seamon, Prof. W(illiam) H(enry)**, 2100 N. Stanton St, El Paso, Texas. *Mining, Metallurgy*. Wheeling, W. Va., Dec. 4, 59. West Virginia; B.S., Virginia, 81. Prof. nat. sciences, Miller Sch, Va, 82-88; chem. and metal, Mo. Sch. Mines, 88-95; prof. mining and pres, N. Mex. Sch. Mines, 95-98; mining and metal. work, U. S., Alaska and Mex, 98-19; *prof. mining and geol., Col. Mines, Texas, 19-* Mo. Geol. Surv. A.A; Min. and Metal. Eng. Mining; geophysical methods for aids in finding ore deposits. [*Died, Aug, 27.*]
- Seares, Prof. F(rederick) H(anley)**, Observatory Office, Pasadena, Calif. *Astronomy*. Cassopolis, Mich., May 17, 73. B.S., California, 95, fellow, 95-96, 98-99; Berlin, 99-00; Paris, 00-01. Instr. astron., California, 96-98; prof. and director, Laws Observatory, Missouri, 01-09; supt, computing div, and *ed. publications, Mt. Wilson Observatory, Carnegie Institution, 09-25, asst. director, 25-* Summers, lecturer, California, 17, 24. Chairman, committee on stellar photometry, Int. Astron. Union, 19-; delegate, Brussels, 19, Rome, 22. Nat. Acad; A.A; Astron. Soc; Philos. Soc; Pacific Astron. Soc. (pub. committee, 97, second v. pres, 97, third v. pres, 98); Wash. Acad; for. assoc. Royal Astron. Soc; Soc. astron. de France. Theory of orbits and perturbations; practical astronomy; stellar photometry; distribution of stars; general magnetic field.
- Searle, Dr. Harriet Richardson**, 1866 Wyoming Ave, Washington, D. C. *Zoology*. Washington. A.B., Vassar, 96, A.M., 01; Ph.D., George Washington, 03. *Collaborator, Smithsonian Inst, 01-* A.A; Wash. Acad; Wash. Biol. Soc; Wash. Soc. Fine Arts. Isopod Crustacea; systematic work on the Isopoda.
- Sears, Prof. Frederic William**, University of Vermont, Burlington, Vt. *Neurology*. Morristown, N. J., June 30, 59. Yale, 81; A.B., Amherst, 81; M.D., Vermont, 88. Instr. *neur., Vermont, prof, 11-* Criminologist, Vt. State Penal Board, 10- New Eng. Psychiat. Soc; Vt. Med. Ass. (pres, 21); Boston Soc. Neur. and Psychiat. Criminology.
- Sears, Dr. Geo(rge) G(ray)**, 426 Beacon St, Boston, Mass. *Medicine*. Boston, Oct. 22, 59. A.B., Amherst, 80, Sc.D., 25; M.D., Harvard, 85, LL.D., 26. Instr. *clin. med., Harvard Med. Sch., 97-01, asst. prof., 01-11, prof., 11-19, emer. prof., 19-* Visiting physician, Boston City Hosp, 02-19, trustee and consulting physician, 19- Trustee, Forsyth Dental Infirmary, 25- Emer. mem. Am. Physicians; Am. Med. Ass; Boston Soc. Med. Improv. Clinical manifestations of disease.
- Sears, Prof. Geo(rge) W(allace)**, 917 N. Virginia St, Reno, Nev. *Chemistry*. Kidder, Mo., July 9, 78. B.S., Drury, 08; M.S., Illinois, 11, Ph.D., 14. Instr. *chem., Illinois, 14-17; Nevada, 17-18, assoc. prof., 18-22, prof., 22-*, head dept, 26- A.A; Chem. Soc. Rarer metals; qualitative analysis; fusion of rare metal ores.
- Sears, Prof. H(arry) J(ohnson)**, R. R. 6, Dosch Road, Portland, Oregon. *Bacteriology*. Daviess Co, Mo, Feb. 13, 85. A.B., Stanford, 11, A.M., 12, Ph.D., 16. Instr. *chem., Stanford, 11-12,*

- bacter, 13-16; city bacteriologist and chemist, Berkeley, Calif, 16-18; *prof. bacter, med. sch., Oregon*, 18- A.A; Soc. Bact. Chemistry; nitrogen metabolism of bacteria; bacterial symbiosis.
- Sears, Dr. Julian D(ucker)**, U. S. Geological Survey, Washington, D. C. *Geology*. Baltimore, Md, June 3, 91. A.B, Hopkins, 13, fellow, 15-16, Ph.D, 19. Geol. aid, U. S. Geol. Surv, 15-16; geologist, Sinclair Cent. Am. Oil Co, 17-18; asst. geologist, *U. S. Geol. Surv*, 18, assoc. geologist, 18-20, geologist, 20-24, *administrative geologist*, 24- Geol. Soc; Ass. Petrol. Geol; Wash. Geol. Soc. Stratigraphic and structural geology; petroleum; coal; manganese.
- Sears, O(gle) H(esse)**, University of Illinois, Urbana, Ill. *Agronomy*. Oblong, Ill, May 24, 92. B.S, Illinois, 14; M.S, Purdue, 17. From asst. chem. to asst. prof. agr. chem, Purdue, 14-20; from assoc. soil fertility to *asst. prof. soil biol, Illinois*, 20- A.A; Soc. Agron; Soc. Bact. Bacteria in relation to soil fertility.
- Sears, Prof. Paul B(igelow)**, University of Oklahoma, Norman, Okla. *Botany*. Bucyrus, Ohio, Dec. 17, 91. A.B, B.S, Ohio Wesleyan, 13; A.M, Nebraska, 15; Ph.D, Chicago, 22. *Instr. bot*, Ohio State, 15-19, asst. prof, Nebraska, 19-25, assoc. prof, 25-27; *prof. and head dept, Oklahoma*, 27- U.S.A, 17-18. A.A; Bot. Soc. (sec'y, gen. sect, 24-27); Ohio Acad; Nebr. Acad. (pres, 24). Insect galls; vegetation of glaciated Ohio; plant physiology; reproduction and variation; pollen.
- Sease, Dr. V(irgil) B(ernard)**, P. O. Box 15, Parlin, N. J. *Chemistry*. Leesville, S. C, Sept. 13, 88. A.B, Newberry, 08; fellow, Hopkins, 16-17, Ph.D, 17. *Instr*, Newberry, 11-13; research chemist, E. I. du Pont de Nemours and Co, 17-25; *director, Redpath lab, du Pont Pathé Film Mfg. Corp*, 25- A.A; Chem. Soc. Vapor pressure of aqueous solutions; cellulose acetate; photographic emulsions.
- Seashore, Prof. C(arl) E(mil)**, University of Iowa, Iowa City, Iowa. **Psychology*. Mörunda, Sweden, Jan. 28, 66. A.B, Gustavus Adolphus, 91; Ph.D, Yale, 95. Asst. psychol. lab, Yale, 95-97; asst. prof. philos, Iowa, 97-02, *prof. psychol*, 02-, *head dept. philos. and psychol*, 05-, *dean grad. col*, 08- Chairman div. psychol. and anthrop, Nat. Research Council, 20-21. Nat. Acad; A.A; Psychol. Ass. (pres, 11); West. Philos. Ass; Iowa Acad. Psychology of music; basic motor capacities; work and fatigue; the periodicity of mental work; normal illusions; localization of sound; voluntary control of the pitch of the voice; pitch discrimination; expression of emotion in music; individual psychology applied to education.
- Seashore, Dr. Robert H(olmes)**, Ohio State University, Columbus, Ohio. *Psychology*. Iowa City, Iowa, June 14, 02. A.B, Iowa, 23, M.S, 24, Ph.D, 25. *Instr. psychol, Ohio State*, 25- Summer, field asst, Carnegie Institution, 22. Assoc. Iowa Acad. Motor rhythm and coordination; general geology in Glacier National Park.
- Seaver, Dr. Fred J(ay)**, New York Botanical Garden, Bronx Park, New York, N. Y. *Botany*. Webster Co, Iowa, March 14, 77. B.S, Morningside, 02; fellow, Iowa, 03-04, M.S, 04, Ph.D, 12; fellow, Columbia, 06-07. Asst. bot, Iowa, 04-05; prof. biol, Iowa Wesleyan, 05-06; asst. prof. bot, N. Dak. Col, and mycologist, Exp. Sta, 07-08; director laboratories, N. Y. Bot. Garden, 08-11, *curator*, 12- Ed, 'Mycologia.' Bot. Soc; Torrey Bot. Club. Mycology; the cup fungi of North America; tropical ascomycetes.
- Sedgwick, Prof. Paul J(oseph)**, Syracuse University, Syracuse, N. Y. *Botany*. Cincinnati, Ohio, Sept. 22, 96. B.S, Chicago, 18, fellow, 19-22, Ph.D, 22. *Instr. bot, Syracuse*, 22-25, *asst. prof*, 25- Summer, field asst, Ill. Geol. Surv, 25. Ensign, U.S.N.R.F, 18. A.A; Bot. Soc. Plant morphology.
- Sedgwick, Mrs. Paul J. (Dr. Lillian G(ace) Reynolds)**, Syracuse University, Syracuse, N. Y. *Botany*. Chicago, Ill, Dec. 26, 96. B.S, Chicago, 19, fellow, 20-22, Ph.D, 22. *Instr. biol*, Stephens Col, 23-24; *bot, Syracuse*, 25- A.A. Plant morphology.
- See, Capt. T(homas) J(efferson) J(ackson)**, U. S. Naval Observatory, Mare Island, Calif. **Astronomy*. Montgomery City, Mo, Feb. 19, 66. A.B, B.L, B.S, Missouri, 89, A.M, L.M, M.S, 92; Ph.D, Berlin, 92. *Instr. in charge dept. astron*, Chicago, 93-96; astronomer, Lowell Observatory, 96-98; *prof. math, U.S.N*, 99- Lecturer, Lowell Inst, Boston, 99. A.A; Math. Soc; Physical Soc; Philos. Soc; Seismol. Soc. (v. pres, 07); Pacific Astron. Soc; Calif. Acad; St. Louis Acad; Wash. Acad; Wash. Philos. Soc; fel. British Ass; fel. Royal Astron. Soc; British Astron. Ass; London Math. Soc; Edinburgh Math. Soc; Astron. Gesell; Math. Verein; Soc. astron. de France; Soc. math. de France; Soc. de Physique; Circolo Mat. di Palermo; Sicilian Acad. Double stars; planets and satellites; earthquakes and mountain formation; secular effects of resisting medium; porosity under pressure; nebulae and cosmical evolution; electrodynamic wave theory of physical forces; fluctuation of moon's mean motion; motion of Mercury's perihelion and lunar perigee; cause of gravitation; new theory of ether; theory of relativity; molecular forces; dynamical wave-theory of the tides; physical cause of the variation of latitude; period and amplitude of the polar motion.
- Seelig, Prof. M(ajor) G(abriel)**, Washington University, St. Louis, Mo. *Surgery*. Helena, Ark, Feb. 19, 74. A.B, Harvard, 96; M.D, Columbia, 00; Berlin, 03-04. *Prof. surg*, St. Louis, 08-19; *clin. prof. sch. med, Washington (St. Louis)*, 19- Col, M.R.C. A.A; Col. Surg; Surg. Ass; Am. Med. Ass. Surgical pathology and clinical surgery; pathology of sarcomata; pathology of the thyroglossal duct; physiology of shock; pathology of carcinoma of the esophagus; history of medicine.
- Seely, Prof. Fred B**, University of Illinois, Urbana, Ill. *Mechanical engineering*. Chester, N. Y, April 29, 84. B.S, Worcester, 07; M.S, Illinois, 15. Draftsman and testing engineer, Carpenter Steel Co, 07-08; engineer, E. I. du

- Pont de Nemours and Co, 08; instr. mech. eng, Villa Nova, 08-09; *theoret. and applied mech*, Illinois, 09-15, assoc, 15-17, asst. prof, 17-19, assoc. prof, 19-21, *prof*, 21- Mech. Eng; Soc. Test. Mat; Eng. Educ. Hydraulics; fatigue of metals; strength of materials; dynamics.
- Segerblom, Wilhelm**, Phillips Exeter Academy, Exeter, N. H. *Chemistry*. Gothenburg, Sweden, Jan. 11, 72. A.B, Harvard, 97. *Head dept. chem*, Phillips Exeter Acad, 99- Dept. ed, 'Jour. Chem. Educ.' A.A; Chem. Soc. (chairman, div. chem. educ, 25-); New Eng. Ass. Chem. Teachers (pres, 14); N. H. Acad. (pres, 27). Educational chemistry.
- Seibel, Clifford W** (inslow), 1209 Gallatin St, N. W, Washington, D. C. *Chemistry*. Kansas City, Mo. B.S, Kansas, 13, M.S, 15. Instr. chem, Kansas, 15-17; *chemist in charge helium field investigation and repurification*, U. S. Bur. Mines, 17- Chem. Soc. Rare gases in natural gas.
- Seibert, Dr. Florence B** (arbara), University of Chicago, Chicago, Ill. *Physiological chemistry*. Easton, Pa, Oct. 6, 97. A.B, Goucher, 18; Van Meter fellow, Yale, 21-22, Porter fellow, 22-23, Ph.D, 23. Chemist, Hamersley Paper Mill, 18-20; *instr. path. and asst*, Sprague Mem. Inst, Chicago, 24- Porter fellow, Chicago, 23-24; summer, research, Psychiat. Inst, 22. Howard T. Ricketts prize, 25. A.A; Soc. Biol. Chem. Chemical reactions of cellulose; bacterial pyrogenic substance in distilled water; protein fevers; chemistry of tuberculin.
- Seibert, Dr. Frank Meyers**, Gulf Pipe Line Co, Houston, Texas. *Chemistry*. Berlin, Pa, Aug. 4, 87. B.S, Pa. State, 10; fellow, Princeton, 15-16, Ph.D, 17. Research chemist, U. S. Bur. Mines, 11-14; *director research*, Gulf Pipe Line Co, 17- Chem. Soc. (chairman, southeast Texas sect, 18). Specific heats of salts at low temperatures; gas and oil.
- Seidell, Dr. Atherton**, 2301 Connecticut Ave, Washington, D. C. *Chemistry*. Hartwell, Ga, Dec. 31, 78. B.Agr, Georgia, 98, B.S, 99; M.S, George Washington, 01; Ph.D, Hopkins, 03. Asst. chemist, bur. soils, U. S. Dept. Agr, 00-05, bur. chem, 05-06; *chemist, hygienic lab*, U. S. Pub. Health Service, 07- A.A; Chem. Soc; Wash. Acad; Wash. Chem. Soc. (sec'y, 03-05, pres, 19). Solubility of mixtures of two or more electrolytes; composition of precipitated manganese dioxid; solubility of the calcium phosphates; solubilities of inorganic and organic compounds; chemistry of vitamins; chemistry of thyroid; solubilities and physical constants of pharmacopoeial compounds.
- Seidle, Russell E**, Syracuse University, Syracuse, N. Y. *Physics*. Steelton, Pa, 98. A.B, Dickinson Col, 21; A.M, Syracuse, 23. Asst. instr, Dickinson Col, 20-21; *instr. eng. physics*, Syracuse, 21- Engineer, Harrisburg Railways Co, 21. Physical Soc. Two and three electrode tube characteristics; electromagnetic wave antennas.
- Seifriz, Prof. William**, University of Pennsylvania, Philadelphia, Pa. *Plant physiology*. Washington, D. C, Aug. 11, 88. B.S, Hopkins, 16, Ph.D, 20; Geneva, 21; London, 21-22; Kaiser Wilhelm Inst, 22. Research asst, bur. plant indust, U. S. Dept. Agr, 07-10, 14-18; Seessel fellow, Yale, 22-23; instr. *bot*, Michigan, 23-24; Nat. Research Council fellow, Pennsylvania, 24-25, *prof*, 25- A.A; Bot. Soc; Hist. Sci. Soc; Pa. Bot. Soc. Plant biology and geography; microdissection; cell physiology; colloidal chemistry.
- Seil, Dr. Gilbert E** (dward), 1512 Fayette St, Conshohocken, Pa. *Industrial chemistry*. Brooklyn, N. Y, Oct. 29, 88. Rutgers, 05-08; chemist, Columbia, 12; M.S, Pittsburgh, 21, Ph.D, 22. Chem. director, Metal and Thermit Corp, 15-19; indust. fellow, Mellon Inst, 20-23; special research div, Koppers Co, 23-26; *tech. director*, E. J. Lavino and Co, 26- Lecturer, Pittsburgh, 20-23. Chem. Soc; Min. and Metal. Eng. Organic synthesis; comminution of metals; purification of gases; aeration of liquid; insecticides; hydrolysis of organic nitriles; refractories; ore dressing.
- Selga, Prof. Miguel, S.J**, Manila Observatory, Manila, P. I. *Astronomy*. Rajadell, Spain, Nov. 25, 79. A.B, Barcelona, 04; Ph.D, Zaragoza, Spain, 08; D.D, Woodstock, 12. Prof. math, 04, 09; *Manila Observatory*, 16-, P. I. *Weather Bur*, 16-19, asst. director, 19-25, *director*, 25- Lecturer, Philippines, 19-; summers, volunteer research asst, Georgetown Observatory, 11-13; Harvard, 13; Lowell, 14; Lick, 15. A.A; Astron. Soc; Pacific Astron. Soc; Soc. astron. de France; Soc. Astron. Espan. Amer. Spectroscopy; radial velocities of stars and nebulae; double stars; climatology of the Philippine Islands.
- Sellards, Prof. A** (ndrew) **W** (atson), Harvard Medical School, Boston, Mass. *Medicine*. Seranton, Kans, Nov. 9, 84. A.B, Kansas, 03, A.M, 04; M.D, Hopkins, 09. Asst, Bur. Science, P. I, 09-11; instr. med, Hopkins, 11-14; assoc. and asst. *prof. trop. med*, Harvard, 14- Asst. res. physician, Hopkins Hosp, 11-14; asst. physician, Mass. Gen. Hosp, 14-; Harvard Sch. Trop. Med. exped, S. Amer, 13; Red Cross sanit. exped, Serbia, 15. Am. Physicians; Soc. Clin. Invest. Tropical medicine; cholera Asiatica; amebic dysentery; yaws; nephritis; acidosis; yellow fever.
- Sellards, Dr. E** (lias) **H** (oward), University of Texas, Austin, Texas. *Geology*. Carter City, Ky, May 2, 75. A.B, Kansas, 99, A.M, 00; fellow, Yale, 02-03, Ph.D, 03. Asst. paleontologist, Kans. Univ. Geol. Surv, 00-01; field asst, Carnegie Museum, 03; instr. geol. and miner, Rutgers, 03-04; prof. geol. and zool, Florida, 04-07; state geologist, Fla, 07-18; geologist, *bur. econ. geol*, Texas, 18-25, *assoc. director*, 25-, *prof. geol*, 26- A.A; Geol. Soc; Ass. Petrol. Geol; Paleont. Soc; Soc. Vert. Paleont. Paleozoic plants and insects; underground water supply, geology and mineral resources of Florida; geology of Texas.
- Selle, Prof. Raymond M** (artin Louis), Occidental College, Los Angeles, Calif. *Zoology*. Oct. 11, 98. B.S, Occidental, 20; A.M, California, 21. Teaching fellow *zool*, California, 20-21; teacher, high school, Calif, 21-23; instr,

- Occidental*, 23-24, *asst. prof.*, 24- A.A.; Soc. Zool; Soc. Parasitol; West. Soc. Nat. Oestrous cycle in the guinea pig; parasitic Protozoa.
- Sellers, Dean J(ames) F(reeman)**, Oglethorpe University, Ga. *Chemistry*. Starkville, Miss, June 1, 62. A.B. Mississippi, 85, A.M., 90; Virginia, 92; Chicago, 96-98; LL.D., Miss. Agr. and Mech. Col., 17. Teaching fellow, Chicago, 97-98; prof. chem, Miss. Agr. and Mech. Col., 88-93; Mercer, 93-18, dean, 14-18; educ. sec'y, Y. M. C. A., England, 18; *prof. chem. and dean col. arts, Oglethorpe*, 19- Prof., A.E.F. Univ. Beaufort, 19. A.A.; Chem. Soc. (past chairman, pres, Ga. sect). Quantitative chemical analysis.
- Sellew, Prof. George T(ucker)**, Knox College, Galesburg, Ill. *Mathematics*. Gowanda, N. Y., Oct. 26, 66. A.B. Rochester, 89, A.M., 92; Cornell, 93-94; Yale, 96-98, Ph.D., 98. Instr. math, Ohio Mil. Acad., 89-92; Pa. State, 92-93, 94-96; Yale, 98-99; *prof, Knox*, 99- Math. Soc; Math. Ass; Statist. Ass. Statistics.
- Selling, Dr. Laurence**, Mayer Building, Portland, Oregon. *Medicine*. Portland, March 18, 82. A.B. Yale, 04; M.D., Hopkins, 08; fellow, Rockefeller Inst., 09. Instr. and *clinician med. sch, Oregon*, 12- Board regents, Reed Col. Am. Med. Ass; Ass. Anat; Neur. Ass. Action of benzol on the blood; structure of the brain cortex in tabes; nephritis; electrical reactions in myotonia congenita.
- Seltz, Prof. Harry**, 335 Melwood St, Pittsburgh, Pa. *Chemistry*. Philadelphia, Pa, June 16, 96. B.S. Pennsylvania, 17, Ph.D., 22. Instr. chem, Pennsylvania, 18-24; *asst. prof. physical chem, Carnegie Inst. Tech*, 24- Chem. Soc. Homogeneous catalysis; free energy; membrane potentials.
- Semmes, Dr. Douglas R(amsay)**, Room 951, 25 Broadway, New York, N. Y. *Geology*. Alexandria, Va, Nov. 24, 92. A.B. Virginia, 12, A.M., 13, fellow, 14-16; Ph.D., Columbia, 17. Geologist, P. R. Nat. Hist. Surv, 15; Texas Co, 16-17; assoc. prof. geol, Agr. and Mech. Col. Texas, 17-18; consulting geologist, 18-19; prof. geol, Alabama, 19-20; asst. chief geologist, Cia. Mex. de Pet. 'El Aguila,' 20-24; *gen. manager, The Estancia Co, New York*, 25- Consulting geologist, 24- A.A.; fel. Geol. Soc; Ass. Petrol. Geol; Am. Geog. Soc; Soc. géol. de France. Petroleum geology and technology; petroleum resources of Alabama, Mexico and India.
- Semon, Dr. Waldo L(onsbury)**, B. F. Goodrich Co, Akron, Ohio. *Chemistry*. Demopolis, Ala, 98. B.S. Washington (Seattle), 20, Ph.D., 23. Instr. chem, Washington (Seattle), 20-26; *research chemist, B. F. Goodrich Co*, 26- Chem. Soc. (v. pres, Puget Sound sect, 24). Hydroxylamine; oximes; complexes of sulfur.
- Semple, Dr. Ellen Churchill**, Clark University, Worcester, Mass. *Geography*. Louisville, Ky, 63. A.B. Vassar, 82, A.M., 91; Leipzig, 91-92, 95; LL.D., Kentucky, 23. Lecturer *anthropogeog*, Chicago, 06-20; *prof, Clark*, 21- Lecturer, Oxford, Eng, 12, 22. Cullom gold medal, Am. Geog. Soc, 13. Ass. Geog. (v. pres, 08, pres, 21). Anthropogeography.
- Senior, Prof. H(arold) D(ickinson)**, 338 E. 26th St, New York, N. Y. *Anatomy*. Croydon, Eng, Oct. 30, 70. Chatham House Col, Ramsgate, Eng, 79-87; Charing Cross Hosp. Med. Sch, 87-92; M.B., Durham, 94, M.D., 18; L.R.C.P., 92; Sc.D., Syracuse, 10. Asst. demonstrator *anat*, Durham, 93-94; demonstrator, Charing Cross Hosp. Med. Sch, 95-96; *Medico-Chirurg.* Col. Phila., 01-03; junior assoc, Wistar Inst, 04-05, assoc, 05-07; assoc. prof, Syracuse, 07-08, *prof*, 08-10; N. Y. Univ, 10- A.A.; Soc. Nat; fel. Ass. Anat. (v. pres, 22-24); Soc. Exp. Biol; Harvey Soc; fel. N. Y. Acad. Med; fel. N. Y. Acad. (v. pres, 24-26); fel. Royal Col. Surg. The development and anomalies of the arteries of the extremities.
- Senior, Dr. James K(uhn)**, 5482 Blackstone Ave, Chicago, Ill. *Chemistry*. Cincinnati, Ohio, Sept. 15, 89. A.B. Harvard, 11, A.M., 12; Ph.D., Chicago, 17. Asst. Rockefeller Inst, 14-17; research chemist, Procter and Gamble, 19-20; Fries and Fries Co, 20-22; *research assoc. chem, Chicago*, 26- Lieut. C.W.S., 18-19. Chem. Soc; Chem. Gesell. Organic chemistry.
- Sensenig, Dr. Wayne**, 309 Bangor Road, Cynwyd, Pa. *Mathematics*. Goodville, Pa, April 23, 79. A.B. Haverford, 01; A.M., Pennsylvania, 14, Ph.D., 19. Practising engineer, 07-12; *instr. math, high schools, Phila*, 12- Math. Ass. The invariant theory of involutions of conics.
- Senstius, Prof. M(aurits) W(ilhelm)**, 1014 Cornwell Place, Ann Arbor, Mich. *Geology, Mineralogy*. Souracarta, Java, May 5, 88. Utrecht, 07-12; Vienna and Halle, 12-13; Hopkins, 17-18; Michigan, 18-20, M.S., 19. Agronomist, Exp. Sta, Java, 13-17; sci. bur, Bausch and Lomb Optical Co, 18; asst. prof. miner, Syracuse, 20-21; instr, dept. geog, Chicago, 21-23, asst. prof, 23-26. Summer, bur. soils, U. S. Dept. Agr, 21. Expeditions, D. E. I. and P. I, 25-26. A.A.; Am. Geog. Soc; Miner. Soc; Soc. Agron; Soil Surv. Ass; Ecol. Soc; fel. N. Y. Geog. Soc; Mich. Acad; Netherlands Geol. Soc; Royal Dutch Geog. Soc. Soils and climate in the tropics; soil utilization; soil mineralogy.
- Senter, Dr. H(erbert) A(lmon)**, 4204 Harney St, Omaha, Nebr. *Chemistry*. Omaha, May 9, 68. B.S. Nebraska, 93; Ph.D., Heidelberg, 96. Head dept. chem, Omaha High Sch, 97-12, librarian, 99-12; *dean faculty, Cent. High Sch, Omaha*, 13- Chem. Soc. (pres, Nebr. sect, 10-13, counselor, 15-17, Omaha sect, 20). Pseudocumenes.
- Serex, Prof. Paul**, 69 Lincoln Ave, Amherst, Mass. *Chemistry*. New York, N. Y., June 28, 90. B.Sc. Mass. Col, 13, M.Sc., 16, Ph.D., 23. Asst. chem, Mass. Col, 13-15, instr, 15-18, *asst. prof*, 18- Research asst, New Hampshire, 15. Chem. Soc. Inorganic and physical chemistry; plant food materials in leaves of forest trees; colloid properties of bentonite; commercial gelatins.
- Serviss, Garrett P(utnam)**, Tenafly, N. J. *Astronomy, Geology*. Sharon Springs, N. Y., March 24, 51. B.S. Cornell, 72; LL.B., Columbia, 74. Ed. writer, N. Y. Sun, until 92; *writer and lecturer on travel, hist. and astron*, 92-

- A.A.; Astron. Soc; Brooklyn Inst. (pres, dept. astron, 95-05).
- Sessions, Dr. William V(yne)**, Princeton University, Princeton, N. J. *Chemistry*. Hampden, Mass, Nov. 19, 96. B.S., Worcester, 17, M.S., 21; Ph.D., Clark, 24. Chemist, E. I. du Pont de Nemours and Co, 17-20; *instr. chem.*, Dartmouth, 24; *Princeton*, 24- Chem. Eng. Organic tin compounds; organic reactions in liquid ammonia; electromers.
- Setchell, Prof. W(illiam) A(lbert)**, University of California, Berkeley, Calif. **Cryptogamic botany*. Norwich, Conn, April 15, 64. A.B., Yale, 87; fellow, Harvard, 87-88; A.M., 88, Ph.D., 90. Asst. biol. Harvard, 88-91; Yale, 91-92, instr, 92-95, asst. prof. *bot.*, 95; *prof.*, *California*, 95- Instr. Woods Hole, 90-95. Nat. Acad; A.A. (past v. pres, G); Soc. Nat; Bot. Soc; Am. Geog. Soc; Soc. Biogeog; Philos. Soc; Am. Acad; Torrey Bot. Club; Calif. Acad. (bot. ed. and pub. committee, 01-03); Wash. Acad; Soc. Etud. Polynésienne. Classification and geographical distribution of the Laminariaceae of North America; regeneration among kelps; parasitism of certain red algae; thermal algae; algae of the Pacific Coast of North America; tobacco hybrids; geographic distribution of marine algae; coral reef formation.
- Seton, Ernest Thompson**, Greenwich, Conn. *Zoology*. S. Shields, Eng, Aug. 14, 60. Royal Acad, London, 80-81; Paris, 90-96. *Naturalist*, *govt. of Manitoba*, 92- Silver medal, Soc. d'Acclimat. de France, 18; John Burroughs medal, Am. Museum Nat. Hist, 27. Ornith. Union; Soc. Mammal; Nat. Inst. Arts and Letters; N. Y. Zool. Soc. Ornithology and mammalogy of Manitoba; life histories of northern mammals; sign talk of Indians; birch-bark roll; woodcraft; lives of game animals.
- Sette, O(scar) E(lton)**, U. S. Bureau of Fisheries, Washington, D. C. *Ichthyology*. Juneau, Wis, March 29, 00. A.B., Stanford, 22. Asst. fisheries investigator, Calif. State Fisheries Lab, 20-23; *chief div. fishery industries*, *Bur. Fisheries*, 24- A.A.; Fisheries Soc; Wash. Biol. Soc. Life history of the mackerel; fluctuations in the mackerel fishery; sardine fishery.
- Seulke, Dr. K(arl) J(ohn)**, Jefferson, Maine. *Animal husbandry*. Seymour, Ind, Feb. 15, 90. B.S., Purdue, 13; M.S., Pa. State, 14; Ph.D., Cornell, 16. Teaching fellow, Pa. State, 13-14; asst. prof. animal husbandry, Cornell, 14-18, prof, 18-20; east. rep, Am. Aberdeen Angus Breeders Ass, 20-22; *pres. and gen. manager*, *Jefferson Farms, Inc*, 22- Summer, instr, Indiana, 13.
- Sever, Prof. George F(rancis)**, Kingston, Mass. *Electrical engineering*. Cambridge, Mass, July 30, 66. Mass. Inst. Tech, 87; hon. M.S., Columbia, 05. Instr. elec. eng, Columbia, 93-01, adjunct prof, 01-05, prof, 05-11; engineer, Jackson and Moreland, 17-25. Consulting elec. engineer, Dept. Water Supply, Gas and Elec, N. Y., 02-14; acting dean faculty applied science, Columbia, 05-07. Supt. elec. exhibits, Pan-Am. Expos, 01; Elec. Light Commission, New York; juror, elec. div, La. Purchase Expos, 14. Major, C.Eng, 18-19. A.A.; Elec. Eng. (past manager, v. pres); Eng. Educ. The cost of operation of electric elevators; hydroelectric projects of New England and the Pacific Coast.
- Severance, Prof. Geo(rge)**, State College of Washington, Pullman, Wash. *Agronomy*. Walled Lake, Mich, Feb. 4, 74. B.S., Mich. State Col, 01. Instr. agr, Mich. State Col, 01-02; *Wash. Col*, 03-05, asst. prof, 05-06, *prof. agron*, 06-, acting head dept. agr, 08-09, supt, West. Wash. Exp. Sta, 11-13, head dept. agr, 13-18, v. dean col. agr, 18-, head dept. farm management and agr. econ, 25- Supt, Bohrnstedt Farms, Alberta, Can, 10. Methods of tillage for dry land farming; soil moisture; plant improvement; control of moisture in dry land and irrigation farming; soil tillage; fertility; breeding of cereals; forage crops; farm management and agricultural economics.
- Severin, Prof. Harry C(harles)**, State College, Brookings, S. Dak. *Entomology*. Milwaukee, Wis, March 28, 85. A.B., Wisconsin, 06; A.M., Ohio State, 08; fellow, 08-09. *Prof. entom*, *S. Dak. Col*, 09-18, *entom. zool*, 18-, *entomologist*, *Exp. Sta*, 15-, state entomologist, 09-25. Summer, asst. state entomologist, Ill, 09. A.A.; Entom. Soc; Ass. Econ. Entom; S. Dak. Acad; S. Dak. Biol. Teachers (pres, 23-25). Animal behavior; economic entomology; insect ecology, anatomy, histology and taxonomy.
- Severin, Dr. H(enry) H(erman) P(aul)**, University of California, Berkeley, Calif. *Entomology*. Milwaukee, Wis, April 18, 83. A.B., Wisconsin, 06, A.M., 07, fellow, 09-10, Ph.D., 10, hon. fellow, 12-13; fellow, Ohio State, 07-08. Instr. zool. and entom, Ohio State, 08-09; prof. entom, Col. of Hawaii, 10-12; entomologist, Wis. Exp. Sta, 12-13; prof. biol, Marietta, 14-15; Northwest Mo. State Teachers Col, 15-16; *Calif. Exp. Sta*, 16- Consulting entomologist, Maine Exp. Sta, 14-16. Ass. Econ. Entom. Anatomy, histology, parasitism and behavior of insects; fruit flies; insect house plant diseases; beet leaf hopper.
- Severinghaus, Prof. W(illard) L(eslie)**, Columbia University, New York, N. Y. *Physics*. Terre Haute, Ind, Jan. 28, 82. A.B., Baldwin-Wallace, 04, A.M., 05; Ph.D., Columbia, 14. Prof. *physics*, Moore's Hill, 04-07; asst, *Columbia*, 07-11, instr, 11-19, asst. prof, 19- A.A.; Physical Soc. Short electric waves.
- Severy, J(oseph) W(arren)**, Montana State University, Missoula, Mont. *Botany*. Avon, Ohio, May 23, 92. A.B., Oberlin; M.S., Washington (St. Louis), 26. Instr. *bot.*, Oregon Col, 19-21; *Montana*, 21-26, asst. prof, 26- A.A.; Bot. Soc; Soc. Plant Physiol. Plant physiology; anatomy; physiology of the fungi; enzymes.
- Severson, Z(ina) E(lliott)**, 522 E. 22d St, Cheyenne, Wyo. *Civil engineering*. Constantine, Mich, June 14, 84. B.S.(C.E.), Michigan. L. S. and M. S. Ry, Ohio, 06; asst. city engineer, Cheyenne, Wyo, 07-08; res. engineer, The Arnold Co. of Chicago, 08-10; practising engineer, *Wyo*, 10-17, *state highway engineer*, 17- Civil Eng; Ass. State Highway Officials (exec. committee); Wyo. Eng. Soc. (past pres).

- Sevringhaus, Prof. Elmer L(ouis)**, 2213 West Lawn Ave, Madison, Wis. *Physiological chemistry*. New Albany, Ind, Feb. 9, 94. A.B, Wisconsin, 16, A.M, 18; M.D, Harvard, 21. Asst. org. chem, *Wisconsin*, 16, physiol. chem, 17-19, asst. prof, 21-25, *assoc. prof*, 25-27, *med*, 27- Chemist, Wis. Gen. Hosp, 24- A.A.; Soc. Biol. Chem; Am. Med. Ass. Post-mortem acidity; insulin physiology; metabolism in diabetes, in obesity and in fasting.
- Sewall, Dr. Henry**, 1360 Vine St, Denver, Colo. **Medicine, Physiology*. Winchester, Va, May 25, 55. B.S, Wesleyan, 76; fellow, Hopkins, 78-79, Ph.D, 79; hon. M.D, Michigan, 88, Sc.D, 12; Denver, 89; Sc.D, Wesleyan, 26. Asst. and assoc. biol, Hopkins, 76-82; prof. physiol, Michigan, 82-89; Denver, 90-08; *med*, *Colorado*, 11-18, *emer. prof*, 20- Asst. health commissioner, Denver, 91-93; sec'y, Colo. State Board Health, 93-99; Nat. Board Examiners, 15-19. Am. Physicians (pres, 16); Am. Med. Ass; Tuber. Ass. (pres, 27); Physiol. Soc; Soc. Clin. Invest; Climat. Ass. (pres, 15); Denver Acad. Med. (pres, 03-05); Colo. Med. Soc. (pres, 25); Denver City and Co. Med. Soc. (pres, 16). Internal medicine; clinical pathology; tuberculosis.
- Sewell, John Stephen**, Alabama Marble Co, Birmingham, Ala. *Civil engineering*. Butlers Landing, Tenn, Jan. 16, 69. Grad, West Point, 91. From second lieutenant to major, U.S.A, 91-08; v. pres. and gen. manager, *Ala. Marble Co*, 07-19, *pres*, 19- Norman medal. Soc. Civil Eng, 06. Officier, Légion d'honneur; Order of Leopold. D.S. medal. Col. C.Eng, 17-19, O.R.C, 19- A.A.; Civil Eng; Concrete Inst; Math. Soc; Math. Ass; Soc. des Amis de l'Ecole polytechnique. Fire-resisting building; reinforced concrete; marble quarrying.
- Sewell, Malcolm C(ameron)**, Kansas State Agricultural College, Manhattan, Kans. *Soils*. Buffalo, N. Y, Oct, 87. B.S, Kansas Col, 12; M.S, Ohio State, 14; Ph.D, Chicago, 22. Asst. agron, Ohio State, 12-13; supt, Branch Exp. Sta, *Kansas Col*, 14-16, *assoc. prof. soils*, 16- A.A.; Soc. Agron. Tillage; plant nutrition.
- Sexton, Dr. Lewis A(lbert)**, Hartford Hospital, Hartford, Conn. *Medicine*. Laurenceburg, Tenn, March 25, 76. M.D, Vanderbilt, 06. Res. physician, Dept. Health Hospitals, New York, 09-14; asst. supt, Hopkins Hosp, 14-17; supt, *Hartford Hosp*, 17- Assoc. ed, 'Modern Hosp.' New. Eng. Hosp. Ass. (past pres); Conn. Hosp. Ass. (past pres). Scarlet fever; diphtheria; hospital administration.
- Seymour, A(rthur) B(liss)**, 20 Divinity Ave, Cambridge, Mass. *Botany*. Moline, Ill, Jan. 3, 59. B.S, Illinois, 81, M.S, 86. Botanist, Ill. State Lab. Nat. Hist, 81-83, 84; private asst, crypt. herbarium, Harvard, 83-85; instr. bot, Wisconsin, 85-86; asst. crypt. herbarium, *Harvard*, 86- Ed. crypt. bot. (A-G), 'Century Diet,' 88, chief ed. econ. fungi, 90- Phytopath. Soc; Am. Acad; assoc. Torrey Bot. Club. Parasitic fungi; bibliography of North American fungi.
- Seymour, Dr. Merrill W(ilmer)**, 101 Bryan St, Rochester, N. Y. *Organic chemistry*. Minneapolis, Minn, Dec. 6, 98. B.S, Minnesota, 21; du Pont fellow, Princeton, 23-24, A.M, 24, Ph.D, 25. Asst. chem, Minnesota, 21-22; Princeton, 22-23; *research photographic chemist*, *Eastman Kodak Co*, 24- Chem. Soc. Color photography; organic chemistry of nitrogen.
- Seymour, Prof. R(aymond) J(esse)**, 2931 Indianola Ave, Columbus, Ohio. *Physiology*. Groveport, Ohio, 88. B.S, Ohio State, 00, M.D, 04; M.S, Tufts, 01. Asst. path, col. med, Ohio State, 03-04; instr. *physiol*, *Ohio State*, 05-12, *asst. prof*, 12- A.A; Ohio Acad. (v. pres, 20-22).
- Seymour-Jones, Dr. F(rank) L(eslie)**, 358 Knickerbocker Road, Englewood, N. J. *Chemistry*. Wrexham, Wales, Nov. 9, 96. B.Sc, Leeds, 21, M.Sc, 22; A.M, Columbia, 22, Ph.D, 23. *Research chemist*, *Borden Co*, 23- Military Cross, 18; Le Blanc medal, 21. A.A; Chem. Soc. Chemistry of tanning and of milk products.
- Shaad, Prof. Geo(rge) C(arl)**, University of Kansas, Lawrence, Kans. *Electrical engineering*. Stratford, N. Y, May 5, 78. B.S, Pa. State, 00, E.E, 05. Gen. Elec. Co, 00-02; instr. *elec. eng*, Wisconsin, 02-04, asst. prof, 04-06; Mass. Inst. Tech, 06-07, assoc. prof, 07-09; *prof*, *Kansas*, 09- Fel. Elec. Eng; Mech. Eng; Illum. Eng. Soc; Eng. Educ. Central electric stations.
- Shackelford, Dr. Benj(amin) E(still)**, Westinghouse Lamp Company, Bloomfield, N. J. *Physics*. Richmond, Mo, Aug. 12, 91. A.B, Missouri, 12, A.M, 13; Ph.D, Chicago, 16. Asst. physics, Missouri, 12-14; *physicist*, *Westinghouse Lamp Co*, 16- Brush research fellow, Nela Research Lab, 15. A.A; Physical Soc; Optical Soc; Elec. Eng; Illum. Eng. Soc; Radio Eng; Franklin Inst. Radiation; illumination; vacuum tubes.
- Shackell, Prof. L(eon) F(rancis)**, University of Utah, Salt Lake City, Utah. *Biochemistry, Pharmacology*. Prairie Junction, Minn, Feb. 2, 87. B.S, St. Louis, 10, M.D, 14; LL.B, Utah, 27. Asst. nutrition, Illinois, 04-07; agr. chem, Missouri, 07-09; physiol, St. Louis, 09-10, instr, 10-11, pharmacol, 11-14, asst. prof, 14-16; *prof. physiol. and physiol. chem*, *Utah*, 16- Summers, investigator, Bur. Fisheries, 09-18. Fel. Col. Physicians. Vacuum desiccation; fertilization of echinoderm eggs; protection of wood against marine borers; dye-protein aggregates; relation of dosage to effect.
- Shadinger, Prof. Guy H(oward)**, Butler University, Indianapolis, Ind. *Chemistry*. Glencoe, Minn, Aug. 24, 77. Ph.B, Hamline, 00; Ph.D, Hopkins, 07. Teacher, high sch, Minn, 00-04; asst. chem, Hopkins, 05-06; prof, Butler, 07-08; research asst, Tufts, 08-09; *prof*, *Nebr. Wesleyan*, 09-10; Dickinson, 10-20; *Butler*, 20- Chem. Soc. Tautomerism in urozoles; velocity constants and mechanism of the reaction of alkyl halids with urozoles.
- Shadle, Prof. Albert R(ay)**, University of Buffalo, Buffalo, N. Y. *Zoology*. Lockbourne, Ohio, July 18, 85. Fellow, Ohio State, 12-14, A.B, 13, A.M, 15. Instr. zool, Mich. State Col, 14; asst, Cornell, 15-16, instr, 16-18, asst. prof,

- 18-19; *biol.*, Buffalo, 19-20, *prof.*, 20- A.A.; Soc. Mammal; Ohio Acad; Buffalo Soc. Nat. Sci. Ear of the armadillo.
- Shafer, Dr. Geo(rge) D(aniel)**, Palo Alto, Calif. *Physiology, Entomology*. Muncie, Ind, Dec. 25, 74. A.B, Indiana, 00; A.M, Stanford, 06; fellow, Cornell, 06-08, Ph.D, 08. Research asst. entom. exp. sta, Mich. State Col, 08-17; research assoc. prof, 13-17; instr. *physiol.*, Stanford, 18-24, *asst. prof.*, 24- A.A.; Soc. Nat; Entom. Soc; fel. Ass. Econ. Entom; Mich. Acad. (sec'y, 09-12). Pattern double and single cones of eyes of fishes; kidney secretion; action of contact insecticides; eyes of spiders; mating in honey-bee; growth of dragon fly nymphs.
- Shaffer, Dr. Elmer Lentz**, 208 W. State St, Trenton, N. J. *Biology, Pathology*. Philadelphia, Pa, April 29, 92. A.B, B.S, Haverford, 15; fellow, Princeton, 16-17, 18-20, A.M, 19, Proctor fellow, 19-20, Ph.D, 20. Asst. biol, Princeton, 15-16; instr, Haverford, 19-20; *pathologist*, St. Francis Hosp, Trenton, 20-; *Munic. Colony*, 24- Cytology; mitochondria; clinical pathology.
- Shaffer, Dr. Philip A(nderson)**, Washington University School of Medicine, St. Louis, Mo. **Biochemistry*. Martinsburg, W. Va, Sept. 20, 81. A.B, West Virginia, 00; Ph.D, Harvard, 04. Asst. chemist, McLean Hosp, 00-03; asst. exp. path, med. col, Cornell, 04-07, instr. path. chem, 07-10; *prof. biochem. sch. med.*, Washington (St. Louis), 10-, dean, 15-19. *Physiol. chemist*, Huntington Fund for Cancer Research, 07-10; head chem. sect. lab, Bellevue Hosp, 09-10. Major, Sanit.C, 17-19. A.A; Soc. Biol. Chem. (pres, 23-25); *Physiol. Soc.*; *Soc. Exp. Biol.*; *Chem. Soc.* Metabolism; analysis of urine; catalase; enzymes of tumors; cystinuria; protein metabolism in typhoid; creatin and creatinin; origin of 'acetone bodies' and relation of glucose to oxidation of fatty acids; anti-ketogenesis; oxidation-reduction of sugars; coupled reactions.
- Shaklee, Dr. A(lfred) O(gle)**, 4936 Laclede Ave, St. Louis, Mo. *Pharmacology*. Middle Creek, Ohio, Oct. 3, 65. B.S, Chicago, 99, 00-01, fellow, 01; M.D, St. Louis, 08; Europe, 13-14. Asst. chem, Chicago, 01; *physiol.*, St. Louis, 06, instr. pharmacol, 07; fellow *physiol.* and pharmacol, Rockefeller Inst, 08-09, asst, 09-10; assoc. prof. pharmacol, Philippine Med. Sch, 10-13; asst. prof, Illinois, 14-16; *prof. physiol.* and biochem, Fordham, 16-18; *assoc. prof. physiol.* and pharmacodynamics, med. dept, Texas, 18-21; *pharmacol.*, St. Louis, 21- A.A. Mechanical destruction of ferments; antagonism between adrenalin and strychnin; treatment of strychnin poisoning with chloroform; acid intoxication in Asiatic cholera; acclimatization; metabolism; cerebral ablation in pigeons; nutrition of decerebrate pigeon; brain evolution.
- Shallenberger, Prof. G(arvin) D(ennis)**, University of Montana, Missoula, Mont. *Physics*. Muldrow, Okla, Sept. 1, 89. B.S, Okla. Agr. and Mech. Col, 12; A.B, Tulane, 17, M.S, 19; Ph.D, Chicago, 23. Instr. *physics*, Tulane, 18-19; asst, Chicago, 19-20; *prof.*, Beloit, 20-23; *Montana*, 23- A.A; Physical Soc. Vacuum spark spectroscopy.
- Shambaugh, Prof. George E(lmer)**, 5625 University Ave, Chicago, Ill. *Anatomy, Physiology*. Clinton Co, Iowa, Nov. 15, 69. Ph.B, Iowa, 92; M.D, Pennsylvania, 95. *Prof. otol. and laryngol.*, Rush Med. Col, Chicago, and *laryngologist*, Presb. Hosp. Lenvai prize, 12. Am. Med. Ass; Laryngol. Ass; Otol. Soc; Laryngol. Rhinol. and Otol. Soc. The embryology, histology and physiology of the end organs of the labyrinth; physiology of the labyrinth.
- Shamel, A(rchibald) D(ixon)**, Box 586, Riverside, Calif. *Horticulture*. Taylorville, Ill, Oct. 15, 78. B.S, Illinois, 98. Instr. farm crops and in charge exp. sta. farm, Illinois, 98-02; sci. asst, U. S. Dept. Agr, 03-04, *plant physiologist*, 04- U. S. Dept. Agr. exped, West Indies, 04-05, Brazil, 12-13. S. Calif. Biol. Club. Improvement of plants through seed and bud selection; bud variation; storage and curing of fruits.
- Shanahan, Dr. William T**, Craig Colony, Sonyea, N. Y. *Medicine*. Syracuse, N. Y, May 14, 78. M.D, Syracuse, 98. Med. officer, *Craig Colony*, 01-08, *med. supt.*, 08- Lecturer, Syracuse, A.A; Am. Med. Ass; Psychiat. Ass; Am. Acad. Med; Ass. Study Epilepsy (pres, 12, 18); Ass. Study Feeble-Minded. Epilepsy.
- Shane, Prof. C(harles) D(onald)**, 1111 Fresno Ave, Berkeley, Calif. *Astronomy*. Auburn, Calif, Sept. 6, 95. A.B, California, 15, Ph.D, 20. Instr. *astron.*, California, 20-24, *asst. prof.*, 24- Math. Soc; Pacific Astron. Soc. Stellar spectroscopy.
- Shaner, Dr. Ralph F(aust)**, University of Alberta, Edmonton, Alta, Can. *Embryology*. Pottstown, Pa, Dec. 30, 93. Ph.B, Lafayette, 15; Ph.D, Harvard, 20. Teaching fellow histol. and embryol, Harvard Med. Sch, 15-20, instr. histol, 20-21; asst. prof. *anat.*, Alberta, 21-22, assoc. prof, 22-27, *prof.*, 27- A.A; Ass. Anat; Soc. Zool. Reptilian embryology; comparative anatomy of the heart of vertebrates.
- Shannon, C(harles) W(illiam)**, Bureau of Geology, 209 City National Bank Building, Norman, Okla. *Geology*. Atlanta, Ind, Aug. 3, 79. A.B, Indiana, 06, A.M, 07, 07-08. Teacher, high sch, Ind, 08-11; field geologist, Okla. Geol. Surv, 11-14, *director*, 14-23, *Okla. Bur. Geol.*, 23- Field asst, Ind. Geol. Surv, 05-11; teacher, Oklahoma, 11. A.A; Geol. Soc; Ass. Petrol. Geol; Min. Eng; Ass. State Geol; Okla. Acad. (past pres); Ind. Acad. General science; geography; nature study; botany.
- Shannon, Earl V(ictor)**, U. S. National Museum, Washington, D. C. *Mineralogy*. Gem, Idaho, Feb. 16, 95. Yale, 16-17. Field asst, U. S. Geol. Surv, 13-14; geologist and chemist, B. H. and S. Mining Co, Idaho, 14-15; chemist, Winchester Repeating Arms Co, Conn, 17; U. S. Armory, Mass, 18-19; *asst. curator geol.*, U. S. Nat. Museum, 19- U.S.A., 17-18. Fel. Miner. Soc; Wash. Miner. Soc; Wash. Geol. Soc; Wash. Petrol. Club (governing committee, 21-24); Wash. Acad. Mineral composition and genesis; economic mineralogy; minerals of Idaho, Maryland and Connecticut; mineralogy of clays.

Shannon, Rev. J(ames) I(gnatus), St. Louis University, St. Louis, Mo. *Physics.* Hastings, Ont. Can, Sept. 30, 68. A.B., St. Louis, 99; A.M., 00; Hopkins, 06-08. Asst. prof. physics and math, St. Xavier, 00-02; *physics, St. Louis*, 09-12, *prof.*, 12-, asst. dean *sch. philos. and science*, 09-19, 22-24, *dean*, 24- A.A.; Physical Soc.; Math. Ass.; St. Louis Acad. (cor. sec'y, 18-). Atomic physics.

Shannon, R(aymond) C(orbett), U. S. Department of Agriculture, Washington, D. C. *Entomology.* Washington, Oct. 4, 94. B.S., Cornell, 23. Asst. state entomologist, Wash, 20; asst. entom., Cornell, 21-23; *junior entomologist, bur. entom.*, U. S. Dept. Agr, 23-; *instr. entom.*, George Washington, 25- Cornell biol. exped, 17; entom. trip, Panama, 23, Europe, 25. Entom. Soc.; Wash. Entom. Soc.; Wash. Biol. Soc.; Wash. Biol. Field Club. Systematic dipterology; Culicidae of America; Syrphidae and Calliphoridae of the world; medical entomology.

Shantz, Dr. H(omer) LeRoy, University of Illinois, Urbana, Ill. **Botany.* Kent Co, Mich, Jan. 24, 76. B.S., Colo. Col, 01, S.D., 26; Ph.D., Nebraska, 05. Instr. bot. and zool, Colo. Col, 01-02; bot. sch. agr, Nebraska, 03-04; Missouri, 05-06; prof. bot. and bacter, Louisiana, 07; expert alkali and drought-resistant plant breeding investigations, bur. plant indust, U. S. Dept. Agr, 08-09, plant physiologist, 10-19, physiologist in charge plant geog. and plant physiol, 20-26; *prof. bot. and head dept.*, Illinois, 26- Instr., Colo. Teachers' Inst, Colorado Springs, 02; lecturer, Clark, 24-27; summers, special agent and collaborator, bur. plant indust, U. S. Dept. Agr, 06-08. Plant resources 'Inquiry,' Africa and Latin Amer, Allied Peace Commission, 18; agr. explorer, Smithsonian Inst. exped, Africa, 19-20. Agr. Exp. Educ. Commission, E. Africa, 24. A.A.; Soc. Nat.; Bot. Soc.; Soc. Plant Physiol; Soc. Agron; Ecol. Soc.; Ass. Geog; cor. mem. Am. Geog. Soc.; Wash. Acad; Wash. Bot. Soc.; Bot. Soc. S. Africa; Soc. pro Fauna et Flora Fennica. Vegetation of the Great Plains; the indicator value of natural vegetation; physiology of drought resistance; biological study of the lakes in the Pike's Peak region; North American Branchinecta and their habitats; vegetation of the Great Plains and the Great Basin; plant geography of Africa and Latin America; plant geography and plant industry; agriculture of the African natives.

Shapiro, H(arry) L(ionel), American Museum of Natural History, New York, N. Y. *Anthropology.* Boston, Mass, March 19, 02. A.B., Harvard, 23, A.M., 25, Ph.D., 26; fellow, Bishop Museum, 23-24. Tutor anthrop, Harvard, 25-26; *asst. curator physical anthrop.*, Am. Museum Nat. Hist, 26- Anthrop. Ass. Race mixture.

Shapley, Dr. Harlow, Harvard College Observatory, Cambridge, Mass. **Astronomy.* Nashville, Mo, Nov. 2, 85. A.B., Missouri, 10, A.M., 11, LL.D., 27; fellow, Princeton, 12-14, Ph.D., 13. Astronomer, Mt. Wilson Observatory, Carnegie Institution, 14-21; *director*, Harvard Col. Observatory, and *Paine prof. astron.*, Harvard, 21- Nat. Acad; A.A.; Astron. Soc.; Ecol. Soc.; Am. Acad; Philos. Soc.; Pacific Astron. Soc.; New Eng. Bot. Soc.; Wash. Acad; Royal Astron. Soc. Can;

assoc. Royal Astron. Soc. Photometry; spectroscopy; cosmogony.

Shapovalov, Michael, Citrus Experiment Station, Riverside, Calif. *Plant pathology.* Vilna, Russia, July 14, 80. Theol. Sem, Vitebsk, Russia, 96-03; Dorpat, 04-11; Wisconsin, 11-12; M.S., Maine, 13; George Washington, 16-17. Asst. pathologist, Maine Exp. Sta, 12-16; agent, *bur. plant indust, U. S. Dept. Agr*, 16-17, asst. plant pathologist, 18-19, *plant pathologist*, 20-, *in charge west. tomato disease investigations, citrus exp. sta, California*, 22- Collaborator, 'Bot. Abstracts.' A.A.; Phytopath. Soc.; Ecol. Soc.; Crop Protection Inst; Wash. Bot. Soc.; Wash. Acad. (v. pres, 21); World Agr. Soc. Vegetable and cotton diseases.

Share, Dr. William W(aldemar), 99 McDonough St, Brooklyn, N. Y. *Chemistry.* Brooklyn, March 8, 59. Ph.B., Columbia, 81, Ph.D., 84. Asst. physics, Columbia, 81-89; prof. chem. and geol, Adelphi, 89-13; v. pres, *Mewer Steel Barrel Co*, 13-; *consulting chem. engineer.* Supt, Columbia Chem. Works, 81; consulting elec. engineer, Brooklyn Park Dept, 89. A.A.; Chem. Soc. Electrochemistry; physical chemistry.

Sharlit, Dr. Herman, 1090 St. Nicholas Ave, New York, N. Y. *Medicine.* New York, May 2, 92. A.B., Adelphi Col, 13; B.S., Columbia, 13; M.D., Cornell, 17. *Chem. pathologist, Harriman Research lab, Roosevelt Hosp*, 17- Am. Med. Ass; Soc. Clin. Path; Soc. Exp. Biol. Clinical medicine; renal function; glands of internal secretion and the skin.

Sharp, Dr. Clayton H(alsey), White Plains, N. Y. *Physics, Electrical engineering.* Seneca Falls, N. Y., Dec. 5, 69. A.B., Hamilton, 90; Ph.D., Cornell, 95; Leipzig, 99-00. Teacher, sch, N. Y., 90-92; instr. physics, Cornell, 94-01; test officer, *Elec. Test. Laboratories, New York*, 01-14, v. pres. and tech. director, 14- U. S. delegate, Int. Electrotech. Commission, Turin, 11, Berlin, 13, Geneva, 22, London, 24, The Hague, 25, pres, U. S. committee, New York, 26, Como-Rome, 27; delegate and sec'y, U. S. committee, Int. Commission on Illum, Berlin, 13, pres, U. S. committee, Geneva, 24. A.A.; Physical Soc; fel. Elec. Eng; Illum. Eng. Soc. (past pres). Optical Soc; Soc. française des Elec; assoc. Elet. Italiana. Electrical and photometrical standards and measurements; engineering testing; applied physics; invention of measuring devices.

Sharp, Donald E(llsworth), Hamburg, N. Y. *Physics.* Corning, N. Y., Oct. 30, 96. Wisconsin; Carnegie Inst. Tech. Physical lab, Corning Glass Works, 14; physics dept, Wisconsin, 16; ceramic lab, Bur. Standards, 17; physicist, optical glass plant, Spencer Lens Co, 18-20, manager, 20-25; *consulting glass technologist*, 26- Physical Soc; Optical Soc; Ceramic Soc. (councilor, glass div, 23); Chem. Soc; Astron. Soc; British Soc. Glass Technol. Optical and colored glass; physical and chemical properties of glasses; technical furnaces; temperature measurements; telescope discs; physical properties of glasses containing bismuth.

Sharp, Dr. Edward A(fleck), 81 Linwood Ave, Buffalo, N. Y. *Medicine.* Bridgeport, Ohio,

- Nov. 20, 75. M.D, Buffalo, 98; London, Vienna, Berlin, Munich and Paris, 10-11. *Prof. neur. dept. med. Buffalo, 22-* Neurologist, Buffalo City, Children's and Buffalo Gen. Hospitals; consulting neurologist, Charity Eye, Ear and Throat Hosp; Craig Colony, Sonyea, N. Y. Am. Med. Ass; Neur. Ass; Psychiat. Ass; Ass. Research Nervous and Mental Diseases; Nat. Ass. Study Epilepsy; N. Y. Neur. Soc; N. Y. Acad. Med; Buffalo Neuropsychiat. Soc; Buffalo Acad. Med. Neurology; poliomyelitis and other infections of the nervous system.
- Sharp, Dr. Frank Chapman**, 510 N. Carroll St, Madison, Wis. *Philosophy*. West Hoboken, N. J., July 30, 66. A.B, Amherst, 87; Ph.D, Berlin, 92. Instr. *philos. Wisconsin*, 93-96, asst. prof, 96-04, assoc. prof, 04-05, *prof*, 05- Philos. Ass; Psychol. Ass; West. Philos. Ass. (pres, 07); Wis. Acad. (sec'y, 99-01). Ethics; the psychology of the moral judgment; history of British ethics; applied ethics.
- Sharp, Dr. Lester W(hyland)**, Cornell University, Ithaca, N. Y. **Botany, Cytology*. Saratoga Springs, N. Y., April 21, 87. B.S, Alma, 08; Hopkins, 08-10; fellow, Chicago, 11-12, Ph.D, 12, 13-14; Louvain, 12-13. Instr. *bot. Cornell*, 14-15, asst. prof, 15-21, *prof*, 21- A.A; Bot. Soc. Embryo sac; spermatogenesis in Equisetum and Marsilia; chromosomes in Vicia and Tradescantia.
- Sharp, Prof. Paul F(rancis)**, N. Y. State College of Agriculture, Ithaca, N. Y. *Dairy chemistry*. Allen, Nebr., Dec. 6, 94. A.B, Nebr. Wesleyan, 17; M.S, Minnesota, 20, Ph.D, 22. Instr. agr. biochem, Minnesota, 19-22; asst. chemist, Mont. Exp. Sta, 22-24, assoc. chemist, 24-25; *prof. dairy chem*, N. Y. State Col. Agr., Cornell, 25- A.A; Chem. Soc. Cereal chemistry.
- Sharp, Dr. Robert G**, 420 Walnut Ave, San Diego, Calif. *Medicine*. Mankato, Minn., Jan. 22, 83. B.S, California, 11, M.S, 13, fellow, 14, Ph.D, 14; M.D, Hopkins, 17. Asst. zool. California, 10-12, anat, 12-13; asst. prof, Utah, 14-15. Physician in charge, Red Cross Hosp, Toul, France, 17-18. Fel. Col. Physicians. Protozoology; diseases of children.
- Sharp, Prof. William B(arnard)**, University of Texas, Galveston, Texas. *Medicine*. Edgefield Junction, Tenn., Oct. 19, 89. A.B, Univ. of South, 10; M.S, Chicago, 14, Ph.D, 22, M.D, Rush Med. Col, 14. Chief med. service, Rockefeller Foundation, Red Cross Gen. Hosp, Shanghai, 16-18; practising physician, Chicago, 19-21; *prof. bacter. and prev. med. sch. med. Texas*, 21- Investigator, Respiratory Commission, 19-21. Lieut, M.C, 18-19. A.A; Soc. Bact. Public health; etiologic factors in respiratory disorders; personal hygiene.
- Sharpe, Benjamin F(ranklin)**, Greenwich, N. Y. *Physics*. Cape May, N. J., Jan. 7, 64. A.B, Wesleyan, 87, A.M, 90; Hopkins, 91-93; fellow, Clark, 93-95, 96-97. Master, Beeman Acad, Vt, 81-82; asst. prin, Monson Acad, Mass, 85-86; adjunct prof. physics and biol, Randolph-Macon, 87-91; *prof. math*, N. Y. State Nor. Sch, New Paltz, 95-96. An absolute measure of the intensity of sounds; hydrodynamics and sound; increase of sensitiveness of the mercurial barometer; a new barograph.
- Sharpe, Prof. F(rancis) R(oberth)**, 107 Cayuga Heights Road, Ithaca, N. Y. **Mathematics*. Warrington, Eng, Jan. 23, 70. B.A, Cambridge, 92; Ph.D, Cornell, 07. Lecturer *math*, Queen's (Can), 01-04; asst, Cornell, 05-06, instr, 06-10, asst. prof, 10-19, *prof*, 19- Math. Soc. (assoc. ed, 'Trans,' 17-). Hydrodynamics; geometrical transformations.
- Sharpe, R(ichard) W(orthy)**, 191st St. and Audubon Ave, New York, N. Y. *Biology*. Tiskilwa, Ill., May 20, 69. B.S, Illinois, 93, M.S, 97. Prin. and instr, high schools, Ill. and Iowa, 93-06; *prof. biol*, Wis. State Nor. Sch, River Falls, 06-07; *instr*, De Witt Clinton High Sch, 07-25; *George Washington High Sch*, 25- Director geol. and nat. hist. surv. of L. I, Brooklyn Inst. A.A; Brooklyn Inst. (pres, dept. micros); Brooklyn Entom. Soc; Chicago Acad. Ostracoda; Copepoda; Cladocera; fresh water biology.
- Sharples, Philip P(rice)**, 17 Farrar St, Cambridge, Mass. *Chemistry*. Cambridge, July 11, 73. A.B, Harvard, 95. City inspector milk and vinegar, Cambridge, 01-05; head chemist, Barrett Mfg. Co, Boston, 05-14, manager tarvia dept, N. Y., 14-23; *adviser on road problems*, 23- A.A; Chem. Soc; Soc. Chem. Indust; Soc. Test. Mat. Bituminous road binders.
- Sharwood, Dr. W(illiam) J(ohn)**, Homestake Mining Co, Lead, S. Dak. *Metallurgy*. Tuolumne, Calif., Sept. 2, 67. A.R.S.M, London, 87; Ph.D, California, 04. Instr. chem, California, 92-98; chemist, Mont. Mining Co, 98-03; asst. prof. chem, California, 04-05; *chemist and asst. metallurgist, Homestake Mining Co*, 05- Consulting chemist, U. S. Bur. Mines, 12-20. De la Bêche medal, Royal Sch. Mines, London, 87. A.A; Min. and Metal. Eng; Chem. Soc; British Inst. Min. and Metal; S. African Chem. Metal. and Min. Soc. Analytical chemistry; cyanids; metallurgy of gold and silver; gold ores.
- Shattuck, Dr. Charles H(ouston)**, Idaho Falls, Idaho. *Botany, Forestry*. Vandalia, Mo., Nov. 21, 67. B.S, Campbell, 94, M.S, 98; Woods Hole; Biltmore Sch. Forestry; fellow, Chicago, 08, Ph.D, 08. Prof. physical sciences, Campbell, 95-98, biol. and geol, 98-03; Washburn, 04-07; bot. and forestry, Clemson, 07-09; forestry, Idaho, 09-17, dean col. letters and science, 14-17; *prof. forestry, California*, 17-19; *sec'y and manager, Mt. States Building and Loan Ass*, 19-; *Idaho Loan and Trust Co*, 19-; *v. pres, Howard Pulp and Paper Co*, 20- Instr, Woods Hole, 08; sec'y, Indust. Corp. of Idaho, 26- Fossil fields exped, Laramie Beds, Wyo, 99. A.A; Forestry Ass; Soc. Foresters; Bot. Soc; Calif. Acad; Kans. Acad. Morphology of the Ulmaceae; origin of heterosporous in the Marsiliaceae; methods of clearing logged-off lands; trees; distillation of stumpwood; logging waste of the western yellow pine.
- Shattuck, Dr. F(rederick) C(heever)**, 135 Marlborough St, Boston, Mass. *Medicine*. Boston,

- Nov. 1, 47. A.B., Harvard, 68, A.M., 72, M.D., 73, hon. Sc.D., 12; LL.D., Cincinnati, 08. Visiting physician, Mass. Gen. Hosp., 84-12; Jackson prof. *clin. med.*, Harvard, 87-12, *Jackson emer. prof.*, 12-, overseer, 13-19. A.A.; emer. mem. Am. Physicians (pres, 99); Am. Med. Ass. (v. pres, 06); Am. Acad. Mass. Hist. Soc.; assoc. fel. Phila. Col. Physicians; Boston Soc. Med. Improv.; cor. mem. Edinburgh Med. Chirurg. Soc. Internal medicine; medical education.
- Shattuck, Dr. George B(urbank)**, 14½ E. Mt. Vernon Place, Baltimore, Md. *Geology*. Lowell, Mass., Sept. 28, 69. B.S., Amherst, 92; Ph.D., Hopkins, 97. Asst. geol., Hopkins, 97-98, instr., 98-99, assoc., 99-02, assoc. prof., 02-06; prof., Vassar, 06-19; exped., Africa, 19-20; in charge research dept., Famous Players-Lasky Corp; *special representative to senior v. pres.*, Baltimore and Ohio Ry. A.A. (sec'y, E, 04); Geol. Soc.; Ass. Geog. Geology of the north Atlantic coastal plain; geology of the Bahamas; African jungles.
- Shattuck, Dr. George Cheever**, 520 Commonwealth Ave., Boston, Mass. *Medicine*. Boston, Oct. 12, 79. A.B., Harvard, 01, M.D., 05, hon. A.M., 19. Asst. prof. *trop. med.*, Harvard Med. Sch., and junior visiting physician in charge service for *trop. diseases*, Boston City Hosp., 21-Typhus fever exped., Serbia, 15. Major, R.A.M.C., 17-19. Advisory committee, Gorgas Mem. Inst., 21. A.A.; Am. Med. Ass.; Soc. Clin. Invest.; Soc. Trop. Med. (v. pres, 25, pres, 26); Climat. Ass.; Soc. Parasitol. Tropical diseases.
- Shaver, Prof. Jesse M(ilton)**, George Peabody College for Teachers, Nashville, Tenn. *Zoology*. Gerber, Ga., Nov. 29, 88. B.S.A., Tennessee, 15; M.S., Vanderbilt, 21. Asst. *biol.*, Peabody Col., 15-16, asst. prof., 16-20, assoc. prof., 20- Asst. nursery inspector, Tenn, 22. Ecol. Soc.; assoc. Ornith. Union; Wilson Ornith. Club; Tenn. Acad. Animal ecology.
- Shaw, Prof. A(lbert) Norman**, McGill University, Montreal, Que., Can. *Physics*. Huddersfield, Eng., Dec. 31, 86. B.A., McGill, 08, fellow, 09-10, M.S., 10, D.Sc., 15; A.M., Cambridge, 13. Lecturer *physics*, McGill, 10-11; Macdonald, 13-18; assoc. prof., McGill, 18-26, *prof.*, 26-A.A.; fel. Physical Soc.; fel. Royal Soc. Can. Absolute measurement of current; interference phenomena with gamma rays; contact potential; bifilar suspensions; hygrometry; anemometry; estuary tidal analysis; standard cells.
- Shaw, Charles F(rederick)**, University of California, Berkeley, Calif. *Agriculture*. West Henrietta, N. Y., May 2, 81. B.S.A., Cornell, 06. Asst. soils, Cornell, 05-06; bur. soils, U. S. Dept. Agr., 06-07; instr. agron., Pa. State, 07-09, asst. prof., 09-13; *prof. soil technol.*, California, 13-Scientist, bur. soils, U. S. Dept. Agr., 09-13, collaborator, soil surv., 13-; consulting engineer, U. S. Bur. Reclamation, 19-26; Republic Mex. Irrigation Commission, 26-27. V. pres, Nat. Drainage Cong., 20. A.A.; Soc. Agron.; Am. Geog. Soc.; Soil Surv. Ass. (pres, 27). Soil technology; soil survey; alkali; crop adaptations; land settlement.
- Shaw, Dr. Edwin H(erbert), Jr.**, 2200 Poplar Grove St., Baltimore, Md. *Chemistry*. Baltimore, Oct. 12, 00. B.S., Hopkins, 21, Ph.D., 25. *Int. Health Board fellow*, Hopkins, 25- *Chem. Soc.* Organic selenium compounds; malaria.
- Shaw, E(ugene) W(esley)**, 170 Broadway, New York, N. Y. **Geology*. Delaware, Ohio, July 29, 81. B.S., Ohio Wesleyan, 05; fellow, Chicago, 05-06, grad. student, 06-07. Instr. bot., Ohio Wesleyan, 03-05; asst. geol., Chicago, 06-07; junior geologist, U. S. Geol. Surv., 07-09, asst. geologist, 09-13, geologist, 13-21, chief sub-sect. sedimentation, 19-21; *consulting geologist*, 21- Asst., Ohio Wesleyan, 04-05; lecturer, Harvard, 24. Exped. to study deltas of Europe, Asia and Africa, 13. Valuation engineer, U. S. Treas., 18-19. A.A.; Geol. Soc. (councilor, 19-21); Ass. Geog.; Ass. Petrol. Geol.; Nat. Gas Ass.; Am. Geog. Soc.; Wash. Acad.; Wash. Geol. Soc.; Wash. Petrol. Club. Areal and dynamic geology; erosion and sedimentation; petroleum engineering.
- Shaw, Dr. Frederick W(illiam)**, 2417 Rosewood Ave., Richmond, Va. *Bacteriology*. Halifax, Eng., Dec. 14, 82. M.D., Kansas, 06; B.S., M.S., Missouri, 21. Assoc. prof. and prof. hygiene, Missouri, 19-24; *assoc. prof. bacter.*, Med. Col. of Va., 24- A.A.; Soc. Bact.; Va. Acad. Necrobacillosis in man; fermentation of tan bark; liquefaction of gelatin by bacteria; localization of tuberculosis in rabbits; mycological infections.
- Shaw, Dr. G(eorge) E(obert)**, Sunview Road, South Euclid, Ohio. *Chemistry*. Frederick, Md., Dec. 13, 95. A.B., Washington and Lee, 15, A.M., 16; Ph.D., Wisconsin, 20. Instr. chem., Washington and Lee, 15-16; Wisconsin, 16-17, 19-20; *chemist*, Nat. Lamp Works, Gen. Elec. Co., 20- C.W.S., U.S.A., 17-19. Chem. Soc.; Physical Soc. Inorganic and physical chemistry.
- Shaw, Dr. G(eorge) W(right)**, 2220 West Boulevard, Los Angeles, Calif. *Agronomy*. Bradford, Vt., June 13, 64. A.B., Dartmouth, 87, A.M., 90; hon. Ph.D., Willamette, 95. Prof. chem. and physics, Whitman, 87-89; Pacific, 89-91; chem., Oregon Col. and chief chemist, Exp. Sta., 91-00; state chemist, Oregon, 91-00; chemist and agr. expert, Colo. Sugar Mfg. Co., 00-02; asst. prof. agr. chem., California, 02-04, agr. tech., 04-07, assoc. prof. exp. agron. and agr. tech., 07-12; consulting agriculturist, 12-17; chief appraiser, Fed. Land Bank, Berkeley, Calif., 17-20; *supervisor farm loans, and appraiser*, Pacific Southwest Bank, 20- Agr. Chem. Sugar-beets; soils; cereals; effect of environment on the composition of the sugar-beet; optical method of determining soil humus; effect of environment on the composition of the wheat kernel; agricultural land values.
- Shaw, Harry B(erry)**, Federal Horticultural Board, Washington, D. C. *Plant pathology*. Huddersfield, Eng., Sept. 11, 69. George Washington, 99, 06. Sci. asst. plant bacter, bur. plant indust., U. S. Dept. Agr., 07-10, asst. path. sugar plant investigations, 10-14, chief path. inspector, N. Y. office, *fed. hort. board*, 14-25, *pathologist*, 25- A.A.; Bot. Soc.; Phytopath. Soc.; Wash. Bot. Soc. Curly-top disease of

- beets; thrips as pollinators of beets; sugar-beet nematodes; domestic and foreign plant quarantines.
- Shaw, H(oward) B(urton)**, State College Station, Raleigh, N. C. *Electrical engineering*. Winslow, Maine, Aug. 8, 69. A.B., North Carolina, 90, B.C.E., 91; A.M., Harvard, 94. Instr. math., North Carolina, 89-90, math., surveying and drawing, 91-93; asst. elec. eng. lab., Harvard, 94-96; asst. prof. elec. eng., Missouri, 96-99, prof., 99-13, dean sch. eng., 07-13, director eng., Exp. Sta., 09-13; commissioner, Mo. Pub. Service Commission, 13-17; *director*, Doherty Training Schools, 17-23; *eng. exp. sta.*, N. C. State, 23- A.A.; assoc. mem. Elec. Eng.; Eng. Educ.; N. C. Eng. Soc.; hon. mem. Mo. Utilities Ass. Insulation; alternating current curves; alternating current motors; energy losses in magnetic materials; industrial application of electricity; operation of utilities; economics of industry; personnel and training.
- Shaw, Dr. J(acob) K(ingsley)**, Massachusetts Agricultural Experiment Station, Amherst, Mass. *Pomology*. Northfield, Vt., Aug. 5, 77. B.S., Vermont, 99; M.S., Mass. Col., 08, Ph.D., 11. Acting asst. prof. hort., Missouri, 05-08; instr., New Hampshire, 06-07; asst. horticulturist, Mass. Exp. Sta., 08-13, research pomologist, 13-19; prof. hort., West Virginia, 19-20; *research prof. pomol.*, Mass. Col., 20- Gold medal, Mass. Dept. Agr., 24. A.A.; Soc. Hort. Sci.; Pomol. Soc. Plant breeding; fruit variety characters; root and scion.
- Shaw, Prof. James B(yrnie)**, University of Illinois, Urbana, Ill. **Mathematics*. Remington, Ind., March 20, 66. B.S., Purdue, 89, M.S., 90, Sc.D., 93. Prof. math., Ill. Col., 90-98; Kenyon, 99-03; James Millikin, 03-10; asst. prof., Illinois, 10-15, assoc. prof., 15-18, *prof.*, 18- Summer, prof., Chicago, 09. Math. Soc.; Philos. Ass.; Soc. math. de France. Multiple algebra; linear associative algebra; general algebra; philosophy of mathematics.
- Shaw, J(oseph) A(llan)**, Mellon Institute, Pittsburgh, Pa. *Chemistry*. Philadelphia, Pa., Nov. 20, 87. B.S., Pa. State, 11. Am. Steel and Wire Co., Pa., 11-16; Pittsburgh Crucible Steel Co., 16-18; *Koppers Co., Mellon Inst.*, 18- Chem. Soc. Waste disposal from by-product coke plants; prevention of corrosion; prevention of scale formation in boilers and condensers; stream pollution; boiler water and coal mine drainage treatment; analytical methods; gas purification.
- Shaw, Dr. L(eon) I(rwin)**, Western Electric Co., Chicago, Ill. *Engineering, Chemistry*. Alfred, N. Y., May 30, 86. B.S., Alfred, 07; M.S., Syracuse, 08; Ph.D., Wisconsin, 11. Asst. chem., Alfred, 06-07; Syracuse, 07-08; instr., Mass. Col., 08-09; asst., Wisconsin, 09-10, instr., 10-11; Northwestern, 11-17, asst. prof., 17-18; asst. chief chemist, U. S. Bur. Mines, 19-25; *develop. engineer*, West. Elec. Co., 25- Lieut., Ordnance R.C., 17-18, capt., C.W.S., 18-19, major, C.W.R.S., 24- Chem. Soc. The system, PbO.SiO_2 ; conduction in nonaqueous solution; dielectric constants; smoke and incendiary material; ceramics; helium; mineral technology; raw materials.
- Shaw, Reuben T(aylor)**, 245 S. 51st St., Philadelphia, Pa. *Education, Chemistry, Botany*. Delaware, Ohio, Oct. 8, 84. B.S., Ohio Wesleyan, 05, A.M., 08; Ph.D., Pennsylvania, 26. Teacher, high schools, Pa., 07; prof. chem. and geol., Temple, 07-09; *instr. science*, S. Manual Training High Sch. and *West Phila. High Sch.*, 09- Summers, exped., Can. Rockies and Selkirks, 04, 06, 08, 09. A.A.; Chem. Soc. Educational administration; adequacy and effectiveness of the Pennsylvania teachers retirement system.
- Shaw, Dean Robert Sidey**, Michigan State College, East Lansing, Mich. *Agriculture*. Woodburn, Ont., Can., July 24, 71. B.S.A., Ont. Agr. Col., 93. Prof. agr., Mont. Col., 98-02; *Mich. State Col.*, 02-08, *dean agr. and director*, Exp. Sta., 08- Mich. Acad. Animal husbandry; crops.
- Shaw, Thomas**, 266 Lookout Ave., Hackensack, N. J. *Telephone engineering*. Huddersfield, Eng., Sept. 19, 83. B.S., Mass. Inst. Tech., 05. Eng. dept., *Am. Tel. and Tel. Co.*, 05-19, *dept. develop. and research*, 19- Elec. Eng. Development of loading for telephone circuits; transformers and coils used in telephone transmission circuits.
- Shaw, Dr. Walter R(obert)**, 2455 Polk St., San Francisco, Calif. *Botany, Pharmacognosy*. Galena, Ill., May 4, 71. Indiana, 88-91; A.B., Stanford, 92, A.M., 94, Ph.D., 97; Bonn, 97-98. Asst. bot., Stanford, 92-94, instr., 94-97; tutor, Barnard, Columbia, 98-99; asst. biol., Pomona, 00-01; prof. bot. and entom., Okla. Col. and botanist and entomologist, Okla. Exp. Sta., 01-05; teacher bot., Philippine Nor. Sch., 06-10; asst. prof. bot., Philippines, 10-17, assoc. prof., 17-20, prof., 20-22. Asst. div. ethnol., Columbian Expos., 92; instr. bot., seaside lab., Hopkins, 93-97; Woods Hole, 98. A.A.; Bot. Soc. Embryology and embryogeny of ferns and conifers; species of Volvocaceae; spermatogenesis and fertilization in ferns and conifers; microtechnique; new Volvocaceae.
- Shaw, Prof. W(illiam) T(homas)**, University of Redlands, Redlands, Calif. *Zoology*. Woodburn, Ont., Can., Feb. 10, 73. Guelph Col. Inst., 88-92; B.Agr., Minnesota, 98, B.S., 99; M.S., Mich. State Col., 01; Ph.D., Stanford, 26. Instr. zool., Mich. State Col., 00; asst. entom., Iowa Col. and Exp. Sta., 01; instr. zool., Oregon Col., 01-07; asst. prof., Wash. Col., 08-09, prof., 09-27, zoologist, Exp. Sta., 09-27; *acting prof. biol.*, Redlands, 27- Zoologist, N. Y. State Museum, 27. Curator museum, Wash. Col., 13. Summers, expeditions, Alaska, 07, 08, to collect birds for Alaska-Yukon-Pacific Expos., 09. Gold medal, Lewis and Clark Expos., 05. A.A.; Ornith. Union; Soc. Mammal; Ecol. Soc.; Cooper Ornith. Club. Ornithology; the China or Denny pheasant in Oregon; distribution studies of the birds and mammals of Washington; life histories of mammals; birds and mammals of the higher zones of the mountains of Washington.
- Shea, Prof. Daniel W(illiam)**, Catholic University, Washington, D. C. **Physics*. Portsmouth, N. H., Nov. 27, 59. A.B., Harvard, 86, A.M., 88;

- Ph.D, Berlin, 92. Asst. *physics*, Harvard, 89, 92; asst. prof., Illinois, 92-93, *prof.*, 94-95; *Catholic Univ.*, 95-, gen. sec'y, 97-03, director sch. tech, 97-05, dean faculty, 05-15. Mem, N. H. Legislature, 86-88. A.A.; Physical Soc; Wash. Acad.
- Sheaff, Dr. Howard M(artin)**, 1507 N. Massasoit Ave, Chicago, Ill. *Biochemistry*. Hastings, Nebr, Feb. 4, 89. A.B, Nebraska, 10; Ph.D, Chicago, 19, M.D. Rush Med. Col, 21. Instr. *physiol. chem.*, Chicago, 18-20, asst. *clin. med.*, Rush Med. Col, 23-25, *instr.*, 23-; asst. *attending physician*, Presb. Hosp, Chicago, 24- Tissue consumption of oxygen; vascular hypertension.
- Shealy, Dr. A(rthur) L(iston)**, University of Florida, Gainesville, Fla. *Veterinary medicine*. Prosperity, S. C, Sept. 6, 95. B.S, Clemson, 15; D.V.M, McKillip Vet. Col, 17. Instr. *vet. science*, Purdue, 17-18; *prof.*, Florida, and *veterinarian*, Exp. Sta, 19- Junior bacteriologist, Dept. Health, Chicago, 17; asst. state veterinarian, S. C, 19. Vet.C, U.S.A, 18. Vet. Med. Ass; U. S. Livestock Sanit. Ass; Soc. Parasitol; Southeast. Vet. Med. Ass; Fla. Vet. Med. Ass. (sec'y, 22-). Nutritional diseases of livestock; leeches in horses; hemorrhagic septicemia and infectious mastitis in cattle; salt sickness.
- Shear, Dr. C(ornelius) L(ott)**, U. S. Department of Agriculture, Washington, D. C. **Phytopathology*. Coeymans Hollow, N. Y, March 26, 65. B.S, Nebraska, 97, A.M, 01; Ph.D, George Washington, 06. Asst. agrostologist, U. S. Dept. Agr, 98-01, asst. pathologist, 01-02, pathologist, 02-23, *senior pathologist in charge plant disease surv. and path. collections*, 23- Ed, 'Asa Gray Bul,' 98-00; assoc. ed, 'The Plant World,' 00-05; ed. and publisher, 'N. Y. Fungi Exsiccati'; ed. *phytopath. and mycol.* revision of 'Cent. Diet'; assoc. ed, 'Mycologia,' 09- Sec'y, sect. D, Int. Cong. Arts and Sciences, St. Louis, 04; U. S. delegate, Pasteur Centennial Celebration, Paris, and Int. Phytopath. Cong, Holland, 23. A.A.; Phytopath. Soc. (sec'y-treas, 09-18, pres, 19); Bot. Soc. (v. pres, 08); Hist. Sci. Soc; Wash. Biol. and Bot. Societies; Int. Ass. Bot. Grass and forage plants; plant diseases; diseases of small fruits, especially cranberries and grapes; cotton rootrot; systematic mycology; history of mycology; Ascomycetes.
- Shear, Prof. E(imer) V(anderzee)**, Jr, New York State College of Agriculture, Ithaca, N. Y. *Botany*. Feura Bush, N. Y, April 4, 96. Albany Law Sch, 13-15; B.S, Cornell, 22, 22-24. Asst. *prof. research*, N. Y. State Col. Agr, Cornell, and *assoc. in research*, Exp. Sta, 23- A.A.; Phytopath. Soc. Fruit and fruit tree diseases; taxonomy of higher Basidiomycetes.
- Shear, Dr. M(urray) J(acob)**, 625 Bedford Ave, Brooklyn, N. Y. *Chemistry*. Brooklyn, Nov. 7, 99. B.S, Col. City of N. Y, 20; A.M, Columbia, 22, Ph.D, 25. Chemist, Pease Laboratories, Inc, N. Y, 22-23; asst. chem, Columbia, 23-25; *chemist*, Harry Caplin *Pediat. Research Lab*, Jewish Hosp, Brooklyn, 25-, *admin. officer*, *pediat. laboratories*, 26- Lecturer, L. I. Col. Hosp, Kings County Med. Soc. and Jewish Hosp. Chem. Soc. Physical and biochemistry; coloidal gold; color reactions associated with vitamins; composition of primary calcification.
- Shear, Dr. S(herwood) W(illiam)**, University of California, Berkeley, Calif. *Agricultural economics*. Alcov, N. Y, July 2, 92. B.S, Wisconsin, 18, M.S, 20, Ph.D, 24. Fruit farming, Va, 11-12; lab. aid, office of markets, U. S. Dept. Agr, 15-16, sci. asst. marketing and distribution, 17; assoc. rural institutions, *California*, teacher econ, 22-23, 24-25, *research agr. econ.*, 23-24, 25- Hosp. C, U.S.N.R, 18-19. Land economics; economic status of fruit industries of California; prices of agricultural products.
- Sheard, Dr. Charles**, Mayo Clinic, Rochester, Minn. *Biophysics*, *Physiological optics*. Dolgeville, N. Y, May 26, 83. A.B, St. Lawrence, 03; A.M, Dartmouth, 07; Ph.D, Princeton, 12. Instr, pub. schools, N. Y, 03-05; asst. physics, Dartmouth, 05-07; instr, Ohio State, 07-09, asst. prof, 09-14, prof. and director applied optics, 14-19; *physiol. optician* and head div. ocular interests, Am. Optical Co, 19-24; *head sect. biophysics*, Mayo Clinic, and *prof. physiol. optics*, Mayo Foundation, Minnesota, 24- Collaborator, 'Am. Ency. Ophthal'; ed, 'Am. Jour. Physiol. Optics.' Fourth Thomas Young Oration, London, 21. Fel. Physical Soc; Optical Soc; Physiol. Soc; hon. mem. Optom. Ass; hon. fel. Optical Soc. Gt. Britain; Ophthal. Inst. Gt. Britain. Stationary waves along Lecher wires; spectra of compounds; ionization from hot wires and heated salts; diffraction in the eye; scissor movements in skiametry; accommodative exophoria; transmission of ophthalmic glasses; skiametry; skiascopy; ocular accommodation; ophthalmic lenses; spectrophotometry of bilirubin; calorimetry of the extremities; effects of radiation upon plant and animal tissues.
- Shedd, Prof. J(ohn) C(utler)**, Occidental College, Los Angeles, Calif. *Physics*. Urumia, Persia, June 30, 68. A.B, Princeton, 91; M.S, Cornell, 92; fellow, Wisconsin, 97-99, Ph.D, 99. Prof. physics, Marietta, 93-97; instr, Wisconsin, 99-00; prof, Colo. Col, 00-07; prof. and dean, Westminster (Colo), 07-09; prof, Olivet, 09-16, dean, 15-16; *prof. physics*, Occidental, 16- Summers, prof, California, 19, 21, 23. A.A.; fel. Physical Soc. Radiation in magnetic field; elasticity of rubber; radioactivity of spring water; Kater pendulum; evolution of snow crystals; history of physics.
- Shedd, Prof. O(liver) M(arch)**, University of Kentucky, Lexington, Ky. *Chemistry*. Lexington, March 8, 80. B.S, Kentucky, 01, M.S, 04. Chemist, Henderson Tobacco Extract Works, 02; *research chemist*, Ky. Exp. Sta, 02- Expert, Council Nat. Defense, 17. Chem. Soc. (v. chairman, Lexington sect, 17, sec'y-treas, 20, chairman, 21, councilor, 22); Agr. Chem. (referee, 09-11); Ass. S. Agr. Workers. Agricultural and bio chemistry; soils.
- Shedd, Prof. S(olon)**, Stanford University, Calif. *Geology*, *Mineralogy*. Mercer Co, Ill, May 25, 60. B.S, Monmouth (Oregon), 89; A.B, Stanford, 96, A.M, 07, Ph.D, 10. Instr. nat. science, Oregon State Nor. Sch, 90-94; asst. prof. geol. and miner, Wash. Col, 96-01, prof, 01-25; *cura-*

- tor, *Branner Geol. Library*, 25- Geologist, Wash. Geol. Surv. and asst. state geologist, 09-21, state geologist, 21-25; acting assoc. prof., Stanford, 21, summer, acting prof., 22. A.A.; Geol. Soc.; Min. Eng. Iron ores; building and ornamental stones; clay and clay industries of Washington; metamorphic rocks of the Santa Cruz quadrangle, California; cement, geography and mineral resources of Washington.
- Shedlovsky, Dr. T(heodore)**, 28 Webster St, Brookline, Mass. *Physical chemistry*. Petrograd, Russia, Nov. 29, 98. B.S., Mass. Inst. Tech, 18, Ph.D., 25. Research asst., Mass. Inst. Tech, 19-21; teacher, pub. sch., N. Y., 24-25; *indust. research*, 26- Chem. Soc. Intensities of X-ray reflections.
- Sheehan, Dr. Robert F(rancis)**, 53 E. 66th St, New York, N. Y. *Neurology, Psychiatry*. Buffalo, N. Y., Dec. 5, 79. M.D., Buffalo, 04; M.S., Manhattan Col, 06; grad., U. S. Naval Med. Sch., 10. Lecturer hygiene, Buffalo, 09-11; psychiatrist, U. S. Naval Med. Sch., 14-16; naval med. officer, Govt. Hosp. for Insane, 14-16; consulting neuropsychiatrist, Manhattan State Hosp, Cent. Islip; State Hosp; Kings Park Hosp; manager, Harlem Valley State Hosp; *neuropsychiatrist, U. S. Pub. Health Service*, N. Y.; *U. S. Naval Hosp; Misericordia Hosp. and Community Hosp, New York*, 21- Commander, M.C., U.S.N., 17-21. A.A.; Am. Med. Ass.; Psychiat. Ass.; Ass. Mil. Surg.; Eugenics Research Ass.; N. Y. Soc. Clin. Psychiat. Psychiatry.
- Sheets, E(arl) W(oddell)**, 1831 Lamont St, N. W., Washington, D. C. *Animal husbandry*. Lost Creek, W. Va., Dec. 23, 86. B.S., West Virginia, 12; M.S., Illinois, 14; W. Va. Wesleyan. Instr. agr., W. Va. State Nor. Sch., 11; instr. and specialist animal husbandry and agron., West Virginia, 11-12, instr. agr., 12, asst. director agr. exten., 12-13, prof. animal husbandry and animal husbandman, 13-18; senior animal husbandman, beef cattle investigations, *bur. animal indust, U. S. Dept. Agr.*, 18-21, acting chief *div. animal husbandry*, 21-24, chief, 24- Lecturer, West Virginia, and state granger, 08-12. Assoc. ed., 'W. Va. Farmer,' 06-14. Rep. Soc. Animal Production and mem. sub-committee on animal nutrition, Nat. Research Council. A.A.; Soc. Animal Production (sec'y, 22-26, v. pres, 26-); Genetic Ass. (sec'y, 21-23, ed. board, counselor); Tri-State Sheep Breeders Ass. (sec'y, 11-17); W. Va. Live Stock Ass. (sec'y, 14-18). Meats; nutrition; beef cattle; sheep.
- Sheets, Prof. Rowland A(lphred)**, Miami University, Oxford, Ohio. *Mathematics*. Baltimore, Md., March 14, 97. A.B., Denison, 17, A.M., 21; post-grad., Chicago. Acting prof. *math*, Ottawa (Kans), 17-18; instr., Denison, 19-21, asst. prof., 21-23; *Miami*, 24-25, *assoc. prof.*, 25- A.A.; Math. Soc.; Math. Ass. Arithmetics of linear algebras.
- Sheldon, Prof. H(arold) Horton**, New York University, Washington Square, New York, N. Y. *Physics*. Brookville, Ont., Can., 93. B.A., Queen's (Can), 16, M.A., 17; Ph.D., Chicago, 20. Research assoc. *physics*, Chicago, 18-19; instr., Michigan, 20-22; asst. prof., *N. Y. Univ.*, 22-24, assoc. prof., 24-25, assoc. prof. and chairman dept., *Wash. Square Col.*, 25-27, *prof.*, 27- A.A.; Physical Soc. Adsorption of gases by charcoal; conduction of electricity through crystals; voice analysis.
- Sheldon, Mrs. J(ennie) M(aria) Arms**, Deerfield, Mass. *Zoology, Geology, Archeology*. Bellows Falls, Vt., July 29, 52. Mass. Inst. Tech., 77-79; special student, lab., Boston Soc. Nat. Hist., 79-80. Asst. to Prof. Alpheus Hyatt, 80-90; museum, Boston Soc. Nat. Hist., 90-04; *curator museum, Pocumtuck Valley Mem. Ass.*, 12- Special teacher, Boston, 78-97; summers, lecturer, Saratoga, 86-88. A.A.; Archeol. Inst.; Boston Soc. Nat. Hist. Insecta; concretions of the Champlain clays of the Connecticut Valley; geologic features within the '8,000 acre grant'; guide to synoptic collection; pitted stones.
- Sheldon, Dr. John L(ewis)**, Morgantown, W. Va. *Botany*. Voluntary, Conn., Nov. 10, 65. B.S., B.Ped., Ohio North. Univ., 95, M.S., 99; B.S., Nebraska, 99, A.M., 01, fellow, 00-03, Ph.D., 03. Teacher, pub. schools, Conn., 85-90, 95-97; Mt. Hermon Sch., 92-94; prep. sch., Nebr., 98-99; Nebr. State Nor. Sch., 99-00; instr. bot., Nebraska, 00-03; prof. bacter., West Virginia, and bacteriologist, Exp. Sta., 03-07, prof. bot. and bacter., 07-13, bot., 13-19. Collaborator, bur. plant indust., U. S. Dept. Agr., 02-03, 05-22. A.A.; Bot. Soc.; Phytopath. Soc.; Genetic Ass.; Sullivant Moss. Soc. Rusts of asparagus and carnation; parasitism of *Durluca filum*; cultures of *Empusa*; diseases of melons and cucumbers; ripe-rot of the guava; cane-blight of the rose; *Uromyces*; fungi causing anthracnose of sweet pea, bitter-rot of apple and leaf-spot of fruit trees; leaf-tip blight of *Draena fragrans*; tubercles on legumes without cultures; nematode galls on clover roots; *Hepaticae* of West Virginia; relationship of *Phyllosticia* to fruit-blotch of apples.
- Sheldon, Dr. Pearl G(ertrude)**, Cayuga Heights, Ithaca, N. Y. *Geology*. Lisle, N. Y., Sept. 26, 85. A.B., Cornell, 08, A.M., 09, Ph.D., 11. *Curator geol. Cornell*. Seismol. Soc. Fossil and recent Areas of North and South America; joint planes; low-angle faulting.
- Shelford, Dr. Victor E(rnest)**, Vivarium Building, Wright and Healey Sts., Champaign, Ill. **Zoology*. Chemung, N. Y., Sept. 22, 77. B.S., Chicago, 03, Ph.D., 07. Asst. and tutor *zool.*, West Virginia, 00-01; asst., Chicago, 04-07, assoc., 07-09, instr., 09-14; asst. prof., *Illinois*, 14-20, assoc. prof., 20-27, *prof.*, 27-, *biologist in charge research laboratories, Ill. Nat. Hist. Surv.*, 14- In charge marine ecol., Puget Sound Biol. Sta., alternate years, 14- Ed., 'Naturalist's Guide'; ed. board, 'Ecology,' 20- A.A.; Soc. Nat.; Soc. Zool.; fel. Entom. Soc.; Ass. Econ. Entom.; Soc. Mammal; Fisheries Soc.; Ecol. Soc. (v. chairman, organizing committee, 15, pres, 16, chairman, preserves committee, 17-23); Ass. Geog.; Ill. Acad. (committee on ecol. surv. of Ill.); British Ecol. Soc. Succession, life histories and color pattern of tiger beetles; ecology of aquatic animals; physiological life histories; relations to climate; climate simulation apparatus; marine communities; light effects and measurement.

Shelling, Dr. David H(enry), Jewish Hospital, Brooklyn, N. Y. *Physiology*. Hartford, Conn, Nov. 12, 98. B.S., Hopkins, 21; Columbia, 23; M.D., Yale, 25. Asst. physiol, Hopkins, 20-21; bacter, Maryland, 21; asst. instr. histol, Yale, 21-22; *Harry Caplin fellow, Jewish Hosp*, 25-Physiological chemistry; chemical pathology; rickets; physiology of the liver in relation to carbohydrate, nitrogen and bile pigment metabolism; physical chemistry of calcium metabolism.

Shellow, Dr. Sadie Myers, 1202 Prospect Ave, Milwaukee, Wis. *Psychology*. Salt Lake City, Utah, Jan. 3, 95. A.B., Smith, 15; A.M., Utah, 17; Ph.D., Columbia, 23. Teacher, Sch. for Atypical Children, Utah, 15-16; surv. of feeble-minded, field sec'y, and psychologist, 16-17; probation officer and psychologist, Juvenile Court, 17-18; asst. director, Juvenile Psychopath. Inst., Chicago, 18-20; instr. and research psychol, Smith, 21-22; *psychologist, Milwaukee Elec. Ry. and Light Co*, 23- Summers, psychologist, sch. social work, Smith, 22-25. Psychol. Ass. Individual differences in incidental memory; intelligence tests; accident study of motormen.

Shelton, E(dward) M(ason), 2904 Franklin Ave, Seattle, Wash. *Agriculture*. Hilton, Eng, Aug. 7, 46. B.S., Mich. State Col, 71, M.S., 74. Teacher agr, Japanese Govt, 72; prof, Kansas Col, 74-89, director, Exp. Sta, 88-89; instr. to Govt. of Queensland, Australia, 89-98; prin, Queensland Agr. Sch, 98-99; mine operator, Alaska and British Columbia; orchardist, Wenatchee Valley, Wash. Experiments in stock feeding and in the growth of grains and grasses.

Shelton, Dr. E(lbert) M(inor), 14 Cambridge St, Manchester, Conn. *Chemistry*. Wakeman, Ohio, Oct. 13, 95. A.B., Oberlin, 17; Ph.D., Yale, 24. Research chemist, *Cheney Brothers*, 24-26, *chief chemist*, 26- Chem. Soc; Ass. Textile Chemists. Chemistry of protein, sericin and silk.

Shelton, Prof. G(eorge) R(eed), 1610 Ambleside Drive, Raleigh, N. C. *Ceramic engineering*. Morristown, Tenn, March 17, 89. A.B., Maryville, 11; A.B., Cornell, 12, M.S., 20; Corning Glass Works fellow, Illinois, 20-22, Ph.D., 22. Instr, high sch, S. Dak, 12-16; assoc. prof. chem, Maryville, 16-18; research asst, Ill. Eng. Exp. Sta, 18-20; research chemist, Eng. Inst, Can, 22-25; *assoc. prof. ceramic eng, N. C. State*, 25- A.A.; Ceramic Soc; Chem. Soc; N. C. Acad. Ceramic chemistry.

Shenehon, Francis C(linton), 839 Metropolitan Bank Building, Minneapolis, Minn. *Hydraulics*. Brooklyn, N. Y., Dec. 20, 61. B.C.E., Minnesota, 95, C.E., 00. Chief civil engineer, U. S. Lake Surv, 06-09; prof. civil eng. and dean col. eng, Minnesota, 09-17; civil and consulting engineer, 88- A.A.; Civil Eng; Inst. Consulting Eng; Eng. Educ; Detroit Eng. Soc. (pres, 08). River hydraulics; preservation of Niagara Falls; raising levels of water of Great Lakes; ship locks; wire sweep; water power; flood control.

Shenstone, Prof. A(llen) G(oodrich), Mercer St, Princeton, N. J. *Physics*. Toronto, Ont, Can, July 27, 93. B.S., Princeton, 14, fellow, 19-22, A.M., 20, Ph.D., 22; B.A., Cambridge, 21.

Demonstrator, Toronto, 22-25; *asst. prof. physics, Princeton*, 25- Physical Soc. Photo-electricity; radioactivity; spectroscopy.

Shenton, Dr. Walter F(rancis), American University, Washington, D. C. *Mathematics*. Pottstown, Pa, April 1, 86. Sc.B., Dickinson, 07, A.M., 09; Ph.D., Hopkins, 14. Instr. *math*, Dickinson Sem, 07-10; Hopkins, 14-17; U. S. Naval Acad, 17-20, asst. prof, 20-25; *prof, American Univ*, 25- A.A.; Math. Soc; Math. Ass. Linear and quadratic combinants of systems of binary forms; anaglyphs; mathematical models.

Shepard, Dr. Edward M(artin), 1403 Benton Ave, Springfield, Mo. *Geology*. Winsted, Conn, May 15, 54. A.M., Williams, 81; Sc.D., Waynesburg, 02; I.L.D., Drury, 23. Curator museum, Roanoke, 78; prof. biol. and geol, Waynesburg, 78; Drury, 79-08, dean col. faculty, 03-08. Acting pres, Drury, 93-94; board managers, Mo. Geol. Surv, 93-, asst, 94-97, v. pres, board managers, 01-05, sec'y, 05-; acting state geologist, Mo, 01; field asst, U. S. Geol. Surv, 03-07; ed, 'Bul. Bradley Geol. Field Sta.' Delegate, Tenth Int. Cong. Geol, Mex, 06. A.A.; fel. Geol. Soc; Min. and Metal. Eng; Seismol. Soc; Min. Cong; Ass. Petrol. Geol. Origin of lead and zinc deposits; asphalt and petroleum; geology and hydrology of Missouri; New Madrid earthquake; Hawaiian geology.

Shepard, Prof. Elmer I(rwin), 232 Main St, Williamstown, Mass. *Statistics*. Winona, Minn, March 3, 78. Carleton Col; A.B., Williams, 00, A.M., 04; Columbia; Harvard; Tübingen. Instr. *math, Williams*, 03-11, *asst. prof*, 11- Instr, Harvard, 06-08. Major, F.A., 24- Assoc. Casualty Actuarial Ass. Statistical treatment of economic and business data.

Shepard, Dr. F(rancis) P(arker), University of Illinois, Urbana, Ill. *Geology*. May 10, 97. A.B., Harvard, 19; Ph.D., Chicago, 22. *Dept. geol, Illinois*, 22- A.A. Isostasy; periodic diastrophism; continental shelf; origin of Rocky Mountain trench.

Shepard, Prof. John F(rederick), University of Michigan, Ann Arbor, Mich. *Psychology*. Greenfield, Ill, Jan. 30, 81. B.S., St. Lawrence, 01; Chicago, 02-03; Ph.D., Michigan, 06; hon. Sc.D., St. Lawrence, 25. Asst. *psychol, Michigan*, 03-06, instr, 06-11, asst. prof, 11-15, assoc. prof, 15-18, *prof*, 18- A.A.; Psychol. Ass. Organic changes and feelings; circulation and sleep; association; learning processes; phonetics.

Shepard, Dr. N(orman) A(rthur), 130 Casterton Ave, Akron, Ohio. *Chemistry*. New Haven, Conn, April 8, 90. Ph.B., Yale, 10, Ph.D., 13. Instr. chem, Yale, 13-17, asst. prof, 17-19; *director chem. research, Firestone Tire and Rubber Co*, 19- Chem. Soc. (chairman, Akron sect, 24). Organic chemistry; synthesis; amines; cyclic nitrogen compounds; industrial poisons; vulcanization and aging of rubber; tire fabrics.

Shepard, Dr. William K(ent), 129 Church St, New Haven, Conn. *Physics, Mathematics*. Adams, N. Y., Oct. 19, 75. Ph.B., Yale, 97, Ph.D., 00. Asst. physics, Yale, 98-00, instr. math, 00-01, mech, 01-15, asst. prof. strength of materials, 16-20; with Barrett Co, 20; *Bon-*

- bright and Co.* Electricity; solutions for copper voltameter; mechanics; strength of materials.
- Shepherd, E(arnest) S(tanley)**, Geophysical Laboratory, Carnegie Institution, Washington, D. C. *Chemistry*. Remington, Ind, March 30, 79. Indiana, 97-00; A.B., Cornell, 02. Private asst. to Prof. Wilder D. Bancroft, 02-03; asst. electrochem. and research asst., Cornell, 03-05; *asst. geophys. lab., Carnegie Institution*, 04- Chem. Soc. Alloys; high temperature work on minerals; application of physical chemistry to rock magmas; Portland cement; volcanic gases.
- Shepherd, Prof. Francis J(ohn)**, 1484 Mansfield St, Montreal, Que, Can. *Anatomy*. Vaudreuil Co, Que, 51. M.D., C.M., McGill, 73, LL.D., 16; St. Thomas Hosp, London, 74; Marburg and Vienna, 74-75; Paris; LL.D., Edinburgh, 05; Harvard, 06; Queen's (Can), 20. Demonstrator *anat., McGill*, 75-83, prof, 83-13, dean faculty med, 08-13, *emer. prof.*, 13- Surgeon, Montreal Gen. Hosp, 83-13; consulting surgeon, Royal Victoria Hosp. V. pres, Int. Dermat. Cong, London, 96. Ass. Anat; fel. Surg. Ass; Dermat. Ass. (pres, 00); hon. fel. Col. Surg; for. mem. Am. Acad; Can. Med. Ass. (pres, 02); Montreal Medico-Chirurg. Soc. (pres, 90); fel. Royal Col. Surg; cor. mem. Edinburgh Medico-Chirurg. Soc; Soc. Int. Chirurgie. Significance of human anomalies; anatomy of the black bear; the musculus sternalis and its nerve supply; surgery of thyroid glands; operation as a curative measure in the treatment of exophthalmic goiter; causes and treatment of intestinal obstruction.
- Shepherd, (George) Martin**, U. S. Bureau of Standards, Washington, D. C. *Chemistry*. Brookfield, Mo, Nov. 13, 94. B.S., Missouri, 18. Chemist, exp. helium plant, U. S. Bur. Mines, Texas, 18-21; *assoc. chemist, Bur. Standards*, 21- Chem. Soc. Separation of gas mixtures by fractional distillation at low temperatures and pressures; natural gases and gasolines.
- Shepherd, Pres. W(illiam) Tho(ma)s**, 1024 Eighth St, N. W., Washington, D. C. *Psychology*. Reinersville, Ohio, Feb. 4, 67. B.S., Gale Col, 99; A.M., Oklahoma, 05, M.S., 06; Ph.D., George Washington, 10. Pres. Ark. Nor. Col, 06; teaching fellow, George Washington, 08-09, fellow by courtesy, 10-12; prof. philos. and English and dean, Waynesburg, 13-16; prin, *Columbia Univ. Sch., Washington, D. C.*, 16-20, *pres.*, 20- A.A; Psychol. Ass; fel. Royal Soc. Arts. Comparative and animal psychology; psychology of religion.
- Sheppard, Dr. S(amuel) E(dward)**, 83 Gorsline St, Rochester, N. Y. **Chemistry*. Hither Green, Eng, July 29, 82. B.Sc., London, 03, D.Sc., 06, 1851 Exhib. scholar, 07-10; Marburg, 07-08; Paris, 08-09; Cambridge, 12. Research chemist, *Eastman Kodak Co.*, 13-23, *asst. director research*, 23- A.A. (sec'y, committee on photosynthesis); Chem. Soc; Electrochem. Soc; Optical Soc; Motion Picture Eng; fel. London Chem. Soc; hon. fel. Royal Photog. Soc; cor. mem. Paris Soc. Biol. Photochemistry; colloids; photography.
- Shepperd, Prof. J(ohn) H(enry)**, Agricultural College, N. Dak. *Agriculture*. Chariton, Iowa, Jan. 12, 69. Drake, 87-88; B.Agr., Iowa Col, 91; M.S.A., Wisconsin, 93. Ed. staff, 'Orange Judd Farmer,' 93; prof. agr., N. Dak. Col, and agriculturist, *Exp. Sta.*, 93-04, *dean and v. director*, 04-, *chairman dept. animal husbandry*, 18- Gold medal, Paris Expos. A.A. Animal nutrition and breeding.
- Sherbakoff, Dr. C(onstantine) D(imitriev)**, 203 Eighth Ave, Fountain City, Knoxville, Tenn. *Phytopathology*. Ekaterinoslav, Russia, May 24, 78. Grad. Agr. Sch, Kherson, Russia, 01; Col. Forestry, Petrograd, 01-07; B.S.A., Cornell, 11, fellow, 12-14, Ph.D., 15. Assoc. plant pathologist, Fla. Exp. Sta., 14-20; *plant pathologist and head dept., Tenn. Exp. Sta.*, 20- A.A; Phytopath. Soc. Diseases of truck crops and vegetables; Fusaria.
- Sherff, Dr. Earl E(dward)**, 7419 Stewart Ave, Chicago, Ill. *Botany*. Flint, Mich, May 18, 86. A.B., Albion, 07; M.S., Chicago, 12, Ph.D., 16. Prof. biol. and agr. Mt. Morris, 07-09; *instr. chem. and physiol.*, high sch, Ill, 09-10; biol. and agr., Deerfield Township High Sch, Highland Park, 10-12; biol., Christian Fenger Pub. High Sch, Chicago, 12-19; Robert Lindblom Tech. High Sch, 19-23; *bot., Chicago Nor. Col.*, 23- Asst, desert lab, Carnegie Institution, 08; Chicago, 17- A.A; Bot. Soc. Ecology of marsh plants; taxonomy of Bidens, Coreopsis, Cosmos, Isostigma, Xanthium and Taraxacum; flora of Illinois.
- Sherk, Prof. Wilfred H(obson)**, 367 W. Delavan Ave, Buffalo, N. Y. *Mathematics*. Ridgeway, Ont, Can, Nov. 6, 73. A.B., Oberlin, 99; A.M., Chicago, 05. Instr. math, Oberlin Acad. and Col, 99-04; *head dept. math.*, Akron, 05-06; *Buffalo*, 13- A.A; Math. Soc; Math. Ass.
- Sherman, Althea R(osina)**, National, via McGregor, Iowa. *Zoology*. National, Oct. 10, 53. A.B., Oberlin, 75, A.M., 82. Instr. drawing and painting, Carleton, 82-87; supervisor drawing, pub. schools, Wash, 92-95. A.A; Ornith. Union; Soc. Mammal; Nat. Ass. Audubon Societies; Wilson Ornith. Club; Cooper Ornith. Club; Wis. Archeol. Soc; Wash. Biol. Soc. Nesting and feeding habits of birds; life histories of bats.
- Sherman, Charles W(inslow)**, Statler Building, Boston, Mass. *Civil engineering*. Kingston, Mass, Sept. 26, 70. B.S., Mass. Inst. Tech, 90; M.C.E., Cornell, 95. Instr. civil eng, Cornell, 91-95; asst. engineer, Boston Water Works, 95-97; asst. engineer and div. engineer, Metropolitan Water Works, Boston, 98-04; prin. asst. engineer, Leonard Metcalf, 04-07, *Metcalf and Eddy*, 07-13; *partner*, 13- Water commissioner, Belmont, 08- Lieut. Mass. State Guard, 17-19. Civil Eng; Boston Soc. Civil Eng. (past treas, pres, N. E. sect, 26); New Eng. Water Works Ass. (pres, 21). Water works; engineering and operation.
- Sherman, Prof. Franklin**, Clemson College, S. C. *Entomology, Zoology*. McLean, Va, Nov. 2, 77. B.S.A., Cornell, 00. Asst. to entomologist, Md. Exp. Sta, 97-98; deputy nursery inspector, Wis, 99; chief entomologist, N. C. Dept. Agr, 00-05; prof. entom. and zool, Ont. Agr. Col, 05-06; entomologist, N. C. Dept. Agr, 06-25; N. C. Exp. Sta, 14-25; *chief div. entom. and zool., Clemson,*

25- Summer, instr, Cornell, 00. A.A.; Ass. Econ. Entom.; N. C. Acad. (past pres); S. C. Acad. Ornithology; herpetology; fauna of South Carolina.

Sherman, Prof. George W(illiam), Purdue University, Lafayette, Ind. *Physics*. Slocums, R. I., April 8, 90. B.S., R. I. Col, 12; M.S., Purdue, 14. Asst. *physics*, *Purdue*, 12-15, instr, 15-18, asst. prof, 18-25, *assoc. prof*, 25- Physical Soc; Optical Soc; Ind. Acad. Thermal conductivity of heat insulating materials.

Sherman, H(arley) B(akwell), University of Florida, Gainesville, Fla. *Anatomy, Mammalogy*. Alfred, N. Y., April 21, 94. B.S., Michigan, 20, A.M., 22. Instr. biol., N. Y. Univ., 21-25; asst. *prof. biol*, Florida, 25- Mich. Geol. and Biol. Surv., 17-18, 19-21. Soc. Mammal; Mich. Acad. Comparative anatomy.

Sherman, Prof. H(enry) C(lapp), Columbia University, New York, N. Y. **Chemistry*. Ash Grove, Va., Oct. 16, 75. B.S., Maryland, 93; Sc.D., 13; A.M., Columbia, 96, Ph.D., 97. Asst. chem., Maryland, 93-95; nutrition investigations, U. S. Dept. Agr., 98-99; anal. chem., Columbia, 97-98, lecturer, 99-01, instr., 01-05, adjunct prof., 05-07, prof. org. anal., 07-11, food chem., 11-24, *Mitchill prof. chem*, 24-, *exec. officer dept*, 19- Research assoc., Carnegie Institution, 12- Chairman, subcommittee on human nutrition, Nat. Research Council. Major, Red Cross Mission, Russia, 17. A.A.; Chem. Soc. (v. pres, 07); Soc. Biol. Chem. (pres, 25); Soc. Exp. Biol. Chemistry of foods and nutrition; enzymes.

Sherman, Dr. James M(organ), Cornell University, Ithaca, N. Y. *Bacteriology*. Ash Grove, Va., May 6, 90. B.S., N. C. State, 11; M.S., Wisconsin, 12, Ph.D., 16. Asst. bacter., Wisconsin, 13-14; instr., Pa. State, 14-15, asst. prof., 15-17; bacteriologist, U. S. Dept. Agr., 17-23; *prof. bacter. and dairy indust*, Cornell, 23- A.A.; Soc. Bact.; Chem. Soc.; Dairy Sci. Ass.; Soc. Exp. Biol. General and applied bacteriology.

Sherman, Dr. Jane P(eckham), Hope Valley, R. I. *Bacteriology, Pathology*. Hopkinton, R. I., Oct. 12, 94. A.B., Brown, 18, M.S., 23, A.M., Ph.D., 24; Harvard, 24. Technician, Providence Hosp., Washington, D. C., 19; bacteriologist, St. Joseph's Hosp., Providence, 19-21; *bacteriologist and serologist*, R. I. State Board Health, 21- Asst. instr., Brown, 24. Technician, U.S.A., 18-19. A.A.; Soc. Bact.; Pub. Health Ass. Cell changes caused by enzymes and extracts of pathogenic yeasts.

Sherman, Prof. Leo Prentiss, 1515 Broad St., Grinnell, Iowa. *Chemistry*. Salem, N. Y., June 11, 88. B.S., Dartmouth, 10; M.S., Chicago, 17, Ph.D., 23. Teacher, high sch., Wyo., 11-13; Ky., 13-16; instr. *chem*, Grinnell, 17-18, asst. prof., 18-24, *assoc. prof*, 24-25, *prof*, 25- Chem. Soc. Preparation and study of 1, 2-dihydroxy isobutyric acid; nitrogen chloride on organic aldehydes.

Sherman, LeRoy K(empton), First National Bank Building, Chicago, Ill. *Civil engineering*. Eastham, Mass., July 20, 69. B.S., Mass. Inst. Tech., 92. Ill. Rivers and Lakes Commission,

13-16; director, U. S. Housing Bur., 19; *pres*, *Randolph-Perkins Co.* Chicago Sanit. Commission, 10-11. Civil Eng.; Ass. Eng. (pres, 20); West. Soc. Eng.; Ill. Soc. Eng. (past pres). Industrial housing; hydraulics; sanitary engineering.

Sherndal, Dr. A(lfred) E(inar), 122 Hudson St., New York, N. Y. *Chemistry*. Gothenburg, Sweden, Sept. 24, 85. B.S., St. Lawrence, 07; Ph.D., Munich, 12. Dodge and Oleott, N. Y., 13-17; *director chem. laboratories*, H. A. Metz Laboratories, 17- Chem. Soc.; Inst. Chem. Chemistry and constitution of essential oils; terpenes and hydrocarbons; synthetic local anesthetics; synthetic arsenical medicinals.

Sherrard, Dr. E(arl) C(harles), U. S. Forest Service, Madison, Wis. *Chemistry*. Montpelier, Ind. Ph.C., Tri-State Col., 04; B.S., Michigan, 13, M.S., 15, Ph.D., 17. Instr. chem., Michigan, 16-17; *chemist*, Goodyear Tire and Rubber Co., 17; *forest products lab*, U. S. Forest Service, 17- Lecturer, Wisconsin. Chem. Soc. Hydrolysis of wood and other cellulose containing materials; ethyl alcohol from wood and wastes; sulphite liquor; sugars obtainable from wood.

Sherrill, Dr. James Winn, The Scripps Metabolic Clinic, La Jolla, Calif. *Medicine*. Temple, Texas, April 22, 90. B.S., Baylor, 13; M.D., Hopkins, 17. *Director*, The Scripps Metabolic Clinic, 24- Diabetes mellitus; nephritis; hypertension.

Sherrill, Dr. Mary L(ura), Mount Holyoke College, South Hadley, Mass. *Chemistry*. Salisbury, N. C., July 14, 88. A.B., Randolph-Macon Woman's Col., 09, A.M., 11; Ph.D., Chicago, 23. Instr. *chem*, Randolph-Macon Woman's Col., 09-16, adjunct prof., 17-18; *assoc. prof*, N. C. Col. for Women, 18-20; asst. prof., Mt. Holyoke, 21-24, *assoc. prof*, 24- Assoc. chemist, C.W.S., 20-21. A.A.; Chem. Soc. (sec'y, Conn. Valley sect, 25-); N. C. Acad. Organic chemistry; halogen-nitro-methane; methylene-di-salicylic acid; capsaicin.

Sherrill, Prof. Miles S(tandish), Massachusetts Institute of Technology, Cambridge, Mass. *Chemistry*. Louisville, Ky., Aug. 2, 77. B.S., Mass. Inst. Tech., 99, fellow, 00-02, Leipzig, 00-01; Ph.D., Breslau, 03. Asst. anal. chem., Mass. Inst. Tech., 99-00, instr., 03-07, asst. prof. *theoret. chem*, 07-12, *assoc. prof*, 12-24, *prof*, 24- Special lecturer, Mass. Inst. Tech., 04-05; research assoc., Calif. Inst., 25-26. Research chemist high explosives, ordnance dept, U.S.A., 18. A.A.; Chem. Soc.; Am. Acad. The complex composition and some physico-chemical constants of mercury halide complexes; mercury sulphocyanate complexes; equilibrium relations of chromates in solution; ionization of salts in mixtures with no common ions; catalytic oxidation and nitration of benzene to picric acid; formation of ozone by optically excited mercury vapor.

Sherwin, Prof. Carl P(axson), 6 Carstensen Road, Scarsdale, N. Y. *Physiological chemistry*. Bristol, Ind., May 25, 85. B.S., Hanover, 09; fellow, Indiana, 09-10, A.M., 10; M.S., Illinois, 12; Sc.D., Tübingen, 15; M.D., Fordham, 20, LL.D., 24; D.P.H., N. Y. Univ., 23. Asst. chem., Illinois, 10-12; high sch., Ill., 12-13; asst., Tübingen, 13-15;

- asst. prof. physiol. chem, *Fordham*, 15-17, prof, 17-19, *head dept. chem*, 19- Med. staff, Post-Grad. Hosp, New York; consulting physician, St. Agnes Hosp, White Plains; St. Mary's Hosp, Hoboken, N. J.; consulting chemist, Lincoln Hosp; summer, research chemist, Pellagra Hosp, Spartanburg, S. C, 16; food surv, Mex, Cent. and S. Amer, Cent. Europe and N. Africa, 23. Ed, 'Archives of Therapeut.' Soc. Biol. Chem; Chem. Soc; Soc. Exp. Biol; Physiol. Soc; fel. Am. Med. Ass; fel. N. Y. Acad. Med; N. Y. Acad; Chem. Gesell. Comparative metabolism; synthesis of amino acid in the animal body; hypertension; diabetes mellitus.
- Sherwood, Andrew**, E. 69th and Burnside Streets, Portland, Oregon. *Geology*. Mansfield, Pa, July 16, 48. Chicago, 68. Asst. state geologist, Second Pa. Geol. Surv, 74-78; Geol. Surveys of Ohio and New York, 69, 71-74, 78-80; U. S. deputy mineral surveyor, 00-10. In charge Pa. exhibit, Columbian Expos, 93; exped, Yukon, 98. Forestry Ass; Philos. Soc; cor. mem. N. Y. Acad. Structural geology; mineralogy; paleontology; horticulture; mineral deposits of North America.
- Sherwood, Dr. F(rancis) W(ebber)**, 121 N. Bloodworth St, Raleigh, N. C. *Chemistry*. Raleigh, Feb. 9, 90. B.S., N. C. State, 09, M.S., 11; Ph.D., Cornell, 21. N. C. Exp. Sta, 09-11; Fed. Dyestuffs and Chem. Corp, 16-17; E. I. du Pont de Nemours and Co, 19; *assoc. nutrition chemist*, N. C. Exp. Sta, 19- Lieut, C.W.S, 17-18. A.A; Chem. Soc. (chairman, N. C. sect, 25); N. C. Acad. Nutrition; phenolsulphonaphthalein; nutritive value and toxicity of cottonseed meal; nutritive value of peanuts; nutritional factors affecting reproduction.
- Sherwood, Prof. Frank F**, Northern Normal and Industrial School, Aberdeen, S. Dak. *Physics*, *Chemistry*. Madison, S. Dak, March 7, 89. A.B., South Dakota, 14, A.M., 15; fellow, Illinois, 16-17; Ph.D., Iowa Col, 25. Instr. chem, South Dakota, 15-16; Iowa Col, 17-21, asst. chief dairying, 21-25; *prof. physics and assoc. prof. org. chem*, North. Nor. and Indust. Sch, 25- Summers, food and drug inspector, S. Dak. Chem. Soc. Biophysical, organic and dairy chemistry.
- Sherwood, Prof. G(eorge) E(ulas) F(oster)**, 920 Hyperion Ave, Los Angeles, Calif. *Mathematics*. Hillsdale, N. B, Can, Aug. 25, 83. B.A., New Brunswick, 04; A.M., Harvard, 13; Ph.D., Chicago, 23. Prin, Bloomfield Superior Sch, New Brunswick, 04-05; St. Andrews High Sch, 05-06; instr. math, Wolfville, N. S, 06-07; instr, asst. prof. and assoc. prof, Colo. Sch. Mines, 08-18; assoc. prof. and *prof. math*, California at Los Angeles, 19- Math. Soc; Math. Ass; Eng. Educ. Algebra.
- Sherwood, Geo(rge) H(erbert)**, American Museum of Natural History, New York, N. Y. *Zoology*. Richmond, Maine, March 28, 76. A.B., Brown, 98, A.M., 99. Asst. curator invert. zool, *Am. Museum Nat. Hist*, 01-06, *curator pub. educ*, 06-, asst. treas, 06-11, asst. sec'y, 06-21, *exec. sec'y*, 21-, acting director, 24-27, *director*, 27- Asst. biol. lab, U. S. Fish Commission, Woods Hole, 98-02. A.A; Ass. Mus; fel. N. Y. Acad. (treas, 24-). Animal behavior; migration of fishes; correlation of the migration of fishes with changes in temperature of the seawater; methods of visual instruction; nature education in schools.
- Sherwood, Prof. Noble P(ierce)**, University of Kansas, Lawrence, Kans. *Bacteriology*. Indianapolis, Ind, March 24, 82. B.S., Kansas, 05, A.M., 11, Ph.D., 21; Chicago, 15; B.M., Minnesota, 23, M.D., 24. Rodman, A. T. and S. F. Ry, 05-06, topographer, 07; transitman and chief party, M. of W, 07-08; instr. in charge science, high sch, Kans, 09-10; asst. instr. bacter. and bot, Kansas, 10-11, instr, 11-14, asst. prof. *bacter*, 14-16, assoc. prof, 16-18, *prof*, 18- Exchange prof, Washington (St. Louis), 18. A.A; fel. Am. Med. Ass; Soc. Bact; Soc. Path. and Bact; Kans. Acad. Pleomorphic Streptococci; effect of chemicals upon the hemolytic reaction; anaphylaxis; hypersensitivity.
- Sherwood, Dr. R(eginald) C(arter)**, 1426 Hythe St, St. Paul, Minn. *Organic chemistry*. De Smet, S. Dak, Aug. 6, 91. B.S., S. Dak. Col, 14, M.S., 16, Ph.G., 19; Ph.D., Minnesota, 25. Asst. chem, S. Dak. Col, 14-16, asst. chemist, Exp. Sta, 16-19; analyst, Mont. State Board Health, 19-21; asst. prof. chem, Mont. Col, 20-21; instr. biochem, Minnesota, 21-25; *director*, Minn. State Testing Mill, 24- U.S.A., 19. Chem. Soc; Ass. Cereal Chemists. Agricultural chemistry; growing of sugar beets in South Dakota; wheat and flour; milling and baking of different varieties, grades and types of wheat; relation of various factors influencing the 'strength' of wheat flour; protein surveys of Minnesota wheat crops; enzymic activities of wheat flour.
- Sherwood, R(obert) G(riffin)**, 72 E. Second St, Corning, N. Y. *Physics*. Utley, Wis, Dec. 15, 85. A.B., Ripon, 08; A.M., Wisconsin, 10. Instr. math, Ripon, 08-09; asst, Wisconsin, 09-10; assoc. prof, Ripon, 10-12; instr. physics, Princeton, 12-15; *research physicist*, Eastman Kodak Co, 15; Westinghouse Elec. and Mfg. Co, 15-17; *Corning Glass Works*, 17- Assoc. Physical Soc. Gases and vapors from glass; effects of heat on chemical glassware; high vacua and vacuum gages; electrical resistivity of alloys.
- Sherzer, Prof. W(illiam) H(ittell)**, Michigan State Normal College, Ypsilanti, Mich. *Geology*, *Nature study*. Franklin, Ohio, Sept. 6, 60. B.S., Michigan, 89, M.S., 90, Ph.D., 01; Berlin, 00-01. Instr. geol. and paleont, Michigan, 91-92; *prof. nat. science*, Mich. State Nor. Col, 92- Instr, Chautauqua; field instr, Nat. Sci. Camp, Canandaigua, N. Y. Summer, in charge Smithsonian glacial exped, Canadian Rockies and Selkirks, 04. A.A; Mich. Acad. (past pres). Fossil corals; glacial geology; Canadian glaciers; geological survey of Monroe County and Wayne County, Michigan.
- Shewhart, Dr. W(alter) A(ndrew)**, 11 Kenilworth Road, Mountain Lakes, N. J. *Physics*. New Canton, Ill, March 17, 91. A.B., Illinois, 13, A.M., 14; Whiting fellow, California, 15-16, Ph.D., 17. Asst. physics, California, 14-15; Illinois, 16-17; *engineer*, West. Elec. Co, 18-24, *Bell Telephone Laboratories*, 24- Physical Soc;

- Statist. Ass; Math. Soc; Math. Ass. Ripple wave motion; accelerated motion of drops through viscous medium; application of statistics in physics and engineering; microphonic properties of granular carbon.
- Shideler, Prof. W(illiam) H(enry)**, Miami University, Oxford, Ohio. *Geology*. West Middletown, Ohio, July 14, 86. A.B, Miami, 07; Ph.D, Cornell, 10. Asst. prof. zool. and geol. *Miami*, 10-20, *prof. geol.*, 20- A.A; Paleont. Soc; Ohio Acad. Ordovician paleontology and stratigraphy.
- Shidy, L(eland) P(erry)**, U. S. Coast and Geodetic Survey, Washington, D. C. *Mathematical physics*. St. Louis, Mo, July 27, 51. Missouri, 70-73; George Washington, 85-87. *Computer*, U. S. Coast and Geod. Surv. 73-, chief tidal div, 97-16, asst. chief, 16-18. A.A; Wash. Philos. Soc. Tides and tidal phenomena; currents.
- Shields, Prof. Margaret C(alderwood)**, Wilson College, Chambersburg, Pa. *Physics*. St. Johnsbury, Vt, 83. A.B, Mt. Holyoke, 05; Ph.D, Chicago, 17. Instr. physics, Mt. Holyoke, 07-11; Wellesley, 11-14; assoc. prof, Mt. Holyoke, 18-25; prof, Wilson, 25-27. Physical Soc. Thermodynamics.
- Shilliday, C(larence) Lee**, University of Arkansas, Fayetteville, Ark. *Embryology*, *Entomology*. Deerfield, Ohio, June 25, 82. Ph.B, Ohio, 12, M.S, 13. Asst. histol. and embryol, Cornell, 12-14; instr. histol. and biol, Buffalo, 14-18; prof. anat, histol. and embryol, and sec'y-registrar, col. dentistry, Tennessee, 18-20; biol, Gettysburg, 20-24; instr. comp. anat, Cornell, 24-25; *asst. prof. anat, Arkansas*, 27- A.A; Ohio Acad. Histology; zoology.
- Shimer, Prof. H(ervey) W(oodburn)**, Massachusetts Institute of Technology, Cambridge, Mass. *Paleontology*. Martin's Creek, Pa, April 17, 72. Gettysburg, 91-93, hon. Sc.D, 16; A.B, Lafayette, 99, A.M, 01; Ph.D, Columbia, 04; Harvard, 04-05. Tutor modern lang, Lafayette, 99-01; asst. paleont, Columbia, 01-03; non-res. lecturer stratig. geol, *Mass. Inst. Tech.*, 03, instr, 03-08, asst. prof. *paleont*, 08-12, assoc. prof, 12-20, *prof*, 20- A.A; Paleont. Soc; Geol. Soc; Am. Acad; Wash. Acad; Boston Soc. Nat. Hist. Stratigraphy evolution; old age in brachiopods and mollusks; stratigraphic work in Massachusetts, New York, Arizona and Canada.
- Shimer, Dr. Porter W(illiam)**, 94 Pennsylvania Ave, Easton, Pa. **Chemistry*. Shimerville, Pa, March 13, 57. E.M, Lafayette, 78, Ph.D, 99. Chief chemist, Thomas Iron Co, 78-79; chief asst. in chem. lab. of Dr. Thomas M. Drown, 79-85; *proprietor chem. and metal. lab.*, 85-; *pres, Shimer Chem. Co.*, 24- John Scott medal and premium, 01. Int. Steel Standards Committee. A.A; Chem. Soc; Chem. Eng; Min. and Metal. Eng; Soc. Steel Treat; Soc. Test. Mat. Methods and apparatus used in analytical chemistry; application of chemistry to metallurgical problems; titanium carbide; a new filter for use in chemical analysis; combustion crucible; improved method in analysis of coke and anthracite; volumetric method for the determination of titanium; process for case-hardening of steel; molten baths for steel treating; chaplet alloy used in iron founding.
- Shimer, William Robert**, Bethlehem Steel Co, Bethlehem, Pa. *Metallurgy*. Easton, Pa, April 30, 83. Lehigh, 04; C.E, Lafayette, 05. Engineer tests, Ingersoll-Rand Co, N. J., 05-07; *metal. engineer, Bethlehem Steel Co.*, 07- Summer, asst. to chief engineer, Goldsmith-Thermit Co, N. Y., 04. U.S.A., Ordnance Metal. Advisory Board. Min. and Metal. Eng. (iron and steel committee); Iron and Steel Inst; Soc. Steel Treat; Soc. Test. Mat; Automotive Eng. (iron and steel committee); Electrochem. Soc. Over-oxidation of steel; effect of finishing temperatures of rails and their physical properties and microstructure.
- Shingler, Geo(rge) P(ickney)**, Jr, Bureau of Chemistry, Savannah Station, Savannah, Ga. *Chemistry*. Greenpond, S. C, Nov. 28, 79. B.S, Mercer, 02; Georgia, 03-04; B.S, Mass. Inst. Tech, 05. Acting prof. chem, Emory, 06-08, prof, 08-18; *bur. chem, Savannah*. A.A; Chem. Soc. Standards for malt vinegar; the walnut stain and its effect on fish life; complex silicates; a fumigant for ships.
- Shinn, Prof. F(rederick) L(afayette)**, 854 18th Ave, E, Eugene, Oregon. *Chemistry*. Montpelier, Ind, April 17, 76. A.B, Indiana, 01, A.M, 02; Yale, 02-03; Ph.D, Wisconsin, 06. Asst. chem, Indiana, 01-02; instr, Wisconsin, 03-05; asst. prof, Indiana, 05; instr, Wisconsin, 05-07; asst. prof, *Oregon*, 07-10, *prof*, 10- A.A; Electrochem. Soc. Electrical conductivity of solutions in ethylamin; double and triple thiocyanates of caesium, cobalt and silver; optical rotatory power of salts in dilute solutions.
- Shinn, Dr. M(ilicent) W(ashburn)**, Niles, Calif. *Psychology*, *Pedagogy*. Niles, April 15, 58. A.B, California, 80, Ph.D, 98. Teacher, pub. schools, 75-76, 81-82; ed, 'San Francisco Commercial Herald,' 79-81; 'Overland Monthly,' 83-94. Advisory council educ. congresses, Columbian Expos, 93; chairman child-study cong, Midwinter Fair, San Francisco, 94. Wash. Women's Anthropol. Soc. Development of the senses in infancy; development of instinctive movements; primary education; development of memory and association in infancy.
- Shinn, Dr. Owen Louis**, University of Pennsylvania, Philadelphia, Pa. *Chemistry*. Philadelphia, July 30, 71. B.S, Pennsylvania, 93, Ph.D, 96. Instr. chem, *Pennsylvania*, 93-05, asst. prof, 05-13, *prof. applied chem.*, 13- U. S. Assay Commission, 07, 10-15. A.A; Chem. Soc. Atomic weights of palladium and tungsten; molybdenum; complex thiosulphates; some vanadium compounds; electrochemistry; graphite.
- Shipley, Prof. J(ohn) W(esley)**, 354 Baltimore Road, Winnipeg, Man, Can. *Chemistry*. Stone-wall, Man, Feb. 14, 78. B.A, Manitoba, 08; A.M, Harvard, 11, Ph.D, 13. Asst. director, Wolcott Gibbs Lab, Harvard, 12-14; *asst. prof. chem.*, Ohio State, 14-16; Man. Agr. Col, 16-19; *Manitoba*, 19- Chemist, Nat. Geog. Soc. exped, Mt. Katmai and the Valley of 10,000 Smokes, 17. Chem. Soc; fel. Royal Soc. Can; fel. Can. Inst. Chem. Analytical and physical chemistry; compressibility of liquids; nitrogen

- content of volcanic ash and of air in Alaska; volcanic gases and incrustations in the Valley of 10,000 Smokes; hydrogen ion and carbonate equilibria; corrosion of iron and lead; alternating current generation of hydrogen and oxygen.
- Shipley, Dr. P(aul) G(alpin)**, 2412 Linden Ave, Baltimore, Md. *Pediatrics*. New Haven, Conn, Oct. 17, 88. M.D., Yale, 13. Asst. biol. Sheffield Sci. Sch., Yale, 10-12; asst. and instr. anat., *Hopkins*, 13-15, assoc. 15-17, instr. asst. prof. and assoc. prof. *pediat. and asst. dispensary*, 17- Ass. Anat. Hematology; gastro-intestinal tract; cell physiology; growth of bone.
- Shipton, Prof. Washburne D(enning)**, Washington University, St. Louis, Mo. *Geology*. Derinda, Ill., Jan. 19, 93. B.S., Coe, 14; fellow, Iowa, 15-16, M.S., 16. Asst. *geol.* Iowa, 16-17; instr., *Washington (St. Louis)*, 17-19, asst. prof., 19-25, assoc. prof., 25- Summers, instr., Iowa, 15-17, asst. prof., Colorado, 23, Washington (St. Louis), 24; Mo. Geol. Surv., 19-22. A.A.; Iowa Acad. Stratigraphic and physiographic geology; Pleistocene geology of Missouri.
- Shiras, Geo(rge)**, 3d, 4530 Kingle St, Washington, D. C. *Zoology*. Pittsburgh, Pa., Jan. 1, 59. Cornell, 81; LL.B., Yale, 83; hon. Sc.D., Trinity, 18. Mem. Pa. Legislature, 89-90; U. S. Congress, 03-05; board of managers, *Nat. Geog. Soc.*, 10- Biol. expeditions to Newfoundland, Ont., Alaska, West Indies, Mex., Panama, Hawaii, Lake Superior, Florida and the Rocky Mountains. Gold medal, Paris Expos., 00; grand prize, La. Purchase Expos., 04. A.A.; mem. Ornith. Union; Audubon Soc.; Am. Bison Soc.; Soc. Foresters; League of Wild Life Photog. (pres); Game Protec. and Propag. Ass. (director); Nat. Parks Ass. (director); N. Y. Explorers Club; Wash. Biol. Soc. Biological expeditions; federal migratory bird bill.
- Shirk, Prof. Claude J(oseph)**, 601 E. 14th St, University Place, Nebr. *Botany*. Morriston, Ill., Aug. 18, 75. M.S.D., A.B., McPherson, 01, A.M., 02; M.S., Chicago, 09; Ph.D., Nebraska, 24. Prof. chem. and physics, McPherson, 04-11; math, Ottawa (Kans.), 11-13; bot., *Nebr. Wesleyan*, 13-, head dept. biol., 19- A.A.; Bot. Soc.; Ecol. Soc.; Soc. Plant Physiol.; Forestry Ass.; Nebr. Acad. Ecology; physiology; salt marshes and alkali lands.
- Shirk, Prof. J(ames) A(braham) G(arfield)**, Kansas State Teachers College, Pittsburg, Kans. *Mathematics, Physics*. McPherson, Kans., Jan. 12, 81. A.B., McPherson, 01, A.M., 02; M.S., Kansas, 05; Chicago, 06, 10. Prof. math. and physics, McPherson, 01-04; asst. instr. math., Kansas, 04-06; prof. math. and physics, Ottawa, 06-12; asst. prof. physical sciences, *Kans. State Teachers Col.*, Pittsburg, 12-14, head dept. math. and applied mech., 14-, director civil and mech. eng., 20- Math. Soc.; Math. Ass.; Kans. Acad. (pres, 15); Kans. Eng. Soc. Development of applied mathematics; statistics; analytical mechanics.
- Shive, Dr. J(ohn) W(esley)**, Agricultural Experiment Station, New Brunswick, N. J. *Plant physiology*. Halifax, Pa., Feb. 13, 77. Ph.B., Dickinson, 06, A.M., 08; fellow, Hopkins, 13-15, Ph.D., 15. *Plant physiologist*, N. J. *Exp. Sta.*, 15-, assoc. prof. *plant physiol.*, Rutgers, 21-23, prof., 23- Summer, research asst. bot. lab. plant physiol., Carnegie Institution, 13. A.A.; Bot. Soc.; Soc. Exp. Biol.; Chem. Soc. Salt requirements of agricultural plants.
- Shively, Prof. L(evi) S(tephen)**, 108 Mulberry Ave, Mount Morris, Ill. *Mathematics*. Cerro Gordo, Ill., Oct. 10, 84. A.B., Michigan, 08; A.M., Chicago, 16, Ph.D., 17. Prof. math., Mt. Morris, 08-15, 17-, acting pres., 18-19, pres., 19-21. Math. Soc.; Math. Ass. Differential geometry.
- Shiver, Prof. H(enry) E(dwin)**, Mt. View St, Spartanburg, S. C. *Chemistry*. Clemson College, S. C., Nov. 30, 95. B.S., Clemson, 16; M.S., Virginia, 23. Research chemist, S. C. Exp. Sta., 17-20; instr. chem., Virginia, 22-24; head dept., Rollins Col., 24-25; Converse, 25- Lieut., C.W.R.S. Chem. Soc. (first v. chairman, Fla. sect., 24, chairman, S. C. Piedmont sect., 27). Analytical and physical chemistry; equilibrium and dissociation constants.
- Shockel, Prof. B(ernard) H(enry)**, 411 Osborne St, Terre Haute, Ind. *Geography, Geology*. Aurora, Ind., Dec. 15, 87. B.S., Chicago, 10, A.M., 11. Prof. *geog. and geol.*, Rose, 13- Settlement and development of Jo Daviess County, Illinois; changing conditions in Kentucky Mountains.
- Shoemaker, Dr. D(aniel) N(aylor)**, U. S. Department of Agriculture, Washington, D. C. *Horticulture*. Fair Haven, Ohio, Nov. 16, 69. B.S., Earlham, 94; fellow, Hopkins, 02-03, Ph.D., 03. Asst. biol., Hopkins, 02-03; teacher bot. and cotton breeder, Hartsville, S. C., 03-04; cotton breeder, U. S. Dept. Agr., 04-10, horticulturist, bur. plant indust., 10- Bot. Soc.; Wash. Bot. Soc. (pres, 25). Hamamelis virginiana; garden vegetables.
- Shoemaker, Prof. H(arry) M(elvin)**, 1906 N. 13th St, Philadelphia, Pa. *Mathematics*. Hagerstown, Md., Jan. 3, 80. B.S., Dickinson, 02, A.M., 03; Ph.D., Pennsylvania, 17. Prof. math., Pa. Mil. Col., 08-10; North East High Sch., Phila., 10- Applied mathematics; partial differential equations; Bessel's functions; vibrating membranes.
- Shoemaker, Dr. J(ames) S(heldon)**, Ohio Agricultural Experiment Station, Wooster, Ohio. *Horticulture*. Montreal, Que., Can., March 19, 98. B.S.A., Toronto, 21; M.S., Iowa Col., 22; Ph.D., Minnesota, 25. Asst. Iowa Col., 21-22; H. J. Heinz Co., 23-24; asst. hort., Minnesota, 24-25; Ohio Exp. Sta., 25- A.A.; Soc. Hort. Sci.; Bot. Soc.; Genetic Ass.; Can. Soc. Tech. Agr. Pomology; botany; genetics; plant physiology.
- Shohat, Prof. J(ames) A(lexander)**, 509 Thompson St, Ann Arbor, Mich. *Mathematics*. Russia, 86. Petrograd, 06-10, fellow, 12-16, Magister pure math., 22. Asst. prof., Petrograd Polytech. Inst., 13-17, 21-23; instr., Petrograd Min. Inst., 16-17; prof., Ural Univ., 17-21; Petrograd Pedagog. Inst., 21-23; asst., Chicago, 23, exten. instr., 23-27; instr., Michigan, 24-25, asst. prof., 25- A.A.; Math. Soc.; Math. Ass.; Kharkoff Math. Soc.; Petrograd Math. Soc.; Circolo Mat. di Palermo. Functions deviating the least from zero; algebraic continued fractions; Techebycheff polynomials; approximation of functions of a real variable.

Shohl, Dr. Alfred T(heodore), 330 Cedar St, New Haven, Conn. *Pediatrics*. Cincinnati, Ohio, Dec. 29, 89. A.B., Harvard, 10; M.D., 14. Asst. pediat., Hopkins, 15-17, urology, 17-20, assoc. and assoc. prof. chem. hygiene, 20-21; *pediat*, Yale, 21- Chem. Soc; Soc. Exp. Biol; Soc. Biol. Chem; Soc. Clin. Invest; Conn. Acad. Physiology of acid-base and mineral metabolism.

von Sholly, B(enjamin) R(udolph), 118 Madison Ave, Flushing, N. Y. *Industrial chemistry*. Flushing, Nov. 27, 81. A.B., Columbia, 03, A.M., 05. Chemist, Consol. Gas Co, N. Y., 05-06; Power and Mining Machinery Co, 06-08; research lab, Gen. Elec. Co, 08-10; U. S. Dept. Agr., 10-13; Vulcan Detinning Co, 13-14; state chemist, Tenn., 14-15; chemist, Companhia Oriental des Minas, 16-19; *indust. chemist*, 19- Chem. Soc; N. Y. Chemists Club. Pine oil; composition of special steels; high melting alloys; separation of rare metals; production of rosin, turpentine and pine oil.

Shonle, Horace A(bbot), Eli Lilly and Co, Indianapolis, Ind. *Chemistry*. Tuscola, Ill., May 14, 92. B.S., Illinois, 16, M.S., 17. Biochemist, U. S. Dept. Agr., 17-18; *research in org. chem*, Eli Lilly and Co, 19- C.W.S. and M.C., U.S.A., 18-19. Chem. Soc. (chairman, Ind. sect, 25); Ind. Acad. Organic chemistry; relation of physiological action of organic compounds to their structure and physical properties.

Shook, Dr. C(larence) A(lbert), 108 First Ave, West Haven, Conn. *Mathematics*. Akron, Ohio, June 11, 95. A.B., Western Reserve, 16; A.M., Harvard, 18; Ph.D., Hopkins, 23. Instr. math., U. S. Naval Acad., 19-23; Yale, 23-27, *asst. prof*, 27- Math. Soc; Math. Ass. Celestial mechanics; applied mathematics.

Shook, Prof. G(lenn) A(lfred), Norton, Mass. *Physics*. Osgood, Ind., July 16, 82. A.B., Wisconsin, 07; Ph.D., Illinois, 14. Instr. physics, Purdue, 07-11; Illinois, 11-14; Michigan, 14-15; Williams, 15-18; *prof. physics and math*, Wheaton, 18- Optical Soc; Astron. Soc. Radiation pyrometry; spectrum analysis; refractometry.

Shoop, Prof. C(harles) F(ranklin), 811 Fulton St, S. E., Minneapolis, Minn. *Mechanical engineering*. Bainbridge, Pa., May 24, 78. B.S., Pa. State, 01, M.E., 03. Instr. math. and physics, Pa. State, 03-05; *prof. mech. eng*, Minnesota, 05- Eng. Educ. Concrete roads; rotary pumps.

Shope, Dr. R(ichard) E(dwin), 75 Patton Ave, Princeton, N. J. *Medicine*. Des Moines, Iowa, Dec. 25, 01. M.D., Iowa, 24. Instr. pharmacol. and mat. med., col. med., Iowa, 24-25; *Rockefeller Inst*, 25- Chemotherapy of tuberculosis.

Shorey, Dr. Edmund C(ecil), U. S. Department of Agriculture, Washington, D. C. *Chemistry*. Ont., Can., March 5, 65. B.A., Queen's (Can.), 86, M.A., 87, D.Sc., 96. Chemist, Kohala Sugar Co, 93-99; Territory of Hawaii, 99-03; Hawaii Exp. Sta., 03-07; fertility investigations, bur. soils, U. S. Dept. Agr., 07-15, in charge chem. investigations, 15-18; research chemist, Nat. Aniline and Chem. Co, 18-21; Semet Solvay Co, 21-22; *biochemist, bur. plant indust*, U. S. Dept. Agr., 22- Gold and silver medals, Queen's (Can.).

Chem. Soc; Soc. Biol. Chem; Soc. Test. Mat. Dye intermediates; organic matter of soils.

Short, Frank, Poughkeepsie, N. Y. *Engineering*. Cleveland, Ohio, Oct. 7, 90. M.E., Cornell, 13; M.S., Union, 14. Student engineer, Gen. Elec. Co, 13-14; instr. elec. eng., Alabama and Pennsylvania, 14-16; efficiency engineer, West. Elec. Co, 17; *gen. manager*, Gray Products, Inc, 24-26; *Chem. Machinery Construction Co, Inc*, 24- Capt. and ordnance engineer, U.S.A., 17-23. Mech. Eng; Elec. Eng; Automotive Eng.

Short, Prof. Jessie M(ay), Reed College, Portland, Oregon. *Mathematics, Astronomy*. College Springs, Iowa, June 5, 73. A.B., Beloit, 00; A.M., Carleton, 11; fellow, Chicago, 14-16; California, 25. Prin. high sch., Minn., 01-09; instr. math., Carleton, 09-14, dean women, 11-14; Rollins, 17-18; office supervisor, Nat. Workmen's Compensation Service Bur., 18-20; instr. math., Reed, 20-26, *asst. prof*, 26- A.A.; fel. Astron. Soc; Math. Soc; Math. Ass; Forestry Ass. Actuarial mathematics; system of algol; photographic distortion of the reflector field; cost of living survey of Portland; statistics.

Short, Prof. R(obert) L(ouis), Public Schools, St. Louis, Mo. *Mathematics*. Danville, Ill., Sept. 18, 66. A.B., Chaddock, 90; Illinois; Northwestern; Munich, 97-98. Tutor math., Wesleyan Sem., 85-87; instr., Chaddock, 87-90, prof., 93-94; v. pres. and prof. math., Ft. Worth, 94-97; instr. high sch., Ill., 98-99; Illinois, 00-01, asst. prof., 01-02; ed., D. C. Heath and Co, 02-07; head instr. high sch., Ohio, 08; *pub. schools, St. Louis, and Harris Teachers Col*, 23- Math. Soc; Eng. Educ; Cent. Ass. Sci. and Math. Teachers. Algebra; geometry; unification of secondary mathematics; mathematics for industrial and technical schools; mastery of numbers.

Shoub, H(yman) L(ouis), 135 W. 42d St, New York, N. Y. *Chemistry, Pathology*. Russia, 78. B.S., Mass. Inst. Tech., 13. N. Y. Commission of Ventilation, 13; asst. health officer, Wellesley, Mass., 13-14; with hygienic lab, U. S. Pub. Health Service, 14-19, Hosp. No. 32, 19-22; chief pathologist, N. Y. X-ray and Path. Lab., 22-24; *Shoub's Path. Lab*, 24- A.A.; Inst. Chem; Soc. Bact. Public health; ventilation; nitrates in sewage; reconstructed milk; stain for tubercle bacilli; chemical compounds for pyorrhetic gums.

Showman, Prof. Harry M(unson), University of California at Los Angeles, Los Angeles, Calif. *Mechanics*. Denver, Colo., April 17, 89. E.M., Colo. Sch. Mines, 10; A.M., Harvard, 19. Instr. math., Colo. Sch. Mines, 10-12, asst. prof. civil eng., 12-17, prof. mech. and civil eng., 17-18; *asst. prof. mech. and hydraul*, Case, 19-20; *math, California at Los Angeles*, 20- Lecturer, Harvard, 19. Math. Soc; Math. Ass. Applied mathematics.

Shrader, Dr. J(ames) H(ouston), Health Department, Baltimore, Md. *Chemistry*. Washington, D. C., Sept. 30, 85. A.B., George Washington, 09; Ph.D., Hopkins, 13. Asst. chem., Hopkins, 12-13; lab. director, Gibbs Preserving Co, 13-17; chem. technologist, bur. plant indust, U. S. Dept. Agr., 17-19; chief chemist, Coconut Products Corp., 19-21; *director bur. chem. and food*,

Health Dept, Baltimore, 21- Industrial utilization of plant products; canning-house wastes; vegetable oils; food packing; pectin jellies; dairy technology; food biochemistry; pure food control; industrial hygiene.

Shreve, Dr. Forrest, Laboratory for Plant Physiology, Tucson, Ariz. **Botany*. Easton, Md, July 8, 78. A.B, Hopkins, 01, Ph.D, 05, Bruce fellow, 05-06. Instr. in charge phanerogamic bot, Cold Spring Harbor, 04-05; assoc. prof. bot, Goucher, 06-08; staff mem, *lab. plant physiol*, *Carnegie Institution*, 08-25, *asst. director*, 26-Ed, 'Plant World,' 11-19. A.A.; Soc. Nat.; Bot. Soc.; Ecol. Soc. (sec'y-treas, 15-19, pres, 21); Ass. Geog.; Soc. Foresters; West. Soc. Nat. Development of *Sarracenia*; plant life of Maryland; ecology and physiology of the mountain rainforests of Jamaica and of desert vegetation; water relations of plants; rainfall and temperature in mountains; vegetation and climate in the United States; soil temperature; ecology of the coastal mountains of California; soil conditions in relation to the distribution of desert vegetation.

Shreve, Mrs. Forrest (Edith Coffin Bellamy), Laboratory of Plant Physiology, Tucson, Ariz. *Plant physiology*. Grand Rapids, Mich, Nov. 7, 82. A.B, Chicago, 03. Instr. physics, Goucher, 07-09; research asst. plant physiol, Hopkins, 11-12; *vol. investigator, lab. plant physiol, Carnegie Institution*, 12- A.A.; Ecol. Soc.; West. Soc. Nat. Water relations of desert plants; colloidal gels; leaf temperature; imbibition; seasonal behavior of transpiration.

Shreve, R(andolph) Norris, 50 E. 41st St, New York, N. Y. *Chemistry*. St. Louis, Mo, March 9, 85. A.B, Harvard, 07. In charge mfg. chemicals, Mallinckrodt Chem. Works, 02-04, 07-11; Lamar Chem. Works, 11-15; Marden, Orth and Hastings Corp, and Calco Chem. Co, 15-19; *consulting chemist*, 19- Lecturer, Columbia. A.A.; Chem. Soc. (organizer and sec'y, dye div, 18-24, chairman, 24-). Chemical engineering; dye intermediates; potash from American resources.

Shriner, Dr. Ralph L(loyd), New York Agricultural Experiment Station, Geneva, N. Y. *Organic chemistry*. St. Louis, Mo, Oct. 9, 99. B.S, Washington (St. Louis), 21; M.S, Illinois, 23, Ph.D, 25. Instr. *chem*, Washington (St. Louis), 21-22; *assoc. research and asst. prof, N. Y. Exp. Sta*, 25- Chem. Soc. Biochemistry; catalysis; platinum and palladium oxides as catalysts in the reduction of organic compounds; the structure of chaulmoogric and hydnocarpic acids; composition of corn oil wax; sterols; phyto-sterols of wheat germ.

Shrum, Prof. G(ordon) M(errick), University of British Columbia, Vancouver, B. C, Can. *Physics*. Smithville, Ont, Jan. 14, 96. B.A, Toronto, 20, M.A, 21, Can. Advisory Council fellow, 22-24, Ph.D, 23. Research assoc, Toronto, 21-24; research physicist, Corning Glass Works, 24-25; *asst. prof. physics, British Columbia*, 25- A.A.; Physical Soc. Low temperatures; liquefaction of helium; spectroscopy; aurora borealis.

Shufeldt, Dr. R(ober) W(ilson), East Falls Church, Va. **Zoology, Biology*. New York, N. Y, Dec. 1, 50. Cornell, 74; M.D, George Wash-

ington, 76. Captain's clerk and signal officer, U.S.N, 64, hydrographer, Hydrog. Office, 74; lieutenant, med. dept, U.S.A, 76-81, capt, 81-04, major, 04; *retired*, 04. Hon. curator, Smithsonian Inst, 82-83; in charge dept. comp. anat, U. S. Army Med. Museum, 83, on duty, 18-19; assoc, Smithsonian Inst; ed, nat. hist. departments of several magazines and journals; judge, Columbian Expos, 93. Belgian Order of St. John of Jerusalem, 19. A.A.; fel. Ornith. Union; Soc. Mammal; Wash. Aquarium Soc. (pres, 16); Wash. Biol. Soc.; N. Y. Medico-Legal Soc. (trustee); cor. mem. London Zool. Soc.; Royal Australasian Ornith. Union; Soc. Ital. d'Anthrop, Etnol. e Psicol. comp; l'Alliance scientifique universelle. Anatomy of vertebrates; psychological phenomena; biology; exploration; a classification of birds; osteology of various groups of birds; studies of the human form; game mammals of United States.

Shuler, Dr. Ellis W(illiam), Southern Methodist University, Dallas, Texas. *Geology*. Comers Rock, Va, Oct. 15, 81. A.B, Emory and Henry, 03; A.M, Vanderbilt, 07; fellow, Harvard, 13-14, A.M, 14, Ph.D, 15. Asst. biol, Vanderbilt, 07-08; prof. biol. and geol, Polytech, Ft. Worth, Texas, 08-13; asst. *geol*, Harvard, 14-15; assoc. prof, *South. Methodist*, 15-17, *prof*, 18-, *chairman grad. sch*, 23- Shaler Mem. expd, South. Appalachians, 16; acting geologist, Texas Bur. Econ. Geol, 17. A.A.; Geol. Soc.; Ass. Petrol. Geol. Stratigraphic geology; physiography; paleontology.

Shull, Prof. A(aron) Franklin, 431 Highland Road, Ann Arbor, Mich. **Zoology*. Miami Co, Ohio, Aug. 1, 81. A.B, Michigan, 08; Ph.D, Columbia, 11. Asst. *zool*, Michigan, 05-08; Columbia, 09-11, acting asst. prof, *Michigan*, 11, instr, 11-12, asst. prof, 12-14, assoc. prof, 14-21, *prof*, 21-, *chairman dept*, 25- Summer, entomologist, Mich. Biol. Surv, 08. A.A.; Soc. Nat. (sec'y, 20-26); Soc. Zool. (exec. committee, 13-18); Entom. Soc.; Genetic Ass; Eugenics Soc; Mich. Acad. (pres, 21). Genetics; life cycles in rotifers, aphids and thrips; sex determination and heredity in rotifers and insects; mammals.

Shull, Prof. Charles A(ibert), University of Chicago, Chicago, Ill. **Botany*. Clark Co, Ohio, Jan. 19, 79. Antioch, 00-02; B.S, Chicago, 05, fellow, 05-06, Ph.D, 15; Cold Spring Harbor, 07. Asst. prof. biol, Transylvania, 06-08, prof. biol. and geol, 08-12; asst. prof. bot, Kansas, 12-15, assoc. prof. plant physiol. and genetics, 15-18; prof. plant physiol. and head dept. bot, Kentucky, 18-21; assoc. prof. *plant physiol, Chicago*, 21-25, *prof*, 25- Summer, asst, Chicago, 11. Ed-in-chief, 'Plant Physiol'; assoc. ed, 'Bot. Gazette.' A.A.; Bot. Soc. (chairman, physiol. sect, 19); Soc. Nat.; Soc. Plant Physiol. (pres, 24); Ecol. Soc.; Chem. Soc.; Bot. Cent. States; Ill. Acad. Plant physiology; germination; permeability, absorption and colloidal behavior of soils and seeds; water relations and sap ascent; respiration; plant metabolism.

Shull, Dr. Geo(rge) H(arrison), 60 Jefferson Road, Princeton, N. J. **Botany, Genetics*. Clark Co, Ohio, April 15, 74. B.S, Antioch, 01; Ph.D, Chicago, 04. Student asst, bur. forestry, U. S.

Dept. Agr, 01; bot. asst, U. S. Nat. Museum, 02; bot. expert, bur. plant indust, U. S. Dept. Agr, 02-04; asst. plant physiol, Chicago, 03-04; bot. investigator, Carnegie Institution, 04-15; *prof. bot. and genetics, Princeton, 15-* Ed, 'Genetics,' 16-26; ed. for genetics, 'Bot. Abstracts,' 18-22. A.A.; Soc. Nat. (v. pres, 11, pres, 17); Genetic Ass. (chairman, plant sect, 12); Ecol. Soc; Bot. Soc; Soc. Plant Physiol; Eugenics Soc; Am. Geog. Soc; Philos. Soc; Torrey Bot. Club; Wash. Acad; Bot. Gesell; Gesell. Vererbungswiss; Int. Ass. Bot. Gross morphology; variation; heredity; plant breeding; secular variation; latency; inbreeding; heredity of sex and of other characters in *Lychnis*; linkage and mutation in *Oenothera*; duplication, cross and self sterility, species hybridization and geographical distribution in *Bursa*.

Shull, J(ames) Marion, U. S. Department of Agriculture, Washington, D. C. *Botany*. Clark Co, Ohio, Jan. 23, 72. Valparaiso, 94-95; Art Students' League, 02-03. Instr. art, Antioch, 96-98, bot, 97-98; bot. artist, U. S. Dept. Agr, 08-24, *assoc. botanist*, 24- Wash. Bot. Soc. Plant morphology; plant breeding; botanical illustration.

Shumway, Prof. Waldo, University of Illinois, Urbana, Ill. *Zoology*. New Brunswick, N. J., May 8, 91. A.B. Amherst, 11; A.M. Columbia, 13, Ph.D, 16. Asst. zool, Columbia, 14-15; biol, Amherst, 15-16, instr, 16-17; asst. prof, Dartmouth, 19-22; *assoc. prof. zool, Illinois, 22-*, *asst. dean col. liberal arts and sciences, 26-* Amherst biol. exped, Patagonia, 11-12. Lieut, U.S.A., 17-19. Committee on Standardization of Biol. Stains. A.A.; Soc. Zool. Protozoology; endocrinology; embryology.

Shupp, Dr. Asher Franklin, Barnes Laundry Co, Pittsburgh, Pa. *Chemistry*. Effort, Pa, Oct. 8, 87. A.B. Muhlenberg, 10; fellow, Pittsburgh, 15-17, Ph.D, 17. Prof. chem, Thiel, 10-15; research chemist, E. I. du Pont de Nemours and Co, 17-19; fellow, Mellon Inst, 19-23; manager, Am. Inst. Laundering, Inc, Ill, 24-26; *v. pres. and gen. manager, Barnes Laundry Co, 26-* Chem. Soc. Organic chemistry; phthalic acid; phenolphthalein.

Shute, Dr. D(aniel) Kerfoot, 1727 De Sales St, N. W, Washington, D. C. *Anatomy, Ophthalmology*. Alexandria, Va, Oct. 22, 58. A.B. George Washington, 79, M.D, 83. Prosector, chair anat, George Washington, 86-87, lecturer, 87-88, prof, 88-10. Clin. asst, Royal Ophthal. Hosp, London, 88-89; ophthalmologist, hospitals, D. C; consulting ophthalmologist, Govt. Hosp. for Insane. A.A.; Am. Med. Ass; Ass. Anat; Col. Surg; D. C. Soc. Ophthal. and Otol. (past pres); D. C. Med. Soc. (past pres); Wash. Acad. (past v. pres); Wash. Anthropol. Soc. Human and comparative anatomy of the nervous system.

Shutt, Donald B(ethune), Ontario Agricultural College, Guelph, Ont, Can. *Bacteriology*. Toronto, Ont, July 27, 93. B.S.A. Ont. Agr. Col, 22; Mich. State Col, 23, 25. Asst. prof. bacter, Man. Agr. Col, 22-25; *lecturer, Ont. Agr. Col, 25-* A.A.; Soc. Bact; Can. Soc. Tech. Agr. The relation between yeasts and moulds in butter; yeast

contamination as a source of explosion in chocolates; sterilization of churns.

Shutt, Dr. F(rank) T(homas), Experimental Farm, Ottawa, Ont, Can. *Agricultural chemistry*. London, Eng, Sept. 15, 59. B.A. Toronto, 85, M.A, 86, D.Sc, 14. Demonstrator chem, Toronto, 85-87; *Dominion chemist and asst. director, Dominion Exp. Farms, 87-* A.A.; Chem. Soc; fel. Royal Soc. Can; fel. Can. Inst. Chem; fel. London Chem. Soc; fel. Inst. Chem. Gt. Britain and Ireland. Rational means of maintaining and increasing soil fertility; conservation of soil moisture; agricultural meteorology; influence of environmental factors on the composition of cereals and sugar beets.

Sibert, Major Gen. W(illiam) L(uther), Alabama State Docks Commission, Mobile, Ala. *Engineering*. Gadsden, Ala, Oct. 12, 60. Grad, U. S. Mil. Acad, 84; hon. D.E. Nebraska; LL.D, Alabama. All grades from second lieut. to major gen, 84-17; in charge several river and harbor districts, U. S, and chief engineer and gen. manager, Manila and Dagupan Ry, 99-00; in charge construction of Atlantic end, Panama Canal, 07-14; director, C.W.S, 18-20; *chairman and chief engineer, Ala. State Docks Commission, 23-* Isthmian Canal Commission; chairman, Board Engineers for Flood Prevention in China, 14. Commandeur, Légion d'honneur. D.S. medal. Civil Eng.

Sibley, Prof. Frederick H(ubbard), 307 W. Sixth St, Reno, Nev. *Mechanical engineering*. Oxford, Mass, 72. Ph.B, Brown, 98; M.E, Case, 05. Asst. prof. mech. eng, Case, 03-08; prof, Alabama, 08-12; *assoc. prof. and prof, Kansas, 12;* *prof. mech. eng. and dean col. eng, Nevada. A.A;* Mech. Eng; Civil Eng; Eng. Educ. Flow of steam through nozzles; efficiency of involute gear teeth; petroleum cracking; oils; pure mechanism; thermodynamics.

Sibley, Robert, Stephens Union, Berkeley, Calif. *Engineering*. Round Mountain, Ala, March 28, 81. B.S. California, 03. Chief elec. engineer, Mariposa Commercial and Mining Co, 03; prof. elec. eng, Montana, 03-07; consulting engineer, 07-11; prof. mech. eng, California, 11-15; *ed, 'Jour. Elec.'* 16-; Pacific Coast ed, 'Elec. World,' 19-20; 'Elec. Merchandising,' 19-20; *pres, McGraw Hill Co, 20-* Fel. Elec. Eng. (past v. pres); Mech. Eng. (past v. pres, past chairman, San Francisco sect). Uses of fuel oil; steam power generation; water power and hydroelectric development.

Siceloff, Prof. L(ewis) Parker, Columbia University, New York, N. Y. *Mathematics*. Butler, Mo, Jan. 21, 80. A.B, Cent. Col. (Mo), 00; Ph.D, Columbia, 12. Instr. math, Buchanan, 00-04; instr, Col. City of N. Y, 05-06; *Columbia, 06-12, asst. prof, 12-26, assoc. prof, 26-* Math. Soc; Math. Ass. Theory of groups.

Sickels, Dr. Ivin, West Nyack, N. Y. *Geology*. Nyack, Aug. 13, 53. B.S. Col. City of N. Y, 74, M.S, 78; M.D, N. Y. Univ, 83. Curator, *Col. City of N. Y, 78-83*, tutor and instr. nat. hist, 83-97, asst. prof, 97-05, assoc. prof, 05-10, prof, 10-18, *geol, 18-23, emer. prof, 23-* Instr, lecturer and assoc. prof, med. col,

- N. Y. Univ, 80-98; asst. prof, med. col, Cornell, 98-09. A.A.; Chem. Soc; fel. N. Y. Acad.
- Sidener, Prof. C(harles) F(rederick)**, University of Minnesota, Minneapolis, Minn. *Chemistry*. Huntville, Ill, Feb. 25, 58. B.S., Minnesota. Instr. chem, Minnesota, 83-93, asst. prof, 93-06, prof, 06-23, emer. prof, 23-. A.A.; Chem. Soc. Determination of aluminium; phosphorus in vanadium steel and ferro-vanadium; separation of molybdenum from vanadium; the iodometric determination of vanadium.
- Sideris, Dr. Christos P(lutarch)**, University of Hawaii, Honolulu, Hawaii. *Plant pathology*. Leka, Samos, Greece, Jan. 27, 91. B.C., Samos Lyceum, 09; Ass. Hawaiian Pineapple Canners fellow, Hawaii, 24; B.S., California, 21, Ph.D., 24. Instr. bot. and lecturer plant path, Hawaii, 24-; plant pathologist, Ass. Hawaiian Pineapple Canners Exp. Sta, 25-. A.A.; Bot. Soc; Phytopath. Soc. Plant physiology.
- Siebenthal, C(laude) E(llsworth)**, U. S. Geological Survey, Washington, D. C. *Geology*. Vevay, Ind, April 16, 69. A.B., Stanford, 92, A.M., 93; Indiana, 94; fellow, Chicago, 97-99, 00-01. Asst. geologist, Ark. Geol. Surv, 89-93; Ind. Geol. Surv, 96-99; U. S. Geol. Surv, 01- Instr, Indiana, 91. Geol. Soc; Soc. Econ. Geol; Min. and Metal. Eng; Wash. Geol. Soc. Economic geology; ore deposits.
- Sieg, Dean L(ee) P(aul)**, University of Pittsburgh, Pittsburgh, Pa. **Physics*. Marshalltown, Iowa, Oct. 7, 79. B.S., Iowa, 00, fellow, 00-03, M.S., 01, Ph.D., 10. Asst. physics, Iowa, 99-00; instr. and head dept, Carleton Col, 03-06; instr, Iowa, 06-08, asst. and assoc. prof, 08-19, prof, 20-24; prof. and head dept, Pittsburgh, 24-25, dean col. and grad. sch, 25- Capt, science and research div, A.S., 18-19. A.A.; fel. Physical Soc; fel. Optical Soc. (assoc. ed, 'Jour,' 25-29). Elasticity; optical properties of crystals and of selenium; air resistance; crystal structure.
- Siegler, E(douard) H(orace)**, U. S. Department of Agriculture, Washington, D. C. *Entomology*. Philadelphia, Pa, Aug. 29, 88. B.S., Pa. State, 11. Bur. entom, U. S. Dept. Agr, 11-, assoc. entomologist in charge field sta, Silver Spring, Md. Ass. Econ. Entom. Insecticides; life history and control of fruit insects.
- Sielke, Albert V(ictor)**, 150 Nassau St, New York, N. Y. *Engineering*. Mt. Vernon, N. Y., July 9, 94. C.E., Columbia, 13. Draftsman and engineer, W. H. McElfatriek, N. Y., 10-12; engineer, U. S. Realty and Improvement Co, 12-14; Degnon Contracting Co, 14-17; reinforced concrete engineer, Turner Construction Co, 17-18; chief draftsman and designing engineer, Nugent Construction Co, 18-21; engineer, Chas. L. Craig, Comptroller, Dept. Finance, 21-26; private practice and consulting engineer, Riverside Park Improvement, 26- Civil Eng; N. J. and N. Y. Societies Professional Engineers and Land Surveyors.
- Siems, Dr. H(erman) B(ernard)**, Swift and Co, Chicago, Ill. *Chemistry*. March 31, 95. B.S., Ph.D. Instr. chem, Chicago, 22-24; research chemist, Swift and Co, 24- Chem. Soc; Soc.
- Agron. Equilibrium between manganates and permanganates; preparation of manganates in liquid ammonia; manufacture of plant foods.
- Siems, V(alentine) Bernard**, North American Water Works Corp, New York, N. Y. *Hydraulic engineering*. Baltimore, Md, Oct. 30, 87. B.S., Milton, 09; M.S., Washington (Md), 19; Maryland, 19-22; C.E., Gettysburg Col, 23. Md. Elec. Ry, 08-09; Baltimore City Water Dept, 09-18; designing draftsman, asst. engineer, res. engineer, asst. filtration engineer and exec. engineer of conservation sub-div, distribution div, asst. water engineer, 18-23, water engineer, City of Baltimore, and pres, water board, 23-26; v. pres. and gen. manager, N. Amer. Water Works Corp, 26- Lecturer, Milton Univ; instr, Md. Inst; mem. zoning commission, Baltimore. Edit. advisory board, 'Water Works Eng. Magazine.' Water and consulting engineer to constructing quartermaster, Camp Meade, Md, 18-23. Civil Eng; Water Works Ass; Ass. Eng; Soc. Munic. Improv. Civil and sanitary engineering; water distribution systems; treatment of water supply to remove corrosion; design of mechanical filtration plant; design of dams; organization of municipal water utilities; management of utilities.
- Sieplein, Dr. O(tto) J(ulius)**, University of Miami, Coral Gables, Fla. *Chemistry*. Cleveland, Ohio, Dec. 21, 77. B.S., Case, 99, M.S., 02; Ph.D., Bonn, 06. Instr. org. and applied chem, Case, 99-04; asst. to Dr. Anschütz, Bonn, 05-06; prof. chem, Grove City, 06-26; Miami, 26- Chem. Soc; Chem. Gesell. Petroleum; mesaconic ester acids and other derivatives; phthalein indicators.
- Sievers, A(rthur) F(rederic)**, U. S. Department of Agriculture, Washington, D. C. *Chemistry*. New Holstein, Wis, March 22, 85. Ph.G., Wisconsin, 05, B.S., 07. Asst. pharmaceut. chem, Wisconsin, 05-07; expert, bur. plant indust, U. S. Dept. Agr, 07-09, chem. biologist, 09-24, assoc. biochemist, 24-26, biochemist, 26- Chem. Soc; Oil Chem. Soc; Pharmaceut. Ass. Drug and poisonous plants; plant insecticides; volatile and vegetable oils.
- Sievers, Prof. F(red) J(ohn)**, 312 Howard St, Pullman, Wash. *Soils*. North Milwaukee, Wis, Oct. 1, 80. B.S., Wisconsin, 10, M.S., 23. Prin, pub. sch, Wis, 04-05, high sch, 05-07; instr. soils, Wisconsin, 10-12; agronomist and supt, Milwaukee Co. Agr. Sch, Wis, 12-17; prof. soils and head dept, Wash. Col, and chief div. soils, Exp. Sta, 17- A.A.; Soc. Agron. (pres, west. div, 24). Soil management; soil organic matter; effect of various external factors on the nutrition and resultant composition of the plant; water in irrigation practice.
- Siften, Prof. H(arold) B(oyd)**, University of Toronto, Toronto, Ont, Can. *Botany*. Strathroy, Ont, 89. B.A., Toronto, 14, fellow, 14-15, M.A., 15, Ph.D., 22. Seed analyst, Dept. Agr, Ottawa, 15-19; asst. prof. bot, Toronto, 20- Lecturer, Toronto, 20. A.A.; Bot. Soc; Can. Inst. (sec'y, 24-27). Anatomy of seed plants; seed germination; poisonous plants.
- Sigerfoos, Prof. Charles P(eter)**, 1023 University Ave, S. E., Minneapolis, Minn. *Zoology*. Ar-

- canum, Ohio, May 4, 65. B.S., Ohio State, 89; Ph.D., Hopkins, 97. Instr. zool., Ohio State, 89-91; biol., Virginia, 91-92; asst. zool., Hopkins, 95-97; asst. prof. animal biol., *Minnesota*, 97-00, *prof. zool.*, 00- Instr., Cold Spring Harbor, 97-02. A.A.; Soc. Nat.; Soc. Zool. Ship-worms.
- Silberstein, Dr. Ludwik**, Research Laboratory, Kodak Park, Rochester, N. Y. **Physics, Mathematics*. Warsaw, Poland, May 17, 72. Ph.D., Berlin. Docent math. physics, Bologna, 99-04; Rome, 04-20; *math. physicist, Research Lab, Eastman Kodak Co.*, 20- Physical Soc.; Math. Soc.; Astron. Soc.; Optical Soc.; Royal Astron. Soc. Relativity; electromagnetism; vector calculus; projective geometry.
- Siler, Lieut. Col. J(oseph) F(ranklin)**, U.S.A., Office of Surgeon General, Washington, D. C. *Medicine*. Orion, Ala., June 7, 75. B.S., Ala. State Nor. Col., 95; M.D., Virginia, 98. *Med. officer, U.S.A.*, 03-; in charge professional service div., *Surg. Gen. Office*. Lecturer, N. Y. Post-Grad. Med. Sch., chief lab. med. zool. Thompson McFadden Pellagra Commission. Pres., Army Med. Research Board, 23-25. A.A.; Am. Med. Ass.; fel. Col. Physicians; Col. Surg.; Soc. Trop. Med. (pres, 25); Soc. Exp. Biol.; Ass. Study Pellagra (v. pres, 12-15, pres, 15); Ass. Mil. Surg.; fel. Royal Soc. Trop. Med. and Hygiene. Pellagra; sanitation; hygiene; transmission of dengue fever.
- Silsbee, Dr. Francis B(iggs)**, U. S. Bureau of Standards, Washington, D. C. *Physics*. Lawrence, Mass., July 8, 89. B.S., Mass. Inst. Tech., 10, M.S., 11; Ph.D., Harvard, 15. Asst. physicist and physicist, *Bur. Standards*, 12- A.A.; fel. Physical Soc.; Elec. Eng.; Wash. Acad. (cor. sec'y, 22-26); Wash. Philos. Soc. Electrical measurements; ignition.
- Silverman, Prof. Alexander**, 1514 Denniston Ave., Pittsburgh, Pa. *Chemistry*. Pittsburgh, May 2, 81. Ph.B., Pittsburgh, 02, M.S., 07; A.B., Cornell, 05. Chemist, Macbeth-Evans Glass Co., 02-04; instr. *inorg. chem.*, *Pittsburgh*, 05-09, asst. prof., 09-12, *prof.*, 12-, *head dept. chem.*, 18- Consulting chemist. Chem. Soc.; Electrochem. Soc.; Ceramic Soc.; Soc. Glass Technol.; Pa. Acad.; N. Y. Chemists Club. Technology and manufacture of glass; microscope illumination.
- Silverman, Dr. L(ouis) L(azarus)**, Dartmouth College, Hanover, N. H. *Mathematics*. Suwalk, Russia, April 21, 84. A.B., Harvard, 05, A.M., 07; Ph.D., Missouri, 10. Instr. math., Missouri, 07-09; Cornell, 09-17; with Gen. Elec. Co., 17-18; asst. prof. *math.*, *Dartmouth*, 18-24, *prof.*, 24- Math. Soc.; Math. Ass.; Math. Verein; Moscow Math. Soc. Divergent series.
- Silvester, Capt. Charles F(rederick)**, U.S.A., care Adjutant General, Washington, D. C. *Anatomy*. Princeton, N. J., Dec. 21, 76. Preparator anat., Princeton, 97-99, asst., 99-19, curator morphol. museum, 01, zool. museum, 09-19; *capt.*, *U.S.A.*, 17- Peary relief exped., 99. Med. museum unit, U.S.A., 19. Soc. Ichthyol. and Herp.; Int. Ass. Med. Mus. Comparative anatomy of vertebrates; ichthyology.
- Silvey, Prof. O(scar) W(illiam)**, Agricultural and Mechanical College of Texas, College Station, Texas. *Physics*. Fisher's, Ind., April 3, 80. A.B., Indiana, 07, A.M., 10; Ph.D., Chicago, 15. Instr. *physics*, *Purdue*, 08-14, asst. prof., 15-16; *prof.*, *Agr. and Mech. Col. Texas*, 16- A.A.; Physical Soc. Point discharge in electrostatic and magnetic fields; fall of a droplet in a gas and in a liquid.
- Simkins, Prof. C(leveland) S(ylvester)**, 875 Monroe Ave., Memphis, Tenn. *Anatomy, Embryology*. Salem, Oregon, Jan. 2, 89. A.B., Oregon, 16; research fellow, Bermuda, 19; Woods Hole, 20; Ph.D., Harvard, 21. Austin teaching fellow, Harvard, 19-20; instr. zool., West Virginia, 20-21; asst. prof. histol., *Tennessee*, 21-23, *assoc. prof. embryol. and anat.*, 23- A.A.; Ass. Anat. Origin of the germ cells, migration and extraregional origin of primordial germ cells in the mouse, rat, turtle and Ascidians; origin of the pigment in Ecternascidia; fat metabolism in the embryonic Trionyx; origin of the germ cells and glands in human embryos; history of human teeth.
- Simmonds, Prof. Nina**, Johns Hopkins University, Baltimore, Md. *Biochemistry*. Albany, Wis., Aug. 11, 93. B.S., Wisconsin, 15; A.M., Hopkins, 22, Sc.D., 24. Asst. agr. chem., Wisconsin, 15-17; asst. instr. and assoc. *biochem.*, *dept. hygiene and pub. health.*, *Hopkins*, 17-24, *assoc. prof.*, 25- Nutrition.
- Simmons, Dr. George H(enry)**, 535 N. Dearborn St., Chicago, Ill. *Medicine*. Morton, Eng., Jan. 2, 52. Hahnemann Med. Col., 82; M.D., Rush Med. Col., 92; hon. A.M., Tabor, 99; LL.D., Northwestern, 07. *Practising physician*, 92- A.A.; Am. Med. Ass. (sec'y, 99-11, ed. and gen. manager, 'Jour.', 99-25, emer. ed. and gen. manager, 25-); West. Surg. and Gynec. Ass. (sec'y and treas., 96-01); Chicago Path. Soc.; Chicago Inst. Med.
- Simmons, Prof. J. E**, 234 N. 30th St., Corvallis, Oregon. *Bacteriology*. Hazel Green, Wis., May 11, 91. Wis. State Nor. Sch., Platteville, 09; B.S., Wisconsin, 16, M.S., 17; Bowman fellow, Rockefeller Inst., 18. Wisconsin, 17-19; *prof. bacter.*, *Oregon Col.*, 19- Methods in analyzing milk; hemorrhagic septicemia; food spoilage.
- Simmons, Major James S(tevens)**, Army Medical School, Washington, D. C. *Bacteriology, Medicine*. Newton, N. C., June 7, 90. B.S., Davidson Col., 11; North Carolina, 11-13; M.D., Pennsylvania, 15; grad., Army Med. Sch., 17. Instr. biol., Davidson Col., 09-11, English, 11; instr. embryol. histol. and path., North Carolina, 12-13; res. physician, Univ. Hosp., Pennsylvania, 15-16; bacteriologist, William Pepper Lab., 16-17; lab. and hosp. positions, M.C., U.S.A., 17-24; instr. bacter. and asst. director laboratories, *Army Med. Sch.*, 24-26, in charge bacter. sect., 26- Assoc. and acting ed., 'Abstracts of Bacter.', 24-26; sect. ed. med. bact. and med. microbiol., 'Biol. Abstracts.' A.A.; Soc. Bact.; Ass. Path. and Bact.; fel. Am. Med. Ass.; fel. Col. Physicians; Pub. Health Ass.; Ass. Mil. Surg.; Royal Inst. Pub. Health. Medical bacteriology; preventive medicine; chemotherapy.
- Simmons, Prof. J(ohn) P(aul)**, New York University, New York, N. Y. *Chemistry*. Yonkers,

- N. Y., Oct. 12, 80. B.S., N. Y. Univ., 04, Sc.D., 10. Instr. chem., N. Y. Univ., 07-10, asst. prof., 10-17, assoc. prof., 17-27, *prof. and director, Nichols chem. building*, 27- Chem. Soc. Lithium compounds.
- Simmons, Perez**, Box 241, Silver Spring, Md. *Economic entomology*. Boston, Mass., June 4, 92. B.S., Mass. Col., 16; grad. sch., U. S. Dept. Agr., 23-25; George Washington, 25- Deputy nursery inspector, Mass. State Board Agr., 16-17, 19; collaborator, *bur. entom., U. S. Dept. Agr.*, 17, *stored product insect investigations*, 19- Agent, *bur. plant indust.*, U. S. Dept. Agr. and Mass. State Board Agr., 17. A.A.; Ass. Econ. Entom.; Crop Protection Inst.; Wash. Entom. Soc.; Wash. Biol. Soc. Bean weevils; insect pests of cured meats; Angoumois grain moth.
- Simms, B(ennett) T(homas)**, Oregon Agricultural College, Corvallis, Oregon. *Veterinary medicine*. Ramsey, Ala., Jan. 26, 88. D.V.M., Ala. Polytech., 11; Chicago and Rush Med. Col., 12-14, 16. Instr. physiol., N. C. State, 11-13; *prof. vet. med., Oregon Col.*, 13- Vet. Med. Ass. Infectious abortion in cattle.
- Simms, Dr. Henry S(wain)**, Rockefeller Institute, Princeton, N. J. *Chemistry*. South Manchester, Conn., May 26, 96. Maine, 14-16, 17-18; B.S., Mass. Inst. Tech., 20; Ph.D., Columbia, 22. Div. chem., *Rockefeller Inst.*, New York, 20-26, *div. animal path., dept. chem.*, N. J., 26- Chem. Soc. Fatty acids of lipoids; chemical structure and hydrolysis of peptides; spatial structure and lactone formation of sugar acids; nucleic acids; dissociation constants of nucleosides and nucleotides; relation of dissociation constants to titration data and chemical structure; dissociation and optical rotation; activity coefficients of weak electrolytes.
- Simms, S(tephen) C(hapman)**, 7030 Chappel Ave., Chicago, Ill. *Ethnology*. Georgetown, D. C., March 22, 63. Private and pub. schools. Asst. curator, dept. anthrop., *Field Museum Nat. Hist.*, 94-13, *curator pub. sch. exten.*, 13- Portuguese v. consul, Chicago, 92-19, consul, 19-; asst. sec'y and in charge dept. foreign affairs, Columbian Expos., rep. of Sultan of Johore; ethnologist in charge sect. ethnol., dept. anthrop., La. Purchase Expos., 04; mem. jury awards, Panama-Pacific Expos., 15; v. pres. and sec'y, exec. jury, Int. jury awards, Sesqui-Centennial Expos., 26. Anthrop. Ass.; Folk-Lore Soc. Ethnology of the North American aborigines.
- Simon, Dr. Alfred W(alter)**, California Institute, Pasadena, Calif. *Physics*. Chicago, Ill., Sept. 16, 97. B.S., Chicago, 21, Ph.D., 25. *Nat. Research Council fellow physics, Calif. Inst.*, 25- Quantitative theory of the static machine; photo and recoil electrons.
- Simon, Dr. Charles E(dmund)**, 203 Tunbridge Road, Baltimore, Md. *Medicine*. Baltimore, Sept. 23, 66. A.B., Hopkins, 88; M.D., Maryland, 90; Paris, 91-92. Asst. dispensary, Hopkins Hosp., 89-90, asst. res. physician, 90-91; prof. clin. path. and exp. med., Col. Physicians and Surg., Baltimore, and sch. med., Maryland, 10-20; fellow by courtesy, *sch. hygiene and pub. health, Hopkins*, 19-20, lecturer med. zool., 20-22, res. lecturer *filterable viruses*, 22-27, *prof.*, 27- Managing ed., 'Am. Jour. Hygiene,' 20- A.A.; Am. Med. Ass.; Soc. Biol. Chem.; Physiol. Soc.; Md. Med. and Chirurg. Faculty. Physiological and pathological chemistry; clinical laboratory methods; experimental hematology; sulphur metabolism; experimental cancer work; serology; immunology; protozoology; filterable viruses.
- Simon, Dr. Webster G(odman)**, Western Reserve University, Cleveland, Ohio. *Mathematics*. Cincinnati, Ohio, Oct. 3, 92. A.B., Harvard, 14, A.M., 15; Ph.D., Chicago, 18. Instr. *math, Western Reserve*, 18-20, asst. prof., 20-24, *assoc. prof.*, 24- A.A.; Math. Soc.; Math. Ass. Differential equations in infinitely many variables.
- Simonds, Prof. Frederic W(illiam)**, University of Texas, Austin, Texas. *Geology*. Charlestown, Mass., July 3, 53. B.S., Cornell, 75, M.S., 76; Ph.D., Syracuse, 79; hon. Sc.D., Arkansas, 93. Instr. geol. and paleont., Cornell, 75-77; prof. geol., zool., bot. and physiol., North Carolina, 77-81; lecturer econ. geol., Cornell, 87; prof. biol. and geol., Arkansas, 87-90; assoc. prof. *geol., Texas*, 90-95, *prof.*, 95- Special agent, dept. mining statist., tenth census, 80; biologist, Ark. Exp. Sta., 87-90; special asst., Ark. Geol. Surv., 87-92. A.A.; Geol. Soc.; Ass. Petrol. Geol.; Southwest. Geol. Soc. (pres., Austin sect., 19); Texas Acad. (pres., 99-00, sec'y, 00-12). Stratigraphical geology of the southwest; physiography of North America with special reference to the physiographic conditions in Texas and the southwest.
- Simonds, Prof. James P(ersons)**, Northwestern University Medical School, Chicago, Ill. *Pathology*. Cleburne, Texas, March 19, 78. A.B., Baylor, 01; M.D., Rush Med. Col., 07, Ph.D., Chicago, 23; D.P.H., Harvard, 14. Asst. city bacteriologist, St. Louis, 07-08; director, lab. path. and bacter., Ind. State Board Health, 08-12; prof. bacter. and hygiene, Texas, 12-14; assoc. prof. *path., Northwestern*, 14-22, *prof.*, 22-, acting dean, 24-25; *attending pathologist, Cook Co. Hosp.*, 18- Lecturer, Indiana, 10-12; special investigator gas gangrene, Rockefeller Inst., Belgium, 16; coroner's physician, 18-20. A.A.; Ass. Path. and Bact.; Soc. Exp. Path.; Am. Med. Ass.; Chicago Inst. Med.; Chicago Path. Soc. (pres., 18). Gas gangrene; anaphylaxis; peptone poisoning; intracellular ferments; low blood pressures; surgical shock; fat embolism.
- Simons, Harold L(ester)**, 11 44th Road, Long Island City, N. Y. *Chemistry*. New York, N. Y., July 15, 97. A.B., Col. City of N. Y., 17; A.M., Columbia, 18, Ph.D., 21. Chem. Soc. The initial velocity in the hydrolysis of sucrose by invertase; dimethyl tartronate; determination of gases in metals.
- Simons, Prof. J(oseph) H**, Northwestern University, Evanston, Ill. *Physical chemistry*. Chicago, Ill., May 10, 97. B.S., Illinois, 19, M.S., 22; Ph.D., California, 23. Asst. *chem., Illinois*, 20-22; teaching fellow, California, 22-24; prof., Porto Rico, 25-26; *asst. prof., Northwestern*, 26- A.A.; Chem. Soc. Fluorine; thermodynamics.
- Simons, Prof. Lao G(enevra)**, Hunter College, New York, N. Y. *Mathematical education*. San Jose, Calif., March 29, 70. A.M., Columbia,

- 12, Ph.D, 25. Asst. prof. *math*, Hunter Col, 16-25, *assoc. prof*, 25- Math. Soc; Math. Ass; Hist. Sci. Soc. Introduction of algebra into American schools in the eighteenth century.
- Simpson, Dr. Benjamin R(oy)**, 3181 Sycamore Road, Cleveland Heights, Ohio. *Educational psychology*. Drumbo, Ont, Can, Aug. 13, 77. B.A, McMaster, 99; Chicago, 05; Ph.D, Columbia, 12. Teacher, Victoria, B. C, 00-02; prin, high sch, Cumberland, B. C, 02-05; *instr. psychol. and educ*, Training Sch. for Teachers, Brooklyn, 08-22; *Cleveland Sch. Educ*, 22- Consulting psychologist; summer, instr, Georgia, 10. A.A; Psychol. Ass. Correlation of mental abilities.
- Simpson, Dr. Burton T(horne)**, 113 High St, Buffalo, N. Y. *Pathology*. Belleville, N. Y, July 30, 73. M.D, Buffalo, 03. Clin. pathologist, Buffalo Gen. Hosp, 06-10; pathologist, *State Inst. for Study of Malignant Diseases*, 10-23, *director*, 23- Lecturer, Buffalo, 05-10. Soc. Cancer Research; Am. Acad. Med; Ass. Study Int. Secretions. Cancer; adenoma of thyroid and prostate; goiter; malignant leiomyoma.
- Simpson, Dr. C(harles) Augustus**, 1610 20th St, N. W, Washington, D. C. *Dermatology*. Loudoun Co, Va, Aug. 12, 83. M.D, George Washington, 06; certificate, Vienna, 11. Staff, N. Y. Skin and Cancer Hosp; N. Y. Post-Grad. Hosp; N. Y. Dept. Health, 07-09; *prof. dermat. med. sch*, *George Washington*. Dermatologist, various hospitals. A.A; Am. Med. Ass; Radium Soc; Radiol. Soc; Wash. Acad. Röntgen-ray and radium therapy of skin disease and cancer.
- Simpson, Prof. C(harles) G(amble)**, 692 58th St, Milwaukee, Wis. *Mathematics*, *Mechanics*. Clarence, Iowa, May 20, 71. Ph.B, Cornell (Iowa), 95; Chicago, 98-00; Columbia, 10-13. Prof. math, Hedding, 00-03; instr. math. and physics, Mich. Col. Mines, 03-06; math, Iowa, 06-10; assoc. mech, Columbia, 11-12; asst. prof. math, Pa. State, 13-20; mech, Carnegie Inst. Tech, 20-22; *prof. math. and mech*, *Milwaukee Sch. Eng*, 22- Math. Soc; Math. Ass.
- Simpson, Prof. F(rank) M(orton)**, Bucknell University, Lewisburg, Pa. *Physics*. Clifford, Pa, Nov. 8, 72. B.S, Bucknell, 95, M.S, 97. *Prof. physics*, *Bucknell*, 00- A.A; Physical Soc.
- Simpson, Dr. George Eric**, University of Pennsylvania, Philadelphia, Pa. *Biochemistry*. San Francisco, Calif, Dec. 15, 89. B.S, Illinois, 13; A.M, Western Reserve, 15; Ph.D, Yale, 20. Instr. biochem, Western Reserve, 14-16; junior chemist, bur. chem, U. S. Dept. Agr, 16-17; N. Y. Post-Grad. Med. Sch, 19-20; *asst. prof*, McGill, 20-24; *physiol. chem*, *Pennsylvania*, 24- Junior physiologist, U. S. gas invest, 17-19. Soc. Biol. Chem; Soc. Exp. Biol. Tartrate metabolism; water balance of the body.
- Simpson, Dr. George Stevens**, Marlboro, Mass. *Chemistry*. Marlboro, Sept. 20, 91. B.S, Maine, 13; M.S, Worcester, 15; Ph.D, Yale, 17. Asst. chem, Maine, 12-13; Worcester, 13-15; Yale, 15-17; *chemist*, E. I. du Pont de Nemours and Co, 17-19; Calco Chem. Co, 19-26; *Am. Cyanamid Co*, 26- Chem. Soc. Preparation and hydrolysis of halogen aliphatic acids; qualitative separation and detection of rare elements.
- Simpson, Prof. Howard E(dwin)**, University of North Dakota, Grand Forks, N. Dak. *Geology*, *Geography*. Clarence, Iowa, July 9, 74. Ph.B, Cornell (Iowa), 96; A.M, Harvard, 05. Prin. and supt, schools, Iowa, 97-03; asst. physiog. and meteor, Harvard, 04-05; instr. geol, Colby, 05-07, assoc. prof, 07-09; asst. prof, *North Dakota*, 09-12, assoc. prof. geol. and physiog, 12-19, *prof. geog. geol*, 19- Asst. state geologist, N. Dak, 09-21, state water geologist, 21-; field asst, U. S. Geol. Surv, 05-10; special meteor. observer, U. S. Weather Bur, 10-; summers, visiting prof, Chicago, 18, Southern California, 20. N. Dak. State Park Commission; N. Dak. State Geog. Board. A.A; Geol. Soc; Ass. Geog; Am. Geog. Soc; Meteor. Soc; N. Dak. Acad. Artesian water conditions; ground waters of Iowa; ground waters, physiography and meteorology of North Dakota; water prospecting.
- Simpson, Dr. Jesse P(ickrell)**, Palmer, Ill. *Biology*. Palmer, Oct. 29, 68. M.D, Washington (St. Louis), 99. Lieut, M.C. Am. Med. Ass; Christian Co. Med. Soc. Genetics, synthetical and analytical hybridizing; laws for detecting impurities in supposedly pure bred animals; surgery; appendicitis.
- Simpson, Dr. John N(athan)**, West Virginia University, Morgantown, W. Va. *Medicine*. Mason, W. Va, March 19, 69. A.B, Nashville, 93; M.D, Hopkins, 02. Prof. physiol. and anat. and head med. faculty, *West Virginia*, 02-12, *dean sch. med*, 12- Director, W. Va. State Hygienic Lab, 13-17. Capt, M.R.C. Am. Med. Ass; fel. Col. Physicians (gov, W. Va); Am. Acad. Med; W. Va. Med. Ass. (pres, 23).
- Simpson, Dr. Miriam E(lizabeth)**, University of California, Berkeley, Calif. *Anatomy*. Sheridan, Wyo, 94. A.B, California, 15, A.M, 16, Ph.D, 20; M.D, Hopkins, 23. Instr. anat, *California*, 23-26, *asst. prof*, 26- Ass. Anat. Haematology; vital staining of normal blood; leukemic blood and vital stains.
- Simpson, Prof. T(homas) McN(ider), Jr**, Randolph-Macon College, Ashland, Va. *Mathematics*. Ettrick, Va, Jan. 12, 82. A.B, Randolph-Macon, 01; A.M, Virginia, 07; Ph.D, Chicago, 17. Acting prof. math. and physics, St. Stephen's, 05-06; *prof. math*, Converse, 07-15; instr, Texas, 17-18; *prof*, *Randolph-Macon*, 19- Summers, Virginia, 09-17, 20- A.A; Math. Soc; Math. Ass; Astron. Soc. Relations between metric and projective theories of space curves; comet observations; standards for faint stars.
- Simpson, Prof. T(homas) M(arshall)**, University of Florida, Gainesville, Fla. *Mathematics*. Addison, Maine, Feb. 19, 81. A.B, Harvard, 05; A.M, Wisconsin, 10, Ph.D, 16. Instr. math, Wisconsin, 08-18; *prof*, *Florida*, 18- Math. Soc. Functional equations.
- Sims, Stuart H(obbs)**, 612 N. 9th St, Corvallis, Oregon. *Civil engineering*. Helena, Mont, July 26, 81. B.S, Michigan, 03. Civil engineer, 03-

- 14; faculty, Iowa Col, 14-19; head civil eng. dept, Oregon Col, 19- Civil Eng.
- Sinclair, Prof. John G(eorge)**, University of Wisconsin, Madison, Wis. *Neurology*. Grand Haven, Mich, July 6, 88. B.S., Chicago, 11, fellow, 12-13; M.S., North Dakota, 25. Asst. genetics, desert lab, Carnegie Institution, 13-16; assoc. zool, Chicago, 17-18; asst. prof. anat. and physiol. sch. med, North Dakota, 21-24, assoc. prof. anat, 25-26; prof. anthropol, Beloit, 26-27; instr. anat, Wisconsin, 27- A.A.; N. Dak. Acad. (v. pres, 25). Genetics; histology; meteorology; public health.
- Sinclair, Prof. Mary Emily**, Oberlin College, Oberlin, Ohio. *Mathematics*. Worcester, Mass, 78. A.B., Oberlin, 00; A.M., Chicago, 03; Ph.D., 08. Instr. math, Nebraska, 04-07; Oberlin, 07-08, asst. prof, 08-25, prof, 25- A.A.; Math. Soc. Calculus of variations; theory of equations.
- Sinclair, Prof. W(illiam) J(ohn)**, Princeton University, Princeton, N. J. *Geology, Paleontology*. San Francisco, Calif, May 13, 77. B.S., Ph.D., California; fellow, Princeton, 04-05. Instr. geol, Princeton, 05-16, asst. prof, 16-23, assoc. prof, 23- Asst. U. S. Geol. Surv; collector, museum, California; geologist, Am. Museum Nat. Hist. A.A.; Geol. Soc; Paleont. Soc; Philos. Soc. Vertebrate paleontology; anthropic, petrographic and stratigraphic geology; Vertebrata of Santa Cruz beds of Patagonia; Edentata of the California Pleistocene; North American non-marine Tertiary sedimentation and life conditions.
- Singer, Prof. Edgar A(rthur), Jr**, University of Pennsylvania, Philadelphia, Pa. *Philosophy*. Philadelphia, Nov. 13, 73. A.B., Pennsylvania, 92, Ph.D., 94, senior fellow, 97-98; Harvard, 95-96. Asst. Harvard, 96; instr. philos, Pennsylvania, 98-03, asst. prof, 03-09, prof, 09- Philos. Ass; Philos. Soc. The philosophy of nature; logic.
- Singer, Dr. H(arold) Douglas**, 25 E. Washington St, Chicago, Ill. *Psychiatry*. London, Eng, Jan. 7, 75. M.B., London, 98, L.R.C.P., 98, M.D., 00. House physician, St. Thomas' Hosp, London, 98, asst. supt, clin. lab, 99; res. med. officer, Nat. Hosp. Queen Square, 00-02; res. asst. physician, St. Thomas' Hosp, 02-04; assoc. prof. mental and nervous diseases, Creighton, 04-06; asst. supt, Nebr. Hosp. for Insane, 06-07; director, Ill. State Psychopathic Inst, 07-21; assoc. prof. psychiat, col. med, Illinois, 15-19, prof, 19- Assoc. prof, Nebraska, 06-07. Ill. Pellagra Commission, 10-12. Bristowe medal, London, 99. A.A.; Psychol. Ass; Psychopath. Ass; Neur. Ass. (v. pres, 25); Am. Med. Ass; Chicago Neur. Soc. (v. pres, 12, pres, 14); fel. Royal Soc. Med; London Neur. Soc; London Path. Soc. Bacteriology of emphysematous gangrene; periodic paralysis; acute myelitis; pellagra; etiology of mental disorders; defensive ferments in the blood; insanity and law.
- Singewald, Prof. Joseph T(heophilus), Jr**, Johns Hopkins University, Baltimore, Md. **Geology*. Baltimore, Sept. 25, 84. A.B., Hopkins, 06, fellow, 07-08, Ph.D., 09. Junior geologist, U. S. Bur. Mines, 10-20; assoc. prof. econ. geol, Hopkins, 13-22, prof, 22- Geologist, Md. Geol. Surv, 13- Williams Mem. exped, S. Amer, 19-; Ellsworth exped, Peru, 24. A.A.; Geol. Soc; Soc. Econ. Geol; Ass. Petrol. Geol; Min. and Metal. Soc; Min. Eng; Wash. Geol. Soc. Mineral mining; geology of South America.
- Singmaster, J(ames) A(rthur)**, 160 Front St, New York, N. Y. *Metallurgy*. Schuylkill Haven, Pa, Aug. 7, 78. A.B., Gettysburg, 98, A.M., 01; Lehigh, 99. N. J. Zinc Co, 00-, technical director. Min. and Metal. Eng; Min. and Metal. Soc; Chem. Soc; Soc. Test. Mat; Zinc Inst; Soc. Chem. Indust. London. The manufacture, products and byproducts of zinc.
- Sinkinson, Prof. Eric (Spencer)**, Lehigh University, Bethlehem, Pa. *Chemical technology*. Derby, Eng, Jan. 17, 87. Univ. Sheffield; B.Sc., London, 09. Asst. chem. master, Stramontgate Sch, Kendal, Eng, 05-06; asst. analyst, A. H. Allen and Partners, Sheffield, Eng, 10-12; demonstrator metal, Sheffield, 12-14; lecturer chem. technol, Imp. Col. Sci, London, 14-23; asst. prof. quantitative analysis, Lehigh, 23- Sec'y, Nat. Union Sci. Workers, Eng, 19-20. Chem. Soc. London; Inst. Elec. Eng. England; Inst. Chem. Gt. Britain and Ireland. Filtration; metals; alloys; gaseous combustion; transition of coal to coke; decanting and washing precipitates; carbonization of coal; electrolytic generator for pure hydrogen; flameless combustion.
- Sinnott, Prof. Edmund W(are)**, Connecticut Agricultural College, Storrs, Conn. **Botany*. Somerville, Mass, Feb. 5, 88. A.B., Harvard, 08, A.M., 10, Sheldon traveling fellow in Australasia, 10-11, Ph.D., 13. Instr. wood technol, Harvard, 13-15; prof. bot. and genetics, Conn. Col, 15- Ed-in-chief, 'Am. Jour. Bot,' 26- A.A.; Soc. Nat. (treas, 25-); Bot. Soc. (treas, 17-21); Ecol. Soc. Plant morphology and embryology; plant morphogenesis; plant genetics.
- Sisam, Prof. Charles H(ershel)**, Colorado College, Colorado Springs, Colo. **Mathematics*. Cedar Rapids, Iowa, Sept. 8, 79. A.B., Michigan, 02; A.M., Cornell, 03, fellow, 03-04, Ph.D., 06. Instr. math, U. S. Naval Acad, 04-06; assoc. Illinois, 06-09, asst. prof, 09-18; prof, Colo. Col, 18- Math. Soc; Math. Ass. Systems of curves lying on algebraic surfaces; special types of surfaces.
- Sisler, J(ames) D(onaldson)**, Topographic and Geologic Survey, Harrisburg, Pa. *Geology*. Morgantown, W. Va, Sept. 2, 95. A.B., West Virginia, 18; Hopkins, 19-21. Asst. geologist, W. Va. Geol. Surv, 17-18; Md. Geol. Surv, 18-20; assoc. geologist and chief coal sect, Pa. Topog. and Geol. Surv, 20- Engineer in charge coal mining investigations, U. S. Coal Commission, 23. Mining engineering; detailed geology in West Virginia, Maryland, Ohio and Pennsylvania.
- Sittenfield, Dr. M(aurice) J(oseph)**, 29 W. 74th St, New York, N. Y. *Pathology*. Germany, 77. M.D., N. Y. Univ, 98. Assoc. path, col. physicians and surg, Columbia, 09-. A.A.; Ass. Path. and Bact; Am. Med. Ass; Soc. Exp. Biol; Ass. Cancer Research; Harvey Soc; fel. N. Y. Acad. Med. Cancer research; immunity; tissue transplantation; histo-pathology; radiant energy in

- tissue culture; anaerobic cultivation of tumor tissue.
- Sitterly, B(ancroft) W(alker)**, Wesleyan University, Middletown, Conn. *Astronomy*. Madison, N. J., Sept. 11, 95. A.B., Princeton, 17, A.M., 20, Ph.D., 22. Instr. *astron.*, Missouri, 22-23; *asst. prof.*, *Wesleyan*, 23- Astron. Soc; fel. Royal Astron. Soc. Eclipsing variable stars, stellar magnitudes and colors.
- Sivickis, Prof. P. B.**, University of the Philippines, Manila, P. I. *Zoology*. Zaiginys, Lithuania. B.S., Valparaiso, 11; A.B., Missouri, 17; fellow, Chicago, 20-22, Ph.D., 22. *Prof. zool.*, *Philippines*, 22-, *head dept.*, 24- A.A. Regeneration; Planarians; oils.
- Sjogren, Prof. Oscar W(arner)**, 3244 Vine St., Lincoln, Nebr. *Agricultural engineering*. Hildreth, Nebr., Aug. 15, 87. B.S., Nebraska, 15; Agr.E., Iowa Col., 22. Instr. *agr. eng.*, *Nebraska*, 09-12, 15-16, *asst. prof.*, 16-17, *assoc. prof.*, 17-18, *prof.* and *acting head dept.*, 18-20, *chairman dept.*, 20- Engineer in charge tests, nat. tractor demonstration, Kans., 18. Agr. Eng. (pres, 26); Automotive Eng; Eng. Educ. Tractor testing; corn planter accuracy tests; draft of tillage implements; ventilation of farm buildings.
- Skaggs, Prof. Ernest Burton**, 16575 Lawton Ave, Detroit, Mich. *Psychology*. Gatesville, Texas, July 7, 93. A.B., Michigan, 16, M.S., 20, Ph.D., 23. Instr. *psychol.*, Pa. State Nor. Sch., Millersville, 16-19; *asst. prof.*, Ohio Wesleyan, 20-22; instr., Michigan, 22-24; *prof.*, *Col. City of Detroit*, 24- Psychol. Ass; Mich. Acad. Learning; memory; mental measurements.
- Skarstedt, Prof. Marcus**, Whittier College, Whittier, Calif. *Mathematics*. Chicago, Ill., April 8, 84. A.B., Augustana, 10, A.M., 12; B.L.S., Illinois, 11; M.S., Iowa, 17; Ph.D., California, 24. *Prof. math.*, Augustana, 11-17; pub. librarian, Ill., 17-20; instr. *math.*, Calif. Polytech. Sch., 20-22; *prof.*, *Whittier*, 22- Summers, instr., California, 23, 24. Math. Ass. Geometry of four space.
- Skan, Prof. Evald L(aurids)**, Trinity College, Hartford, Conn. *Chemistry*. Hartford, May 13, 97. B.S., Trinity (Conn.), 19, M.S., 20; fellow, Yale, 23-24, du Pont fellow, 24-25, Ph.D., 25. Chemist, Emerson Lab, Mass., 20-21; instr. *chem.*, Trinity (Conn.), 21-22; research fellow, Yale, 25-26; Nat. Research Council fellow, Mass. Inst. Tech., 26-28; *asst. prof.*, *Trinity (Conn.)*, 27- Chem. Soc. Enzymes; freezing point diagrams; solubility; equilibrium mixtures; organophysics.
- Skeels, H(omer) C(ollar)**, U. S. Department of Agriculture, Washington, D. C. *Botany*. Grand Rapids, Mich., July 31, 73. B.S., Mich. State Col., 98. Gardener, bot. garden, Mich. State Col., 98-99; botanist, Forest of Arden, Joliet, Ill., 00-06; gardener, Dellwood Park, 06-08; sci. asst., U. S. Dept. Agr., 08-14, bot. asst., 14-19, *botanist*, 19- A.A.; Bot. Soc; Wash. Bot. Soc.
- Skeen, John R(obsin)**, 5810 Chew St, Germantown, Philadelphia, Pa. *Plant physiology*. Philadelphia, June 28, 99. B.S., Pa. State, 21; A.M., Pennsylvania, 24, Ph.D., 26. Asst. bot., Pennsylvania, 21-24, *asst. instr.*, 24-25, *instr.*, 25- Bot. Soc. Plant nutrition; ecology.
- Skidmore, Prof. W(illiam) R(alpha)**, 319 East St, Ottawa, Kans. *Inorganic chemistry*. Comstock, Oregon, July 20, 95. A.B., Oregon, 20, A.M., 22; Ph.D., Iowa, 25. *Prof. chem. and geol.*, *Ottawa (Kans.)*, 25-, *head dept.*, 26- Reactions of sulphur and its oxides.
- Skiles, Prof. W(illiam) Vernon**, Georgia School of Technology, Atlanta, Ga. *Mathematics*. Mendota, Ill., April 23, 79. B.S., Chicago, 06; A.M., Harvard, 11. *Prof. math.*, *Ga. Tech.*, 11-, *dean*, 25- A.A.; Math. Soc; Math. Ass; Eng. Educ; Ga. Acad.
- Skinker, Dr. Murray F(ontaine)**, 55 Johnson St, Brooklyn, N. Y. *Physics*. Denver, Colo., April 12, 98. B.S., Colorado, 19, M.S., 21; Rhodes scholar, Oxford, 21, Ph.D., 24. Instr. *eng. math.*, Colorado, 19-21; *asst. research engineer*, *Brooklyn Edison Co.*, 24-26, *asst. director research*, 26- Physical Soc; Elec. Eng; Nat. Elec. Light Ass. Motions of ions and electrons in gases.
- Skinner, C(harles) E(dward)**, Westinghouse Electric and Manufacturing Co, East Pittsburgh, Pa. *Engineering*. Redfield, Ohio, May 30, 65. Ohio (Athens), 84-85; M.E., Ohio State, 90. *Lab. Westinghouse Elec. and Mfg. Co.*, 90-95, *elec. engineer*, 95-06, *engineer in charge research div.*, 06-19, *manager research dept.*, 19-21, *asst. director eng.*, 21- Special rep. Elec. Eng. Committee on Elec. Standards, London, 15; chairman, Am. Delegation, Int. Electrotech. Commission, Brussels, 20, Geneva, 22, delegate, London, 24, The Hague, 25; World's Power Conf., London, 24; Int. Ass. Test. Mat., Brussels, 06; chairman, Eng. Standards Commission, 25-27; mem., Eng. Council. A.A.; Elec. Eng. (manager, 14-19, v. pres, 19-); Mech. Eng; Physical Soc; Electrochem. Soc; Franklin Inst; Soc. Test. Mat; West. Pa. Eng. Soc; Pittsburgh Acad. High tension and high frequency phenomena; insulating materials as applied to electrical apparatus; aging of iron and steel in dynamos and motors; effect of temperature on insulating materials.
- Skinner, Prof. Charles Edward**, New York University, New York, N. Y. *Psychology*. Newark, Ohio, April 24, 91. B.S., Ohio, 14; A.M., Chicago, 16; Columbia, 22-23; Ph.D., N. Y. Univ., 23. Teacher, schools, Ohio, 09-10; *asst. prof. psychol.* and *educ.*, Ohio, 14-19; *prof. psychol.*, Mt. Union, 19-20; instr. *educ.*, Pa. State Nor. Sch., Indiana, 20-22; *educ. psychol.*, N. Y. Univ., 22-23; *prof. educ.*, Miami, 23-25; *asst. prof. educ. psychol.*, N. Y. Univ., 25- A.A.; Psychol. Ass; Soc. Sci. Study Educ; N. Y. Soc. Study Educ. Educational psychology and biology.
- Skinner, Dr. C(harles) E(dward)**, N. J. Experiment Station, New Brunswick, N. J. *Microbiology*. Brainerd, Minn., March 13, 96. B.S., Wash. Col., 21, M.S., 23; research fellow, Rutgers, 23-25, Ph.D., 25. Instr. *bacter.*, Wash. Col., 21-23; *Int. Educ. Board fellow soil microbiol.*, *Rothamsted Lab.*, 25- Soc. Baet; Soc. Agron; Int. Soc. Soil Sci. Bactericidal effects of dyes; sanitary water analysis; decomposition of cellulose by micro-organisms; partial sterilization of soils.

Skinner, Prof. Charles H(enry), 1940 Keefe Ave, Milwaukee, Wis. *Physics*. Kempton, Ind, April 9, 89. A.B., Indiana, 13, Ph.D, 25; M.S., Iowa, 16. Instr. *physics*, De Pauw, 13-15; Washington (St. Louis), 15-18; asst. prof, Ohio Wesleyan, 18-20, assoc. prof, 20-26; *prof, Marquette*, 26- A.A.; Physical Soc; Ohio Acad; Ind. Acad. Sound; light; optical properties of hexagonal crystals of selenium; anomalous action of the Rayleigh disk.

Skinner, Prof. Clarence A(urelius), Kensington, Md. **Physics*. Loudon Co, Va, Jan. 6, 71. B.S., Nebraska, 93; Ph.D, Berlin, 99. Demonstrator physics, Nebraska, 99-01, adjunct prof, 01-03; asst. prof, 03-09, prof. and head dept, 06-19; *chief optics div, Bur. Standards*, 19- Physical Soc. (mem. council, 10-13, ed. board, 13); Optical Soc; Wash. Acad; Wash. Philos. Soc. Passage of electricity through gases; relation of the voltaic series to the electrode drop in gases; atomic ions in gases; optical properties of magnetic metals; plane double refraction normal to magnetic field in liquids; phase change by reflection from substances possessing selective absorption; electrode polarization in gases.

Skinner, Prof. E(mnest) B(rown), University of Wisconsin, Madison, Wis. *Mathematics*. Redfield, Ohio, Dec. 12, 63. A.B., Ohio (Athens), 88; Clark, 91-92; Ph.D, Chicago, 00. Prof. *math*, Amity, 88-91; instr, *Wisconsin*, 92-95, asst. prof, 95-10, assoc. prof, 10-20, *prof, 20-* Director, McCormick Theol. Sem, 07-; Madison Sch. Board, 19-, pres, 20- A.A.; Math. Soc; Wis. Acad. (past sec'y, and ed, 'Trans,' 00-05). Finite groups of linear transformations; algebraic numbers.

Skinner, Frank W(oodward), 20 Vesey St, New York, N. Y. *Civil engineering*. Brownville, N. Y. B.C.E., Cornell, 79, C.E., 84. Engineer, bridge and contracting companies, 80-88; ed, 'Eng. Record,' 88-14; 'Contracting,' 16-19; *consulting engineer*, 00- Lecturer, Cornell, 94-05; Yale; Harvard; Columbia; Princeton; McGill; Maine; Wisconsin; Brown; consulting engineer, San Antonio, Medina Lake and West. Ry. Civil Eng; Ry. Bridge and Building Ass; hon. mem. Conn. Soc. Civil Eng. Plate girders; arch spans; construction of bridges, buildings, foundations, tunnels, dams, conduits and underpinning.

Skinner, Dean John Harrison, Purdue University, Lafayette, Ind. *Animal husbandry*. Romney, Ind, March 10, 74. B.S.A., Purdue, 97. Farm manager, 97-99; asst. agron, Purdue Exp. Sta, 99-01; instr. *animal husbandry*, Illinois, 01-02; *head dept, Purdue*, 02-, *prof. and dean sch. agr*, 07- Ind. State Board Agr. Soc. Animal Nutrition; Genetic Ass. Cattle, sheep and swine feeding.

Skinner, Dr. J(oshua) J(ohn), U. S. Department of Agriculture, Washington, D. C. *Biochemistry*. Hertford, N. C, June 30, 82. B.S., North Carolina, 03; M.S., 04; Ph.D, American Univ, 17. Scientist, bur. soils, U. S. Dept. Agr, 04-14, *biochemist*, bur. plant indust, 14-27, *bur. chem. and soils*, 27- Longstreth medal, Franklin Inst, 19. Chem. Soc. (asst. ed, 'Abstracts,' 18-); Bot. Soc. (ed, 'Abstracts,' 19-); Soc. Agron;

Wash. Acad. Biochemistry of plants, soils and fertilizers; effect of organic compounds on plants; effect of aldehydes on crops and soils; fertilizer requirements of soil types; fertilization of pecans; truck soils of the South; concentrated fertilizers.

Skinner, M(ilton) P(hilo), 44 Broadhead Ave, Jamestown, N. Y. *Ecology, Zoology*. Brooklyn, N. Y, Dec. 14, 79. B.S., Brooklyn Polytech, 99. *Roosevelt field naturalist, Roosevelt Wild Life Forest Exp. Sta*, 22- A.A.; Ecol. Soc; Soc. Mammal; Ornith. Union; Cooper Ornith. Club. Animal and bird life of America; birds and bears in the Yellowstone; the American antelope.

Skinner, Dr. W(illiam) Woolford, U. S. Department of Agriculture, Washington, D. C. *Chemistry*. Baltimore, Md, 74. B.S., Maryland, 95, Sc.D, 17; M.S., George Washington, 97. Asst. chemist, Maryland, 95-99; Exp. Sta, Arizona, 99-02, assoc. chemist, 02-04; food inspection chemist, *bur. chem, U. S. Dept. Agr*, 04-08, chief water lab, 14-21, *asst. chief bur*, 21- Regent, Maryland; sec'y, Md. State Board Agr. Agr. Chem. (referee); Wash. Chem. Soc. (past pres). Forage products; range forages; volatilization of elements in ashing plant materials; copper in irrigating waters; mineral springs of the United States; lithia iodids, bromids and chlorids in mineral waters and brines; food flavors; beverages.

Skirrow, Dr. F(rederick) W(illiam), 137 Maple Ave, Shawinigan Falls, Que, Can. *Chemistry*. Lancaster, Eng. B.Sc., Victoria (Eng), 97, M.Sc., 00; Ph.D, Leipzig, 02. Chemist, Nat. Physical Lab, London, 02-03; research chemist, Hardman and Holden, Ltd, 03-12; asst. prof. chem, Utah, 14-15; McGill, 15-19; *chief chemist, Shawinigan Water and Power Co*, 19- Lecturer, Colorado, 13-14. Chemists committee, Can. Research Council, 25- Soc. Chem. Indust. (chairman, Shawinigan Falls sec., 21-23, v. chairman, 23-26). Physical and industrial chemistry; gas works by-products; ferrocyanids; phenols; synthetic products from acetylene and acetaldehyde; electric production of steam.

Skogsberg, Dr. (Karl Jonas) Tage, Hopkins Marine Station, Pacific Grove, Calif. *Zoology*. Gothenburg, Sweden, Nov. 5, 87. A.M., Upsala, Sweden, 12, Ph.D, 20. Asst. *zool*, Zool. Inst, Upsala, 17-20; sci. asst, Calif. Fish and Game Commission, 21-22; research asst, California, 23-26, assoc, 26; *instr, Stanford*, 26- Summer, instr, Stanford, 25. Musée de l'Océanographie de Monaco, 16; Hopkins Marine Sta, Calif, 20-21. A.A.; Soc. Zool. Ostracods; commercial fisheries; dinoflagellates; plankton; biology of marine fishes.

Slack, Dr. Francis H(ervev), 227 Summit Ave, Brookline, Mass. *Clinical pathology*. W. Abington, Mass, Jan. 7, 75. M.D., Tufts, 98. Director, *Sias Laboratories, Brookline, Mass*; *instr. pub. health lab. methods, Mass. Inst. Tech.* Soc. Bact; Am. Med. Ass; Pub. Health Ass.

Sladen, Dr. F(rank) J(oseph), 2209 Seminole Ave, Detroit, Mich. *Internal medicine*. West Point, N. Y, Jan. 6, 82. A.B., Yale, 02; M.D., Hopkins, 06. Asst. med, Hopkins, 06-08, instr, 08-10, assoc. and res. physician, Hopkins Hosp, 10-13; chief med. clinic, Detroit Gen. Hosp, 14-

- 15; *physician in chief, Henry Ford Hosp*, 15-Major, M.C., 18-19. A.A.; Mich. Med. Soc. (chairman, med. sect., 24-26); Mich. Acad. Coagulation of blood; infectious jaundice; epidemic cerebrospinal meningitis; internal hydrocephalus; vagotomy and sympathicotony; influenza; venous thrombosis in myocardial insufficiency; basal blood pressure readings; lateral sclerosis.
- Slagg, O(harles) M(ervyn)**, Central Experimental Farm, Ottawa, Ont., Can. *Plant pathology*. Dane Co, Wis, Dec. 14, 90. B.S., Wisconsin, 17, M.S., 19. Asst. office tobacco investigations, bur. plant indust., U. S. Dept. Agr., 17-20, asst. pathologist, 20-23; pathologist in charge, Conn. Tobacco Sta., 23-24; *chief tobacco div, Can. Dept. Agr.*, 24- A.A.; Phytopath. Soc.; Conn. Valley Tobacco Improv. Ass. (research director and sec'y); Can. Soc. Tech. Agr. Tobacco pathology, physiology and nutrition; economics of tobacco production and trade.
- Slagle, Pres. Robert L(incoln)**, University of South Dakota, Vermillion, S. Dak. *Chemistry*. Hanover, Pa, March 17, 65. A.B., Lafayette, 87, A.M., 90, LL.D., 22; Ph.D., Hopkins, 94. Asst. to Prof. Atwater, Wesleyan, 94-95; prof. chem, S. Dak. Col., 95-97; S. Dak. Sch. Mines, 97-99, *pres*, 99-06; S. Dak. Col., 06-14; *South Dakota*, 14- A.A.; Chem. Soc. The double halids of tin with anilin and toluidin.
- Slate, Prof. F(rederick)**, 2231 College Ave, Berkeley, Calif. **Mathematical physics*. London, Eng, Jan. 21, 52. B.S., Brooklyn Polytech, 71; Berlin, 77-78; Strassburg, 78-79; LL.D., California, 25. Instr. chem, *California*, 74-77, prof. *physics*, 91-18, *emer. prof.*, 18- Analytic mechanics.
- Slate, Prof. William L(eroy)**, Connecticut Agricultural Experiment Station, New Haven, Conn. *Agronomy*. Norwalk, Ohio, Jan. 15, 84. B.S., Ohio State, 09. Asst. agronomist, N. H. Exp. Sta., 09-11; assoc. prof. agron, Maine, 11-13; prof, Conn. Col., 13-22; *agronomist, Storrs Exp. Sta.*, 22-; vice-director, *Conn. Exp. Sta.*, 22-23, *director*, 23- Lecturer, Yale, 22- A.A.; Soc. Agron. Field crop production; soil science.
- Slater, Prof. James R(odenburg)**, College of Puget Sound, Tacoma, Wash. *Zoology*. Cairo, N. Y, June 11, 90. Litt.B., Rutgers, 13; A.M., Syracuse, 17, M.Pg., 19. Prin, high sch, Md., 13-14; Leland, 14-15; teaching fellow, Syracuse, 16-17; *prof. biol, Puget Sound*, 19- Capt, Inf, 17-19, major, O.R.C., 26- Ecol. Soc.; Eugenics Soc. Amphibians.
- Slater, Dr. J(ohn) C(larke)**, Harvard University, Cambridge, Mass. **Physics*. Oak Park, Ill, 00. A.B., Rochester, 20; A.M., Harvard, 22, Ph.D., 23. Instr. *physics, Harvard*, 24-26, *asst. prof.*, 26- Physical Soc. Theoretical physics.
- Slater, W(illis) A(ppleford)**, U. S. Bureau of Standards, Washington, D. C. *Civil engineering*. Polo, Ill, Oct. 14, 78. B.S., Illinois, 06, fellow, 08-10, M.S., 10, C.E., 12. Asst. to city engineer, Elgin, Ill, 06; engineer, Ely Townsite Co, Nev, 07; asst. eng. exp. sta, Illinois, 10-15, research asst. prof. applied mech, 15-17; *engineer physicist, Bur. Standards*, 19- In charge test of concrete arch dam, Calif; owners rep, Illinois Stadium, 23-24; in charge struct. lab. investigations, concrete ship sect, Emergency Fleet Corp, 17-19. Civil Eng. (joint committee on standard specifications for concrete); Soc. Test. Mat; Concrete Inst. Structural engineering; materials of construction; reinforced concrete.
- Slattery, Col. J(ohn) R(odolph)**, 49 Lafayette St, New York, N. Y. *Civil engineering*. Athens, Ohio, Jan. 31, 77. Grad, U. S. Mil. Acad, 00; Sch. of the Line, 21; hon. A.M., Ohio Univ, 15. Dist. engineer, Honolulu, Hawaii, 03-07; Jacksonville, Fla., 11-13; Third Mississippi River dist, 14-17; Portland, Oregon, in charge Columbia River improvements, 19-20; Nashville, Tenn, 21-22; First New York dist. in charge improv. New York Harbor, 23-24; *deputy chief engineer, Board Transportation, New York*, 25-Col, C.Eng., 17-18. Civil Eng. (pres, New York sect, 26); Soc. Terminal Eng. (director, 26); Soc. Mil. Eng. (director, 25); Munic. Eng. Location and construction of subways in New York City; river and harbor engineering; flood control on the Mississippi river.
- Slaughter, Prof. H(erbert) E(lisworth)**, 5548 Kenwood Ave, Chicago, Ill. **Mathematics*. Watkins, N. Y, July 21, 61. A.B., Colgate, 83, A.M., 86, Sc.D., 11; fellow, Chicago, 92-94, Ph.D., 98. Prof. math, Peddie Inst, 83-89, prin, 89-92; asst, assoc, instr. and asst. prof. *math, Chicago*, 94-07, assoc. prof, 07-13, *prof.*, 13- Ed, 'Am. Math. Monthly,' 12-16, managing ed, 16- A.A.; Math. Soc. (sec'y, Chicago sect, 06-16); Math. Ass. (pres, 19). Cremona transformation groups; mathematical pedagogy.
- Slawson, Dr. Chester B(aker)**, 1014 Cornwall Place, Ann Arbor, Mich. *Mineralogy*. Greenville, Mich, April 12, 98. B.S., Michigan, 19, A.M., 20, Ph.D., 25. Teaching asst. *miner, Michigan*, 19-20, *instr.*, 20-21, 25- Geologist, Mich. Geol. Surv, 24-26. Miner. Soc.; Mich. Acad. Physical, optical and mathematical crystallography.
- Slaymaker, Prof. S(amuel) R(obert)**, 25 E. Washington St, Chicago, Ill. *Medicine*. Davenport, Iowa, Dec. 29, 64. A.B., Beloit, 86; M.D., Rush Med. Col., 92. *Prof. med, Rush Med. Col, Chicago*, 96- Attending physician, Cook Co. Hosp, 00-20. A.A.; Am. Med. Ass; Chicago Internal Med. Soc; Chicago Inst. Med; Chicago Path. Soc. Internal medicine.
- Sleator, Dr. W(illiam) W(arner)**, R. R. No. 5, Ann Arbor, Mich. *Physics*. Dexter, Mich, May 24, 83. A.B., Michigan, 09, A.M., 11, Ph.D., 17. Instr. *physics, Michigan*, 09-17, *asst. prof.*, 17- Infra-red spectrum; absorption of radiation by water vapor.
- Sleggs, George F(rederick)**, Newfoundland Memorial University College and Normal School, St. John's, Newfoundland. *Zoology*. Liverpool, Eng, Jan. 13, 95. B.S., Liverpool, 21, M.Sc., 25. Junior lecturer zool, Liverpool, 20; asst. prof. biol, Dalhousie, 21-22; instr. zool, Saskatchewan, 22-25; Scripps Inst, California, 25-26; *prof. biol, Newfoundland Univ. and Nor. Sch.*, 26- Soc. Zool; Liverpool Biol. Soc. Parasitology; mammalian anatomy; marine biology.
- Sleight, Reuben B(enjamin)**, Department of Commerce, Washington, D. C. *Engineering*. Laings-

- burg, Mich, June 30, 89. B.Mar.E, Michigan, 15. Asst. engineer, hydraul. investigations and designs, Colo, Ariz. and N. Mex, 12-14; engineer in charge irrig. field lab, U. S. Dept. Agr, Denver, 15-17; engineer, 19-21; Minnesota Tax Commission, 22-26; *asst. to Sec'y of Commerce*, 26- A.S, U.S.A., 17-19. Civil Eng; Minneapolis Eng. Soc. Flow of water; evaporation from water and sand surfaces; engineering economics.
- Slemons, Prof. J(osiah) Morris**, 819 Pacific Mutual Building, Los Angeles, Calif. *Gynecology*. Salisbury, Md, Nov. 9, 76. A.B, Hopkins, 97, M.D, 01; Berlin, 05; hon. A.M, Yale, 15. Instr, assoc. and assoc. prof. obstet, Hopkins, 01-13; prof. gynec. and obstet, med. sch, California, 13-15; sch. med, Yale, 15-20; *visiting staff, Hosp. of the Good Samaritan, Los Angeles*, 20- Director obstet. surv. of France, Red Cross, 17; major, M.C, 18-19. A.A; Gynec. Soc. (councilor, 17); Col. Surg. (board governors, 18); Soc. Clin. Invest. (councilor, 16-19). Obstetrics; physiology of pregnancy; nutrition of the fetus; placentation; puerperal infection.
- Slepian, Dr. Joseph**, Westinghouse Electric and Manufacturing Co, East Pittsburgh, Pa. *Physics, Electrical engineering*. Boston, Mass, Feb. 11, 91. A.B, Harvard, 11, A.M, 12, Ph.D, 13. Instr, Cornell, 14-15; *research engineer, Westinghouse Elec. and Mfg. Co*, 16- Physical Soc; Elec. Eng; Electrochem. Soc; Math. Soc. Transients in electrical systems; electrically unbalanced machines; lightning protection of power systems; electrical discharges in gases; thermionics; acoustic properties of horns.
- Slichter, Prof. Cha(rles) S(ummer)**, 636 Frances St, Madison, Wis. **Mathematics*. St. Paul, Minn, April 16, 64. Northwestern, 85, A.M, 86, Sc.D, 16. Instr. math, Chicago Atheneum, 85-86; *Wisconsin*, 86-89, asst. prof, 89-92, *prof. applied math*, 92-, *dean grad. sch*, 20- Asst. hydrographer, U. S. Geol. Surv, 97-02; commissioner and sec'y, Wis. Geol. and Nat. Hist. Surv, 99-02; consulting engineer, U. S. Reclamation Service, and engineer in charge investigation of motion of underground waters, 03-11. A.A; Math. Soc; Wis. Acad. (pres, 99-02); Circolo Mat. di Palermo. Theoretical investigations on the motions of ground water and other work in hydrodynamics; theoretical and field work.
- Slichter, Dr. L(ouis) B(yrne)**, 636 Frances St, Madison, Wis. *Physics*. Madison, May 19, 96. A.B, Wisconsin, 17, A.M, 20, Ph.D, 22. Engineer, Submarine Signal Co, 22-24; *mem. firm, Mason, Slichter and Hay*, 24- Ensign, U.S.N.R.F., 17-19. Physical Soc. Acoustics; electro-magnetics.
- Slichter, Prof. Walter I(rvine)**, Columbia University, New York, N. Y. *Electrical engineering*. St. Paul, Minn, May 7, 73. Col. City of N. Y., 88-90; E.E, Columbia, 96. Student and asst. to C. P. Steinmetz, *Gen. Elec. Co*, 97-05, engineer, *ry. and traction dept*, 05-09, *consulting engineer*, 09-; *prof. elec. eng, Columbia*, 10- Elec. Eng. (manager, 19-23, v. pres, 23-25); Mech. Eng. Alternating currents, motors and systems; design of electrical machinery.
- Slipher, E(arl) O(arl)**, Lowell Observatory, Flagstaff, Ariz. *Astronomy*. Mulberry, Ind, March 25, 83. A.B, Indiana, 06, A.M, 08. Fellow, *Lowell Observatory*, 06-08, *astronomer*, 08- Mem, eclipse exped, Spain, 05; Lowell exped, the Andes to observe Mars, 07; eclipse exped, Kans, 18. Medal, Soc. Astron. de Mex, 11. Astron. Soc. Planetary investigations.
- Slipher, Dr. V(esto) M(elvin)**, Lowell Observatory, Flagstaff, Ariz. **Astronomy*. Mulberry, Ind, Nov. 11, 75. A.B, Indiana, 01, A.M, 03, Ph.D, 09; hon. Sc.D, Arizona, 23. Astronomer, *Lowell Observatory*, 01-15, asst. director, 15-26, *director*, 26- Lalande prize, Paris Acad, 19. Nat. Acad; A.A; Astron. Soc; Am. Acad; Philos. Soc; for. assoc. Royal Astron. Soc; Soc. astron. de France. Spectroscopy of planets, stars, nebulae and starlit sky background; rotation of nebulae and phenomenal velocities of spiral nebulae.
- Sloan, Prof. W(illiam) H(enry)**, Stanford University, Calif. *Chemistry*. Mayfield, Calif, June 23, 77. A.B, Stanford, 03, A.M, 04; Leipzig, 04-05. Asst. chem, Stanford, 02-04; Board Health, San Francisco, 05-06; *instr. chem, Stanford*, 06-15, asst. prof, 15-23, *assoc. prof*, 23- Chem. Soc. Conductivity of lime concentrated solutions; new lime factors in water analysis and water sources.
- Sloane, Dr. T(homas) O'Conor**, South Orange, N. J. *Physics*. New York, N. Y, Nov. 24, 51. A.B, St. Francis Xavier, 70, A.M, 72, LL.D, 11; E.M, Columbia, 72, Ph.D, 76. Prof. nat. sciences, Seton Hall; lecturer sci. subjects; *inventor and sci. expert*, 76- Ed. staff, 'Plumber and Sanitary Engineer', 'Sci. American', 'Youth's Companion', 'Everyday Engineering', 'Practical Electrics', 'The Experimenter' and 'Science and Invention.' Chem. Soc; Chem. Inst. (educ. director). Electricity; the determination of all the sulphur in illuminating gas; self-registering coal gas photometer.
- Slobin, Prof. Hermon L(ester)**, Durham, N. H. *Mathematics*. Moscow, Russia, June 19, 83. A.B, Clark, 05, Ph.D, 08. Instr. math, Mich. State Col, 08-09; Minnesota, 09-14, asst. prof, 14-19; *prof, New Hampshire*, 19-, *director summer sch*, 21- Math. Soc; Circolo Mat. di Palermo. Plane quintic curves; algebraic and transcendental curves and numbers; infinite series; algebraic fundamental equations.
- Slocum, Arthur W(are)**, Walker Museum, University of Chicago, Chicago, Ill. *Invertebrate paleontology*. Milford, Mass, Nov. 8, 60. Chicago. Paleontologist, Ward's Nat. Science Establishment, 98-99; Milwaukee Pub. Museum, 00-01; *asst. curator invert. paleont*, Field Museum Nat. Hist, 01-14; *Walker Museum*, 14- A.A; Paleont. Soc; Ill. Acad. Fossil crinoids and echinoids; trilobites.
- Slocum, Prof. Allison W(ing)**, 295 Maple St, Burlington, Vt. *Physics*. Dartmouth, Mass, April 22, 66. A.B, Haverford, 88, A.M, 89; A.M, Harvard, 90, Tyndall scholar, 91, Morgan scholar, Berlin, 92. Teacher math, Pa. State Nor. Sch, West Chester, 92-93; *prof. physics, Vermont*, 93- A.A; Physical Soc. Dichroism of crystals for ultra-red rays.
- Slocum, Prof. Frederick**, Wesleyan University, Middletown, Conn. **Astronomy*. Fairhaven,

- Mass, Feb. 6, 73. A.B, Brown, 95, A.M, 96, Ph.D, 98. Instr. math, Brown, 95-00, asst. prof. astron, 00-09; instr. astrophysics, Chicago, and astronomer, Yerkes Observatory, 09-11, asst. prof. astron, 11-14; prof. astron, Wesleyan, and director, Van Vleck Observatory, 14-18; prof. naut. science, Brown, 18-20; *prof. astron, Wesleyan, and director, Van Vleck Observatory, 20-* Acting director, Ladd Observatory, 04-05; summers, lecturer, N. Y. Univ, 08, prof, Columbia, 23; research assoc, Carnegie Institution, 20; volunteer asst, Royal Astrophys. Observatory, Potsdam, 08-09. -Solar eclipse exped, Va, 00. Instr. navigation, U. S. Shipping Board, 17-18. A.A.; Astron. Soc; Am. Acad; Royal Astron. Soc; Soc. astron. de France; Astron. Gesell. Nautical science; sun spots; solar prominences; solar observations with the spectroheliograph; eclipses; stellar parallax.
- Slocum, Dr. S(tephen) E(lmer)**, Ardmore, Pa. *Mathematics*. Glenville, N. Y, June 5, 75. B.E, Union, 97; Ph.D, Clark, 00. Instr. civil eng, Cincinnati, 00-01, applied math, 01-04, asst. prof, 04-05; math, Illinois, 05-06; prof. applied math, Cincinnati, 06-20; *consulting engineer, 20-* Gold medal, Soc. Naval Eng, 27. Math. Soc; Eng. Educ; Automotive Eng; Naval Eng. Lie's theory of continuous groups; strength of materials; the teaching of mathematics; applied mechanics; marine engineering; marine propulsion.
- Slonaker, Dr. J(ames) Rollin**, Stanford University, Calif. *Zoology, Physiology*. Farmland, Ind, June 17, 66. B.S, Wisconsin, 93; Ph.D, Clark, 96. Asst. prof. zool, Indiana, 96-01; research asst. neur, Chicago, 01-02, assoc, 02-03; asst. prof. *physiol, Stanford, 03-25, assoc. prof, 25-* A.A.; Soc. Nat; Physiol. Soc; West. Soc. Nat; fel. Calif. Acad; fel. Ind. Acad. Anatomy and physiology of the eyes of vertebrates; the eyes of the mole; accommodation in the eye of the bird; the optic tracts in the brain of a congenitally blind pigeon; the daily activity of the white rat from birth to natural death; the influence of food on the growth and activity of the white rat; sex problems in the white rat.
- Slosson, Prof. Edwin E(mery)**, 2101 B St, Washington, D. C. *Chemistry*. Sabetha, Kans, June 7, 65. B.S, Kansas, 90, M.S, 92; Ph.D, Chicago, 03, LL.D, 23. Asst. chem, Kansas, 90-91; prof, Wyoming, and chemist, Exp. Sta, 91-04; assoc. ed, 'The Independent,' 04-21; assoc. sch. journalism, Columbia, 12-21; *director, Science Service, 21-* A.A.; Chem. Soc; Wash. Acad. Soils; petroleum; foods; halogen acyl amines; history of science.
- Sluder, Dr. Greenfield**, 3542 Washington Ave, St. Louis, Mo. *Medicine*. St. Louis, Aug. 30, 65. M.D, Washington (St. Louis), 88; Vienna, 96-97; Berlin, 00; London Hosp, 05. Instr. urol. and clin. med, *Washington (St. Louis), 91-96,* lecturer *laryngol, 96-06, clin. prof, 06-*, *director dept. laryngol. and rhinol.* Am. Med. Ass; Ass. Anat; Laryngol. Ass; Laryngol. Rhinol. and Otol. Soc. Laryngology; diseases of the nose; relation of sphenopalatine ganglion to the nose; headache and eye disorders of nasal origin; tonsillectomy.
- Slye, Maud**, 5836 Drexel Ave, Chicago, Ill. *Pathology*. Minneapolis, Minn, Feb. 8, 79. A.B, Brown, 99; Chicago, 06, fellow, 08-11. Prof. psychol. and pedag, R. I. State Nor. Sch, 99-05; *mem. staff, Sprague Mem. Inst, Chicago, 11-*, instr. *path, Chicago, 19-22,* asst. prof, 22-26, *assoc. prof, 26-* Gold medal, Am. Med. Ass, 14; Ricketts prize, 15; gold medal, N. Am. Radiol. Soc, 22. A.A.; Ass. Cancer Research; Am. Med. Ass; hon. mem. Seattle Acad. Surg. Biology; cancer; tumors; heredity and evolution.
- Small, Dr. L(loyd) L(eroy)**, Lehigh University, Bethlehem, Pa. *Mathematics*. Columbus, Kans, Sept. 23, 88. A.B, Washington (Seattle), 11, A.M, 12; Ph.D, Columbia, 13. Instr. *math, Washington (Seattle), 13-21,* asst. prof, 21-23; Oregon, 23-25; *assoc. prof, Texas, 25-26; Lehigh, 26-* A.A.; Math. Soc; Math. Ass. Summability of divergent series; vector analysis.
- Small, Dr. James C(raig)**, 36th and Walnut Streets, Philadelphia, Pa. *Bacteriology, Medicine*. Franklin Co, Pa, March 13, 88. B.S, Gettysburg, 11; M.D, Illinois, 17. Asst. biochem. col. med, Illinois, 13-17; intern, Cook Co. Hosp, 17, 19-20; instr. bacter. sch. med, Washington (St. Louis), 19; bacteriologist, *Phila. Gen. Hosp, 20-27, director laboratories, 27-*; asst. prof. bacter, *grad. sch. med, Pennsylvania, 21-* Lieut, M.C, 17-19. A.A.; fel. Am. Med. Ass; Soc. Exp. Path; Phila. Bact. Soc; Phila. Path. Soc; Phila. Physiol. Soc. Soluble starch; bacterial antigens; pneumonia; influenza; serology of Bacillus influenzae; epidemic respiratory disease; typhoid fever; scarlet fever; experimental rat sarcoma; etiology of 'Devil's Grip,' rheumatic fever and antitoxic serum for treatment of rheumatic fever.
- Small, Dr. John K(unkel)**, New York Botanical Garden, Bronx Park, New York, N. Y. **Botany*. Harrisburg, Pa, Jan. 31, 69. A.B, Franklin and Marshall, 92, Sc.D, 12; fellow, Columbia, 92-94, Ph.D, 95. Curator herbarium, Columbia, 95-98; *museums and herbarium, N. Y. Bot. Garden, 98-06, head curator, 07-* Special agent, Ga. Geol. Surv. Silver medal, Atlanta Expos. A.A.; Torrey Bot. Club. Flora of southeastern United States, North America and of Patagonia; morphology of the Spermatophyta; genera and families of flowering plants; regional botany.
- Small, Dr. Maurice H(erman)**, Wilson Junior High School, Appleton, Wis. *Psychology, Pedagogy*. Wilton, Maine, March 18, 61. A.B, Colby, 87; Clark, 95-97, fellow, 97-98, Ph.D, 05. Prin, high schools, Maine, 87-95; N. J, 98-02; chairman dept. pedag, Wis. State Nor. Sch, Oshkosh, 03-20; supt, schools, Appleton, 20-26, *prin, Wilson Junior High Sch, 26-* The suggestibility of children; methods of manifesting the instinct for certainty; psychological aspects of society and solitude; considerations antecedent to the making of courses in manual arts; practical arts contacts for junior high schools.
- Small, Dr. Willard Stanton**, University of Maryland, College Park, Md. *Psychology*. North Truro, Mass, Aug. 24, 70. A.B, Tufts, 94, theol. sch, 94-96, A.M, 97; Ph.D, Clark, 00. Prof. English, Lombard, 96-97; lecturer psychol. and educ, Oread Inst, Worcester, 99-01; acting prof.

- psychol. Mich. State Nor. Col, Ypsilanti, 01-02; prof. pedag. and supervisor training sch, Los Angeles State Nor. Sch, 02-04; supt. schools, San Diego, 04-05; prin. pub. sch, Paterson, 05-06; high sch, Washington, D. C, 06-18; specialist sch. hygiene, U. S. Bur. Educ, 18-20; supt. field service, educ. research and development fund, U. S. Interdept. Social Hygiene Board, 20-21; U. S. Bur. Educ, 21-22; *dean col. educ. Maryland, 23-* The mental processes of the white rat; the development of altruism; educational hygiene.
- Smalley, H(arold) R(yland)**, 615 Whittier St, N. W, Washington, D. C. *Soils*. Madison Co, Ind, May 30, 87. B.S, Purdue, 11, M.S, 13. Research chemist soils, Ind. Exp. Sta, 11-13; co. agr. agent, 13-15, 16-19; asst. agriculturist, U. S. Dept. Agr, 15-16; agronomist, soil improvement committee, *Nat. Fertilizer Ass*, 20-25, *director north. div*, 25- Chem. Soc; Soc. Agron; Farm Econ. Ass. Soil acidity and nitrification; management of muck land; practical soil fertility and fertilizers; analysis of potential market for fertilizers, and factors that affect their economic use.
- Smallwood, Prof. Julian C(hase)**, Johns Hopkins University, Baltimore, Md. *Mechanical engineering*. New York, N. Y, March 2, 81. M.E, Columbia, 03; fellow, Hopkins, 16-17, A.M, 17. Asst. prof. and *assoc. prof. exp. eng*, Syracuse, 10-16; *mech. eng. Hopkins*, 16- Mech. Eng. (sec'y, Baltimore sect, 22-25, chairman, 25-). Analysis of steam engine indicator drum motion, and reducing wheels; chimney performance; uses of steam in the canning factory; industrial and domestic applications of heat and heat engineering.
- Smallwood, Prof. W(illiam) M(artin)**, 525 Euclid Ave, Syracuse, N. Y. **Zoology*. Warsaw, N. Y, April 30, 73. A.B, Syracuse, 96, A.M, 97; Ph.D, Harvard, 02. Instr. biol, Syracuse, 96-98; prof. biol. and geol, Allegheny, 98-02; *assoc. prof. zool, Syracuse*, 03-07, *prof. comp. anat*, 07-, *head dept*, 21- A.A; Soc. Zool; Ecol. Soc; N. Y. State Sci. Teachers Ass. (pres, 09). Embryology of Opisthobranchia; nudibranchs; cytology of nerve cells; maturation of Hydrachnia and Pennaria; starvation in Necturus and Amia; diseases of fishes; restocking waters with fish; nerve-net in the earthworm.
- Smeaton, Prof. William Gabb**, University of Michigan, Ann Arbor, Mich. *Physical chemistry*. Picton, Ont, Can, Sept. 8, 74. B.A, Toronto, 98; 1851 Exhib. scholar, 98; Leipzig, 98-02. Instr. chem. eng, *Michigan*, instr. gen. chem, asst. prof, *assoc. prof. and prof. gen. and physical chem*, 02- A.A; Chem. Soc; Hist. Sci. Soc; Mich. Acad. Metallurgy; history and bibliography of science.
- Smeltz, Dr. George Washington**, University Club, Pittsburgh, Pa. *Psychopathology*. Bryan, Ohio, Feb. 7, 84. M.D, Ohio Med. Univ, 07. Chief res. physician, psychopathic ward, St. Francis Hosp, Pittsburgh, 10-12; physician-in-charge, Markleton Sanitarium, Pa, 13-17; *faculty, sch. med, Pittsburgh*; *asst. mem. staff, St. Francis Hosp*. Capt, U.S.A. Am. Med. Ass; Psychopath. Ass.
- Smidth, Dr. Leonard**, 1713 W. Tioga St, Philadelphia, Pa. *Organic chemistry*. Schulenburg, Texas, July 4, 99. A.B, Rice, 21; A.M, Columbia, 23, du Pont fellow, 23-24, Ph.D, 25. West. Elec. Co, 21-23; asst. chem, Columbia, 24-25; *E. G. Budd Mfg. Co*, 25- Chem. Soc. The action of sulphur on p-toluidine; synthetic resins.
- Smiley, Miss Edwina M(aria)**, Bailey Hall, Ithaca, N. Y. *Plant pathology*. Providence, R. I, March 27, 93. A.B, Wellesley, 16; A.M, Cornell, 19. Asst. *plant path, Cornell*, 16-17, *instr*, 17- Collector fungi, south. states for Prof. George F. Atkinson, 18. Phytopath. Soc.
- Smiley, Prof. Frank Jason**, Occidental College, Los Angeles, Calif. *Botany*. Piqua, Ohio, July 1, 80. A.B, Stanford, 13; A.M, Harvard, 15, Ph.D, 17. Asst. bot, Stanford, 13-14; asst, Gray Herbarium, Harvard, 15; instr, California, 15-16; asst. prof. bot. and geol, Occidental, 16-19; asst. prof. econ. bot, California, 19-20; *prof. bot. and geol, Occidental*, 20- A.A; Bot. Soc; fel. Am. Geog. Soc; Seismol. Soc. Geographic botany.
- Smillie, Dr. W(ilson) G(eorge)**, International Health Division, Rockefeller Foundation, 61 Broadway, New York, N. Y. *Parasitology*. Eaton, Colo, Nov. 2, 86. A.B, Colo. Col, 08; M.D, Harvard, 12, D.P.H, 16. Instr. prev. med, Harvard, 14-16; fellow, Rockefeller Inst, 16-17; *Int. Health Div, Rockefeller Foundation*, 17- Asst. prof, State Med. Sch, Sao Paulo, Brazil, 18-20, prof, 20. Am. Med. Ass; Soc. Parasitol; Pub. Health Ass; Soc. Trop. Med; Soc. Clin. Invest; Soc. Pharmacol. Bacteriology; hookworm disease.
- Smirnow, Dr. M(ax) R(uskin)**, 862 Howard Ave, New Haven, Conn. *Internal medicine*. Elizabethgrad, Russia, March 13, 81. M.D, Yale, 06; Hopkins, 07; Harvard, 10; Berlin and Vienna, 11. Med. supt, Denver and Baltimore, 06-09. Med. staff, Phipps Inst, 07-09. Int. Cong. Tuber, Rome, 11. A.A; Am. Med. Ass; Am. Med. Soc. of Vienna.
- Smith, Albert**, 307 N. Michigan Boulevard, Chicago, Ill. *Civil engineering*. Tucola, Ill, 73. B.S, Dartmouth, 98, C.E, Thayer Sch. Civil Eng, 03. Structural engineer, Ill. Steel Co, 03-05; asst. prof. structural eng, Purdue, 05-08, *assoc. prof*, 08-11, prof, 11-21; *consulting engineer, Smith and Brown*, 19- Lieut. col, C.Eng, 17-19. Civil Eng; Mil. Eng; West. Soc. Eng. Engineering construction; steel structures.
- Smith, Prof. Albert W(illiam)**, 13 East Ave, Ithaca, N. Y. *Mechanical engineering*. Westmoreland, N. Y, Aug. 30, 56. B.M.E, Cornell, 78, M.M.E, 86, fellow, 86-87. Asst. prof. mech. eng, Cornell, 87-91; prof. machine design, Wisconsin, 91-92; mech. eng, Stanford, 92-04; director, *Sibley Col, Cornell*, 04-15, dean, 15-21, acting pres, 20-21, *emer. prof. mech. eng*, 21- Mech. Eng.
- Smith, Prof. Alfred**, University Farm, Davis, Calif. *Agronomy*. Hazleton, Pa, Jan. 4, 88. A.B, Wittenberg, 07, A.M, 10; Ph.D, Wisconsin, 25. Consulting chemist, 07-09; instr. chem, Wittenberg, 09-10; chem. and geol, Pomona, 10-13; *asst. prof. soil technol, California*, 13- A.A. Physical properties and structure of soils; soil

surveys in California; soil temperature and moisture control.

Smith, Dr. Alpheus W(ilson), 306 E. 16th Ave, Columbus, Ohio. **Physics*. Philippi, W. Va., Jan. 15, 76. A.B., West Virginia, 00; A.M., Harvard, 03, Ph.D., 06. Instr. *physics*, Haverford, 06-07; Wisconsin, 07-09; asst. prof., *Ohio State*, 09-17, *prof.*, 17- Physical Soc. Expansion and compressibility of ether and of alcohol in the neighborhood of their boiling points; variation of Hall effect in metals with change of temperature; the Hall and Ledue and allied effects in metals and alloys; reversal of Corbino effect in iron; magnetic susceptibility of mixtures of liquids; infra-red absorption in glasses; thermoelectromotive force in a magnetic field; thermal conductivity of alloys; absorption in organic compounds; absorption of light by metallic vapors.

Smith, Mrs. Annie Morrill, 64 Sagamore Road, L 4, Bronxville, N. Y. *Botany*, *Genealogy*. Brooklyn, N. Y., Feb. 13, 56. Packer Col. Inst., 74. A.A.; Geneal. Soc.; Sullivant Moss Soc. (pres, 20); Wild Flower Preservation Soc.; L. I. Hist. Soc.; Brooklyn Inst. Mosses.

Smith, Arnold H(arry), 462 Drexel Ave, Glen-coe, Ill. *Chemistry*. Akron, Ohio, May 29, 96. B.S., Armour, 17. Rubber chemist, Bur. Standards, 17-19; research chemist, Goodyear Tire and Rubber Co, 19-20; chief chemist, Thermoid Rubber Co, 20-22; *tech. sales*, *Rubber Service Laboratories*, 22- Chem. Soc. (sec'y, rubber div, 18-). The compounding of rubber.

Smith, Prof. Arthur H(enry), 333 Cedar St, New Haven, Conn. *Physiological chemistry*. Sandusky, Ohio, Jan. 27, 93. B.S., Ohio State, 15, M.S., 16; Ph.D., Yale, 20. Junior chemist, U. S. Bur. Mines, 17-18; asst., Rockefeller Inst., 19; instr. *physiol. chem*, Yale, 20-24, *asst. prof.*, 24- Second lieut., C.W.S., 18-19. Soc. Biol. Chem.; Physiol. Soc.; Soc. Exp. Biol. Relation of diet to various aspects of growth; deficiency diseases; physiology of vitamins.

Smith, Prof. A(rthur) W(hipple), Colgate University, Hamilton, N. Y. *Mathematics*. Hamilton, Nov. 25, 76. B.S., Chicago, 98, M.S., 00, Ph.D., 04. Instr. *math*, *Colgate*, 02-07, asst. prof., 07-08, assoc. prof., 08-20, *prof.*, 20- Math. Soc.; Math. Ass. Differential geometry.

Smith, Prof. Arthur W(hitmore), University of Michigan, Ann Arbor, Mich. *Physics*. Hartford, Vt., May 11, 74. B.S., New Hampshire, 93; Cornell, 93-94; M.S., Wesleyan, 95; fellow, Hopkins, 02-03, Ph.D., 03; Cambridge, 11-12; Victoria (Eng), 12. Physical asst., U. S. Dept. Agr., 94-99; asst. physics, Wesleyan, 95-96, 98-99; instr. physics and elec. eng., Tulane, 00-01; *prof. elec. and elec. eng.*, Mississippi, 01-02; *physics*, *Michigan*, 03- Int. Elec. Cong., St. Louis, 04. A.A.; Physical Soc. Calorimetric determinations of energy of foods; energy losses in condensers; heat of fusion of ice; resistance of voltaic cells; heat of evaporation of water; measurement of magnetic permeability; time lag in magnetization; demagnetization and neutral magnetization in iron; magnetic testing of short bars; chemical constitution and the magnetic properties of steel; radioactivity.

Smith, Bernard H(oward), Virginia Dare Extract Co, Brooklyn, N. Y. *Chemistry*. Middlefield, Mass., Dec. 16, 78. B.S., Mass. Col. and Boston, 99; M.S., George Washington, 02; LL.B., National Univ., 05. Asst., bur. chem., U. S. Dept. Agr., 02-05, chief, Boston Food Inspection Lab., 05-12; supt. and chemist, Baker Extract Co, 12-19; Garrett and Co, 19-23; *pres.*, *Virginia Dare Extract Co*, 23- Chem. Soc. (chairman, Conn. Valley sect., 18). Food chemistry; mineral waters; detection of formaldehyde and formic acid; flavoring extracts.

Smith, B(ernhard) A(lexander), 395 Collins St, Melbourne, Australia. *Engineering*. Stawell, Victoria, Australia, Dec. 4, 63. Argus scholarship, Melbourne, M.C.E., 90. Surveyors board, Victoria; lecturer hydraul. and sanit. eng. and prof. eng., Melbourne; *consulting engineer*, *Pub. Health Commission*, 20- J. James R. Croes medal, Soc. Civil Eng., 20. Civil Eng.; Inst. Surveyors; Australian Ass. Adv. Sci.; Royal Soc. Victoria; Inst. Engineers Australia (v. pres, 26). Arched dams; water turbines; balancing of rotors; circular arches.

Smith, Prof. Bertram G(arner), 338 E. 26th St, New York, N. Y. *Zoology*, *Anatomy*. Painesville, Ohio, Oct. 7, 76. A.B., Michigan, 07; Ph.D., Columbia, 12. Asst. zool., Michigan, 04-06; instr. biol., Lake Forest, 07; zool., Syracuse, 07-09; Wisconsin, 09-12; asst. prof., Mich. State Nor. Col., 12-16, *assoc. prof.*, 16-21; *anat.*, *N. Y. Univ.*, 21- Summer, instr., Woods Hole, 12. A.A.; Soc. Zool.; Ass. Anat.; Mich. Acad. (chairman, zool. sect., 13). Embryology; cytology; habits of amphibians and fishes.

Smith, Dr. Beverly C(hew), 130 E. 56th St, New York, N. Y. *Surgery*. Franklin, La., Feb. 7, 96. A.B., Virginia, 15, M.D., 19. Nat. Research Council fellow, 21; *instr. surg.*, *Columbia*; *asst. visiting surgeon*, *Presb. Hosp.*, *asst. surgeon-in-chief out-patient dept.* Am. Med. Ass.; fel. Col. Surg. Acute intestinal obstruction.

Smith, Dr. Burnett, Skaneateles, N. Y. *Paleontology*. Skaneateles, June 28, 77. B.S., Pennsylvania, 00, Ph.D., 05. Asst. geol. and miner., Pennsylvania, 02-05, Harrison research fellow, 05-06; instr. and *prof. paleont.*, *Syracuse*, 07- A.A.; Paleont. Soc.; Geol. Soc.; Phila. Acad.

Smith, Charles Campbell, Dominion Observatory, Ottawa, Ont., Can. *Astronomy*. Brampton, Ont., Dec. 31, 73. B.A., Toronto, 02. Can. topog. surveys, 02-08; observer, Dominion Observatory, 08-12; Can. topog. surveys, 13-19; *astronomer*, *Dominion Observatory*, 19- A.A.; fel. Royal Astron. Soc. Meridian astronomy; time service.

Smith, Charles M(eldrum), 309 Tennessee Ave, N. E., Washington, D. C. *Chemistry*. Philadelphia, Pa., Dec. 19, 89. B.S., Pennsylvania, 10. Chemist, Phila. Storage Battery Co, 10-11; asst. chemist, *bur. chem.*, *U. S. Dept. Agr.*, 11-23, assoc. chemist, 23-24, *chemist*, 24- Chem. Soc.; Wash. Acad. Chemistry of inorganic insecticides.

Smith, Charles Piper, 354 S. Tenth St, San Jose, Calif. *Botany*. St. Catharines, Ont., Can., April 25, 77. B.S., Purdue, 03; A.M., Stanford, 08, Ph.D., 27. Forester, Monterey Co. Water Works, Calif., 06-07; acting asst. prof. zool., Utah Col.,

- 08-09, asst. prof. bot, 09-12; assoc. prof, Maryland, 12-14; seed inspection officer, Md. State Board Agr, 12-19; *teacher, high sch, San Jose, Calif, 20-* Bot. Soc; Torrey Bot. Club; Ind. Acad. Lupinus.
- Smith, Prof. Christianna**, Mt. Holyoke College, South Hadley, Mass. *Zoology*. Kearney, N. J., March 27, 93. A.B, Mt. Holyoke, 15; A.M, Cornell, 19, Schuyler fellow, 21-23, Ph.D, 23. Asst, Mt. Holyoke, 15-17, instr, 17-18; asst. histol, Cornell, 18-19; instr, *Mt. Holyoke*, 19-21, asst. prof. *zool*, 23-26, *assoc. prof*, 26- Summers, instr, Woods Hole, 21, 22, 24. A.A; Soc. Zool; Soc. Anat; Soc. Parasitol; Eugenics Soc. Histology; medical zoology; blood.
- Smith, Dr. Clara E(liza)**, Wellesley College, Wellesley, Mass. *Mathematics*. Northford, Conn. A.B, Mt. Holyoke, 02; Ph.D, Yale, 04. Acting instr. *math*, Wellesley, 06-07; instr, Western Col. for Women, 07-08; asst, *Wellesley*, 08-09, instr, 09-14, *assoc. prof*, 14-24, *prof*, 24- Exchange prof, Goucher, 18-19. A.A; Math. Soc; Math. Ass. Theory of functions of real variables.
- Smith, Dr. Clarence A(lbert)**, 701 Washington St, New York, N. Y. *Biochemistry*. Northampton, Mass, Oct. 14, 88. B.S, Mass. Col, 11; M.S, Jefferson Med. Col, 14, Ph.D, 16. Instr. agr. chem, Pa. State, 11-13; demonstrator, Jefferson Med. Col, 13-20, *assoc*, 20-23; research and consulting biochemist, Food Research Laboratories, Inc, 23-26; *biochemist, dept. applied research, Fleischmann Co*, 26- A.A; Chem. Soc; Physiol. Soc; Soc. Exp. Biol. Nutrition; metabolism; digestion.
- Smith, Dr. C(larence) B(eaman)**, U. S. Department of Agriculture, Washington, D. C. *Agriculture*. Howardsville, Mich, Sept. 21, 70. B.S, Mich. State Col, 94, M.S, 95, Sc.D, 17; Halle, Bonn. Hort. ed, 'Exp. Sta. Record,' *U. S. Dept. Agr*, 97-07, research in farm management, 08-13, *chief office cooperative exten. work*, 14- Farm Management Ass; Wash. Bot. Soc. Farm management.
- Smith, Prof. Clarence R(aymond)**, Aurora College, Aurora, Ill. *Physics*. Galesburg, Ill, July 19, 90. B.S, Aurora, 14; M.S, Iowa, 23. Teacher, high sch, Iowa, 15-16; *prof. physics, Aurora*, 16- A.A; Physical Soc; Cent. Ass. Sci. and Math. Teachers; Ill. Acad. Light.
- Smith, Clayton O(rville)**, University of California, Riverside, Calif. *Plant pathology*. Willsboro, N. Y., July 18, 71. B.S, Middlebury, 99; A.M, Cornell, 02. Asst. bot, Cornell, 00-02; Delaware Col, 03-05; asst. *plant path, California*, 06-10, instr, 11-16, *research assoc*, 16- A.A. Walnut bacteriosis; resistance to crown gall.
- Smith, Dr. C(layton) S(idney)**, Ohio State University, Columbus, Ohio. *Biochemistry*. Newark, N. J., April 23, 87. B.S, Rutgers, 09, M.S, 12; Ph.D, Columbia, 13; M.D, Northwestern, 20. Asst. biochem, Columbia, 10-12; asst. pharmacologist, bur. chem, U. S. Dept. Agr, 12-14; *assoc. physiol. chem, col. med, Illinois*, 14-18; *physiol, Northwestern*, 18-20; asst. *prof. physiol. chem. and pharmacol, Ohio State*, 20-21, *prof*, 21- A.A; fel. Am. Med. Ass. Effect of cold storage upon chemical composition of fish; saponins; poisonous mushrooms; tartrates; toxicology.
- Smith, Prof. David Eugene**, 501 W. 120th St, New York, N. Y. **Mathematics*. Cortland, N. Y., Jan. 21, 60. Ph.B, Syracuse, 81; Ph.M, 84, Ph.D, 87, LL.D, 05. Teacher math, N. Y. State Nor. Sch, Cortland, 84-91; *prof*, Mich. State Nor. Col, Ypsilanti, 91-98; *prin*, N. Y. State Nor. Sch, Brockport, 98-01; *prof. math*, Teachers Col, Columbia, 01-26. Summers, lecturer, Harvard, 00-03. Math. ed, 'New Int. Ency.' V. pres, Int. Committee on Teaching Math, 12-20. A.A; Math. Soc. (ed, 'Bul,' librarian, 02-22); Math. Ass. (pres, 19); Math. Verein; Circolo Mat. di Palermo. History and teaching of mathematics.
- Smith, Dr. David F(rederick)**, University of California, Berkeley, Calif. *Physical chemistry*. Springdale, Conn, Sept. 10, 97. Syracuse, 16-17; B.S, Calif. Inst, 20, Ph.D, 22. Research asst, Calif. Inst. Tech, 19, teaching fellow, 20-22, research fellow and instr. in charge physical chem. lab, 22-23; *research assoc. and Nat. Research Council fellow chem, California*, 23- Properties of solutions; solubility; electrode potentials; free energy and equilibria; special apparatus; rate of reaction.
- Smith, Prof. David M(elville)**, Georgia School of Technology, Atlanta, Ga. *Mathematics*. Nashville, Tenn, July 27, 84. A.B, Vanderbilt, 05, A.M, 06; Ph.D, Chicago, 16. Southern Univ, 09-12; *assoc. prof. math, Ga. Tech*, 13- Math. Soc; Math. Ass. Calculus of variations.
- Smith, Prof. Donald P(ritchard)**, 90 Bayard Lane, Princeton, N. J. *Physical chemistry*. Helena, Mont, 79. A.B, Williams, 02; Ph.D, Göttingen, 07. Instr. *physical chem, Princeton*, 08-11, *asst. prof*, 11- Chem. Soc; Min. and Metal. Eng; Electrochem. Soc. Metallurgy; occlusion; electrode processes.
- Smith, Earl B(renton)**, Iowa State College, Ames, Iowa. *Mechanical engineering*. Scranton, Iowa, June 13, 78. B.S, Missouri, 03, M.E, 05. Asst. prof. exp. eng, Drexel Inst, 04-14; *assoc. mech. eng, bur. pub. roads, U. S. Dept. Agr*, 14-16, mech. engineer, bur. soils, 16-19, engineer of tests, bur. pub. roads, 19-25; *research prof. mech. eng, Iowa Col*, 25- Engineer of construction, U. S. Kelp-Potash Plant, Calif. A.A; Soc. Test. Mat; Automotive Eng. Strength of materials; power engineering.
- Smith, Prof. Edgar F(ahs)**, University of Pennsylvania, Philadelphia, Pa. **Chemistry*. York, Pa, May 23, 54. B.S, Pennsylvania Col, 74; Ph.D, Göttingen, 76; hon. Ch.D; hon. Sc.D; hon. Litt.D; hon. L.H.D; hon. M.D; hon. LL.D. Instr. chem, Pennsylvania, 76-81; *prof*, Muhlenberg, 81-83; Wittenberg, 83-88; Pennsylvania, 88-20, vice-provost, 99-11, provost, 11-20, pres, Wistar Inst, 11-20. Adviser chem, Carnegie Institution, 02, research assoc, 15, 18-24. Trustee, Carnegie Foundation, 14-20. U. S. Assay Commission, 95, 01-05. Chairman, Int. Commission on Poison Gases and High Explosives, Am. Board Technical Advisers, Disarmament Conf, 21. Jury awards, Columbian Expos, 93. Officier, Légion d'honneur. Elliott Cresson medal, Franklin Inst, 14; Chandler

- medal, Columbia, 22. Nat. Acad; A.A. (v. pres, 98); Chem. Soc. (pres, 95, 20, 21); hon. mem. Inst. Chem; Soc. Chem. Indust; hon. mem. Electrochem. Soc; Philos. Soc. (pres, 02-07); hon. mem. N. Y. Chemists Club; hon. mem. Phila. Col. Pharmacy; hon. mem. Min. and Metal. Soc. S. Africa; hon. mem. Soc. de Chim. indust; Chem. Gesell. Electrochemistry; separations of the rare earths; atomic weights; new series of complex inorganic acids; history of chemistry.
- Smith, Prof. E(dgar) R(eynolds)**, U. S. Bureau of Standards, Washington, D. C. *Physical chemistry*. Wilmington, Del, May 13, 97. B.S., Mass. Inst. Tech, 20, M.S., 21, Ph.D., 23. Asst. physical chem, Mass. Inst. Tech, 21-23, research assoc, 23-24; asst. prof. chem, Louisiana, 24-26; *assoc. chemist, Bur. Standards*, 26- Summers, instr, Mass. Inst. Tech, 23, 24, 26. Chem. Soc. Electrical properties of solutions; transference numbers and potential differences across liquid junctions; rare elements.
- Smith, Prof. Edward S(taples) C(ousens)**, Union College, Schenectady, N. Y. *Geology*. Biddeford, Maine, Aug. 23, 94. B.S., Bowdoin, 18; A.M., Harvard, 20. Asst. *geol.* Radcliffe, 20-23; instr, *Union*, 23-25, *asst. prof.*, 25- Chem. Soc. The structural geology and petrology of Maine and New Hampshire.
- Smith, Prof. Edwin R(aymond)**, Iowa State College, Ames, Iowa. *Mathematics*. Danville, Ill, Jan. 13, 79. A.B., Illinois, 05; A.M., Wisconsin, 08; Ph.D., Munich, 11. Instr. *math.* Wisconsin, 05-09; asst. prof, Pa. State, 11-14, assoc. prof, 14-20, *prof.*, 20-21; *Iowa Col.*, 21- Summers, director, Pa. State, 14-20; assoc, Illinois, 20-21. Math. Soc. Series; difference equations; statistics.
- Smith, Dr. E(li) Victor**, University of Washington, Seattle, Wash. *Physiology*. Brussels, Ont, Can, May 24, 67. Ph.B., Ill. Wesleyan, 07; A.M., Washington (Seattle), 09; Ph.D., Northwestern, 11. Teaching fellow, Northwestern, 09-11; *asst. prof. zool.*, *Washington (Seattle)*, 11- A.A.; Ecol. Soc; Chem. Soc. Sensory ganglia of birds; hybridization among salmon; pisciculture; effect of light on the development of young salmon; salinity of the Lake Washington ship canal.
- Smith, Prof. Elizabeth A(nita)**, University of Wisconsin, Madison, Wis. *Zoology*. Lancaster, Ky, Nov. 6, 89. A.B., Cincinnati, 10; A.M., Wisconsin, 12, Ph.D., 15. Asst. bot, Cincinnati, 09-10; teacher, pub. schools, 10-11; asst. *zool.*, *Wisconsin*, 11-14, instr, 14-19, *asst. prof.*, 19- Cytology; embryology.
- Smith, Prof. Elizabeth H(ight)**, University of California, Berkeley, Calif. *Plant pathology*. Brookline, Mass, Jan. 12, 77. A.B., Smith, 00; M.S., Mass. Col, 05. Asst. bot, Mt. Holyoke, 01; high sch, Conn, 02-03; Mass, 04; asst. *plant path.*, *California*, 05-10, instr, 10-15, *asst. prof.*, 15-, *asst. plant pathologist*, *Exp. Sta.*, 05- Phytopath. Soc. Diagnosis of plant diseases.
- Smith, Elliott**, Cincinnati Observatory, Cincinnati, Ohio. *Astronomy*. Blue Earth Co, Minn, 75. A.B., Minnesota, 03; fellow, Lick Observatory, California, 05-06; Ph.D., Cincinnati, 10. Asst. astron, Minnesota, 02-03; Lick Observatory, California, 03-05; asst, *Cincinnati Observatory*, 07-11, *astronomer*, 11- A.A.; Astron. Soc; Pacific Astron. Soc. Micrometric photographic and meridian circle observations of position; meridian circle observation of position of all stars of known proper motion.
- Smith, Dr. Elmer A**, 1281 Paterson Plank Road, Secaucus, N. J. *Electrical engineering*. Ph.D; Sc.D. *Consulting elec. engineer*. A.A.; Elec. Eng; Radio Eng; Indust. Eng; Meteor. Soc; Franklin Inst; Wis. Acad; Ind. Acad; Royal Astron. Soc. Can; cor. mem. N. S. Inst; London Physical Soc; British Philos. Soc; fel. Royal Soc. S. Australia; Elek. Verein; Soc. de Physique; Soc. Royale de Belg; Swiss Acad. Arts. Carrier wave analysis; lightning discharges; super-power transmission systems; public utility operations.
- Smith, Prof. E(rastus) G(ilbert)**, 716 Emerson St, Beloit, Wis. *Chemistry*. South Hadley, Mass, April 30, 55. A.B., Amherst, 77, A.M., 81; Ph.D., Göttingen, 83; LL.D., Beloit, 21. Instr. chem, Williston Sem, Easthampton, Mass, 78-81; prof, Beloit, 81-21. A.A.; Chem. Soc; Wis. Acad. (v. pres, 01, 19); Chem. Gesell. Minerals; waters; water supply; bacteriology.
- Smith, Dr. E(rnest) E(llsworth)**, 50 E. 41st St, New York, N. Y. *Physiology, Chemistry*. New Haven, Conn, Dec. 20, 67. Ph.B., Yale, 88, Ph.D., 91; M.D., Bellevue, 98. Asst. physiol. chem, Yale, 88-91; chief chemist, private research laboratories of Dr. Herter, New York, 91-95; *specialist*, 98-; prof. physiol. and org. and biol. chem, sch. med, Fordham, 06-11. Pathologist, West Side Dispensary, New York; consulting pathologist, Jamaica Hosp, L. I.; Somerset Hosp, Somerville, N. J. A.A.; Chem. Soc; Soc. Chem. Indust; Soc. Med. Juris. (trustee); Urol. Ass; Am. Med. Ass; N. Y. Acad. Med; Greater N. Y. Med. Soc. (sec'y); N. Y. Path. Soc; fel. N. Y. Acad. (pres, 18). Digestive proteolysis; uric acid excretion; uremic intoxications; intestinal toxemias; influence of baking-powders in food; serology; metabolism; healthfulness of food adjuncts; toxicology; absorption of wood alcohol; composition of roasted cereals; detection of pyramidon.
- Smith, Prof. Ernest Rice**, 309 Greenwood Ave, Greencastle, Ind. *Geology, Paleontology*. Cameron, Mo, July 3, 91. A.B., Oberlin, 12, A.M., 19. Instr. math. and geol, Fisk, 12-14; asst. geol, Cornell, 16-17; petrol. geologist, Sinclair Oil Co, 17-18; instr. *geol.*, Michigan, 19-20; acting asst. prof, Oberlin, 20-21; asst. prof, assoc. prof. and *prof.*, *De Pauw*, 21- U.S.A., 18-19. A.A.; Am. Geog. Soc; Ind. Acad; Ohio Acad; Mich. Acad; Soc. géol. de France. Stratigraphy.
- Smith, Dr. Eugene A(llen)**, University, Ala. **Geology*. Washington, Ala, Oct. 27, 41. A.B., Alabama, 62, LL.D., 06; A.M., Ph.D., Heidelberg, 68; LL.D., Mississippi, 99. Prof. *miner. and geol.*, *Alabama, emer. prof.*; *state geologist*, *Ala.*, 73- Asst. state geologist, Miss, 68-71. Hon. commissioner, Paris Expos, 78; special agent on cotton culture, tenth census, 86; jury awards, Atlanta Expos, 95; Nashville Expos, 97; La. Purchase Expos, 04. Am. committee, Int. Geol.

- Congresses, 84-89. A.A. (sec'y, E, 84, v. pres, 04); Geol. Soc. (councilor, 92-95, v. pres, 06, pres, 13). Geology of Alabama.
- Smith, Eugene R(andolph)**, 676 Hammond St, Chestnut Hill, Mass. *Mathematics*. Oswego, N. Y., March 18, 76. A.B., Syracuse, 96, A.M., 98; hon. Ph.D., N. Y. State Col. Teachers, 27. Instr. math, Syracuse, 96-97; head dept. math, Cazenovia Sem., 97-98; instr. math, Syracuse, 98-99; head dept. math, high sch., N. J., 99-08; Polytech. Prep. Sch., Brooklyn, 08-12; *headmaster*, The Park Sch., Baltimore, 12-22; *Beaver Country Day Sch., Brookline, Mass., 21-* Summers, lecturer, Edgewood Sch. for Teachers, 19, instr., Hopkins, 15, 18, lecturer, Teachers Col., Columbia, 19, Harvard, 22. Assoc. ed., 'The Math. Teacher.' Educ. adviser, Miss Beard's Sch., Orange, N. J., 23-; advisory committee, The Pape Sch., Oak Lane Country Day Sch.; Derby Acad. A.A.; Fed. Teachers Math. and Nat. Sci. (sec'y-treas., 10-12); Nat. Soc. Study Educ.; Progressive Educ. Ass. (chairman, exec. committee, 19-23, pres, 23-25); Ass. Math. Teachers Middle States and Md. (sec'y, 07-10, pres, 13-15, chairman, N. Y. sect, 10-12, south. sect, 16-18). Mathematical pedagogy; progressive education.
- Smith, Prof. F. Raymond**, Pennsylvania State College, State College, Pa. *Physics*. Grand Ledge, Mich., Nov. 17, 91. A.B., Albion, 14; A.M., Michigan, 21, M.D., 27. Instr. physics, Kansas Col., 16-18; engineer, West. Elec. Co., 18-19; asst. prof. *physics*, Pa. State, 19-26, *assoc. prof.*, 26- Spectroscopy.
- Smith, Prof. F(rances) Grace**, Smith College, Northampton, Mass. *Botany*. Springfield, Mass., Dec. 27, 71. A.B., Smith, 93, A.M., 00; Ph.D., Chicago, 06. Asst. *bot.*, Smith, 00-03, instr., 05-11, *assoc. prof.*, 11- A.A.; Bot. Soc.; Ecol. Soc.; British Ecol. Soc. Morphology and anatomy of cycads.
- Smith, Dr. Francis A(Ibert)**, 3213 Wisconsin Ave., Washington, D. C. *Chemistry*. Peoria, Ill., Sept. 24, 97. George Washington, 16-17; A.B., Stanford, 22, A.M., 23, Ph.D., 26. Asst. *chemist*, Bur. Standards, 26- Chem. Soc. Conductance of acids and salts in liquid ammonia; properties of flames.
- Smith, Francis P(itt)**, 131 E. 23d St, New York, N. Y. *Chemical engineering*. New York, Sept. 9, 67. Ph.B., Columbia, 88. Chemist, Tiffany Chem. Co., 88-89; Wm. H. Swift and Co., 89-90; Health Dept., New York, 90-91; Consol. Gas Co., 92-93; U. S. Navy Dept., 93-95; Harrison Bros. and Co., 95-96; asst. manager, Eidoloscope Co., 96-97; asst. and instr. chem., col. physicians and surg., Columbia, 97-99; chemist, Alcatraz Co., 97-01; British Paving Co., 01-03; Union Oil Co., 03-05; A. L. Barber Asphalt Co., 05-07; *partner*, Dow and Smith, 07- Lecturer, Columbia. Assoc. ed., 'Highway Eng. Pocket Book.' Delegate, third Int. Road Cong., London, 13. Chem. Eng.; Chem. Soc.; Soc. Chem. Indust.; Soc. Test. Mat. (chairman, committee on waterproofing, 19, chairman, committee on road materials, 23); Civil Eng.; Soc. Munic. Improv.; Wood Preservers Ass.; Road Ass.; Can. Good Roads Ass. Bituminous highway and pavement construction; refining of asphalt and petroleum; testing of bituminous materials.
- Smith, Prof. Frank**, 79 Fayette St, Hillsdale, Mich. *Zoology*. Winneconne, Wis., Feb. 18, 57. Ph.B., Hillsdale, 85, Sc.D., 23; A.M., Harvard, 93. Prof. chem. and biol., Hillsdale, 86-92; instr. biol., Trinity (Conn.), 92-93; instr. and asst. prof. zool., Illinois, 93-06, *assoc. prof.*, 06-13, *prof.*, 13-26; *retired*. A.A.; Soc. Nat.; Soc. Zool.; Ecol. Soc.; assoc. Ornith. Union; Wash. Biol. Soc. Embryology of Scyphomedusae; variation in *Necturus*; *Oligochaeta* of United States; bird migration; fresh-water sponges.
- Smith, Prof. Franklin O(rion)**, University of Montana, Missoula, Mont. *Psychology*. Macon Co., Ill., 67. M.Di., Iowa State Teachers Col., 03; A.B., Iowa, 06, A.M., 07, Ph.D., 12. Prof. psychol. and educ., Woodbine Nor. Sch., Iowa, 07-10; asst. prof., Utah, 12-15; *prof. psychology*, Montana, 15- A.A.; Psychol. Ass. Measurement of intelligence; mental survey in schools; a hue scale of purples; differential reactions of human beings in the maze.
- Smith, Dr. Fred M.**, University Hospital, Iowa City, Iowa. *Medicine*. Yale, Ill., May 31, 88. East. Ill. State Nor. Sch., 05-09; B.S., Chicago, 13, M.D., Rush Med. Col., 14. Asst. clin. prof. med., Rush Med. Col., Chicago, 24; *prof. and head dept. theory and practise med.*, Iowa, 24- Soc. Clin. Invest.; Soc. Exp. Biol.; Physiol. Soc. Cardio-vascular disorders.
- Smith, Prof. G(eorge) E(dson) P(hilip)**, University of Arizona, Tucson, Ariz. *Irrigation engineering*. Lyndonville, Vt., Dec. 29, 73. B.S., Vermont, 97, C.E., 99; Wisconsin, 10-11. Instr. civil eng., Vermont, 97-00; *prof.*, Arizona, 00-06, *irrig. eng. and irrig. engineer*, Exp. Sta., 06- Consulting engineer, Agr. Products Corp., 19-21. A.A.; Civil Eng.; Ass. Eng.; Agr. Eng. Ground water supplies; distributaries; water law; Colorado River.
- Smith, Dr. G(eorge) Frederick**, 309 S. Poplar St, Urbana, Ill. *Chemistry*. Lucasville, Ohio, July 29, 91. B.S., Michigan, 17, M.S., 19, du Pont fellow, 19-21, Ph.D., 22. Chemist, Nat. Lamp Works, Gen. Elec. Co., 17-18; instr. *chem.*, Illinois, 21-24, *assoc.*, 24- Chem. Soc. Quantitative analysis; perchlorate chemistry; analytical chemical preparations.
- Smith, Prof. George H(athorn)**, Yale University, New Haven, Conn. *Bacteriology, Immunology*. Maine, Sept. 25, 85. A.B., Bates, 09; A.M., Brown, 10, Ph.D., 15. Research immunologist, H. K. Mulford Co., 12-17; asst. prof. bacter. and path., Yale, 17-23, *assoc. prof.*, 23-26, *prof. immunol.*, 26- A.A.; Soc. Bact.; Ass. Immunol.; Soc. Exp. Biol. Immunology; preventive medicine; pneumonic infection; anti-bacterial sera; bacteriophage.
- Smith, Dr. Geo(rge) Hume**, University of Illinois, Urbana, Ill. *Botany*. Indianapolis, Ind., March 1, 96. A.B., Wabash, 18, A.M., 19; Ph.D., Cornell, 23. Asst. plant path., Cornell, 18-19; *instr. bot.*, Illinois, 23- Summer, asst., Michigan, 20. A.A.; Bot. Soc.; Phytopath. Soc. Vascular anatomy of the Ranalian flower.

- Smith, Prof. G(eorge) McP(hail)**, University of Washington, Seattle, Wash. *Chemistry*. Nashville, Tenn, Nov. 15, 78. B.S., Vanderbilt, 00; Berlin, 00-01; Geneva, 01-02; Ph.D., Freiburg, 03. Instr. qual. analysis, Mich. Col. Mines, 03-04; anal. chem. and metal, N. C. State, 04-05; chem, Illinois, 05-09, assoc, 09-14, asst. prof, 14-19; *prof. inorg. chem, Washington (Seattle)*, 19- A.A.; Chem. Soc. (chairman, Ill. sect, 15). Amalgams; diffusion in aqueous and in mercurial solutions; equilibria between aqueous and metallic solutions; diffusion of strong electrolytes; determination of titanium and halogens; precipitation of metals by hydrogen sulfide.
- Smith, Prof. G(eorge) M(ilton)**, 111 Buckingham St, Waterbury, Conn. *Surgery*. Hong-kong, China, July 5, 79. A.B., Yale, 01; M.D., Columbia, 05. Intern, Presb. Hosp, New York, 05-07; instr. clin. surg, Columbia, 09; assoc. prof. path, Washington (St. Louis), 13, director, Barnard Cancer Hosp, 15; *attending surgeon, Waterbury Hosp. and St. Mary's Hosp*, 16- Conn. Board Med. Examiners, 25. Capt, M.R.C., 17-19. A.A.; Col. Surg; Ass. Path. and Bact; Ass. Anat; Ass. Cancer Research; New Eng. Surg. Ass. Morphology of transplanted tissues; experimental gastric ulcer; histopathology of hernia.
- Smith, Dr. Geo(rge) Otis**, U. S. Geological Survey, Washington, D. C. **Geology*. Hodgdon, Maine, Feb. 22, 71. A.B., Colby, 93, A.M., 96, LL.D., 20; Ph.D., Hopkins, 96; Sc.D., Case, 14. Asst. geologist, U. S. Geol. Surv., 96-01, geologist, 01-07, *director*, 07- U. S. Coal Commission, 22-23. A.A.; Geol. Soc; Soc. Econ. Geol; Ass. Petrol. Geol; Min. Eng. (v. pres, 27); Wash. Acad. (v. pres, 08); Wash. Geol. Soc. (pres, 09). Areal geology in Michigan, Washington, Utah and New England; economics of mineral and power resources.
- Smith, Prof. Gilbert B(rown) L(orenzo)**, Brooklyn Polytechnic Institute, Brooklyn, N. Y. *Inorganic chemistry*. Mansfield, N. Y., March 17, 94. A.B., Colgate, 15; A.M., Wisconsin, 16; Ph.D., Cornell, 23. Lecture asst, Colgate, 15; asst. chemist, Texas Exp. Sta, 16-17; asst. chem, Wisconsin, 19-21; Heckscher research asst. inorg. chem, Cornell, 22-24; *asst. prof. chem, St. John's (Md)*, 24-25; *Brooklyn Polytech*, 25- Summer, research chemist, Atlas Powder Co, 25. Sergt, U.S.A., 19. A.A.; Chem. Soc; Wis. Acad. Azido-dithiocarbonic acid; selenium; tellurium; nitrogen compounds.
- Smith, Prof. Gilbert M(organ)**, Stanford University, Calif. *Botany*. Beloit, Wis, Jan. 6, 85. B.S., Beloit, 07; Ph.D., Wisconsin, 13. Asst. bot, Wisconsin, 09-10; instr, Pomona, 10-11; asst, Wisconsin, 11-12, instr, 12-17, asst. prof, 17-19, assoc. prof, 19-25; *prof, Stanford*, 25- A.A.; Bot. Soc; Ecol. Soc; Micros. Soc. Fresh-water algae.
- Smith, Dr. Grant**, 6107 Woodlawn Ave, Chicago, Ill. *Zoology*. Albert Lea, Minn, Feb. 19, 69. B.S., Wisconsin, 97, M.S., 99; Ph.D., Harvard, 04. Instr. zool, Beloit, 99-01; Austin teaching fellow, Harvard, 02-04; *science dept, Chicago Nor. Col*, 04- A.A. Erysipheae; visual cells of Limax; phototropism; stream behavior of fish.
- Smith, Dr. Guy W(atson)**, 917 Maine St, Lawrence, Kans. *Mathematics*. Castle Rock, Colo, Oct. 7, 85. B.S., Colorado, 08, M.S., 09; Ph.D., Illinois, 17. Instr. eng. math, Colorado, 09-13; asst. math, Illinois, 13-16; instr. math. and physics, Beloit, 17-18; Kentucky, 18-20; asst. prof. math, Kansas, 20-27, *assoc. prof*, 27- Math. Soc; Math. Ass. Linear associative algebra.
- Smith, Harlan I(ngersoll)**, National Museum of Canada, Ottawa, Ont, Can. *Anthropology*. East Saginaw, Mich, Feb. 17, 72. Michigan, 91-93. Asst. anthropol, Columbian Expos, 91-93; Am. Museum Nat. Hist, 95-99, asst. curator, 00-10, assoc. curator, 10-11; archeologist, Can. Geol. Surv, 11-20; *with Nat. Museum of Can.* In charge anthropol. collection, Michigan, 91-93; explorer, Archeol. Inst. of Amer, 94; archeologist, Jesup North Pacific exped, 97-07; lecturer, N. Y. Board Educ, 98-11; hon. curator, Am. Museum Nat. Hist, 12-13; Pratt Inst, 06-07. A.A. (sec'y, H, 97, 02); fel. Anthropol. Ass; fel. Ethnol. Soc; Ass. Mus; Mich. Acad; hon. mem. Wis. Nat. Hist. Soc; cor. mem. Wash. Anthropol. Soc; cor. mem. Soc. d'Anthropol. de Paris; cor. mem. Swedish Soc. Anthropol. and Geog. Archeology of Michigan, southern Ohio, Kentucky, Wyoming, North Pacific coast of America, and Canada; museum methods.
- Smith, Prof. Harold B(abbitt)**, Polytechnic Institute, Worcester, Mass. *Electrical engineering*. Barre, Mass, May 23, 69. M.E., Cornell, 91, 91-92. Adjunct prof. elec. eng, Arkansas, 92; elec. engineer and head designer, Elektron Mfg. Co, 93; director sch. elec. eng, Purdue, 93-96; *prof. and director elec. eng. dept, Worcester*, 96- Consulting engineer, 93-; engineer and designer, Westinghouse Elec. and Mfg. Co, 05-13, consulting engineer, 13-; study and travel in Europe, Africa and Asia, 11-13. Chairman elec. eng. group, jury awards, La. Purchase Expos, 04. Assoc. mem, Naval Consulting Board, and consulting engineer, special board, antisubmarine service, U.S.N., 17-19. A.A.; Elec. Eng. (v. pres, 24-26); Mech. Eng; Eng. Educ; British Inst. Elec. Eng. Design of direct current generators and motors and alternating current transformers; alternating current phenomena of high potential and low frequency; dielectric phenomena and losses at high potentials.
- Smith, Prof. Harrison W(illard)**, Springfield, Maine. *Electrical engineering*. Dorchester, Mass, Dec. 29, 72. A.B., Harvard, 95; B.S., Mass. Inst. Tech, 97. Asst. elec. eng, Mass. Inst. Tech, 98-01, instr, 01-05, asst. prof, 05-07, assoc. prof, 07-16, research assoc, 16-17. Mass. Inst. Tech. eclipse expeditions, Washington, Ga, 00, Sumatra, 01. Assoc. Elec. Eng; Physical Soc; Astron. Soc; Nat. Elec. Light Ass. Heat of vaporization of two liquids; the measurement of the frequency of alternating currents; photographic work of the Sumatra eclipse expedition.
- Smith, Prof. Harry E(aton)**, U. S. Naval Observatory, Washington, D. C. *Mathematics*. Fremont, Ohio, Dec. 28, 69. Grad, U. S. Naval Acad, 91. From ensign to captain, U.S.N., 91-07, prof. math, U. S. Naval Acad, 06-12, head

- dept. math. and mech, 12-15, U. S. Naval Observatory, 15-20. Strength of materials; theoretical mechanics.
- Smith, Prof. H(arry) P(ratt)**, University of Rochester, Rochester, N. Y. *Pathology*. Johnson Co, Iowa, Feb. 18, 95. A.B, California, 16, Geo. Williams Foundation fellow, 17-19, A.M, 18, M.D, 21. Asst. and instr. *path*, Hopkins, 21-23; Nat. Research Council fellow, 23-24; *asst. prof, sch. med, Rochester, 24-* Soc. Exp. Path; Ass. Anat. Blood volume determination at high altitude; fate of intravenously injected dyes.
- Smith, Harry S(cott)**, Citrus Experiment Station, Riverside, Calif. *Entomology*. Aurora, Nebr, Nov. 29, 83. A.B, Nebraska, 07, A.M, 08. Asst. state entomologist, Nebr, 08; expert, bur. entom, U. S. Dept. Agr, 08-12; supt, insectary div, Calif. State Commission Hort, 13-19; chief bur. pest control, 19-23; *assoc. prof. entom. and entomologist, Exp. Sta, California, 23-* A.A; Ass. Econ. Entom. (v. pres. and pres, Pacific Slope branch, 24); Pacific Coast Entom. Soc; Wash. Entom. Soc; Cambridge Entom. Soc; Calif. Acad. Sphecoidea of Nebraska; Ceratinidae of North America; parasitic and predatory insects; use of entomophagous insects to control insect pests.
- Smith, Dr. Harvey M(cKinley)**, 2617 Van Hise Ave, Madison, Wis. *Zoology*. Athens, Ohio, Oct. 12, 96. A.B, Ohio Wesleyan, 20; M.S, Wisconsin, 22, Ph.D, 24. Asst, Wisconsin, 20-24; instr. zool. and physiol, Wyoming, 24-26; *research assoc. ophthal, Wisconsin, 26-* A.A; Micros. Soc. Cell size and metabolic activity; embryonic history of eye defects.
- Smith, Dr. Henry Lee**, 2701 N. Calvert St, Baltimore, Md. *Medicine*. Ashland, Va, March 23, 68. M.D, Maryland, 94; hon. A.M, St. John's (Md), 10. Res. physician, Hosp. for Women of Md, 95-96; instr. bacter. and prof. pediat. and med, Woman's Med. Col. of Baltimore, 99-06; asst. med, Hopkins, 06-09, instr. and physician, Hopkins Hosp, 09-22; *visiting cardiologist, U. S. Veterans Bur, 22-* Am. Med. Ass. Bacteriology of milk; synesthesia; buckwheat poisoning; agglutination of colon bacilli; thoracic aneurism; percussion; lipodystrophia progressiva.
- Smith, H(enry) Monmouth**, Massachusetts Institute of Technology, Cambridge, Mass. *Chemistry*. Middletown, Conn, Aug. 31, 68. A.B, Wesleyan, 91, A.M, 94; Ph.D, Heidelberg, 98. Assoc. prof. physical science, Hampden-Sidney, 98-99; instr. *chem*, Syracuse, 99-00, assoc. prof, 00-02, prof, 02-13; research assoc, Nutrition Lab, Carnegie Institution, 13-20; *prof, Mass. Inst. Tech, 20-* Asst. chemist, Storrs Exp. Sta, 91-93; special agent, U. S. Dept. Agr, 95. A.A; Chem. Soc; Am. Acad. Metabolism during exercise.
- Smith, Dr. Herbert J(ohnson)**, Ralston-Purina Co, St. Louis, Mo. *Physical chemistry*. Kosciusko, Miss, Jan. 27, 82. B.S, Miss. Agr. and Mech. Col, 06; Ph.D, Chicago, 17. Asst. chemist, Miss. State Chem. Lab, 06-10; asst. prof. chem, Clemson, 11; assoc. prof, Miss. Agr. and Mech. Col, 11-17, prof, 17-25; *director research,*
- Ralston-Purina Co, 25-* Chem. Soc. Equilibrium in systems; metallic carbonates; carbon-dioxide and waters; cereal chemistry; nutritions.
- Smith, Prof. H(erbert) S(tearns) S(quier)**, 205 Wallace St, Stroudsburg, Pa. *Civil engineering*. Elizabeth, N. J, May 31, 57. C.E, Princeton, 78. Prof. astron, physics and civil eng, Kansas, 79-83; instr. civil eng, *Princeton*, 83-87, asst. prof, 88-99, prof. applied mech, 99-05, *civil eng*, 05-22, *emer. prof, 22-* A.A; Franklin Inst.
- Smith, H(erman) Lyle**, State University of Louisiana, Baton Rouge, La. *Mathematics*. Pittwood, Ill, July 7, 92. B.S, Chicago, 14, M.S, 15, Ph.D, 26. Instr. *math*, Northwestern, 15-16; Princeton, 16-18; Cornell, 19; Wisconsin, 19-21; prof, Philippines, 21-24; *asst. prof*, Minnesota, 24-26; *Louisiana, 26-* Math. Soc; Math. Ass; Circolo Mat. di Palermo. General mathematical analysis; analysis situs.
- Smith, Prof. Homer W(illiam)**, University, Va. *Physiology*. Denver, Colo, Jan. 2, 95. A.B, Denver, 17; Sc.D, Hopkins, 21. Research lab, Eli Lilly and Co, 21-23; Nat. Research Council fellow med, 23-25; *prof. physiol, Virginia, 25-* Physiol. Soc.
- Smith, Dr. Howard D(exter)**, 669 Westford St, Lowell, Mass. *Chemistry*. North Scituate, R. I, July 27, 81. B.S, R. I. Col, 01; Ph.B, Brown, 03, A.M, 04; Ph.D, Tufts, 06. Instr. chem, Beloit, 06-09; Lowell Textile Sch, 09-18; *research chemist, Carleton and Hovey Co, 18-* A.A; Chem. Soc. Organic chemistry.
- Smith, Prof. H(oward) R(emus)**, Record Building, Union Stock Yards, Chicago, Ill. *Animal husbandry*. Addison, Mich, April 16, 72. B.S, Mich. Agr. Col, 95; Wisconsin, 99-00. Teacher, Tilford Collegiate Acad, Iowa, 95-97; high sch, Ill, 97-99; acting prof. agr, Missouri, 00-01; prof. animal husbandry, Nebraska, 01-12; Minnesota, 12-15; live-stock specialist, James J. Hill interests, 15-17; live-stock commissioner tuber. eradication, Chicago Live Stock Exchange, 17-21; *in charge educational work and tuberculosis eradication at all markets, Nat. Live Stock Exchange, 21-*
- Smith, Dr. Hugh M(cCormick)**, Bangkok, Siam. **Ichthyology*. Washington, D. C, Nov. 21, 65. M.D, Georgetown, 88; LL.D, Dickinson, 08. Asst, U. S. Fish Commission, 86-92, in charge div. fisheries, 92-96, in charge sci. inquiry, 97-03, deputy, U. S. Commissioner of Fisheries, 03-13, commissioner, 13-23; *adviser in fisheries, Siamese Govt, 23-* Prof, Georgetown, 95-02; co-special agent in charge fisheries, tenth census; director biol. lab, U. S. Fish Commission, Woods Hole, 01-02. Fourth Int. Fishery Cong. (sec'y-gen), Washington, 08. A.A; Soc. Nat; assoc. Ornith. Union; Fisheries Soc. (pres, 08); Soc. Ichthyol. and Herp; Wash. Biol. Soc. (pres, 19); Wash. Acad. Ichthyology; commercial fisheries of the United States and of foreign countries; aquatic resources.
- Smith, Huron H(erbert)**, Public Museum, Milwaukee, Wis. *Botany*. Danville, Ind, July 26, 83. B.S, De Pauw, 05; Cornell, 05-07. Asst. bot, De Pauw, 04-05; phanerogamic bot, Cor-

- nell, 05-07; dendrologist, Field Museum Nat. Hist., 07-11, asst. curator bot., 11-17; asst. curator, *Pub. Museum, Milwaukee*, 17- Summer, lecturer, sch. forestry, Georgia, 09. A.A.; Wild Flower Preservation Soc; Wis. Acad; Wis. Archeol. Soc. (director); hon. mem. Wis. Florists Ass; hon. mem. Milwaukee Florists Club. Ethnobotany of the Wisconsin Indians; dendrology; periodic growth; timber diseases; fungi of Milwaukee region.
- Smith, Prof. Isabel F.** Smith College, Northampton, Mass. *Geology*. Greeley, Colo. A.B., Bryn Mawr, 15, President's European fellow, 18, A.M., 19, Ph.D., 22. Teacher, The Mary C. Wheeler Sch, R. I., 15-17; Concord Acad, Mass, 22-23; asst. prof. geol, Smith, 25- A.A. Petrography; crystallography.
- Smith, Prof. Isabel S(eymour)**, 145 Woodland Ave, Oberlin, Ohio. *Botany*. Hillsdale, Mich, Oct. 22, 64. A.B., Oberlin, 01; Woods Hole, 03, 10; M.S., Chicago, 05, Ph.D., 22. Teacher, high sch, Ohio, 91-95; asst. bot., Oberlin, 97-02; instr. biol., Ill. Col., 03-05, asst. prof., 05-09, prof., 09-27, dean women, *retired*. A.A.; Ill. Acad. (v. pres, 19). Nutrition of the egg in *Zamia*; native trees of Morgan County, Illinois; anatomy of *Nelumbo lutea*.
- Smith, Prof. J. Frank**, University of Southern California, Los Angeles, Calif. *Chemistry*. Glouster, Ohio, April 18, 86. A.B., Ohio Northern, 09; grad, Mich. West. State Nor. Sch., 12; A.B., Michigan, 15; A.M., Iowa, 20. Supt, pub. schools, Mich, 12-13; prof. chem. and dean, John Fletcher Col; asst. chem, Iowa, 17-18; supt, pub. schools, Iowa, 18-20; asst. prof. chem, *Southern California*, 20- Chem. Soc.
- Smith, J(ames) Brookes**, Shenandoah Life Insurance Co, Roanoke, Va. *Mathematics*. Lexington, Ky, March 11, 85. A.B., A.M., Virginia, 06, fellow, 09-10. Adjunct prof. math, Ga. Tech, 06-07; head dept. math, high sch, Va, 07-09; asst. prof, Hampden-Sidney, 10-11, prof, 11-18; asst. actuary, Jefferson Standard Life Ins. Co, 19-22; *actuary*, Shenandoah Life Ins. Co, 23- Lieut, Q.M.C., 18-19. Actuarial science.
- Smith, Prof. James H(ollingsworth) C(lemmer)**, Pomona College, Claremont, Calif. *Chemistry*. Forest, Ohio, Dec. 3, 95. A.B., Monmouth, 17; M.S., Chicago, 20, Ph.D., 21. Junior chemist, U. S. Pub. Health Service, 19-21; asst. prof. and *assoc. prof. chem.*, Colo. Col., 21-25; *Pomona*, 25- Research chemist, coastal lab, Carnegie Institution. C.W.S., U.S.A. Chem. Soc. Arsenical drugs; atmospheric oxidation; seasonal and altitudinal changes in plant saps.
- Smith, Prof. Ja(me)s Perrin**, Stanford University, Calif. **Paleontology*. Cokesburg, S. C., Nov. 27, 64. A.B., Wofford, 84, LL.D., 16; A.M., Vanderbilt, 86; Ph.D., Göttingen, 92. Teacher, high sch, Tenn, 86-88; asst. chemist and geologist, Ark. Geol. Surv., 88-90; *prof. paleont.* and miner, *Stanford*, 92-05, *paleont.*, 05- Asst. geologist, U. S. Geol. Surv., 95-06, geologist, 06-24. Geol. Gesell. Stratigraphy; Triassic paleontology; Tertiary stratigraphy, conchology and climatology; morphology of marine invertebrates; upper Triassic marine faunas; stratigraphy of California.
- Smith, Capt. John Donnell**, 505 Park Ave, Baltimore, Md. *Botany*. Baltimore, June 5, 29. A.B., Yale, 47; admitted to bar, Baltimore, 51. Capt. artil, C.S.A., 64-65; *assoc. bot.*, Smithsonian Inst. Trustee, Peabody Inst, Baltimore, 88-09; Macdonough Farm Sch. Am. Acad; cor. Phila. Acad; fel. London Linnean Soc. Botany of Central America.
- Smith, Prof. John E(arl)**, 1039 Park Ave, Franklin, Ind. *Physics*. Lawrenceburg, Ind, Nov. 19, 83. A.B., Indiana, 12, Ph.D., 24; A.M., Wisconsin, 15. Instr. *physics*, Kansas Col., 15-18, asst. prof., 18-19; *prof.*, *Franklin*, 19- A.A.; Physical Soc. Instantaneous photography of explosions.
- Smith, Prof. John E(liphalet)**, Iowa State College, Ames, Iowa. *Geology, Geography*. Polk Co, Oregon, Jan, 78. B.S., Oregon Col., 02; Chicago, 08, 09, 10; M.S., Iowa Col., 11; fellow, Missouri, 11-12. Teacher, high sch, Oregon, 05-08; instr. *geol.*, North Carolina, 12-17; *asst. prof.*, Iowa Col., 17- Field asst, Iowa Geol. Surv., 11; geologist, N. C. Geol. Surv., 13-17. A.A.; N. C. Council Geog. Teachers (sec'y, 15-17); Iowa Acad. Agricultural geology; fertilizer materials; glacial deposits; transportation.
- Smith, Prof. J(ohn) Hammond**, University of Pittsburgh, Pittsburgh, Pa. *Civil engineering*. Wellsville, Ohio, Oct. 14, 67. E.E., Pittsburgh, 98. *Prof. math. and drawing*, *Pittsburgh*, 98-09, *civil eng.*, 09- Cor. ed, 'Sci. Am.' A.A.; Civil Eng; Eng. Educ; Soc. Test. Mat; West. Pa. Eng. Soc; Pittsburgh Acad. Sculpturing by means of photography; improvements in surveying instruments; testing of materials.
- Smith, J(ohn) Warren**, 95 Wilson Ave, Columbus, Ohio. *Meteorology*. Grafton, N. H., Sept. 21, 63. B.S., New Hampshire, 88, M.S., 00; Lawrence Sci. Sch, Harvard, 91-92; grad, Ohio State, 02. *U. S. Weather Bur.*, 88-, director, New Eng. sect, 98-09, dist. forecaster, St. Louis, 09-10, director, Ohio sect, 10-16, *chief div. agr. meteor.*, 16- Special lecturer, Ohio State, 98-10, prof., 10-16. Ed, 'Sect. Bul.' A.A.; Meteor. Soc; Ass. Geog; Ecol. Soc; Ohio Acad. (pres, 15); Wash. Acad; Wash. Philos. Soc. Phenology; agricultural physics; geography; agricultural meteorology.
- Smith, Dr. J(onas) Waldo**, 2224 Municipal Building, New York, N. Y. *Civil engineering*. Lincoln, Mass, March 9, 61. B.S., Mass. Inst. Tech, 87; hon. D.Eng, Stevens, 18; hon. Sc.D., Columbia, 18. Chief engineer, E. Jersey Water Co, 00-03; aqueduct commissioners, *New York*, 03-05, board *water supply*, 05-22, *consulting engineer*, 22-; *Providence Water Supply*; *Moffat Tunnel*, Denver Wash. award, West. Soc. Eng., 25. Civil Eng; Mech. Eng; Consulting Eng; Pub. Health Ass; Water Works Ass; New Eng. Water Works Ass; Franklin Inst; Boston Soc. Civil Eng; Inst. Civil Eng. Great Britain. Hydraulics; water supply.
- Smith, Prof. J(oseph) Russell**, Columbia University, New York, N. Y. *Geography*. Lincoln, Va, Feb. 3, 74. B.S., Pennsylvania, 98, Ph.D., 03; Leipzig, 01-02. Instr. science and hist, Abington Friends Sch, Pa, 95-96; hist, George

- Sch, 96-97, 98-99; econ. investigator, Isthmian Canal Commission, 99-01; instr. commerce, Wharton Sch. Finance and Commerce, Pennsylvania, 03-06, asst. prof. geog. and indust, 06-07, indust, 07-08, *prof.*, 09-19; *econ. geog.*, *Columbia*, 19- Special trade expert, bur. research, W.T.B., 18; Nat. Research Council, 19- Ass. Geog. (v. pres, 16); North. Nut-Growers Ass. (pres, 16). Economic, industrial, commercial and human geography; soil conservation; ocean commerce; tree crop agriculture; influence of the great war on shipping; the world's food resources; regional geography of North America; organization of ocean commerce.
- Smith, Dr. Julian F(rancis)**, B. F. Goodrich Co, Akron, Ohio. *Chemistry*. Liscomb, Iowa, Nov. 1, 93. B.S., Illinois, 16; M.S., California, 20; fellow, Chicago, 21-22, Ph.D., 22. Research librarian, Nat. Aniline and Chem. Co, N. Y., 16-19, 20-21; asst. chem, California, 19-20; research information dept, Commercial Solvents Corp, Ind, 22-23; *tech. librarian*, B. F. Goodrich Co, 23- A.A.; Chem. Soc. Bivalent nitrogen; molecular rearrangements.
- Smith, Prof. K(eith) K(uenzi)**, Northwestern University, Evanston, Ill. *Physics*. Spencer-ville, Ind, Oct. 10, 87. A.B., Northwestern, 10; fellow, Princeton, 14-15, Ph.D., 15. Asst. physics, Princeton, 10-11; instr. high sch, Ohio, 11-12; *physics*, Princeton, 12-14; asst. prof, *Northwestern*, 15-21, *assoc. prof.*, 21- Physical Soc. Thermionic currents from tungsten; galvanomagnetic and thermomagnetic effects in bismuth and other metals; specific heats of metals at temperatures of incandescence.
- Smith, Prof. Laurence L(owe)**, University of South Carolina, Columbia, S. C. *Economic geology*. Delaware, N. J, July 30, 96. B.S., Lafayette, 19, M.S., 20; Ph.D., Hopkins, 24. Instr. *geol.*, Lafayette, 19-22; *assoc. prof.*, *South Carolina*, 24- Consulting geologist, Richard K. Meade Co. Magnetite iron ore deposits of French Creek, Pennsylvania.
- Smith, Dr. Lawrence W(eld)**, Harvard Medical School, Boston, Mass. *Pathology*. Newton, Mass, June, 95. A.B., Harvard, 16, M.D., 20. Instr. path, Harvard Med. Sch, 20-22; prof. path. and bacter, Philippines, 22-23; faculty instr. *path.*, *Harvard*, 23-26, *asst. prof.*, 26- Pathologist, Boston Floating Hosp, 20-22, 24-; path, New Eng. Deaconess and Baptist Hospitals, 24-; asst. pathologist, Boston Children's Hosp. Ass. Path. and Bact; Am. Med. Ass; New Eng. Pediat. Soc. Hematology; encephalitis; sprue; pertussis.
- Smith, Prof. Lee (Irvin)**, 815 S. Seventh St, Minneapolis, Minn. *Organic chemistry*. Indianapolis, Ind, July 22, 91. A.B., Ohio State, 13, A.M., 15; A.M., Harvard, 17, Ph.D., 20. Asst. chem, Ohio State, 13-15; Austin teaching fellow, Harvard, 15-17, instr. 17-18, 19; *org. chem.*, *Minnesota*, 20-21, *asst. prof.*, 21- U.S.A., 18-19. A.A.; Chem. Soc; London Chem. Soc; Chem. Gesell; Soc. chim. de France; Swiss Chem. Soc. Reaction mechanisms; quinones; ozonides; methylated benzenes.
- Smith, Dr. Lee T(homas)**, Kenvil, N. J. *Chemistry*. Burlington, Ind, Feb. 20, 96. A.B., Indiana, 18, A.M., 23, Ph.D., 25. Instr. org. chem, Indiana, 22-25; *research staff*, *Hercules Powder Co*, 25- Chem. Soc; Inst. Chem; Ass. Eng; Ind. Acad; N. Y. Chemists Club. Anode corrosion of sponge lead in alkaline bath; reduction of nitro compounds; side chain oxidations; fractionation, oxidation, polymerization and dipolymerization of the terpenes; the production of pure absolute alcohol with calcium carbide and anhydrous copper sulphate.
- Smith, Dr. Leighton B(ruerton)**, 143 Colon St, Beverly, Mass. *Physical chemistry*. Newton, Mass, Sept. 12, 96. B.S., Mass. Inst. Tech, 18; du Pont fellow, 18-19, M.S., 19, Swett fellow, 19-20, Savage fellow, 20-21, Ph.D., 23. Research asst. *chem.*, *Mass. Inst. Tech.*, 21-23, *research assoc.*, 23- Chem. Soc. Equation of state for gases; thermodynamic properties of gases and liquids; vapor pressures of liquids; properties of steam.
- Smith, Prof. Lemuel F(ish)**, 1614 Grove St, Kalamazoo, Mich. *Chemistry*. Ky, Feb. 9, 73. A.B., William Jewell, 97; M.S., Chicago, 11. Teacher, high sch, Mo, 97-02; acad, Ind, 02-08; Mo. State Nor. Sch, Maryville, 08-10; *prof. chem.*, *Kalamazoo Col.*, 11- Chem. Soc.
- Smith, Prof. Leonard S(ewall)**, 34 Virginia Terrace, Madison, Wis. *Civil engineering*. East Troy, Wis, Feb. 14, 64. B.C.E., Wisconsin, 90, C.E., 95. Instr. civil eng, *Wisconsin*, 94-96, asst. prof. topog. and geod. eng, 97-05, *prof.*, 05-20, *city planning*, 20- Temporary aid, U. S. Coast and Geod. Surv, 96-00; topographer, U. S. and Mexico Int. Boundary Surv, 92-94; hydrographer in charge, Wis. Nat. Hist. and Geol. Surv, 97-05; engineer, State Levee Commission, 01-05; U. S. Geol. Surv, 06-09; city planning engineer, Appleton, Waukesha and Oshkosh, Wis, 22-26. Civil Eng; Inst. City Planning; Wis. Eng. Soc. (sec'y, 16-26); Int. Inst. Town Planning. Accuracy of stadia measurements; water powers of Wisconsin; theory and practise of surveying; reconstruction of Tokyo.
- Smith, Dr. L(ivingston) W(addell)**, Lexington, Va. *Mathematics*. Lexington, May 30, 76. A.B., Washington and Lee, 96, A.M., 98, Ph.D., 02; Hopkins, 03. Instr. chem, Mass. Inst. Tech, 04-06; *prof. math.*, *Washington and Lee*, 06- A.A.; Math. Ass.
- Smith, L(oren) B(artlett)**, Japanese Beetle Laboratory, Bureau of Entomology, Moorestown, N. J. *Entomology*. Truro, N. S. Can, March 24, 90. B.S., Cornell, 14. Asst, N. S. Agr. Col, 09-10; Cornell, 14; asst. state entomologist, Va, 14-18, *assoc. state entomologist*, 18; entomologist, Va. Truck Exp. Sta, 16-21; *bur. entom.*, *U. S. Dept. Agr.*, 21-23, *in charge prevention spread of Japanese beetle*, 23- A.A.; Entom. Soc; Ass. Econ. Entom; Soc. Hort. Sci; N. Y. Entom. Soc; Wash. Entom. Soc. Truck crop insects; insect carriers of plant diseases; Aphididae; Scarabaeidae; plant quarantine.
- Smith, Dr. Louie H(enrie)**, University of Illinois, Urbana, Ill. *Agronomy*. Crystal Lake,

- Ill, 72. B.S., Illinois, 97, M.S., 99; Ph.D., Halle, 07. Asst. chemist, *Ill. Exp. Sta.*, 99-03, chief asst. chem. and plant breeding, 03-05, asst. chief and asst. prof. plant breeding, *Illinois*, 05-11, chief and prof., 11-20, *chief in charge publications, soil surv.*, 20-, acting head dept. agron., 13-14, 18-19. A.A.; Soc. Nat; Soc. Agron. (treas., 10, asst. ed., 'Jour.', 13-23); Chem. Soc; Ill. Acad. Corn breeding; improvement of farm crops in chemical composition and in productiveness; transmission of plant characters by heredity; soils.
- Smith, Dr. Margaret K(eiver)**, 1436 S. Washington Ave, Saginaw, Mich. *Psychology*. Amherst, N. S., Can., 56. Stoy's Sch. and Jena, 85-87, Göttingen, 96-97; Ph.D., Zurich, 00; hon. fellow, Clark, 00-01. Teacher, Oswego, N. Y., 87-96; director psychol. and geog., N. Y. State Nor. Sch., New Paltz, 01-09; supervisor educ. of a family, 09-18; dept. languages, N. Y. State Nor. Sch., New Paltz, 18. Psychol. Ass. Psychology of rhythm and work; physical condition of normal school students as indicated by reaction-time, skin sensitivity and acuteness of sight and touch; retarded development in a child; psychological value of Latin as a subject of instruction.
- Smith, M(arion) R(ussell)**, Mississippi State Plant Board, Agricultural College, Miss. *Entomology*. Pendleton, S. C., June 19, 94. B.S., Clemson, 15; M.S., Ohio State, 17; Ph.D., Illinois, 27. Asst. entom., Clemson, 16; sci. asst., bur. entom., U. S. Dept. Agr., 17-18; asst. entom., Clemson, 18-19; exten. entomologist, N. C., 19-20; field entomologist, bur. entom., U. S. Dept. Agr., 20-24; asst. entom., Illinois, 24-26; *Miss. State Plant Board*, 26- Entom. Soc; Ass. Econ. Entom; N. C. Acad. Formicidae; insecticides; taxonomy, biology, distribution and control of North American ants.
- Smith, Dr. Maurice I(sadore)**, Hygienic Laboratory, Washington, D. C. *Pharmacology*. B.S., Col. City of N. Y., 09; M.D., Cornell, 13. Instr. pharmacol., Michigan, 14-17; prof., Nebraska, 17-20; pharmacologist, U. S. Pub. Health Service, 20-26; director glandular and pharmaceut. dept., Lederle Antitoxin Laboratories, 26-27; *senior pharmacologist, U. S. Pub. Health Service*, 27- A.A.; Soc. Pharmacol; Am. Med. Ass; Physical Soc. Synergism of morphin and scopolamin; optochin; stovain; anaphylactic fever; nicotin tolerance; elimination of strychnin; anaphylaxis; bio-assay.
- Smith, Pres. Merlin G(rant)**, Spring Arbor, Mich. *Mathematics*. Delta, Ohio, Aug. 26, 94. A.B., Greenville, 15; A.M., Illinois, 16, Ph.D., 18. Instr. math., Northwestern, 18-19; prof. and head dept., Greenville, 19-26; *pres, Spring Arbor Sem. and Junior Col.*, 26- Math. Soc; Math. Ass. Differential equations; boundary problems in one dimension.
- Smith, Prof. N(ewland) F(arnsworth)**, The Citadel, Charleston, S. C. *Physics*. Downer's Grove, Ill., Jan. 28, 70. Ph.B., Northwestern, 92; Ph.D., Chicago, 09. Acting prof. *physics*, Grinnell, 00-01; prof., Olivet, 01-09; Centre, 09-19; *head dept., The Citadel*, 19- Summers, teacher, Chicago. A.A.; Physical Soc. Effect of tension and torsion on electrical conductivity; effect of magnetic fields on thermal conductivity.
- Smith, Prof. Orrin H(arold)**, De Pauw University, Greencastle, Ind. *Physics*. Iveyville, Iowa, Sept. 1, 84. A.B., Knox, 08; A.M., Illinois, 09, Ph.D., 14. Instr. *physics*, high sch., Ill., 09-10; asst., Illinois, 10-14; *prof.*, Cornell (Iowa), 14-25; *De Pauw*, 25- Visiting prof., Southeast. Univ., Nanking, China, China Med. Board and Rockefeller Foundation, 22-23. A.A.; Physical Soc; Iowa Acad. (v. pres, 23, pres, 24); Iowa Ass. Sci. Teachers (pres, 23-25). Retrograde rays from the cold cathode.
- Smith, Dr. Otto M(itchell)**, Oklahoma Agricultural and Mechanical College, Stillwater, Okla. *Chemistry, Chemical engineering*. Yates Center, Kans., May 12, 84. B.S., Drury, 07; Pennsylvania, 08-10; M.S., Illinois, 18, Ph.D., 19. Chemist, Eng. Exp. Sta., Iowa, 10-13; Am. Water Works and Elec. Co., N. Y., 13-16; Ill. Water Surv., 17-19; supervising and research chemist, Procter and Gamble Co., Ohio, 19-21; supt. and chief chemist, Rossville Chem. Co., Ind., 21-22; asst. prof. chem., Iowa Col., 22-23; *prof. chem. and chem. eng. and head departments, Okla. Agr. and Mech. Col.*, 23- Chem. Soc; Chem. Eng; Okla. Acad. Water purification; negative catalysis in the oxidation of oils.
- Smith, Prof. Percy F(ranklyn)**, Yale University, New Haven, Conn. **Mathematics*. Nyack, N. Y., Aug. 21, 67. Ph.B., Yale, 88, Ph.D., 91; Göttingen, Berlin and Paris, 94-96. Instr. *math.*, *Sheffield Sci. Sch.*, Yale, 88-94, asst. prof., 95-00, *prof.*, 00- A.A.; Math. Soc. (v. pres, 07); Conn. Acad. Analytic spherical geometry; transformation theory; differential geometry.
- Smith, Prof. Philip E(dward)**, College of Physicians and Surgeons, New York, N. Y. **Anatomy*. DeSmet, S. Dak., Jan. 1, 84. B.S., Cornell, 08, M.S., 10, Ph.D., 12. Asst. *anat.*, Cornell, 10-11, instr., 11-12; California, 12-17, asst. prof., 17-21, assoc. prof., 21-26; Stanford, 26-27; *prof. col. physicians and surg.*, *Columbia*, 27- A.A.; Ass. Anat; Physiol. Soc; Soc. Exp. Biol. Neurology; endocrinology.
- Smith, Dr. Philip S(idney)**, U. S. Geological Survey, Washington, D. C. *Geology*. Medford, Mass., July 28, 77. A.B., Harvard, 99. A.M., 00, Ph.D., 04. Asst., Harvard, 02-04, instr., 04-06; geologist, *U. S. Geol. Surv.*, 06-25, *chief Alaskan geologist*, 25- A.A.; Geol. Soc; Ass. Geog; Soc. Econ. Geol; Min. Eng; Soc. Mil. Eng; Wash. Acad; Wash. Geol. Soc. Areal and economic geology; physiography.
- Smith, Prof. Ralph E(liot)**, University of California, Berkeley, Calif. *Plant pathology*. Boston, Mass., Jan. 9, 74. B.S., Mass. Col., 94; Munich, 98. Instr. bot., Mass. Col., 94-95, asst. prof., 95-03; *plant path.*, *California*, 03-08, assoc. prof., 08-09, *prof.*, 09- Phytopath. Soc. Vegetable pathology.
- Smith, Dr. Ralph H(enry)**, Citrus Experiment Station, Riverside, Calif. *Entomology*. Kincaid, Kans., June 7, 88. A.B., Kansas, 16; fellow, Oregon Col., 16-17; A.M., California, 18, Ph.D., 25. Teaching fellow zool., California, 17-18; assoc. entomologist, Idaho Exp. Sta., 18-22; research entomologist, Calif. Cent.

- Creameries, 22-24; *research asst, California, 25-*, *assoc. entomologist, Exp. Sta, 27-* Acting asst. prof, Stanford, 25-26. A.A.; Entom. Soc.; Ass. Econ. Entom.; Pacific Coast Entom. Soc.; Ass. Northwest. Hort. Entom. and Plant Path. Sprays; spraying fruit insects.
- Smith, Dr. R(aymond) S(tratton)**, University of Illinois, Urbana, Ill. *Agronomy*. Andover, Ohio, April 9, 80. B.S, Pomona, 07; Illinois, 13; Ph.D, Cornell, 18. Instr, Pa. State, 13-14, asst. prof, 14-16; *assoc. soil physics, Illinois, 18-20*, *asst. prof, 20-23*, *assoc. prof, 23-25*, *prof, 25-* A.A.; Soc. Agron.; Ass. Soil Surv.; Ill. Acad. Soil technology.
- Smith, R(ichard) A**, 423 N. Pine St, Lansing, Mich. *Geology*. DeWitt, Mich, Nov. 12, 76. Grad, Mich. State Nor. Col, 99-03; A.B, A.M, Michigan, 11. Supt, schools, Mich, 03-07; *asst. state geologist, 11-19*, *state geologist and head, Mich. Geol. Surv, 19-* Mich. State Board Land Certification, 23- Geol. Soc.; Ass. Petrol. Geol.; Min. and Metal. Eng. Petroleum; limestone; gypsum; Portland cement; coal.
- Smith, Prof. R(obert) Wilson**, McMaster University, Toronto, Ont, Can. *Botany*. Ont, Oct. 30, 60. B.A, McMaster, 95; fellow, Chicago, 96-99, Ph.D, 99. Master science, Woodstock (Can), 91-96; lecturer *biol, McMaster, 99-00*, *prof, 00-* Bot. Soc.; Bot. Cent. States; Int. Ass. Bot. Morphology of the sporangia of Isoetes; cytology of various sporangia.
- Smith, Dr. Roger C(letus)**, Kansas State Agricultural College, Manhattan, Kans. *Entomology*. Dayton, Ohio, June 7, 88. A.B, Miami, 11; A.M, Ohio State, 15; Ph.D, Cornell, 17. Prin, high sch, Ohio, 12-14; *asst. entom, Cornell, 15-17*; *assoc. lecturer nat. hist, pub. museum, Milwaukee, 17-18*; *sci. asst, bur. entom, U. S. Dept. Agr, 18-20*; *asst. prof. entom, Kansas Col, 20-22*, *assoc. prof, 22-26*, *prof, 26-* Walker prize, 19. A.A.; Entom. Soc.; Ass. Econ. Entom.; Kans. Acad. Neuropteroids; household and mill insects; alfalfa insects; climate and insect life.
- Smith, Prof. R(oy) B(urnett)**, Colgate University, Hamilton, N. Y. *Chemistry*. Jackson, Mich, March 25, 75. Heidelberg, 95-96; B.S, Michigan, 99; M.S, Colgate, 03; Göttingen, 12-13. Instr, high sch, Mich, 94-95, 96-99; *instr. chem, Colgate, 03-06*, *asst. prof, 06-09*, *assoc. prof, 09-20*, *prof, 20-* A.A.; Chem. Soc.; London Soc. Chem. Indust.
- Smith, Dr. R(uby) G(reen Bell)**, 13 East Ave, Ithaca, N. Y. *Biology, Sociology*. Knightstown, Ind, Jan. 6, 78. A.B, Stanford, 02, A.M, 04; Ph.D, Cornell, 14. Asst. entom, Stanford, 02-03; teacher, high sch, Calif, 04; *instr. entom. and bionomics, Stanford, 04-05*; urban leader, U. S. Dept. Agr, 17-18; *asst. director bur. conservation, N. Y. State Food Commission, 18-19*; *state leader, N. Y. State Exten. Service, Cornell, 19-* Summers, lecturer, Chautauqua Inst, 13, 14. A.A.; Entom. Soc. Theories of evolution; adult education in extension teaching.
- Smith, Prof. Sarah E(mie)**, Mt. Holyoke College, South Hadley, Mass. *Mathematics*. Salmon Falls, N. H, Nov. 15, 63. B.S, Mt. Holyoke, 89; Mass. Inst. Tech; Michigan; Chicago; Berlin. Instr. *math, Mt. Holyoke, 86-90*, *prof, 90-* Math. Soc.; New Eng. Ass. Math.
- Smith, Dr. Sinclair**, Mt. Wilson Observatory, Pasadena, Calif. *Physics*. Chicago, Ill, March 20, 99. B.S, Calif. Inst, 21, Ph.D, 24. *Asst. physicist, Mt. Wilson Observatory, 23-* Fellow commoner, Cambridge, 24-25. A.A.; Physical Soc.; Seismol. Soc. Electrically exploded wires.
- Smith, Prof. Stevenson**, University of Washington, Seattle, Wash. *Psychology*. Philadelphia, Pa, April 29, 83. B.S, Pennsylvania, 04, Ph.D, 09; Heidelberg, 04; Columbia, 04-05. Asst. psychol, Columbia, 05-06; *prof. philos. and psychol, Hampden-Sidney, 06-11*; *asst. prof. psychol, Washington (Seattle), 11-13*, *assoc. prof, 13-15*, *prof, 15-* Summers, instr, Columbia, 11-14; research prof, Hawaii, 23-24. Psychol. Ass. Animal behavior; mental tests; race differences.
- Smith, Sybil L(aura)**, Office of Experiment Stations, U. S. Department of Agriculture, Washington, D. C. *Chemistry*. Gardner, Mass, July 5, 82. A.B, Smith, 04; A.M, Columbia, 11. Teacher, sch, Mass, 04-12; *prof. chem, Milwaukee-Downer, 12-18*; *specialist biol. and food chem, U. S. Dept. Agr, 18-26*, *asst. exp. sta. administration, dept. home econ, 26-* Summers, instr, Columbia, 17, 19-25. A.A.; Chem. Soc.; Home Econ. Ass. (advisory board, jour, 24-). Human nutrition; vitamins.
- Smith, Dr. Theobald**, Rockefeller Institute, Princeton, N. J. **Comparative pathology*. Albany, N. Y, July 31, 59. Ph.B, Cornell, 81; M.D, Albany Med. Col, Union, 83; hon. A.M, Harvard, 01, LL.D, 10; Chicago, 08; hon. M.D, Breslau, 11; LL.D, Washington (St. Louis), 16; Princeton, 16; Yale, 17; hon. Dr, Royal Hungarian Vet. Acad, 24. In charge investigation of infectious animal diseases, bur. animal indust, U. S. Dept. Agr, 84-95; *prof. bacter, George Washington, 86-95*; comp. path, Harvard, 96-15; *director dept. animal path, Rockefeller Inst, 15-* In charge antitoxin and vaccine lab, Mass. State Board Health, 95-14; *director, Rockefeller Inst, 01-*; Harvard exchange prof, Berlin, 11. Mary Kingsley medal, Liverpool Sch. Trop. Med, 07; Flattery medal, Harvard, 20; Kober medal, 26; Wm. Wood Gerhard medal, 27. Nat. Acad; A.A.; Soc. Nat; Soc. Exp. Path; Ass. Path. and Bact; Am. Physicians; Soc. Bact; Soc. Exp. Biol; Soc. Pharmacol; Philos. Soc; Am. Acad; hon. fel. London Soc. Trop. Med. and Hygiene; Edinburgh Medico-Chirurg. Soc; hon. mem. Soc. de Path. exot; hon. mem. Royal Danish Acad; Swedish Med. Soc; Reale Inst. Lombardo. The comparative etiology, pathology and immunology of infectious and parasitic diseases.
- Smith, Prof. T(heodore) Townsend**, University of Nebraska, Lincoln, Nebr. *Physics*. Charleston, S. C, Nov. 9, 84. A.B, Harvard, 07, A.M, 08, Ph.D, 16. Instr. physics, Kansas, 10-13, *asst. prof, 13-19*; *prof. exp. physics, Nebraska, 19-* Physical Soc; Optical Soc. Magnetization in hematite; optical instruments.

- Smith, Prof. T(homas) Berry**, Central College, Fayette, Mo. *Chemistry, Physics*. Pike Co, Mo, Dec. 7, 50. A.B, Pritchett, 73, A.M, 79; Sheffield Sci. Sch, Yale, 75-76; Chicago, 08; LL.D, Central Wesleyan (Mo), 14. Instr. sciences, Pritchett, 73-75; prof. chem. and geol., N. Mo. State Nor. Sch, 77-78; chem. and physics, Carleton Col. (Minn), 79-80; nat. science, Pritchett, 82-86; chem. and physics, *Central (Mo)*, 86-15, *chem*, 15-26, *emer. prof*, 26- Acting pres, Central (Mo), 01-03; voluntary observer, U. S. Weather Service, 83-19; sec'y-treas, Mo. Col. Union, 07-25; Mo. Library Commission, 16-19.
- Smith, Prof. T(homas) M(arshall)**, New York University, New York, N. Y. *Chemistry*. Cynthiana, Ky, Oct. 4, 83. B.S, Kentucky, 04, M.S, 05; Chicago, 15; Ph.D, N. Y. Univ, 21. Teacher chem, Vincennes, 05-10; chem. and physics, King Col, 10-14; *prof. anal. chem*, N. Y. Univ, 16-, *asst. director*, *Havemeyer Chem. Lab*, 21- Chem. Soc. Analytical chemistry; separations of nickel and cobalt; the preparation and use of hydrated oxalic acid as a standard in oxidimetry.
- Smith, T(odd) O(rin)**, New Hampshire Experiment Station, Durham, N. H. *Chemistry*. Carrollton, Ohio, Oct. 27, 85. A.B, Indiana, 10; M.S, New Hampshire, 16. Asst. chemist, *N. H. Exp. Sta*, 10-17, *assoc. chemist*, 17- A.A; Chem. Soc. Quantitative rare earth separations; distribution of food materials in the apple tree at different periods of vegetation; potassium requirements of plants; adhesiveness of spray materials.
- Smith, Prof. W(arren) D(u Pré)**, University of Oregon, Eugene, Oregon. *Geology, Geography*. Leipzig, Germany, May 12, 80. B.S, Wisconsin, 02, Ph.D, 08; A.M, Stanford, 04; fellow, Chicago, 04-05. Field asst, Wis. Geol. Surv, 01-03; asst. geol. lab, Stanford, 04; geologist, Mining Bur, Manila, 05-06, chief div. mines, Bur. Science, P. I, 07-14; *prof. geol. and head dept*, Oregon, 14- U. S. delegate from P. I, Int. Geol. Cong, Toronto, 13. A.A; Geol. Soc. (councilor, Cordilleran sect, 18, pres, 25); Am. Geog. Soc; Ass. Mus. (v. pres, Pacific sect, 19); Philippine Eng. Soc. (pres, 13). Geology and geography of the Philippines, Oregon and the Pacific.
- Smith, Prof. W(arren) R(ufus)**, Lewis Institute, Chicago, Ill. *Chemistry*. Litchfield, Maine, July 10, 69. A.B, Bowdoin, 90; Ph.D, Chicago, 94. Asst. *chem*, Bowdoin, 94-95; instr, high sch, Mass, 95-96; *Lewis Inst*, Chicago, 96-01, asst. prof, 01-05, *prof*, 05- A.A; Chem. Soc; Soc. Chem. Indust. General inorganic chemistry.
- Smith, Dr. Warren S(locum)**, General Chemical Co, 40 Rector St, New York, N. Y. *Geology*. Seattle, Wash, July 11, 91. B.S, Washington, 12; A.M, Columbia, 13, Ph.D, 15. *Geologist*, *Gen. Chem. Co*, 16- Min. Eng; N. Y. Acad. Economic sources of various minerals.
- Smith, Prof. Wilbur C(leveland)**, Tulane University, New Orleans, La. *Anatomy*. Independence, Kans, Aug. 9, 84. M.D, Kansas City Med. Col, 08. Instr. anat, Univ. and Bellevue Hosp. Med. Col, 11-13; prof, Wake Forest, 13-16; asst. prof, *Tulane*, 16-18, *prof. gross anat*, 18- Conus arteriosus in teleosts; left vena cava superior in man; the levator ani muscle.
- Smith, W(illiam) Allen**, 81 Main St, Concord, Mass. *Metallurgy*. Trenton, N. J, Oct. 6, 75. E.M, Columbia, 98. Asst. supt, Am. Smelting and Ref. Co; manager, United Zinc and Chem. Co; metallurgist, Balbach Smelting and Ref. Co; *manager smelting dept*, *St. Joseph Lead Co*. Min. Eng; Min. and Metal. Soc. Metallurgy of lead, tin, copper and zinc.
- Smith, Prof. W(illiam) B(enjamin)**, Tulane University, New Orleans, La. **Mathematics*. Stanford, Ky, Oct. 26, 50. A.B, Transylvania, 70, A.M, 71, LL.D, 04; Ph.D, Göttingen, 79; LL.D, Kentucky, 09. Prof. math, Central (Mo), 81-85; physics, Missouri, 85-88, math, 88-93; *Tulane*, 93-06, *philos*, 07-15, *emer. prof*, 15- U. S. delegate, First Pan-Am. Sci. Cong. A.A; Soc. astron. de France; Kant-Gesell; Circolo Mat. di Palermo. New Testament criticism; Christian origins; dreams and the nature of reality.
- Smith, Prof. W(illiam) M(ackey)**, Lafayette College, Easton, Pa. *Mathematics*. Oxford, Pa, May 18, 81. Ph.B, Lafayette, 03; fellow, Columbia, 10-11, Ph.D, 11; Cambridge, 24-25. Instr. *math*, Lafayette, 05-09, 11-12; asst. prof, Oregon, 12-13, prof, 13-15; *assoc. prof*, *Lafayette*, 15-25, *prof*, 25-, *registrar*, 15- Summers, instr, Columbia, 11-13. A.A; Math. Soc; Math. Ass. Geometrical aspects of differential equations.
- Smith, Dr. W(illiam) S(idney) Tangier**, 640 Tennyson Ave, Palo Alto, Calif. *Geology*. Stockton, Calif, April 2, 69. B.L, California, 90, fellow, 95-97, Ph.D, 96; Hopkins, 90-91. Prof. math. and nat. science, Occidental, 94-95; math, Calif. State Nor. Sch, Chico, 97-98; asst. miner, California, 99-00; asst. geologist, U. S. Geol. Surv, 00-07; *assoc. prof. geol. and miner*, Nevada, 06, *prof*, 07-13; *consulting geologist*, 12- Asst. California, 98; lecturer, Bryn Mawr, 22-23; field asst, U. S. Geol. Surv, 96, 97, 98. A.A; Geol. Soc. (councilor, 13). Petroleum geology; physiography; metasomatism; ore deposits; petrology; graphic methods in geology.
- Smith, Prof. W(illiam) W(esley)**, Purdue University, Lafayette, Ind. *Animal husbandry*. Nevada, Iowa, Dec. 13, 78. B.S, Iowa Col, 03, M.S, 06, M.Agr, 20. Asst. and instr. *animal husbandry*, Iowa Col, 04-05; instr, *Purdue*, 05-07, asst. prof, *assoc. prof. and prof*, 07- Soc. Animal Production; Genetic Ass. (advisory council). Animal nutrition and breeding; pork production; live-stock judging.
- Smith, Dr. Winford H(enry)**, Johns Hopkins Hospital, Baltimore, Md. *Medicine*. Westbrook, Maine, July 11, 77. A.B, Bowdoin, 99, Sc.D, 18; M.D, Hopkins, 03. Res. gynecologist, Lakeside Hosp, Cleveland, 03-05; hosp. physician, N. Y. State Dept. Health, 05-06; med. supt, Hartford Hosp, 06-09; gen. med. supt, Bellevue and allied hospitals, 09-11; *director*, *Hopkins Hosp*, 11- Consultant hosp. planning, California; China Med. Board; Chicago; Van-

- derbilt; Rochester; Yale; Duke. Assoc. ed, 'Modern Hosp. Jour.' Am. Med. Ass. (chairman, hosp. sect, 14); Am. Hosp. Ass. (pres, 16); Md. Med. and Chirurg. Faculty. Hospital construction and administration.
- Smither, Frederick W.** U. S. Bureau of Standards, Washington, D. C. *Chemistry*. Hampton, Va, Aug. 11, 76. B.S., Va. Polytech, 95; Virginia, 95-97. Chemist with Dr. H. Froehling, 97-98; druggist, 99; *chemist*, Lucius P. Brown Co, 99-07; U. S. Dept. Agr, 07-14; *Bur. Standards*, 14- Chem. Soc; Soc. Test. Mat; Wash. Chem. Soc. (pres, 26); Wash. Acad. Detergents; cements; lime; corrosion; miscellaneous products.
- Smithies, Prof. Frank**, 920 N. Michigan Ave, Chicago, Ill. *Medicine*. Elland, Eng. M.D., Michigan, 04, Sc.D, 25. Asst. med, Rush Med. Col, 04-06; instr. int. med. and demonstrator clin. med, Michigan, 06-09; gastro-enterologist, Mayo Clinic, 10-13; Augustana Hosp, 14-23; assoc. prof. *med*, Illinois, 16-23, *prof*, 23- Visiting physician, Henrotin Hosp, Chicago, 21-; physician-in-chief and chief dept. med, St. Elizabeth Hosp, 23-; chief service div, digestive disorders, Munic. Tuber. Infirmary; lecturer, Alabama, 16; Pittsburgh, 24; Portland, 25. Fel. Col. Physicians (pres, 27); Am. Med. Ass; Soc. Trop. Med; Therapeut. Soc; Gastro-Enterol. Ass; Chicago Path. Soc. Cancer and ulcer of the stomach; diseases of the liver and bile passages; anemias.
- Smoley, C(onstantine) K(enneth)**, 711 Monroe Ave, Scranton, Pa. *Engineering*. Dwinsk, Russia, April 27, 69. C.E., Fed. Polytech, Switzerland, 95. Structural draftsman, Variety Iron Works, Ohio, 95-96; chief draftsman, Van Dorn Iron Works, 96-02; structural engineer, Wellman, Seaver and Morgan Eng. Co, Ohio, 02-04; construction engineer, German-Am. Portland Cement Works, Ill, 04-05; structural engineer, Ill. Steel Co, 05-06; North. Pacific Ry. Co, Minn, 07-09; *director schools civil and structural eng, and in charge instruction and preparation textbooks, Int. Correspondence Schools*, 09- Pres, C. K. Smoley and Sons, Publishers. Civil Eng; Concrete Inst. Parallel tables of slopes and rises; logarithms and squares; logarithms of the English system of linear measure.
- Smulyan, Dr. M(arcus) T(homas)**, Gipsy Moth Laboratory, Melrose Highlands, Mass. *Entomology*. Lithuania, May 1, 87. B.S., Mass. Col, 09, Ph.D, 14. *Asst. entomologist*, Va. State Crop Pest Commission, 14-17; *gipsy moth lab, bur. entom, U. S. Dept. Agr*, 17- A.A; Entom. Soc; Ass. Econ. Entom; Cambridge Entom. Club. New England Tenthredelle; *Phytomyza chrysanthemi* Kowarz attacking Compositae; Aphidae attacking the apple; barrier factors in gipsy moth tree-banding material; insect parasitism.
- Smyth, Prof. O(haries) H(enry), Jr.**, Princeton University, Princeton, N. J. *Geology, Mineralogy*. Oswego, N. Y, March 31, 66. Ph.B., Columbia, 88, Ph.D, 90; Heidelberg, 90-91. *Prof. geol. and miner*, Hamilton, 91-05; *geol*, Princeton, 05- A.A. (sec'y, E, 97); Geol. Soc; Philos. Soc; N. Y. Acad; Wash. Acad. Precambrian and chemical geology and petrology.
- Smyth, Prof. Charles P(helps)**, Princeton University, Princeton, N. J. *Physical chemistry*. Clinton, N. Y, Feb. 10, 95. A.B., Princeton, 16, A.M, 17; Ph.D, Harvard, 21. Asst. chemist, Bur. Standards, 17; *instr. chem, Princeton*, 20-23, *asst. prof*, 23- Co-operating expert, Int. Critical Tables, 24- Delegate, Int. Union Pure and Applied Chem. Second lieut. O.R.C., and lieut. C.W.S, 18. A.A; Chem. Soc. Properties of amalgams; dielectric constants; refractive indices; molecular structure.
- Smyth, Prof. Ellison A(dger), Jr.**, Salem, Va. *Biology*. Summerton, S. C, Oct. 26, 63. A.B., Princeton, 84, A.M, 87; law sch, Columbia, 84-85; Virginia, 87; LL.D, Alabama, 06. Adjunct prof. biol, South Carolina, 89-91; prof, Va. Polytech, 91-25, *retired*, 25, dean faculty, 03-06. A.A; Entom. Soc; assoc. Ornith. Union. Life histories of Lepidoptera; spermatogenesis in insects; flora of Virginia.
- Smyth, Dr. F(rederic) Hastings**, Via Maria Cristina 5, Rome, Italy. *Physical chemistry*. Clinton, N. Y, Sept. 28, 88. A.B., Hamilton, 09, A.M, 10; Berlin, 09-10; M.S., Mass. Inst. Tech, 14, Ph.D, 15. Instr. chem, Mass. Inst. Tech, 15-17; physical chemist, geophys. lab, Carnegie Institution, 19-25. Capt. C.W.S, 18. Chem. Soc; Wash. Philos. Soc. Electrolysis of metallic ammonia solutions; dissociation of copper oxide.
- Smyth, Prof. H(enry) D(eWolf)**, Princeton University, Princeton, N. J. **Physics*. Clinton, N. Y, May 1, 98. A.B., Princeton, 18, A.M, 20, Ph.D, 21; Ph.D, Cambridge, 23. Nat. Research Council fellow *physics*, Cambridge and Princeton, 21-24; *instr, Princeton*, 24-25, *asst. prof*, 25- Fel. Physical Soc. Ionization of gases; positive ray analysis.
- Smyth, Prof. Henry Lloyd**, Harvard University, Cambridge, Mass. **Geology*. Near St. Mary's, Ont, Can, Jan. 11, 62. A.B., Harvard, 83, C.E, 85. Instr. *mining and metal*, Harvard, 93-95, *asst. prof*, 95-00, *prof*, 00- Geol. Soc; Min. Eng; Min. and Metal. Soc; Am. Acad. Economic geology.
- Smyth, Dr. Lumina C(otton) R(iddle)**, 235 Acton Road, Columbus, Ohio. *Biology*. Woodstock, Ohio, March 18, 71. B.S., Ohio State, 97, M.S, 98, Ph.D, 05. Asst. bot, Ohio State, 97-98; teacher science and math, Akeley Inst, Mich, 99-00; nat. hist, Washburn, 01, 03-04, 17; high sch, Kans, 01-02; *asst. curator*, Kans. State Museum, 06-13, *curator*, 13-15; teacher, high sch, Kans, 17-18, *supt*, 18-20; *asst. prof. biol*, Ottawa (Kans), 21-24. A.A; Agassiz Ass; Ohio Acad. (v. pres, 03); Kans. Acad; Britton-Brown Bot. Club (sec'y, 02-). Embryology of *Alyssum macrocarpum*, *Batrachium longirostris*, *Staphylea trifolia*; algae and Protozoa of Sandusky Bay and of Kansas; unusual color marking in prairie mole; life history and parasites of toxoptera graminea; fasciation; flora and trees of Kansas.
- Smyth, Dr. Thomas**, University of South Carolina, Columbia, S. C. *Zoology*. Blacksburg, Va, Oct. 15, 98. B.S., Va. Polytech, 20; A.M,

- Cornell, 23, Ph.D, 25. Prof. biol, Hampden-Sidney, 21-23; asst. ornith, Cornell, 23-25; *assoc. prof. zool, South Carolina, 25-* Ornith. Union. Ornithology.
- Smythe, Dr. William R(alph)**, California Institute, Pasadena, Calif. *Physics*. Cañon City, Colo, July 5, 93. A.B, Colo. Col, 16; A.M, Dartmouth, 19; Ph.D, Chicago, 21. Prof. physics, Philippines, 22-23; Nat. Research Council fellow, *Calif. Inst.*, 23-27, *asst. prof. physics*, 27- A.A; Physical Soc. Spectrum of fluorine; separation of isotopes; velocity filter for ions; precision mass spectrometer.
- Snader, Prof. D(avid) L(evi)**, Stevens Institute of Technology, Hoboken, N. J. *Engineering*. Westminster, Md, July 8, 88. Duke; Arch.E, Ohio Northern, 13, C.E, 14, M.S, 18; Michigan; A.M, Columbia, 26. Instr. eng, Ohio Northern, 13-14; prof. in charge dept. archit. and structural eng, Valparaiso, 14-17, acting dean col. eng, 17; prof. in charge dept. physics and organization dept. eng, S. W. Presbyterian, 17-19; *head dept. civil eng*, S. Dak. Col, 19-24; *structural eng*, *Stevens*, 24- Practising architect and engineer. Assoc. ed, 'The Architect,' 18. Ass. Eng. (past v. pres, S. Dak. chap); Eng. Educ; Ind. Soc. Archit. (past v. pres, past director, mem. board arbitration). Architecture, structural engineering; deterioration of plain and reinforced concrete.
- Snapp, Oliver I(rvin)**, Box 445, Fort Valley, Ga. *Entomology*. Winchester, Va, Aug. 1, 95. B.S, Va. Polytech, 16; Maryland; M.S, Miss. Agr. and Mech. Col, 25. Supt, agr. sch, Turberville, Va, 16-17; *bur. entom, U. S. Dept. Agr*, 14, *entomologist*, 17- Del. Exp. Sta, 15; Ohio Exp. Sta, 17. Entom. Soc; Ass. Econ. Entom; Ass. Cotton States Entom; Ass. S. Agr. Workers; Ga. Hort. Soc. Deciduous fruit insects; fruit growing.
- Snedecor, Prof. George W(adel)**, 807 Hodge Ave, Ames, Iowa. *Statistics*. Memphis, Tenn, Oct. 20, 81. B.S, Alabama, 05; A.M, Michigan, 13. Prof. math, Austin Col, 07-10; *asst. physics*, Michigan, 10-13; *asst. prof, Iowa Col*, 13-14, *assoc. prof*, 14- Statist. Ass; Math. Soc; Math. Ass. Biological statistics; machine calculation of correlation coefficients.
- Sneed, Prof. M. Cannon**, University of Minnesota, Minneapolis, Minn. *Chemistry*. Nashville, Tenn, Jan. 2, 86. A.B, Peabody Col, 11; A.M, Cincinnati, 13, Ph.D, 16. Asst. prof. chem, Cincinnati, 16-17; *assoc. prof, Minnesota*, 18-24, *prof*, 24- A.A; Chem. Soc. Inorganic chemistry; qualitative analysis; Beckman's rearrangement of hydroxamic acids; methylmercuric acetate; methylmercuric hydroxide.
- Snell, Dr. Foster D(ee)**, Pratt Institute, Brooklyn, N. Y. *Chemistry*. Binghamton, N. Y, June 29, 98. B.S, Colgate, 19; fellow, Col. City of N. Y, 20-23; A.M, Columbia, 22, Ph.D, 23. Asst. chem, Columbia, 19-20; tutor, Col. City of N. Y, 20-23; *instr, Pratt Inst*, 23- Consulting chemist, 19- A.A; Chem. Soc; Soc. Chem. Indust. (sec'y, Am. sect, 24-); N. Y. Chemists Club. Organic and industrial chemistry; dehydrothiotoluidine; trade waste; by-product recovery.
- Snell, Prof. J(ohn) F(erguson)**, Macdonald College, Quebec, Can. *Chemistry*. Brampton, Ont, Oct. 14, 70. B.A, Toronto, 94; Ph.D, Cornell, 98. Asst. chem, Cornell, 94-95, 96-98; Wesleyan, 98-99; nutrition investigations, U. S. Dept. Agr, Conn, 98-01; *instr. chem*, Cincinnati, 01-04, *asst. prof*, 04-07; *Macdonald*, 07-09, *prof*, 09- Asst. chemist, Storrs Exp. Sta, 00-01. A.A; Chem. Soc. (sec'y, Cincinnati sect, 02, pres, 04); Soc. Chem. Indust. (chairman, Montreal sect, 27-); fel. Can. Inst. Chem. (sec'y, Quebec sect, 24-27); Can. Soc. Tech. Agr. Applications of physical chemistry to agriculture and foods; maple sap products.
- Snell, Dr. Walter H(enry)**, Brown University, Providence, R. I. *Plant pathology*. West Bridgewater, Mass, May 19, 89. A.B, Brown, 13, A.M, 15; Ph.D, Wisconsin, 20. Forest pathologist, *bur. plant indust, U. S. Dept. Agr*, 18-20, *collaborator*, 20-; *asst. prof. bot*, Brown, 20- A.A; Phytopath. Soc. Forest pathology.
- Snelling, Dean Cha(rle)s M(ercer)**, University of Georgia, Athens, Ga. *Mathematics*. Richmond, Va, Nov. 3, 62. Va. Mil. Inst; hon. A.M, Georgia, 92; Göttingen and Berlin, 93-94; hon. Sc.D, Pittsburgh, 10. Asst. prof. math, Va. Mil. Inst, 84-85; prof, South. Georgia, 86-88; adjunct prof, Georgia, 88-97, *prof*, 97-, *pres, Franklin Col*, and *dean univ*, 08-, *acting chancellor*, 25-
- Snelling, Dr. Walter O(theman)**, Allentown, Pa. *Chemistry*. Washington, D. C, Dec. 13, 80. B.S, George Washington, 04, Ph.D, 07; B.S, Harvard, 05; M.S, Yale, 06. Chemist, U. S. Geol. Surv, 07; chemist in charge explosives chem. lab, U. S. Bur. Mines, 08-12, research, 12-16; *director research, Trojan Powder Co*, 17- Asst, George Washington, 06, 07, *instr*, 07. A.A; Chem. Soc; Soc. Chem. Indust; Min. Eng; Electrochem. Soc; Franklin Inst; Chem. Gesell. Military and mining explosives; prevention of accidents; oils; oil cracking.
- Snider, Dr. L(uther) C(rocke)**, Henry L. Doherty and Co, 60 Wall St, New York, N. Y. *Geology*. Mt. Summit, Ind, Sept. 13, 82. A.B, Indiana, 08, A.M, 09; Ph.D, Chicago, 15. Asst. director, Okla. Geol. Surv, 09-15; geologist, Pierce Oil Corp, 15-16; Cosden Oil and Gas Co, 16-17; asst. chief geologist, Empire Gas and Fuel Co, 17-19, chief geologist, 19-25; *consulting geologist, Henry L. Doherty and Co*, 25- A.A; Ass. Petrol. Geol; Min. and Metal. Eng.
- Snoddy, Prof. George S(amuel)**, Indiana University, Bloomington, Ind. *Psychology*. Emporia, Kans, April 21, 82. A.B, B.S, Kansas, 12, A.M, 13; Ph.D, Clark, 15. Assoc. prof. psychol, Utah, 15-17, prof. and head dept, 17-25; *prof, Indiana*, 25- A.A; Psychol. Ass; Utah Acad. Physiological psychology; voluntary control; human learning; dementia praecox; neurasthenia.
- Snodgrass, R(ober) E(vans)**, 3706 13th St, N. W, Washington, D. C. *Entomology*. St. Louis, Mo, July 5, 75. A.B, Stanford, 01. Asst. prof. entom, Wash. Col, 01-03; *instr*, Stanford, 03-05; *bur. entom, U. S. Dept. Agr*, 06-10, 17- Insect anatomy.
- Snook, H(omer) Clyde**, 463 West St, New York, N. Y. *Physics*. Antwerp, Ohio, March 25, 78.

- A.B., Ohio Wesleyan, 00, M.S., 10, Sc.D., 26; A.M., Allegheny, 02; Pennsylvania, 03-08. Asst. astron., Ohio Wesleyan, 98-00, physics, 99-00; prof. physics and chem., Ohio Soldiers' and Sailors' Orphan Home, Xenia, 00-01; asst. chem., Allegheny, 01-02; pres., Snook Röntgen Mfg. Co., 03-16; v. pres., Victor Elec. Corp., 16-18; elec. engineer in charge physical lab, eng. dept., West. Elec. Co., 18-22, staff engineer, 22-25, *Bell Telephone Laboratories*, 25-27, asst. commercial develop. engineer, 27- Board Educ., South Orange, N. J., 23-26; committee on fatigue of metals and insulation, Nat. Research Council; chairman committee on elimination of harmful noise, Nat. Safety Council. Longstreth medal, Franklin Inst., 19; gold medal, Röntgenol. Soc., 23. A.A.; Physical Soc.; Radio Eng.; Electrochem. Soc.; Elec. Eng.; Röntgen Ray Soc.; Phila. Röntgen Ray Soc. Röntgen and Hertzian radiation; stereoscopic effects in Röntgen radiation; electrophysics; electrical stethoscope; communication engineering.
- Snow, Dr. A(dolph) J(udah)**, 2020 Sherman Ave., Evanston, Ill. *Industrial psychology*. Rzeszow, Poland, Jan. 9, 94. A.B., Ohio State, 16, A.M., 17; Ph.D., Columbia, 19. Instr. *psychol.*, Columbia, 18-20; asst. prof., Pittsburgh, 20-21; instr., *Northwestern*, 21-25, lecturer, 25-27, prof. lecturer, 27-; consulting psychologist, *Yellow Truck and Coach Mfg. Co.*, 26-; director *psychol. research*, *Yellow Cab Co.*, 24- Consulting psychologist. A.A.; Psychol. Ass.; Philos. Ass.; Hist. Sci. Ass.; British Psychol. Soc. Scientific methods; psychology in business relations; matter and gravity in Newton's physical philosophy; psychology in personal selling.
- Snow, Prof. Benjamin W(arner)**, 612 Howard Place, Madison, Wis. **Physics*. Henry, Ill., Aug. 15, 60. B.S., Cornell, 85, fellow, 85-86; Göttingen, 87-88; Strassburg, 88; Ph.D., Berlin, 92. Instr. physics, Ohio State, 86-87; Cornell, 88-90; prof., Indiana, 92-93; Wisconsin, 93-26; retired, 26. A.A. (sec'y, B, 94); Physical Soc. Radiation; infra-red metallic spectra.
- Snow, Prof. Charles H(enry)**, New York University, New York, N. Y. *Civil engineering*. New York, March 24, 63. C.E., N. Y. Univ., 86; hon. Sc.D., Pittsburgh, 98. Prof. *civil eng.*, N. Y. Univ., 91-, dean col. eng. and *Daniel Guggenheim Sch. of Aeronautics*. Practising civil engineer, 86-; civilian director nat. army training detachment, and sect. B, S.A.T.C., N. Y. Univ., 18; appraisal expert, service at large, Bur. Aircraft Production, 19. Civil Eng.; Min. Eng. (director, 05-10). Materials of construction; economic woods.
- Snow, Dr. Chester**, U. S. Bureau of Standards, Washington, D. C. *Physics*. Salt Lake City, Utah, June 1, 81. A.B., Harvard, 06; fellow, Wisconsin, 12-14, Ph.D.; 14. Prof. physics, Brigham Young, 06-11; assoc. prof. math., Idaho, 14-16, prof., 16-20; *physicist*, *Bur. Standards*, 20- Physical Soc. Mathematics; magneto-optics; electricity.
- Snow, Prof. F(ranklin) C(hadwick)**, Georgia School of Technology, Atlanta, Ga. *Civil engineering*. Avon, Ohio, Dec. 26, 81. C.E., Ohio State, 06; Sc.D., Georgia, 23. Asst. city engineer, Sandusky, Ohio, 06-07; Elyria, 08; city engineer, Findlay, 07-08; instr. civil eng., Mont. Col., 08-09, asst. prof., 09-20; prof. highway eng., *Ga. Tech.*, 20-23, *civil eng. and director highway materials lab*, 23- Consulting highway and bridge engineer, Fulton Co., Atlanta, Ga., 23-; consulting engineer, Bozeman Testing Lab., 13-20; consulting sanitary engineer, Mont. State Board Health, and city engineer, Bozeman, 15-20. Civil Eng.; Ass. Eng. Concrete; asphalt; subsoils.
- Snow, Dr. Harold R(oberth)**, 1406 Amy Court, Whiting, Ind. *Chemistry*. Warner, Ill., Oct. 2, 95. B.S.(C.E.), Michigan, 19, M.S.(Ch.E.), 20, Ph.D., 22. Instr. chem., Michigan, 21-24; *research chemist*, *Sherwin-Williams Co.*, 24-25; *Standard Oil Co. of Ind.*, 25- The condensation of carbon tetrachloride and phenol; aurin.
- Snow, Prof. Julia (Warner)**, Smith College, Northampton, Mass. *Botany*. La Salle, Ill., Aug. 30, 63. B.S., Cornell, 88, fellow, 88-89, M.S., 89; fellow, Ass. Col. Alumnae, 91-92; Ph.D., Zurich, 93; Basel, 96-97. Teacher science, Am. Col. for Girls, Constantinople, 94-96; asst. bot., Michigan, 97-98, instr., 98-00; teacher biol., Rockford, 00-01; asst. bot., *Smith*, 01-02, instr., 02-06, *assoc. prof.*, 06- A.A.; Bot. Soc. Fresh-water algae.
- Snow, Prof. Laetitia M(orris)**, Wellesley College, Wellesley, Mass. *Botany*. Baltimore, Md., March 31, 74. A.B., Goucher, 95; Baltimore Ass. Adv. Educ. Women fellow, and Alice Freeman Palmer fellow, Chicago, Ph.D., 04. Instr. science, Girls' Latin Sch., Baltimore, 97-99, 00-01; head dept. biol., Va. State Nor. Sch., Farmville, 04-08; instr. bot., *Wellesley*, 08-11, *assoc. prof.*, 11- A.A.; Bot. Soc.; Ecol. Soc.; Soc. Bact.; Pub. Health Ass. Plant ecology; root-hair development; coastal vegetation; agricultural bacteriology.
- Snow, Prof. Perry Gardner**, 1031 S. 14th East St., Salt Lake City, Utah. *Anatomy*. Manti, Utah, Dec. 24, 78. A.B., Utah, 09; M.D., Rush Med. Col., 14. Instr. *anat.*, *Utah*, 08-10, *prof.*, 11-, acting dean *sch. med.*, 13-14, *dean*, 14- Ass. Anat. Microscopic anatomy; the orbital glands of Anura.
- Snow, Dr. William F(reeman)**, 640 Riverside Drive, New York, N. Y. *Public health*. Quincy, Ill., July 13, 74. A.B., Stanford, 96, A.M., 97, M.D., 00. Instr. *physiol. and biol.*, Stanford, 01-02, asst. prof. hygiene, 02-03, *assoc. prof.*, 03-09, *prof. hygiene and pub. health*, 09-20; sec'y and exec. officer, Calif. State Board Health, 09-14; *gen. director*, *Am. Social Hygiene Ass.*, 14-; lecturer, *sch. hygiene and pub. health*, Hopkins, 20-26. Pres, Conf. State and Provincial Boards Health, 13; v. pres, Nat. Health Council, 26-; chairman, League of Nations Commission to Study Traffic in Women and Children, 24- Col., M.R.C., 17-19. A.A.; Pub. Health Ass.; Am. Med. Ass.; Soc. Trop. Med.; N. Y. Acad. Med.; Mil. Surg. Epidemiology; communicable diseases.
- Snowdon, Dr. Ralph C(uthbert)**, The Hooker Electrochemical Co., Niagara Falls, N. Y. *Chemistry*. Pittston, Pa., Feb. 3, 82. A.B., Cornell, 04, A.M., 06, Ph.D., 09. Asst. chem., Cor-

- nell, 04-05, instr, 05-09; chemist, The Nitrogen Co, N. Y, 09-11; *expert, Hooker Electrochem. Co, 11-* Chem. Soc; Electrochem. Soc. Electrochemistry; inorganic chemistry; the electrolytic reduction of nitrobenzene.
- Snyder, Prof. C(harles) D(avid)**, 309 Keswick Road, Roland Park, Baltimore, Md. *Physiology*. Pickaway Co, Ohio, April 30, 71. A.B, Stanford, 96; M.S, California, 04, Ph.D, 05; Columbia table, Naples Zool. Sta, 06; fellow, Hopkins, 07-08. Instr, high schools, Calif, 96-05; instr. *physiol, sch. med, Hopkins*, 08-09, assoc, 09-11, assoc. prof, 11-21, *prof, 21-* Acting prof, Nevada, 95. 7th and 12th Int. Physiol. Cong. Physiol. Soc. Experimental morphology; temperature coefficients of biologic processes; electrophysiology; blood pressure; tonus in organs of mixed innervation and musculature; heat production and metabolism in tissues and organs; nature of mechanism at point of synaptic transfer.
- Snyder, Dr. Franklin F(aust)**, University of Rochester, Rochester, N. Y. *Anatomy*. Lancaster, Pa, Dec. 29, 97. B.S, Princeton, 19; M.D, Hopkins, 23. Fellow, embryol. lab, Carnegie Institution, 23-24; *asst. prof. anat, sch. med, Rochester, 24-* Ass. Anat; Soc. Mammal; Soc. Exp. Biol. Physiology of reproduction.
- Snyder, Harry**, 1800 Summit Ave, Minneapolis, Minn. **Chemistry*. Cherry Valley, N. Y, Jan. 26, 67. B.S, Cornell, 89. Asst. chem, Cornell, 88-91, and Exp. Sta, 89-91; chemist, Minn. Exp. Sta, 91-09; prof. agr. chem, Minnesota, 92-09, soils, 07-09; *chemist, Russell-Miller Co*. Investigations on nutrition, U. S. Dept. Agr, 95-07. A.A; Chem. Soc; Agr. Chem. (pres, 08). Human food and soil investigations; flour, wheat and cereals.
- Snyder, Prof. J(ohn) O(tterbein)**, Stanford University, Calif. *Zoology*. Butler, Ind, Aug. 14, 67. Indiana, 90-91; A.B, Stanford, 97, A.M, 99. Supt, schools, Wash, 93-94; *asst. zool, Stanford*, 97-99, instr, 99-03, *asst. prof, 03-11*, assoc. prof, 11-25, *prof. and head dept, 25-* Instr, Hopkins marine lab, 07, 08. Asst, U. S. Fish Commission, 97, 99, 02, 04, 06, 09; naturalist, 'Albatross' exped, Hawaii, Alaska and Japan, 02, 06; expert ichthyologist, U. S. Nat. Museum, 14; fisheries expert, Calif. Fish and Game Commission, 19-; director, Bur. Fisheries Lab, Woods Hole, 25- Calif. Acad. (cor. sec'y, 20-). Geographical distribution and classification of fishes of Mexico, Japan and Hawaii; origin and relationships of fish faunas of rivers and lakes of western America; life history of salmon.
- Snyder, Dr. Laurence H(asbrouck)**, North Carolina State College, Raleigh, N. C. *Zoology*. Kingston, N. Y, July 23, 01. B.S, Rutgers, 22; M.S, Harvard, 24, Sc.D, 26. Asst. genetics, Carnegie Institution, 22; Austin teaching fellow, Harvard, 22-23; instr. *zool, N. C. State*, 23-24, *asst. prof, 24-25*, *assoc. prof, 25-* Committee on blood grouping, Nat. Research Council. A.A; Soc. Zool; Ornith. Union; Genetic Ass; Eugenics Research Ass; Ecol. Soc; N. C. Acad. Variation; selection; biological effect of X-rays; germ plasm; isohaemagglutination; inheritance and racial distribution of the blood groups.
- Snyder, Prof. Monroe B(enjamin)**, 120 Woodside Ave, Narberth, Pa. *Astronomy*. Quakertown, Pa, March 13, 48. Pennsylvania Col, 67-63; A.B, Michigan, 72, A.M, 75. Asst. astron. and math, Cent. High Sch. Phila, 73-80, in charge observatory, 73-97, prof. astron. and math, 80-20, head dept. math, 97-20; director, *Phila. Observatory*, 97-20, *emer. director, 20-* Pres, board examiners, Elec. Exhibit, Franklin Inst, 84; sec'y, Nat. Elec. Commission, 84; sec'y, Nat. Conf. Electricians, Phila, 84; director, Phila. Observatory solar eclipse exped, 00. A.A; Astron. Soc; Math. Soc; Philos. Soc; fel. Royal Astron. Soc. Astrophysics; atomic volcanism; periodic table of atoms.
- Snyder, Dr. Robert M(iffin)**, Michigan Experiment Station, East Lansing, Mich. *Bacteriology*. Pittsburgh, Pa, May 20, 93. B.S, Mich. State Col, 14; Ph.D, Cornell, 18. Asst. *bacter, Mich. Exp. Sta*, 19-21, *assoc, 21-* Soc. Bact; Soc. Agron; Chem. Soc. Soil technology; soil colloids; symbiotic nitrogen fixation.
- Snyder, Dr. Tho(mas) E(liot)**, 2801 Adams Mill Road, N. W, Washington, D. C. *Forest entomology*. New York, N. Y, Feb. 6, 85. A.B, Columbia, 07; M.F, Yale, 09; Ph.D, George Washington, 20. *Entomologist, forest insect investigations, bur. entom, U. S. Dept. Agr, 09-* A.A; Entom. Soc; Ass. Econ. Entom; Soc. Foresters; Soc. Zool; Wash. Acad; Wash. Entom. Soc; Wash. Biol. Soc. (sec'y, 20-). Biology; taxonomy; genetics; insects attacking forest products; 'powder post' beetles; termites.
- Snyder, Prof. Virgil**, 214 University Ave, Ithaca, N. Y. **Mathematics*. Dixon, Iowa, Nov. 9, 69. B.S, Iowa Col, 89; Cornell, 90-92, fellow, 92-93; Ph.D, Göttingen, 94; H.C.D, Padua, 22. Instr. *math, Cornell*, 94-03, *asst. prof, 03-10*, *prof, 10-* A.A; Math. Soc. (ed, 'Bul', 03-20, v. pres, 09-11, pres, 27-); Am. Acad; Math. Verein; Circolo Mat. di Palermo. Geometry of the line and sphere; configurations of ruled surfaces; birational transformations.
- Solakian, Dr. Haig Nerses**, U. S. Bureau of Standards, Washington, D. C. *Metallurgy*. Armenia, Feb. 22, 93. A.B, 11; B.S, 17; M.S, 23; Sc.D, 24. Supt, The Pyrites Co, Ltd, 17-18; chief metallurgist, Remington Works, 19-22; research metallurgist, U. S. Smelting, Ref. and Mining Co, 24-26; *metallurgist, Bur. Standards, 26-* Min. and Metal. Eng. Metallurgy of iron and steel; overstrain and elastic constants of steels.
- Soley, William (George)**, 234 Duane Ave, La Salle, N. Y. *Chemical engineering*. Wilkes-Barre, Pa, May 27, 94. B.S, Pa. State, 19. *Research chem. engineer, Carborundum Co, 20-* Thermal conductivity of refractories; cements; properties of metals and alloys; special adhesives; drying and burning of ceramic articles; pulp and paper.
- Sollmann, Prof. Torald (Hermann)**, Western Reserve University School of Medicine, Cleveland, Ohio. **Pharmacology*. Coburg, Germany, Feb. 10, 74. Private study in pharmacy,

- chem. and med, U. S. and Paris, 87-94; M.D., Western Reserve, 96. Demonstrator physiol, *sch. med.*, *Western Reserve*, 95-98, lecturer pharmacol, 98-01, asst. prof. *pharmacol. and mat. med.*, 01-03, assoc. prof, 03-04, *prof.*, 04- Prof., Cleveland Sch. Pharmacy, 09-16; exec. committee, Revision of U. S. Pharmacopœia. A.A.; Soc. Pharmacol. (pres, 13-16, membership committee, 16-); Pharmaceut. Ass; Physiol. Soc; Am. Med. Ass. (chairman, sect. therapeut. and pharmacol, 11, council on pharmacy and chem); Am. Physicians; Soc. Exp. Biol; Soc. Biol. Chem. Physiology.
- Solomon, Dr. H(arry Cæsar)**, 270 Commonwealth Ave, Boston, Mass. *Psychiatry*. Hastings, Nebr, Oct. 25, 89. B.S., California, 10; M.D., Harvard, 14. Intern, *Psychopathic Hosp.*, Boston, 14-15, asst. physician, 15, chief staff, 16-17, *chief therapeut.*, 19-; *instr. psychiat. and neuropath.*, *Harvard Med. Sch.*, 15-; *investigator*, *Mass. Dept. Mental Diseases*, 15-; *asst. neurologist*, *Mass. Gen. Hosp.*, 23-; *neurologist*, *Beth Israel Hosp.*, 16- Consultant, U. S. Veterans Hosp. Contract surgeon, *instr. psychiat.*, M.C., 17-18, *lieut.*, 18-19. A.A.; *Psychiat. Ass*; *Psychopath. Ass*; *Neur. Ass*; *Am. Med. Ass*; *Ass. Path. and Bact*; *Mass. Psychiat. Ass.* Neurosyphilis; spinal fluids.
- Somers, Prof. Ransom Evarts**, University of Pittsburgh, Pittsburgh, Pa. *Economic geology*. Waltham, Mass, July 28, 85. A.B., Harvard, 08, A.M., 10; Ph.D., Cornell, 15. Asst. prof. econ. geol, Cornell, 16-19; *prof. oil and gas geol.*, *Pittsburgh*, 19-25, *geol. and head dept.*, 25- Geol. Soc; Soc. Econ. Geol; Ass. Petrol. Geol; Min. and Metal. Eng. Oil and gas geology.
- Somerville, Dr. A(lbert) A(lexander)**, 50 E. 42d St, New York, N. Y. *Physics*. Milroy, Ind, Jan. 28, 83. Ph.D., Cornell, 10. Physicist, U. S. Rubber Co; *v. pres. and manager rubber dept.*, *Vanderbilt Co.* A.A.; Physical Soc.
- Sommer, Dr. Anna L(ouise)**, University of Minnesota, St. Paul, Minn. *Plant nutrition*. Cucamonga, Calif, Jan. 9, 89. B.S., California, 20, M.S., 21, Ph.D., 24. Teaching fellow bot, California, 22-24, *plant nutrition*, 24, *research asst.*, 24-26; *hon. fellow*, *Minnesota*, 26- A.A.; Chem. Soc; Soc. Plant Physiol. Elements essential to plant growth.
- Sommer, Prof. H(ugo) H(enry)**, 116 S. Randall Ave, Madison, Wis. *Dairy husbandry*. Timothy, Wis, Sept. 4, 94. B.S., Wisconsin, 18, M.S., 19, Ph.D., 22. Asst. agr. chem, Wisconsin, 17-20; chemist, North. Calif. Milk Producers Ass, 20; asst. prof. *dairy husbandry*, *Wisconsin*, 20-25, *assoc. prof.*, 25- Dairy Sci. Ass; Chem. Soc. Dairy chemistry; evaporated milk; flavor defects in butter; ice cream; acidity of milk; alcohol test for grading milk.
- Somogyi, Dr. Michael**, 216 S. Kingshighway St, St. Louis, Mo. *Biochemistry*. Reinersdorf, Austria, March 7, 83. C.E., Technische Hochschule, Budapest; Ph.D., Budapest. Asst. biochem, Budapest, 05-06; *research asst.*, med. col, Cornell, 06-07; *head chemist*, *munic. laboratories*, Budapest, 09-21; *instr. biochem.*, *sch. med.*, Washington (St. Louis), 21-26; *biochemist*, *Jewish Hosp. of St. Louis*, 26- A.A.; Chem. Soc; Soc. Biol. Chem; Soc. Exp. Biol. Pancreatic hormones; intermediary metabolism of carbohydrates.
- Sondern, Dr. Frederic Ewald**, 20 W. 55th St, New York, N. Y. *Pathology*. Stuttgart, Germany, March 30, 67. M.D., Columbia, 89. *Prof. clin. path.*, *N. Y. Post-Grad. Med. Sch.*, 05- Director laboratories, Lying-in Hosp, New York. A.A.; Soc. Clin. Path. (pres); Ass. Path. and Bact; N. Y. Path. Soc; N. Y. Acad. Med. Clinical pathology.
- Soper, Dr. E(dgar) K(irke)**, 1102 Stock Exchange Building, Los Angeles, Calif. *Geology*. Calif, 86. A.B., Stanford, 08; A.M., Minnesota, 15, Ph.D., 17. Instr. econ. geol, Cornell, 08-10; Minnesota, 10-16; asst. prof. mining eng, Idaho, 16-17, *assoc. prof.*, 17; dean, Oregon Sch. Mines, 17-18; petrol. geologist, S. Pearson and Son, Ltd, London, 18-19; geologist, Sinclair Consol. Oil Corp, 19-26; *consulting geologist*, 26- Field geologist, U. S. Geol. Surv, 11, geologist, 18; Minn. Geol. Surv, 12-16; Am. Smelting and Ref. Co, 13. Geol. Soc; Soc. Econ. Geol; Ass. Petrol. Geol; Min. and Metal. Soc; Min. and Metal. Eng. Economic geology; clay and shale deposits of Minnesota; peat deposits; mining districts of Idaho; petroleum geology.
- Soper, Dr. George A(lbert)**, Great Neck, N. Y. *Sanitary engineering*, *Epidemiology*. New York, N. Y, Feb. 3, 70. B.S., Rensselaer, 95; A.M., Columbia, 98, Ph.D., 99. Transitman, west. div, Boston Water Works, 95; engineer, Cumberland Mfg. Co, 95-97; engineer in charge sanit. cleaning of Galveston, Texas, 99; sanit. engineer, Dept. Health, New York, 02; expert, N. Y. State Dept. Health, 03; Williams Col, Cornell Univ, Watertown and Lawrence, N. Y., 04; *consulting sanit. engineer and epidemiologist*. Pres, Metropolitan Sewerage Commission, New York, 08-14. Major, S.C., 18-19. A.A.; Chem. Soc; Soc. Bact; Pub. Health Ass; Civil Eng; Water Works Ass; Soc. Cancer Research; Soc. Control Cancer (managing director, 23-); Boston Soc. Civil Eng. Water and sewage purification; ventilation; epidemiology.
- Sorensen, Dr. Andrew J(ensen)**, 1204 East End Ave, Edgewood, Pa. *Physics*. Skjellerup, Denmark, Nov. 10, 87. A.B., Iowa State Teachers Col, 21; M.S., Iowa, 22, fellow, 22-24, Ph.D., 24. *Research dept.*, *Union Switch and Signal Co.*, *Swissvale*, Pa, 24- Magnetic properties of thin films of ferromagnetic metals.
- Sorensen, Prof. Royal W(asson)**, California Institute, Pasadena, Calif. *Electrical engineering*. Wabaunsee Co, Kans, April 25, 82. B.S., Colorado, 05. Testman, Gen. Elec. Co, 05-06, designing engineer, 06-10; *prof. elec. eng.*, *Calif. Inst.*, 10- Lecturer, California, 18-20; South. Calif. Edison Co, 23-25; consulting engineer, Pacific Light and Power Co; South. Calif. Edison Co; U. S. Elec. and Mfg. Co. Fel. Elec. Eng. (chairman, Los Angeles sect, 21-22, mem, research committee); Eng. Educ; Nat. Elec. Light Ass; Los Angeles Joint Technical Soc. (chairman). Insulation; switching; poly-

phase connections and polarity; design of high voltage equipment; high voltage phenomena.

Sorokin, Mrs. Helen P., 500 Delaware St, S. E., Minneapolis, Minn. *Botany*. Petrograd, Russia, July 11, 94. Grad. Petrograd, 17; Ph.D., Minnesota, 25. Instr. Petrograd, 17-22; *research asst.*, Prague, 22-24; Minn. Exp. Sta., 25, *bot.*, Minnesota, 25—Bot. Soc. Cytology of Ranunculaceae.

Sosman, Dr. Robert B(rowning), Geophysical Laboratory, Washington, D. C. **Chemistry*. Chillicothe, Ohio, March 17, 81. B.S., Ohio State, 03; Mass. Inst. Tech, 04, Ph.D., 07. Lab. of A. D. Little, Boston, 06-08; *asst. physicist*, *geophys. lab.*, Carnegie Institution, 08-11, *physicist*, 11—, acting director, 18-20. Lecturer, Mass. Inst. Tech, 25-26. Investigator optical glass, W. I. B., 17-18; consulting chemist, nitrate div, ordnance dept, 18. A.A.; Chem. Soc. (pres, Wash. sect, 16); Geol. Soc.; Physical Soc.; Ceramic Soc.; Wash. Philos. Soc. (pres, 20); Wash. Geol. Soc.; Wash. Acad. (cor. sec'y, 17-21, ed, 19-21); British Ceramic Soc.; British Soc. Glass Tech. Electromotive force, conductivity and ionization of aqueous solutions, 0°-300°; gas thermometry to 1600°; specific volume of minerals at fusion; refractory oxides; iron ores; silica and silicates; geophysics; geochemistry.

Sottery, Prof. C. Theodore, Albright College, Myerstown, Pa. *Chemistry*. Smyrna, Asia Minor, July 30, 96. A.B., Clark, 16; A.M., Columbia, 23, Ph.D., 25. Chemist, Merrimac Chem. Co, 16-17; Am. Optical Co, 17; instr. science, Troy Conf. Acad, 17-18; chem, Bradford Durfee Textile Sch, 18-22; *asst. chem.*, Columbia, 23-25; *prof.*, Albright Col, 25—Qualitative detection of aluminum by means of aurin tricarboxylic acid; hydrolysis of sucrose by invertase from honey.

Souder, Dr. Wilmer (Henry), U. S. Bureau of Standards, Washington, D. C. *Physics*. Salem, Ind, 84. A.B., Indiana, 10, A.M., 11; Ph.D., Chicago, 16. *Asst.*, Chicago, 14-17; *asst. physicist*, Bur. Standards, 17-18, *assoc. physicist*, 18-20, *physicist*, 20— A.A.; Physical Soc.; Optical Soc.; Wash. Acad. Sound; photoelectric discharges; metrology; thermal expansivity; dental research.

Soule, Pres. Andrew M(cNairn), State College of Agriculture, Athens, Ga. *Agriculture*. Niagara Falls South, Can, July 8, 72. Grad. Ont. Agr. Col, 92; B.S., Toronto, 93; hon. Sc.D., Georgia, 10, LL.D., 16. *Asst. to director*, Mo. Exp. Sta, 94; *asst. prof. agr.*, Texas Col, 94-99; director, Tenn. Exp. Sta. and chairman agr. faculty, Tennessee, 99-04; dean and director col. agr. and Exp. Sta., Va. Polytech, 04-07; *pres.*, Ga. Col. Agr, 07— Food administrator for Ga., 17-19. Mem. Ark. educ. surv, 22. Mem. jury awards, St. Louis Expos, 03. U. S. delegate, Second Pan-Am. Cong, Rio de Janeiro, 22. A.A.; Ass. Agr. Col. (past v. pres); Ass. Farmers' Inst. Workers (past pres); Genetic Ass.; Econ. Ass.; S. Agr. Workers (pres, 26); fel. Royal Soc. Arts. Cereal production in the south; influence of succulent foods on beef production; economic milk production; cotton seed and its by-products;

education and the economic development of the South.

Soule, Dr. Byron A(very), University of Michigan, Ann Arbor, Mich. *Analytical chemistry*. Allegany, N. Y., May 28, 91. B.S., Michigan, 18, M.S., 20, Sc.D., 24. Anal. chemist, E. I. du Pont de Nemours and Co, 19-20; *instr. anal. chem.*, Michigan, 20— *Asst. to director*, chem. lab, Michigan, 19-20. Chem. Soc. The determination of nickel; the separation of calcium and magnesium; the candy industry.

Soule, Dr. Malcolm H(erman), University of Michigan, Ann Arbor, Mich. *Bacteriology*, *Chemistry*. Allegany, N. Y., Dec. 5, 96. B.S., Michigan, 21, M.S., 22, Sc.D., 24. Instr. anal. chem, Michigan, 19-20, *bacter.*, 23-25, *asst. prof.*, 25— Chem. Soc.; Soc. Bact.; Soc. Exp. Biol.; Ass. Immunol.; Soc. Exp. Path.; Mich. Acad. Colloidal chemistry of gels; respiration and dissociation of microorganisms.

Southall, Prof. James P(owell) C(ocke), Columbia University, New York, N. Y. **Physics*. Norfolk, Va., April 4, 71. Richmond, 86-88; A.M., Virginia, 93; fellow by courtesy, Hopkins, 98-99. Instr. physics, Virginia, 91-93; *prof. physics and math*, Miller Manual Training Sch, Albemarle, Va, 93-98; Prendergast *prof. physics*, Hobart, 99-01; *prof.*, Ala. Polytech, 01-14; *asst. prof.*, Columbia, 14-17, *assoc. prof.*, 17-22, *prof.*, 22—, *director courses in optics and optometry*, 14— Faculty, California, 17; Optical Munitions Board; committee on physiol. optics, Nat. Research Council. A.A.; fel. Physical Soc.; Optical Soc. (assoc. ed, 'Jour,' councilor, pres, 21); Franklin Inst; fel. London Optical Soc. Geometrical, physical and physiological optics; mirrors; prisms; lenses.

Souther, Dr. B(enjamin) L(eslie), Mellon Institute, Pittsburgh, Pa. *Chemistry*. Colman, S. Dak, Sept. 15, 94. B.S., Minnesota, 16; M.S., Purdue, 18; Ph.D., Harvard, 21. Instr. chem, Illinois, 21-24; *indust. fellow*, Mellon Inst, 24— A.A.; Chem. Soc. Organic chemistry; petroleum.

Southworth, G(eorge) C(lark), 97 Doremus Ave, Ridgewood, N. J. *Physics*. Little Cooley, Pa, Aug. 24, 90. B.S., Grove City, 14, M.S., 16; Columbia, 16-17; Ph.D., Yale, 23. *Asst. physicist*, Bur. Standards, 17-18; instr., Yale, 18-23; *research engineer*, Am. Tel. and Tel. Co, 23— A.A.; Physical Soc.; Radio Eng.; Wash. Acad. Production of short electric waves and their application to communication problems.

Spaeth, Prof. J(ohn) Nelson, Cornell University, Ithaca, N. Y. *Forestry*. Rochester, N. Y., Nov. 10, 96. B.S., Cornell, 19; M.F., Harvard, 20. *Asst. to director*, Harvard Forest Sch, 20-24; instr. lumbering, business sch, Harvard, 21-23; *research asst. prof. forestry*, Cornell, 24— A.A.; Soc. Foresters. Forest ecology and mensuration; silvicultural management and growth of northeastern American forest trees.

Spalding, Prof. Alfred B(aker), Lane Hospital, San Francisco, Calif. *Gynecology*. Atchison, Kans, July 19, 74. A.B., Stanford, 96; M.D., Columbia, 00. *Prof. obstet.*, California, 09-12; *obstet. and gynec.*, Stanford, 12— Gynec. Soc;

- Am. Med. Ass; Am. Acad. Med. Obstetrics; gynecological pathology and histology; anatomy of the female pelvic organs.
- Spalding, Prof. Effie S(outhworth)**, University of Southern California, Los Angeles, Calif. *Botany*. North Collins, N. Y., Oct. 29, 60. B.S., Michigan, 85; fellow, Bryn Mawr, 85-87; fellow, Barnard, Columbia, 93-95; M.S., Southern California, 23. Asst. pathologist, bur. plant indust, U. S. Dept. Agr, 88-93; asst. prof. bot., Southern California, 20-26; *retired*, 26. A.A. Fungi; changes in form and growth of cacti in relation to water supply; mycology.
- Spangler, Dr. R(obert) C(lifton)**, 729 Naomi St, Morgantown, W. Va. *Botany*. Petersburg, W. Va., Aug. 11, 84. A.B., West Virginia, 14, A.M., 16; Ph.D., Chicago, 25. *West Virginia*, 14-, *prof. bot.* A.A.; Bot. Soc. Morphology of plants; Cladosporium fulvum; female Gametophyte of Trillium sessile.
- Sparhawk, William N(orwood)**, 3533 Quebec St, N. W., Washington, D. C. *Forestry*. West Swaney, N. H., July 20, 88. A.B., Yale, 08, M.F., 10. *U. S. Forest Service*, 10-, *forest economist*. Ed, forestry sect., 'Biol. Abstracts.' Mem, forestry sub-committee, Nat. Research Council. A.A.; Soc. Foresters (sec'y, 22-24); Acad. Polit. Sci. Economic aspects of forestry; forest resources of the world.
- Sparrow, Prof. Carroll M(ason)**, University of Virginia, University, Va. *Physics*. Baltimore, Md., Jan. 10, 80. A.B., Hopkins, 08, fellow, 09-10, Ph.D., 11. Aid, U. S. Coast and Geod. Surv., 02-04, asst., 04-07; instr. *physics*, Hopkins, 10-11; adjunct prof, *Virginia*, 11-17, assoc. prof, 17-20, *prof*, 20- Assoc. ed, 'Physical Rev.' 20-23; 'Va. Quarterly Rev.' 25- Capt, A.S., 18-19. A.A.; Physical Soc; Math. Soc; Math. Ass; Astron. Soc; Circolo Mat. di Palermo. Theory of spectroscopy.
- Spaulding, Dr. E(dward) G(leason)**, Princeton University, Princeton, N. J. *Philosophy, Psychology*. Burlington, Vt., Aug. 6, 73. B.S., Vermont, 94, LL.D., 20; A.M., Columbia, 98; Ph.D., Bonn, 00. Instr. math. and science, Cutler Sch., N. Y., 94-98; philos. and psychol., Col. City of N. Y., 00-05; asst. prof. *philos*, Princeton, 05-14, *prof*, 14- Lecturer, Woods Hole; Brooklyn Inst; People's Inst; summers, Chicago, California, Harvard and Washington. Philos. Ass. (sec'y-treas, 09-16). Logic; systematic philosophy; philosophy and history of science; the new realism; the new rationalism.
- Spaulding, Dr. Perley**, Northeastern Forest Experiment Station, Amherst, Mass. *Forest pathology*. South Royalton, Vt., Sept. 19, 78. B.S., Vermont, 00; M.S., Washington (St. Louis), 03, Ph.D., 06. Asst. hort. Maine, 01; biol., Vermont, 01; sci. aid, bur. soils, U. S. Dept. Agr, 01, special agent, *bur. plant indust*, Miss. Valley Lab, 02-03, sci. asst, 03-07, pathologist, lab. forest path, 08-13, path. inspector, fed. hort. board, 13-14, *pathologist*, lab. forest path, 14-, *northeast. forest exp. sta*, 25- Ed, 'Phytopathology,' 21, 22, 24. A.A.; Phytopath. Soc; New Eng. Bot. Soc. Bitter-rot of apples; damping off in coniferous seedlings; structure of wood cell wall; diseases of broad-leaved trees; white pine blister rust; decay of lumber slash; epidemic forest tree diseases of the northeast.
- Spear, Dr. Ellwood B(arker)**, Thermatomic Carbon Co, Pittsburgh, Pa. *Chemistry*. Aurora, Ont., Can., Feb. 22, 75. B.A., Manitoba, 99; Ph.D., Heidelberg, 07; Toronto, 99-02; Leipzig, 04. Research asst, Mass. Inst. Tech, 06-07, instr. anal. chem, 07-08, inorg. chem, 08-10, asst. prof, 10-13, assoc. prof, 13-20; manager research div, Goodyear Tire and Rubber Co, 20-23; *chief chemist, Thermatomic Carbon Co*, 23- A.A.; Chem. Soc; N. Y. Chemists Club. Physical, inorganic and electrical chemistry; catalysis; qualitative analysis; electroanalysis of zinc; electrolytic deposition of copper; chemistry of colloids; precipitation of colloidal platinum; gas warfare; milling and thin sections of rubber; high and low stiffening carbon blacks; principles of tread wear.
- Spears, Dr. Alden T(rue)**, 5 Stark St, Nashua, N. H. *Entomology*. Corinth, Vt., July 25, 85. B.S., Dartmouth, 08; A.M., Harvard, 10, Ph.D., 19. Asst. plant pathologist, exp. sta, Hawaiian Sugar Planters' Ass, 11-15; mycoentomologist, bur. entom, U. S. Dept. Agr, 15-21. Fungus diseases of insects.
- Spears, Prof. Howell D(avis)**, 301 N. Broadway, Lexington, Ky. *Chemistry*. Lexington, March 5, 87. B.S., Kentucky, 07, M.S., 08. *Chemist, feed control, Ky. Exp. Sta*, 07- Chem. Soc. Commercial feeding stuffs; analytical chemistry; sewage purification.
- Speck, Prof. F(rank) G(ouldsmith)**, University of Pennsylvania, Philadelphia, Pa. **Anthropology*. New York, N. Y., Nov. 8, 81. A.B., Columbia, 04, A.M., 05; fellow, Pennsylvania, 07-08, Ph.D., 08. Instr. and asst. prof. *anthrop*, Pennsylvania, 08-25, *prof*, 25- Expeditions, Bur. Am. Ethnol., Am. Museum Nat. Hist., Museum Am. Indian and Univ. Pennsylvania to Ind. Ter, Okla. and Que, 04-25. A.A.; Anthropol. Ass; Folk-Lore Soc; Ethnol. Soc. American Indian ethnology and linguistics.
- Speed, Dr. Kellogg**, 122 S. Michigan Ave, Chicago, Ill. *Surgery*. Cleveland, Ohio, Jan. 17, 79. B.S., Chicago, 01, M.D., Rush Med. Col, 04. Assoc. prof. *surg*, Northwestern, 04-19; asst. prof, *Rush Med. Col, Chicago*, 20-25, *assoc. prof*, 25- Attending surgeon, hospitals. Lieut. col, M.C., 17-19. Surg. Ass; Col. Surg; Am. Med. Ass. Fractures; dislocations.
- Speidel, Dr. C(arl) C(askey)**, University, Va. *Anatomy*. Washington, D. C., Oct. 26, 93. Ph.B., Lafayette, 14; Maule fellow, Princeton, 16-17, Ph.D., 18. Asst. biol., Princeton, 14-16; instr. zool., Akron, 17-18; acting prof. biol., St. Lawrence, 19-20; asst. prof. *anat*, Virginia, 20-22, *assoc. prof*, 22- Summers, instr., Virginia, 20-26. A.A.; Ass. Anat; Soc. Zool; Soc. Exp. Biol; Va. Acad. Experimental anatomy; hematology; endocrinology.
- Speller, Dr. Frank N(ewman)**, National Tube Co, Pittsburgh, Pa. *Metallurgy*. Toronto, Ont., Can., Jan. 1, 75. B.A.Sc., Toronto, 94, D.Sc., 23. *Chief metal. research dept, Nat. Tube Co*, 04- Lecturer, Toronto, 98. Min. Eng; Elec-

trochem. Soc; Soc. Test. Mat; Am. Iron and Steel Inst; Mech. Eng. Corrosion.

Spence, Prof. Bartholomew J(ohn), Northwestern University, Evanston, Ill. *Physics*. Chicago, Ill, June 4, 83. B.S., Northwestern, 05; fellow, Princeton, 07-09, Ph.D, 09. *Asst. physics*, Wisconsin, 05-06; instr., Illinois, 06-07; Princeton, 09-10; asst. prof. and assoc. prof., North Dakota, 10-18, prof. and head dept, 18-20; assoc. prof., *Northwestern*, 20-25, *prof. and chairman dept*, 25- A.A.; Physical Soc; Optical Soc. Refractive indices of gold, platinum and silver; infra-red reflecting power of ice and of anilin dyes; thermal properties of clay; absorption spectra of alkaloids; optical pyrometry; infra-red band spectra.

Spence, G(eorge) K(nox), Johnsonburg, Pa. *Chemistry*. New York, N. Y., Dec. 10, 72. B.S., Pa. State, 95, M.S., 10. Asst. chemist, Ohio Steel Co, 95-98; chemist, *N. Y. and Pa. Co. Paper Makers*, 98-02, supt, pulp dept, 02-08, elec. bleach plant, 08-10, *chief eng. chemist*, 10- A.A.; Chem. Soc; Tech. Ass. Pulp and Paper Indust. (pres, 25-27). Preparation of wood pulp; utilization of by-products.

Spencer, Dr. Arthur C(oe), U. S. Geological Survey, Washington, D. C. **Geology*. Carmel, N. Y., Sept. 27, 71. B.S., Case, 92; Ph.D, Hopkins, 96. Asst. geologist, *U. S. Geol. Surv.*, 96-02, *geologist*, 02- A.A.; Geol. Soc; Min. Eng; Wash. Geol. Soc. (sec'y, 06). General geology and ore deposits in Virginia, Colorado, Wyoming, Alaska and Cuba; the zinc and iron deposits in the Precambrian rocks of New Jersey; Triassic iron ores of Pennsylvania; Precambrian of Texas, including iron ores; copper ores of Nevada and New Mexico; geology of reservoir sites.

Spencer, Dr. E(dwin) R(ollin), Lebanon, Ill. *Botany, Plant pathology*. Rushville, Ill, Feb. 13, 81. A.B., Illinois, 11, A.M., 14, Ph.D, 20. Supervisor, high schools, 11-13, 14-17; prof. biol., Southeast. Mo. State Teachers Col, 20-25; consulting botanist, 25-26; *prof. biol., McKendree Col*, 26- Causes of the decay of Brazil nuts.

Spencer, Dr. Frank Clarence, Adams State Normal School, Alamosa, Colo. *Education, Anthropology*. Polk, Ohio, Nov. 24, 66. B.S., Colorado, 94; Ph.D, Columbia, 99; hon. fellow, Clark, 99-00. Supt, pub. schools, Colo, 94-97; prof. math, Buena Vista, 20-21; *prof. math. and dean men*, Olivet, 21-24; *psychol., Adams State Nor. Sch., Colo*, 25- Primitive education; origin of primitive ideas; the San Luis valley, Colorado.

Spencer, Dr. G(eorge) C(arl), 501 Dorset Ave, Chevy Chase, Md. *Chemistry*. Orange, Mass, Dec. 18, 70. B.S., Worcester Polytech, 98; Ph.D, Göttingen, 13. Instr. chem, Lowell Textile Sch, 98-07; asst. chemist, bur. chem, *U. S. Dept. Agr.*, 07-10, 13-17, org. chemist, bur. soils, 17-19, *assoc. chemist, bur. chem.*, 19- A.A.; Chem. Soc. (committee on guaranteed reagents and standard apparatus, 20-25); Agr. Chem. Organic and analytical chemistry; properties of kelp tar oil; dry distillation of kelp at low temperature.

Spencer, Prof. G(eorge) J(ohnston), University of British Columbia, Vancouver, B. C., Can. *Entomology*. Yercaud, South India, 88. Victoria (Eng); Ont. Agr. Col; B.S.A., Toronto, 14; M.S., Illinois, 24. Demonstrator entom. and zool, Ont. Agr. Col, 14-19, lecturer, 19-24; *asst. prof. zool., British Columbia*, 24- Asst. to provincial entomologist, Ont, 13-15; in charge field lab, European corn borer work, 20-24. Capt, R.O.T.C, 14-16; lieut. and acting capt, C.E.F. A.A.; Entom. Soc. Amer; Ass. Econ. Entom; Ecol. Soc; Can. Soc. Tech. Agr; Entom. Soc. Ont; Entom. Soc. B. C. Fumigation with chloropierin gas; European corn borer; economic insects; earwigs; Lepismidae.

Spencer, Dr. Herbert, Louisiana Experiment Station, Baton Rouge, La. *Entomology*. Washington, D. C., April 7, 94. B.S., N. C. State, 15, M.S., 17; Ph.D, Ohio State, 22. Instr. zool. and entom, N. C. State, 15-18, 19-20, asst. prof, 20-21; assoc. entomologist, Va. Truck Exp. Sta, 22-23, entomologist, 23-25; *asst. entomologist, La. Exp. Sta*, 25- M.C., U.S.A., 18-19, lieut, Sanit.R.C. Entom. Soc; Ass. Econ. Entom; Ohio Acad; Va. Acad. Dusting and spraying of vegetable crops; control of Nematodes; parasites and hyperparasites of Aphids; control of squash insects; potato tuber moth; sugarcane borer; cattle parasites in Louisiana.

Spencer, Dr. Hugh M(iller), Yale University, New Haven, Conn. *Physical chemistry*. Winfield, Mo, Nov. 24, 97. A.B., Missouri, 19, A.M., 21; Ph.D, California, 24. *Instr. physical chem.*, Missouri, 20-21; *Yale*, 24- Chem. Soc. Free energy of lead compounds; chemical equilibria; constant humidity systems.

Spencer, Dr. L(ewellyn) T(ruman), Yale University, New Haven, Conn. *Psychology*. Hartford, Conn, April 17, 97. A.B., Yale, 20, A.M., 21, Ph.D, 23. *Asst. prof. psychol., Yale*, 22- Psychol. Ass. Animal and human central inhibition.

Spencer, Dr. John G(eorge), 646. Rose Building, Cleveland, Ohio. *Chemistry, Pharmacology*. Cleveland, Sept. 6, 64. M.D., Western Reserve, 84; Ph.D, Strassburg, 93. Asst. chem, Adelbert, 84-87; instr. pharmacol. and prof. chem, Western Reserve, 94-96; prof. chem. and pharmacol, Cleveland Col. Physicians and Surg, Ohio Wesleyan, 96-10; legal chem, Western Reserve, 10-17, chem, 12-17. A.A.; Chem. Soc; Am. Med. Ass; Ohio Med. Ass; Ohio Pharmacut. Ass; Cleveland Acad. Med, Chem. Soc. and Pharmaceut. Ass; fel. London Chem. Soc; Chem. Gesell. Unsaturated fatty acids; preparation of a carbohydrate from egg albumin; β -brom-valerianic acid, chemically and crystallographically considered; separation of vegetable poisons; delicacy of tests for phenol; forensic identification of blood; sewage disposal.

Sperr, F(rederick) W(illiam), Jr, Mellon Institute, Pittsburgh, Pa. *Chemistry*. Jefferson, Ohio, Dec. 27, 85. A.B., Ohio State, 06. Chemist, Westinghouse Elec. and Mfg. Co, 06-08; civil and mining engineer, 08-10; chief chemist, by-products coke plants, 10-15; *Koppers Co*, 15-25, *director research*, 25-; *senior fellow, Mellon Inst*, 16- Beal medal, Am. Gas Ass,

20. Chem. Soc; Chem. Eng; Am. Gas Ass; Soc. Test. Mat; Franklin Inst; East. States Blast Furnace and Coke Oven Ass; Coal Research Club; N. Y. Chemists Club. Coal carbonization; coke, gas and by-products.
- Sperry, Charles C(arlisle)**, U. S. Department of Agriculture, Washington, D. C. *Biology*. Beverly, Kans, Sept. 28, 95. A.B., Kansas, 18. *Asst. biologist, bur. biol. surv, U. S. Dept. Agr.* Soc. Mammal; Ornith. Union. Food habits of birds and mammals.
- Sperry, D(avid) R(ockwell)**, 119 McKee St, Batavia, Ill. *Engineering*. Batavia, Jan. 24, 83. B.S., Wisconsin, 07, M.E., 10. Factory engineer, Gen. Elec. Co, 09-12; *v. pres, D. R. Sperry and Co, 12-* Chem. Soc. (chairman, filtration symposium, 21, div. indust. and eng. chem, 22-24). Filtration; fundamental laws in filtration; methods of conducting filtration tests; design and use of filter presses.
- Sperry, Elmer A**, 1505 Albemarle Road, Brooklyn, N. Y. *Electrical engineering*. Cortland, N. Y., Oct. 12, 60. Cornell, 79-80. Founder, Sperry Elec. Co; Sperry Elec. Ry. Co; *pres, Sperry Gyroscope Co, 10-* Mem, Naval Consulting Board, 15- Medal, Franklin Inst, 14; first prize, Aero Club, France, 15; grand prize, Panama-Pacific Expos, 15; Collier trophy, 16; 'Sci Am.' medal, Am. Museum; decoration from Czar of Russia. A.A.; Elec. Eng. (founder); Mech. Eng; Electrochem. Soc. (founder); Chem. Soc; Naval Archit. and Marine Eng; Automotive Eng; Physical Soc; N. Y. Elec. Soc. (past pres). Electric beacon construction; detinning and electrochemical processes; manufacture of fuse wire; electric carriage designing; gyrostatic apparatus.
- Sperry, Prof. Pauline**, University of California, Berkeley, Calif. *Mathematics*. Peabody, Mass, March 5, 85. A.B., Smith, 06, fellow, 07-08, A.M., 08, traveling fellow, 12-13; M.S., Chicago, 14, fellow, 15-16, Ph.D., 16. *Instr. math, Smith, 08-12, asst. prof, 16-17; instr, California, 17-23, asst. prof, 23-* Math. Soc; Math. Ass. Projective differential geometry.
- Spieker, Prof. Edmund M(aute)**, Ohio State University, Columbus, Ohio. *Geology*. Baltimore, Md, Feb. 25, 95. A.B., Hopkins, 16, Ph.D., 21. *Geol. aid, U. S. Geol. Surv, 17-18, asst. geologist, 18-19, assoc. geologist, 19-21, geologist, 21-24, assoc. geologist, 24-*; *asst. prof. geol, Ohio State, 24-* Asst. geologist, Imperial Oil Co, 19; geologist, B. C. Can, 20. *Fel. Geol. Soc; Ass. Petrol. Geol; Paleont. Soc. Stratigraphy; paleontology; economic geology of coal and petroleum.*
- Spier, Dr. Leslie**, University of Oklahoma, Norman, Okla. *Anthropology*. New York, N. Y., Dec. 13, 93. B.S., Col. City of N. Y., 15; Cutting fellow, Columbia, Ph.D., 20. *Asst. anthrop, Am. Museum Nat. Hist, 16-20; lecturer, California, 20; instr, Washington (Seattle), 20-21, asst. prof, 21-27; prof, Oklahoma, 27-* Asst, N. J. Archeol. and Geol. Surveys, 13; Nat. Research Council fellow, 23; summers, Columbia, 21, 23, 26, California, 24, 25, 27. Archeol. expeditions to southwest. U. S. Anthrop. Ass. (councilor); fel. Ethnol. Soc. Antiquity of man in America; ethnology of western Indians.
- Spieith, Prof. G(eorge) E(dward)**, 86 College St, Hillsdale, Mich. *Organic chemistry*. New Bavaria, Ohio, Sept. 9, 85. A.B., Chicago, 11, M.S., 18, Ph.D., 25. *Prof. chem, Palmer Col, 11-15; Defiance Col, 15-16; Hillsdale, 16-* A.A.; Chem. Soc; Mich. Acad. The C, saccharinic acids.
- Spiller, Dr. William G(ibson)**, 4409 Pine St, Philadelphia, Pa. *Medicine*. Baltimore, Md, Sept. 13, 63. M.D., Pennsylvania, 92. Asst. clin. prof. nervous diseases and asst. prof. neuropath, *sch. med, Pennsylvania, 01-03, prof. neuropath. and assoc. prof. neur, 03-15, prof. neur, 15-* Clin. prof, Woman's Med. Col. of Pa, 02-25; consulting neurologist, Phila. Hosp. Neur. Ass. (pres, 05); Am. Med. Ass; Phila. Psychiat. Soc; Phila. Col. Physicians; Phila. Neur. Soc. (past pres); for. cor. mem. Soc. de Neur. de Paris; cor. mem. Gesell. Nervenärzte; Vienna Verein Neur. und Psychiat; hon. mem. Esthonian Soc. de Neur. The symptomatology and pathology of nervous diseases.
- Spillman, Dr. W(illiam) J(asper)**, 1705 Lanier Place, Washington, D. C. *Agriculture*. Lawrence Co, Mo, Oct. 23, 63. B.S., Missouri, 86, M.S., 89, Sc.D., 10. Prof. science, Mo. State Nor. Sch, Cape Girardeau, 87-89; Vincennes Univ, 89-91; Oregon State Nor. Sch, 91-94; prof. agr, Wash. Col, 94-01; agrostologist, U. S. Dept. Agr, 02-05, agriculturist in charge farm management investigations, 05-18, *agr. economist, 22-* Assoc. ed, 'The Farm Jour,' 18-21. A.A.; Soc. Agron; Farm Econ. Ass. Farm practise and underlying principles; economic agriculture.
- Spinden, Dr. H(erbert) J(oseph)**, Peabody Museum, Harvard University, Cambridge, Mass. **Anthropology*. Huron, S. Dak, Aug. 16, 79. A.B., Harvard, 06, A.M., 08, Ph.D., 09. Austin teaching fellow, Harvard, 06-09; asst. curator anthrop, Am. Museum Nat. Hist, 09-20, in charge indust. and decorative art exhib, 19; *curator Mex. archeol. and ethiol, Peabody Museum, 20-* Nat. Research Council. Angrand prize, 18. Anthrop. Ass; Folk-Lore Soc; Ethnol. Soc; fel. Am. Acad; fel. Royal Geog. Soc; Ecuatoriana de Estudios Hist. Am; Paris Soc. des Américanistes; Maya Soc. Mandan and Nez Percé Indians; ethnology and archeology of Mexico, Central America and South America; historical developments in art; primitive agriculture; use of primitive art in modern industrial decorations; correlation of Central American calendar and chronology with European chronology; the Venus calendar; Maya astronomy.
- Spinney, Prof. L(ouis) B(ever)**, Iowa State College, Ames, Iowa. *Physics*. Bradford, Ill, May 27, 69. B.M.E., Iowa Col, 92, B.S., 93; Cornell, 93-94, 98-00; Berlin, 94-95; Zurich, 95-96. Asst. physics, Iowa Col, 93-97, *prof. physics and elec. eng, 97-09, physics and illum. eng, 09-14, physics, 14-* A.A.; Physical Soc; Elec. Eng; Illum. Eng; Eng. Educ. Elastic properties of glass; analysis of vowel sounds; illumination.

Spoehr, Dr. Herman A(ugustus), Coastal Laboratory, Carmel, Calif. **Plant physiology*. Chicago, Ill, June 18, 85. B.S, Chicago, 06, fellow, 08-09, Ph.D, 09; Berlin, 06-07; Paris, 07-08. Assoc. chem, Chicago, 09-10; staff mem, desert lab, *Carnegie Institution*, 10-26, *asst. director in charge operations, coastal lab*, 26- Summer, acting prof, Stanford, 24. A.A; Chem. Soc; Bot. Soc. Photosynthesis; plant respiration; carbohydrates.

Spofford, Prof. Charles M(ilton), 61 Colbourne Crescent, Brookline, Mass. *Civil engineering*. Georgetown, Mass, Sept. 28, 71. B.S, Mass. Inst. Tech, 93. Asst. *civil eng*, Mass. Inst. Tech, 96-97, instr, 97-03, *asst. prof*, 03-05; *prof*, Brooklyn Polytech, 05-09; *Hayward prof. and in charge civil and sanit. eng. dept*, Mass. Inst. Tech, 09-, *chairman faculty*, 25- Designer and expert adviser, bridges, warehouses and piers, 00-; Boston Terminal Commission, 15-16; mem. firm, Fay, Spofford and Thorndike, 14- A.A; Civil Eng. (director, 25-); Eng. Educ; Am. Acad; Boston Soc. Civil Eng. (pres, 18); British Inst. Civil Eng. Theory of structures.

Spohn, Prof. Adelaide, Cornell University, Ithaca, N. Y. *Home economics*. Chicago, Ill, May 25, 86. B.S, Chicago, 08, M.S, 13; Ph.D, Columbia, 22. Instr, high schools, Ill, 08-11; research asst. to Dr. Oscar Riddle, Chicago, and sta. for exp. evolution, *Carnegie Institution*, 11-15; instr. chem, Teachers Col, Columbia, 15-16; chem. asst, dept. physiol, Columbia, 16-18; instr. chem, Northwestern, 18-19; Pratt Inst, 19-20; research asst. food chem, Columbia, 20-22; asst. prof. *home econ*, Cornell, 22-24, *prof*, 24- A.A; Chem. Soc. Nutrition; the nutritive value of foods and the changes which take place in the processes of preparation.

Sponsler, Dr. O(lenus) **L**(ee), University of California at Los Angeles, Los Angeles, Calif. *Forestry, Botany*. Akron, Ohio, June 17, 79. A.B, Michigan, 10; A.M, Nebraska, 12; Ph.D, Stanford, 22. Adjunct prof. forestry and bot, Nebraska, 10-11, *assoc. prof. in charge*, 11-12; *assoc. prof*, Michigan, 12-17; wood technologist, forest products lab, U. S. Forest Service; instr. *bot, California at Los Angeles*, 22-24, *asst. prof*, 24-26, *assoc. prof*, 26- Forest surv, Mich. Geol. Surv; Wis. State Board Forestry. A.A; Bot. Soc; West. Soc. Nat. (pres, south. Calif. sect, 24). Molecular structure of solids deposited by protoplasm, cellulose, starch and the sugars.

Spooner, Thomas, Westinghouse Electric and Manufacturing Co, East Pittsburgh, Pa. *Electrical engineering*. Whitefield, N. H, Jan. 1, 84. A.B, Bates, 05; B.S, Mass. Inst. Tech, 09. Elec. construction, Stone and Webster, 05-06; paper mill design, Odell Mfg. Co, 07-08; *research engineer, Westinghouse Elec. and Mfg. Co*, 09- Elec. Eng; Physical Soc; Soc. Test. Mat. (chairman, magnetic properties committee, 25-); Pittsburgh Physical Soc. Properties and testing of magnetic materials; magnetic properties, magnetic testing and core losses in rotating machines; electrical measuring instruments.

Sprague, Frank (Julian), 421 Canal St, New York, N. Y. **Electrical engineering*. Milford, Conn, July 25, 57. Grad, U. S. Naval Acad, 78. Officer, U.S.N., 78-84; asst. to Thos. A. Edison, 84; v. pres, Sprague Elec. Ry. and Motor Co, 84-90; consulting engineer, Edison Gen. Elec. Co, 90; pres. and v. pres, Sprague Elec. Elevator Co, 91-97; v. pres. and tech. director, Sprague Elec. Co, 98-01; *consulting engineer, Sprague Safety Control and Signal Corp*. Mem. and sec'y jury, Crystal Palace Elec. Exhib, 82-83. Gold medal, Paris Exhib, 89; Elliott Cresson medal, Franklin Inst, 04; grand prize, La. Purchase Expos, 04; Edison gold medal, 11. Elec. Eng. (pres, 92); Civil Eng; assoc. Naval Archit; Naval Inst; Consulting Eng. (pres, 14); Inventors Guild (pres); N. Y. Elec. Soc. (pres, 04); British Inst. Elec. Eng; British Inst. Civil Eng. Electricity; railway operation and power distribution; rapid transit; power transmission and utilization; stationary motors; pioneer modern trolley system; inaugurated high-speed electric elevators; invented multiple-unit system of electric railways; automatic train control; electrification of terminals of the New York Central and Hudson River Railroad; Southern Pacific Company and Sierra Nevada electrification project.

Spraragen, William, National Research Council, 29 W. 39th St, New York, N. Y. *Electrical engineering*. Warwick, N. Y, May 20, 95. B.E, Union, 16. Testing engineer, Westinghouse Elec. and Mfg. Co, 16-17; instr. elec. eng, Okla. Agr. and Mech. Col, 17-18; Washington (Seattle), 19-20; *sec'y, eng. div, Nat. Research Council*, 20- Exec. committee, highway research board, Nat. Research Council. Ballistic inspector, War Dept, 18; asst. chairman welding research committee, Nat. Research Council and Emergency Fleet Corp, 18-19. Elec. Eng; Welding Soc. (ed, 'Jour,' 22-, tech. sec'y, 27-). Welding; mathematics applied to engineering.

Spray, Prof. Robb S(palding), 304 Fourth St, Morgantown, W. Va. *Bacteriology, Hygiene*. Omaha, Nebr, Feb. 18, 90. B.S, Purdue, 14; M.S, Pa. State, 17; Logan fellow, Chicago, 20-21, Ph.D, 23. Instr. bot, Pa. State, 15-18; asst. animal pathologist, Purdue, 18-20; *assoc. prof. hygiene and bacter, West Virginia*, 21- Summers, instr, Chicago, 21-23. Soc. Bact. Veterinary pathology of diseases of swine, sheep and fowls; pulmonary diseases of animals; human food poisoning epidemics.

Spring, Prof. Samuel N(ewton), Cornell University, Ithaca, N. Y. *Forestry*. Sioux City, Iowa, Feb. 5, 75. A.B, Yale, 98, M.F, 03. Field asst, bur. forestry, U. S. Dept. Agr, 03; *prof. forestry*, Maine, 03-05; forest asst. and asst. forest inspector and chief office exten, U. S. Forest Service, 05-09; state forester, Conn, and forester, Conn. Exp. Sta, 09-12; *prof. forestry, Cornell*, 12- Forestry Ass; Soc. Foresters; N. Y. Forestry Ass. Silviculture.

Springer, Dr. Alfred, 312 E. Second St, Cincinnati, Ohio. **Chemistry, Physics*. Cincinnati, Feb. 12, 54. Ph.D, Heidelberg, 72. Owner, *Alex. Fries and Bro, Cincinnati*, 74- A.A. (sec'y, subsect. chem, 81, sec'y, C, 82, asst. gen. sec'y, 83, gen. sec'y, 84, v. pres, 92);

- Chem. Soc; cor. mem. British Ass. The torsion balance; aluminum sound boards; fermentation without combined nitrogen; anti-putrescent effects of copper salts.
- Springer, Dr. Alfred, Jr.**, 312 E. Second St, Cincinnati, Ohio. *Physical chemistry*. Cincinnati, Nov. 1, 88. A.B. Yale, 09; Ph.D. Hopkins, 12; Göttingen, 12-13. *Chemist, Alex. Fries and Bro., Cincinnati*, 13- Chem. Soc. Conductivity and dissociation of organic acids.
- Springer, Dr. Frank.** U. S. National Museum, Washington, D. C. **Paleontology*. Wapello, Iowa, June 17, 48. Ph.B. Iowa Col, 67; Sc.D. George Washington, 21; Ph.D. Bonn, 24. *Lawyer*, 68- Assoc. paleont. museum comp. zool. Harvard, 01; U. S. Nat. Museum, 12; state senator, N. Mex, 80, 01; pres. Maxwell L. G. Co, 90- Mem. bar, U. S. Supreme Court, 82- Regent, New Mexico Nor, 98; state museum, N. Mex, 09- A.A.; Paleont. Soc; Geol. Soc; for. cor. London Geol. Soc. Paleocrinoidea; North American Crinoidea Camerata: American fossil crinoids; a Trenton echinoderm fauna; the genus *Scyphocrinus*; Crinoidea Flexibilia; Dolatocrinus; Balanocrinus; new Tertiary crinoid of the West Indies; Apioerinus in America; Pentacrinus of the East Indies and of Alaska; Holopus; unusual form of crinoids; Silurian crinoids.
- Springer, Prof. F(ranklin) W(esley)**, University of Minnesota, Minneapolis, Minn. *Electrical engineering*. Anoka, Minn, Jan. 18, 70. B.E.E. Minnesota, 93, E.E. 98. Instr. elec. eng. Minnesota, 96-00, asst. prof, 00-08, prof, 08-, acting head dept, 25- Fel. Elec. Eng. (past v. pres). Spherical-want system.
- Sprowls, Prof. J(esse) W(illiam)**, St. John's College, Annapolis, Md. *Psychology*. Claysville, Pa, Aug. 17, 87. B.S. Valparaiso, 10; A.B. B.S. Pittsburgh, 14; A.M. Clark, 18, Ph.D. 19. Prof. educ. Bethany (W. Va), 15-17; acting prof. Vermont, 19-20; prof. secondary educ. Tennessee, 20-23; psychol. St. John's Col, 24- Summers, lecturer, Pittsburgh, 15, 19, prof. George Washington, 24, 25; chairman, Tenn. Commission Secondary Educ, 21-23. A.A. Social and educational psychology; mental measurements.
- Sprunt, Dr. T(homas) P(eck)**, 1035 N. Calvert St, Baltimore, Md. *Medicine*. Augusta Co, Va, Feb. 16, 84. A.B. Davidson, 03; M.D. Hopkins, 09. Asst. instr. and assoc. path. Hopkins, 09-12, instr. and assoc. med. 13-18, assoc. clin. med, 19- Am. Med. Ass; Ass. Path. and Bact; Climat. Ass. Internal medicine; pathology.
- Spuler, Anthony**, 611 Michigan Ave, Pullman, Wash. *Entomology*. Genesee, Idaho, Dec. 19, 89. B.S. Wash. Col, 17, M.S. 19. *Assoc. entomologist*, Wash. Exp. Sta, 17- Entom. Soc; Ass. Econ. Entom; Pacific Coast Entom. Soc. Systematic entomology; Dipterous families, Borboridae, Sepsidae, Piophilidae; orchard leaf-roller; oil sprays; oil sprays and soil treatment for subterranean insects; codling moth.
- Spurr, J(osiah) E(dward)**, 7 Edgewood Park, New Rochelle, N. Y. **Geology*. Gloucester, Mass, Oct. 1, 70. A.B. Harvard, 93, A.M. 94. Mining engineer and geologist to Sultan of Turkey, 01-02; geologist, U. S. Geol. Surv, 02-06; chief geol. dept, Am. Smelting and Ref. Co, Am. Smelter Securities Co. and Guggenheim Explor. Co, 06-08; pres. Spurr and Cox, 08-11; v. pres. in charge mining, Tonopah Mining Co, Nev, 11-17; ed, *'Eng. and Mining Jour.'*, 19- Committee on mineral imports, W. T. B. and U. S. Shipping Board, 17-18; exec. war minerals investigations and chief metal mining eng, U. S. Bur. Mines, and chief eng, War Minerals Relief, 18-19. Geol. Soc; Soc. Econ. Geol. (pres, 23); Min. and Metal. Soc. (pres, 21); N. Y. Eng. Club. Mesabi iron-bearing rocks; Yukon gold diggings; geology applied to mining; ore magmas; economic geology.
- Squier, Gen. George O(wen)**, U.S.A., U. S. War Department, Washington, D. C. **Electrical engineering*. Dryden, Mich, March 21, 65. Grad. U. S. Mil. Acad, 87; fellow, Hopkins, 92, Ph.D. 93, fellow by courtesy, 03. Second lieut, Artil, 87-93, lieut, 93-98, capt. and lieut. col. vol. Sig.C, 98-99, lieut, *Sig.C*, 99-01, capt, 01-03, major, 03-17, chief signal officer, brig. gen. and major gen, 17- Instr. U. S. Artil. Sch. Fortress Monroe, Va, 95-98; commander, U. S. Cablesip 'Burnside', Philippine Archipelago, 00-02; chief signal officer, Headquarters Dept, Calif, 02; U. S. mil. attaché, London, Eng, 12-16. John Scott medal, Franklin Inst, 96; Elliott Cresson medal, 12. K.C.M.G., 19; D.S. medal. Nat. Acad; A.A.; fel. Elec. Eng; Physical Soc; Radio Eng; Philos. Soc; Franklin Inst; Wash. Philos. Soc; London Physical Soc. Electrochemical effects due to magnetization; the polarizing photo-chronograph; the sine wave systems of telegraphy; multiplex telephony and telegraphy; tree telephony and telegraphy; the absorption of electromagnetic waves by living vegetable organisms; broadcasting over power and telephone lines by radio frequency currents.
- Stabler, Dr. Edward L(incoln)**, Central Leather Co, 17 Battery Place, New York, N. Y. *Mathematics*. Brooklyn, N. Y, April 20, 65. A.B. Columbia, 85, fellow, 85-88, A.M. 86, Ph.D. 88. Actuary, Manhattan Life Ins. Co, 89-98; Central Leather Co, 02- A.A.
- Stack, Prof. J(oseph) W(illiam)**, 1028 Chesterfield Parkway, East Lansing, Mich. *Zoology*. Jefferson, Ohio, Feb. 2, 93. B.S. Notre Dame, 15, M.S. 18. Instr. and assoc. prof. zool. Mich. State Col, 15- Wilson Ornith. Club (treas, 26-); Inland Bird-Banding Ass. (councilor, 25-, sec'y, 26-); Mich. Acad; Mich. Audubon Soc. (councilor, 25). Aquatic zoology; ornithology; ecology.
- Stacy, Dr. L(eland) J(ohnson)**, 463 West St, New York, N. Y. *Physics*. Canton, N. Y, Aug. 11, 89. A.B. St. Lawrence, 09; Ph.D. Chicago, 19. *Develop. engineer*, West. Elec. Co, 19-25, Bell Telephone Laboratories, 25- A.A.; Elec. Eng. Coefficients of slip in air.
- Stadie, Dr. William C(hristopher)**, University of Pennsylvania, Philadelphia, Pa. *Medicine*. New York, N. Y, June 15, 86. B.S. N. Y. Univ, 07; M.D. Columbia, 16. Intern, Presb.

Hosp, New York, 16-18; assoc, Rockefeller Inst, 18-21; asst. prof. med, Yale, 21-24; *assoc. prof. research med, Pennsylvania, 24-* Soc. Clin. Invest; Biochem. Soc; Harvey Soc. The chemical aspect of medical research.

Stadler, Prof. L(ewis) J(ohn), University of Missouri, Columbia, Mo. *Genetics*. St. Louis, Mo, July 6, 96. B.S.A, Florida, 17; A.M, Missouri, 18, Ph.D, 22; Cornell, 19. Asst. *field crops, Missouri, 19-20*, instr, 20-21, asst. prof, 21-25, *assoc. prof, 25-* Nat. Research Council fellow, Harvard, 25-26. A.A; Soc. Agron; Bot. Soc; Phytopath. Soc. Plant breeding; agronomy; genetics of maize; field experimentation.

Stafford, Prof. E(thelbert) W(ithrow), Agricultural and Mechanical College, Mississippi. *Zoology, Entomology*. Toronto, Ont, Can, Oct. 26, 87. B.S.A, Toronto, 09; M.S, Miss. Agr. and Mech. Col, 14; Cornell, 19, 20; Minnesota, 23, 24, 25. Asst, Minnesota, 09-11; N. J. Exp. Sta, 11; asst. entomologist, Pa. Chestnut Tree Blight Commission, 12-13; Ill. Hort. Inspection, 11, 14-17; instr, asst. prof. and *assoc. prof, Miss. Agr. and Mech. Col, 17-* Summer, prof, Purdue, 22. A.A; Entom. Soc; Ass. Eeon. Entom; Soc. Parasitol. Scale insects; trematoda in dragon flies; acalyptate Muscoidea.

Stafford, Prof. O(rin) F(letcher), University of Oregon, Eugene, Oregon. *Chemistry*. Hillsboro, Ohio, Feb. 7, 73. A.B, Kansas, 00, A.M, 02; Berlin, 08-09. Instr. *chem, Oregon, 00-* 02, asst. prof, 02-06, *prof, 06-* A.A; Chem. Soc. Reactions between acid and basic amides in liquid ammonia solutions; dissociation of the sulphur vapor molecule; vapor pressures of sulphur; bactericidal action of ultra-violet rays; exothermic reactions in the pyrolysis of cellulose and wood.

Stager, Dr. Henry W(alter), P. O. Box 245, Los Gatos, Calif. *Mathematics*. Nutley, N. J, April 18, 79. A.B, Stanford, 02, A.M, 06; Ph.D, California, 09. Asst. math, Stanford, 01-02, 05-06; prof, Pacific (Calif), 06-07; teaching fellow math, California, 07-10; head dept, Fresno Junior Col, Fresno, Calif, 10-16; instr, Washington (Seattle), 20-24. With U. S. Ry. Ad, 17-20. A.A; Math. Soc; Math. Ass. Theory of numbers; factor tables; statistics.

Stagner, Dr. Bert Allen, Union Oil Co. of California, Los Angeles, Calif. *Chemistry*. Chillicothe, Mo. A.B, Missouri, 10, A.M, 11; Ph.D, Chicago, 14. Head dept. chem, Fresno Junior Col, 11-13, 14-17; research chemist, Mellon Inst, 17-20; *supervisor chem. research, Union Oil Co. Calif, 20-* Summer, instr, Missouri, 10. A.A; Chem. Soc. Triarylhydroxylamin derivatives; keratin products; petroleum.

Stahl, C(orwin) F(loyd), Central Baraguá, Cuba. *Entomology*. McCool, Ind, Sept. 26, 89. B.S, Pomona, 11. Office truck crop insect investigations, bur. entom, U. S. Dept. Agr, 13-24; entomologist, *Trop. Plant Research Foundation, Cuban Exp. Sta, 24-* Entom. Soc; Ass. Eeon. Entom. Beet leafhopper and curly-top of sugar beets; sugar cane mosaic.

Stahl, Dr. Karl F(riederich), 2318 Wharton St, S. Side, Pittsburgh, Pa. *Chemistry*. Zwiefalten, Germany, March 14, 55. Tech. High Sch, Stuttgart, 72-75; D.Sc, Tübingen, 76. Supt, chem. works, Johnstown, 85-90; James Irwin and Co, 90-99; *Gen. Chem. Co, 99-14, consulting chemist, 14-* Chem. Soc (chairman, Pittsburgh sect, 16); Soc. Chem. Indust; West. Pa. Eng. Soc. (chairman, chem. sect, 02); Chem. Verein. Inorganic chemistry; hydrofluoric and hydrofluosilicic acids, their salts and their application to glass.

Stakman, Dr. E(ivin) C(harles), Agricultural Experiment Station, St. Paul, Minn. **Plant pathology*. Algoma, Wis, May 17, 85. A.B, Minnesota, 06, A.M, 10, Ph.D, 13. Instr. *plant path, Minnesota, 09-13*, asst. prof, 13-16, *assoc. prof, 16-18, prof, 18-*, asst. plant path, *Exp. Sta, 09-10*, asst. plant pathologist, 10-13, *head sect, plant path, 13-* Pathologist and agent, U. S. Dept. Agr, 18- Assoc. ed, 'Phytopathology,' 16, ed-in-chief, 25- A.A; Soc. Nat; Phytopath. Soc. (councilor, v. pres, pres, 22); Bot. Soc. (board control, 'Bot. Abstracts'); Genetic Ass; Soc. Exp. Biol; Am. Acad; Minn. Mycol. Soc. (pres, 19-); British Mycol. Soc; Halle Akad. der Naturforscher. Cereal smuts and rusts; the nature of the resistance and immunity of cereal rusts; grass rusts.

Stalder, Walter, Crocker Building, San Francisco, Calif. *Geology*. Oakland, Calif, April 6, 81. B.S, California, 04, M.S, 07. Chemist, San Francisco Chem. Co, 04-07; oil geologist for M. L. Requa, 09-14; *consulting oil geologist, 14-* Private expeditions to investigate petroleum, U. S. and Can. A.A; Ass. Petrol. Geol; Chem. Soc; Inst. Min. and Metal. Eng. Geology of the California oil fields.

Staley, Prof. W(alter) J, Carnegie Institute of Technology, Pittsburgh, Pa. *Physics*. Rural Retreat, Va, July 11, 91. A.B, Roanoke, 12, A.M, 13; Columbia, 14, 15; Pittsburgh, 21, 26, 27. Head dept. science, Daleville Col, 13-17; asst. prof. physics, Miss. Agr. and Mech. Col, 19-20; *asst. prof, Carnegie Inst. Tech, 20-* Mathematical physics.

Stallard, Dr. Harvey, Medico-Dental Building, San Diego, Calif. *Botany*. Onaga, Kans, Jan. 18, 88. Ph.B, Ottawa (Kans), 09; fellow, Minnesota, 12-17, Ph.D, 17; D.D.S. Illinois, 20. Instr, sch, Minn, 09-10; Bethel Acad, 10-12; asst. instr. bot, Minnesota, 12-17; *mem, Board Dental Examiners, Calif, 25-* Bot. surv, Minn, 12-16. Pacific Coast Soc. Orthodont. Plant succession; origin of sphagnum atolls; etiology of malformed jaws; physiology of chewing; mechanics of mastication.

Stalnaker, Dr. Elizabeth M(attingly), 354 Spruce St, Morgantown, W. Va. *Psychology*. Gaithersburg, Md. A.B, West Virginia, 02; A.M, Columbia, 15; Ph.D, Hopkins, 23. Modern languages, Shepherd Col. Nor. Sch, W. Va, 02-05; Fairmount State Nor. Sch, 07-15; educ, Marshall Col, 15-23, head dept. psychol, 23-25; *assoc. prof. educ, West Virginia, 25-* Psycho-clinician, Huntington State Hosp, W. Va, 19-25; mental examiner, juvenile delinquents, Charleston. Comparison of certain

- mental and physical measurements of school and college students; difference between city and country children in mental and motor abilities.
- Stammelman, Dr. Mortimer J(acob)**, 63 Elmwood Ave, Montclair, N. J. *Physical chemistry*. New York, N. Y., Dec. 27, 97. A.B., Columbia, 20, A.M., 21, Ph.D., 23. Chemist, Int. Arms and Fuse Co, 17; chief chemist, Dusen-berg Motors Corp, 18; asst. chem, Columbia, 18-22; *pres*, *Atmos Products Corp*, New York, 25- Chem. Soc; N. J. Chem. Soc. Hydrogen-ation measurements; activity coefficients of cer-tain acids over a wide range of concentration; viscose process and applications; humidification.
- Stander, Dr. H(enricus) J(ohannes)**, 2624 St. Paul St, Baltimore, Md. *Obstetrics*. George-town, Cape Colony, South Africa, June 21, 94. South African Col, 11-13; Harvard, 13-14; M.S., Arizona, 16; M.D., Yale, 21. Chemist and asst. gen. manager, Yaryan R. and T. Co, Ga, 16-17; research asst. radiol. sch. med, Yale, 18-19, obstet. and gynec, 19-21; chemist, Hercules Powder Co, Del, 21-22; assoc. obstet, *Hopkins Univ. and Hosp*, 22-27, *assoc. prof*, 27- A.A.; Am. Med. Ass. The flotation process; placental interchange; blood volume, heart out-put, toxemias, urea excretion, basal metabolism and acidosis in pregnancy; eclampsia; chloro-form poisoning; the respiratory quotient of the human foetus.
- Standley, Paul C(arpenter)**, U. S. National Mu-seum, Washington, D. C. **Botany*. Avalon, Mo, March 21, 84. Drury, 03-06; B.S., N. Mex. Col, 07, M.S., 09. Asst. bot, N. Mex. Col, and asst. botanist, Exp. Sta, 07-09; asst. cura-tor *div. plants*, U. S. Nat. Museum, 09-20, *assoc. curator*, 20- A.A.; Fern Soc; Wash. Acad; Wash. Biol Soc. Systematic botany of North America.
- Stanford, Prof. E(rnest) E(lwood)**, College of the Pacific, Stockton, Calif. *Botany*, *Pharma-cognosy*. Rowe, Mass, April 17, 88. B.S., Mass. Col, 15; M.S., N. C. State, 17; Ph.D., Harvard, 24. Asst. plant path, N. C. Exp. Sta, 15-17; sci. asst, bur. chem, U. S. Dept. Agr, 17-19, act-ing pharmacognosist, in charge pharmacog. lab, 19; *prof*, Western Reserve, 19-26; *bot. and zool*, *Pacific (Calif)*, 26- Bot. expert, U. S. Tariff Commission, 18-19. A.A. Bacterial wilt of solanaceous plants; chemistry and histology of cotton plant; opium, coca leaves; botanical drugs; systematic botany of genus Polygonum.
- Stang, Dr. A(mbrose) H(enry)**, 331 Upshur St, N. W., Washington, D. C. *Physics*. Au-burn, Pa, July 10, 89. C.E., Syracuse, 10; A.M., Michigan, 15, Ph.D., 16. Instr. physics, Ohio Wesleyan, 10-14; asst, Michigan, 14-16; asst. prof, Oklahoma, 16-19; asst. physicist, *Bur. Standards*, 19-20, *assoc. physicist*, 20-26, *engineer physicist*, 26- Physical Soc; Soc. Test. Mat. Infra-red absorption spectrum of naphthalene; engineering mechanics; pressure tanks; steel columns; girder hooks; masonry walls; floor slabs; welded rails.
- Stange, Dean Charles H**, Iowa State College, Ames, Iowa. *Veterinary science*. Iowa, May 21, 80. D.V.M., Iowa Col, 07. Prof. path,
- Iowa Col, 07-09, *dean and director div. vet. med*, 09- Vet. Med. Ass. (exec. board, 16-20, 25, pres, 24); Iowa Acad. Animal diseases; infectious diseases of cattle and swine.
- Stangel, Prof. W(enzel) L(ouis)**, Texas Techno-logical College, Lubbock, Texas. *Animal hus-bandry*. Stangelville, Wis, Aug. 16, 90. B.S., Agr. and Mech. Col. Texas, 15; M.S., Missouri, 16. Instr. *animal husbandry*, Agr. and Mech. Col. Texas, 16-18, *assoc. prof*, 18-20, *prof*, 20-25; *head dept*, *Texas Tech. Col*, 25- Genetic Ass; Soc. Animal Production. Swine feeding.
- Stanley, Prof. F(orrester) C**, Penn College, Oskaloosa, Iowa. *Chemistry*. Ackworth, Iowa, Nov. 26, 81. B.S., Simpson Col, 07; A.M., Wis-consin, 10; Berlin, 13-14. Teacher, high sch, Iowa, 07-09; *prof. chem*, *Penn. (Iowa)*, 09- Financial agent, Penn Col, 17-18; State sena-tor, 25- Chem. Soc; Iowa Acad. Physical chemistry.
- Stanley, Dr. Louise**, U. S. Department of Agri-culture, Washington, D. C. *Chemistry*. Nash-ville, Tenn, June 8, 83. B.S., Peabody Col, 03; B.Ed., Chicago, 06; A.M., Columbia, 07; Ph.D., Yale, 11. Instr. home econ, Missouri, 07-11, *asst. prof*, 11-14, *assoc. prof*, 14-17, *prof*, 17-23; *chief bur. home econ*, U. S. Dept. Agr, 23- Fed. agent, home econ. educ, 18-19. Chem. Soc; Home Econ. Ass; Child Hygiene Ass. Food chemistry; organic and inorganic phos-phorus; purin enzymes; temperatures for baking.
- Stanley-Brown, J(oseph) S**, 44 Wall St, New York, N. Y. *Geology*. Washington, D. C, Aug. 19, 58. A.B., Yale, 88. Stenographer to Major Powell, Geol. Surv. of Rocky Mt. Region, 77-79; private sec'y, Pres. Garfield, 80-81; U. S. Geol. Surv, 82-85, *asst. geologist*, 88-90; expert, Bering Sea Arbitration, 91-93; gen. supt, N. A. Commercial Co. of Alaska, 94-99; *asst. sec'y*, U. P. S. P. and other ry. systems, 99-02; *asst. to pres*, Long Island Ry. Co, 02-04; in charge ry. dept, Fish and Robinson, bankers, 05-15; *partner*, *Robinson and Co*, 15- A.A.; Geol. Soc. (ed, 'Proc,' 92-); Wash. Geol. Soc.
- Stansfield, Prof. A(lfred)**, McGill University, Montreal, Que, Can. *Metallurgy*. Bradford, Eng, March 18, 71. Bradford Tech. Col, 86-88; Royal Col. Science, London, 88-91; *assoc*, Royal Sch. Mines, 91, D.Sc, 98. Instr. assay-ing, Royal Sch. Mines, 98-01; *prof. metal*, *Mc-Gill*, 01- Asst. to Sir W. Roberts-Austen in researches on alloys for London Inst. Mech. Eng, 91-98; Carnegie research scholar, 00-01. Min. and Metal. Eng; Electrochem. Soc; fel. Royal Soc. Can; Can. Min. Inst; Eng. Inst. Can; British Ass; British Inst. Metals; British Iron and Steel Inst; fel. London Chem. Soc; fel. London Soc. Arts. Thermoelectric pyrome-ter; alloys; interdiffusion of solid metals; electric smelting of ores.
- Stansfield, Prof. John**, 902 W. Illinois St, Urbana, Ill. *Geology*. Brighouse, Eng, March 28, 85. B.A., Cambridge, 07, M.A., 20; M.S., McGill, 12. Explorer for Rajah of Sarawak, 09-10; Can. Geol. Surv, 10-18; *asst. prof. geol*, Illinois, 23-25; *prof*, Mont. State Sch. Mines, 25-26; *assoc*.

- prof, Washington (St. Louis), 26-27. Commercial explor, 19- Lecturer, McGill, 10-20. Min. and Metal. Eng.; Ill. Acad; Can. Min. and Metal; London Geol. Soc. Economic geology; exploration; laboratory investigation; physical chemistry.
- Stanton, Dr. Hazel M(artha)**, Eastman School of Music, Rochester, N. Y. *Psychology*. Stromsburg, Nebr, July 16, 90. A.B., Nebraska, 12; A.M., Iowa, 18, Ph.D., 21. Prin. pub. sch, 12-17; instr. psychol, Iowa, 20-21; *psychologist in music*, Eastman Sch. Music, 21- A.A.; Psychol. Ass; Eugenics Research Ass. Psychology of music; the inheritance of specific musical capacities; psychological tests of musical talent; genetics.
- Stanton, Dr. Ralph E(vans)**, 22 Carolina Ave, Providence, R. I. *Biology*. Providence, May 5, 96. Ph.B., Brown, 20, Ph.D., 22. Asst. physiol. chem, Brown, 18-22; *chemist*, Providence Milk Dept, 22-24; *private lab*, Providence, 24- Summers, biochemist, U. S. Pub. Health Service, 17-20. Pellagra; physiology of muscle.
- Stanton, T(homas) E(ay)**, 1 Maple Ave, Hyattsville, Md. *Agronomy, Plant genetics*. Grantsville, Md, Sept. 23, 85. B.S.A., Maryland, 10, M.S., 21. Asst. agronomist, Md. Exp. Sta, 10-11; agent, *office cereal crops and diseases, bur. plant indust*, U. S. Dept. Agr, 11-12, in charge cereal investigations, Arlington Farm, Va, sci. asst, 12-16, asst. agronomist, 16-22, *agronomist in charge oat investigations*, 22- A.A.; Soc. Agron; Genetic Ass; Agr. Hist. Soc; Wash. Bot. Soc. The crossing and breeding of oats.
- Stanton, Dr. T(imothy) W(illiam)**, U. S. National Museum, Washington, D. C. **Paleontology, Geology*. Monroe Co, Ill, Sept. 21, 60. B.S., Colorado, 83, M.S., 96, Sc.D., 24; Hopkins, 88-89; Ph.D., George Washington, 97. Asst. state librarian, Colo, 85-88; asst. paleontologist, U. S. Geol. Surv, 89-00, paleontologist, 00-03, *geologist in charge paleont. and stratig*, 03- Custodian Mesozoic invertebrates, U. S. Nat. Museum, 93-; instr, George Washington, 95-03, asst. prof, 04. A.A.; Paleont. Soc. (pres, 21); Geol. Soc. (v. pres, 21); Wash. Acad; Wash. Biol. Soc; Wash. Geol. Soc. (v. pres, 10, pres, 12). Invertebrate fauna and stratigraphy of the Mesozoic; lower Cretaceous fauna of the Texan region; Mesozoic invertebrates and stratigraphy of North America.
- Starbuck, Prof. Edwin D(iller)**, University of Iowa, Iowa City, Iowa. **Psychology, Philosophy*. Bridgeport, Ind, Feb. 20, 66. A.B., Indiana, 90; A.M., Harvard, 95; Ph.D., Clark, 97. Teacher, high sch, Ind, 90-91; prof. math, Vincennes, 91-93; asst. prof. educ, Stanford, 97-04; *prof*, Earlham, 04-06; *philos*, Iowa, 06-, *head dept*, 27-, *director inst. character research*, 23- Lecturer, Pacific Theol. Sem, 02-03; summers, Western Reserve, 03, Woodbrook Summer Sch, Eng, 03, Summer Sch. of the South, 04; Inst. Comp. Study Human Culture, Norway, 25; psychol. adviser, Beacon Press, Boston, 12. A.A.; Psychol. Ass; Philos. Ass; Religious Educ. Ass. The psychology of religion; religious education of children; the after effects of kindergarten instruction; lines of growth in children as shown by psychophysical tests; the psychological content of religion; the physical basis of mental peculiarities; psychophysical studies of children; the lower senses in aesthetic appreciation; character education.
- Starch, Prof. Daniel**, Harvard Square, Cambridge, Mass. **Psychology*. La Crosse, Wis, March 8, 83. A.B., Morningside, 03; A.M., Iowa, 04, fellow, 04-06, Ph.D., 06; Harvard, 07-08. Instr. psychol, Iowa, 06-07; exp. psychol, Wellesley, 07-08; psychol, Wisconsin, 08-12, asst. prof, 12-17, assoc. prof, 17-20; asst. prof, Harvard, 20-23, assoc. prof, 23-26; *consulting psychologist and director research dept*, Am. Ass. Advertising Agencies, 24- Summers, instr, Iowa, 05, 06, prof, Washington, 15, N. Y. Univ, 22. Capt, aviation sect, O.R.C. A.A.; Psychol. Ass. Educational and applied psychology; educational tests; sound localization.
- Starin, Prof. W(illiam) A(lfred)**, Ohio State University, Columbus, Ohio. *Bacteriology*. Neta-waka, Kans, Feb. 25, 78. A.B., A.M., Kansas, 08; Ph.D., Chicago, 23. Asst. prof. *bacter*, Okla. Agr. and Mech. Col, 09-10; *Ohio State*, 10-18, *prof*, 18- A.A.; Soc. Bact. Immunity; filterable virus; canine distemper; antigenic properties of gelatin; botulism.
- Stark, C(lifford) N(icks)**, N. Y. State College of Agriculture, Ithaca, N. Y. *Bacteriology*. Cumberland Furnace, Tenn, June 14, 91. B.S., Middle Tenn. State Teachers Col, 20; B.S., Peabody Col, 23, A.M., 24; Ph.D., Cornell, 27. Teacher, high sch, 14-16; prin, high sch, and instr. vocational agr, 20-24; instr. *bacter*, N. Y. State Col. Agr, Cornell, 25-27, asst. *prof*, 27- Soc. Bact; Chem. Soc; Dairy Sci. Ass.
- Stark, Prof. Mary B.**, New York Homeopathic Medical College and Flower Hospital, New York, N. Y. *Genetics*. Harris, Minn. Ph.B., Hamline, 02, A.M., 04; Ph.D., Columbia, 19. Teacher, schools, Minn, 02-08; head dept. biol, St. Olaf, 08-12; asst. state bacteriologist, Minn, 14-15; *prof. embryol. and histol*, N. Y. Woman's Med. Col, 15-18; N. Y. *Homeop. Med. Col*, 19- A.A.; Soc. Nat; Soc. Exp. Biol; Ass. Anat. Lethal factors in Drosophila; hereditary tumors in Drosophila; tumor cells.
- Starkey, Dr. R(obert) L(yman)**, N. J. Agricultural Experiment Station, New Brunswick, N. J. *Soil bacteriology*. Fitchburg, Mass, Sept. 27, 99. B.S., Mass. Col, 21; M.S., Rutgers, 23, Ph.D., 24. Asst. soil microbiol, N. J. Exp. Sta, 22-24; instr. *bacter*, Minnesota, 24-26; *assoc. prof. soil microbiol*, N. J. Agr. Exp. Sta, 26- A.A.; Soc. Bact; Soc. Exp. Biol; Int. Soc. Soil Sci. Soil microbiology; oxidation of sulphur by bacteria; decomposition of organic materials in soil; partial sterilization of soil; transformations of iron in soil.
- Starks, Prof. Edwin Chapin**, Box 26, Stanford University, Calif. *Zoology*. Baraboo, Wis, Jan. 25, 67. Stanford, 93-97. Asst, U. S. Biol. Surv, 97-99; curator and asst. prof. *zool*, Washington (Seattle), 99-01; curator, Stanford, 01-07, asst. prof, 08-27, *assoc. prof*, 27- Calif. Acad; cor. mem. London Zool. Soc. Ichthyology; osteology of fishes; fishes of the Pacific; relationships of fishes.

Starkweather, Dr. Howard W(arners), Harvard University, Cambridge, Mass. *Chemistry*. Carbondale, Pa., Sept. 25, 90. B.S. Bucknell, 11, M.S., 15; A.M. Harvard, 15, research fellow, 24-25, Ph.D., 25. Instr. science, Phillips Exeter Acad., 12-15; asst. prof. chem. Hobart, 16-18; research chemist, E. I. du Pont de Nemours and Co., 18-21; instr. chem. Brown, 21-22; *Harvard*, 23-24, *research chemist with Prof. G. P. Baxter*, 25- A.A.; Chem. Soc. Atomic weights; gas densities.

Starr, Dr. Anna M(orse), Mt. Holyoke College, South Hadley, Mass. *Botany*. Elyria, Ohio, 67. B.L. Ohio Wesleyan, 87; Bryn Mawr, 89-90; A.B. Oberlin, 06, A.M., 07; fellow, Chicago, 10-11, Ph.D., 11. Teacher, pub. schools; asst. bot. Oberlin, 05-08; instr. and assoc. prof., Mt. Holyoke, 11- A.A.; Bot. Soc.; Ecol. Soc. Ecological anatomy of dune plants.

Starr, Prof. Clarence L., 1 Queen's Park, Toronto, Ont., Can. *Surgery*. Georgetown, Ont., July 1, 68. M.B. Toronto, 90; M.D. N. Y. Univ., 91; hon. LL.D. McMaster, 22. Surgeon and surgeon-in-chief, Hosp. for Sick Children, Toronto; surgeon, *Toronto Gen. Hosp.*, *surgeon-in-chief*, 21-; *prof. surg.*, *Toronto*, 21- Consultant, Hosp. for Sick Children, Toronto, 21- Lieut. col. consultant, C.A.M.C. Surg. Ass; Orthop. Ass. (pres, 19-20); Int. Surg. Soc. Osteomyelitis.

Starr, Dr. Frederick, 5727 35th Ave, N. E., Seattle, Wash. *Anthropology*. Auburn, N. Y., Sept. 2, 58. Rochester, 78-80; B.S. Lafayette, 82, M.S., Ph.D., 85, hon. Sc.D., 07; hon. LL.D., Coe, 22. Teacher science, Wyman Inst, 82-83; science and hist. Cent. State Nor. Sch, Pa., 83-84; biol. and geol. Coe, 84-87; registrar, Chautauqua, 87-89; curator ethnol. Am. Museum Nat. Hist., 89-91; asst. prof. anthrop. Chicago, 92-95, assoc. prof., 95-23. Prof., Chautauqua, 85-92; dean sci. dept. Pomona, 91. Museums medal, Holland, 00. Officier de l'Instruction Pub, 07; Officer, Order Leopold II, Congo Free State, 07, Commander, 10; Knight Commander, Order of African Redemption, Liberia, 14; Chevalier of the Crown of Italy, 09; Third Order of the Sacred Treasure, Japan, 21. A.A.; Anthropol. Ass; Ethnol. Soc; hon. mem. Davenport Acad; cor. mem. Wis. Hist. Soc; cor. mem. Minn. Hist. Soc; cor. mem. Soc. Cient. Ant. Alz; cor. mem. Mex. Geog. y Estad; hon. mem. London Folk-Lore Soc; hon. fel. Anthropol. Inst. Gt. Britain and Ireland; cor. mem. Soc. d'Anthrop. de Paris; hon. cor. mem. Soc. Ital. d'Anthrop. Etnol. e Psicol. comp; hon. mem. Soc. Imp. des Amis d'Hist. nat, d'Anthrop. et d'Ethnol. Anthropology and ethnology; anthropology and ethnology of south Mexican tribes; ethnography of central Africa, especially Congo Free State; ethnography of Japan and Korea.

Starr, John E(dwain), 90 West St, New York, N. Y. *Mechanical engineering*. Utica, N. Y., Feb. 22, 63. Consulting engineer, 87-98; *pres.*, *Starr Eng. Co.*, 98- Medal, Franklin Inst, 96. U. S. delegate, Int. Cong. Refrig, Paris, 08. Mech. Eng; Refrig. Eng. (past pres. and past v. pres); Ass. Refrig. (v. pres); St. Louis

Acad; London Cold Storage and Ice Ass. Heat transmission through insulated structures; properties of liquefiable gases; relation of pressure strength and temperature of aqua ammonia; cold storage; pipe-line refrigeration; production and use of ozone and oxygen on a commercial scale; theory and practise of refrigeration.

Starr, Prof. M(oses) Allen, 5 W. 54th St, New York, N. Y. **Neurology*. Brooklyn, N. Y., May 16, 54. A.B. Princeton, 76, A.M., 79, hon. Ph.D., 84, LL.D., 99; Berlin, 76-77; Heidelberg, 82; Vienna and Paris, 82-83; hon. Sc.D., Columbia, 04. Prof. nervous diseases, N. Y. Polyclinic, 84-88; *diseases of mind and nervous system*, *Columbia*, 88-17, *emer. prof.*, 17- Consulting physician, Presb. and St. Mary's Hospitals. Trustee, Middlebury. U. S. delegate, Charcot Centennial, Paris, 26. A.A; Neur. Ass. (pres, 96); *emer. mem. Am. Physicians*; *Psychol. Ass*; *N. Y. Neur. Soc.* (pres, 94-97); *N. Y. Acad. Med.* (cor. sec'y, 88, v. pres, 03-06); *N. Y. Med. and Surg. Soc*; *N. Y. Practitioners' Soc*; *fel. N. Y. Acad*; *for. mem. London Neur. Soc*; *Neur. Gesell.*; *Wien. Neur. Gesell.*; *cor. mem. Soc. de Neur. de Paris*; *Soc. de Psychiat.* *Surgery of the brain and spinal cord*; *nervous diseases*.

States, Prof. M(arshall) N(ey), University of Kentucky, Lexington, Ky. *Physics*. Punxsutawney, Pa., Jan. 13, 93. B.S., Pittsburgh, 16; Ph.D., Chicago, 22. Instr. physics, Kentucky, 16-19; asst. prof. math, Mercer, 19-20; asst. physics, Chicago, 20-22; *assoc. prof.*, *Kentucky*, 22- A.A; Physical Soc; Ky. Acad. Kinetic theory; coefficients of viscosity and slip in gases.

Stauffer, Prof. Clinton R(aymond), University of Minnesota, Minneapolis, Minn. *Geology*. Polo, Ill., Oct. 2, 75. B.S., Ohio State, 03, A.M., 06; fellow, Chicago, 07-09, Ph.D., 09. Prin. high sch., Ohio, 03-05; instr. *geol.*, *Ohio State*, 06-07; *Western Reserve*, 09-10; asst. prof., *Sch. Mining*, *Kingston, Ont.*, 10-11; *assoc. prof.*, *Western Reserve*, 11-14; *Minnesota*, 14-17, *prof.*, 17- *Geologist*, *Ohio Geol. Surv.*, 07-10, 13-17; *Can. Geol. Surv.*, 10-13; *Minn. Geol. Surv.*, 21-; *petrol. geologist*, *The Greenwood Co.*, 17-19. A.A; *fel. Geol. Soc*; *Ass. Petrol. Geol.*; *Paleont. Soc.*; *Min. and Metal. Eng*; *fel. Ohio Acad.* The middle Devonian of Ohio; geology of the Columbus region; the Devonian of southwestern Ontario, Minnesota and California; the Dunkard series of Ohio; the Jordan sandstone.

Stavelly, Dr. F(rederick) W(alter), 978 Delia Ave, Akron, Ohio. *Chemistry*. Lyndon, Kans., July 17, 94. A.B., Sterling Col, 16; M.S., Chicago, 17, Ph.D., 22. *Research chemist*, U. S. Rubber Plantations Co., D. E. I., 17-21; *Firestone Tire and Rubber Co.*, *Akron*, 22- *Chem. Soc.* The behavior of mercuric salts of organic acids towards heat; latex; cord tire fabrics; rubber technology.

Stearn, Dr. Allen E(dwain), University of Missouri, Columbia, Mo. *Physical chemistry*. Lafayette, Ind., Sept. 14, 94. A.B., Stanford, 15, A.M., 16; fellow, Illinois, 16, M.S., 17, Ph.D., 19. Asst. chem., Stanford, 14-15; Illinois, 17-18, instr., 19-20; asst. prof. physical chem, West Virginia, 20-21; *chem.*, *Missouri*, 21-25, *assoc. prof.*, 25- *Research fellow*, *Calif. Inst.*, 24, re-

- search assoc, 25; summers, plant chemist, Malinckrodt Chem. Works, 15-25. Chem. Soc; Electrochem. Soc. Aqueous solutions; physico-chemical behavior of living cells; bacteriophysics.
- Stearn, Esther W(agner), (Mrs. Allen Edwin),** Christian College, Columbia, Mo. *Bacteriology*. Decatur, Ill, Sept. 14, 97. Lewis Inst, 16; A.B, Illinois, 19; M.S, 21. Asst. bacteriologist, Ill. Water Surv, 18; bacteriologist, Ill. State Board Health, 19; instr. chem, West Virginia, 20; Missouri, 21-22; Mo. State Pub. Health Lab, 22; *head science dept, Christian Col, 23-* Research bacteriologist, Pasadena Hosp, 24-25. Soc. Bact; Pub. Health Ass. Mutation; life cycles of bacteria; staining; dye therapy.
- Stearn, Dr. N(oe)l H(udson),** 4525 Fair Ave, St. Louis, Mo. *Geology*. Lafayette, Ind, Sept. 23, 96. A.B, Stanford, 17, A.M, 18; Ph.D, Wisconsin, 26. Chief field party, Wis. Geol. Surv, 21-23; D. M. and M. Co, 24-25; instr, Wisconsin, 24-26; *chief geophys. div, W. C. McBride, Inc, 26-* Geomagnetic methods of exploration.
- Stearns, Dr. A(lbert) Warren,** 520 Commonwealth Ave, Boston, Mass. *Psychiatry*. Billerica, Mass, Jan. 26, 85. M.D, Tufts, 10; fellow, Harvard Med. Sch, 13-17. Intern, Boston City Hosp, 10; asst. physician, Danvers State Hosp, 11; asst. *neur, Tufts, 11-16*, asst. prof, 16-27, *assoc. prof, 27-*, *dean med. sch, 27-* Physician and psychiatrist, institutions. Gold medal, Panama-Pacific Expos, 15. Am. Med. Ass; Psychiat. Ass; Psychopath. Ass; Inst. Criminal Law and Criminol. General and social psychiatry; criminology.
- Stearns, Dr. Carl L(eo),** Wesleyan University, Middletown, Conn. *Astronomy*. Westbrook, Maine, Sept. 14, 92. A.B, Wesleyan, 17; Ph.D, Yale, 23. Asst. Dudley Observatory, 17-18; instr. math. and astron, Wesleyan, 18-20; research asst, Yale Observatory, 20-25; *research assoc, Van Vleck Observatory, Wesleyan, 25-* A.A; Astron. Soc. Stellar photometry and parallax.
- Stearns, Dr. Harold T(hornton),** U. S. Geological Survey, Washington, D. C. *Geology*. Wallingford, Conn, Aug. 25, 00. B.S, Wesleyan, 21; Ph.D, George Washington, 26. Asst. geol, Wesleyan, 19-21; mineral examiner, Gen. Land Office, 21-23; *U. S. Geol. Surv, 23-* Summers, field asst, Conn. Geol. and Nat. Hist. Surv, 19-21; sci. exped, 24-25. Seismol. Soc; Wash. Geol. Soc; Int. Geophys. Union. Vulcanology; ground water; geology of dam and reservoir sites.
- Stearns, Louis A(gassiz),** Fruit Insect Laboratory, Ironton, Ohio. *Entomology*. Holden, Mass, Sept. 28, 92. A.B, Ohio Wesleyan, 15; M.S, Ohio State, 17. Asst. zool. and entom, Ohio State, 15-17; prof. and acting head dept. biol, Alma Col, 17-18; asst. entomologist, Va. State Crop Pest Commission and Exp. Sta, 18-19; assoc. state entomologist, 19-24, asst. and assoc. prof. entom, Va. Polytech, 19-24; *asst. entomologist, N. J. Exp. Sta, 24-26; Ohio Fruit Insect Lab, Ironton, 26-* Summers, field asst, bur. entom, U. S. Dept. Agr, 16-18. Entom. Soc; Ass. Econ. Entom. Systematic and economic entomology; Hemiptera; Homoptera; Oriental peach moth; codling moth.
- Stearns, Dr. Norah Dowell (Mrs. Harold T), U.** S. Geological Survey, Washington, D. C. *Geology*. Ogden, Utah, June 14, 91. Ph.B, Brown, 13, A.M, 14, Ph.D, 16. Instr. psychol, pedag. and geog, N. H. State Nor. Sch, Plymouth, 16-17; asst. geol, Smith, 17-18, instr, 18-20; *asst. geologist, U. S. Geol. Surv, 20-* A.A; Am. Geol. Soc; Wash. Geol. Soc. Ground-water hydrology.
- Stebbins, Dr. James H,** 410 John St, Clayton, N. Y. *Chemistry, Microscopy*. Brooklyn, N. Y, June 4, 57. B.S, Harvard, 78; M.S, Rutgers, 80; Ph.D, Omaha, 93. Chemist, companies, 79-86; anal. and consulting chemist, 80-00; *chemist and pathologist, 00-* Pub. Health Ass. Chemistry of the azo-compounds; occurrence of haemosporidia in the blood of *Rana catesbeiana*; photo-chemical action of light upon diazo-compounds; parasites in the blood of reptiles, turtles, etc; desmids of Jefferson County, New York; occurrence of *Trypanosoma* in the blood of *Rana clamata*.
- Stebbins, Prof. Joel,** Washburn Observatory, Madison, Wis. *Astronomy*. Omaha, Nebr, July 30, 78. B.S, Nebraska, 99, 99-00; Wisconsin, 00-01, Sc.D, 20; fellow, Lick Observatory, California, 01-03, Ph.D, 03; Munich, 12-13. Instr. astron, Illinois, 03-04, asst. prof, 04-13, *prof, 13-22; Wisconsin and director, Washburn Observatory, 22-* Eclipse exped, Labrador, 05; Wyoming, 18; California, 23; Connecticut, 25. Nat. Research Council. Rumford and Draper medals. Nat. Acad; A.A. (v. pres, 20); Astron. Soc. (sec'y, 18-); Physical Soc; Am. Acad; Philos. Soc; for. assoc. Royal Astron. Soc; Astron. Gesell. Stellar photometry.
- Stebinger, Eugene,** 719 Edificio Banco Boston, Buenos Aires, Argentina. *Geology*. Portland, Oregon, Oct. 19, 83. California, 02-05; B.S, Chicago, 07. Asst, U. S. Geol. Surv, 07-09; instr. geol, Hunter, 10-11; geologist, U. S. Geol. Surv, 11-20; *chief geologist, Standard Oil Companies of Argentina and Bolivia, 20-* A.A; Geol. Soc; Soc. Econ. Geol; Ass. Petrol. Geol; Min. and Metal. Eng; Wash. Acad; Wash. Geol. Soc. Structure of the Bolivian Cordillera; petroliferous formations of Bolivia and Argentina.
- Steckbeck, Prof. Walter,** University of Pennsylvania, Philadelphia, Pa. *Botany*. Lebanon, Pa, Aug. 14, 80. B.S, A.M, Pennsylvania, 11, Ph.D, 15. Asst. bot, Pennsylvania, 09-11, instr, 11-17, *asst. prof, 17-* Lecturer, Pa. Sch. Hort, 14-18. A.A; Bot. Soc. Taxonomy; sensitive plants; plant anatomy; morphology and taxonomy of Angiosperms.
- Stedman, Prof. J(ohn) M(oores),** U. S. Department of Agriculture, Washington, D. C. *Entomology*. Brockport, N. Y, Nov. 2, 64. B.S, Cornell, 88. Instr. entom. and invert. zool, Cornell, 88-90; biologist, U. S. Dept. Agr, 90-91; prof. biol, Trinity (N. C), 91-93; prof. biol, Ala. Polytech, and biologist, Exp. Sta, 93-95; prof. entom, Missouri, and entomologist, Exp. Sta, 95-07; *entom. specialist, U. S. Dept. Agr, 07-* A.A; Micros. Soc; Ass. Econ. Entom;

- Wash. Entom. Soc; St. Louis Acad. Economic entomology; tapeworms of sheep; biological entomology.
- Steece, Henry M(ortimer)**, U. S. Department of Agriculture, Washington, D. C. *Agronomy*. Burlington, Iowa, July 1, 92. B.S., Louisiana, 13; A.M., George Washington, 22. Cotton and corn investigations, bur. plant indust, U. S. Dept. Agr, 14-17, 19-20, *specialist agron, office exp. stations*, 20- Field crops ed, 'Exp. Sta. Record,' 20- U.S.A., 17-19. Crop plant genetics; American Indian agriculture.
- Steed, Prof. D(aniel) Victor**, University of Southern California, Los Angeles, Calif. *Mathematics*. Boissvain, Man, Can, Oct. 17, 90. A.B., Southern California, 14; Ph.D., California, 21. Asst. math, California, 19-21; asst. prof, *Southern California*, 21- A.A.; Math. Soc; Math. Ass. Geometry of hyperspace.
- Steel, A(lvin) A(rthur)**, R. F. D. 3, Parma, Idaho. *Mining engineering*. Omaha, Nebr, Nov. 20, 77. B.S., Nebraska, 99; E.M., Columbia, 00. Asst. and mining geologist, Engineering Co. of Amer, 00-04; asst. engineer, U. S. Fuel Investigations, 04; assoc. prof. geol. and mining, Arkansas, 05-09, prof. mining, 09-12; *fruit business*, 12- Min. and Metal. Eng. Earth pressure; crucible assaying; ore concentration; North Carolina gold mines; coal briquetting; conservation of coal in Arkansas; crushing of ore in caving systems of mining.
- Steel, Prof. Matthew**, Long Island College Hospital, Henry and Amity Sts, Brooklyn, N. Y. *Biochemistry*. Bushmills, Ireland, June 3, 79. B.S., N. Mex. Col, 01, M.S., 02; Ph.D., Columbia, 08. Sci. aid, U. S. Dept. Agr, 03-04; asst. chemist, R. I. Exp. Sta, 04-06; asst. biochem, Columbia, 07-08, instr, 08-10; chief chemist, research lab, dairy dept, U. S. Dept. Agr. and Missouri, 10-11, asst. prof. biochem, Missouri, 11-12; chem, *L. I. Col. Hosp*, 12-14, *prof. org. and bio chem*, 14- A.A.; Soc. Biol. Chem; Chem. Soc. Metabolism; paranucleoprotein; urinary ammonia nitrogen; aluminum in food; influence of electro-therapeutic currents on metabolism.
- Steele, Dr. Albert Edward**, Harvard Medical School, Boston, Mass. *Bacteriology*. Peabody, Mass, July 7, 77. M.D., Harvard, 00. Instr. bacter, Harvard Med. Sch, 13-21. Ass. Path. and Bact; Am. Med. Ass.
- Steele, Prof. B(renton) L(orenzo)**, Pullman, Wash. *Physics*. Walkerton, Ind, Dec. 14, 75. A.B., Indiana, 04, A.M., 10, Ph.D., 26. Asst. physics, Indiana, 03-04; teacher, high schools, Ind, 04-09; asst. prof. *physics*, Wash. Col, 10-12, assoc. prof, 12-13, prof, 13-19, *head dept*, 19- Thermal efficiencies of heating devices and fuels; effect of short horns on intensity of sound from a loud speaker unit.
- Steele, Dr. Daniel A(tkinson) K(ing)**, Sarasota, Fla. *Surgery*. Eden, Ohio, March 29, 52. M.D., Northwestern, 73; LL.D., Illinois, 06. Dean col. med, Illinois, and head dept. surg, 82-17. Major, M.C., 17-19. Am. Med. Ass; Col. Surg. General and abdominal surgery.
- Steele, E(dward) S(tribe)**, 1316 Monroe St, Washington, D. C. *Botany*, *Philosophy*. Farmingdale, Ill, April 20, 50. A.B., Oberlin, 72, B.D., Oberlin Theol. Sem, 77; Andover Theol. Sem, 81-83; Harvard Divinity Sch, 83-84, 87-88; Leipzig, 86-87. Pastor, 77-81; prof. philos. and ethics, Middlebury, 85-86; sub-ed, 'Century Dict,' 89-91; bot. clerk, U. S. Dept. Agr, 91-02; ed. asst, div. plants, U. S. Nat. Museum, 02-18; asst. botanist, U. S. Dept. Agr, 18-20; *retired*, 20. Philos. Ass; Wash. Soc. Philos. Inquiry. Epistemology, especially the logical function; religion; systematic botany.
- Steele, Dr. L(awrence) L(esure)**, U. S. Bureau of Standards, Washington, D. C. *Chemistry*. Bristol, Conn, April 11, 91. B.S., Worcester, 12, M.S., 14; A.M., Harvard, 15, Ph.D., 16. Asst. instr. chem, Worcester, 12-14; instr, Wesleyan, 16-17; *chemist*, *Bur. Standards*, 19- Lieut. and capt, U.S.A., 17-19. Chem. Soc; Soc. Test. Mat; Wash. Acad. Cyclopropane derivatives; ketonic pyrazolines; hexabromide methods; linseed oil; abietic acid; paint driers; resins.
- Steenbock, Dr. Harry**, 2117 W. Lawn Ave, Madison, Wis. *Agricultural chemistry*. Charlestown, Wis, Aug. 16, 86. B.S., Wisconsin, 08, M.S., 10, Ph.D., 16; Berlin, 13. Asst. *agr. chem*, *Wisconsin*, 08-10, instr, 10, assoc. prof, 10-20, *prof*, 20- A.A.; Chem. Soc; Soc. Biol. Chem. Mineral metabolism; vitamins; biological action of light; ultra-violet light; animal nutrition.
- Steere, Dr. J(oseph) B(eal)**, Ann Arbor, Mich. *Zoology*, *Ethnology*. Rollin, Mich, Feb. 9, 42. A.B., Michigan, 68, LL.B., 70, hon. Ph.D., 75. Asst. prof. zool, Michigan, 76-79, prof, 79-93. Leader sci. exped, Brazil, 79, Philippines, 87; trip to Purus River for Smithsonian Inst, 90. A.A.; cor. mem. London Zool. Soc. Distribution of birds in the Philippines; physical conditions on earth as proof of design.
- Steese, Col. Ja(me)s G(ordon)**, U.S.A., Army and Navy Club, Washington, D. C. *Civil engineering*. Mt. Holly Springs, Pa, Jan. 21, 82. A.B., Dickinson, 02, A.M., 06; grad, U. S. Mil. Acad, 07; Army Eng. Sch, 10. From second lieut. to col, U.S.A., 07-; asst. engineer, Isthmian Canal Commission, 08-12; instr. and asst. prof. eng, U. S. Mil. Acad, 13-17; asst. chief engineers, U.S.A., 17-18, mem. gen. staff and chief personnel branch, 18-20, special mission overseas, 19; *pres*, *Alaska Road Commission*, 20-; chairman and chief engineer, Alaska Ry, 23-24; *director pub. works*, *Alaska*, 23-, *dist. engineer*, *rivers and harbors*, 21- Trustee, Dickinson, 19. Officier de l'Instruction pub; La Solidaridad, II Class, Panama; mil. cross, II class of Greece; commander of Danilo I of Montenegro, silver medal for bravery; D.S. medal. A.A.; Civil Eng; fel. Am. Geog. Soc; fel. Royal Geog. Soc. Military, railway and hydraulic engineering.
- Stefansson, V(ilhjalmur)**, Harvard Club, 27 W. 44th St, New York, N. Y. *Geography*. Arnes, Man, Can, Nov. 3, 79. A.B., Iowa, 03, LL.D.; A.M., Harvard, fellow, 04-05; LL.D., Michigan. Asst. anthrop, Harvard, 05-06; anthropologist, Leffingwell-Mikkelsen Arctic exped, 06-07; commander, Am. Museum Nat. Hist. exped, Arctic, Alaska and Can, Can. Geog. Surv, 08-12; commander, Can. Naval Service Arctic exped, 13-18. Private exped, Iceland, 04; Harvard archeol.

- exped, Iceland, 05. Gold medal, Am. Geog. Soc; Nat. Geog. Soc; Phila. Geog. Soc; Chicago Geog. Soc; N. Y. Explorers Club; Royal Geog. Soc. London; Soc. géog. de Paris. Hon. fel. Am. Museum Nat. Hist. A.A; hon. fel. Am. Geog. Soc; Anthropol. Ass; hon. fel. N. Y. Acad; Phila. Acad; cor. mem. Royal Geog. Soc; Anthropol. Inst. Gt. Britain and Ireland; hon. fel. Ital. Geog. Soc. Ethnography; anthropology.
- Stegeman, Prof. Gebhard**, 3620 Terrace St, Pittsburgh, Pa. *Physical chemistry*. Holland, Mich, June 14, 90. A.B, Hope, 13; A.M, Ohio State, 15, Ph.D, 17. Instr. chem, Washington (Seattle), 17; asst. prof, Pittsburgh, 19-23, prof, 23- Chem. Soc. Electro chemistry; thermodynamics of organic reactions.
- Stehle, Prof. Raymond Louis**, McGill University, Montreal, Que, Can. *Pharmacology*. Columbus, Ohio, May 22, 88. A.B, Ohio State, 12, A.M, 13; Ph.D, Yale, 15. Instr. physiol. chem, Pennsylvania, 15-19, asst. prof, 19-21; *pharmacol*, McGill, 21-23, assoc. prof, 23-24, prof, 24- A.A; Soc. Pharmacol; Soc. Biol. Chem; Chem. Soc. Purine metabolism; catalase; excretion of bases in acid intoxication; nature of acidosis of anesthesia; action of pure ether; action of ethylene oxide; determination of total nitrogen and urea; pharmacology of pituitary extract.
- Steidlé, Edward**, Carnegie Institute of Technology, Pittsburgh, Pa. *Mining engineering*. Williamsport, Pa, June 23, 87. B.S, Pa. State, 11, E.M, 14. Mining engineer, U. S. Bur. Mines, 13-17, consulting mining engineer, 19- Capt, C.Eng, 17-19. Min. and Metal. Eng; Coal Min. Inst; West. Pa. Eng. Soc; Pittsburgh Min. Inst. Mine safety; prevention and limitation of mine explosions.
- Steidtmann, Prof. Edward**, Lexington, Va. *Geology*. Merrimack, Wis, Aug. 5, 81. A.B, Wisconsin, 06, A.M, 07, Ph.D, 10. Asst. prof. geol, Wisconsin, 12-22; prof, Va. Mil. Inst., 22- Asst. state geologist, Wis, 12-13; assoc. geologist, U. S. Geol. Surv, 18-24. A.A; Geol. Soc; Wis. Acad; Va. Acad. Structural geology; metamorphism; sedimentation.
- Steiger, Geo(rge)**, U. S. Geological Survey, Washington, D. C. *Chemistry*. Columbia, Pa, May 27, 69. B.S, George Washington, 90, M.S, 92. Chemist, U. S. Geol. Surv, 92-17, chief chemist, 16- A.A; Chem. Soc; Min. Soc; Min. and Metal. Eng; Wash. Acad; Wash. Geol. Soc. Geochemistry; certain natural and artificial minerals; inorganic analytical methods.
- Steik, Dr. Karl T(heodore)**, Standard Oil Co, Elizabeth, N. J. *Chemistry*. Lemsal, Livonia. Dorpat, 05; A.M, Harvard, 11; Ph.D, Chicago, 19. Prof. chem, Claflin, 07-09; assoc. prof, Wyoming, 11-19. Chem. Soc. Engineering chemistry; derivatives of cyclopropane; effect of alkali on Portland cement; medicinal arsenic compounds.
- Steil, Dr. W(illiam) N(icholas)**, 188 23d St, Milwaukee, Wis. *Botany*. Highland, Wis, Sept. 4, 76. Ph.D, Wisconsin, 11, Ph.D, 16. Teacher, secondary schools, 97-10; asst. bot, Wisconsin, 10-11, instr, 11-22; prof. and head dept, Marquette, 22- Apogamy; ferns.
- Stein, Prof. J(ohn) Bethune**, R. F. D. No. 2, Knollwood Road, White Plains, N. Y. *Physiology, Histology*. New York, N. Y, Aug. 3, 69. Columbia, 92. Prof. physiol. and histol, N. Y. Col. Dentistry, 95- A.A. Dental histology; embryology.
- Steinberg, Dr. Bernhard**, Toledo Hospital, Toledo, Ohio. *Medicine, Pathology*. New York, N. Y, June 18, 97. Fordham, 16-18; M.D, Boston, 22. House officer, hosp. div, Med. Col. of Va, 22-23; asst. physician, Boston Psychopath. Hosp, 23-24; Nat. Research Council fellow, sch. med, Western Reserve, 24-26, Crile research fellow, 26-27; director laboratories and research, Toledo Hosp, 27- Diplomate, Nat. Board Med. Examiners. Soc. Path. and Bact; fel. Am. Med. Ass; Pub. Health Ass. Peritonitis; toxin and antitoxin of Bacillus coli.
- Steindler, Dr. Arthur**, State University of Iowa, Iowa City, Iowa. *Surgery*. June 22, 78. M.D. Prof. orthop. surg, col. med, Iowa. Fel. Col. Surg; Am. Med. Ass; Am. Orthop. Ass; West. Surg. Ass. Reconstructive surgery; operative orthoparics.
- Steiner, Dr. G(otthold)**, U. S. Department of Agriculture, Washington, D. C. *Zoology*. Signau, Switzerland, April 8, 86. Ph.D. Privatdocent, Bern; Seessel research fellow, Yale; bur. plant indust, U. S. Dept. Agr. A.A; Soc. Zool; Soc. Parasitol; Wash. Acad; Wis. Acad; Wash. Helminth. Soc; Int. Soc. Limnol; Schweiz. Zool. Gesell; Schweiz. Naturforsch. Gesell; Bern Naturforsch. Gesell; Zurich Nat. Gesell; Deutsche Zool. Gesell. Limnology; comparative anatomy; nematology; invertebrata; parasitology.
- Steiner, Dr. Walter R(alph)**, 646 Asylum Ave, Hartford, Conn. *Medicine*. Frederick City, Md, Nov. 18, 70. A.B, Yale, 92, A.M, 95; M.D, Hopkins, 98. Pathologist and bacteriologist, Hartford Hosp, 01-12, consulting pathologist and bacteriologist, 12-, visiting physician, 09- Consulting physician, Middlesex Hosp, Manchester Mem, New Britain General, Bristol and Meriden Hospitals, and Hartford Orphan Asylum. Sec'y, Am. Physicians and Surg. Cong, 11- A.A; Am. Med. Ass; Am. Physicians; Ass. Path. and Bact; Climat. Ass; Tuber. Ass. Internal medicine; the history of medicine.
- Steinle, Dr. J(ohn) Vernon**, 1544 Park Ave, Racine, Wis. *Chemistry*. Marinette, Wis, April 28, 98. B.S, Wisconsin, 20, M.S, 21, Ph.D, 23. Instr. chem, Wisconsin, 21-24; assoc. prof, Marquette, 24-25; research chemist, S. C. Johnson and Son, 25- A.A; Chem. Soc. Electrochemical behavior of arsenic; analytical methods for cholesterol and allied substances including rosin.
- Steinman, Dr. D(avid) B(arnard)**, 25 Church St, New York, N. Y. *Engineering*. New York, June 11, 86. B.S, Col. City of N. Y, 06, fellow, 06-09; A.M, C.E, Columbia, 09, Ph.D, 11. Prof. civil eng, Idaho, 10-14; in charge civil and mech. eng, Col. City of N. Y, 17-20; consulting engineer, 20- Lecturer, Princeton and Rensselaer, 17- Croes medal, Soc. Civil Eng, 17; Norman medal, 20. Ass. Eng. (pres, 25);

- Civil Eng; Ry. Eng. Ass; Eng. Educ; Soc. Test. Mat; Automotive Eng. Bridge engineering.
- Steinmetz, Dr. F(erdinand) H(enry)**, University of Maine, Orono, Maine. *Plant physiology, Agronomy*. Edwardsville, Ill, Aug. 19, 86. B.S, Illinois, 15; M.S, Minnesota, 21, Ph.D, 26. Teacher, high sch, Minn, 15-18; asst. prof. and asst, Exp. Sta, 18-19; instr, Minnesota, and asst, Exp. Sta, 19-27; *prof. bot, Maine, 27-* Agent, bur. agr. econ, U. S. Dept. Agr, 24-25, collaborator, 25-26. A.A; Agron. Soc; Soc. Plant Physiol. Classification of agronomic plants; winter hardiness in alfalfa.
- Stejneger, Leonhard**, U. S. National Museum, Washington, D. C. **Biology*. Bergen, Norway, Oct. 30, 51. Cand. art, Christiania, 70, cand. philos, 72, cand. juris, 75. Observer, U. S. Sig. Service, 82-83; asst. curator birds, U. S. Nat. Museum, 84-89, curator reptiles, 89-11, *head curator biol, 11-* U. S. Fur-seal Commission, 96-97; chairman, pub. committee, Smithsonian Inst; mem, permanent committee and committee on nomenclature, Int. Cong. Zool. Knight, Order of St. Olaf, Norway. Nat. Acad; A.A; Soc. Ichthyol. and Herp. (v. pres, 16, pres, 19); fel. Ornith. Union; Ass. Geog; Wash. Acad; Wash. Biol. Soc. (pres, 07); cor. mem. Phila. Acad; hon. mem. Calif. Acad; hon. mem. British Ornith. Union; cor. mem. London Zool. Soc; Oslo Acad. Sci; cor. mem. Bavarian Ornith. Soc; Peking Nat. Hist. Soc; life mem. Bergen Mus. Geographical distribution of vertebrates; systematic ornithology and herpetology; Antillean fauna; North Pacific fur seal; Japanese and Chinese mammalogy, ornithology and herpetology; palearectic geographical distribution.
- Stelzner, Prof. W(illiam) B(oyd)**, 434 Highland Ave, Fayetteville, Ark. *Electrical engineering*. Wamego, Kans, Oct. 24, 85. B.S, Arkansas, 07, E.E, 11; M.S, Ohio State, 18. Engineer, Gen. Elec. Co, 07-08; electrician, Empire Dist. Power Co, 08-09; *prof. elec. eng, Arkansas, 09-* Elec. Eng; Nat. Elec. Light Ass; Eng. Educ. Economics of electrical distribution.
- Stengel, Dr. Alfred**, 1728 Spruce St, Philadelphia, Pa. **Medicine, Pathology*. Pittsburgh, Pa, Nov. 3, 68. M.D, Pennsylvania, 89; Sc.D, Pittsburgh; LL.D, Lafayette. Instr. clin. med, Pennsylvania, 93-98; *clin. prof, Woman's Med. Col. of Pa, 96-98; Pennsylvania, 98-11, med, 11-* Physician, Philadelphia, Univ. and Pa. Hospitals; past director, Wm. Pepper Lab. Clin. Med. Past ed, 'Am. Jour. Med. Science.' A.A; Am. Physicians; Ass. Path. and Bact; Philos. Soc; Wash. Acad; Phila. Col. Physicians; Phila. Path. Soc. Internal medicine.
- Stenquist, Dr. J(ohn) L(angdon)**, Carrollton and Lafayette Aves, Baltimore, Md. *Education, Psychology*. Engelvale, N. Dak, May 9, 85. B.S, Columbia, 14, A.M, 15, Ph.D, 21. Director indust. educ. dept, Idaho State Nor. Sch, 08-12; asst. psychol, Teachers Col, Columbia, 13-14; instr, N. Y. Training Sch. Teachers, 14-17; asst. to director, Bur. Reference, Research and Statistics, New York, 19; *director, Bur. Educ. Research, Baltimore pub. schools, 22-* Summers, instr, Hopkins, 23-; prof, Ohio State, 21-23. Lieut, Sanit.C, 18-19. A.A; Psychol.
- Ass; Educ. Res. Ass. Tests of mechanical ability; practical application of tests in education; statistical forms and devices.
- Stenström, Dr. (Karl) Wilhelm**, 501 Walnut St, S. E, Minneapolis, Minn. *Physics*. Gothenburg, Sweden, Jan. 28, 91. Fil. kand, 13, Fil. mag, 15, Fil. lic, 19; Ph.D, Lund, 19. Asst. physics, Lund, 16-19; physicist, State Inst. for the Study of Malignant Diseases, Buffalo, 20-26; *asst. prof. physiol, Minnesota, 26-* Swedish-Am. Foundation fellow, 19-20. A.A; fel. Physical Soc; Optical Soc; Ass. Cancer Research; Radium Soc; Radio Soc. Biophysics; X-rays; radiology; light.
- Stephens, Frank**, 3746 Park Boulevard, San Diego, Calif. *Mammalogy, Ornithology*. Western, N. Y, April, 49. Exped. Death Valley, 91; *emer. curator, San Diego Nat. Hist. Museum, Balboa Park. A.A; Soc. Mammal; Cooper Ornith. Club; Wash. Biol. Soc; fel. San Diego Soc. Nat. Hist. Herpetology; California mam-* mals.
- Stephens, Dr. H(arry) N(ewburn)**, University of Minnesota, Minneapolis, Minn. *Organic chemistry*. Glencairn, Ont, Can, July 14, 97. B.A, McMaster, 20; M.A, Toronto, 21; Ph.D, McGill, 23. *Instr. and asst. prof. gen. chem, Minnesota, 23-* Chem. Soc; Can. Inst. Chem. Friedel and Craft's reaction; constitution of caoutchouc; oxidation of alkyl benzene by gaseous oxygen; autooxidation, action of sulphur on the ethylenic linkage.
- Stephens, Prof. R(oswell) P(owell)**, University of Georgia, Athens, Ga. *Mathematics*. Barnesville, Ga, Nov. 4, 74. A.B, Georgia, 96; Ph.D, Hopkins, 05. *Instr. math, Wesleyan, 05-07;* adjunct prof, *Georgia, 07-10, assoc. prof, 10-19, prof, 19-*, acting dean, 25-26. A.A; Math. Soc; Math. Ass; Ga. Acad. (pres, 22). Analytic geometry; vector analysis.
- Stephens, Prof. T(homas) C(alderwood)**, Morningside College, Sioux City, Iowa. *Biology*. Adrian, Mich, March 9, 76. A.B, Kansas City, 01; M.D, Kansas, 04; fellow, Chicago, 04-06. Instr. embryol, Kansas City, 01-02; lecturer histol, Kansas, 02-04; *prof. biol, Morningside, 06-* Summers, asst, Chicago, 05-07; staff, Lakeside Lab, 11-18. Ed, 'The Wilson Bul.' A.A; Ornith. Union; Ecol. Soc; Cooper Ornith. Club; Wilson Ornith. Club (pres, 14); Iowa Acad. (pres, 19-20); Iowa Conservation Ass. (pres, 14). The behavior of birds; birds, mammals and Mollusca of Iowa.
- Stephenson, Charles H(enry)**, 212 Rutland Courts, Washington, D. C. *Microscopy*. Buffalo, N. Y, 82. B.S, Syracuse, 05. *Assoc. microanalyst, bur. chem, U. S. Dept. Agr, 07-* Microscopical examination of foods and drugs; microchemistry; microanalytical methods.
- Stephenson, Dr. Edward B(eattie)**, 1912 37th St, N. W, Washington, D. C. *Physics*. Sparta, Ill, Jan. 19, 82. B.S, Knox Col, 03, M.S, 07; fellow, Illinois, 07-09, Ph.D, 10. Teacher, high sch, Ill, 03-06; instr. math, Knox Col, 06-07; asst. physics, Illinois, 09-10; instr, North Dakota, 10-13, asst. prof, 14-17; physicist, C.Eng, 19-25; *naval research lab, Bellevue, D. C, 25-*

- Capt, C.Eng, 17-19, major, Eng.O.R.C. A.A.; Physical Soc; Soc. Mil. Eng; Wash. Philos. Soc. Sound ranging; Hensler alloys; searchlights; velocity of sound in water; supersonics; piezo electric crystals.
- Stephenson, Dr. Eugene A(ustin)**, 312 Gladstone Road, Squirrel Hill Station, Pittsburgh, Pa. *Geology*. Franklin, Mich, 84. B.S, Adrian, 05; Ph.D, Chicago, 17. Instr. geol, Chicago, 15-18; chief geologist, South. Penn Oil Co, 18-25; with *Ralph E. Davis, Engineer*, 25-
- Stephenson, J(oseph) C(lark)**, University of Oklahoma, Norman, Okla. *Anatomy*. Sheridan, Ind, Oct. 21, 86. B.S, Chicago, 07; Ph.D, Wisconsin, 16; M.D, Rush Med. Col, Chicago, 25. Instr. zool, Washington (St. Louis), 13-15; asst. prof, Cincinnati, 15-17; *prof. and head dept. anat, Oklahoma*, 19- A.A. Embryology; neurology.
- Stephenson, Dr. L(loyd) W(illiam)**, U. S. Geological Survey, Washington, D. C. **Geology*. Scio, Ohio, Aug. 31, 76. Ph.B, Scio Col, 03; Ph.D, Hopkins, 07. Junior geologist, *U. S. Geol. Surv.*, 07-09, asst. geologist, 09-11, paleontologist, 11-14, *geologist*, 14- Substitute prof, California, 14. A.A; Geol. Soc; Paleont. Soc; Ass. Petrol. Geol; Wash. Acad; Wash. Geol. Soc; Wash. Biol. Soc. Geology and underground water resources of coastal plain of North Carolina, Georgia, Mississippi and Arkansas; Cretaceous paleontology of North Carolina; Upper Cretaceous stratigraphy and invertebrate paleontology of Atlantic and Gulf coastal plain; geology of eastern Mexico and northwestern Venezuela.
- Stephenson, Dr. R(oscoe) E(lmo)**, Oregon Agricultural College, Corvallis, Oregon. *Agriculture*. Campbellsburg, Ind, Nov. 15, 85. B.S, Purdue, 15; M.S, Illinois, 17; Ph.D, Iowa Col, 20. Asst. chemist soils, West Virginia, 19-20; exten. specialist *soils*, Kentucky, 20-23; *assoc. prof, Oregon Col*, 23- Soil acidity.
- Stericker, Dr. W(illiam)**, 13 Park Ave, Swarthmore, Pa. *Chemistry*. Fort Collins, Colo, Dec. 1, 95. B.S, Wisconsin, 17; fellow, Mellon Inst, 19-22; Ph.D, Pittsburgh, 22. Chemist, Westinghouse Lamp Co, 17-19; research chemist, *Phila. Quartz Co*, 22-25, *asst. manager chem. dept*, 25- Chem. Soc. (councilor, 26). Silica and its derivatives; sodium silicates; detergents.
- Sterki, Dr. V(ictor)**, New Philadelphia, Ohio. *Zoology*. Solothurn, Switzerland, Sept. 26, 46. Col. Solothurn, 66-68; Munich; M.D, Bern, 73, 78. Practising physician, Switzerland, 73-83; New Phila, Ohio, 83-00. Asst. conchol, Carnegie Museum, Pittsburgh, assoc. curator Mollusca, 09- A.A; Ohio Acad. Systematics of land and fresh-water Mollusca and their geographical distribution; ciliate Infusoria; North American Sphaeriidae and Pupillidae; morphology and anatomy of some Stylommatophora; anatomy and classification of Unionidae; Sphaeriidae.
- Sterling, E(rnest) A(lbert)**, 350 Madison Ave, New York, N. Y. *Forestry*. Brooklyn, Pa, June 27, 78. Bucknell, 98-00; F.E, Cornell, 02. Forest asst, U. S. Bur. Forestry, 02-04; asst. forester, U. S. Forest Service, 04-07; forester, Pa. Ry. Co, 07-12; consulting forester, 12-15; *manager, J. D. Lacey and Co*, 15- Summers, forester, N. Y., 02-04. Soc. Foresters; Ry. Eng; Wood Preservers Ass. (past pres). Forest engineering; causes and effects of forest fires; wood preservation; forest economics.
- Stern, Dr. John T(heodore)**, Monsanto Chemical Works, St. Louis, Mo. *Physical chemistry*. Townline, N. Y, June 24, 97. Swiss Polytech. Inst, 18-24, C.E, 22, D.Sc, 23. Asst, anal. dept, Swiss Polytech Inst, 22-24; physical chemist, Plaut research lab, Lehn and Fink, Inc, Bloomfield, N. J, 24-26; *chemist in charge analytical and control laboratories, Monsanto Chem. Works*, 26- A.A; Chem. Eng. Physico-chemical methods in biochemistry; toxicity of potassium chlorate; salivary secretion.
- Sternberg, Charles H(azelius)**, McKittrick, Calif. *Vertebrate paleontology*. Middleburg, N. Y, June 15, 50. Iowa Lutheran, 65, 66; Kansas Col, 68, 75; hon. A.M, Midland, 11. In charge collecting parties for Prof. E. D. Cope, 76-79, 95-97; for museum comp. zool, Harvard, 80, 82; for Dr. von Zittel, Munich, five seasons; head preparator and collector fossil vertebrates, Can. Geol. Surv, 12-16. A.A; Paleont. Soc; life mem. Kans. Acad. Fossil hunting.
- Sterrett, W(illiam) D(ent)**, 35th and Rodman Sts, Washington, D. C. *Forestry*. Bedford, Pa, March 2, 81. A.B, George Washington, 00; Harvard, 01; M.F, Yale, 03. Forest asst, U. S. Forest Service, 03-08; forester, Bur. Forestry, P. I, 08-10; forest examiner, U. S. Forest Service, 18-22; *consulting forester*, 22- Soc. Foresters. Marketing wood-lot products; forest conditions in Delaware; pines; oaks; ashes.
- Stetson, Dr. Harlan True**, Harvard Astronomical Laboratory, Cambridge, Mass. *Astrophysics*. Haverhill, Mass, June 28, 85. Ph.B, Brown, 08; M.S, Dartmouth, 10; Ph.D, Chicago, 15. Asst. physics, Dartmouth, 08-10, instr, 11-13; astron, Northwestern, 13-14, physics, 16; *astron, Harvard*, 16-21, *asst. prof*, 21- Summers, research asst, Yerkes Observatory, 09, instr, Middlebury, 12-14; in charge eclipse expeditions, Conn, 25, Sumatra, 26; research asst, Smithsonian Institution for Norway eclipse, 27. A.A; Astron. Soc; Physical Soc; Optical Soc. Thermoelectric methods in astronomical photometry and spectroscopy; short period variables; solar eclipse observations.
- Stetson, Dr. John M(inor)**, Bristol, N. H. *Mathematics*. New Haven, Conn, Sept. 6, 87. A.B, Yale, 09; Ph.D, Princeton, 14. Instr. math, Vermont, 10-12; lecturer geom, Alberta, 14-15; instr. math, Western Reserve, 15-17; Yale, 19-21; Illinois, 21-27. U.S.A, 17-18. A.A; Math. Soc; Math. Ass. Differential geometry; transformations of conjugate systems.
- Stetson, Prof. R(aymond) H(erbert)**, 105 Elm St, Oberlin, Ohio. *Psychology*. N. Ridgeville, Ohio. Ph.B, Oberlin, 93, A.M, 96; Ph.D, Harvard, 01. *Prof. zool*, Tabor Col, 96-99; psychol. and philos, Beloit, 05-09; *psychol. and head dept, Oberlin*, 09- Psychol. Ass. Rhythm and movement; skin sensations; phonetics.

- Stevens, Prof. A(ivo) B(urdet),** Escondido, Calif. *Pharmaceutical chemistry*. Tyrone, Mich., June 15, 53. Ph.C, Michigan, 75, Sc.D, 26; Ph.D, Bern, 05. Instr. pharmacy, Michigan, 86-90, lecturer, 90-92, asst. prof, 92-06, junior prof, 06-10, prof, 10-19, acting dean, 12-14, dean, 17-19; *retired*, 19. Committee revision, U. S. Pharmacopœia, 00, 10; committee for third and fourth revision, Nat. Formulary. Pharmaceut. Ass. (v. pres, 90, hon. pres, 19); Chem. Soc. (chairman, pharmaceut. sect, 09). Poisonous plants of Rhus; drug assay; arithmetic of pharmacy.
- Stevens, Donald R(aymond),** Mellon Institute, Pittsburgh, Pa. *Chemistry*. Dover, Ohio, May 7, 98. Ch.B, Cornell, 20; M.S, Pittsburgh, 22; Ph.D, Chicago, 24. *Indust. fellow, Mellon Inst, 24-* Petroleum chemistry; chemical reaction velocities.
- Stevens, Prof. F(rank) L(incoln),** University of Illinois, Urbana, Ill. **Plant pathology*. Syracuse, N. Y., April 1, 71. B.L, Hobart, 91; B.S, Rutgers, 93, M.S, 97; Ohio State, 94-96; fellow at Chicago, 98-99, Ph.D, 00, traveling fellow at Bonn, Halle and Naples, 00-01; hon. D.Sc, San Marcos, Peru, 25. Instr. science, Racine, 93-94; high sch, Ohio, 94-98; sanit. analyst, Chicago Drainage Canal, 98-00; instr. biol, N. C. State, 01-02, prof, 02-03, bot. and veg. path, 03-12, biologist, N. C. Exp. Sta, 03-12; dean, P. R. Col, 12-14; *prof. plant path, Illinois, 14-* Bishop Museum fellow, Yale, 21-22. Delegate, Third Pan-Am. Sci. Cong. A.A; Soc. Nat; Bot. Soc; Phytopath. Soc. (pres, 10); Soc. Bact; Nature Study Soc. (v. pres, 08-11); fel. N. C. Acad. (pres, 05, sec'y, 06). Cytology of fungi; plant diseases; tobacco and melon wilt; lettuce rot; cytology of Synchytrium; soil bacteriology; Melioida; tropical parasitic fungi.
- Stevens, F(rederick) W(iley),** 1741 Lanier Place, Washington, D. C. *Physics*. Goshen, Ind., Aug. 28, 61. Michigan, 81-88; Strassburg, 92; Göttingen, 95; Leipzig, 96-97. Head dept. science, Hyde Park, Ill, 87-91; prof. physics, Lake Forest, 91-16; *physicist, Bur. Standards, 19-* A.A. Molecular physics; gaseous explosive reactions.
- Stevens, H(arold) E(dwin),** P. O. Box 1445, Fort Myers, Fla. *Plant pathology*. Pruitt, Ky, March 29, 80. B.Agr, Ky. State, 06; M.S, Illinois, 10. Field asst. bot, Ky. Exp. Sta, 06; agr. inspector, Bur. Agr, P. I, 07, acting supt, exp. farm, 08; asst. plant path, Ark. Exp. Sta, 10-11, adjunct, 11-12; plant pathologist, Fla. Exp. Sta, 12-21; agr. adviser, Lee Co, Fla, 21-24; plant pathologist and entomologist, Stripes Citrus Packing Co, 24-26; *research pathologist, Fort Myers, 26-* A.A; Phytopath. Soc. Diseases of citrus fruits and trees; avocado diseases; diseases of the Royal palm.
- Stevens, Dr. H(erman) C(ampbell),** Elyria, Ohio. *Neurology*. Elkhart, Ind., Nov. 12, 78. A.B, Michigan, 01; Ph.D, Cornell, 05; M.D, Rush Med. Col, 14. Asst. psychol, Cornell, 03-05; asst. prof. and assoc. prof, Washington (Seattle), 05-13; assoc. prof. educ. and director psychopath. lab, Chicago, 13-18; asst. prof. neur, Illinois, 18-19. Res. physician, Chicago State Hosp, 18-19; physician, Am. Red Cross, Albania, 20. A.A; Psychol. Ass; Ill. Soc. Mental Hygiene (exec. committee); Chicago Neur. Soc. (v. pres, 18). Peripheral vision; right and left handedness; Rossalimo tests; Mongolian idiocy; brain tumors; plurisegmental innervation of striated muscle.
- Stevens, Prof. James S(tacy),** University of Maine, Orono, Maine. *Physics*. Lima, N. Y., Aug. 21, 64. B.S, Rochester, 85, M.S, 88, LL.D, 07; non-res. student, Syracuse, 88-90; Chicago, 95-96; Litt.D, Maine, 22. Instr. science, Cook Acad, N. Y., 85-91; *prof. physics, Maine, 91-*, dean col. arts and sciences, 05- A.A; Physical Soc; Soc. de Physique. Theory of measurements; relation of magnetization to the modulus of elasticity; method of determining surface tension; relation of internal and external resistance; atmidometry; molecular contact; refractive indices of mixtures; new physical pendulum; meteorology of Orono, Maine, 1869-1904; expansion of magnetized bodies.
- Stevens, Dr. John Vosburgh,** 14 S. Maine St, Janesville, Wis. *Medicine*. Lysander, N. Y., Nov. 23, 51. B.S, Loyola, M.D, 85. Prof. pediat, Loyola, 91-99, 09-15; *practising physician*. Ed, 'Annual of Med. and Surg,' 91-99; 'Wis. Med. Jour,' 10-12. Sec'y, Wis. Board Med. Examiners, 01-09. Sec'y, World's Cong. Med. and Surg, 93. A.A; Am. Med. Ass; Pub. Health Ass; Am. Acad. Pediatrics.
- Stevens, Dr. Neil E(verett),** U. S. Department of Agriculture, Washington, D. C. *Plant pathology*. Portland, Maine, April 6, 87. A.B, Bates, 08; Ph.D, Yale, 11. Instr. bot, Kansas Col, 11-12; *pathologist, bur. plant indust, U. S. Dept. Agr, 12-* A.A; Phytopath. Soc; Wash. Bot. Soc. Climate in relation to plant disease.
- Stevens, O(rin) A(lva),** North Dakota State College, Fargo, N. Dak. *Biology*. Blue Rapids, Kans, Oct. 17, 85. B.S, Kansas Col, 07; M.S, N. Dak. Col, 23. Asst. bot, Kansas Col, 07-09; *asst. botanist, N. Dak. Col, 09-*, seed analyst, 09-23, *deputy seed commissioner, 23-* A.A; Bot. Soc; Ecol. Soc; Entom. Soc; N. Dak. Acad. North Dakota weeds; seed testing; North Dakota bees and wasps.
- Stevens, Prof. W(alter) Le Conte,** Washington and Lee University, Lexington, Va. **Physics*. Bartow Co, Ga, June 17, 47. A.B, South Carolina, 68; Virginia, 76-77; Ph.D, Georgia, 82; Strassburg, Berlin and Zurich, 90-92. Instr. chem, Oglethorpe, 70-72; physics and chem, Chatham Acad, Ga, 73-76; math, Cooper Inst, New York, 79-82; *prof. physics, Packer Col. Inst, 82-90; Rensselaer, 92-98; Washington and Lee, 98-22, emer. prof, 22-* A.A. (sec'y, B, 93, v. pres, 95); Physical Soc; Philos. Soc; N. Y. Acad; fel. Royal Micros. Soc. Physiological optics; acoustics.
- Stevens, Prof. W(illiam) C(hase),** University of Kansas, Lawrence, Kans. *Botany*. Princeton, Ill, Feb. 21, 61. A.B, Kansas, 85, M.S, 93; Bonn, 97. Instr. high sch, Kans, 85-89; asst. nat. hist, Kansas, 89-94, assoc. prof. bot, 94-99, *prof, 99-* A.A; Bot. Soc; Bot. Cent. States. Sporogyny in pteridophytes and

- spermatophytes; adaptation to environment in plants through tissue modification.
- Stevenson, Earl P(lace)**, 19 Sargent Park, Newton, Mass. *Chemistry*. Logansport, Ind. Oct. 2, 93. B.S., Wesleyan, 16; M.S., Mass. Inst. Tech., 18. Instr. chem., Mass. Inst. Tech., 16-18; *director research*, *Arthur D. Little, Inc.*, 20-, *v. pres.*, 22- V. pres., Petrol. Chem. Corp. Chem. Soc. Petroleum.
- Stevenson, Prof. E(dward) L(uther)**, 156th St., West of Broadway, New York, N. Y. *History, Geography*. Rozetta, Ill. Oct. 18, 60. A.B., Franklin, 81, A.M., 83, LL.D., 14; Hopkins, 87-88; Jena, Halle and Heidelberg, 88-91, Ph.D., Heidelberg, 91; Litt.D., Rutgers, 24. Supt., schools, Ind., 83-84; Ill., 84-87; prof. hist., Rutgers, 92-11. Non-res. lecturer, Hopkins, 04, 09; California, 17; lecturer, Columbia, 06-07. N. J. commissioner, Jamestown Expos, 07. Knight, Order of Isabel the Catholic; Order of the Liberator, Venezuela; grand officer, Order of the Nile, Egypt, 25. Tenth Geographical Congress, Italy. A.A.; Am. Geog. Soc.; Antiq. Soc.; Am. Hist. Ass.; Hispanic Soc. (sec'y); Cuba Acad. Hist. The interrelations of history and geography; historical geography, especially in cartography; early exploration and discovery, with special reference to its geographical and cartographical features.
- Stevenson, Mrs. Emma Reh**, care of Science Service, B and 21st Streets, Washington, D. C. *Chemistry*. Moravia, Czechoslovakia, Oct. 7, 97. B.S., 17. Junior chemist, Bur. Standards, 18; chemist, steel plant lab, 18-19; research chemist, Nat. Canners Lab, 19-21; asst. chemist, U. S. Dept. Agr., 22-24. A.A. Scientific journalism.
- Stevenson, Dr. H(olland) N(ewton)**, 417 Huguenot St., New Rochelle, N. Y. *Medicine*. Pittsfield, Mass., March 24, 86. Ph.B., Yale, 08; M.D., Hopkins, 12. Instr. path., Hopkins, 12-15; asst. and assoc. cancer research, Columbia, 15-18; prof. bacter. and surg. path., Creighton, 18-19; *practising physician*, 19- Am. Med. Ass.; Ass. Cancer Research; Ass. Path. and Bact.; Am. Board Oto-Laryngol. Inflammation in relation to the sensory nerves; cancer immunity.
- Stevenson, John A(lbert)**, U. S. Department of Agriculture, Washington, D. C. *Botany*. Woonsocket, S. Dak., July 16, 90. B.S., Minnesota, 12. Asst. bot., Minnesota, 12-13; asst. pathologist, Sugar Planters Exp. Sta., P. R., 13-14; pathologist, Insular Exp. Sta., P. R., 14-18; path. inspector, fed. hort. board, U. S. Dept. Agr., 19-20, chief path. inspector, 20-25, *botanist in charge agr. explorations, office for seed and plant introduction, bur. plant indust.*, 25- Bot. Soc.; Phytopath. Soc.; Wash. Bot. Soc. Applied botany.
- Stevenson, Prof. Louisa S(tone)**, Mt. Holyoke College, South Hadley, Mass. *Chemistry*. Lowell, Mass., Dec. 5, 79. A.B., Vassar, 01, fellow, 01-02; fellow, Cornell, 03-04, 09-11, Ph.D., 11. Asst. chem., Vassar, 02-03, instr., 05-09; Wellesley, 11-13; assoc. prof., Sweet Briar, 13-15; instr., *Mt. Holyoke*, 15-16, assoc. prof., 16-19, *prof.*, 19- Fluorescence of anthracene.
- Stevenson, Dr. Paul H(uston)**, Peking Union Medical College, Peking, China. *Anatomy*. Monmouth, Ill., Dec. 22, 90. B.S., Hiram Col., 13; M.D., Washington (St. Louis), 16; A.M., Western Reserve, 22. Med. service, China, 17-20; asst. anat., *Peking Union Med. Col.*, 20-23, *assoc.*, 23- Ass. Anat. Racial anatomy; anthropology.
- Stevenson, Dr. Reston**, College of the City of New York, New York, N. Y. *Chemistry*. Wilmington, N. C., May 5, 82. A.B., North Carolina, 02, A.M., 03; Ph.D., Columbia, 08. Asst. instr. chem., Cornell, 03-05; anal. chemist, Gen. Chem. Co., 05-06; tutor *chem.*, *Col. City of N. Y.*, 06-08, instr., 08-12, asst. prof., 12-20, *assoc. prof.*, 20- Légion d'honneur. Major, U.S.A. Chem. Soc.; N. Y. Chemists Club. Physical chemistry.
- Stevenson, Prof. William Henry**, Iowa State College, Ames, Iowa. *Soils*. Freeport, Ill., Sept. 4, 72. A.B., Ill. Col., 93, Sc.D., 23; B.S.A., Iowa Col., 05. *Prof. soils*, *Iowa Col.*, 02-10, agron., 10-14, *farm crops and soils*, 17-, *in charge soil surv.*, 14-, *v. director*, *Exp. Sta.*, 12- Iowa State Drainage and Conservation Commission, 08-10. U. S. permanent delegate, Int. Inst. Agr., 21, 22. A.A.; Soil Surv. Ass.; Soc. Agron.; Iowa Acad. Soil physics, fertility, management and survey.
- Steward, Prof. Albert N(ewton)**, University of Nanking, Nanking, China. *Botany*. Near Fullerton, Calif., July 23, 97. B.S.A., Oregon Col., 21. Instr. bot., Montana, 20-21; *botanist*, *Nanking*, 21- Ecol. Soc.; China Soc. Science and Arts. Systematic botany; flora of central China.
- Stewart, Prof. Alban**, Florida State College for Women, Tallahassee, Fla. *Botany*. Wellington, Mo., Jan. 14, 75. A.B., Kansas, 96, A.M., 97; Ph.D., Harvard, 11. Asst. paleont., Kansas, 97-99; asst., U. S. Nat. Museum, 00-04; prof. biol., Penn (Iowa), 08-09; instr. bot., New Hampshire, 09-10; Wisconsin, 11-16; *prof. bot. and bacter.*, *Florida State*, 16- Botanist, Calif. Acad. exped., Galapagos Islands, 05-06. Bot. Soc. Paleontology; fossil fishes; flora of the Galapagos and Cocos Islands; anatomy of insect and fungus galls.
- Stewart, Prof. Chester A.**, University of Minnesota, Minneapolis, Minn. *Pediatrics*. Hannibal, Mo., Nov. 6, 90. M.D., 20; Ph.D., 22. *Asst. prof. pediat.*, *Minnesota*. Ass. Anat. Inanition and growth; vital capacity of the lungs; thyroid of the newborn.
- Stewart, Prof. Colin C(ampbell)**, Dartmouth College, Hanover, N. H. **Physiology*. Owen Sound, Ont., Can., Aug. 15, 73. B.A., Toronto, 94; Clark, 94-95, fellow, 95-97, Ph.D., 97. Asst. *physiol.*, Harvard Med. Sch., 97-98; tutor, col. physicians and surg., Columbia, 98-00; demonstrator, Pennsylvania, 00-03, asst. prof., 03-04; assoc. prof., *med. sch.*, *Dartmouth*, 04-07, prof., 07-08, *Brown prof.*, 08-, sec'y, 13-24, acting dean, 25-27. Summers, instr., Clark, 95, 97, Pennsylvania, 02. A.A.; *Physiol. Soc.*; Am. Med. Ass.; N. H. Med. Soc.; N. H. Surg. Club; N. H. Acad. The physiology of mammalian smooth

- muscle; the nerve supply of the viscera; alcohol; muscle physiology; the Golgi method.
- Stewart, Dr. De Lisle, P. O. Box 510, Cincinnati, Ohio.** *Astronomical photography.* Wabasha, Minn, March 16, 70. B.L, Carleton, 91, Ph.D, 95. Prin. dist. sch, Minn, 91-92; asst, Goodsell Observatory Ry. Time Signals, 93-95; Arequipa Branch, Harvard Col. Observatory, 96-02; instr. astron, Cincinnati, 03-08, asst, observatory, 03-10; observer, Int. Latitude Service, 05-10; *lecturer modern astron.* Asst. Eros plate measurements, Goodsell Observatory, Carleton, 02. Astron. Soc; Cincinnati Soc. Nat. Hist. (sec'y, 15-); Cincinnati Astron. Soc. (organizer, pres, 10-). Examination of photographic plates of Bruce telescope for new nebulae; asteroids, etc; methods of plate measurement.
- Stewart, Dr. Francis B(arretto),** Princeton University, Princeton, N. J. *Chemistry.* Burlington, N. J, April 12, 98. A.B, Williams, 19; du Pont fellow, Mass. Inst. Tech, 22-23, Ph.D, 23, Moore traveling fellow, 23-24; Munich and Vienna, 23-25. Research assoc, sch. pub. health, Columbia, 25-26; *instr. chem, Princeton, 26-* Chem. Soc. Organic chemistry; nature of reactions; structure of strychnin; effect of metallic poisoning.
- Stewart, Prof. F(red) C(arlton),** Geneva, N. Y. *Plant pathology, Mycology.* Clymer, N. Y, Feb. 13, 68. B.S, Iowa Col, 92, M.S, 94. Asst. botanist, Iowa Exp. Sta, 91-94; *botanist, N. Y. Exp. Sta, Geneva, 94-*, *prof. plant path, Cornell.* A.A; Phytopath. Soc. (pres, 13). Diseases of cultivated plants; edible fungi.
- Stewart, Dr. Fred W(aldorf),** Rockefeller Institute, New York, N. Y. *Pathology, Bacteriology.* Binghamton, N. Y, June 11, 94. A.B, Cornell, 16, Schuyler fellow, 16-17, Ph.D, 19; fellow, Am. Field Service, Lyon, 20-21; fellow, Harvard, 22-23, M.D, 24. Instr. anat, med. col, Cornell, 18-20; Trudeau Foundation fellow, 24; Nat. Research Council fellow, 25-26; *Rockefeller Inst, 26-* A.A; Ass. Path. and Bact; Ass. Anat. Histology; embryology; ductless glands; lung; cranial sympathetic system; immunology of tuberculosis; sensitization; allergy; experimental pathology.
- Stewart, Prof. Geo(rge),** Utah Agricultural College, Logan, Utah. *Agronomy, Genetics.* Tooele, Utah, Nov. 7, 88. B.S, Utah Col, 13; M.S, Cornell, 18; Ph.D, Minnesota, 26. Instr. agron, Utah Col, and asst. agronomist, *exp. sta, 13-16*, *prof. and assoc. agronomist, 17-18*, *prof. and agronomist, 19-* Soc. Agron. Alfalfa; public domain; plant breeding; rotation and manuring; irrigation.
- Stewart, Dr. G(eorge) N(eil),** Western Reserve University, Cleveland, Ohio. **Physiology.* London, Ont, Can, April 18, 60. M.A, Edinburgh, 81, Mackay-Smith scholar, 83-84, D.Sc, 87, M.D, 90, LL.D, 20; Berlin, 86-87; George Henry Lewes student, Cambridge, 89-93, D.P.H, 92; Strassburg, 92. Asst. physics, Edinburgh, 79-80; senior demonstrator physiol, Victoria, 87-89; examiner physiol, Aberdeen, 90-94; *prof. physiol. and histol, Western Reserve, 94-03*; *prof. physiol. and head dept, Chicago, 03-07*; *prof. exp. med. and director,*
- Cushing Lab, Western Reserve, 07-* Physiol. Soc; Soc. Exp. Biol; Soc. Exp. Path; Soc. Pharmacol; London Physiol. Soc. Electro-physiology of the nerve; Talbot's law; the nerves of the heart; the circulation time; hemolysis; the action of hemolytic and agglutinative agents on the blood corpuscles and other cells; the permeability of animal cells; resuscitation; blood-flow in man; physiology of adrenals.
- Stewart, Dr. G(eorge) W(alter),** University of Iowa, Iowa City, Iowa. **Physics.* St. Louis, Mo, Feb. 22, 76. A.B, De Pauw, 98; Ph.D, Cornell, 01. Asst. physics, Cornell, 99-01, instr, 01-03; asst. prof, North Dakota, 03-04, prof, 04-09; *prof. and head dept, Iowa, 09-* Summers, instr, Lehigh, 02, Missouri, 03. A.A; Physical Soc; Eng. Educ; Iowa Acad. Radiation; distribution of energy in spectra; architectural acoustics; high resistance; relation between illuminating power, viscosity and density of kerosene oils; acoustic shadow of a sphere, phase and intensity; sound diffraction and localization; ionization at metallic surfaces; binaural localization and beats; propagation in an irregular atmosphere; action of conical horns; physical aspects of audition; acoustic wave filters; acoustic transmission with branch lines; measurement of acoustic impedance; theory of Herschel-Quincke tube; X-ray diffraction in liquids.
- Stewart, Dr. Grace A(nne),** Ohio State University, Columbus, Ohio. *Geology.* Minnedosa, Man, Can, Aug. 4, 93. B.A, Alberta, 18, M.A, 20; fellow, Chicago, 21-22, Ph.D, 22. Asst. geol, Alberta, 18-20; *instr, Ohio State, 23-* Summers, asst, Alberta Research Council, 19, 21, asst. paleontologist, Can. Geol. Surv, 21-22. Ohio Acad. Invertebrate paleontology.
- Stewart, Guy R(obertson),** Experiment Station, Hawaiian Sugar Planters' Association, Honolulu, Hawaii. *Chemistry.* B.S, California, 06, 06-07. Asst. agr. chem, California, 05-07; asst. chemist, bur. chem, U. S. Dept. Agr, 07-09; analyst and investigator, Calif. State Board Health, 09-13; asst. prof. agr. chem, California, 13-19; *station chemist, exp. sta, Hawaiian Sugar Planters' Ass, Honolulu, 20-* Capt, Sanit.C, 18-19. A.A; Chem. Soc. Agricultural chemistry; soil fertility.
- Stewart, Prof. H(arold) W(ilson),** University of Wisconsin, Madison, Wis. *Soils.* Hebron, Ill, July 3, 86. B.S, Illinois, 09; Ph.D, Wisconsin, 24. Asst. soil surv, Illinois, 09-12, assoc, 12-15; *asst. prof. soils, Wisconsin, 15-* Soc. Agron; Soil Surv. Ass; Int. Soc. Soil Sci. Soil physics; factors affecting the supply of moisture to crops in sandy soils; the effect of soil type and rate of planting on maturity and yield of corn.
- Stewart, Dr. John A(rchibald) M(ueller),** 339 East End Ave, Beaver, Pa. *Botany.* Beaver, Dec. 19, 86. A.B, Allegheny, 12, M.S, 18; Cornell; Ph.D, Pittsburgh, 25. Instr, high sch, Pa, 13-17; Allegheny, 18-22; bot, Pittsburgh, 22-24; *prof. biol. and head dept, Thiel Col, 24-* Summers, conductor travel course of West, Pittsburgh, 24-26. A.A; Bot. Soc; Ecol. Soc;

- Pa. Acad; W. Pa. Bot. Soc. The water supply in Beaver, Pennsylvania; ecological and taxonomic survey of flora of Beaver County, Pennsylvania.
- Stewart, Prof. J(ohn) Q(uincy)**, 14 Prospect Ave, Princeton, N. J. *Astronomy, Physics*. Harrisburg, Pa, 94. B.S, Princeton, 15, Ph.D, 19. Engineer, develop. and research dept, Am. Tel. and Tel. Co, 19-21; asst. prof. *astron. physics, Princeton*, 21-27, *assoc. prof*, 27- Lieut, C.Eng, 17-19. Astron. Soc; fel. Physical Soc. The gyromagnetic effect; theory of speech-sounds; physical conditions in the stars; theory of gasopacity.
- Stewart, Prof. John T(ruesdale)**, 2223 Knapp St, St. Paul, Minn. *Civil engineering*. Loda, Ill, Jan. 13, 68. B.S, Illinois, 93, C.E, 09. Field asst, U. S. Geol. Surv, 97-03; drainage engineer, U. S. Dept. Agr, 04-08; prof. agr. eng. Minnesota, 08-17; *consulting engineer*, 19- Major and lieut. col, C.Eng, 17-19, col. eng, R.C. Civil Eng; West. Soc. Eng; Ill. Soc. Eng. Reclamation of overflow lands; experimental drainage systems; methods of draining agricultural lands; engineering on the farm.
- Stewart, Miss Maude G(ertrude)**, 410 Winona St, Northfield, Minn. *Physics*. Elgin, Minn, March 5, 66. B.L, Carleton, 88; Chicago, 94; A.M, Columbia, 13. Instr, high sch, Ill, 92-03; *head dept. science*, Salem Col, 06-12; *high sch*, Faribault, Minn, 12-20; Pipestone, 20-22; Farmington, 22-25; *Northfield*, 25- A.A; Physical Soc. Radioactivity.
- Stewart, Prof. O(lus) J(esse)**, 204 State St, Lexington, Ky. *Chemistry*. Freeport, Ohio, Jan. 27, 84. A.B, Ohio State, 10; M.S, Purdue, 12; Harvard, 12-14. *Asst. prof. chem*, New Hampshire, 14-19; *Kentucky*, 19- Chem. Soc. Atomic weight of neodymium, praseodymium, samarium, thulium.
- Stewart, Prof. O(scar) M(ilton)**, University of Missouri, Columbia, Mo. **Physics*. Neosho, Mo, Nov. 3, 69. Ph.B, De Pauw, 92; fellow, Cornell, 95-96, Ph.D, 97. Prof. physics and chem, Baker, 92-94; asst. *physics*, Cornell, 96-98, instr, 98-01; asst. prof, *Missouri*, 01-03, asst. prof. in charge, 03-05, *prof*, 05- A.A; fel. Physical Soc. (chairman, educ. committee, 24-); Eng. Educ. Electrical conductivity of gases; theory of instruments.
- Stewart, Prof. Robert**, University of Nevada, Reno, Nev. *Chemistry*. American Fork, Utah, Aug. 16, 77. B.S, Utah Col, 02; Chicago, 04-05; fellow, Illinois, 08-09, Ph.D, 09. Asst. chemist, Utah Exp. Sta, 02-05, asst. prof. chem, Utah Col, 05-07, *prof*, 07-15; *assoc. prof. soil fertility*, Illinois, 15-18, *prof*, 18-20; *dean col. agr, Nevada*, 20- Soc. Agron. Agricultural chemistry; agronomy; soil fertility; chemical composition of arid farm crops; use of irrigation water.
- Stewart, R(obert) Meldrum**, Dominion Observatory, Ottawa, Ont, Can. *Astronomy*. Gladstone, Can, Dec. 15, 78. B.A, Toronto, 02, M.A, 03. Supt. time service, *Dominion Observatory*, 05-08, astronomer, 08-18, asst. director, 18-24, *director*, 24- Chairman, Nat. Committee for Can, Int. Astron. Union. A.A;
- Astron. Soc; Math. Soc; fel. Royal Astron. Soc. Can. (pres, 24); fel. Royal Soc. Can; fel. Royal Astron. Soc; Soc. astron. de France; Astron. Gesell. Radioactivity; meridian work; time service; longitude by wireless; theory of errors.
- Stewart, Dr. T(homas) Dale**, University of California, Berkeley, Calif. *Chemistry*. Sumner, Wash, 90. B.S, California, 13, M.S, 14, Ph.D, 16. Asst. chem, California, 13-16; research *assoc*, Chicago, 16-17; instr, *California*, 17-20, asst. prof, 20-25, *assoc. prof*, 25- Chem. Soc. The electric carrier in metals; structure and basicity of nitrogen compounds; reactivity of ethylenes; organic chemistry.
- Stickney, Dr. Fenner S(atterthwaite)**, 1119 Fulton St, Palo Alto, Calif. *Entomology*. Wilson, N. C, Aug. 6, 92. Hawaii, 12-14; B.S, California, 16; M.S, Illinois, 18, fellow, 19-21, Ph.D, 21. Sci. asst, *bur. entom. U. S. Dept. Agr*, 21-24, *assoc. entomologist*, 24- Summer, asst, N. Dak. Col, 20. U.S.A, 18-19. A.A; Entom. Soc; Ecol. Soc. Insect morphology; economic entomology; Coccidae.
- Stickney, Prof. M(alcolm) E(nos)**, Granville, Ohio. *Botany*. Brownville, Maine, April 18, 74. A.B, Bates, 98; A.B, Harvard, 99, A.M, 00; Wisconsin. Instr. *bot. Denison*, 03-04, asst. prof, 04-09, *prof*, 09- A.A; Bot. Soc; Ecol. Soc; Micros. Soc; Wis. Acad; fel. Ohio Acad. (v. pres, 11, 12, 16, trustee, 17-19, exec. council, 25). Morphology, cytology and ecology of algae; cytology of Sporogenesis; plant distribution.
- Stiegler, Dr. H(arold) W(infred)**, 535 Howard St, Lawrence, Mass. *Chemistry*. Lawrence, April 5, 95. Lowell Textile Sch, 18; B.T.C, Mass. Inst. Tech, 20; research fellow, Northwestern, 21-24, M.S, 22, Ph.D, 24. Research staff, Nat. Aniline and Chem. Co, 19, 21; *instr*, *Lowell Textile Sch*, 24- Chemist, Avery Chem. Co; Am. Woolen Co. Offense research, C.W.S; capt, C.W.S.R. A.A; Chem. Soc; Ass. Textile Chemists and Colorists. Organic and textile chemistry; organic arsenicals; dyes.
- Stieglitz, Prof. Julius (Oscar)**, University of Chicago, Chicago, Ill. **Chemistry*. Hoboken, N. J, May 26, 67. Ph.D, Berlin, 89; hon. Sc.D, Clark, 09; hon. Ch.D, Pittsburgh, 16. Docent *chem, Chicago*, 92-93, asst, 93-94, instr, 94-97, asst. prof, 97-02, *assoc. prof*, 02-05, *prof*, 05-, director anal. chem, 09-15, univ. laboratories, 12-24, *chairman dept. chem*, 15- Hitchcock lecturer, California, 09, summer, lecturer, 15, Stanford, 21; Dohme lecturer, Hopkins, 24; lecturer, Franklin Inst. Centenary, 24; U. S. Pub. Health Service, 18-23, 25-26. Assoc. ed, 'Jour. Am. Chem. Soc.', 12-19. Int. Commission Annual Tables of Constants, 14-20; chairman sub-committee, synthetic drugs, Nat. Research Council, 17-20, v. chairman div. chem, 19-22; trustee, Int. Critical Tables, 20- Willard Gibbs medal, Chicago sect, Chem. Soc, 23. Nat. Acad; A.A; Chem. Soc. (chairman, sect. org. chem, 07, pres, 17); Soc. Chem. Indust; Philos. Soc; Am. Med. Ass. (v. chairman, council chem. and pharmacy, 02-24); Am. Acad; Sigma Xi (pres, 17-19); Wash. Acad; Soc.

- chim. de Paris. The Beckmann molecular rearrangements; saponification of imido-ethers; positive halogen; molecular rearrangement velocities; catalysis; stereoisomeric nitrogen derivatives; velocities of ester saponification; theory of indicators; rearrangements in triphenylmethane series; electron theory of valence in organic chemistry; murexid; theory of color production.
- Stifer, Prof. W(illiam) W(arren)**, Amherst College, Amherst, Mass. *Physics*. Davenport, Iowa, Dec. 22, 83. A.B., Shurtleff Col. 02; fellow, Illinois, 06-07, 10-11, A.M., 08, Ph.D., 11. Instr. chem. and physics, Ewing Col., 02-06; asst. physics, Illinois, 07-09, instr., 09-10; Columbia, 11-17; head dept. physics, and dean pre-med. sch., Peking Union Med. Col., 17-22; China Med. Board visiting prof. physics, Canton Christian Col., 22-23; research, Harvard, 23-24; acting prof. *physics*, Williams, 24-25; *assoc. prof.*, Amherst, 25- A.A.; Physical Soc. Magnetic properties of cobalt at high temperatures; X-ray scattering; improved apparatus for X-ray spectroscopy.
- Stiles, Dr. Ch(arles) Wardell**, Hygienic Laboratory, 25th and E Sts, N. W., Washington, D. C. **Medical zoology*. Spring Valley, N. Y., May 15, 67. Wesleyan, 85-86, hon. M.S., 96, Sc.D., 07; Col. de France, 86-87; Berlin, 87-89; Ph.D., Leipzig, 90; Trieste Zool. Sta., 91; Pasteur Inst. and Col. de France, 91; M.D., Paris, 96; LL.D., North Carolina, 12; hon. M.D., Richmond, 13; Sc.D., Yale, 15. Zoologist, bur. animal indust, U. S. Dept. Agr., 91-02; prof. med. zool., Georgetown, 02-06; zoologist, U. S. Pub. Health Service, 02-10, *prof. zool.*, 10-, *asst. surgeon gen. (reserve)*, 19- Hon. custodian helminthol. collections, U. S. Nat. Museum, 93-; sec'y advisory committee, Smithsonian table, Naples Zool. Sta., 94-; lecturer, Army Med. Sch., 94-01; Hopkins, 97-; Navy Med. Sch., 02-17. Agr. and science attaché, U. S. Embassy, Berlin, 98-99. Sec'y, Int. Commission Zool. Nomenclature, 98-; sci. sec'y, Rockefeller Sanit. Commission for Eradication of Hookworm Disease, 09-14. U. S. delegate, Int. Zool. Cong., Leyden, 95; Cambridge, 98; Berlin, 01; Bern, 04; Boston, 07. A.A. (sec'y, F, 02, gen. sec'y, 04); Soc. Zool.; cor. mem. London Zool. Soc.; for. cor. Soc. de Biol. de France; Acad. de Méd. de France; for. cor. Soc. Centrale de Méd. vet. de France; cor. mem. Reale Accad. di Med. di Torino. Zoology in its relation to public health.
- Stiles, Prof. H(arold)**, Iowa State College, Ames, Iowa. *Physics*. Richmond, Ohio, Oct. 11, 74. Ph.B., Kenyon, 96; A.M., Harvard, 04; fellow, Northwestern, 07-09, Ph.D., 09. Instr. *physics*, Northwestern, 04-07; prof., Morningside, 09-14; *assoc. prof.*, Iowa Col., 14- Summers, lecturer, Iowa, 12, 13. A.A.; Physical Soc.; Iowa Acad. Wave length determinations for mercury spectrum.
- Stiles, Prof. Henry Wilson**, Syracuse University College of Medicine, 309 Orange St., Syracuse, N. Y. *Anatomy*. M.D., Ensworth Cent. Med. Col., 01; Missouri; Stanford. Instr. *anat.*, Michigan, 06-09; asst. prof., Tulane, 09-10; *prof.*, Syracuse, 10- Ass. Anat. A stereoscopic atlas of anatomy.
- Stiles, Prof. Percy G(ouldthwait)**, Harvard Medical School, Boston, Mass. *Physiology*. Newtonville, Mass., July 1, 75. B.S., Mass. Inst. Tech., 97; Ph.D., Hopkins, 02. Instr. *physiol.*, Univ. and Bellevue Hosp. Med. Col., 02-03; Mass. Inst. Tech., 03-17; *asst. prof.*, Simmons, 07-14; *Harvard Med. Sch.*, 16- Instr., Mass. State Nor. Sch., Framingham, 98-99. A.A.; *Physiol. Soc.*; *Soc. Exp. Biol.*; Am. Acad. Smooth muscle; skeletal muscle; vasomotor reactions.
- Still, Prof. Alfred**, 723 Salisbury St., West Lafayette, Ind. *Electrical engineering*. Gloucestershire, Eng., Jan. 28, 69. Col. de Dieppe, France; grad., Finsbury Tech. Col., Eng. Chief designer elec. machinery, Edison and Swan Co., Eng., 95-00; Cowans, Ltd., 00-11; chief elec. engineer, Lake Superior Corp., Can., 11-15; *prof. elec. design*, Purdue, 15- Fel. Elec. Eng.; British Inst. Elec. Eng. Electric transmission of energy; distribution of magnetic flux in air gap of dynamos; commutation of electric generators; flux densities in armature teeth.
- Stillhamer, Prof. A(rthur) G(rant)**, 705 N. East St., Bloomington, Ill. *Physics*, *Astrophysics*. Bloomington, Feb. 26, 78. B.S., Ill. Wesleyan, 98, A.M., 00; fellow, Chicago, 03-05. Instr. chem. and physics, Ill. Wesleyan, 95-98, *asst. chem.*, 98-99; *asst. astrophys.* and director solar research, Yerkes Observatory, 05-06; *assoc. prof. physics*, Ill. Wesleyan, 08-09, *prof.*, 09- A.A.; Physical Soc.; Optical Soc.; Meteor. Soc.; fel. Royal Astron. Soc. A means of automatically recording atmospheric transparency.
- Stillians, Prof. Arthur William**, 911 E. 50th St., Chicago, Ill. *Dermatology*. Chicago, Dec. 24, 71. M.D., Illinois, 99. Instr. *dermat. and syphilol.*, Illinois, 07-14; clin. prof., Loyola, 14-18, *prof.*, 18-19; *Northwestern*, 19- Am. Med. Ass.; Dermat. Ass.; Chicago Inst. Med. Syphilology.
- Stillinger, C(harles) R(oy)**, 618 Realty Building, Spokane, Wash. *Plant pathology*. Grants Pass, Oregon, June 15, 89. A.B., Idaho, 13, M.S., 15. Instr. high sch., Idaho, 13-14; sci. asst., office blister rust control, bur. plant indust, U. S. Dept. Agr., 17; teaching fellow bot., Washington (Seattle), 15-16; bot. and plant path., Oregon Col., 16-17; *assoc. pathologist*, office pine blister rust control, bur. plant indust, U. S. Dept. Agr., 19- Second lieut., U.S.A., 18-19. A.A.; Phytopath. Soc.; Northwest Sci. Ass. Control of white pine blister rust.
- Stillman, Dr. Jesse W(ilbur)**, 1510 Franklin St., Wilmington, Del. *Chemistry*. Pawcatuck, Conn., Feb. 1, 93. B.S., Dartmouth, 14; A.M., Columbia, 15, Ph.D., 20. Acting instr. chem., Dartmouth, 14; research asst. anal. chem., Columbia, 16-17; research chemist, *E. I. du Pont de Nemours and Co.*, 17-20, in charge anal. lab., *du Pont Exp. Sta.*, 20- Chem. Soc. Analytical chemistry.
- Stillman, Dr. Ralph G(riffiths)**, 8 W. 16th St., New York, N. Y. *Medicine*. New York, Feb. 21, 82. A.B., Yale, 03; M.D., Columbia, 07. Demonstrator *physiol.*, Columbia, 09-11; attending physician, Seton Hosp., 11-13; instr. clin. med., Cornell, 12-22, *asst. prof. clin. path.*,

22— Clin. pathologist, New York Hosp, 12–20, asst. director div. laboratories, 20–; consulting physician, Rahway Hosp, 21— A.A.; Am. Med. Ass; Ass. Path. and Bact; Soc. Clin. Path.; Soc. Exp. Biol; N. Y. Acad. Med; N. Y. Path. Soc; Harvey Soc. Diseases of the spleen; chemistry of urine; clinical pathology.

Stillman, Prof. Stanley, Stanford University Hospital, San Francisco, Calif. *Surgery*. Sacramento, Calif, Aug. 21, 61. A.B, California, 82; M.D, Cooper Med. Col, 89. Prof. *surg*, Cooper Med. Col, 98–12; *sch. med*, Stanford, 06–27, *emer. prof*, 27— Lieut. commander and commander, M.C.N.R.F. Trustee, Cooper Med. Col. Surg. Ass; Calif. Acad. Med; Soc. Int. de Chirurg. General surgery.

Stillwell, Albert G(ladding), 76½ Pine St, New York, N. Y. *Chemistry*. Brooklyn, N. Y, Aug. 8, 76. Brooklyn Polytech; B.S, Columbia, 98. Asst. chemist, Stillwell and Gladding, 98–03; *pres*, *Stillwell Laboratories, Inc*, 03— Official chemist, N. Y. Produce Exchange, 03–09; Nat. Ass. Importers, 09–; U. S. Shellac Ass, 24— Chem. Soc. (director, N. Y. sect, 09–10); Soc. Chem. Indust; N. Y. Chemists Club. Analytical chemistry; fertilizers; oils.

Stillwell, L(ewis) B(uckley), 90 West St, New York, N. Y. *Electrical engineering*. Scranton, Pa, March 12, 63. Wesleyan, 82, hon. Sc.D, 07; E.E, Lehigh, 85, hon. M.S, 07, hon. Sc.D, 14. Chief elec. engineer, Westinghouse Elec. and Mfg. Co, 91–97; elec. director, Niagara Falls Power Co, 97–00; Rapid Transit Subway Construction Co, 00–08; *consulting elec. engineer*, Manhattan Ry. Co, 00–04; *The Hudson Companies*, 05—, *Holland Tunnels*, 24— Trustee, Princeton; chairman, Eng. Foundation. Nat. Acad; A.A.; Elec. Eng. (past pres); Consulting Eng. (past pres); Civil Eng; Philos. Soc; British Inst. Elec. Eng.

Stimson, H(arold) F(rederic), U. S. Bureau of Standards, Washington, D. C. *Physics*. Leicester, Mass, April 1, 90. A.B, Clark, 10, A.M, 11, Ph.D, 15. Research asst. to Prof. A. G. Webster, 11–15; *physicist*, *Bur. Standards*. A.A; assoc. Physical Soc; Optical Soc; Wash. Philos. Soc. Mathematical physics; electrostatic capacities; electric oscillations; sound; calorimetry; heat measurement.

Stinchfield, Dr. S(ara) M(ae), Mt. Holyoke College, South Hadley, Mass. *Psychology*. Auburn, Maine, Sept. 29, 85. A.B, Pittsburgh, 14; A.M, Iowa, 20; Ph.D, Wisconsin, 22. Teacher, high sch, Pa; research asst, Iowa, 18–20; asst, Wisconsin, 20–22; instr. *psychol*, *Mt. Holyoke*, 22–24, asst. prof, 24–27, *assoc. prof*, 27— Lecturer, Mass. State Dept. Univ. Exten, 24–26. Asst. ed, 'Quarterly Jour. Speech Educ', 22— Am. Acad. Speech Correction (past sec'y). Speech correction; psychology of speech; child psychology.

Stine, Dr. C(harles) M(ilton) A(iltland), Wilmington, Del. *Chemistry*. Norwich, Conn, Oct. 18, 82. A.B, Gettysburg, 01, B.S, 03, A.M, 04, M.S, 06, hon. Sc.D, 26; fellow, Hopkins, 06–07, Ph.D, 07. Prof. chem, Maryland, 03–05; head high explosive div, east. lab, *E. I. du Pont de Nemours and Co*, 07–16, head org. div, *chem*.

dept, 16–19, asst. director, 19–24, *chem. director*, 24— A.A; Chem. Soc. (councilor, 23–24, chairman, Del. sect, 22); Chem. Eng; N. Y. Chemists Club. Hydrates in binary electrolytes; high explosives; detonating compounds; dyes and intermediates; paints; varnishes; lacquers; propellant powders; solvents.

Stine, Dr. O(scar) C(lemen), West Falls Church, Va. *Agricultural economics*. Sandyville, W. Va. Ph.B, Ohio, 08; Ph.D, Wisconsin, 21. Asst. agr. econ, Wisconsin, 14–16; asst. farm econ, *U. S. Dept. Agr*, 16–19, assoc. agr. economist, 19–20, agr. economist, 20–21, in charge agr. hist. research, 21–22, in charge *statist. and hist. research*, 22— Farm Econ. Ass; Econ. Ass; Statist. Ass; Agr. Hist. Soc. (pres, 24). Agricultural economic history; statistics of prices.

Stine, Prof. W(ilbur) M(orris), 713 Ashurst Road, Penfield, Philadelphia, Pa. *Electrical engineering, Physics*. Tyrone, Pa, Nov. 3, 63. Ph.B, Dickinson, 86, M.S, 89, Sc.D, 93; Ph.D, Ohio (Athens), 93. Asst. prof. physics, Ohio (Athens), 86–87, prof. physics and elec. eng, 87–93; director elec. eng, Armour, 93–98; prof. eng, Swarthmore, 98–09. Ed, 'Elec. Engineering', 94. Mem, jury awards, Columbian Expos, 93; Nat. Export Expos, Phila, 99. A.A; Physical Soc; Franklin Inst; Elec. Eng. (v. pres, 96–99). Alkaline and gas accumulators; arc and incandescent lamps; physics of fuses for electrical currents; photometry; Röntgen rays; instruments of precision for electrical measurements; metallography; magnetism of iron; precision apparatus; electromagnetism.

Stitt, Rear Admiral E(dward) R(hodes), U.S.N., Office of the Surgeon General, Navy Dept, Washington, D. C. *Medicine*. Charlotte, N. C, July 22, 67. A.B, South Carolina, 85, LL.D, 17; M.D, Pennsylvania, 89, Sc.D, 24; Jefferson Med. Col, 20; LL.D, Michigan, 21. Asst. surgeon, *U.S.N.*, 89–92, past asst. surgeon, 92–00, surgeon, 00–10, med. inspector, 10–14, med. director with rank of capt, 14–17, with rank of rear admiral, 17–20, director laboratories and head dept. med, Naval Med. Sch, 11–16, commanding officer, 16–20, *surgeon gen*, 20— Assoc. prof, Philippines, 09–11; prof, Georgetown and George Washington, and lecturer, Jefferson Med. Col, 11–20. Fed. Board Hospitalization; pres, board visitors, St. Elizabeth's Hosp; cent. and exec. committees, Am. Red Cross; Nat. Research Council. Soc. Trop. Med; Ass. Immunol; Soc. Parasitol. Bacteriology; animal parasitology; diagnostics of tropical medicine.

Stock, Prof. Chester, California Institute, Pasadena, Calif. *Paleontology*. San Francisco, Calif, Jan. 28, 92. B.S, California, 14, fel, 14–15, Ph.D, 17. Research asst. paleont, California, 17–19, instr, 19–21, asst. prof, 21–26; *prof. paleont*, *Calif. Inst*, 26— Vertebrate paleontologist, Los Angeles Museum. A.A; Paleont. Soc; Soc. Mammal; West. Soc. Nat; Calif. Acad. Pleistocene and tertiary vertebrates of western North America; vertebrate paleontology and morphology; comparative anatomy; historical geology.

Stock, Kurt, Fish Creek, Wis. *Metallurgy*. Berlin, Germany, May 8, 74. Diploma, Royal Sch. Mines, Freiberg. Chief chemist and asst. supt., U. S. Zinc Co, 06-10; Lanyon-Starr Smelting Co, 10-13; supt. and v. pres, Altoona Zinc Smelting Co, 13-14; construction engineer, Clarksburg Clinkering Co, 14-15; supt, Bartlesville Zinc Co, 15-19. A.A.; Min. Eng.

Stockard, Prof. Charles R(uPERT), Cornell Medical College, New York, N. Y. **Anatomy, Biology*. Washington Co, Miss, Feb. 27, 79. B.S., Miss. Agr. and Mech. Col, 99, M.S., 01; Ph.D., Columbia, 06; Sc.D., Cincinnati, 20; M.D., Würzburg, 22. Acting prof. mil. science, Miss. Agr. and Mech. Col, 98-00; Jefferson Mil. Col, 00-03; asst. zool., Columbia, 05-06; embryol. and histol., *med. col., Cornell*, 06-08, instr., 08-09, asst. prof. embryol., 09-11, *prof. anat.*, 11- Investigator, Tortugas Lab, Carnegie Institution, Naples Zool. Sta. and Anat. Inst., Munich. Managing ed., 'Am. Jour. Anat.'; co-editor, 'Jour. Exp. Zool.'; 'Am. Anat. Memoirs.' Board sci. directors, Rockefeller Inst. Huntington Fund for cancer research; trustee, Woods Hole. Nat. Acad; Soc. Nat. (sec'y, 09-11); Ass. Anat. (sec'y-treas, 14-22); Soc. Zool. (pres, 25); Soc. Exp. Biol.; Soc. Cancer Research; Philos. Soc. Influence of chemicals on embryonic development; production of cyclopean monsters; regeneration and growth; modification of germ-cells; degeneracy in mammals; blood-cells and endothelium; oestrous cycle; structural defects and abnormalities; post-natal growth and development; type differences and constitution.

Stockbarger, D(onald) C(harles), Massachusetts Institute of Technology, Cambridge, Mass. *Physics*. Walkerton, Ind, Oct. 19, 95. B.S., Mass. Inst. Tech, 19, Sc.D., 26. Asst. *physics*, *Mass. Inst. Tech*, 20-23, instr., 23-27, *asst. prof.*, 27- Consulting physicist, Cooper Hewitt Elec. Co, 21-; consulting engineer, United Shoe Machinery Corp, 24- Electrochem. Soc; assoc. Optical Soc. Production, characteristics and uses of ultraviolet radiation; radiation characteristics of quartz mercury arcs; effects of current density, arc voltage and tube design on the energy distribution of quartz mercury arc radiation.

Stockberger, Dr. W(arner) W, U. S. Department of Agriculture, Washington, D. C. *Botany*. Croton, Ohio, July 10, 72. B.S., Denison, 02; Ph.D., George Washington, 07. Supt., schools, Ohio, 95-97; asst. science, Denison, 97-01, instr. bot., 01-03; expert in histol., *bur. plant indust.*, U. S. Dept. Agr., 03-09, pharmacognosist, 09-10, physiologist, 10-, *in charge drug, poisonous and oil plant investigations*, 13-, *departmental director personnel and business administration*, 25- Asst. sec'y, Pharmac. Convention, 20- A.A.; Pharmac. Ass; Agr. Hist. Soc; hon. mem. Oil Chem. Soc; Wash. Bot. Soc. (pres, 12). Pharmacognosy; drug plant culture in America; poisonous plants; new oil-seed crops; variation and heredity.

Stockbridge, Dr. H(orace) E(dward), R. F. D. 3, Atlanta, Ga. *Agriculture, Chemistry*. Hadley, Mass, May 19, 57. B.S., Mass. Col, 78;

Ph.D., Göttingen, 84. Asst. chemist, U. S. Dept. Agr, 80; instr. chem., Mass. Col, 81, assoc. prof. chem. and geol., 84-85; prof., Imp. Col. of Agr, Japan, 85-89; chief chemist, Japanese Govt, 87-89; director, Ind. Exp. Sta., 89; pres, N. Dak. Col. and director, Exp. Sta., 90-94; director, Farmers' Institutes, Lake City, Fla., 97-05; ed., 'South. Ruralist,' Atlanta, 06- Ind. Acad; Chem. Gesell; Japan Educ. Soc. Fertilizing of crops; feeding of animals; estimation of sugar in beets; lupulin of hops; clarification of cane juice; effect of cultivation on elaboration of characteristic constituents of certain wild plants; determination of digestive coefficients of native feed stuffs; feeding values of new feed stuffs.

Stocking, Prof. C(harles) H(oward), University of Michigan, Ann Arbor, Mich. *Pharmaceutical chemistry*. Stockbridge, Mich, Aug. 27, 82. Ph.C., Michigan, 07, B.S., 09, M.S., 25. Prof. pharmacy and dean, Kansas City Col. Pharmacy, 09-11; research chemist, The Upjohn Co, 11-12; prof. pharmacy and dean sch. pharmacy, Oklahoma, 12-17; Eli Lilly and Co, 17-18; 'Pharmaceut. Era,' 18-19; *asst. prof. pharmacy, Michigan*, 20- Pharmaceut. Ass; Conf. Pharmaceut. Faculties (v. pres, 22). Influence of viscosity on emulsification of oils; refractive index of the copper serum from milk; pepsin assay.

Stockton, Dr. Cha(rlie)s G, 436 Franklin St, Buffalo, N. Y. **Medicine*. Madison, Ohio, Aug. 27, 53. M.D., Buffalo, 78; Niagara, 84. Prof. mat. med, Niagara, 83-87; *principles and practise of med. and clin. med.*, Buffalo, 87-17, *emer. prof.*, 17- Consulting physician, Buffalo Gen. Hosp; N. Y. State Hosp. for Crippled and Deformed Children; contributor, text books and encyclopedias. A.A.; Am. Med. Ass; Am. Physicians; Gastro-Enterol. Ass. Internal medicine.

Stockton, Dr. J(ames) Leroy, 7706 Eads Ave, La Jolla, Calif. *Psychology*. Burlington, Iowa, July 12, 73. A.B., Columbia, 06, A.M., 07; Ph.D., Stanford, 20. Teacher, pub. schools, 09; director training sch., Minn. State Teachers Col, Winona, 09-16; Calif. State Teachers Col, San Jose, 20-22; v. pres, Calif. State Teachers Col, Santa Barbara, 22- Exten. lecturer, Columbia, 07; instr., Stanford, 20-21. Assoc. ed., 'Measurement Rev.' Psychol. Ass; West. Psychol. Ass. General, educational and abnormal psychology; nature and measurement of intelligence.

Stoddart, Prof. C(harles) W(illiam), State College, Pa. *Chemistry*. Boscobel, Wis, Oct. 14, 77. A.B., Columbia, 00, A.M., 01; Ph.D., Wisconsin, 09. Asst. prof. soils, Wisconsin, 04-10; prof. agr. chem., Pa. State, 10-20, acting dean sch. nat. science, 20-24, *dean sch. lib. arts*, 20- A.A. Soil acidity and phosphates; rare earths; chemistry of agriculture.

Stoeckle, Dr. Erwin R., Central Radio Laboratories, Milwaukee, Wis. *Physics*. Chicago, Ill, June 8, 90. B.S., Northwestern, 11; M.S., Wisconsin, 13, Ph.D., 16. Research physicist, West. Elec. Co, 15-17; director physical lab, Cutler Hammer Mfg. Co, 17-22; *pres, Cent. Radio*

- Laboratories, 22-* Assoc. Physical Soc; Elec. Eng; Radio Eng. Thermionic vacuum tubes; discharge of electricity through gases; electric arcs.
- Stokes, Dr. Henry N(ewlin)**, 1207 Q St, N. W., Washington, D. C. **Chemistry*. Moorestown, N. J., Oct. 24, 59. B.S., Haverford, 78; Ph.D., Hopkins, 84; Munich, 85-86; Polytech, Zurich, 86-89. Chemist, U. S. Geol. Surv., 89-92; asst. prof. inorg. chem, Chicago, 92-94; chemist, U. S. Geol. Surv., 94-03; Bur. Standards, 03-09. A.A. (sec'y, C, 93, 03); Chem. Soc. (committee papers and pub); Min. Eng; Chem. Gesell; Soc. chim. de Paris. Inorganic chemistry; silicon compounds; phosphorus-nitrogen compounds; chemistry of ore deposition, especially sulphids.
- Stokes, Dr. John H(inchman)**, 3800 Chestnut St, Philadelphia, Pa. *Dermatology*. Munich, Germany, Sept. 1, 85. A.B., Michigan, 08, M.D., 12. Instr. anat, Michigan, 13, res. dermat. and syphilol, 13-14, instr, 14; Illinois, 15-16; assoc. prof. med, Minnesota, and chief sect. dermat. and syphilol, Mayo Clinic, 16-24; *prof. dermat. and syphilol, sch. med. and grad. sch. med, Pennsylvania, 24-* Am. Med. Ass; Dermat. Ass. Syphilology; acoustic complex of the opossum; black fly bite; cutaneous sensitization and tuberculosis; disease prevention.
- Stokes, R(obert) T(homas)**, 85 Watchung Ave, Chatham, N. J. *Chemistry*. Brooklyn, N. Y., June 6, 85. B.S., Dartmouth, 07. Instr. chem, Hobart, 07-08; indust. chemist, 08-11; tutor chem, Col. City of N. Y., 11-16; rubber mfg, 16-18; Sears, Roebuck and Co, 18-22; assoc. ed, 'Jour. Indust. and Eng. Chem,' 22; *sec'y, Biscuit and Cracker Manufacturers' Ass, 22-*
- Stokes, W(illiam) E(ugene)**, Florida Experiment Station, Gainesville, Fla. *Agronomy*. Bamberg, S. C., Aug. 21, 89. B.S., Clemson, 11; M.S., Wisconsin, 14. Asst. chemist, Texas Exp. Sta., 11-12; asst. prof. agron, New Hampshire, and asst. agronomist, Exp. Sta., 13-14; Clemson, 18-20; *agronomist, Fla. Exp. Sta, 21-* Soc. Agron; Fla. Hort. Soc. Farm crops; pastures.
- Stokes, Dr. William Royal**, 1639 N. Calvert St, Baltimore, Md. *Bacteriology*. Baltimore, Aug. 21, 70. M.D., Maryland, 91; Sc.D., Washington (Md), 10. Res. pathologist, Boston City Hosp, 92-96; assoc. prof. path, Maryland, 96-00, *prof. path. and bacter, Col. Physicians and Surg, Baltimore, 00-14, Maryland, 14-19, bacter, Maryland and Col. Physicians and Surg, 19-* Chief bur. bacter, Md. State Dept. Health, 96-20; Dept. Health, Baltimore, 96- Soc. Bact; Am. Med. Ass; Pub. Health Ass. Sanitary bacteriology; immunity; bacteriology of foods.
- Stokey, Prof. Alma G(racey)**, Mt. Holyoke College, South Hadley, Mass. *Botany*. Canton, Ohio, June 17, 77. A.B., Oberlin, 04; Ph.D., Chicago, 08. Asst. bot, Oberlin, 03-06; instr, Mt. Holyoke, 08-11, assoc. prof, 11-16, *prof, 16-* A.A.; Bot. Soc; Sullivant Moss Soc. Morphology and anatomy of pteridophytes; seed plants.
- Stokley, James**, Science Service, B and 21st Streets, N. W., Washington, D. C. *Astronomy*. Philadelphia, Pa, May 19, 00. B.S., Pennsylvania, 22, A.M., 24. Asst. psychol, Pennsylvania, 22; teacher, high sch, Pa, 22-25; *staff writer and asst. treas, Science Service, 25-* A.A.; Astron. Soc; Seismol. Soc; Franklin Inst; Phila. Photog. Soc; fel. Royal Astron. Soc; Royal Photog. Soc; Soc. astron. de France. Popular science; astronomical photography.
- Stoland, Prof. O(le) O(lufson)**, 1845 Learnard Ave, Lawrence, Kans. *Physiology*. Beresford, S. Dak, July 30, 81. A.B., South Dakota, 05; M.S., Chicago, 11, Ph.D., 13. Teacher, high sch, S. Dak, 05-06; instr. biol, South Dakota, 06-11; asst. *physiol*, Chicago, 11-13; *prof, South Dakota, 13-16; Kansas, 16-* A.A.; Physiol. Soc; Kans. Acad. Toxicity of normal and hypertrophied thyroids; effect of pituitrin on renal activity; effect of parathyroid tetany on the liver and pancreas; temperature as a factor in the control of thyroid activity.
- Stoll, Dr. Norman R(udolph)**, Rockefeller Institute, Princeton, N. J. *Parasitology*. North Tonawanda, N. Y., Sept. 4, 92. B.S., Mt. Union, 15; M.S., Michigan, 18; fellow, Hopkins, 21-23, Sc.D., 23. Asst. zool, Michigan, 17-18; head dept. biol, Detroit Junior Col, 19-21; assoc. parasitol, Peking Union Med. Col, 23-24; helminthol, sch. hygiene and pub. health, Hopkins, 25-26; *assoc. mem, dept. animal path, Rockefeller Inst, 26-* China Hookworm Commission, 23-24. A.A.; Soc. Parasitol; Soc. Zool; Soc. Trop. Med; Wash. Helminth. Soc. Biology of free-living stages of hookworm; severity of hookworm infestation; hookworm problem of China.
- Stoller, Prof. James H(ough)**, Union College, Schenectady, N. Y. *Geology*. Johnstown, N. Y., Dec. 11, 57. A.B., Union, 84, A.M., 87; Munich, 86-87; Ph.D., Leipzig, 98. Instr. nat. hist, Union, 84-89, adjunct prof, 89-92, *prof. geol. and biol, 92-19, geol, 19-25, emer. prof, 25-*; *staff, dept. geol, N. Y. State Museum, 12-* Soc. Nat; fel. Geol. Soc. Glacial geology of Schenectady, Saratoga and Cohoes quadrangles; glacial geology of lower Mohawk and middle Hudson valleys.
- Stone, Prof. A(lden) L(escombe)**, 2217 Rowley Ave, Madison, Wis. *Botany*. Burnett, Wis., Dec. 9, 72. Asst. instr. and asst. *prof, Wisconsin, 04-* Judge, Int. Hay and Grain Show, 19-27. Ass. Official Seed Analysts (v. pres, 16, pres, 17, sec'y-treas, 20-27). Seed and weed control; effect of close threshing on the vitality of oat and timothy seeds; life history and habits of *Nasturtium austricum*; longevity of vegetable seeds; red clover seeds.
- Stone, Prof. Calvin P(erry)**, Stanford University, Calif. *Psychology*. Portland, Ind, Feb. 28, 92. B.S., Valparaiso, 10; A.B., Indiana, 15, A.M., 16; Ph.D., Minnesota, 21. Prin, high sch, Ind, 10-12, supt, 13-14; teaching fellow, Minnesota, 16; director research, psychol. lab, Ind. Reformatory, 16-17; teaching fellow, Minnesota, 19-21, instr. psychol. and histol. anat, 21-22; asst. prof. *psychol, Stanford, 22-25, assoc. prof, 25-* Psychol. examiner, U.S.A., 17-19. Ass. Study Int. Secretions. Animal psychology and behavior.

- Stone, Prof. Charles Leonard**, 8 Sanborn Road, Hanover, N. H. *Psychology*. Concord, N. H., Feb. 4, 89. A.B., Dartmouth, 17, A.M., 21. Prin. schools, 08-14; instr. *psychol.*, Dartmouth, 17-20, asst. prof., 20-26, *prof.*, 26- Lecturer, Mass. Inst. Tech., 19-24. A.A. The relation of intelligence to social traits and social circumstances.
- Stone, E(rnest) A(lbert)**, 295 Argyle Road, Walkerville, Ont., Can. *Civil engineering*. Charlottetown, P. E. I., July 16, 70. B.A.Sc., McGill, 91, Ma.E., 94; M.Eng., King's, 22. With railways, 91-02; asst. structural engineer, Can. Foundry Co., Toronto, 02-07; prof. civil eng., Dalhousie, 07-08; New Brunswick and dean eng. sch., 08-11; consulting engineer, 11-14; prof. gen. eng., Queen's (Can.), 14-18; structural engineer, Mil. Hosp. Commission, 18-20; bridge engineer, Grand Trunk Arbitration, 20-22; prof. math., King's, 22-23. Civil Eng.; Eng. Educ.; Eng. Inst. Can. Impact stresses.
- Stone, Prof. George E(dward)**, Amherst, Mass. **Botany*. Leicester, Mass., Sept. 6, 60. Mass. Col., 83-84; Mass. Inst. Tech., 85-89; Leipzig, 91-93. Prof. bot., Mass. Col., 93-17, botanist, Hatch Exp. Sta., 94-17. Botanist, Mass. State Board Agr. A.A.; Soc. Nat.; Bot. Soc.; New Eng. Bot. Club; Mass. Hort. Soc.; Mass. Forestry Ass.; Boston Soc. Nat. Hist.; Worcester Nat. Hist. Soc.; Worcester Hort. Soc. Plant pathology and physiology.
- Stone, Dr. Harvey B(rinton)**, 205 E. Preston St., Baltimore, Md. *Surgery*. Baltimore, Nov. 22, 82. A.B., Hopkins, 02, M.D., 06. Adjunct prof. *surg.*, Virginia, 07-10; instr. *sch. med.*, Hopkins, 12-20, *assoc.*, 20- Am. Med. Ass.; Surg. Ass.; Surg. Research Soc.; S. Surg. Ass. Pathology of the intestinal tract; the abdominal organs.
- Stone, Prof. H(osmer) W(ard)**, 855 N. Vermont Ave., Los Angeles, Calif. *Chemistry*. Kalamazoo, Mich., 92. A.B., Wisconsin, 16, A.M., 18, fellow, 20, Ph.D., 21. Instr. chem., Pa. State, 17; instr. *California at Los Angeles*, 21-24, *asst. prof. inorg. chem.*, 23- Second lieut., Sanit. C., 18. Chem. Soc. Selenic and selenious acids; non-specific immunity; potassium chlorate.
- Stone, Dr. Isabelle**, 1626 Rhode Island Ave., N. W., Washington, D. C. *Physics*. Chicago, Ill., Oct. 18, 68. A.B., Wellesley, 90; M.S., Chicago, 96, Ph.D., 97. Teacher, Bryn Mawr Prep. Sch., Baltimore, 97-98; instr. physics, Vassar, 98-06; head, Sch. for Am. Girls, Rome, Italy, 07-14; prof. physics, Sweet Briar Col., 18-23; *head, Sch. for Girls*, 23- Reader in physics, Col. Entrance Exam. Board, 01. A.A.; Physical Soc. Electrical resistance of thin films; color in platinum films; properties of thin films when deposited in a vacuum.
- Stone, James S(avage)**, Harvard Medical School, Boston, Mass. *Surgery*. Newton, Mass., Aug. 21, 68. A.B., Harvard, 89, A.M., M.D., 94. *Instr. surg.*, Harvard. Surgeon, Boston Children's Hosp. Am. Med. Ass.; Col. Surg.
- Stone, Prof. J(ohn) L(emuel)**, Cornell University, Ithaca, N. Y. *Agriculture*. Waverly, Pa., July 6, 52. B.S.A., Cornell, 74. Asst. agr., Cornell, 97-03, asst. prof. *farm practise*, 03-06, prof., 06-19, *emer. prof.*, 19- Pa. State Board Agr.; lecturer, Farmers' Institutes. Soc. Agron.; N. Y. State Drainage Ass. Farm management.
- Stone, John S(tone)**, 3942 Alameda Drive, San Diego, Calif. *Electrical engineering*. Dover, Va., Sept. 26, 69. Columbia, 86-88; Hopkins, 88-90. Experimentalist, lab., Am. Bell Tel. Co., Mass., 90-99; consulting elec. engineer, 99-02; chief engineer, Stone Tel. and Tel. Co., 02-10, v. pres., 02-08, pres., 08-10; consulting elec. engineer, 10-20; *dept. research and develop.*, Am. Tel. and Tel. Co., 20- Lecturer, Mass. Inst. Tech. Longstreth medal, Franklin Inst., 13; medal of honor, Radio Eng., 23. Int. Elec. Cong., 04; delegate, Second Pan-Am. Sci. Cong., 17. A.A.; assoc. Elec. Eng.; Electrochem. Soc.; Wireless Tel. Eng. (pres., 06-09, v. pres., 09); Radio Eng. (v. pres., 13, pres., 14, manager, 15-20, chairman, committee on wave-length regulation, 19-, organizer and chairman committee on Council Nat. Defense); hon. mem. Radio Club; assoc. Naval Inst.; Am. Acad.; Franklin Inst. Electrophysics; telegraphy and telephony over wires and by wireless; simultaneous transmission and reception in radiotelegraphy and telephony; directive transmission and reception; elimination of interference.
- Stone, Dr. L(eon) S(tansfield)**, Yale University Medical School, New Haven, Conn. *Anatomy*. Newton, N. J., Feb. 14, 93. Ph.B., Lafayette, 16; Ph.D., Yale, 21. Asst. instr. *anat. sch. med.*, Yale, 19-21, instr., 21-24, *asst. prof.*, 25- Physiologist, Gas Warfare; instr., Yale Army Med. Sch. Ass. Anat. Experimental embryology.
- Stone, M(arshall) H(arvey)**, Harvard University, Cambridge, Mass. *Mathematics*. New York, N. Y., April 8, 03. A.B., Harvard, 22, A.M., 24, Ph.D., 26. *Instr. math.*, Harvard, 22-23; Columbia, 25-27; Harvard, 27- Math. Soc. Fourier series and related problems.
- Stone, Prof. Ormond**, Flagler Farm, Clifton Station, Va. **Astronomy*. Pekin, Ill., Jan. 11, 47. Chicago, 66-70, A.M., 75. Tutor, Racine, 67-68; asst. U. S. Naval Observatory, 70-75; director, Cincinnati Observatory, 75-82; Leander McCormick Observatory and prof. practical astron., Virginia, 82-12; *retired*, 12. Founder and ed., 'Annals of Math.', 84- Sec'y, board visitors, U. S. Naval Observatory, 01-03. Chairman astron., Cong. Arts and Sciences, 04. A.A. (v. pres., 88); Astron. Soc.; Math. Soc.; Math. Ass.; Va. Acad.; Wash. Acad.; Wis. Acad.; Cincinnati Soc. Nat. Hist. Observations of variable and double stars, nebulae and satellites; celestial mechanics.
- Stone, R(alph) W(alter)**, State Geological Survey, Harrisburg, Pa. *Geology*. Camden, N. Y., Nov. 17, 76. Ph.B., Hamilton, 99; A.B., Harvard, 00, A.M., 01. Asst. geol., Harvard, 00-01; asst. geologist, U. S. Geol. Surv., 01-17, geologist, 17-22; *asst. state geologist*, Pa., 22- Instr., summer sch. for Cuban teachers, Harvard, 00. Jury awards, Panama-Pacific Expos., 15. A.A.; Geol. Soc.; Wash. Geol. Soc. Stratigraphy in western Pennsylvania; bituminous coal; gas and oil; Waynesburg and Elders-

ridge (Pa.) quadrangles; coal resources of southwestern Alaska, Russell Fork, Virginia, Kentucky, and Crazy Mountains, Montana; stratigraphic relations of the Livingston formation of Montana; coal and stratigraphy of Black Hills and Powder River, Wyoming; gypsum, phosphate rock, sand and gravel, magnesite, magnesium, salt, bromine and calcium chlorid resources of the United States; molding sand in Pennsylvania.

Stone, Dr. R(oland) E(lisha), Ontario Agricultural College, Guelph, Ont., Can. *Botany*. Harvard, Nebr., Nov. 4, 81. B.S., Nebraska, 07; M.S. Ala. Polytech, 08; Ph.D., Cornell, 13. Asst. bot., Purdue, 06-07; instr., Ala. Polytech, 07-08; adjunct prof., agr. bot., Nebraska, 08-09; *lecturer bot.*, Cornell, 09-12; *Ont. Agr. Col.*, 12- A.A.; Phytopath. Soc.; Bot. Soc. Plant pathology and physiology; life histories of ascomycetes.

Stone, Dr. R(uth) L(ovilla), University of California, Berkeley, Calif. *Bacteriology*. San Francisco, Calif., Aug. 3, 93. A.B., California, 15, A.M., 16, Ph.D., 19. Research asst. path., California, 16-19, *instr. bacter.*, 19- Bacteriologist, U. S. Base Hosp., Nitro, Va., 18. Serology; typhoid fever; immune bodies; Streptococcus empyema; diphtheria; bacterial diseases of plants.

Stone, Dr. Willard John, Professional Building, Pasadena, Calif. *Medicine*. Gloversville, N. Y., May 31, 77. B.S., Michigan, 99, M.D., 01. Physician-in-chief, Flower Hosp., Toledo, Ohio, 08-17; *attending physician, Los Angeles Gen. and Pasadena Hospitals*. Major, M.C., 17-19. Am. Med. Ass.; fel. Col. Physicians; Soc. Clin. Invest.; Ass. Immunol.; Climat. Ass.; Miss. Valley Med. Ass. (pres, 17); Los Angeles Clin. and Path. Soc. Medical diagnosis.

Stone, Dr. William Stephen, 162 E. 63d St., New York, N. Y. *Medicine*. New Britain, Conn., May 3, 67. A.B., Yale, 88; M.D., Columbia, 91. Instr. gynec., Columbia, 95-06; attending surgeon, N. Y. Lying-in Hosp., 01-07; asst. director cancer research, *Mem. Hosp., New York*, 17-20, *clin. director*, 20- Ass. Cancer Research; Gynec. Soc. Pathology; obstetrics; cancer; biological and clinical use of radium.

Stone, Dr. Witmer, Academy of Natural Sciences, Philadelphia, Pa. *Zoology, Ornithology*. Philadelphia, Sept. 22, 66. A.B., Pennsylvania, 87, A.M., 91, Sc.D., 13. Conservator, ornith. sect., *Acad. Nat. Sciences, Phila.*, 91-18, *curator vertebrates*, 18-, asst. curator, *Museum*, 93-08, curator, 08-18, exec. curator, 18-25, *director*, 25-, *v. pres.*, 27- *Lecturer*, Germantown Acad., 89-90; Ludwick Inst. Courses, Phila. Ed., 'The Auk,' 12- A.A.; fel. Ornith. Union (v. pres, 14-20, pres, 20-23); Soc. Mammal. (v. pres, 27-); Soc. Ichthyol. and Herp.; Philos. Soc.; Cooper Ornith. Club; hon. mem. Nuttall Ornith. Club; hon. mem. N. Y. Linnean Soc.; Phila. Zool. Soc. (director); Phila. Acad.; Phila. Bot. Club; Del. Valley Ornith. Club (pres, 91); for. mem. British Ornith. Union; for. mem. Ornith. Gesell.; for. mem. Bayern Ornith. Gesell.; hon. mem. Soc. ornith. de France; Club van Med. Vogelkund. Systematic ornithology and mam-

malogy; the molt and coloration of birds; geographical distribution of plants and animals.

Stoner, Dr. D(ayton), 603 Summit St., Iowa City, Iowa. *Zoology*. North Liberty, Iowa, Nov. 26, 83. A.B., Iowa, 07, M.S., 09, Ph.D., 19. Asst. museum, Iowa, 08-14, *instr. zool.*, 14-19, assoc., 19-20, *asst. prof.*, 20- *Instr.*, Lakeside Lab, Iowa, 16; *biol. sta.*, Michigan, 19. Insectary asst., Iowa Exp. Sta. zool. exped., Vancouver Isl., 13; mem., Univ. of Iowa exped., Barbados and Antigua, 18, Fiji and N. Zealand, 22. A.A.; Ornith. Union; Entom. Soc.; Wilson Ornith. Club; Inland Bird Banding Ass.; fel. Iowa Acad. Ornithology; entomology; distributional, ecological and systematic zoology; birds and rodents of Iowa; Pentatomidea.

Stoner, R(eginald) C., 225 Bush St., San Francisco, Calif. *Geology*. Bakersfield, Calif., Aug. 21, 89. B.S., California, 12. *Geologist, Standard Oil Co. of Calif.* Paleont. Soc.; Calif. Acad. Paleontology.

Stoner, Dr. W(illiam) H(oy), University of Pennsylvania, Philadelphia, Pa. *Biochemistry*. Thurmont, Md., March 9, 87. A.B., 08; A.M., 10; Ph.C., 10; Phar.D., 13; M.D., 15. Instr. chem., Medico-Chirurg. Col., 08-19; *assoc. prof. biochem., Pennsylvania*, 19-25, *biochem. and diseases of metabolism, grad. sch. med.*, 25- Fel. Am. Med. Ass.; fel. Col. Physicians; fel. Phila. Col. Physicians; Phila. Path. Soc.; Phila. Physiol. Soc. Basal metabolism; diabetes; hypertension.

Stookey, Dr. Lyman Brumbaugh, 412 W. Sixth St., Los Angeles, Calif. *Physiology, Pathology*. Belleville, Ill., July 30, 78. A.B., Yale, 00, Ph.D., 02; Strassburg, 04-05. Asst. physiol. and physiol. chem., N. Y. State Path. Inst., 02-05; *prof. physiol., Southern California*, 05- Am. contributor, Maly's 'Jahresbericht über die Fortschritte der Tierchemie.' Med. adviser, U. S. Selective Service, 17-19. A.A.; Physiol. Soc.; fel. Am. Med. Ass.; Soc. Exp. Biol.; Soc. Biol. Chem.; Chem. Soc.; fel. Inst. Chem.; N. Y. Soc. Physiol. Chemists. Formation of glycogen; gastric secretion of hydrochloric acid; digestion of gelatin; biological relation of proteids and proteid assimilation; digestion and self-digestion of tissues and tissue extracts; autolysis of brain tissue; output of ammonia in course of different forms of insanity; proteolytic enzymes; peptone; peptides; internal secretion of thyroid; pentose; pharmacological action of iodids, salicylates; intracellular enzymes of anti-enzymes; nucleoproteids; intracellular and extra-cellular antibodies; complement fixation reaction for tuberculosis; serum in pregnancy.

Stookey, Dean S(tephen) W(harton), Coe College, Cedar Rapids, Iowa. *Geology*. Marion, Iowa, April 3, 59. B.S., Coe, 84, M.S., 87, LL.D., 04; Iowa, 91-93, 00-02; Chicago, 95, 96. Supt. schools, Iowa, 84-91; *prof. nat. science*, Coe, 91-99, *geol. and bot.*, 01-07; *pres.*, Bellevue (Nebr.), 08-14; *prof. geol. and bot. and dean*, Coe, 14- Iowa exped., Bahama, 93; Iowa Geol. Surv. A.A.; Bot. Soc.; Nebr. Acad.; Iowa Acad. Geology of Iowa and Poweshiek Counties, Iowa; destructive parasitic fungi in Iowa.

Stoppel, Dr. A(rthur) E(dward), University of Minnesota, Minneapolis, Minn. *Chemistry*. Rochester, Minn., Feb. 27, 97. B.S., Minnesota, 20, Ch.E., 21, Ph.D., 24. *Instr. chem., Minnesota, 23*— Chem. Soc. Analytical and technological chemistry.

Storch, Dr. H(enry) H(erman), 2709 Wallace Ave, New York, N. Y. *Chemistry*. New York, Sept. 8, 94. B.S., Col. City of N. Y., 15; A.M., California, 15, Ph.D., 23. Junior chemist, Bur. Standards, 16–17; tutor chem., Col. City of N. Y., 18–19; research assoc., Mass. Inst. Tech., 20–21; instr. chem., Utah, 23–24; chief chemist, Burnham Chem. Co., Calif., 24–25; *research chemist, Roessler and Hasslacher Chem. Co., N. Y., 25*— Chem. Soc. Potential of bromine electrode; synthesis of ammonia in the low voltage arc; X-ray absorption coefficients of carbon, hydrogen and oxygen.

Storer, S(tacy) S(teward), Atlanta, Ga. *Engineering*. Buford, Ohio, Dec. 15, 82. C.E., Ohio Northern, 03, M.E., 04. Asst. engineer, Virginian Ry., 05–08; designing engineer, Va. Bridge and Iron Co., 08–10; structural engineer, U. S. Govt., 10–13; *structural engineer, 13*— A.A.; Civil Eng.; Wash. Archit. Club. Structural steel bridges and buildings; reinforced concrete.

Storer, Dr. Tracy I(rwin), University Farm, Davis, Calif. *Zoology*. San Francisco, Calif., Aug. 17, 89. B.S., California, 12, M.S., 13, Ph.D., 25. Asst. instr. zool., California, 12–14, asst. curator birds, museum vert. zool., 14–19, field naturalist, 19–23, asst. prof. zool., 23–26, *assoc. prof., 26*— Summers, instr., California, 14, 20. Lieut., Sanit.C., 17–19. A.A.; Soc. Zool.; Ornith. Union; Soc. Mammal.; Ecol. Soc.; Cooper Ornith. Club (permanent sec'y, board governors, 22–); West. Soc. Nat.; Calif. Acad. Vertebrate zoology; habits, ecology and distribution of California vertebrates, especially Amphibia; game birds of California; zoogeography; Yosemite animal life; California place names.

Storey, Dr. Thomas A(ndrew), Stanford University, Calif. *Hygiene*. Burden, Kans., Jan. 29, 75. A.B., Stanford, 96, A.M., 99, Ph.D., 02; Hopkins Lab, Pacific Grove, Calif., 97, 98; Michigan, 00; M.D., Harvard, 05; Cooper Med. Sch., 03–04. Asst. gym, Stanford, 96–97, instr. hygiene and org. training, 97–02, asst. prof. hygiene, 02–06; assoc. prof. and director dept., Col. City of N. Y., 06–10, *prof., 10*–26; *Stanford, 26*— House officer, Long Island Hosp., Boston, 05; res. house physician, Children's Hosp., Boston, 06; summers, lecturer, Columbia, 07, 08; inspector physical training, mil. training commission, N. Y. State, 16–21. Exec. sec'y, U. S. Inter-Departmental Social Hygiene Board, 18–21; exec. sec'y, Committee of Fifty on College Hygiene, 21— Sec'y-gen., Int. Cong. School Hygiene, Buffalo, 13. A.A.; fel. Pub. Health Ass.; Am. Med. Ass.; Physiol. Soc.; Soc. Exp. Biol.; Soc. Col. Directors Physical Educ. (v. pres, 05, pres, 07–09); Physical Educ. Ass.; Student Health Ass. (pres, 25, 26); N. Y. Acad. Med. Daily variations in the power of voluntary muscular contraction; influence of fatigue on the speed of the contraction of human voluntary muscle; exercise upon irritability of human muscle; tonus rhythms in

normal human muscle and in gastrocnemius of the cat; effect of injuries of the brain on the vasomotor center; general, industrial, family and group hygiene.

Stork, Harvey Elmer, Carleton College, Northfield, Minn. *Botany*. Zoar, Ind., March 28, 90. A.B., Ind. State Nor. Sch., 14; A.M., Indiana, 15; Ph.D., Cornell, 20. Asst. prof. bot., Carleton Col., 20–26, *prof., 26*— A.A.; Bot. Soc. Cytology of fungi; biology, cytology and genetical behavior of the genus *Taraxacum*; Central American plant life.

Storm, Dr. C(hristian) G(eorge), Ordnance Department, U. S. War Department, Washington, D. C. *Chemistry*. Boscobel, Wis., Nov. 20, 77. B.S., Columbian, 98, M.S., 99; Ph.D., George Washington, 16. Asst. and instr. chem., Columbian, 99–01; explosives chemist, Navy Powder Works, 01–09; U. S. Bur. Mines, Pittsburgh, 09–15; directing chemist, Aetna Explosives Co., 15–17; research chemist, Pa. Trojan Powder Co., 19; prof. chem. eng., Ordnance Sch. of Application, 20–21; *explosives chem. engineer, ordnance dept., 21*— Consulting explosives chemist, ordnance dept., 17, lieut. col., 17–19. Chem. Soc. (sec'y, Pittsburgh sect., 14–16). Explosives.

Story, George F. E(dmunds), 19 Court St., Worcester, Mass. *Animal nutrition*. Essex, Vt., Oct. 2, 85. Vermont; B.S.A., Ohio State, 10. Instr., exten. dept., Ohio State, 10–11; Mass. Col., 11–15; prof. animal and dairy husbandry, Vermont, 15–18; *manager, Worcester Co. Exten. Service, 13*— A.A.

Story, Dr. LeRoy G(ranville), 710 S. Cincinnati St., Tulsa, Okla. *Chemistry*. Carleton, Nebr., July 17, 98. A.B., 19; A.M., 21; Ph.D., 23. *Research chemist, Midcontinent Petrol. Corp., 23*— Arsenic trioxide; metallic hydroxides; lubricating oils as viscous and plastic materials; reactions of sulphur compounds during treatment of petroleum distillates; products from acid sludge.

Story, Prof. W(illiam) E(dward), 17 Hammond St., Worcester, Mass. **Mathematics*. Boston, Mass., April 29, 50. A.B., Harvard, 71, Parker fellow, 74–75; Ph.D., Leipzig, 75. Tutor math., Harvard, 75–76; assoc., asst. prof. and assoc. prof., Hopkins, 76–89; prof., Clark, 89–21, *emer. prof., 21*— Nat. Acad.; A.A. (v. pres, 96); Math. Soc.; Am. Acad.; London Math. Soc. Theory of errors; algebraic invariants; finite differences; algebraic curves and surfaces; hyperspace and non-Euclidean geometry; continued fractions; calculus of operations.

Stose, George W(illis), U. S. Geological Survey, Washington, D. C. **Geology*. Chicago, Ill., Oct. 5, 69. B.S., Mass. Inst. Tech., 93, 94. Asst. geologist, U. S. Geol. Surv., 94–00, *geologist and ed. geol. maps, 00*— Va. and Pa. Geol. Surveys. A.A.; Geol. Soc.; Wash. Geol. Soc. (treas., 02–04, v. pres, 20, pres, 21); Wash. Acad. (v. pres, 22). Structure and stratigraphy; geology and mineral resources of central and southern Pennsylvania, Maryland, eastern West Virginia, western Virginia and eastern Tennessee; barite and strontium mineral production.

Stouder, Prof. Florence D(ell), 809 E. Alton St., Appleton, Wis. *Chemistry*. Denver, Colo., Oct.

- 9, 98. A.B, Denver, 19, A.M, 20; Ph.D, Illinois, 25. Teacher, high sch, Colo, 20-22; asst. chem, Illinois, 22-25; *assoc. prof, Lawrence Col, 25-* Chem. Soc. Structure of Rubiadin.
- Stouffer, Prof. E(lli) B(agley)**, University of Kansas, Lawrence, Kans. **Mathematics*. Melbourne, Iowa, Nov. 7, 84. B.S, M.S, Drake, 07; fellow, Illinois, 08-11, Ph.D, 11. Instr. *math*, Drake, 07-08; Illinois, 11-14; asst. prof, *Kansas*, 14-17, *assoc. prof*, 17-21, *prof*, 21-, *dean grad. sch*, 22-, *asst. to chancellor*, 23- Math. Soc; Math. Ass; London Math. Soc; Circolo Mat. di Palermo. Projective differential geometry; invariants of differential equations.
- Stoughton, Bradley**, Lehigh University, Bethlehem, Pa. *Metallurgy*. New York, N. Y, Dec. 6, 73. Ph.B, Sheffield Sci. Sch, Yale, 93; B.S, Mass. Inst. Tech, 96. Asst. mining and metal, Mass. Inst. Tech, 96; private asst. to Prof. H. M. Howe, 97; metallurgist, supt. and manager steel mfg. companies, 98-01; instr. metal, Columbia, 02-03, adjunct prof, 03-08; *consulting metal. engineer*, 03-; *head dept. metal*, *Lehigh*, 23- Jury awards, Panama-Pacific Expos, 15; gen. eng. committee, Nat. Council Defense, 18; head div. metal. and v. chairman, div. eng, Nat. Research Council, 17- Min. and Metal. Eng. (sec'y, 13); Min. Eng; Iron and Steel Inst; Electrochem. Soc. (v. pres, 26-); Soc. Test. Mat; Can. Min. Inst; British Iron and Steel Inst. Metallurgy of iron and steel; manufacture and properties of iron and steel.
- Stout, Dr. A(rlow) B(urdette)**, New York Botanical Garden, New York, N. Y. **Botany*. Jackson Centre, Ohio, March 10, 76. A.B, Wisconsin, 09; Ph.D, Columbia, 13. Instr. bot, Wisconsin, 09-11; *director laboratories*, N. Y. *Bot. Garden*, 11- A.A; Soc. Nat; Bot. Soc; Torrey Bot. Club; Wis. Acad; hon. life mem. Wis. Archeol. Soc; Ohio Archeol. and Hist. Soc. Genetics; cytology; plant pathology; archeology; sterility in plants.
- Stout, Gilbert L(eonidas)**, State Natural History Survey, University of Illinois, Urbana, Ill. *Botany, Mycology*. Cincinnati, Ohio, July 14, 98. A.B, Miami, 23; Illinois, 23-24; Ohio State, 25-26. Asst. bot, Illinois, 23-24; instr. Miami, 25-26; *field botanist*, *Ill. State Nat. Hist. Surv*, 26- A.A; Bot. Soc; Genetic Ass; Eugenics Soc; Phytopath. Soc. Plant pathology; parasitic fungi; Hemisphaeriaceae.
- Stout, Prof. Lawrence E(dward)**, Miami University, Oxford, Ohio. *Chemistry*. Seymour, Ind, March 30, 98. A.B, Ohio State, 19, M.S, 21, Ph.D, 23. Asst. chem, Ohio State, 19-23; *asst. prof, Miami*, 23- Chem. Soc. Electrochemistry; inorganic chemistry.
- Stout, W(ilber)**, 154 Erie Road, Columbus, Ohio. *Geology*. Chester, Ohio, Aug. 21, 76. B.E, Ohio State, 15. Chemist, 02-11; *asst. geologist*, *Ohio Geol. Surv*, 11- A.A; Geol. Soc; Ceramic Soc; Min. and Metal. Eng; Nat. Gas Ass; Ohio Acad. Geology of coal formations in Ohio; clays of Ohio.
- Stovall, Dr. W(illiam) D(avidson)**, 2127 Van Hise Ave, Madison, Wis. *Hygiene*. Longtown, Miss, Oct. 31, 87. B.S, Mississippi, 06; M.D, Tulane, 11, 13-14. Intern, St. Vincent's Hosp, Birmingham, 11-12; U. S. Marine Hosp, 13-14; bacteriologist, *State Lab. Hygiene*, 14-15, *director*, 15-; *assoc. prof. hygiene*, *Wisconsin*, 15-25, *prof*, 25- Clin. pathologist, Wis. Gen. Hosp, 24; mem. staff, Madison Gen. Hosp; St. Mary's Hosp; State of Wis. Gen. Hosp. Am. Med. Ass; Pub. Health Ass; Soc. Bact; Ass. Clin. Path; Wis. Med. Ass. (chairman, prev. med. sect, health and pub. instruction); Wis. State Teachers Ass. (chairman, joint committee). Bacteriology; chemistry.
- Stover, Dr. E(rnest) L(incoln)**, Eastern Illinois State Teachers College, Charleston, Ill. *Botany*. Bellbrooke, Ohio, Aug. 28, 93. B.S, Ohio State, 17, M.S, 21; fellow, Chicago, summer, 21, Ph.D, 24. Asst. bot, Ohio State, 19-21, instr, 21-23; *head dept*, *East Ill. State Teachers Col*, 23- A.A; Bot. Soc. Ecological plant anatomy; morphology; anatomy.
- Stover, Prof. W(ilmer) G(arfield)**, Ohio State University, Columbus, Ohio. *Plant pathology*. Hancock Co, Ohio, Oct. 3, 81. A.B, Miami, 09, A.M, 10; Ph.D, Wisconsin, 21. Asst. bot, Miami, 07-10; acting instr, Ohio State, 10-11; asst. prof, Okla. Agr. and Mech. Col, 11-12; instr, *Ohio State*, 12-14, asst. prof, 14-22, *prof*, 22- Field asst. forest path, U. S. Dept. Agr, 16, 17, agent, cereal investigations, 18-19. A.A; Bot. Soc; Phytopath. Soc; Ohio Acad. Plant pathology; mycology; virus diseases of plants; higher Basidiomycetes; rusts of Ohio.
- Stowell, Dr. Charles H(enry)**, 99 Fairmount St, Lowell, Mass. *Medicine*. Perry, N. Y, Oct. 27, 50. M.D, Michigan, 72. Prof. physiol. and histol, Michigan, 76-85; med. writer, Washington, D. C, 85-97; *gen. manager and treas*, *J. C. Ayer Co*, *Lowell, Mass*, 97- Ed, 'Trained Motherhood'; 'Food'; 'Practical Medicine'; 'The Microscope'; 'Nat. Med. Rev.' Histology; structure of the teeth; the essentials of health; physiology.
- Stowell, Dr. Thomas B(lanchard)**, University of Southern California, Los Angeles, Calif. *Neurology*. Perry, N. Y, March 29, 46. A.B, Genesee, 65, A.M, 68; Ph.D, Syracuse, 81; LL.D, St. Lawrence, 09. Prin. acad, N. Y, 65-66; teacher math, Genesee Wesleyan Sem, 67; prin, high sch, Kans, 68; prof. nat. science, N. Y. State Nor. Sch, Cortland, 68-89; prin, N. Y. State Nor. Sch, Potsdam, 89-09; head dept. educ, *Southern California*, 09-19, *emer. dean sch. educ*, 19- A.A; Ass. Anat; Micros. Soc; Am. Hist. Ass. Nervous system of domestic cat.
- Strachan, Dr. E(arle) K(enneth)**, Brown University, Providence, R. I. *Physical chemistry*. Brockton, Mass, May 15, 86. B.S, Worcester, 08; M.S, Illinois, 10, Ph.D, 12. Instr. chem, Illinois, 12-13; Minnesota, 13-16; Nat. Aniline and Chem. Co, 16-22; *asst. prof. chem*, *Brown*, 22- Electrochem. Soc; Chem. Soc. Organic condensation reactions; chemical equilibrium; electrolytic dissociation; non-ideal solutions; physical chemistry of dyestuffs; electroplating.
- Strachan, R(obert) C(harles)**, 140 Montague St, Brooklyn, N. Y. *Civil engineering*. New-

- burgh, N. Y., Oct. 23, 62. B.S., C.E., N. Y. Univ., 83. Railways and N. Y. State Canals, 83-91; bridge designer, Edge Moor Bridge Works, 91-94; private practice, 94-00; designing engineer, dept. bridges, *New York*, 00-16, engineer in charge construction, dept. correction, 16-17, *examining engineer, board estimate*, 17- Lecturer, N. Y. Univ., 15. Civil Eng.; Brooklyn Eng. Club. Bridges and structural design; nomographic charting.
- Stradling, Dr. George F (lowers)**, 5120 Newhall St., Philadelphia, Pa. *Physics*. Hatboro, Pa., Nov. 13, 67. A.B., Pennsylvania, 87, Ph.D., 95; fellow by courtesy, Hopkins, 88; Strassburg, 89; Polytech, Zurich, 94. Instr. physics, Pennsylvania, 90; Haverford, 03-04; prof, *high sch*, Pa., 91-06, head sci. dept, 06-20, *prin*, 20-; *prof. physics, Wagner Free Inst*, 96- Longstreth medal, Franklin Inst. Chairman dept. physics, col. science, A.E.F. Univ. Beaune, 19. A.A.; Franklin Inst. (pres, physical sect, 01). Elasticity; magnetism.
- Stranathan, Prof. J (ames) D (ocking)**, University of Kansas, Lawrence, Kans. *Physics*. Kansas City, Mo., Nov. 2, 98. B.S., Kansas, 21, M.S., 24; Chicago. Asst. *physics, Kansas*, 20-21, instr, 21-25, *asst. prof*, 25- Physical Soc. Simultaneous high frequency and direct current resistances of fine wires; effect of gases absorbed by platinum wires; viscosities of acetic acid-stannic chloride solutions; electric moments of alcohol molecules in the unassociated state.
- Stratton, Prof. G (eorge) M (alcolm)**, University of California, Berkeley, Calif. **Psychology*. Oakland, Calif., Sept. 26, 65. A.B., California, 88, fellow, 91-92; A.M., Yale, 90; Ph.D., Leipzig, 96. Instr. philos., California, 92-94, psychol, 96-97, *asst. prof*, 97-99, *assoc. prof.* and director psychol. lab, 99-04; *prof. exp. psychol.* and director psychol. lab, Hopkins, 04-08; *psychol, California*, 08- Lecturer, Philos. Union, California, 99-00; Taylor lecturer, Yale, 20; Philippines, 21; summers, Columbia, 08, Chicago, 24. Nat. Research Council, 21-24, chairman div. anat. and psychol, 25-26; Psychol. Corp. Officer in charge psychol. sect, med. research lab, A.S., 18. Psychol. Ass. (pres, 08); West. Psychol. Ass. Perception of change; visual space; eye movements and esthetics; emotion; psychology of religion.
- Stratton, Prof. George W (eatherworth)**, University of Kansas, Lawrence, Kans. *Organic chemistry*. Saguache, Colo., Sept. 18, 86. A.B., Colorado, 07; fellow, Ohio State, 07-09, A.M., 09, Ph.D., 12. Instr. *chem*, Ohio State, 09-12; *asst. prof*, Kansas, 12-13, 14-18, *assoc. prof*, 18-23, *prof*, 23- Fellow, Mellon Inst, 13-14. Capt, C.W.S., 18-19. A.A.; Chem. Soc. Constitution of hydroxyazo compounds; chlorination and oxidation of hydrocarbons.
- Stratton, Prof. Robert**, Oklahoma Agricultural and Mechanical College, Stillwater, Okla. *Botany, Plant pathology*. Georgetown, Ohio, Nov. 18, 83. A.B., Miami, 15; A.M., Ohio State, 17. Asst. bot, Cornell, 15-16; instr, Miami, 16-17; *prof. biol*, Westminster (Mo), 17-18; *asst. prof. bot*, Ala. Polytech, 18-20; *Okla. Agr. and Mech. Col*, 20- A.A.; Bot. Soc.; Phytopath. Soc.; Eugenics Soc.; Genetic Ass.; Nature Ass.; Okla. Acad. The Fimetariales of Ohio.
- Stratton, Pres. Samuel W (esley)**, Massachusetts Institute of Technology, Cambridge, Mass. **Physics*. Litchfield, Ill., July 18, 61. B.S., Chicago, 84; hon. D.Eng., Illinois, 03; hon. Sc.D., Western Pennsylvania, 03, Cambridge, 08, Yale, 19; LL.D., Harvard, 23; hon. Ph.D., Rensselaer, 24. Instr. math. and physics, Illinois, 86-89, *asst. prof. physics*, 89, *prof. physics and elec. eng*, 89-92; *asst. prof. physics*, Chicago, 92-95, *assoc. prof*, 95-98, *prof*, 98-01; director, Bur. Standards, 01-23; *pres, Mass. Inst. Tech*, 23- Committee on Weights and Measures, 05; Nat. Screw Thread Commission; Nat. Advisory Committee for Aeronautics; Nat. Research Council. U. S. delegate, Int. Elec. Cong, St. Louis, 04; London, 09. Elliott Cresson medal, Franklin Inst, 12; pub. welfare medal, Nat. Acad, 17. Chevalier, Légion d'honneur, 09. Nat. Acad; A.A.; Physical Soc.; Astron. Soc.; Elec. Eng.; Mech. Eng.; Soc. Test. Mat; Philos. Soc.
- Strausbaugh, Prof. P (erry) D (aniel)**, West Virginia University, Morgantown, W. Va. *Botany*. Republic, Ohio, March 21, 86. B.S., Wooster, 13; fellow, Chicago, 18-19, Ph.D., 20. Teacher, schools, Ohio, 02-05; *prin*, high sch, 09-10; instr. biol, Wooster, 13-15, *asst. prof.* and *prof. bot*, 15-23; *West Virginia and head dept*, 23- A.A.; Bot. Soc.; Ecol. Soc.; Soc. Plant Physiol. Plant physiology and ecology.
- Strauss, Dr. Frank A (braham)**, 230 Hamilton Ave, New Brighton, Staten Island, N. Y. *Chemistry*. Wilkes-Barre, Pa., Oct. 16, 93. A.B., Cornell, 13; A.M., Columbia, 15, Ph.D., 20. Lecturer electrochem, Columbia, 19-20; *chief chemist, Standard Varnish Works*, 20- Instr, U.S.A. Sch, 18. A.A.; Chem. Soc.; N. Y. Chemists Club. Organic chemistry; chemistry of vegetable oils, varnishes and lacquers.
- Strauss, Dr. Israel**, 116 W. 59th St, New York, N. Y. *Neurology*. Pawtucket, R. I., June 23, 73. A.B., Brown, 94; A.M., M.D., Columbia, 98. *Attending neurologist, Mt. Sinai Hosp*. A.A.; Neur. Ass; Am. Med. Ass; N. Y. Acad. Med. Neurology; psychiatry.
- Strayer, Prof. G (eorge) D (rayton)**, Teachers College, Columbia University, New York, N. Y. *Education*. Wayne, Pa., Nov. 29, 76. A.B., Hopkins, 03; Ph.D., Columbia, 05; LL.D., William and Mary, 25. Instr. educ, *Teachers Col, Columbia*, 05-07, adjunct prof, 07-10, *prof. educ. administration*, 10-23, *educ*, 23- Director div. field studies, Inst. Educ. Research, 21-; director, Nat. Educ. Finance Inquiry, 21-24. Nat. Soc. Study Educ. (pres, 18). Educational administration; classification, promotion and progress of school children; the financing of public education; surveys of school systems.
- Streeter, Dr. George L (inius)**, 2022 Eutaw Place, Baltimore, Md. **Anatomy, Embryology*. Johnstown, N. Y., Jan. 12, 73. A.B., Union, 95; M.D., A.M., Columbia, 99; Berlin and Leipzig, 02-03. Intern, Roosevelt Hosp, New York, 99-00; demonstrator anat. of nervous system, Albany Med. Col, Union, 01-02; *asst. anat*, Hopkins, 04, instr, 05-06; *assoc. prof*, Wistar Inst, 06;

- prof. anat. and director lab, Michigan, 07-14; research assoc, *Carnegie Institution*, 14-18, *director dept. embryol.* 18- Assoc. ed, 'Am. Jour. Anat.' A.A.; Soc. Nat; Ass. Anat. (pres, 26); Soc. Zool. Human embryology; development of central nervous system; internal ear; experimental embryology.
- Streeter, Leon R(eynolds)**, 620 Castle St, Geneva, N. Y. *Chemistry*. Hebron, N. Y., Jan. 24, 94. B.S. Colgate, 19; M.S. Maine, 23. Instr. chem, Maine, 19-20; *asst. research chem, N. Y. State Exp. Sta, Geneva*, 21- Chem. Soc. Chemistry of insecticides and fungicides.
- Streets, Prof. R(ubert) B(urley)**, University of Arizona, Tucson, Ariz. *Plant pathology*. Helena, Mont, May 22, 95. B.S. Mont. Col, 18; M.S. Wisconsin, 22, Ph.D, 24. Asst. plant pathologist, office cereal investigations, U. S. Dept. Agr, 18-20; *asst. plant path*, Wisconsin, 20-22, instr, 22-24; *asst. prof, Arizona*, 24-27, *assoc. prof*, 27- A.A.; Phytopath. Soc; Wis. Acad. Flax wilt; brown rot of stone fruits; Texas root rot; diseases of date palm.
- Strickler, Dr. A**, Evansville College, Evansville, Ind. *Chemistry*. Caledonia, Mich, Sept. 1, 89. A.B. Mich. State Nor. Col, 13; B.S. Michigan, 14, M.S, 15; Ph.D, Wisconsin, 21. Instr. chem, Mich. State Nor. Col, 13-14, *asst. prof*, 16-18; *asst. to chief chemist, Nat. Biscuit Co*, 18-19; *instr. org. chem, Wisconsin*, 19-21; *director chem, Evansville Col*, 21- Chem. Soc. Electroendosmose; effect of ultraviolet light on food and animals.
- Strieby, M(aurice) E(dward)**, 81 Prospect Ave, Maplewood, N. J. *Engineering*. Colorado Springs, Colo, May 2, 93. A.B. Colo. Col, 14; B.S. Mass. Inst. Tech, 16, Harvard, 16. *Engineer*, N. Y. Telephone Co, 16-17; *dept. research, Am. Tel. and Tel. Co*, 19- Capt, Sig. C, 17-19. A.A.; Elec. Eng. Telephone engineering.
- Stroman, Dr. G(ovan) N(apoleon)**, Dilley, Texas. *Plant breeding*. Gonzales, Texas, May 14, 95. B.S. Agr. and Mech. Col. Texas, 17; M.S. Wisconsin, 20, Ph.D, 23. Asst. genetics, Wisconsin, 21-22; agronomist and farm supt, Texas Exp. Sta, 22-23, cotton breeder, 23-25; *commercial plant breeder*, 25- Second lieut, U.S.A., 17-19. A.A.; Genetic Ass; Soc. Agron. Genetics.
- Strömberg, Dr. Gustaf (Benjamin)**, Mt. Wilson Observatory, Pasadena, Calif. *Astronomy*. Gothenburg, Sweden, Dec. 16, 82. Cand.Phil, Stockholm, 15; Ph.D, Lund, 16. Instr. astron, Stockholm, and asst, Observatory, 06-14; *astronomer, Mt. Wilson Observatory*, 17- A.A.; Astron. Soc; Pacific Astron. Soc; Royal Astron. Soc; Astron. Gesell; Soc. astron. de France; Svenska Astron. Sällskapet. Stellar motions, stellar statistics and spectroscopy.
- Stromsten, Dr. Frank A(lbert)**, University of Iowa, Iowa City, Iowa. *Zoology*. Corydon, Iowa, April 5, 72. B.S. Iowa, 00, M.S, 02, fellow, 02-03; fellow, Princeton, 04-06, Sc.D, 05. Asst. instr. *animal biol, Iowa*, 03-04, instr, 06-10, *asst. prof*, 10-19, *assoc. prof*, 19- Asst. research, marine lab, Carnegie Institution, 07; asst, fresh water mussel surv, Iowa River, 08; acting director, lakeside lab, Iowa, 23-26. A.A.; Ass. Anat; Soc. Zool; Iowa Acad. The anatomy and development of the venous system of Chelonia; development of the posterior lymph hearts of turtles; musk glands of turtles; Entomostraca of Iowa; fresh water mussels of the Iowa River; anatomy and development of the lymphatic system of reptiles; circulatory system of the logger-head turtle; temperature dissolved gases and hydrogen-ion studies of Iowa lakes.
- Strong, Prof. C(harles) A(ugustus)**, Villa Le Balze, Fiesole, Italy. **Psychology, Philosophy*. Haverhill, Mass, Nov. 28, 62. A.B. Rochester, 84; Harvard, 85, fellow (Berlin), 85-86; Paris, Berlin and Freiburg, 89-90; LL.D, Rochester, 19. Instr. philos, Cornell, 87-89; docent psychol, Clark, 90; assoc. prof, Chicago, 92-95; lecturer, Columbia, 95-02, prof, 02-12. Philos. Ass; fel. N. Y. Acad; cor. mem. Inst. National Genevois. Relations between psychology and philosophy; relation of mind and body.
- Strong, Prof. Cora**, North Carolina College for Women, Greensboro, N. C. *Mathematics*. Laurens Co, S. C, Jan. 22, 77. Grad, Agnes Scott Col, 97; A.B. Cornell, 03; Harvard, 10; Michigan, 14, 25; Cornell, 17; California, 22. *Teacher math, Chicora Col*, 98-00; Minn. State Nor. Sch, Duluth, 03-05; assoc, *N. C. Col. for Women*, 05-21, *prof*, 22- Math. Soc; N. C. Acad; N. C. Conference Math. Teachers (pres, 20).
- Strong, Prof. Edward K(ellogg), Jr**, Stanford University, Calif. **Psychology*. Syracuse, N. Y, Aug. 18, 84. B.S. California, 06, M.S, 09; Ph.D, Columbia, 11, fellow, 11-12, 12-14. Asst. psychol, Barnard, Columbia, 09-10; *prof. psychol. and psychol. of educ, Peabody Col*, 14-19; vocational educ, Carnegie Inst. Tech, 19-23; *psychol, Stanford*, 23- Research, 12-14; committee on classification of personnel in U.S.A., 17-19. A.A. (sec'y, I, 12-18, chairman, 19); Psychol. Ass; S. Soc. Philos. and Psychol. (pres, 19); Nat. Soc. Study Educ; Sierra Club. Psychology of education; psychology of advertising; psychology of selling; personnel psychology; vocational guidance.
- Strong, Dr. Helen M(abel)**, 5231 Wisconsin Ave, N. W, Washington, D. C. *Geography*. Cleveland, Ohio. B.S. Chicago, 17, Ph.D, 21. Asst. prof. geog, Missouri, 21-23; special surv, trade in agr. products, *U. S. Dept. Commerce*, 23-24, *geographer bur. for. and domestic commerce*, 24- Research, Col. House's Commission, 18-19; summers, asst. prof, Northwestern, 22, Pa. State, 23, 24. A.A.; Ass. Geog; fel. Geog. Soc. Commercial geography; resources and industry of Cleveland, Ohio; distribution of agricultural products; value and volume of agricultural exports; arable land in the United States; geographic aspects of commerce and trade.
- Strong, Prof. Leon H(enri)**, University of Utah, Salt Lake City, Utah. *Embryology*. Richmond, Va, Feb. 16, 89. A.B. Arizona, 11, B.S, 15; Washington (Seattle), 17, 21, 22; Ph.D, California, 25. Teacher, high schools, Oregon, 16-18; instr. zool, Oregon Col, 18-19; prof. biol,

- Pacific, 20-22; teaching fellow zool, California, 22-24, assoc, 25; asst. prof. *anat*, Indiana, 25-27; *assoc. prof. sch. med*, Utah, 27- A.A.; Soc. Zool; Genetic Ass; Ass. Anat; Eugenics Research Ass; Ind. Acad. Mammalian embryology; development of hydroids and of cervical and thoracic venous drainage in mammals.
- Strong, Dr. L(eonell) C(larence)**, 827 McKinley Ave, Ann Arbor, Mich. *Genetics*. Renovo, Pa, Jan. 19, 94. B.S, Allegheny, 17; Ph.D, Columbia, 22. Asst. biol, Allegheny, 15-17; exten. dept, Columbia, 18-20, zool, 20-21; *assoc. prof. biol*, St. Stephen's, 21-25; Gen. Educ. Board fellow cancer research, Bussey Inst, Harvard, 25-26, research fellow, Harvard Med. Sch, 26-27; *research assoc, Cancer Fund, Michigan*, 27- Honorarium, sta. for exp. evolution, Carnegie Institution, 19-21; grant, Inst. Cancer Research, 22; research grant, Rockefeller Inst, 22-25. Instr. war hygiene, S.A.T.C, Columbia, 18. A.A.; Genetic Ass; Soc. Zool; Eugenics Research Ass. Genetics of cancer; mutations in cancerous tissue and transplantable tumors.
- Strong, Dr. Oliver S(mith)**, 437 W. 59th St, New York, N. Y. **Zoology, Neurology*. Red Bank, N. J, Dec. 30, 64. A.B, Princeton, 86, A.M, 88; fellow, Columbia, 91-92, Ph.D, 95. Asst, Lake Lab, Milwaukee, Wis, 90-91; biol, *Columbia*, 92-93, tutor comp. neur. and asst. nor. histol, *col. physicians and surg*, 95-04, instr. histol, 04-09, anat, 09-18, asst. prof. neur, 17-18, *assoc. prof*, 19-27, *prof. neur. and neuro-histol*, 27- Woods Hole. Assoc. ed, 'Jour. Comp. Neur.', 96-04; 'Jour. Comp. Neur. and Psychol.', 04-; 'Neur. Bul.', 18- A.A.; Soc. Nat; Soc. Zool; hon. mem. Neur. Ass; Ass. Anat; Harvey Soc; *assoc. fel. N. Y. Acad. Med.* Cranial nerves of vertebrates; histology of the human central nervous system; neurohistological methods; cranial nerves of *Squalus acanthias*; a case of congenital unilateral atrophy of the cerebellum; clinical neurology; development and structure of the nervous system; nerve tissue.
- Strong, Prof. Ralph Kempton**, Reed College, Portland, Oregon. *Chemistry*. Kentville, N. S, Can, June 21, 82. B.A, Acadia, 05, B.S, 06; A.M, Harvard, 07; Ph.D, Chicago, 17. Tech. chemist, 07-11; head dept. chem, du Pont Manual Training Sch, Louisville, Ky, 11-15; *assoc. chem*, Chicago, 15-17; *prof. indust. chem. and head dept. chem. eng*, Oregon Col, 17-20; *prof. indust. chem. and head dept. chem. eng*, 20- Chem. Soc. (chairman, Oregon sect, 20-22, councilor, 22-24); Soc. Chem. Indust; Chem. Eng; Soc. de Chim. indust. Industrial chemistry; mesothorium; phosphates; wood chemicals.
- Strong, Prof. R(euben) M(yron)**, Loyola University School of Medicine, Chicago, Ill. **Zoology, Anatomy*. West Allis, Wis, Oct. 8, 72. A.B, Oberlin, 97; A.M, Harvard, 99, Ph.D, 01; Frankfort, 09; Naples, 10. Instr. zool. and physics, Lake Forest Acad, 97-98; biol, Haverford, 02-03; Carnegie research asst, 03-04; *assoc. zool*, Chicago, 04-07, instr, 07-14; *prof. anat*, Mississippi, 14-16; *assoc. prof*, Vanderbilt, 16-17, *prof. micros. anat*, 17-18; *prof. anat. and head dept, sch. med*, Loyola, 18-, *sec'y faculty*, 18- Instr, Woods Hole, 02-05; *prof. lake lab*, Michigan, 16-17. A.A; Soc. Nat; Ass. Anat. (exec. committee, 16-19); Soc. Zool; Ornith. Union; Am. Med. Ass; Inst. Med; Wilson Ornith. Club (pres, 94-01, 20-21). Comparative anatomy; neurology; hair and feathers; variation; animal behavior; heredity; bone architecture; structure and pigmentation of integument; ossification.
- Strong, Prof. Richard P(earson)**, Harvard Medical School, Boston, Mass. **Medicine, Biology*. Fortress Monroe, Va, 72. Ph.B, Yale, 93, hon. Sc.D, 14; M.D, Hopkins, 97; hon. Sc.D, Harvard, 16. Res. house physician, Hopkins Hosp, 97-98; first lieut. asst. surgeon, med. dept, U.S.A, 98-02, pres, Board for Investigation of Trop. Diseases, P. I, 99-01, director, Army Path. Lab. and Govt. Biol. Lab, Manila, 01-13; *prof. trop. med*, Philippines, 07-13; chief med. dept, P. I. Gen. Hosp, 10-13; *prof. trop. med*, *Harvard Med. Sch*, 13- U. S. sci. investigator infectious diseases, Berlin, 03; director, Int. and Am. Red Cross Sanit. Commissions, Serbia, 15; col, M.C, mem. med. board, Council Nat. Defense, 17; gen. headquarters investigation committee, B.E.F; U.S.A. rep, Inter-Allied Sanit. Commission; director dept. med. research and intelligence, Am. Red Cross, 18-19; gen. med. director, League of Red Cross Societies, 19-20. Delegate, Int. Cong. Hygiene and Demography, 07; Int. Cong. Tuber, Washington, 08 (hon. v. pres, sect. path. and bact); Int. Plague Conf, Peking, 11. A.A. (v. pres, 23); Am. Physicians (pres, 25); Ass. Path. and Bact; Soc. Exp. Path; Soc. Clin. Invest; Soc. Trop. Med. (pres, 13); Am. Med. Ass; Am. Acad; Soc. Exp. Biol; London Soc. Trop. Med. and Hygiene; cor. mem. Soc. de Path. exot. Tropical medicine; bacteriology; plague; amebic dysentery; bacillary dysentery; tropical intestinal parasites; cholera; beriberi; pneumonic plague; leprosy; frambosia; chemo-therapy; verruga Peruviana; Oroya fever; African tick fever; trypanosomiasis; Malta fever; tropical ulcerations of the skin; trench fever; flagellate infections.
- Strong, Dr. Wendell M(elville)**, Glen Ridge, N. J. *Mathematics*. Indianapolis, Ind, Feb. 6, 71. A.B, Yale, 93, Ph.D, 98; A.M, Cornell, 94; LL.B, N. Y. Univ, 03. Instr. math, Yale, 95-00; actuarial dept, *Mutual Life Ins. Co. of N. Y*, 00-04, asst. actuary, 04-11, *assoc. actuary*, 11- A.A. (sec'y, A, 00); Math. Soc; Actuarial Soc. (ed, 'Trans,' 09-16, sec'y, 16-22, v. pres, 22-24, 26-); Inst. Actuaries; Casualty Actuarial Soc; London Math. Soc. Non-quaternion number systems; actuarial science; interest rate.
- Strong, Dr. W(illiam) W(alker)**, 500 S. York St, Mechanicsburg, Pa. *Physics*. Good Hope, Pa, May 16, 83. B.S, Dickinson, 05; fellow, Hopkins, 07-08, Ph.D, 08. Carnegie asst. physics, Hopkins, 08-11; *prof. elec. theory*, Pittsburgh, 11-13; *physicist, S. I. E. M. Co*, 13- Instr, Carnegie Inst. Tech, 14-15; *physicist*, Research Corp, 15, 19. A.A; fel. Physical Soc; Elec. Eng; Franklin Inst. Absorption and spark spectra; ionization; radioactivity; electrical precipitation of fumes, dust and smoke; fume mask;

diamond surface glass; structure of ether; de-blooming of oil; corona discharge; anti-aircraft apparatus; magneto-psychology.

Strouse, Dr. Solomon, 104 S. Michigan Ave, Chicago, Ill. *Medicine*. Baltimore, Md, June 29, 82. A.B, Hopkins, 02, M.D, 06. Res. house officer, Hopkins Hosp, 06-07; volunteer research worker, med. laboratories, 07-09; assoc. pathologist, *Michael Reese Hosp, Chicago*, 09-12, assoc. attending physician, 12-25, *attending physician*, 25-; assoc. prof. med, med. sch, Northwestern, 17-27; *assoc. clin. prof. med, Rush Med. Col, Chicago*, 27- Am. Med. Ass; assoc. Am. Physicians; Soc. Clin. Invest; Soc. Exp. Biol; Chicago Inst. Med. Pneumonia; hay fever; diabetes; blood chemistry; metabolism.

Struve, Dr. Otto, Yerkes Observatory, Williams Bay, Wis. *Astronomy, Astrophysics*. Kharkov, Russia, Aug. 12, 97. Diploma, Kharkov, 19; Ph.D, Chicago, 23. Junior instr, Kharkov, 19; asst. stellar spectroscopy, Chicago, 21; *instr. astrophys, Yerkes Observatory*, 24- Lieut, Imp. Russian Army, 17-20. Astron. Soc; Astron. Gesell. Stellar spectroscopy; radial velocities; double stars; asteroids.

Stuart, Prof. Charles A(rthur), Brown University, Providence, R. I. *Biology*. Lyon Mountain, N. Y, May 26, 93. Ph.B, Brown, 19, M.S, 21, Ph.D, 23. Instr. *biol, Brown*, 23-25, *asst. prof*, 25- A.A; Soc. Bact. Bacteriology; serology.

Stuart, Prof. Milton C(aleb), Lehigh University, Bethlehem, Pa. *Mechanical engineering*. Md, March 31, 86. B.S, Pennsylvania, 09, M.E, 24. Instr, Rensselaer, 09-12; asst. steam engineer, Cambria Steel Co, 12-15; mech. engineer, U. S. Naval Eng. Exp. Sta, 15-20; prof. mech. and marine eng, U. S. Naval Post-Grad. Sch, 20-26; *prof. exp. eng, Lehigh*, 26- Mech. Eng. (chairman, Baltimore sect, 24); Naval Eng; Eng. Educ. Steam and power machinery; thermodynamics.

Stuart, W(illia)m, U. S. Department of Agriculture, Washington, D. C. *Horticulture*. St. Remi, Que, Can, May 21, 65. B.S, Vermont, 94, hon. Sc.D, 26; M.S, Purdue, 96. Asst. botanist, Ind. Exp. Sta, 94-01, assoc. horticulturist, 01-02; prof. hort, Vermont, and horticulturist, Exp. Sta, 02-09; expert, *bur. plant indust, U. S. Dept. Agr*, 09-12, *horticulturist*, 12- A.A; Soc. Hort. Sci; Vt. Hort. Soc. (sec'y, 03-09); Wash. Bot. Club. Rose and lettuce growing with chemical fertilizers; disease resistance in potatoes; corn smut and its prevention; the prevention of oat smut; etherization of plants for forcing purposes; Montreal market muskmelon culture; Mendelian inheritance in carnations; group classification and varietal description of some American potatoes; production of main crop potatoes; the potato.

Stuckey, H(enry) P(erkins), Experiment, Ga. *Horticulture*. Darlington Co, S. C, Oct. 3, 80. B.S.A, Clemson, 06; Cornell, 08; Missouri, 14. Asst. hort, Ala. Polytech, 07; *horticulturist*, Winthrop Nor. and Indust. Col, S. C, 08; *Ga. Exp. Sta*, 08-, *director*, 19- A.A; Bot. Soc; Ga. Hort. Soc; Ga. Agr. Soc; Ga. Acad.

Pecans; grapes; tomatoes; peaches; water-melons; home gardening.

Stuckey, Dr. Jasper L(eonidas), North Carolina State College of Agricultural Engineering, Raleigh, N. C. *Geology, Mineralogy*. Princeton, N. C, July 24, 91. A.B, North Carolina, 18, A.M, 20; Grenoble, 19; Ph.D, Cornell, 24. Instr. geol, North Carolina, 21; Cornell, 22-24; asst. geologist, N. C. Geol. and Econ. Surv, 20-21; state geologist, N. C. Dept. Conservation and Develop, 25-26; *prof. geol, N. C. State Col. Agr. Eng*, 26- Summers, asst. geologist, N. C. Geol. and Econ. Surv, 22-26. A.A. The dehydration temperature of pyrophyllite and sericite; pyrophyllite deposits of the Deep River region of North Carolina.

Studhalter, R(ichard) A(rthur), Texas Technological College, Lubbock, Texas. *Plant physiology*. Basel, Switzerland, Aug. 2, 87. A.B, Texas, 12; A.M, Washington (St. Louis), 17. Asst. bot, Kansas Col, 12; officer forest path, U. S. Dept. Agr, 12-14; asst. botanist, Mont. Exp. Sta, 16-17; office forest path, U. S. Dept. Agr, 17-20; *head dept. biol, Sul Ross State Teachers Col, Texas*, 20-25; *Texas Tech*, 25- U.S.N, 18-19. A.A; Bot. Soc; Phytopath. Soc. Forest tree diseases; plant physiology; shales of North Carolina.

Studd, Charles W(otring), Independence, Kans. *Geology*. St. Louis, Mo, Nov. 23, 92. A.B, Washington (St. Louis), 16, M.S, 21. Teaching fellow geol, Washington (St. Louis), 16-18; asst. geologist, Okla. Producing and Ref. Corp, 18-19; Mo. Bur. Geol. and Mines, 19-20; Producers and Refiners Corp, 20-24; *chief geologist, Southwestern Gas Co*, 24-26; *Union Gas Corp*, 26- Ass. Petrol. Geol. Petroleum geology.

Stuhlman, Prof. Otto, Jr, Chapel Hill, N. C. **Physics*. Elberfeldt, Germany, Nov. 12, 84. A.B, Cincinnati, 07; A.M, Illinois, 09; fellow, Princeton, 09-11, Ph.D, 11. Instr. *physics*, Illinois, 07-09; Stevens, 11-12; Pennsylvania, 12-17; asst. prof, Iowa, 17-19; West Virginia, 19-20; assoc. prof, *North Carolina*, 20-24, *prof*, 24- Airplane sound ranging, Nat. Research Council; contributor, Int. Critical Tables. A.A; Physical Soc; Optical Soc; N. C. Acad. Photoelectric effects; homologous series as a function of atomic numbers; metallic mirrors and wedges; coefficient of absorption of electrons; contact difference of potential; photoelectric long wave-length limits; theory of the electrometer; critical potential method of measuring wave lengths; spectra of metals by inverse photoelectric effect.

Stull, Dr. Arthur, Columbia University, New York, N. Y. *Organic chemistry*. Alderson, Pa, Aug. 28, 98. B.S, Princeton, 21; Mass. Inst. Tech, 21-22; A.M, Columbia, 24, Ferguson fellow, 24-25, Ph.D, 25. Chemist, The Celluloid Co, 23; asst. chem, *Columbia*, 23-24, *Selenium fellow*, 25- Chem. Soc. Benzothiazoles; aromatic disulfide derivatives; organic selenium compounds.

Stunkard, Prof. H(orace) W(esley), New York University, New York, N. Y. *Zoology*. Monmouth, Iowa, Aug. 23, 89. B.S, Coe, 12; A.M, Illinois, 14, fellow, 14-16, Ph.D, 16. Asst, Illi-

- nois, 12-14; instr. *biol.*, N. Y. Univ., 16-19, asst. prof., 19-22, assoc. prof., 22-25, *prof. and head dept.*, 25- Research assoc., Am. Museum Nat. Hist., 21-; investigator, Eng. and France, 24-25. Sect. ed., 'Biol. Abstracts.' Lieut., A.S., 17-19; Escadrille Spad 21, Seventh French Army; instr., Am. Flying Sch., Issoudun, France. A.A.; Soc. Zool.; Soc. Parasitol.; Soc. Trop. Med.; Micros. Soc.; N. Y. Zool. Soc.; fel. N. Y. Acad. (cor. sec'y, 25-); cor mem. Wash. Helminth. Soc. Parasitology; the morphology, taxonomy and life history of parasitic flat worms.
- Stupart, Sir R(obert) F(rederic)**, Meteorological Office, Toronto, Ont., Can. *Meteorology*. Toronto, Oct. 24, 57. *Director, Can. Meteor. Service, Dom. Magnetic Observatory*, 94- Fel. Royal Soc. Can.; fel. Royal Astron. Soc. Can. (pres, 02); Royal Can. Inst. (pres, 06).
- Sturges, Dr. William S(helton)**, Cudahy Packing Co., South Omaha, Nebr. *Bacteriology*. Shelton, Conn., Oct. 10, 92. Ph.B., Yale, 14, M.S., 16, Ph.D., 20. *Bacteriologist*, New Haven Sewage Disposal Investigation, 17-18; Lederle Antitoxin Laboratories, 18-19; *Cudahy Packing Co.*, 20- Soc. Bact. Autolysis of bacteria; anaerobic bacteria; biochemistry of bacteria.
- Sturgis, Dr. Cyrus C(ressy)**, Peter Bent Brigham Hospital, Boston, Mass. *Medicine*. Pendleton, Oregon, April 2, 91. B.S., Washington (Seattle), 13; M.D., Hopkins. Med. house officer, asst. res. physician, res. physician, assoc. med. and physician, *Peter Bent Brigham Hosp.*, 17-; teaching fellow, instr. and asst. prof. med., *Harvard*, 22- Assoc. physician, Collis P. Huntington Mem. Hosp., Boston, 25. Soc. Clin. Invest. Diseases of the thyroid gland; dyspnea.
- Sturgis, Prof. Russell D(avis)**, Ursinus College, Collegeville, Pa. *Physical chemistry*. Wilmington, Del., July 9, 97. B.S., Delaware, 19; M.S., Pennsylvania, 21, Ph.D., 24. Instr. *chem.*, Pennsylvania, 20-24; *prof.*, Franklin and Marshall, 24-25; *Ursinus*, 25- Chem. Soc. Electromotive force measurements of aqueous solutions.
- Sturgis, Dr. W(illiam) C(odman)**, 281 Fourth Ave., New York, N. Y. **Botany*. Boston, Mass., Nov. 15, 62. A.B., Harvard, 84, A.M., 87, Ph.D., 89. Asst. bot., Harvard, 88-89; vegetable pathologist, Conn. Exp. Sta., 92-01; lecturer diseases of forest trees, Yale, 01-02; bot., Colo. Col., 04-05, dean sch. forestry, 05-14. A.A.; Am. Acad. Anatomy and sexuality of lichens; Myxomycetes; diseases of field crops and forest trees; soil bacteria; fungi of Colorado.
- Sturmer, Prof. J(ulius) W(illiam)**, 601 Lees Ave., Collingswood, N. J. *Pharmacy*. Niagara Co., N. Y., March 6, 70. Ph.G., Purdue, 91; Phar.D., Buffalo, 12; Ph.M., Phila. Col. Pharmacy, 17. Instr. pharmacy, Purdue, 91-94, prof., 94-12; prof. and dean dept. pharmacy, Medico-Chirurg. Col. Phila., 12-16; *dean science and prof. pharmaceut. and indust. chem.*, *Phila. Col. Pharmacy*, 16- A.A.; Pharmaceut. Ass.; Chem. Soc. Pharmaceutical chemistry.
- Sturtevant, Dr. A(lfred) H(enry)**, Columbia University, New York, N. Y. **Zoology*. Jacksonville, Ill., Nov. 21, 91. A.B., Columbia, 12, fellow, 12-15, Ph.D., 14. *Research asst., Carnegie Institution*, 15- A.A.; Soc. Nat. (v. pres, 22); Soc. Exp. Biol. Taxonomy and behavior of *Drosophila*; genetics.
- Sturtevant, Dr. Arnold P(arker)**, 4640 Montgomery Ave., Bethesda, Md. *Bacteriology*. Denver, Colo., Sept. 2, 89. A.B., Clark, 12; Mass. Inst. Tech., 12-14; Ph.D., George Washington, 23. Research assoc., Mass. Inst. Tech., 14; in charge tuberculin lab., H. K. Mulford Co., 14-15; *in charge bee disease investigations*, Mass. Exp. Sta., 15-16; *bur. entom.*, U. S. Dept. Agr., 16- Summer, research assoc., Mass. Inst. Tech., 13. Soc. Bact.; Ass. Econ. Entom. Bacteriology and control of bee diseases.
- Struthers, Parke Hardy**, Syracuse University, Syracuse, N. Y. *Vertebrate zoology*. Minneapolis, Minn., May 29, 91. Ph.B., Brown, 15; A.M., Syracuse, 24. Instr., Pa. State, 15-17; prof. bot., Porto Rico, 19-22; *instr. zool.*, *Syracuse*, 22- Res. collector vertebrates, Am. Museum Nat. Hist., Caribbean Sea, 20-22. Soc. Mammal; Audubon Soc. Birds of Porto Rico; effect of sunlight on the domestic fowl; development of the skull.
- Sudler, Dr. Mervin T(ubman)**, University of Kansas, Lawrence, Kans. *Surgery*. Westover, Md., Aug. 9, 75. B.S., Maryland, 94, M.S., 01; Ph.D., Hopkins, 99; M.D., Col. Physicians and Surg., Baltimore, 01. Instr. *anat.*, Hopkins, 99-02; med. col., Cornell, 02-03; assoc. prof., *sch. med.*, Kansas, 05-06, *prof.*, 06-, *dean sci. dept.*, 06- Fel. Col. Surg.; Ass. Anat.; Soc. Zool.; Md. Med. and Chirurg. Faculty. Anatomy of gall-bladder; embryology of *Penilia schmackeri*; development of human pharynx; development of the nose.
- Sudworth, George B(ishop)**, U. S. Department of Agriculture, Washington, D. C. *Forestry*. Kingston, Wis., Aug. 31, 64. A.B., Michigan, 85. Instr. bot., Mich. State Col., 85-86; botanist, div. forestry, U. S. Dept. Agr., 86-95, dendrologist, div. and bur. forestry, 95-04; *chief dendrol.*, U. S. Forest Service, 04-, *fed. hort. board*, U. S. Dept. Agr., 12- Soc. Foresters; Forestry Ass.; Wash. Acad.; Wash. Biol. Soc.; Wash. Bot. Soc. Dendrology; forest flora of the United States.
- Sugiura, Dr. Kanematsu**, Memorial Hospital, New York, N. Y. *Chemistry*. Nagoya, Japan, June 5, 92. B.S., Brooklyn Polytech, 15; A.M., Columbia, 17; D.M.Sc., Kyoto Imp. Univ., 25. Asst. *Harriman research lab.*, *Roosevelt Hosp.*, 11-17, *assoc.*, 17-; *assoc. chemist*, *Mem. Hosp.*, 17- A.A.; Chem. Soc.; Soc. Exp. Biol. Copper salts of amino acids and polypeptides; enzymes; nutrition in normal and in cancerous animals; chemotherapy of cancer; biological action of radium and ultraviolet radiations.
- Sullivan, Dr. Elizabeth T(eresa)**, 903 Heliotrope Drive, Los Angeles, Calif. *Psychology*. Los Angeles, Jan. 6, 77. Grad., Los Angeles Nor. Sch., 95; California, 01-03; A.B., Stanford, 06, A.M., 18; Ph.D., Columbia, 22. Teacher and prin., pub. schools, Calif., 95-01; training teacher, Calif. State Nor. Sch., Los Angeles, 03-08; teacher, high sch. and junior col., Los Angeles, 08-13, v. prin., 13-19, supervisor dept. psychol.

- and educ. research, city schools, 22-23; *instr. psychol., exten. div., California at Los Angeles*, 23-, *lecturer*, 25- Mem. board directors, Child Welfare, Monterey and Los Angeles Dioceses, Calif, 19-20; South. Calif. Soc. for Mental Hygiene, 23- A.A. Elementary education in America previous to 1800; mental tests; mood in relation to performance; accelerated, average and retarded children; Indian dreams.
- Sullivan, Dr. Ellen B(lythe)**, 643 Laurel Ave, Los Angeles, Calif. *Psychology*. Moberly, Mo, Oct. 20, 88. A.B. Southern California, 15; Ph.D. Stanford, 24. Instr. psychol. State Nor. Sch. Los Angeles, 12-18; *asst. prof. psychol., California at Los Angeles*, 18- Director, Calif. Bur. Juvenile Research, Whittier State Sch, 25- Ed, 'Jour. Delinquency.' Calif. Acad. Social Sci; S. Calif. Acad. Criminol. Clinical psychology; relation of attitude to learning; delinquency.
- Sullivan, Dr. E(ugene) C(ornelius)**, Corning Glass Works, Corning, N. Y. *Chemistry*. Elgin, Ill, Jan. 23, 72. B.S. Michigan, 94; Göttingen, 96; Ph.D. Leipzig, 99. Instr. anal. chem. Michigan, 99-03; chem. lab. U. S. Geol. Surv, 03-08; lab. chief, *Corning Glass Works*, 08-21, *v. pres. in charge mfg*, 21- Chem. Soc; Chem. Eng; Electrochem. Soc; Soc. Glass Technol; Ceramic Soc; Min. Eng; Wash. Acad. Glass manufacture; iodine compounds; influence of one substance in solution on the solubility of another; reactions between minerals and water solutions; relation between chemical composition and physical properties of glass.
- Sullivan, Dr. Harry Stack**, Sheppard and E. Pratt Hospital, Towson, Md. *Psychology*. New York, N. Y., Feb. 21, 92. M.D., 14. Med. exec. officer, Fed. Board for Vocational Educ, 19-20; psychiatrist, Pub. Health Inst, 21-22; St. Elizabeth's Hosp, 22-23; *assoc. prof. psychiat., sch. med., Maryland*, and *director clin. research, Sheppard and E. Pratt Hosp*, 23- Psychiat. Ass; Psychopath. Ass; Psychoanal. Ass; Ass. Research Nervous and Mental Diseases; Wash. Soc. Nervous and Mental Diseases. Abnormal psychology; psychopathology of schizophrenia; mental hygiene.
- Sullivan, Dr. M(ichael) X(avier)**, Hygienic Laboratory, 25th and E Streets, N. W. Washington, D. C. *Biochemistry*. Fall River, Mass, Oct. 25, 75. A.B. Harvard, 99; A.M. Brown, 02, Ph.D. 03. Asst. chem. Harvard, 99-00; private tutor, Providence, R. I., 00-03; *instr. physiol. and biochem.*, Brown, 03-07; fertility expert, bur. soils, U. S. Dept. Agr, 07-15; *biochemist, U. S. Pub. Health Service*, 15- Asst. Woods Hole, 05, 06; asst. prof. dental sch, George Washington, 08- A.A.; Soc. Biol. Chem; Chem. Soc. (pres, Wash. sect, 14); Soc. Bact; Wash. Acad. (v. pres, 14). Biochemistry of bacteria; digestion in selachians and elasmobranchs; biochemistry of soils; pellagra; relation of diet to health and disease; biochemistry of oxidation-reduction phenomena; biochemical defense.
- Sullivan, Russell**, 1431 N. Meridian St, Indianapolis, Ind. *Astronomy*. Indianapolis, Nov. 23, 81. A.B. Yale, 05. A.A.; Astron. Soc. Popular astronomy; dark and planetary nebulae; celestial motions; star clusters.
- Sullivan, Prof. W(alter) E(dward)**, University of Wisconsin, Madison, Wis. *Anatomy*. Ludlow, Maine, July 22, 85. A.B. Bates, 07; A.M. Brown, 09, Ph.D. 12. Instr. biol. Western Reserve, 11-13; asst. prof. *anat.*, Marquette, 13-15; *prof. med. sch.*, Tufts, 15-20; *Wisconsin*, 20- A.A.; Ass. Anat; Fisheries Soc. Vertebrate morphology and embryology.
- Summers, Prof. H(enry) E(lijah)**, 4610 Edison St, Los Angeles, Calif. *Zoology*. Rochester, N. Y., Aug. 18, 63. B.S. Cornell, 86, fellow, 86-88. Assoc. prof. biol. Tennessee, 88-91; asst. Ill. State Lab. Nat. Hist, 92-93; asst. and assoc. prof. physiol. Illinois, 93-97; prof. zool. Iowa State, 98-17; state entomologist, Iowa, 98-17. A.A.; Ass. Econ. Entom. (sec'y, 04, 05, v. pres, 09); Micros. Soc; Wash. Entom. Soc; Iowa Acad. (pres, 02, treas, 07-09). Heteroptera; economic entomology.
- Sumner, Dr. Francis B(ertody)**, Scripps Institution of Oceanography, La Jolla, Calif. *Zoology*. Pomfret, Conn, Aug. 1, 74. B.S. Minnesota, 94; Ph.D. Columbia, 01. Instr. nat. hist. Col. City of N. Y., 99-06; director biol. lab. Bur. Fisheries, Woods Hole, 03-13; asst. prof. biol. *Scripps Inst. California*, 13-19, assoc. prof, 19-26, *prof.*, 26- Naturalist, 'Albatross,' 12-13. A.A.; Soc. Nat; Soc. Zool; Soc. Mammal; Genetic Ass; Ecol. Soc; Am. Geog. Soc; West. Soc. Nat; fel. N. Y. Acad; fel. Calif. Acad; fel. San Diego Nat. Hist. Soc. Earlier development of bony fishes; osmotic relations between fishes and the surrounding medium; intensive study of the fauna of a restricted area of sea-bottom; effect of external conditions upon the post-natal development of the mouse; fauna of the Woods Hole region; heredity and influence of environment in the white mouse; adaptive color changes in flounders; physical condition of San Francisco Bay; geographic variation and heredity of the deer-mouse.
- Sumner, Prof. J(ames) B(atcheller)**, 119 Heights Court, Ithaca, N. Y. *Biochemistry*. Canton, Mass, Nov. 19, 87. A.B. Harvard, 10, A.M. 13, Ph.D. 14. Temporary prof. chem. Mt. Allison, 11; teaching fellow, Worcester, 11-12; *asst. prof. biochem. med. col. Cornell*, 14- Fellow, C. R. B. Educ. Foundation, 21-22. A.A.; Soc. Biol. Chem; Chem. Soc; Soc. Exp. Biol. Urea and ammonia in biological fluids; urease; vegetable proteins; sugar in urine.
- Sumstine, Dr. David R(oss)**, 6309 Jackson St, E. E. Pittsburgh, Pa. *Mycology*. Somerset, Pa, Jan. 21, 70. A.B. Thiel, 90; M.S. Pittsburgh, 08; Sc.D. Gettysburg, 10. *Asst. sect. bot., Carnegie Museum, Pittsburgh*, 98-; teacher, high sch, Pa, 09-12, prin, 12-26; *director curriculum study and educ. measurement and research*, 26- A.A.; Torrey Bot. Club; Bot. Soc. West. Pa. (pres, 06). Fungi of Pennsylvania; the Mucoraceae and Hyphomycetes of North America.
- Sundstroem, Dr. E(dward) S(igfrid)**, University of California, Berkeley, Calif. *Physiology*. Finland, March 18, 80. M.D. Helsingfors (Finland), 10. Physiologist, Inst. Trop. Med, Townsville, Queensland, Australia, 20-22; instr.

- biochem. California*, 16-20, *asst. prof.*, 22-
Soc. Biol. Chem. Biochemistry; physiological
effect of high altitudes and tropical climate;
acclimatization.
- Sundwall, Prof. John**, University of Michigan,
Ann Arbor, Mich. *Hygiene, Public health*.
Fairview, Utah, 81. B.S., Chicago, 03, fellow,
04-06, Ph.D., 06; M.D., Hopkins, 12. *Asst. anat.*,
Chicago, 06-07; *prof.*, Utah, 07-10; *asst. sur-
geon*, U. S. Pub. Health Service, 12-13; *prof.*
anat., Kansas, 13-18; *hygiene*, Minnesota, 18-21;
hygiene and pub. health and director div., Michi-
gan, 21- Advisory committee, training of sani-
tarians, U. S. Pub. Health Service, 22- Fel.
Pub. Health Ass. (committee pub. health train-
ing, 25-); fel. Am. Med. Ass. (v. chairman, sect.
prev. med., 23); *Ass. Anat.* Gland structures;
the growth of tissue in plasmas; tissue altera-
tion in pellagra; structure of choroid plexus;
subcutaneous atrophy.
- Sunne, Prof. Dagny**, Tulane University, New
Orleans, La. *Psychology, Education*. Norway.
A.B.; A.M.; Ph.D., 05. *Psychol.*, Woman's Col.
of Ala.; *instr.*, Wellesley; *prof.*, *psychol. and
educ.*, Oxford Col. and West. Col. for Women,
12-14; *asst. prof. psychol.*, Tulane, 15- Di-
rector educ. research, pub. schools, New Orleans,
23-24. *Psychol.* Ass.; *Mental Hygiene Ass.*; *S.*
Soc. Philos. and Psychol. Clinical, educational,
vocational and comparative psychology; com-
parative studies of negroes and whites.
- Supplee, Dr. G(eorge) O(ornell)**, Dry Milk Co.,
Bainbridge, N. Y. *Chemistry, Nutrition*.
Schuyler Co., N. Y., Dec. 5, 89. B.S., Cornell,
13, M.S.A., 14, Ph.D., 19. *Instr. bacter.*, Cornell,
12-19; *director research lab.*, *Dry Milk Co.*, 19-
Summers, butter inspector, U. S. Dept. Agr.,
13-15, 17, 18; collaborating staff, 'Le Lait.'
Chem. Soc.; Dairy Sci. Ass.; Pub. Health Ass.;
Int. Ass. Dairy and Milk Inspectors (v. pres,
23-25, pres, 25). *Chemistry and biology of
dairy products*.
- Sure, Prof. Barnett**, University of Arkansas,
Fayetteville, Ark. *Agricultural chemistry*.
Vilkomir, Lithuania, Feb. 7, 91. B.S., Wiscon-
sin, 16, M.S., 17, Ph.D., 20. *Asst. agr. chem.*,
Wisconsin, 16-17; *asst. biochem.*, Hopkins, 17-
18; *asst. prof. agr. chem.*, *Arkansas*, 20-21,
assoc. prof., 21-27, *prof.*, 27- A.A.; Chem. Soc.;
Soc. Biol. Chem. Amino acids in nutrition;
dietary requirements for reproduction; vitamin
'E' in reproduction and lactation; vitamin B
requirements of nursing young.
- Surface, Dr. Frank M(acy)**, 3612 Macomb St.,
N. W., Washington, D. C. **Biology, Statistics*.
Eaton, Ohio, April 22, 82. A.B., Ohio State,
04, A.M., 05; Harrison fellow, Pennsylvania,
05-07, Ph.D., 07. *Assoc. biologist*, Maine Exp.
Sta., 07-10; *biologist*, Ky. Exp. Sta., 10-13;
Maine Exp. Sta., 13-17; *director trade finance
bur.*, 'Washington Herald,' 20-21; ed, surv. of
current business, Bur. Census, 21-23; in charge
surv. of world trade in agr. products, Bur. For.
and Domestic Commerce, 23-24; *economist*, U.
S. Grain Corp. and Am. Relief Ad., 24-26; *asst.
director*, Bur. For. and Domestic Commerce, 26-
Asst. chief statist. div., Food Ad., 17-19; *chief
statistician*, Am. Relief Ad., 19-20. Del, Fourth
Int. Genetics Conf, Paris. A.A.; Soc. Nat; Soc.
Zool; Bot. Soc. Genetics; physiology of repro-
duction; statistics of food and agriculture.
- Surface, Prof. H(arvey) A(dam)**, Selinsgrove,
Pa. *Biology, Zoology*. Waynesville, Ohio,
July 25, 67. B.S., Ohio State, 91, M.S., 92; Illi-
nois, 93; fellow, Cornell, 96-98; Sc.D., Franklin
and Marshall, 10. *Teacher*, pub. schools, 85-
87; *asst.*, Ohio Geol. Surv., 91-92; *geol.*, Ohio
State, 92-93; *prof. nat. hist.*, Pacific, 95-96;
teacher zool., Cornell, 98; *sci. asst.*, U. S. Fish
Commission, 99; *supervisor nature study*, Ithaca,
N. Y., 99-00; *prof. zool.*, Pa. State, 00-19; *biol.*,
Susquehanna, 19- *Zoologist*, Pacific Chantau-
qua, 96; *instr.*, N. Y. Teachers' Institutes, 98;
field naturalist, Ill. State Biol. Sta., 99; *special
sci. asst.*, Pa. State Fish Commission, 00-; *lec-
turer*, Farmers' Inst., Pa., 01-; *ornithologist*,
Pa. State Board Agr., 01-; *state zoologist*, Pa.,
03-17. A.A.; Soc. Nat; *assoc. Ornith. Union*;
Ass. Econ. Entom.; Audubon Soc.; Pa. Bee
Keepers' Ass. (pres, 03-); Ohio Acad; N. Y.
State Sci. Teachers' Ass; *hon. mem.* Montreal
Entom. Soc. Economic entomology; ichthyol-
ogy; ornithology; economic zoology in Penn-
sylvania; the Hessian fly; fresh-water fishes;
lampreys; reptiles; birds.
- Sutcliffe, Walter D(raper)**, U. S. Coast and
Geodetic Survey, Washington, D. C. *Geodesy*.
West Park, N. Y., July 17, 91. C.E., Syracuse,
13. Aid, *asst. and junior hydrographic and
geod. engineer*, U. S. Coast and Geod. Surv.,
13-17, *geod. mathematician*, 17- Wash. Soc.
Eng; Wash. Philos. Soc. Precise traverse and
base lines.
- Sutormeister, E(dwinn)**, 799 Main St, Westbrook,
Maine. *Chemistry*. Milton, Mass, Nov. 29, 76.
B.S., Mass. Inst. Tech., 99. *Chemist*, S. D. War-
ren Co., 99-07; U. S. Forest Service, 07-10; *chief
chemist*, S. D. Warren Co., 10- Chem. Soc; Tech.
Ass. Pulp and Paper Indust. Soda pulp manu-
facture; bleaching; casein; testing of wood
pulp.
- Sutherland, Dr. Arthur H(oward)**, 640 S. Man-
hattan Place, Los Angeles, Calif. *Psychology*.
Minonk, Ill, Nov. 19, 78. A.B., Grand Island,
99; fellow, Chicago, 08-09, Ph.D., 09. *Asst.*
philos., Wisconsin, 07-08; *abnor. psychol.*, Govt.
Hosp. for Insane, Washington, 09-10; *instr.*
exp. psychol., Illinois, 10-14; *psychol.*, Yale, 14-
17; *psychologist and director dept. educ. re-
search*, city sch. dist, Los Angeles, 17-24; *di-
rector*, *Sutherland Sch. Educ. Research*, 24-
Word-associations in abnormal subjects; psy-
chological and educational tests; instruction of
feeble-minded and atypical children.
- Sutherland, Major L(eRoy) L(add)**, 321 Sher-
wood Ave, Staunton, Va. *Chemistry*. Rich-
mond, Va., Jan. 20, 81. A.B., Richmond, 04,
A.M., 05; Hopkins, 07-08. *Teacher*, Fork
Union Mil. Acad., 05-07; *instr. chem.*, *Staunton
Mil. Acad.*, 08-10, *director dept.*, 10- Summers,
lab. city chemist, Richmond, Va., 12-15. A.A.;
Chem. Soc; Va. Acad; Va. Teachers Ass. (pres,
sci. sect., 24). Qualitative analysis; inorganic
chemistry; chemical education.
- Suttle, Prof. A(ndrew) D(illard)**, Agricultural
and Mechanical College, Miss. *Agronomy*.

Louisville, Miss, June 22, 90. B.S., Miss. Agr. and Mech. Col, 15, M.S., 20; M.S., Cornell, 21, Ph.D., 24. Instr. agron., Miss. Agr. and Mech. Col, 16, bot, 17; agron., Agr. and Mech. Col. Texas, 17-21; asst., Cornell, 21-24; bur. plant indust., U. S. Dept. Agr., 24; *prof. agron., Miss. Agr. and Mech. Col., 24*— Plant breeding; genetics inter-relation of different types of dwarf corn.

Sutton, Dr. Alan C(allender), 9 E. Chase St., Baltimore, Md. *Medicine*. Baltimore, April 24, 92. A.B., Hopkins, 12, M.D., 16. Res. house officer, Hopkins Hosp., 16-17, asst. visiting physician in charge med. dispensary, and asst. in med., 17-18, instr. clin. anat., 23-24, clin. med., 24-26; *practising physician, 26*— Asst. dispensary physician, Hopkins Hosp., 23-26, asst. visiting physician, 25-26, assoc. Inst. Biol. Research, 25-26. Commanding officer, First Evacuating Hosp., Hopkins Army Reserve Hosp. Unit, 25-26. Am. Med. Ass.; Ass. Anat. Anatomy and internal medicine.

Suydam, Dr. John R(ichard), Jr., St. Mark's School, Southborough, Mass. *Chemistry*. New York, N. Y., May 9, 86. A.B., Harvard, 08; Ch.E., Columbia, 12, A.M., 15, Ph.D., 17. Asst. chemist, Standard Paint Co, 12; Gen. Chem. Co, 12-14; research chemist, Standard Textile Products Co, 19-22; L. Martin Co, 22-24; *teacher science, St. Mark's Sch., 25*— Lieut., C.A.C., 17-18, C.W.S., 18, major, C.W.S.R., 26. Chem. Soc. Industrial chemistry; decomposition of coal and hydrocarbons.

Suydam, Prof. V(ernon) A(ndrew), 1224 Porter Ave., Beloit, Wis. *Physics*. Waupaca, Wis., March 21, 72. B.S., Wisconsin, 96; fellow, Princeton, 09-10, Ph.D., 12. Prin. and supt. schools, Wis., 96-04; asst. instr. physics, Wisconsin, 04-07; instr. mech., Indiana, 07-09; head instr. physics, Princeton, 10-13; prof. and head dept., New Mexico, 13-14; prof., *Medico-Chirurg.* Col. Phila., 14-16; *prof. and head dept.*, New Hampshire, 16-18; Grinnell, 18-23; *Beloit, 23*— A.A.; Math. Soc.; Franklin Inst.; Iowa Acad. Total radiation from metals; resistivity of metals at high temperatures.

Svenson, Prof. H(enry) K(nute), Union College, Schenectady, N. Y. *Botany*. Sweden, Jan. 13, 97. A.B., Harvard, 20, A.M., 22. Instr. *biol.*, Union (N. Y.), 22-25, asst. prof., 25— A.A.; Bot. Soc.; New Eng. Bot. Club. Plant distribution; genetics; biological effects of X-rays.

Swain, Prof. V(erne) F(rank), Bradley Polytechnic Institute, Peoria, Ill. *Physics*. Bloomington, Ind., April 21, 86. Ph.D., Chicago, 14. *Prof. physics, Bradley Polytech. Inst., 13*— A.A.; Physical Soc.; Eng. Educ. Pressure shift of the lines of the line spectra at low pressures.

Swain, Prof. George F(illmore), Harvard University, Cambridge, Mass. *Civil engineering*. San Francisco, Calif., March 2, 57. B.S., Mass. Inst. Tech., 77; Berlin, 77-80; LL.D., N. Y. Univ., 96; California, 18. Instr. *civil eng.*, Mass. Inst. Tech., 81-83, asst. prof., 83-86, assoc. prof., 86-87, *prof.*, 87-09; *Harvard, 09*— Consulting engineer, Mass. Ry. Commission, 87-14; chairman, Boston Transit Commission, 93-18; Nat. Conservation Commission, 08— Nat.

Acad.; A.A. (v. pres, 08); Civil Eng. (director, 01-04, v. pres, 08-10, pres, 13); Mech. Eng.; Eng. Educ. (pres, 94); Consulting Eng.; Am. Acad.; Boston Soc. Civil Eng. (pres, 96); Can. Inst. Eng.; British Inst. Civil Eng. Structural, railroad, hydraulic and valuation engineering.

Swain, Prof. H(enry) L(awrence), 195 Church St., New Haven, Conn. *Otology*. Nantucket, Mass., May 3, 64. M.D., Yale, 84; Leipzig. Instr. and *prof. diseases of ear, nose and throat, Yale, 86*— Consulting physician, New Haven Hosp.; New Haven Dispensary; Nat. Anti-Tuber. Ass. Sanitarium; v. pres, Gaylord Farm Sanitarium. A.A.; Laryngol. Ass. (sec'y, 95-00, pres, 01); Am. Med. Ass. Histology; pathology and fate of lymphoid tissue in throat; nasal diseases including bony changes; suprarenal gland preparations in nasal work.

Swain, Pres. Joseph, Swarthmore College, Swarthmore, Pa. *Biology*. Pendleton, Ind., June 16, 57. B.L., Indiana, 83, M.S., 85; Edinburgh, 85-86; LL.D., Wabash, 93. Instr. math. and zool., Indiana, 83-85, prof. math., 86-91; Stanford, 91-93; *pres.*, Indiana, 93-02; *Swarthmore, 02-21, emer, 21*— Asst. to U. S. Fish Commissioner, 84. A.A.; Am. Acad. Ichthyology.

Swain, Prof. Rob(ert) E(ckles), 2 Mirada Ave., Stanford University, Calif. *Chemistry*. Hollister, Calif., Jan. 5, 75. A.B., Stanford, 99; M.S., Yale, 01, Ph.D., 04; Strassburg and Heidelberg, 01-02. Asst. *chem., Stanford, 98-00*, instr., 00-02, asst. prof., 02-07, assoc. prof., 07-12, *prof., 12*—, *exec. head dept., 17*— Special agent, U. S. Dept. Justice, 10-11; expert chemist, referee board, U. S. Dept. Agr., 10-11; commissioner, smelter smoke investigations, Salt Lake Valley, U. S. Fed. Court, 20-21; Chandler lecturer and medal, Columbia, 23. A.A.; Chem. Soc. (pres, Calif. sect, 19); Soc. Exp. Biol.; Soc. Biol. Chem. Relation of molecular weight to lowering of freezing-point; products of uric acid feeding in dogs; products of tryptic digestion; urine of the coyote; formation of kynurenic acid in the animal body; smelter smoke; physiological action of thallium salts; chemistry of marine animals; effects of fatigue on the composition of the blood; sulphur dioxide on plants.

Swaine, Dr. J(ames) M(alcolm), Department of Agriculture, Ottawa, Ont., Can. *Zoology*. Barrington, N. S., Oct. 16, 79. B.S.A., Cornell, 05, M.S., 06, Ph.D., 19. Asst. entom. and zool., Cornell, 05-06; lecturer, Macdonald, 06-11; asst. entomologist, *Can. Dept. Agr.*, 11-18, chief div. forest insects, 18-23, *assoc. Dominion entomologist, 23*— A.A.; Entom. Soc.; Nat. Entom. Soc. Entomology; beetles of the families Scolytidae, Cerambycidae and Buprestidae; forest insects; the hyoid region in the lower amphibians; the nervous system of lepidopterous larvae; ambrosia fungi.

Swales, Bradshaw Hall, U. S. National Museum, Washington, D. C. *Ornithology*. Detroit, Mich., June 30, 75. LL.B., Michigan, 96, LL.M., 97. Assoc. ornith. museum zool., Michigan; *hon. asst. curator birds, U. S. Nat. Museum.* A.A.; Ornith. Union; Anthropol. Ass.; Soc. Mammal.; Cooper Ornith. Club; Wilson Ornith. Club

- (v. pres, sec'y-treas); Baird Ornith. Club (pres); Del. Valley Ornith. Club; Phila. Acad; Wash. Acad; Wash. Biol. Soc; Mich. Acad. Ornithology of Haiti and Great Lakes region; American Indians.
- Swan, Prof. J(ohn) N(esbit)**, University, Miss. *Chemistry*. New Jefferson, Ohio, Oct. 14, 62. A.B, Westminster (Pa), 86; Ph.D, Hopkins, 93. Teacher, pub. schools, Iowa, 86-87; prof. science, Tarkio Col, 87-88; chem. and math, Westminster (Pa), 89-91; physical science, Monmouth, 93-15, acting pres, 02-03; *prof. chem, Mississippi, 15-* A.A; Chem. Soc. Double halids; tars.
- Swan, Dr. S(tewart) D(uffield)**, The Dentists Supply Co, 220 W. 42d St, New York, N. Y. *Chemistry*. New Wilmington, Pa, Jan. 1, 91. A.B, Monmouth, 12; A.M, Columbia, 16; fellow, Chicago, 19-21, Ph.D, 22. Chemist, Perth Amboy Chem. Works, 16-17; *research chemist*, Procter and Gamble, 21-22; *The Dentists Supply Co, 22-* Chem. Soc; Ceramic Soc. Physical, organic, ceramic and colloidal chemistry; dental products; porcelain and ceramic colors.
- Swan, Dr. Thomas H(adden)**, Mellon Institute, Pittsburgh, Pa. *Physical chemistry*. Monmouth, Ill, July 8, 96. Monmouth; B.S, Mississippi, 18; A.M, Columbia, 21; Ph.D, Ohio State, 24. Asst. chem, Columbia, 19-21; Ohio State, 21-24; *fellow, Mellon Inst, 24-* A.A; Chem. Soc. Determination of vapor pressures of organic compounds of low volatility; corrosion and prevention of corrosion of metallic surfaces.
- Swan, Prof. William O(rr)**, Southwestern Presbyterian University, Memphis, Tenn. *Chemistry*. Monmouth, Ill, March 20, 98. B.S, Mississippi, 19; M.S, Virginia, 21, Ph.D, 22. Acting asst. prof. anal. chem, Virginia, 22-23; asst. prof, West Virginia, 23-25; *prof. chem, S. W. Presbyterian, 25-* Chem. Soc. Vapor pressure of solutions; hygroscopicity.
- Swanberg, Dr. Harold**, 731 Hampshire St, Quincy, Ill. *Radiology, Anatomy*. Philadelphia, Pa, July 23, 91. B.S, M.D, Loyola, 16; U.S.A. Mil. Sch. Röntgenol, 17-18; Harvard, 22. Med. research, Mich. State Inst. for Feeble-minded, and instr. anat. sch. med, Loyola, 17; *practising physician and radiologist, 19-* Founder and ed, 'The Radiol. Rev.' and 'Quincy Med. Bul,' 24- Lieut. and capt, M.C, 17-19, major, M.O.R.C, 24- A.A; Radiol. Soc; Röntgen Ray Soc; fel. Am. Med. Ass; fel. Col. Physicians; Cent. Ill. Radiol. Soc. (v. pres, 24, pres, 26). Medical uses of X-rays and radium; anatomy and histology of the intervertebral foramina.
- Swanger, W(illia)m H(enry)**, 1825 Columbia Road, Washington, D. C. *Chemistry*. Lebanon, Pa, March 11, 91. B.S, Pa. State, 17. Research dept, N. J. Zinc Co, Pa, 19-21; *asst. chemist, Bur. Standards, 21-* Chem. Soc. Chemistry and metallurgy of the platinum metals.
- Swann, Dr. W(illiam) F(rancis) G(ray)**, Franklin Institute, Philadelphia, Pa. **Physics*. Ironbridge, Eng, Aug. 29, 84. B.Sc, London, 05, D.Sc, 10; hon. A.M, Yale, 24. Asst. demonstrator physics, Imp. Col. Sci, London, 05-07; asst. lecturer, Sheffield, 07-13; chief physicist, dept. terrestrial magnetism, Carnegie Institution, 13-17; physicist, Bur. Standards, 17-18; prof. physics, Minnesota, 18-23; Chicago, 23-24; Yale, 24-27, *director*, Sloane lab, 25-27; *Bartol Research Foundation, Franklin Inst, 27-* Assoc. ed, 'Physical Rev,' 20-22; 'Jour. Franklin Inst,' 23- Governing committee, Bartol Research Foundation; Nat. Research Council, 21-23. Int. Geophys. Union; Geophys. Union. A.A. (v. pres, B, 22-24); fel. Physical Soc. (councilor, 24-); Optical Soc; Philos. Soc; Franklin Inst; Wash. Acad; Wash. Philos. Soc. (gen. committee, 16); British Ass; London Physical Soc. Thermal measurements; electromagnetic theory; electrical conductivity; relativity; terrestrial magnetism; atmospheric electricity; atomic structure.
- Swanson, Prof. C(harles) O(scar)**, Kansas State Agricultural College, Manhattan, Kans. *Agricultural chemistry*. Jönköping, Sweden. A.B, Carleton Col, 99; M.Agr, Minnesota, 05; Ph.D, Cornell, 22. Prin. high sch, Minn, 99-00, teacher, 00-03; instr. agr. chem, Purdue, and asst. chemist, Exp. Sta, 05-06; asst. chemist, Kans. Exp. Sta, 06-14, assoc. chemist, 14-23, instr. agr. chem, Kansas Col, 06-09, asst. prof, 09-14, assoc. prof, 14-20, *prof, 20-23, milling indust. and head dept, 23-* A.A; Chem. Soc; Ass. Cereal Chem. Wheat and flour; mill fumigants and by-products; loss of nitrogen and organic matter in cultivated soils; alfalfa sorghums; silage; nutrition of swine.
- Swanton, Dr. John R(eed)**, Smithsonian Institution, Washington, D. C. **Anthropology*. Gardiner, Maine, Feb. 19, 73. A.B, Harvard, 96, A.M, 97, Ph.D, 00. Asst. ethnologist, *Bur. Am. Ethnol, Smithsonian Inst, 00-03, ethnologist, 03-* Assoc. ed, 'Am. Anthropologist,' 10, 12-20, ed, 11, 21-23. Nat. Research Council, 23-26; Social Science Research Council, 26-27. Anthropol. Ass; Folk-Lore Soc. (pres, 09); Wash. Anthropol. Soc. (sec'y, 08, pres, 15-17); cor. mem. Paris Soc. des Américanistes. Chinook, Dakota, Haida and Tlingit Indian languages; general ethnology of the Haida; the Haida language and mythology; handbook of American Indians; sociology and mythology of the Tlingit; general ethnology of the small tribes of the lower Mississippi; languages of the Tunica, Natchez, Chitimacha, Atakapa, Ofo and other southeastern Indians; history and general ethnology of the Creek Indians and their neighbors.
- Swart, W(alter) G(oodwin)**, Babbitt, Minn. *Metallurgy*. Fredonia, N. Y, Feb. 19, 68. Cornell; Denver; hon. E.M, Colo. Sch. Mines, 16. Metallurgist, Blake-Morscher Electrostatic Ore Separator, 00-07; west. manager, Am. Zinc Co, 07-15; *manager, Mesabi Iron Co, 15-* Min. Eng. Ore dressing.
- Swarth, Harry S(chelwald)**, California Academy of Sciences, San Francisco, Calif. *Zoology*. Chicago, Ill, Jan. 26, 78. High sch. Asst, Field Museum Nat. Hist, Chicago, 05-08; curator birds, museum vert. zool, California, 08-12; asst. director, Museum Hist. Science and Arts, Los Angeles, 13-15; curator birds, museum vert. zool,

California, 15-27; *curator dept. ornith. and mammal, Calif. Acad. Sci.*, 27- Lecturer, Southern California; sci. expeditions, U. S., Alaska and Can. Fel. Ornith. Union; Soc. Mammal; Cooper Ornith. Club (sec'y, north. div., 09-13, south. div., 13-15, assoc. ed., 'The Condor,' 10-); Wilson Ornith. Club; West. Soc. Nat; Calif. Acad; Wash. Biol. Soc. Ornithology; mammalogy.

Swartz, Dr. Charles K(ephart), Johns Hopkins University, Baltimore, Md. *Geology*. Baltimore, Jan. 3, 61. A.B., Hopkins, 88, fellow, 03-04, Ph.D., 04; fellow, Clark, 89-90; B.D., Oberlin, 92. Instr. geol., *Hopkins*, 04-05, assoc., 05-06, assoc. prof. geol. and paleont., 07-10, *collegiate prof. geol.*, 10- Asst., Md. Geol. Surv., 09. Am. Geog. Soc.; Paleont. Soc. Paleontology; Paleozoic geology; Silurian, Devonian and Carboniferous of Maryland.

Swartz, Dr. J(oel) H(oward), 12 Cobb Terrace, Chapel Hill, N. C. *Geology*. Bellevue, Ohio, Nov. 10, 93. A.B., Hopkins, 15, fellow, 19-20, Ph.D., 23. Prof. chem., physics and biol., McKendree Col., 15-16; asst. geol., Hopkins, 20-21, instr., 21-23; asst. prof., *North Carolina*, 23-26, *assoc. prof.*, 26- A.A.; Elisha Mitchell Sci. Soc. (sec'y-treas., 24); N. C. Acad. Devono-Mississippian stratigraphy; Chattanooga black shale.

Swartzel, Prof. K(arl) D(ale), 4360 Center Ave., Pittsburgh, Pa. *Mathematics*. Lewisburg, Ohio, July 1, 69. B.S., Ohio State, 93, M.S., 94, fellow, 94-95; Harvard, 02-03. Instr. math., Ohio State, 95-99, asst. prof., 99-06, assoc. prof., 06-08, prof., 08-22; *prof. and head dept.*, *Pittsburgh*, 22- Special instr., Kenyon, 98-00. A.A.; Math. Soc.; Math. Ass.; Eng. Educ.

Swasey, Dr. Ambrose, 7808 Euclid Ave., Cleveland, Ohio. *Mechanical engineering*. Exeter, N. H., Dec. 19, 46. Hon. D.Eng. Case, 05; hon. Sc.D., Denison, 10, Pennsylvania, 24; LL.D., California, 24, Rochester, 25. Mem. firm, Warner and Swasey, 80-00, v. pres. and treas., *Warner and Swasey Co.*, 00-12, pres., 12-22, *chairman board*, 22- Nat. Research Council; board visitors, Bur. Standards, 21-26; board governors, George Washington-Sulgrave Institution; trustee, Museums of the Peaceful Arts. Jury awards, Nashville, Pan-Am, La. Purchase and Jamestown Expositions. John Fritz gold medal, 21. Chevalier, Légion d'honneur, 00, officier, 24. Nat. Acad; hon. mem. Mech. Eng. (v. pres., 01, pres., 04); Civil Eng.; Astron. Soc.; Philos. Soc.; Cleveland Eng. Soc. (pres., 94); British Inst. Mech. Eng.; British Inst. Min. Eng.; fel. Royal Astron. Soc.; British Astron. Ass.; Soc. Civil Eng. France. Design of the Lick and Yerkes telescopes; the circular dividing engine; the Swasey depression range finder.

Sweeney, Dr. J(ames) Shirley, Medical Arts Building, Dallas, Texas. *Internal medicine*. Waco, Texas, July 30, 96. A.B., Texas Christian, 17, A.M., 18; M.D., Vanderbilt, 21; Rockefeller fellow, Hopkins, 21-24, C.P.H., 23, Sc.D., 24. Instr. biol., Texas Christian, 15-17; Vanderbilt, 18-21; epidemiologist, State of La., 24-25; *clin. instr. col. med.*, *Baylor*, 25- Lecturer, Baylor. Field director, Int. Health

Board, Rockefeller Foundation, 21-24. Fel. Am. Med. Ass. Population growth; metabolic phenomena; glucose tolerance.

Sweeney, Prof. O(rland) R(ussell), Iowa State College, Ames, Iowa. *Chemical engineering*. Martin's Ferry, Ohio, March 27, 83. B.S., Ohio State, 09, A.M., 10; Ph.D., Pennsylvania, 16. Asst. anal. chem., Ohio State, 10; instr. chem., Pennsylvania, 10-16; indust. chem., Ohio State, 17; prof., N. Dak. Col., 18; Cincinnati, 19-20; *prof. and head dept. chem. eng.*, *Iowa Col.*, 20- Major, C.W.S., 18-19. Chem. Soc.; Chem. Eng.; Iowa Eng. Soc. Industrial and analytical chemistry; chemical engineering.

Sweet, Prof. A(lbert) W(hitman), University of Florida, Gainesville, Fla. *Bacteriology*. Riverpoint, R. I., April 14, 87. Ph.B., Brown, 11, A.M., 12, Ph.D., 15. Instr. biol., Brown, 12-13, bacter., 13-14; bacteriologist, Newport water works, R. I., 14-17; prof. bacter. and pub. health, col. med., Tennessee, 19-20; director hygiene and health, *Florida*, 20-25, *prof. bacter. and director health*, 25- Bacteriologist, R. I. Shell-fish Commission, 13-14; R. I. State Board Health, 16-17; Board Health, Newport, 17; Red Cross, 17; Tenn. State Board Health; hospitals. Lieut. and capt., Sanit.C., 17-19. Soc. Bact; Pub. Health Ass. Infantile dysentery; stream pollution; bile and bile products; nitrogen determinations; Wassermann reaction; Neisser bacterial infections; serum reactions; bacillus bulgaricus in digestion; influenza; skin parasites of South.

Sweet, Prof. A(ndrew) T(homas), Michigan College of Mining and Technology, Houghton, Mich. *Metallurgy*. Oct. 16, 90. E.M.; B.S.; Met.E., 16. Field engineer, 15; instr. metal, Mich. Col. Mines, 16; consulting metallurgist, 19-21; asst. prof. metal, *Mich. Col. Min. and Tech.*, 21-25, *prof.*, 25-; metallurgist, *Quincy Smelting Works*, 23- Consultant, hydrometal. fields. Capt. C.Eng., 17-19. Min. and Metal. Eng.; Mech. Eng.; Eng. Educ. Non-ferrous metallurgy; fire assaying; metallurgy of copper; ore testing; slag and mill tailing reclamation.

Sweet, Dr. J(oshua) E(dwin), Cornell Medical College, New York, N. Y. *Surgery*. Unadilla, N. Y., Aug. 9, 76. A.B., Hamilton, 97, A.M., 00, Root fellow, 07-08, Sc.D., 22; M.D., Giessen, 01; Thomas A. Scott fellow, Pennsylvania, 01-02. Fellow, Rockefeller Inst., 02-06; asst. prof. exp. surg., sch. med., Pennsylvania, 06-07, *prof. surg. research*, 17-26; *med. col.*, *Cornell*, 26- Lieut. col., M.C.; consulting surg. research, U.S.A. Am. Med. Ass.; Col. Surg.; Physiol. Soc.; Soc. Exp. Path; Soc. Exp. Biol.; Phila. Acad. Surg. Immunity; cancer.

Sweet, S(terling) S(cott), Charlotte St., Rochester, N. Y. *Chemistry*. Black River, N. Y., Jan. 1, 97. B.S., Syracuse, 18. *Chemist*, *Eastman Kodak Co.*, 20- C.W.S., U.S.A., 18-19. Chem. Soc. Gelatin; cellulose esters.

Sweetser, Prof. Albert E(addin), University of Oregon, Eugene, Oregon. *Botany*. Mendon, Mass., July 15, 61. A.B., Wesleyan, 84, A.M., 87; Mass. Inst. Tech., 84-85; Harvard, 93-97. Teacher science, Bucksport Acad. and Tilton Sem., 85-93; asst. crypt. lab., Harvard, and asst.

- instr. bot, Radcliffe, 95-97; *prof. biol*, Pacific, 97-02; *bot*, Oregon, 02- A.A.; Bot. Soc; West. Soc. Nat. Erythronia of Oregon.
- Swenehart, Prof. John (Henry)**, 2227 Commonwealth Ave, Madison, Wis. *Agricultural engineering*. Vandervoort, S. Dak, Aug. 18, 90. B.S.A, S. Dak. Col, 11; Wisconsin. Asst, S. Dak. Col, 10-11; agr. director, Jordan High Sch, 11-14; co. agr. agent, Crandon, Wis, 14-18; asst. *agr. eng*, Wisconsin, 18-19, assoc, 19-23, *prof*, 23- Agr. Eng. (first v. pres, 25, chairman, reclamation sect, 23-25). Land clearing reclamation; explosives for agricultural use; utilization of salvaged war explosive materials; farm buildings, design and construction.
- Swenk, Prof. Myron H(armon)**, University of Nebraska, Lincoln, Nebr. *Entomology*. Polo, Ill, Aug. 8, 83. A.B, Nebraska, 07, A.M, 08. Lab. asst. entom, Nebraska, 04-07, adjunct *prof*, 07-10, asst. *prof*, 10-11, assoc. *prof*, 11-14, *prof. econ. entom*, 15-, chairman dept. entom, 19-, asst. entomologist, *Exp. Sta*, 07-12, assoc. entomologist, 13-19, entomologist, 19-; asst. state entomologist, Nebr, 08-19, state entomologist, 19- A.A.; Ass. Econ. Entom; Entom. Soc; Ornith. Union; Wilson Ornith. Club (pres, 18-19); Nebr. Ornith. Union (pres, 07, sec'y, 08-). Economic entomology; ornithology; mammalogy; taxonomy of Apoidea; birds and mammals of Nebraska; pollination of plants by insects.
- Swenson, B(ernard) V(ictor)**, 220 W. 42d St, New York, N. Y. *Electrical engineering*. Chicago, Ill, May 3, 72. B.S, Illinois, 93, M.E, 01; E.E, Wisconsin, 01. Instr. physics and elec. eng, Illinois, 93-95, asst. *prof. elec. eng*, 95-98; Wisconsin, 98-05; sec'y and treas, Am. St. and Interurban Ry. Ass, 05-10; *St. and Interurban Ry. Advertising*, 10- Summers, in charge dept. elec, Wisconsin, 01-03; asst. supt. elec. ry. tests, Elec. Ry. Test Commission; jury awards and expert in charge elec. eng. sect, La. Purchase Expos, 04. Elec. Eng; Mech. Eng; N. Y. Elec. Soc; N. Y. Eng. and Ry. Clubs. Dynamo electric machinery; photometry; illumination; electric railways.
- Swenson, Dr. Engelbrekt A(ugust)**, Wistar Institute, Philadelphia, Pa. *Anatomy*. Lindsborg, Kans, March 26, 93. A.B, Bethany, 13; A.M, Kansas, 23, Ph.D, 26. Asst. instr. anat, Kansas, 21-23; instr. biol, Western Reserve, 23-25; *Wistar Inst*, 25, fellow, 26, *Nat. Research Council fellow zool*, 26- Living mammalian embryos; development of movement of mammalian embryos; mammalian behavior.
- Swenson, Prof. George Warner**, University of Minnesota, Minneapolis, Minn. *Electrical engineering*. Willmar, Minn, Aug. 93. B.S, 17; E.E, 20. Equipment engineer, Northwest. Bell Telephone Co, 17; West Elec. Co, 18; instr. and asst. *prof. elec. eng*, Minnesota, 19- Summers, elec. engineer, Bur. Standards, 23, 24. Elec. Eng; Minneapolis Eng. Club. Sparking at relay contacts; artificial telephone lines; loading toll cables and telephone lines; elements of radio communication.
- Swett, Dr. F(rancis) H(untington)**, Vanderbilt Medical School, Nashville, Tenn. *Experimental embryology*. Norway, Maine, Nov. 13, 93. A.B, Bates, 16; A.M, Brown, 17; Ph.D, Yale, 22. Asst. zool, Yale, 19-21, anat, 21-22; instr. anat, med. dept, Hopkins, 22-24, assoc, 24-25; assoc. *prof*, Vanderbilt, 25- A.A.; Ass. Anat; Soc. Exp. Biol. Embryonic transplantation; regeneration in amphibia.
- Swett, Prof. Otis D(ow)**, 1335 H St, N. W, Washington, D. C. *Chemistry*. Mattoon, Ill, Aug. 29, 71. LL.B, George Washington, 91, LL.M, 92, B.S, 04, M.S, 09. Instr. chem, George Washington, 04-09, asst. *prof*, 09-18, *prof*, 18- Chem. Soc. (abstractor of for. patents, 'Abstracts'). Analytical chemistry; apparatus.
- Swett, Prof. W(alter) W(hittier)**, 212 Maple Ave, Takoma Park, Washington, D. C. *Dairying*. Deerfield, N. H, Jan. 3, 92. B.S, New Hampshire, 15; A.M, Missouri, 16. Instr. dairy husbandry, Missouri, 16-19, asst. *prof*, 19-20, assoc. *prof*, 20-22; dairy husbandman, U. S. Dept. Agr, 22- Dairy Sci. Ass. The dairy cow; factors affecting growth of dairy heifers; minimum protein requirements for dairy heifers; relationship between anatomy and producing capacity.
- Swezey, Prof. G(oodwin) D(ewey)**, University of Nebraska, Lincoln, Nebr. *Astronomy*, *Meteorology*. Rockford, Ill, Jan. 10, 51. A.B, Beloit, 73, A.M, 76; Yale, 73-75; B.D, Andover Theol. Sem, 80; Wisconsin, 96. Prof. nat. sciences, Doane, 80-94; meteorologist, Nebr. State Board Agr, 91-02; *prof. astron. and meteor*, Nebraska, 96- Director, Nebr. Weather Service, 84-96; meteorologist, U. S. Exp. Sta, Lincoln, 94-06. Astron. Soc; Nebr. Acad. (treas, 97, pres, 99, sec'y, 07). The climate of Nebraska.
- Swezey, Otto H(erman)**, Hawaiian Sugar Planters' Experiment Station, Honolulu, Hawaii. *Entomology*. Rockford, Ill, June 7, 69. A.B, Lake Forest, 96; fellow, Northwestern, 96-98, M.S, 97; fellow, Ohio State, 02-03. Instr. biol, Northwestern, 98-02; asst. nursery and orchard inspector, Ohio, 03-04; asst. entomologist, *Exp. Sta*, Hawaiian Sugar Planters' Ass, 04-14, entomologist, 15- Hon. curator, Bishop Museum, Honolulu, 07-19; consulting entomologist, 20- A.A.; Ass. Econ. Entom; Entom. Soc. Amer; Hawaiian Entom. Soc; Hawaiian Bot. Soc; Hawaiian Acad. Life histories of insects; sugarcane insects; life histories and parasites of Hawaiian Lepidoptera; insect faunas of Hawaiian trees.
- Swezy, Dr. O(live)**, 2515 Vine St, Berkeley, Calif. *Zoology*. Shohola, Pa, Nov. 1, 78. B.S, California, 13, M.S, 14, Ph.D, 15, Berliner fellow, 19-20. Assoc. zool, California, 15-16, zoologist, Scripps Inst, 16-18, Nat. Research Council asst. protozool, 19, research assoc, 22- A.A.; Soc. Zool; Micros. Soc. Marine plankton; parasitic Protozoa; cytology of Protozoa.
- Swick, Clarence H(erbert)**, U. S. Coast and Geodetic Survey, Washington, D. C. *Geodesy*. Wilson, N. Y, June 1, 83. C.E, Cornell, 07. Aid, U. S. Coast and Geod. Surv, 07-09, mathematician, 10- Wash. Soc. Eng; Wash. Philos. Soc. Triangulation; gravity; astronomy.
- Swift, Dr. Charles H(enry)**, University of Chicago, Chicago, Ill. *Anatomy*. New Castle, Ky,

Aug. 17, 81. A.B., Chicago, 03, B.S., 06, fellow, 08-09, Ph.D., 13, M.D., Rush Med. Col., 10. Asst. anat., Chicago, 10-13, assoc., 13-15, instr., 15-18, asst. prof., 18- A.A.; Ass. Anat. Primordial germ-cells in the chick; yolk nucleus of Balbiani.

Swift, Prof. Edgar James, Washington University, St. Louis, Mo. *Psychology*. Ravenna, Ohio, July 24, 60. A.B., Amherst, 86; Ph.D., Clark, 03. Teacher science, Lake Forest Acad., 88-89; prof. psychol., Wis. State Nor. Sch., Stevens Point, 96-01; head dept. psychol. and educ., Washington (St. Louis), 03-24, dept. psychol., 24- Special lecturer, post-grad. sch., U. S. Naval Acad., 20-27; War Naval Col., 22-24. A.A.; Psychol. Ass.; West. Philos. Ass.; S. Soc. Philos. and Psychol. Applied psychology; adolescence; mental development of children; heredity and environment; psychology and physiology of learning; eye defects in school children; statistical study of environment in mental development; distractions in attention; experiments on the threshold of pain; influence of suggestion in education; psychology of learning a foreign language; perception of filled and empty time; psychology of business problems.

Swift, Prof. Elijah, University of Vermont, Burlington, Vt. *Mathematics*. Buffalo, N. Y., Oct. 23, 82. A.B., Harvard, 03, A.M., 04; Ph.D., Göttingen, 07. Instr. math., Princeton, 07-09, preceptor, 09-14; *Williams prof.*, Vermont, 14- Math. Soc.; Math. Ass.

Swift, Dr. Ernest H (aywood), California Institute, Pasadena, Calif. *Chemistry*. Chase City, Va., July 2, 97. Randolph-Macon, 14-17; B.S., Virginia, 18; M.S., Calif. Inst., 20, Ph.D., 24. *Instr. anal. chem.*, Calif. Inst., 18- Chem. Soc. Physical and analytical chemistry.

Swift, Dr. Homer F (ordyce), Rockefeller Institute, New York, N. Y. **Medicine*. Paines Hollow, N. Y., May 5, 81. Ph.B., Western Reserve, 02; M.D., N. Y. Univ., 06. Intern, Presb. Hosp., New York, 06-08; asst. path., Univ. and Bellevue Hosp. Med. Col., 09-10, instr. dermat., 09-10; asst. res. physician, Rockefeller Hosp., 10-12, res. physician, 12-14; attending physician, Presb. Hosp. and assoc. prof. med., Columbia, 14-17; Cornell (on leave), 17-19; assoc. mem., *Rockefeller Inst.*, 19-22, mem., 22- Board sci. directors, Russell Sage Inst. Path. U.S.A., 17-19; Am. Red Cross Trench Fever Commission. A.A.; Am. Med. Ass.; Am. Physicians; Soc. Exp. Biol.; Soc. Internal Med.; Soc. Clin. Invest.; Soc. Bact.; Ass. Immunol.; Cosmopolitan Clin. Soc.; Harvey Soc. (pres, 25). Bacteriology; syphilis; rheumatism; trench fever.

Swindells, Dr. Frank E (vans), Towanda, Pa. *Physical chemistry*. Washington, D. C., Feb. 23, 99. B.S., Carnegie Inst. Tech., 21; M.S., Pennsylvania, 23, Harrison fellow, 23-25, Ph.D., 25. Asst. chemist, Bur. Standards, 21-22; *research chemist*, Patterson Screen Co., 25- Chem. Soc. Determination of gases in metals; thermodynamics of solutions; X-ray fluorescence of salts.

Swindle, Prof. Percy F (ord), Fourth St. and Reservoir Ave., Milwaukee, Wis. *Physiology*. Newtonia, Mo. A.B., B.S., Missouri, 11, A.M., 12; Ph.D., Berlin, 15. Instr. exp. psychol., Ohio

State, 15-16; research fellow, Harvard, 16-17; instr. physiol., Tufts, 17-18; asst. prof. exp. psychol., Missouri, 19-20; physiol. and pharmacol., sch. med., Marquette, 20-21, assoc. prof., 21-22, director dept., 22-25, *prof. physiol. and director dept.*, 25- A.A.; Soc. Nat.; Soc. Mam. mal.; Psychol. Ass.; Eugenics Research Ass. Quantum reactions of nerve and muscle.

Swindler, Prof. J (ames) A (lbert), New Wilmington, Pa. *Physics*. Advance, Ind., May 20, 87. B.S., Cent. Nor. Col., 08; A.B., Indiana, 13, A.M., 15, Ph.D., 25. Instr. physics, Pittsburgh, 16-17; asst. prof., Pa. State, 17-19; *prof.*, Westminster (Pa), 19-, *registrar*, 20-, *sec'y faculty*, 21- The effect of changes in potential and frequency on the line spectrum of certain gases.

Swingle, Homer S (cott), U. S. Bureau of Entomology, Fort Valley, Ga. *Entomology*. Columbus, Ohio, July 29, 02. B.S., Ohio State, 24, M.S., 25. Field asst., bur. entom., U. S. Dept. Agr., 23, junior entomologist, 25-26, asst. entomologist, 26- Ass. Econ. Entom.; Chem. Soc. Chemistry of insect digestion; arsenical spray injury.

Swingle, Dr. L (eroy) D (ey), Hawthorne Drug Co., Salt Lake City, Utah. *Botany, Zoology, Pharmacology*. Simon, Pa., Jan. 22, 81. Ph.B., Lafayette, 04; fellow, Nebr., 05-08, Ph.D., 08; Ph.G., Utah, 24. Instr. science, Seattle Sem., 04-05; prof. zool., Nebr. Wesleyan, 08-11; research parasitologist, Wyo. Exp. Sta., 11-13; prof. pharmacol., Utah, 13-23; *pharmacist*, 23- Summer, investigator, Nebr. Exp. Sta., 09, research parasitologist, bur. animal indust., U. S. Dept. Agr., 15. A.A.; Pharmaceut. Ass. Blood and insect flagellates; embryology of *Myosorus minimus*; pernicious anemia of horses; sheep tapeworms; blood platelets; life history and eradication of the sheeptick; biological standardization of sheep-dips.

Swingle, Walter T (ennyson), U. S. Department of Agriculture, Washington, D. C. **Botany, Agriculture*. Canaan, Pa., Jan. 8, 71. B.S., Kansas Col., 90, M.S., 96, Sc.D., 22; Bonn, 95-96; Leipzig, 98-99. Asst. botanist, Kans. Exp. Sta., 88; special agent, div. veg. physiol. and path., U. S. Dept. Agr., 91, agr. explorer, 98-02, in charge plant life hist. investigations, 02-10, senior physiologist in charge crop physiol. and breeding investigations, bur. plant indust., 10- Exec. committee, div. biol. and agr., Nat. Research Council, 21-23, div. for. relations, Pacific sect., 23- A.A.; Bot. Soc.; Torrey Bot. Club; Wash. Bot. Soc. (pres, 19); Wash. Acad.; Soc. bot. de France; Soc. Nat. d'Acclimatation de France; Soc. géog. de Paris; cor. mem. Acad. d'Agr. de France; hon. mem. Soc. d'Hort. d'Alger; for. mem. Bot. Soc. Japan. Cytology; physiology; taxonomie botany; Blastophaga psenes; centrosomes in plants; fruit hybridizations; plant breeding; the history of botany, agriculture and pharmacology in China and Japan.

Swingle, Dr. W (ilbur) W (illis), University of Iowa, Iowa City, Iowa. **Zoology*. Warrensburg, Mo., Jan. 11, 91. A.B., Kansas, 15, fellow, 15-16, A.M., 16; fellow, Princeton, 19-20, Ph.D., 20. Instr. zool., Kansas, 17-18; biol., Yale, 20-21, asst. prof. zool., 21-26; *prof.*, Iowa, and di-

- rector museum, 26- Board directors, Cold Spring Harbor, 25- Soc. Zool; Ass. Anat; Physiol. Soc; Soc. Exp. Biol; Ass. Study Int. Secretions; Kans. Acad. (sec'y, 16). Experimental morphology and physiology.
- Swinnerton, Prof. A(lynn) C(oats)**, 412 Phillips St, Yellow Springs, Ohio. *Geology*. New Berlin, N. Y., Sept. 1, 97. A.B., Williams, 19; A.M., Harvard, 20, Ph.D., 22. *Prof. geol, Antioch*, 22-; geol. aid, *U. S. Geol. Surv.*, 20-24, *asst. geologist*, 24- Summer, acting assoc. prof., Stanford, 25; prof. in charge, Harvard Summer Sch. Field Geol., 26. A.A.; fel. Ohio Acad. (v. pres, geol. sect., 27). Structural geology; physiography.
- Swisher, Prof. C(harles) L(ee)**, 1135 Eighth St, N. Fargo, N. Dak. *Physics*. Sheldon, Ill., Jan. 27, 80. A.B., Illinois, 09; A.M., Michigan, 13; Ph.D., Cornell, 17. Instr. physics, Ga. Tech., 09-10; Grinnell, 10-13; Cornell, 13-16; prof. physics and in charge physics and elec. eng., S. Dak. Sch. Mines, 16-20; assoc. prof. physics, Vanderbilt, 20-22; prof., North. Normal, Aberdeen, S. Dak., 22-24; *N. Dak. Col.*, 24- A.A.; Physical Soc. Electrical properties of metallic calcium; distortion factors in alternating currents.
- Switzer, H(erbert) B(razilla)**, Transportation Building, Chicago, Ill. *Bacteriology*. Bradford, N. Y., June 25, 88. B.S.A., Cornell, 12. Instr. dairy bacter. and market milk, Purdue, 12-15, asst. prof., 15-17; *bacteriologist, bur. chem, U. S. Dept. Agr.*, 17- Soc. Bact. Pasteurization of cream; dried and evaporated milk; frozen eggs and cheese.
- Switzer, Prof. J(esse) E(lmer)**, 523 S. Park Ave, Bloomington, Ind. *Geography*. Waynetown, Ind., 76. B.S., Chicago, 11; Ph.D., Clark, 23. Head dept. geog., N. Dak. Teachers Col., Valley City, 11-23; *assoc. prof. geog, Indiana*, 23- A.A.; Meteor. Soc; Ind. Acad. Geography of North Dakota; weather types in the climate of Mexico and the West Indies; utilization of inland waterways of the United States.
- Sy, Prof. Albert P(hilip)**, University of Buffalo, Buffalo, N. Y. *Chemistry*. Altamont, Ill., Aug. 7, 72. B.S., Illinois, 94, M.S., 99; Ph.D., Buffalo, 08. Instr. chem., Buffalo, 95-98; Illinois, 98-99; asst. prof., Buffalo, 99-00; asst. chemist, Frankford Arsenal, ordnance dept., U.S.A., 00-03, chemist, Sandy Hook, N. J., 03-04; asst. prof. chem., Buffalo, 04-07, prof., 07-, *director chem. laboratories*, 09- Chem. Soc. Physiological and food chemistry; explosives; toxicology.
- Sydenstricker, Edgar**, Cosmos Club, Washington, D. C. *Statistics*. Shanghai, China, July 15, 81. A.B., Fredericksburg Col., 00; A.M., Washington and Lee, 02; fellow, Chicago, 07. Special agent, U. S. Immigration Commission, 08-10; staff mem., Fed. Commission Indust. Relations, 14-15; first statistician, *U. S. Pub. Health Service*, 15, *chief statistician*, 19-, *director statistical research*, 21- Inaugurator statistical and epidemiol. work, Int. Health Organization, League of Nations, 22-24. Lecturer, George Washington, 21-22. Fel. Statist. Ass. (councilor, 23-24); fel. Pub. Health Ass; Int. Inst. Statistics. Epidemiology; economics; medical statistics.
- Sykes, Prof. Geo(rge) F(rancis)**, Tufts College Medical School, Boston, Mass. *Anatomy, Zoology*. Suffield, Conn., Nov. 10, 78. Ph.B., Brown, 09, A.M., 10. Asst. comp. anat., Brown, 10; instr. zool. and physiol., Oregon Col., 10-12, asst. prof., 13, prof., 14-21; teaching fellow, Harvard Med. Sch., 21-23; *asst. prof. anat, Tufts*, 23- Instr., Cold Spring Harbor, 23- A.A.; Ass. Anat; Cooper Ornith. Club; Pacific Fisheries Soc. (past sec'y); West. Soc. Nat. Development morphology and physiology of salmon; spiral trends in the musculature of the vertebrate alimentary canal; epithelial cysts in the mammalian heart.
- Sykes, Godfrey G(lenton)**, Desert Botanical Laboratory, Tucson, Ariz. *Geography*. London, Eng., May 25, 61. Brewood Sch., Eng; private educ. Eng. dept., Great West. Ry., Eng., 79-81; hydraulic and mining engineer, Japan, 86-87; Australia, 88-89; practising civil engineer, 90-06; *mem. staff, lab. plant physiol, Carnegie Institution*, 06- Explorations in Ariz., Calif., Sonora, Libyan desert and Sudan, 01-12. A.A.; fel. Am. Geog. Soc; Mech. Eng; Min. and Metal. Eng; fel. Royal Geog. Soc; fel. Royal Soc. Arts. Eremography; Spanish cartography; development in the Southwest.
- Sylvester, A(lbert) H(ale)**, Wenatchee, Wash. *Geology, Forestry*. Woodside, Calif., May 25, 71. B.S., California, 95. Topographer, U. S. Geol. Surv., 97-08; *forest supervisor, U. S. Forest Service*, 08- A.A.; Soc. Foresters; Civil Eng; Wash. Geol. Soc; Columbia River Archeol. Soc. Glaciers and physiography, including the vulcanology of Mt. Hood, Oregon; geology and physiography of the Wenatchee River country, Washington.
- Sylvester, Dr. Mildred (West) Loring**, 339 W. Lancaster Ave, Haverford, Pa. *Psychology*. Tacoma, Wash., May 4, 91. A.B., Washington (Seattle), 12, A.M., 13; Ph.D., Hopkins, 16. Sarah Berliner fellow, Hopkins, 16-17; instr. psychol., Washington (Seattle), 17-19; professorial lecturer psychol., Minnesota, 20-21, asst. prof., 21-22. Research asst., A.S., 20. Psychol. Corp. A.A.; Psychol. Ass; S. Soc. Philos. and Psychol. Experimental psychology; special senses; association reaction times; retinal sensitivity.
- Sylvester, Dr. R(enel) H(ull)**, 1606 Pleasant St, Des Moines, Iowa. *Psychology*. Lynnville, Iowa, March 18, 81. A.B., Iowa, 08; fellow, Pennsylvania, 12-13, Ph.D., 13. Prof. psychol. and educ., Penn (Iowa), 09-10; asst. prof. psychol., Iowa, 13-19; prof., Drake, 19- Psychol. Ass; Iowa Acad. Tone variator; form-board tests; clinical psychology.
- Symmers, Dr. Douglas**, Bellevue Hospital, New York, N. Y. *Pathology*. Columbia, S. C., Sept. 17, 79. M.D., Jefferson Med. Col., 01. Research fellow pharmacol., col. physicians and surg., Columbia, 05-06; asst. pathologist, New York Hosp., 06-13; instr. path., Univ. and Bellevue Hosp. Med. Col., 07-08, prof., 12-19; asst. director laboratories, *Bellevue and Allied Hospitals*, 16-18, *director*, 18- Asst., med. col., Cornell, 08-

11. Ed, 'Ziegler's Gen. Path,' 20. Ass. Path. and Bact; Soc. Exp. Biol; N. Y. Path. Soc. Pathological anatomy and chemistry.

Symonds, Percival M(allon), Teachers College, Columbia University, New York, N. Y. *Education, Psychology*. Newtonville, Mass, April 18, 93. A.B, Harvard, 15; A.M, Columbia, 20, Ph.D, 23. Prof. educ. and psychol, Hawaii, 22-24; assoc. *educ, Teachers Col, Columbia*, 24-25, *asst. prof, 25-* Asst. Inst. Educ. Research, Teachers Col, Columbia, 21-22. A.A; Psychol. Ass; Nat. Soc. Study Educ; Educ. Research Ass. Measurement in secondary education; the psychology of high-school subjects.

Symons, Dr. Thomas B(addeley), College Park, Md. *Zoology*. Easton, Md, Sept. 2, 80. B.S, Maryland, 02, M.S, 04, D.Agr, 18. Asst. state entomologist, Md, 02, assoc. state entomologist, 03, *state entomologist and prof. entom. and zool, Maryland, 04-*, *dean sch. hort, 12-*, *exten. director, 14-* A.A; Ass. Econ. Entom; Md. Agr. Soc. (treas). Economic entomology; agricultural extension methods and administration.

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Taber, Dr. Henry, 2 Pleasant Place, Worcester, Mass. **Mathematics*. Staten Island, N. Y, June 10, 60. Ph.B, Yale, 82; Ph.D, Hopkins, 88. Asst. *math*, Hopkins, 88-89; docent, *Clark*, 89-92, *asst. prof, 92-03*, *prof, 03-21*, *emer. prof, 21-* Math. Soc; Am. Acad; London Math. Soc. Bilinear forms; continuous groups; hypercomplex numbers.

Taber, Prof. Stephen, University of South Carolina, Columbia, S. C. *Geology*. Victory, N. Y, April 24, 82. A.B, Stanford, 06; Ph.D, Virginia, 12. Assayer and chemist, Santa Maria de Guadalupe y Anexas Mines, Mex, 06-07; instr. econ. geol, Virginia, 09-12; *prof. geol. and miner, South Carolina, 12-*, *state geologist, S. C, 14-* Acting prof, Stanford, 20; field asst, Calif. Earthquake Investigation Commission, 06; asst. geologist, Va. Geol. Surv, 09-12; Porto Rico Seismol. Commission, 18-19. A.A; Geol. Soc; fel. Miner. Soc; Min. and Metal. Eng; Seismol. Soc; fel. London Geol. Soc; Soc. géol. de France. Seismology; dynamic and economic geology.

Tabern, Dr. Donalee L(evi), 311 Elmwood Ave, Ithaca, N. Y. *Organic chemistry*. Bowling Green, Ohio, Jan. 27, 00. B.S, Michigan, 21, M.S, 22, Ph.D, 24. Instr. chem, Michigan, 23-25; *lecturer and Heckscher research fellow, Cornell, 25-* Chem. Soc. Organic derivatives of germanium acridyl radicals.

Taff, Joseph A(lexander), 79 New Montgomery St, San Francisco, Calif. *Geology*. Ten Mile, Tenn, Nov. 20, 62. Arkansas, 86-88; fellow, Texas, 93-94, B.S, 94. Asst. geologist, Ark. Geol. Surv, 88-89; Texas Geol. Surv, 89-94; U. S. Geol. Surv, 94-00, geologist, 00-09; South. Pacific Co, 09-21; *chief geologist, Pacific-Associated Oil Companies, 21-*; *consulting geologist, 21-* A.A; Geol. Soc; Ass. Petrol. Geol; Min. and Metal. Eng; Calif. Acad; Wash. Geol. Soc. Stratigraphic, structural and economic geology; geology of Ouachita, Arbuckle

and Wichita Mountains in Oklahoma; Cretaceous of northern Texas; coal fields of West Virginia, Colorado, Wyoming, Utah and Oklahoma; mid-continent oil field; Pacific Coast oil fields.

Taft, Dr. Annie Elzina, 3601 Walnut St, Philadelphia, Pa. *Neuropsychiatry, Neuropathology*. Castleton, Ill. M.D, Tufts, 07. Path. lab, Boston City Hosp, 07-09; med. research officer, Monson State Hosp, Mass, 09-10; Neur. Inst, Frankfort a/M, and serol. lab, Samariterhaus, Heidelberg, 11; curator dept. neuropath, Harvard Med. Sch, 12-17; res. physician, dept. nervous and mental diseases, Pa. Hosp, 18-20; *neuropathologist and psychiatrist, Phila, 20-*

Taft, Dr. Jessie, 311 S. Juniper St, Philadelphia, Pa. *Psychology*. Dubuque, Iowa, June 24, 82. A.B, Drake, 04; Ph.B, Chicago, 04, fellow philos, 09-12, Ph.D, 13. Teacher, high sch, Iowa, 05-09; asst. supt, state reformatory for women, N. Y, 09-15; social service director, State Charities Aid Ass, N. Y, 15-18; *director child study, Children's Aid Society, Pa, 18-* Psychologist, Lab. Social Hygiene, 17; Smith Sch. of Social Work, 18; consulting psychologist, Carson Col, 18-; lecturer, Pa. Sch. Social and Health Work, 18-; Maine, 20; Women's Med. Col. of Pa, 23-; Bryn Mawr, 25- Director Girls' Aid, Philadelphia, 24-26; investigator, vice investigation, N. Y, 12. Exec. committee, Nat. Conf. of Social Work; Nat. Committee for Mental Hygiene. Psychol. Ass; assoc. Ortho-Psychiat. Ass; Progressive Educ. Ass; Ass. Social Workers. Clinical psychology; behavior problems of children; the dependent child; mental hygiene of adolescence.

Taft, Dr. Robert, 1713 Louisiana St, Lawrence, Kans. *Chemistry*. Tokio, Japan, March 24, 94. A.B, Grand Island, 16; M.S, Iowa, 19; Ph.D, Kansas, 25. Instr. *chem*, Iowa, 18-19; prof, Ottawa (Kans), 19-22; instr, *Kansas*, 22-26, *asst. prof, 26-* Chem. Soc. (chairman, Kansas City sect). Non-aqueous solutions.

Taggart, Prof. Arthur F(ay), Columbia University, New York, N. Y. *Mining*. New York, Oct. 1, 84. A.B, Stanford, 09, E.M, 10. Instr. and asst. prof, mining, Yale, 12-19; *prof. ore dressing, Columbia, 19-* Min. and Metal. Eng. Ore dressing; crushing; flotation concentration.

Taggart, Prof. Walter T(homas), University of Pennsylvania, Philadelphia, Pa. *Chemistry*. Philadelphia, April 15, 72. B.S, Pennsylvania, 96, Ph.D, 03. Instr. *chem, Pennsylvania*, 96-05, *asst. prof, 05-13*, *prof. org. chem, 13-* A.A; Chem. Soc. (councilor, 08-, pres, Phila. sect, 12). Electrochemistry; organic chemistry.

Tague, Prof. Edgar L(emuel), Kansas State Agricultural College, Manhattan, Kans. *Chemistry*. Haney's, Ind, Jan. 30, 73. A.B, Kansas, 08, A.M, 09, Ph.D, 24. Instr. *chem*, Kansas, 07-09; head dept, Washburn, 12-14; asst. prof, *Kansas Col*, 14-25, *assoc. prof, 25-* Chem. Soc. Proteins.

Tainter, Charles S(umner), 2960 First St, San Diego, Calif. **Mechanics, Physics*. Watertown, Mass, April 25, 54. Pub. sch. Mem, U. S. transit of Venus exped, 74. Gold medal, Paris Elec. Expos, 81; Officier de l'Instruction pub,

- 89; John Scott medal, Franklin Inst, 00; gold medal, Panama-Pacific Expos, 15. A.A. Transmission of sounds to a distance by agency of light; recording and reproduction of sound; telephony.
- Tainter, Dr. M(aurice) L(ane)**, Stanford University School of Medicine, San Francisco, Calif. *Pharmacology*. Carroll, Iowa, May 10, 99. Iowa, 16-20; A.B, Stanford, 21, A.M, 24, M.D, 25. Asst. *pharmacol. sch. med., Stanford*, 22-24, instr, 24-27, *asst. prof.*, 27- Nat. Research Council fellow med, 26-27. A.A; Soc. Pharmacol; Soc. Exp. Biol; Am. Med. Ass; Gesell. Geschichte Med. und Naturforscher. Anaphylactoid reactions; influence of decerebration on erection; edema of paraphenylenediamine; rôle of adrenals in prevention of edema; pharmacology of tyramine; keeping properties of digitalis preparations; cocaine; post-pituitary hormone.
- Tait, Prof. John**, McGill University, Montreal, Que, Can. *Physiology*. Orkney Islands, Scotland, April 18, 78. B.Sc, Edinburgh, 01, M.B, Ch.B, 03, M.D, 06, D.Sc, 07. House surgeon, Leith Hosp, 04-05; *asst. physiol.*, Edinburgh, 05-07, *lecturer exp. physiol.*, 07-19; *prof. physiol.*, McGill, 19-, *director exp. med.*, 21- Consultant physiologist, Royal Victoria Hosp. and Montreal Gen. Hosp. Crichton research scholar, Carnegie fellow and Fothergill gold medal, Edinburgh; Neill medal, Royal Soc. Edinburgh, 19. Capt. R.A.M.C. *Physiol. Soc*; fel. Royal Soc. Can; British Ass. (sec'y, *physiol. sect.*, 11-19); fel. Royal Soc. Edinburgh. Nerve; heart; blood coagulation; phagocytosis; zoology of Crustacea; spleen; labyrinth.
- Tait, Prof. William D(unlop)**, 264 Regent Ave, Montreal, Que, Can. *Psychology*. Hopewell, N. S, Nov. 20, 79. A.B, Dalhousie, 05; A.M, Harvard, 06, Ph.D, 09. Lecturer philos, Dalhousie, 06-07; sessional lecturer, McGill, 09-10, lecturer, 10-12, *asst. prof.*, 12-22, *assoc. prof.*, 22-24, *prof. psychol. and chairman dept.*, 24-, *director psychol. lab.* A.A; Psychol. Ass. Memory; tests; emotions; gifted children; dreams; childhood repressions.
- Talbert, Dr. Ernest L(ynn)**, 266 Albion Place, Cincinnati, Ohio. *Psychology*. A.B, Chicago, 02, Ph.D, 09. Exten. instr. philos. and psychol, Chicago, 11-14; instr. philos, Cincinnati, 14-15, *psychol.*, 15-18, *asst. prof.*, 18-26, *assoc. prof.*, 26- Psychology of primitives; psychology of religion.
- Talbert, Dr. George A(ddisson)**, University Station, Grand Forks, N. Dak. *Physiology*. Fall River, Wis, Aug. 30, 65. B.S, Ohio Wesleyan, 88, M.S, 91; Hopkins, 88-89, fellow, 18-19; Berlin, 98-99; fellow, Chicago, 19-20, Ph.D, 21. Prof. biol, Wis. State Nor. Sch, Stevens Point, 02-07; Ripon Col, 08-15; Fairmount Col, 20-21; *assoc. prof. physiol.*, Nebraska, 21-24; *prof.*, North Dakota, 24- A.A; Physiol. Soc; N. Dak. Acad; Wis. Acad; Ind. Acad. Cerebral localization; plethysmographic and pneumographic records in hypnosis; hydrogen ions of sweat and urine; the chlorides, total nitrogen, urea and ammonia in sweat, urine and blood as result of heat and fatigue.
- Talbot, Prof. A(rthur) N(ewell)**, University of Illinois, Urbana, Ill. *Civil engineering*. Cortland, Ill, Oct. 21, 57. B.S, Illinois, 81, C.E, 85; Sc.D, Pennsylvania, 15; Eng.D, Michigan, 16. Asst. engineer, A. T. and S. F. Ry, 81-85; *asst. prof. eng. and math.*, Illinois, 85-90, *prof. munic. and sanit. eng. and in charge theoret. and applied mech.*, 90- Engineer on railroad location, construction and maintenance, on water-works, sewerage and pavement construction; consulting engineer. Mem. div. eng, Nat. Research Council. Chanute medal in mech. eng, West. Soc. Eng, 10. A.A; Civil Eng. (director, 09-11, pres, 18); Ry. Eng. (director, 15-18); Eng. Educ. (pres, 10); Am. Water Works Ass; Soc. Munic. Improv; Soc. Test. Mat. (pres, 13); West. Soc. Eng; Int. Ass. Test. Mat. Reinforced concrete; brick and terra cotta; structural steel compression tests; paving brick; rainfall and storm-water run-off; hydraulics; stresses in railroad track.
- Talbot, Dr. Fritz B(radley)**, 270 Commonwealth Ave, Boston, Mass. *Biochemistry*. Boston, Jan. 30, 78. A.B, Harvard, 00, M.D, 05. Collaborator, nutrition lab, Carnegie Institution, 11-19; *clin. prof. pediat.*, Harvard Med. Sch; *chief children's med. service*, Mass. Gen. Hosp. Int. Red Cross Cong, Cannes, 19. Am. Med. Ass; Pediat. Soc; Soc. Clin. Invest. Metabolism; respiratory exchange; nutrition and metabolism of infants and children; anaphylaxis; endocrine diseases.
- Talbot, Prof. Marion**, 5720 Kenwood Ave, Chicago, Ill. *Household administration*. Thun, Switzerland, July 31, 58. A.B, Boston, 80, A.M, 82; B.S, Mass. Inst. Tech, 88; LL.D, Cornell (Iowa), 04. Instr. domestic science, Wellesley, 90-92; dean women, Chicago, *asst. prof. sanit. science*, 92-95, *assoc. prof.*, 95-04, *prof. and emer. prof. household administration*, 04- A.A; Chem. Soc; Pub. Health Ass. Home sanitation; the modern household; education of women.
- Talbot, Prof. Mignon**, South Hadley, Mass. *Paleontology*. Iowa City, Iowa, Aug. 16, 69. A.B, Ohio State, 92; Ph.D, Yale, 04. Teacher, high sch, Ohio, 96-02; head dept. *geol.*, Mt. Holyoke, 04-08, *prof.*, 08- A.A; Paleont. Soc; fel. Geol. Soc; Ass. Med. Progress; Forestry Ass; Nature Ass. Helderbergian fauna of New York.
- Talbot, M(urrell) W(illiams)**, U. S. Department of Agriculture, Washington, D. C. *Forestry, Botany*. Appleton City, Mo, Aug. 18, 89. B.S, Missouri, 13. Investigator and administrator, U. S. Forest Service, 13-24; *botanist, office bot.*, U. S. Dept. Agr, 24- U.S.A, 18. A.A; Forestry Ass; Soc. Foresters; Ecol. Soc; Wash. Biol. Soc. Development and spacing of watering places for livestock on southwestern ranges; the place of salt in range management; common forage plants of the southwest; weed control.
- Taliaferro, Dr. Lucy Graves**, 808 E. 58th St, Chicago, Ill. *Zoology*. Cleveland, Ohio, July 25, 95. A.B, Goucher, 17; Sc.D, Hopkins, 25. *Research assoc. hygiene and bacter.*, Chicago,

- 25- Protozoology; immunology of parasitic Protozoa.
- Taliaferro, Prof. Nicholas L(oyd)**, University of California, Berkeley, Calif. *Geology*. Augusta, Ky, Oct. 6, 90. B.S, California, 13, Ph.D, 20. Geologist, Standard Oil Co. of N. Y, 14-16; junior engineer, U. S. Bur. Mines, 17; instr. geol, California, 18-20; chief geologist, Ventura Consol. Oil Fields, 22-26; *assoc. prof. geol, California*, 26- A.A; Ass. Petrol. Geol; Seismol. Soc; Min. and Metal. Eng.
- Taliaferro, Dr. W(illiam) H(ay)**, University of Chicago, Chicago, Ill. **Zoology*. Portsmouth, Va, Feb. 10, 95. B.S, Virginia, 15; Ph.D, Hopkins, 18. Asst. biol, Virginia, 13-15; Hopkins, 15-17, instr. protozool, sch. hygiene and pub. health, 19-20, assoc, 20-23, *assoc. prof.*, 23-24; *parasitol, Chicago*, 24-27, *prof.*, 27- A.A; Soc. Nat; Soc. Zool; Soc. Parasitol; Soc. Exp. Biol; Pub. Health Ass; Soc. Trop. Med. Cytology and behavior of lower invertebrates; cytology, immunology and physiology of the parasitic Protozoa; genetics.
- Tallman, Prof. W(illiam) Duane**, 726 Third Ave, S, Bozeman, Mont. *Mathematics*. Sterling, Ark. B.S, Wisconsin, 96. Teacher *math*, high sch, Wis, 96-97, 98-99; fellow, Wisconsin, 97-98, instr, 99-01; *prof, Mont. Col*, 01- A.A; Math. Soc. Duality in geometry; correspondences; a regression coefficient in the study of linear correlations; fractional derivatives.
- Talmage, Dr. James E(dward)**, Durham House, 295 Edge Lane, Liverpool, Eng. *Geology*. Hungerford, Eng, Sept. 21, 62. Hopkins, 83-84; B.S, Lehigh, 01, hon. Sc.D, 12; Ph.D, Ill. Wesleyan, 96; hon. LL.D, Brigham Young, 22, Utah, 22. Prof. chem. and geol, Brigham Young, 84-88; pres, Latter Day Saints Col, Salt Lake City, 88-93; Utah, 94-97, Deseret *prof. geol*, 94-07, pres, 04-07; *official, Latter Day Saints Church*, 11- Mining geologist. Delegate, Royal Soc. Edinburgh, Int. Geol. Cong, St. Petersburg, 97. A.A; Geol. Soc; fel. London Geol. Soc; fel. Edinburgh Royal Soc; fel. Royal Micros. Soc; life assoc. Gt. Britain Philos. Soc; fel. Royal Scottish Geog. Soc. Utah geology.
- Talmage, Prof. Sterling B(ooth)**, Northwestern University, Evanston, Ill. *Economic geology*. Salt Lake City, Utah, May 21, 89. B.S, Utah, 09; M.S, Lehigh, 23; Emmons fellow, Harvard, 24-25, Ph.D, 25. Curator, Deseret Museum, Salt Lake City, Utah, 11-18; consulting geologist, 15-22; *asst. prof. geol, Northwestern*, 25- Min. Eng; fel. Royal Micros. Soc. Microscopic study of ores; the Wasatch mountains.
- Talman, C(harles) F(itzhugh)**, U. S. Weather Bureau, Washington, D. C. *Meteorology*. Detroit, Mich, Aug. 31, 74. Kalamazoo Col, 93-94. Observer, *U. S. Weather Bur*, 96-08, librarian, 08-12, junior prof. meteor, 12-14, *librarian*, 14-, *prof*, 14-22, *meteorologist*, 22- In charge meteor. stations, S. Amer. and W. I, 98-99. Meteor. Soc. Meteorological bibliography, history, terminology and nomenclature.
- Tamarkin, Prof. J(acob) D(avid)**, Brown University, Providence, R. I. **Mathematics*. Tshernigov, Russia, July 11, 88. M.A.M, Petrograd,
17. Prof. *math*, Petrograd, 17-25; *asst. prof*, Dartmouth, 25-27; *Brown*, 27- Prof, Petrograd Electrotech. Sch, 16-25; Sch. Railroads, 10-25; Naval Acad, 22-25. Math. Soc; Soc. math. de France; Petrograd Physical-Math. Soc. (v. chairman, 25); Russian Physical-Chem. Soc; Circolo Mat. di Palermo. Pure and applied mathematics.
- Tanberg, Dr. A(rthur) P(ercival)**, 1001 N. Rodney St, Wilmington, Del. *Chemistry*. Dubuque, Iowa, June 20, 85. A.B, Swarthmore, 10, A.M, 13, Leedom fellow, 13-14; Ph.D, Columbia, 15. Instr. chem, Swarthmore, 11-13; org. chemist, *E. I. du Pont de Nemours and Co*, 15-17, head *org. div, exp. sta*, 17-19, *asst. director*, 19-20, *director*, 20- Organic chemistry; enzymes.
- Tanner, Dr. Amy E(liza)**, 9 Hawthorne St, Worcester, Mass. *Psychology*. Owatonna, Minn, March 21, 70. A.B, Michigan, 93; Ph.D, Chicago, 98. Assoc. philos, Chicago, 98-03; prof, Wilson Col, 03-07; research *asst. psychol*, Clark, 07-18. A.A. Genetic and child psychology.
- Tanner, Prof. F(red) W(ilbur)**, 805 W. Iowa St, Urbana, Ill. *Chemistry*. Buffalo, N. Y, Feb. 15, 88. B.S, Wesleyan; M.S, Illinois, Ph.D, 16. Bacteriologist, Ill. State Water Surv, 12-15; *asst, instr, assoc. and asst. prof. bacter*, Illinois, 15-26, *head dept*, 23-, *prof*, 26- Soc. Bact; Soc. Exp. Biol; assoc. fel. Am. Med. Ass; Pub. Health Ass. Sanitary chemistry; bacterial metabolism; food bacteriology; mycology of foods; yeasts.
- Tanner, Prof. H(erbert) G(iles)**, University of Oregon, Eugene, Oregon. *Chemistry*. Atchison, Kans, Nov. 30, 93. B.S, Ottawa (Kans), 15; A.M, Nebraska, 16. Asst. physics, Ottawa (Kans), 15; *asst. instr. chem, Nebraska*, 16; Cornell, 17; research chemist, *E. I. du Pont de Nemours and Co*, 17-19; chief chemist, kelp-potash sta, bur. soils, U. S. Dept. Agr, 19-21; *asst. prof. chem, Oregon*, 21-25, *assoc. prof*, 25- Chem. Soc. (sec'y, Oregon sect, 26). Adsorptive charcoal; potash from kelp; salt crystallization.
- Tanner, Prof. J(ohn) H(enry)**, Cornell University, Ithaca, N. Y. **Mathematics*. Fort Plain, N. Y, March 1, 61. B.S, Cornell, 91; Göttingen, 94-96, Ph.D, 01. Teacher *math*, Clinton Liberal Inst, N. Y, 83-87; instr, Cornell, 91-94, *asst. prof*, 94-04, *prof*, 04-26, *emer. prof*, 26- A.A; Math. Soc. (treas, 07-20); Am. Geog. Soc; Ass. Teachers Math. Middle States and Md; Cent. Ass. Sci. and Math. Teachers.
- Tanner, Dr. Vasco M(yron)**, Brigham Young University, Provo, Utah. *Zoology, Entomology*. Payson, Utah, Oct. 29, 92. A.B, Brigham Young, 15; A.M, Utah, 20; Ph.D, Stanford, 25. Head dept. biol, Dixie Col, 16-24; state crop pest inspector, south, Utah, 22-24; *head dept. zool. and entom*, Brigham Young, 25- A.A; Soc. Mammal; Cooper Ornith. Club; Pacific Coast Entom. Soc; Utah Acad. Coleoptera; birds; fish; fossil insects and fish.
- Tannreuther, Dr. G(eorge) W(ashington)**, University of Missouri, Columbia, Mo. *Zoology*. Miami Co, Ohio, Feb. 13, 76. A.B, Manchester,

- 00; A.M., Antioch, 01; fellow, Chicago, 04-05, Ph.D., 08. Asst. *zool.*, Chicago, 04; *Missouri*, 05-09, instr., 09-21, asst. prof., 21-23, *assoc. prof.*, 23- A.A.; Soc. Zool.; Ecol. Soc. Embryology of Aphididae, Coelenterata, Discodrilidae and Rotifera; nutrition and reproduction of Euglena; germ cells; protozoology.
- Tanquary, Dr. M(aurice) C(ole)**, Fargo, N. Dak. *Entomology*. Lawrenceville, Ill. A.B., Illinois, 07, A.M., 08, Ph.D., 12; Harvard, 10. Asst. entom., Illinois, 09-12; instr., Kansas Col., 12-13, asst. prof., 16-18, *assoc. prof.*, 18-19; state entomologist, Texas, 19-24; *commercial bee-keeping*, 24- Zoologist, Crocker Land exped., Arctic, 13-16. A.A.; Entom. Soc.; Ass. Econ. Entom. (v. pres, 24). Insect embryology and behavior; control of economic insects; beekeeping.
- Tanton, Dr. T(homas) L(eslie)**, Geological Survey, Ottawa, Ont., Can. *Geology*. London, Ont., Feb. 5, 90. B.A., Toronto, 11, fellow, 11-12, M.A., 12; Vienna, 12-13; Ph.D., Wisconsin, 15. Instr. physiog., Wisconsin, 13-14; *geologist*, Can. *Geol. Surv.*, 15- Min. and Metal. Inst.; Geol. Soc.; Royal Astron. Soc. Can.; fel. Royal Soc. Can.; Can. Inst. Min. and Metal. Petrography; Precambrian and economic geology.
- Tapke, V(ictor) F(erdinand)**, U. S. Department of Agriculture, Washington, D. C. *Plant pathology*. Cincinnati, Ohio, May 7, 90. B.S., 14; Cornell, Ph.D., 27. Instr. plant path., Cornell, 16-18; asst. pathologist, U. S. *Dept. Agr.*, 18-23, *assoc. pathologist*, 23- Smut diseases of cereals.
- Tapley, Prof. W(illiam) T(horpe)**, Pennsylvania State College, State College, Pa. *Horticulture*. Revere, Mass., Oct. 5, 93. B.S., New Hampshire, 16; M.S., Minnesota, 20. Asst., Minnesota, 16-17, 19-20, asst. prof. hort. in charge *veg. gardening*, 20-23; *prof.*, Pa. *State*, 23- U.S.A., 17-19. Soc. Hort. Sci. Plant morphology; fertilizer; plant breeding.
- Tappan, Dr. A(nna) Helen**, Western College for Women, Oxford, Ohio. *Mathematics*. Mt. Pleasant, Iowa, 88. A.B., West. Col. for Women, 09; A.M., Cornell, 12, fellow, 13-14, Ph.D., 14. Instr. *math.*, West. Col. for Women, 09-11; Iowa Col., 14-17, asst. prof., 17-21, *assoc. prof.*, 21-25; *prof.*, West. Col. for Women, 25-, *dean women*, 27- A.A.; Math. Soc.; Math. Ass. Pure geometry.
- Tarr, Lester W(inslow)**, Newark, Del. *Chemistry*. Rockport, Mass., June 20, 93. B.S., Mass. Col., 15. Junior chemist, Del. Exp. Sta., 15-17; chemist, E. I. du Pont de Nemours and Co., 17-20; chief chemist, Del. Exp. Sta., 20-24; *chemist*, *Continental Fibre Co.*, 24- Chem. Soc. Soil acidity; fruit jellies.
- Tarr, Prof. W(illiam) A(rthur)**, University of Missouri, Columbia, Mo. *Geology*. New Cambria, Mo., March 29, 81. B.S., Okla. Agr. and Mech. Col., 04, Sc.D., 27; Arizona, 08; fellow, Chicago, 10-11, Ph.D., 16. Instr. geol. and mining, Arizona, 08-09; research asst., Chicago, 09-11; instr. geol. and miner, *Missouri*, 11-13, asst. prof. *geol.*, 13-17, *assoc. prof.*, 17-19, *prof.*, 19- Summers, instr., Chicago, 10, 11, 14, geologist, Empire Oil Co., 17, Mo. Bur. Mines and Geol., 18, 22, Carter Oil Co., 20; study, Europe, 24-25. Nat. Research Council, 22- A.A.; Geol. Soc.; Min. Eng.; Miner. Soc. (councilor, 25-); Miner. Soc. Gt. Britain. Economic geology; heat effects on granite; ore deposits of Missouri; origin of chert, oolites and stylolites; detrital sediments; glauconite; loess of Missouri.
- Tartar, Prof. Herman V(ance)**, University of Washington, Seattle, Wash. *Chemistry*. Airline, Oregon, Jan. 4, 82. B.S., Oregon Col., 02; California, 02-03; Chicago, 08, Ph.D., 20; Michigan, 14. Chemist, Oregon State Food Commission, 03-05; Clark, Woodward Drug Co., 05-06; instr. chem., Oregon Col., 07-09, *assoc. prof.*, 13-18, research chemist, Exp. Sta., 09-11, chemist, 11-18; asst. prof. *chem.*, *Washington (Seattle)*, 18-22, *assoc. prof.*, 22-27, *prof.*, 27- Lecturer, Mass. Col., 16. A.A.; Chem. Soc. Hops; sulphid insecticides; lead arsenates; ammonia and sulphur in soils; electrolytic deposition of metals; polysulphids of the alkali and alkaline earth metals; calcium arsenate; colloids; fixation of nitrogen.
- Tashiro, Dr. Shiro**, University of Cincinnati, Cincinnati, Ohio. *Physiological chemistry*. Togo, Satsuma, Japan, Feb. 12, 84. B.S., Chicago, 09, fellow, 10-12, Ph.D., 12; D.M.Sc., Kyoto, 23. Asst. *physiol. chem.*, Chicago, 10, 12-13, *assoc.*, 13-14, instr., 14-18, asst. prof., 18; *prof.*, *Cincinnati*, 18- A.A.; Soc. Biol. Chem.; Physiol. Soc.; Chem. Soc.; Soc. Exp. Biol.; Ecol. Soc.; Soc. Zool.; Pharmaceut. Soc. Japan. Carbon dioxide production in nerve fibers, ganglia and eggs; chemical basis of protoplasmic irritability; metabolic factors in animal behavior; chemical sign of life; anesthetics; tropical metabolism; microchemical analysis of gases; chemistry of bile salts; effects of different rays on the metabolism of the tissue.
- Tasker, Major Arthur N(ewman)**, care of Surgeon-General, U. S. Army, Washington, D. C. *Medicine*. Washington, Feb. 3, 78. A.B., Wesleyan, 02; M.D., George Washington, 06; student officer, U. S. Army Med. Sch., 07-08; Hopkins, 20. Instr., U. S. Mil. Acad., 12-16; N. Y. Post-Grad. Med. Sch., 14-17; *prof. trop. med.*, *L. I. Col. Hosp.*, 13-17, *clin. prof.*, 17- Instr., U.S.A. Med. Sch., 20- Lecturer, col. physicians and surg., Columbia; med. col., Cornell; Woman's Med. Col. of N. Y., 17; asst. librarian, Army Med. Library, 21-25. Ed., 'Index Medicus,' 22-24. Chevalier, Légion d'honneur. A.A.; Am. Med. Ass.; Soc. Trop. Med.; Pub. Health Ass.; Ass. Mil. Surg.; Ass. Med. Progress; Med. Library Ass.; Va. Acad.; Royal Soc. Trop. Hygiene; Royal Geog. Soc.; Soc. française d'Hist. de Méd.; Soc. française de Géog.; Soc. Ital. Prog. Sci.
- Tate, Dr. John T(orrance)**, University of Minnesota, Minneapolis, Minn. **Physics*. Adams Co., Iowa, July 28, 89. B.S., Nebraska, 10, fellow, 10-12, A.M., 12; Ph.D., Berlin, 14. Instr. *physics*, Nebraska, 14-16; *Minnesota*, 16-17, asst. prof., 17, *prof.*, 19- Ed., 'Physical Rev.,' 26- Nat. Research Council, 24-26. Lieut., A.S.A.P., 17-18. Physical Soc.; Optical Soc.
- Tatnall, Dr. Rob(ert) R(ichardson)**, 1100 W. Tenth St., Wilmington, Del. *Physics*. Wilming-

ton, Feb. 4, 70. B.S., Haverford, 90, A.M., 91; Ph.D., Hopkins, 95; hon. fellow, Clark, 97-98. Instr. physics, Pennsylvania, 95-97; acad., Northwestern, 99-01, Univ., 01-05, asst. prof., 05-09, assoc. prof., 09-14; prof., Syracuse, 14-19; *exp. engineer*, 19- A.A.; Physical Soc.; Franklin Inst. Solar spectrum; metallic arc spectra; compound pendulum; power transmission by belting.

Tatum, Dr. A(rthur) L(awrie), 5729 Harper Ave, Chicago, Ill. *Physiology*. Wall Lake, Iowa, May 17, 84. B.S., Penn (Iowa), 05; fellow, Iowa, 05-07, M.S., 07; fellow, Chicago, 10-11, Ph.D., 13, M.D., Rush Med. Col., 14. Instr. chem., Colorado, 07-10; pharmacol., Wisconsin, 11-13; asst. physiol., Chicago, 13-14; instr., Pennsylvania, 15-16; prof. pharmacol., South Dakota, 16-18; asst. prof. pharmacol. and physiol., Chicago, 18-25, *assoc. prof. pharmacol.*, 25- A.A.; Physiol. Soc.; Soc. Pharmacol. (treas., 24-); Soc. Exp. Biol.; Chicago Inst. Med. Morphology, physiology and chemistry of the thyroid gland, pancreas and suprarenal glands; narcotic drugs.

Taubenhaus, Dr. J(acob) J(oseph), College Station, Texas. *Plant pathology*. Saffed, Palestine, Oct, 84. B.S., Cornell, 08, M.S., 09; Ph.D., Pennsylvania, 13. Asst. plant pathologist, Del. Exp. Sta., 09-13, assoc., 13-16; *chief div. plant path. and physiol.*, Texas Exp. Sta., 16- Russell lecturer, Mass. Hort. Soc., 16. A.A.; Phytopath. Soc.; Bot. Soc.; Nature Ass. Plant physiology; taxonomy; mycology; sweet pea, sweet potato, cotton, truck and greenhouse crop diseases; cotton diseases.

Taussig, Dr. Albert E(rnst), 3726 Washington Ave, St. Louis, Mo. *Medicine*. St. Louis, May 6, 71. A.B., Harvard, 91; M.D., Washington (St. Louis), 94. Prof. physiol. *sch. med.*, Washington (St. Louis), 09, *assoc. prof. clin. med.*, 14- Physician, hospitals. Am. Physicians; Am. Med. Ass. Internal medicine; diseases of the circulatory system.

Taussig, Dr. Fred(erick) J(oseph), Washington University, St. Louis, Mo. *Gynecology*. Brooklyn, N. Y., Oct. 26, 72. A.B., Harvard, 93, 93-94; M.D., Washington (St. Louis), 98; Berlin, Vienna, 01-02. Asst. supt., Female Hosp., 99-00; asst., Bettina Pavilion, K. K. Eliz. Spital, Vienna, 01-02; instr. *gynec.*, Washington (St. Louis), 07-12, assoc., 12-23, assoc. prof., 23-25, *prof.*, 25-26, *clin. obstet.*, 26- Gynecologist, Barnard Free Skin and Cancer Hosp., 06; Washington Univ. Hosp., 09; City Hosp., 10-; obstetrician, and chief staff, St. Louis Maternity Hosp., 09-; gynecologist and obstetrician, New Jewish Hosp., 26. Gynec. Soc. (councilor, 14, v. pres, 24); Am. Med. Ass. (v. chairman, sect. *gynec. and obstet.*); Radium Soc.; Ass. Cancer Research; Soc. Cancer Control (regional chairman, 20-). Development of hymen; hematommole; cancer of uterus; abortion; vaginitis in children; precancerous diseases of vulva; hydramnios.

Taverner, Percy A(lgernon), National Museum of Canada, Department of Mines, Ottawa, Ont, Can. *Ornithology*. Guelph, Ont, June 10, 75. Asst. curator, *Nat. Mus. of Can.*, 11-14, *zoologist*,

14- Fel. Ornith. Union; Wilson Ornith. Club; Cooper Ornith. Club; colonial mem. British Ornith. Union. Ornithology of southern Ontario and southeastern Michigan; Canadian ornithology.

Taylor, Dr. Adrian S(tevenson), Birmingham, Ala. *Surgery*. Mobile, Ala, May 25, 83. M.D., Virginia, 05, Harvard, 16. Acting asst. surgeon, U. S. Pub. Health and Marine Hosp. Service, 05-06; chief surgeon, Yanchow Baptist Hosp., 07-14; asst. surg., Hopkins, 17-18, instr., 18-20; prof., Peking Union Med. Col., 18-27. Fel. Col. Surg. Hernia; thyroid.

Taylor, Commander A(lbert) H(oyt), U.S.N., 2910 Pennsylvania Ave, S. E., Washington, D. C. *Physics*. Chicago, Ill, Jan. 1, 79. B.S., Northwestern, 02; Ph.D., Göttingen, 09. Instr. physics, Mich. State Col., 00-03; Wisconsin, 03-05, asst. prof., 05-08; prof. and head dept., North Dakota, 09-17; lieutenant, U.S.N.R.F., 17-18, lieutenant commander, 18-19, commander, N.R.F., 19-, *radio div.*, Naval Research Lab, supt., 23- A.A.; Physical Eng; fel. Radio Eng; Elec. Eng; Wis. Acad. Radio engineering; aviation.

Taylor, Dr. Alfred E(rnest), 1828 Kenyon St, Washington, D. C. *Chemistry*. Portland, Conn, Oct. 16, 71. A.B., Wesleyan, 92; A.M., Harvard, 94; Ph.D., Cornell, 96. Asst. chem., Cornell, 96-00; *chemist*, U. S. Customs Service, N. Y., 00-07; *bur. chem.*, U. S. Dept. Agr., 07- Chem. Soc. Food and drug chemistry; physical chemistry.

Taylor, Prof. A(lonzo) E(nglebert), Stanford University, Calif. **Pathology*. Iowa, March 19, 70. Cornell (Iowa), 86-88; De Pauw, 88-90; Berlin, 90-91; M.D., Pennsylvania, 94. Asst. director, Pepper Lab, Pennsylvania, 96-98; prof. path., California, 99-10; physiol., Pennsylvania, 10-11, Benjamin Rush prof. physiol. chem., 11-21; *director food research inst.*, Stanford, 21- Soc. Nat; Am. Physicians; Soc. Biol. Chem; Soc. Exp. Biol; Chem. Gesell. Nutrition.

Taylor, Carl A, 230 Meyer Ave, Newcastle, Pa. *Chemistry*. Louisville, N. Y., Jan. 27, 84. A.B., Minnesota, 09, B.S., 10. Asst. supt., Queen of West Mining Co., 10; chemist, Pluto Powder Co., 11-12; asst. explosives chemist, U. S. Bur. Mines, 13-15; chief chemist and supt., West. Cartridge Co., 15-18; supt. chem. control, W. Va. Hercules Powder Co., 18; chem. engineer, Great West. Sugar Co., 19; *explosives chemist*, U. S. Bur. Mines, 20-27; *Grasselli Powder Co.*, 27- Lecturer, Pittsburgh, 22-24. Chem. Soc. Compound, mixtures, ingredients and methods of testing explosives.

Taylor, Dean Carl C(leveland), North Carolina State College of Agriculture and Engineering, Raleigh, N. C. *Sociology*. Harlan, Iowa, Dec. 16, 84. A.B., Drake, 11; A.M., Texas, 14; Ph.D., Missouri, 18. Instr. pub. speaking, Texas, 11-13; sociol., Mt. Holyoke, 16; asst. prof. and assoc. prof., Missouri, 16-20; prof., N. C. State, 20-23, *dean grad. sch.*, 23- N. C. Tenancy Commission and Land Commission, 22-23. A.A.; Sociol. Soc. (chairman, rural sect. and rural research committee, 24); Am. Acad; Econ. Ass; N. C. Acad. Rural sociology; standard of living

of North Carolina farm families; rural primary groups in Wake County, North Carolina; commodity marketing associations; human relations.

Taylor, Prof. Cha(rie)s H(enry), 701 Braniff Building, Oklahoma City, Okla. *Geology*. Dwight, Kans, 77. B.S. Chicago, 07, M.S., 09. Instr. high sch, Kans, 03-04, prin, 04-05; science, Wis. State Nor. Sch, River Falls, 07-08; assoc. prof. geol, Oklahoma, 09-10, prof. miner, 10-11, geol, 11-16; *consulting geologist*, 16- Ass. Petrol. Geol. (ed, 17-19). *Economic geology*; granites of Oklahoma.

Taylor, Dr. C(harles) V(incen)t, Stanford University, Calif. *Biology*. Whitesville, Mo, Feb. 8, 85. A.B., Mt. Morris, 11; A.M., California, 15, Ph.D., 17. Instr. *biol*, California, 17-18, asst. prof., 20-25; assoc. prof., *Stanford*, 25-26, *prof*, 26- Johnston scholar, Hopkins, 18-20. A.A.; Soc. Exp. Biol.; Soc. Zool; West. Soc. Nat. Morphology and physiology of Protozoa; structure and properties of protoplasm; development of marine ova.

Taylor, David Watson, U.S.N., Navy Department, Washington, D. C. *Engineering*. Louisa Co, Va, March 4, 64. Randolph-Macon, 81, LL.D., 22; grad, U. S. Naval Acad, 85; Royal Naval Col, Greenwich, Eng, 85-88; hon. D.Eng, Stevens, 04; Sc.D., George Washington, 16; LL.D., Glasgow, 24. Cadet engineer, U.S.N., 81-82, naval cadet, 82-86, asst. naval constructor, 86-92, constructor, 92-14, chief constructor, 14-22. Gold medal, British Inst. Naval Archit, 94; prize medal, Soc. Naval Archit. and Marine Eng, 01. Nat. Acad; Naval Archit. and Marine Eng. (pres); London Inst. Naval Archit. Resistance and propulsion of ships.

Taylor, Dr. E(dson) H(omer), Eastern Illinois State Teachers College, Charleston, Ill. *Mathematics*. Robinson, Ill, July 31, 74. B.S., Nat. Nor. Univ, 96; A.M., Harvard, 05, Ph.D., 09. *Head dept. math, East. Ill. State Teachers Col*, 99- Int. Commission on the Teaching of Math. (chairman, committee on nor. schools in the U. S.). A.A.; Math. Soc; Math. Ass; Nat. Council Teachers Math. (v. pres, 20). Conformal mapping; pedagogy of mathematics.

Taylor, Prof. Edward (W. D.), Pomona College, Claremont, Calif. *Mechanics*. Portland, Oregon, May 18, 76. C.E., Minnesota, 98. Supt. sch, Oregon, 16-18; prof. math, Pacific (Oregon), 18-20; *assoc. prof. mechanics, Pomona*, 20-

Taylor, Prof. E(dward) W(ylly)s, 457 Marlboro St, Boston, Mass. *Neurology*. Montclair, N. J., May 7, 66. A.B., Harvard, 88, M.D., 91, A.M., 99. Asst. to Prof. H. Oppenheim, Berlin, 92-93; asst. path, Harvard Med. Sch, 93-96; instr. neuropath, 96-04, instr. *neur*, 06-12, asst. prof., 12-17, *prof*, 17-20, *James Jackson Putnam prof*, 20-26, *emer*, 26-; chief service, *neur. dept, Mass. Gen. Hosp*, 12-26, *consulting physician*, 26- Asst. and ed, 'Boston Med. and Surg. Jour,' 99-14; assoc. ed, 'Archives Neur. and Psychiat,' 22- Shattuck lecturer, Mass. Med. Soc, 09. Neur. Ass. (pres, 17); Am. Med. Ass; Am. Acad. Neuropathology; neuroglia; multiple sclerosis; infantile paralysis; family diseases.

Taylor, E(stes) P(ark), 'American Farming,' 537 S. Dearborn St, Chicago, Ill. *Horticulture*. Loveland, Colo, Sept. 17, 79. B.S., Colo. Agr. Col, 02. Asst. entomologist and botanist, Ky. Exp. Sta, Lexington, 02; asst. entomologist, Illinois, 03-05; Colo. Exp. Sta, 06-07; Mo. State Fruit Exp. Sta, 08-09; entomologist and hort. inspector, Mesa Co, Grand Junction, Colo, 10-11; consulting horticulturist, 11-12; field horticulturist, Idaho, 13-16; director agr. exten. and asst. dean col. agr, Arizona, 16-20; exten. div, Anaconda Copper Co, 20-21; director organization, Am. Farm Bur. Federation, 21-27; ed, 'Am. Farming,' 27- Collaborator, bur. entom. U. S. Dept. Agr. A.A.; Entom. Soc; Ass. Econ. Entom. Coccidae of Missouri orchards; aphids of Colorado orchards; insects injurious to fruits; orchard irrigation; cooperative fruit marketing; rural organization and sociology.

Taylor, Dr. Ewing, 27 W. 44th St, New York, N. Y. *Medicine*. Poughkeepsie, N. Y, Sept. 24, 74. A.B., Williams, 95; M.D., Harvard, 03. Austin teaching fellow histol. and embryol, Harvard Med. Sch, 03-05; assoc. anat, Pennsylvania, 05-07; instr. histol, med. col, Cornell, 07-09; asst. director diagnosis lab, Dept. Health, New York, 09-18; *pathologist, U. S. Marine Hosp, Stapleton, N. Y*, 21- Capt, M.C, 18-20. A.A; hon. fel. Am. Med. Ass; Ass. Anat; Ass. Mil. Surg; Soc. Bact. Bacteriology; pathology.

Taylor, Frank B(ursley), 420 Downing Ave, Fort Wayne, Ind. **Geology, Astronomy*. Fort Wayne, Nov. 23, 60. Harvard, 82-86. Asst, Mich. Geol. Surv, 00; special asst, U. S. Geol. Surv, 00-06, field asst, 06-16. A.A; Geol. Soc; Seismol. Soc; Am. Acad; Mich. Acad. (v. pres, 25). Glacial and post-glacial geology of the region of the Great Lakes in Michigan, Ohio, New York and Ontario and in western New England; the history of Niagara Falls and gorge, and of the Great Lakes; periodic oscillating retreat of the ice front; the relation of recessional moraines to the Niagara gorge and bearing on the time element; past and present resilience of land in the Great Lakes region; recurrent periods of depression and resilience during past ice epochs; tidal forces as the cause of horizontal sliding of continental crust sheets from high toward lower latitudes; the pre-eminence of Asia in Tertiary diastrophism, with deep disjunctive basin in the north and arcuate mountain ranges and foredeeps along the southern margin; the sliding, rather than flotation, of crust sheets, and the maintenance of major features of relief by thrust forces and rigidity rather than by isostatic balance; the origin of satellites and planets by direct capture out of space; the growth of the satellite and planetary system by vortex capture and orbital expansion; the vestiges of the process of evolution in the planetary system, and the extension of this theory and consequences to stars, giant stars and spiral galaxies.

Taylor, Dr. Fred A(nderson), Singer Memorial Research Laboratory, Pittsburgh, Pa. *Chemistry*. Hightstown, N. J, Jan. 1, 93. Ph.B., Yale, 15; Ph.D., Columbia, 21. Junior physiologist, U. S. gas investigation, Conn, 17; fellow, asst.

and assoc. Rockefeller Inst., 18-23; *chemist, Singer Mem. Lab.*, 23- A.A.; Chem. Soc.; Chem. Gesell. Chemistry of higher fatty acids.

Taylor, Dean F(red) W(ellington), University of New Hampshire, Durham, N. H. *Agronomy*. Wooster, Ohio, Jan. 25, 76. B.S.A., Ohio State, 00. Soil expert, bur. soils, U. S. Dept. Agr., 01-03; *prof. agr., New Hampshire*, 03-08, *agron.*, 08-, *dean col. agr.*, 15- A.A.; Soc. Agron.; Seed Anal. (pres, 21-23). Soils; seeds; fertilizers.

Taylor, Frederic W(illiam), 3939 W. Seventh St., Los Angeles, Calif. *Agriculture*. Weeping Water, Nebr., April 13, 60. Private study. Nurseryman; *prof. hort.*, Nebraska, 91-93, *sec'y*, Exp. Sta., 94-95; *irrig. engineer*, Denver, 07-11; *director agr.*, P. I., 11-14; *director gen. agr.*, El Salvador, 23-27; *Am. Rubber Producers, Inc.*, 27- Supt., Nebr. Fruit Exhibit, Columbian Expos., 93; *supt. agr. and hort.*, Omaha Expos., 98; *chief hort.*, forestry and foods, Buffalo Expos., 01; *chief agr. and hort. dept.*, La. Purchase Expos., 04. Officier, Légion d'honneur; Order of the Rising Sun, Japan; Royal Crown of Italy; Order of Christ, Portugal. Am. Geog. Soc.; Nebr. Hort. Soc. (*sec'y*, 92-95); *fel.* Royal Geog. Soc. Horticulture; small fruits; foreign cereals; irrigation; tropical agriculture; cultivation of guayule shrub for rubber.

Taylor, Dr. Grace A(delaide), University of Pittsburgh, Pittsburgh, Pa. *Educational psychology*. Nashua, N. H., April 9, 89. A.B., Wellesley, 11; Ph.D., Columbia, 23. Asst. psychol., Teachers Col., Columbia, 20-22; *asst. prof. educ.*, Smith, 22-23; *lecturer educ. psychol.*, Teachers Col., Columbia, 23-24; *director educ. research*, Westchester Co. Childrens' Ass., N. Y., 24-25; *asst. prof. elem. educ.*, Pittsburgh, 25- Summers, *lecturer*, Toronto, 21, *research asst.*, Stanford, 22; *Cent. Sch. Hygiene and Physical Educ.*, 23-25; *psychologist*, Classification Clinic, N. Y., 22-25. Psychol. Ass.; Ass. Study Feeble-minded; N. Y. Ass. Consulting Psychologists; N. Y. Soc. Study Educ. Educational psychology in elementary education; subnormal and gifted children; learning in young children; the pre-school child.

Taylor, Dr. Guy B(aker), 2306 Saymour Road, Wilmington, Del. *Physical chemistry*. Lexington, Ky., Oct. 5, 88. B.S., Kentucky, 08, M.S., 09; *fellow*, Princeton, 11-13, Ph.D., 13. *Chemist*, E. I. du Pont de Nemours and Co., 09-11; *Bur. Mines*, 13-18; *E. I. du Pont de Nemours and Co.*, 18- A.A.; Chem. Soc. Equilibrium; coal; explosives; oxidation of ammonia.

Taylor, H(arden) F(ranklin), Atlantic Coast Fisheries Co., 16 Exchange Place, New York, N. Y. *Chemistry, Fisheries*. West Plains, Mo., July 15, 90. A.B., Trinity (N. C.), 13. Prin. high sch., N. C., 13-15; *sci. asst.*, Bur. Fisheries, 15-18, *chief technologist*, 18-22, *chief div. fishery industries*, 22-23; *director research lab.*, Atlantic Coast Fisheries Co., 23-25, *v. pres. for sci. research*, 25- Summers, *sci. asst.*, U. S. Fisheries Lab., Beaufort, N. C., 11-14; *Bur. Fisheries rep.*, interdept. committee on fats and oils. A.A.; Chem. Soc.; Fisheries Soc.; Wash. Biol. Soc. Biology; fisheries technology; salting of fish;

preservation of fish nets; refrigeration and cold storage of fish; pearl essence.

Taylor, Dr. Hawley O(tis), Wheaton College, Wheaton, Ill. *Physics*. North Derby, Vt., June 4, 76. A.B., Cornell, 09, Ph.D., 13. Asst. physics, Cornell, 08-09, *instr.*, 09-13; *research assoc.*, Mass. Inst. Tech. and Harvard, 13-16; *research physicist*, Nat. Elec. Signaling Co., 16-17; *consulting physicist*, Bur. Standards, 18-19, *assoc. physicist*, 19-21; *head elec. instruction*, Franklin Union, 21-24; *prof. physics*, John Brown, 24-26, *dean*, 26-27; *assoc. prof.*, Wheaton Col., 27- Special adviser, Submarine Defense Ass., 17-18; *radio engineer*, Sig.C., 18. A.A.; Physical Soc.; Radio Eng. Acoustics; electricity; sound absorption; vibrating telephone diaphragms; wave analysis; radio telegraphy; efficiency of telephonic instruments and circuits.

Taylor, Dr. Haywood M(aurice), 742 State St., Springfield, Mass. *Chemistry*. Edgecombe Co., N. C., May 11, 98. Du Pont fellow, North Carolina, 19-20, B.S., 20, M.S., 21, Ph.D., 24. Instr. org. chem., North Carolina, 20-24, *pharmaceut. chem.*, 25; *research chemist*, E. R. Squibb and Sons, N. Y., 25-27; *organic research chemist*, Fisk Rubber Co., 27- Second lieut., Inf., 18. Chem. Soc.; Elisha Mitchell Sci. Soc.; N. C. Acad. Organic chemistry; P-cymene studies; narcotic principle of *liatris odoratissima*; application of U.S.P. yeast fermentation test to colloidal silver preparations; rubber derivatives.

Taylor, Dr. H(enry) Austin, New York University, New York, N. Y. *Physical chemistry*. St. Helens, Lancashire, Eng., Aug. 99. B.Sc., Liverpool, 20, Ph.D., 22. Asst. chem., Princeton, 23-24; *instr.*, N. Y. Univ., 24- A.A.; Chem. Soc. Heterogeneous gas reactions; photochemistry; infra-red absorption; phosphorescence; radiation.

Taylor, Dr. Henry Charles, Northwestern University, Evanston, Ill. *Agriculture*. Stockport, Iowa, April 16, 73. B.S.A., Iowa Col., 96, M.S.A., 98; Ph.D., Wisconsin, 02; London Sch. Econ., 99; Halle, 00; Berlin, 00-01. Instr. commerce, Wisconsin, 01, *chairman dept. agr. econ.*, 08-19; *chief office farm management*, U. S. Dept. Agr., 19-21, *chief bur. agr. econ.*, 21-25; *sec'y*, Inst. for Research in Land Economics and Public Utilities, Northwestern, 25- Farm Econ. Ass.; Econ. Ass. Agriculture economics; rent of farm lands; marketing and cost of farm products.

Taylor, Prof. Hugh S(tott), 115 Broadmead, Princeton, N. J. *Physical chemistry*. St. Helens, Lancashire, Eng., Feb. 6, 90. B.Sc., Liverpool, 09, M.Sc., 10, D.Sc., 14; Nobel Inst., Stockholm, 12-13; Tech. Hochschule, Hanover, 13-14. Instr. *physical chem.*, Princeton, 14-15, *asst. prof.*, 15-21, *assoc. prof.*, 21-22, *prof.*, 22-, *acting chairman chem. dept.*, 26, *chairman*, 26- Committee on contact catalysis, Nat. Research Council, 19-, *chairman*, committee on photochem., 25-, *cent. petrol. committee*, 26-, Chem. Soc. rep. chem. and chem. technol., 25-28. Research chemist, Munitions Inventions Dept., England, 17-19. Chem. Soc. (councilor); Electrochem. Soc.; Faraday Soc. Phosphorus oxy-

- chlorid-oxid compounds; phase rule; catalysis; ammonia synthesis and hydrogenation; thermodynamics; affinity of chemical reactions; photochemistry; atomic hydrogen.
- Taylor, Prof. James H(enry)**, University of Wisconsin, Madison, Wis. *Mathematics*. Sharon, Pa, Feb. 21, 93. B.S., Nebraska, 16; A.M., Princeton, 20; Ph.D., Chicago, 24. Instr., Nebraska, 20-22; Nat. Research Council fellow *math*, 24-25; *asst. prof.*, Lehigh, 25-26; *Wisconsin*, 26- Math. Soc. Calculus of variations; differential geometry.
- Taylor, Prof. James M(orford)**, Hanover, N. H. *Mathematics*. Holmdel, N. J, Sept. 15, 43. A.B., Colgate, 67, A.M., 69; LL.D., William Jewell, 91, Sc.D., 19. Prin. gram. sch. and prof. *math*, Madison, 69-73; prof. *math*, -Colgate, 73-20. A.A. Calculus; algebra; trigonometry.
- Taylor, J(ames) N(orman)**, 2031 F Street, N. W., Washington, D. C. *Chemistry*. Smyrna, Del, Aug. 23, 85. B.S., George Washington, 13, M.S., 22. Lab. *asst.*, Atlantic Ref. Co, Pa, 05-08; *bur. animal indust.*, U. S. Dept. Agr, 08-13, *chemist*, 13- Instr., Washington Prep. Sch, 16-22; George Washington, 21-22. A.A.; Chem. Soc; fel. Inst. Chem. (sec'y, Washington, D. C, chap). Insecticides; chemical education and economics.
- Taylor, Prof. J(ames) S(turdevant)**, University of Pittsburgh, Pittsburgh, Pa. *Mathematics*. Danbury, Conn, May 4, 95. A.B., California, 16, A.M., 17, Ph.D., 18. Instr. *math*, Mass. Inst. Tech, 19-24; *asst. prof.*, Pittsburgh, 24-26, *assoc. prof.*, 26- C. R. B. exchange fellow, 21-22. A.A.; Math. Soc; Math. Ass; Statist. Ass. Geometry of complex domain; theories of depreciation and testimony; postulate theory.
- Taylor, John B(ellamy)**, 23 Lowell Road, Schenectady, N. Y. *Electrical engineering*. Brookline, Mass, Aug. 20, 75. B.S., Mass. Inst. Tech, 97. *With* New Eng. Telephone and Telegraph Co, 97-99; *Gen. Elec. Co*, 99- Prize, Ass. des Industriels de France contre les Accidents du Travail. A.A.; Elec. Eng; assoc. Physical Soc; Illum. Eng. Soc; Electrochem. Soc. Optical projection; analysis of speech and musical tones; inductive disturbances to telephone lines.
- Taylor, Dr. J(ohn) Madison**, Temple University, Philadelphia, Pa. *Medicine*. Lancaster Co, Pa, July 4, 55. A.B., Princeton, 76, A.M., 79; M.D., Pennsylvania, 78. *Practising physician*, 78-; *prof. physical therapeut. and dietetics*, Temple, 10- Chief of clinic to Dr. S. Weir Mitchell, 82-95. Co-editor, 'Monthly Cyclopaedia and Med. Bulletin.' Am. Acad. Med; Phila. Col. Physicians; hon. mem. Soc. d'Hygiène de Paris. Orthokinetics; neurology; diseases of children; psychopathology; physical efficiency.
- Taylor, Prof. Leland H(art)**, West Virginia University, Morgantown, W. Va. *Entomology*. Peabody, Mass, April 29, 93. B.S., Mass. Col, 14; M.S., Harvard, 20, Sc.D., 22. Deputy nursery inspector, Mass. State Dept. Agr, 15-18, *asst. director div. plant pest control*, 19; *instr. zool.*, West Virginia, 22-24, *asst. prof.*, 24-A.A.; Entom. Soc; W. Va. Acad. Entomology; biology of wasps; taxonomy of Chrysididae.
- Taylor, Prof. L(oyd) W(illiam)**, Oberlin College, Oberlin, Ohio. *Physics*. Pittsfield, Maine, Jan. 4, 93. B.S., Grinnell, 14; Ph.D., Chicago, 22. Instr. *physics and math*, Grinnell, 15-17; *asst. physics*, Chicago, 20-22, *instr.*, 22-24; *prof. and head dept.*, Oberlin, 24- Lieut, C.A.C., 17-19. A.A.; Physical Soc; Optical Soc. Spectroscopy; width of spectral lines as function of pressure.
- Taylor, M(aurice) C(raig)**, 674 Chilton Ave, Niagara Falls, N. Y. *Chemistry*. Howe, Ind, Feb. 28, 94. B.S., Purdue, 18. Research chemist, *Mathieson Alkali Works, Inc*, 19-24, *chief research chemist*, 25- Second lieut, C.W.S., 18. Chem. Soc. Inorganic and organic hypochlorites; chloramines.
- Taylor, Dr. Nelson W(oodswordth)**, University of Minnesota, Minneapolis, Minn. *Chemistry*. Pincher Creek, Alta, Can, April 26, 99. B.Sc., Saskatchewan, 18; Ph.D., California, 23. Lecturer and *asst.*, Saskatchewan, 19-20; teaching fellow, California, 20-23, *instr. chem*, 23-25; *asst. prof.*, Minnesota, 25- A.A.; Chem. Soc. Gas solubility; miscibility of liquid metals; magnetochemistry; physical chemistry as applied to physiology.
- Taylor, Norman**, Brooklyn Botanic Garden, Brooklyn, N. Y. *Botany*. Birmingham, Eng, May 18, 83. Cornell, 00-01. Museum aid, N. Y. Bot. Garden, 04-07, custodian plantations, 08, *asst. curator*, 09-11; *curator plants*, Brooklyn Bot. Garden, 11- Ed, 'Torreya,' 11-21; 'Jour. Int. Garden Club,' 17-21; *assoc. ed.*, 'Ecology,' 20- Expeditions for N. Y. Bot. Garden to Bahamas, 04, Haiti, 05, Cuba, 06, Santo Domingo, 09. Bot. Soc; Ecol. Soc; Torrey Bot. Club; fel. N. Y. Acad. North American Naiadales; ecology and taxonomy of the flora of New York and West Indies; phytogeography and ecology of Long Island, New York.
- Taylor, Dr. N(orris) O(nslow)**, University of Iowa, Iowa City, Iowa. *Metalurgy, Metallography*. Toulon, Ill, Oct. 7, 95. B.S., Illinois, 18, M.S., 20; Ph.D., Iowa, 23. Instr. *in charge metal. div.*, dept. chem, Iowa, 20-23, *assoc.*, 23-26, *asst. prof.*, 26- Chem. Soc. (sec'y-treas, Iowa sect, 24, v. chairman, 25, chairman, 26). Alloys of aluminium-zinc-tin, silver-bismuth, silver antimony, aluminium-tungsten and aluminium-tantalum; dental alloys.
- Taylor, Dr. Robert S(eth)**, U. S. Bureau of Fisheries, Washington, D. C. *Physical chemistry, Technology*. Ft. Worth, Texas, April 13, 98. A.B., Texas, 19, A.M., 20; Ph.D., Mass. Inst. Tech, 23. Research *assoc.*, Mass. Inst. Tech, 23-24; *technologist*, Bur. Fisheries, 24- Chem. Soc. Thermodynamic properties of methane and of ether; pressure-volume temperature relationships for N₂; colloidal chemistry of proteins.
- Taylor, Dr. Roger K(irkbride)**, 3219 Guilford Ave, Baltimore, Md. *Physical chemistry*. Wilmington, Del, Sept. 18, 99. A.B., Hopkins, 20, Ph.D., 23. Chemist, Eastman Kodak Co, 20-21; *instr. chem*, Hopkins, 23-25, *assoc.*, 25- A.A. Vapor pressures of solutions.
- Taylor, Sam(ue)l A(lfred)**, 711 First National Bank Building, Pittsburgh, Pa. *Engineering*.

- North Versailles, Pa., Oct. 24, 63. C.E., Pittsburgh, 87, Sc.D., 19. Draftsman, Carnegie Steel Co., 87-88; asst. eng. manager construction, Pa. Ry., 88-93; *consulting engineer*, 93-Trustee, Pittsburgh, 13- Tech. adviser, U. S. Fuel Ad., 17-18. Coal Min. Inst. (pres, 11); Min. Cong. (pres, 13); Min. and Metal. Eng. (pres, 26); W. Pa. Eng. Soc. (pres, 14).
- Taylor, Prof. S(amuel) N(ewton)**, Goucher College, Baltimore, Md. *Physics*. Farmingdale, N. Y. Ph.B., Wesleyan, 87; fellow, Clark, 93-96, Ph.D., 96; German universities, 02-03. Exp. electrician, Thomson-Houston Elec. Works, 87-91; teacher science, Maine Wesleyan Sem., 91-93; instr. physics, Purdue, 96-99; assoc. prof., Syracuse, 99-03; *prof. elec. eng.*, Pittsburgh, 03-08; Cincinnati, 08-11; *physics*, Goucher, 11- In charge time service, Allegheny Observatory, 04-05. A.A.; Elec. Eng.; Eng. Educ.; Ind. Acad. Absolute E.M.F. of cadmium cells; mass and velocity of ions in cathode rays; potential phenomena in vacuum tubes.
- Taylor, Prof. T(heodore) Clinton**, 4 Magnolia Ave, Mt. Vernon, N. Y. *Chemistry*. Mt. Vernon, Oct. 1, 91. Ch.E., Columbia, 15, A.M., 18, Ph.D., 20. Chemist, Corn Products Ref. Co., 15-17; *instr. org. chem.*, Columbia, 19-24, *asst. prof.*, 24- Bur. Aircraft Production, U. S. War Dept., 18-19. Chem. Soc. Chemistry of the starches and glycogen; insulin.
- Taylor, Dr. T(homas) S(mith)**, Bakelite Corp., Bloomfield, N. J. *Physics*. Peoli, Ohio, Jan. 30, 83. A.B., Yale, 06, Ph.D., 09. Asst. physics, Yale, 07-09; *instr.*, Illinois, 09-12; Yale, 13-15, *asst. prof.*, 15-17; research physicist, Westinghouse Elec. and Mfg. Co., 17-24; *chief research physicist*, Bakelite Corp., 24- Fellow, Manchester, 12-13; Magnesia Ass. fellow, 20. A.A.; Physical Soc.; Elec. Eng.; Soc. Test. Mat.; Optical Soc.; Chem. Soc.; Heat. and Vent. Eng.; Refrig. Eng. Radioactivity; properties of alpha rays; determination of gas densities by the microquartz balance; theory of heat; heat conduction; dissipation of heat; measurement of air flow; impact of molded and sheet materials; power factors and losses in insulating materials; tensile strengths of materials.
- Taylor, Prof. W(alter) F(reeman)**, Wake Forest College, Wake Forest, N. C. *Bacteriology*. Como, N. C., July 29, 91. B.S., Wake Forest, 16, A.M., 17. Instr. biol., Wake Forest, 16-17; influenza research asst., Yale, 18; *instr. bacter. and hygiene, sch. med.*, Wake Forest, 19, *assoc. prof.*, 19-20, *prof.*, 20- Bacteriologist and serologist, U.S.A., 17-18. Soc. Bact.; N. C. Acad. Formation of rat spermatozoa agglutinins in the rabbit; tissue immunity; bacteriology of colds; autogenous vaccine therapy; fever due to *Bacterium columbense*.
- Taylor, Dr. Walter P(enn)**, 1746 E. Fifth St., Tucson, Ariz. *Zoology*. Elkhorn, Wis., Oct. 31, 88. B.S., California, 11, Ph.D., 14. Asst. biol., Throop, 06-08; asst. curator mammals, museum vert. zool., California, 09-11, curator, 11-16; asst. biologist, *biol. surv.*, U. S. Dept. Agr., 16-24, *biologist*, 24- Advisory committee for protection of migratory birds, U. S. Dept. Agr., 13-16, leader, field parties for investigation of higher vertebrates, Calif., Nev., Ariz. and Wash., 08-25. A.A.; Soc. Mammal. (treas., 19-20); Ecol. Soc.; West. Soc. Nat.; assoc. mem. Ornith. Union; Cooper Ornith. Club; Calif. Acad.; Wash. Biol. Soc. Distribution and ecology of mammals and birds; biology of forest and grazing range.
- Taylor, Dr. W(illiam) A(lton)**, 2716 Wisconsin Ave., N. W., Washington, D. C. *Botany*. Chelsea, Mich., June 23, 63. B.S., Mich. State Col., 88, hon. Sc.D., 13. Asst. pomologist, U. S. Dept. Agr., 91-01, pomologist in charge field investigations, 01-13, *chief bur. plant indust.*, 13- Expert hort. and mem. int. jury, Paris Expos., 00; int. jury, La. Purchase Expos., 04. A.A.; Pomol. Soc. (sec'y, 97-03); Soc. Hort. Sci. (pres, 08-10); Wash. Bot. Soc. (pres, 10); Wash. Biol. Soc.; Wash. Acad. Pomology; nuciculture; agriculture; horticulture.
- Taylor, Dr. W(illiam) A(nthony)**, La Motte Chemical Products Co., McCormick Building, Baltimore, Md. *Chemistry*. Jarrettsville, Md., Nov. 6, 86. A.B., A.M., Randolph-Macon, 08; Ph.D., Hopkins, 14. Research chemist, Carnegie Foundation, 14-16; *instr. org. chem.*, Wisconsin, 15-16; *chief sulfur color dept.*, E. I. du Pont de Nemours and Co., 16-21; *chief org. dept.*, C.W.S., Edgewood Arsenal, 21-24; v. pres, *La Motte Chem. Products Co.*, 24-26, *pres*, 26- Chem. Soc.; Chem. Eng.; Tech. Paper and Pulp Indust. Organic chemistry; acids, bases and salts; glucose; mucic acid and its lactones; conductivity of solution of electrolytes; colorimetric determination of hydrogen-ion concentration.
- Taylor, W(illiam) O(hittenden)**, 120 E. Fifth St., Corning, N. Y. *Chemistry*. San Francisco, Calif., March 3, 86. B.S., Mass. Inst. Tech., 08. Asst. chemist, U. S. Agr. Exp. Sta., Mayaguez, P. R., 09-10; *Corning Glass Works*, 08-09, 10-20, *chief chem. div.*, 20- Chem. Soc.; Ceramic Soc.; British Soc. Glass Tech. Glass development.
- Taylor, Prof. W(illiam) E(rastus)**, 822 Irving Ave., Syracuse, N. Y. *Mathematics*. Bucklin, Mo., March 18, 70. Ph.B., Syracuse, 93, A.M., 95, Ph.D., 03. Instr. physics and math, Chamberlain Inst., 93-96; math, *Syracuse*, 97-03, *assoc. prof.*, 03-04, *prof. applied math.*, L. C. Smith Col. of Applied Sci., 04- Math. Soc.; Eng. Educ. The product of an alternant by a symmetric function.
- Taylor, Dr. W(illiam) J(ohnson)**, 1825 Pine St., Philadelphia, Pa. *Surgery*. Worcester Co, Md., Oct. 13, 61. M.D., Pennsylvania, 82. *Attending surgeon*, Phila. Orthop. Hosp. and Infirmary for Nervous Diseases. Consulting surgeon, St. Agnes Hosp.; Woman's Hosp.; W. Phila. Hosp. for Women. Lieut. col., M.C., retired. Surg. Ass.; Orthop. Ass.; Am. Med. Ass.; Phila. Col. Physicians (past pres); Phila. Acad. Surg. (past pres); Soc. Int. de Chirurg. General surgery.
- Taylor, Dr. W(illiam) Randolph**, University of Pennsylvania, Philadelphia, Pa. *Botany*. Philadelphia, Dec. 21, 95. B.S., Pennsylvania, 16, M.S., 17, fellow, 17-18, Ph.D., 20. Asst. bot., Pennsylvania, 15-17, *instr.*, 18-22, *asst. prof.*,

- 22-27, *prof*, 27- Summers, instr, Woods Hole, 19-, research assoc, Phila. Acad. Nat. Sciences, 25- Sect. ed, algae, 'Bot. Abstracts,' 25-, 'Biol. Abstracts,' 26-; assoc. ed, 'Stain Technol,' 26-; Am. abstract correspondent, 'Revue Algologique,' A.A.; Bot. Soc. (sec'y, gen. sect, 24); Micros. Soc; Sullivant Moss Soc; Pa. Bot. Soc. (sec'y, 17-19); Phila. Acad. Cytology; morphology of chromosomes in monocotyledons; algae; marine algae of Florida and alpine algae of British Columbia; Bryophytes.
- Taylor, Prof. W(illiam) S(entman)**, Smith College, Northampton, Mass. *Psychology*. Passaic, N. J, March 15, 94. B.S, Gettysburg Col, 16; A.M, Harvard, 20, Ph.D, 21; M.S, Wisconsin, 23. Lecturer psychol, Bryn Mawr, 21-22; instr. philos, Wisconsin, 22-23; *prof*, Maine, 23-26; *psychol*, Smith, 26- Summer, instr, Harvard, 26. Psychopath. Ass; Philos. Ass. Abnormal psychology.
- Teachout, Dr. Robert B(rown)**, U. S. Veterans Bureau, Washington, D. C. *Psychology*. Milton, Vt, May 9, 93. A.B, A.M, Dartmouth, 14; Ph.D, Clark, 17. Asst. prof. psychol, Oregon, 17-18; civilian specialist mental measurements, U.S.A, 20-22; *statist. expert*, U. S. Veterans Bur, 22- Psychol. Ass.
- Teagarden, Dr. Florence M**, University of Pittsburgh, Pittsburgh, Pa. *Educational psychology*. Dallas, W. Va, Sept. 5, 87. A.B, Pittsburgh, 15, A.M, 16; Ph.D, Columbia, 24. Teacher, schools, Pa, 08-13; teaching fellow, Pittsburgh, 15-16, instr, 17-19, *asst. prof*, 19- Constancy of the intelligence quotient; inheritance of intelligence; upper limits of the development of intelligence; environment.
- Tear, James D(e Graff)**, General Electric Co, Schenectady, N. Y. *Physics*. Warren, Ill, June 8, 92. B.S, Beloit, 16; Ph.D, Yale, 22. Nela Research Lab, 20-25; *research lab*, Gen. Elec. Co, 25- Physical Soc. Short electric waves; infra red radiometers; radiation pressure.
- Tedesche, Dr. Leon G**, Eclectic Medical College, Cincinnati, Ohio. *Pathology*. Cincinnati, Sept. 28, 78. A.B, Cincinnati, 02, M.D, 05. Biologist, Cincinnati Water Works, 07-10; biochemist, Medical Milk Commission, 10-12; *prof. bacter. and path*, Eclectic Med. Col, 14- Lecturer, Cincinnati Vet. Col; Cincinnati Col. Pharmacy; Cincinnati Dental Col. A.A; Pub. Health Ass; Daniel Drake Research Soc. Clinical pathology; method of studying for medical and pharmaceutical students; outlines of histology and pathology.
- Teeple, Dr. John E(dgar)**, 50 E. 41st St, New York, N. Y, or Montclair, N. J. **Chemistry, Anthropology*. Kempton, Ill, Jan. 4, 74. B.S, Valparaiso, 93, A.B, 94; B.S, Cornell, 99, Ph.D, 03. Prof. chem. and math, Nebr. Nor. Col, Fremont, 94-98; asst. and instr. org. and physiol. chem, Cornell, 99-04; officer and chem. director, chem. mfg. companies, and director consulting and research laboratories, N. Y, 04-08; *consulting chemist and chem. engineer*, 08-; v. pres, Am. Trona Corp, 23-27. Non-res. lecturer, Cornell, 09-10; assoc, Columbia, 17. Nat. Research Council. Perkin medal, 27. Chief chem. sect, Sig.C, 18, consultant, C.W.S. A.A; Chem. Soc. (treas. and director, chairman, N. Y. sect, 21); Soc. Chem. Indust. (v. chairman, N. Y. sect); Chem. Eng; Electrochem. Soc; Anthropol. Soc; Franklin Inst; N. Y. Chemists Club (pres, 21-23); Chem. Gesell; Soc. de Chim. indust. Chemistry of bile pigments; electric preparation of organic compounds; wood turpentine industry; pine oil; utilization of manufacturing waste products; American potash; decolorizing carbons; tartaric acid; oil cracking and refining; borax; Maya calendars and hieroglyphs.
- Teeter, Prof. T(homas) A(nderson) H(enricks)**, 167 Seymour Ave, S. E, Minneapolis, Minn. *Civil engineering*. Rolling Prairie, Ind, Feb. 12, 86. B.S, Purdue, 07; Cornell, 11-13; Wisconsin, 15. Asst. civil eng, Purdue, 07-08; instr, Pennsylvania, 08-09; mech, Pa. State, 09-10; asst. prof, Southern California, 10-11; instr, Cornell, 11-13; prof. irrig. and hydraul, Oregon Col, 13-20; *assoc. prof. eng*, Minnesota, 22- Summer, asst. engineer, seepage loss investigation, Oregon Desert Land Board, 14. A.A; assoc. Civil Eng; Soc. Mil. Eng; Minneapolis Eng. Club. Drainage in Oregon; engineering education for adults.
- Teeters, Dean Wilber John**, University of Iowa, Iowa City, Iowa. *Pharmacy*. Alliance, Ohio, Oct. 10, 66. B.S, Mt. Union, 93, M.S, 97; Ph.C, Michigan, 95. Demonstrator chem, col. med, Iowa, 95-02, asst. prof. pharmacy, 02, *dean col. pharmacy*, 03- A.A; Pharmaceut. Ass; Iowa Pharmacy Ass.
- Tefft, W(illiam) W(olcott)**, 720 Michigan Ave, W, Jackson, Mich. *Engineering*. Milbank, S. Dak, Feb. 28, 82. B.S, C.E, Michigan, 06-07. Mem. firm, Fargo Eng. Co, 11-19; consulting hydraulic and civil engineer, *Consumers Power Co*, 19-24, v. pres. and chief engineer, 24- V. pres. and chief engineer, Commonwealth Power Corp, 25; chief engineer, Cent. Ill. Light Co; South. Ind. Gas and Elec. Co; Ohio Edison Co; Ill. Power Co; Ill. Elec. Power Co; North. Ohio Traction and Light Co; Tenn. Elec. Power Co. Pres. trustees, Albion. Civil Eng; Nat. Elec. Light Ass. (hydraulic power committee); Mich. Eng. Soc. Hydro-electric developments; water power; steam power; public utility engineering.
- Tehon, Leo R(oy)**, 606 W. Nevada, Urbana, Ill. *Botany*. Dumont, S. Dak, June 21, 95. A.B, Wyoming, 16; A.M, Illinois, 20. Teacher, Illinois, 16-17; high sch, Ind, 17-18; with U. S. Dept. Agr, 19-21; *Ill. Nat. Hist. Surv*, 21- Botanist in charge plant disease surv, Ill. U.S.A, 18-19. Phytopath. Soc. Plant pathology.
- Tello, Dr. Julio C(esar)**, Casilla 383, Lima, Peru. *Anthropology*. Huarochiri, Peru, April 11, 80. B.M, San Marcos, 08, M.D, 09, D.Sc, 18; A.M, Harvard, 11. Curator archeol. sect, Lima Nat. Museum, 13; *director*, Univ. Archeol. Museum, Lima, 19-; *hon. director*, Peruvian Archeol. Museum, 24- Lecturer, San Marcos, 23; Peruvian govt. traveling fellow, 09-12. Ed, 'Inca,' 23. Harvard Peruvian exped, 16; director, Univ. Archeol. exped, 18. Peruvian dele-

- gate, Am. Cong, London, 12; Pan-Am. Sci. Cong, Washington, 15. A.A.; Anthropol. Ass; Colombia Acad; Royal Anthropol. Inst. London; Paris Soc. des Américanistes. Peruvian Indian pathology; trephining in Peru; Peruvian archeology, religion and mythology; Peruvian K'ipu.
- Temple, Prof. Charles Edward**, University of Maryland, College Park, Md. *Plant pathology*. Stanberry, Mo, Nov. 4, 77. A.B, Nebraska, 06, A.M, 09. Instr. bot, Michigan, 09-11; prof, Idaho, and state botanist, 11-14; exten. pathologist, Maryland, 14-20, *prof. plant path. and state pathologist*, 15- A.A; Phytopath. Soc; Wash. Bot. Soc. Resistance of plants to disease; diseases of tomato and corn.
- Temple, Dr. Sterling R. and H.** Chemical Co, Perth Amboy, N. J. *Chemistry*. Morristown, Minn, Oct. 22, 82. A.B, Hamline, 05, A.M, 06; Ph.D, Minnesota, 15. Teacher chem, Rayen sch, Ohio, 07-10; prof, Dakota Wesleyan, 10-13; Hamline, 14-15; assoc. prof. indust. chem, Minnesota, 17-18; *research chemist*, R. and H. Chem. Co, 19- Capt, ordnance dept, and major, C.W.S, 18. Chem. Soc; Electrochem. Soc.
- Templeton, Dr. Hugh L (ongwill)**, University of Wisconsin, Madison, Wis. *Organic chemistry*. Madison, May 30, 99. Beloit, 17-19; A.B, Wisconsin, 21, M.S, 22, Ph.D, 25. Research chemist, forest products, U. S. Forest Service, 25-26; *indust. research fellow dairy husbandry*, Wisconsin, 26- Chem. Soc. Tannin content of western hemlock bark; action of arsenious chloride on phenyl-p-toluidine; water extractives and the coloring matter of redwood; use of citric acid and citrates in milk.
- TenBroeck, Dr. Carl**, Rockefeller Institute, Princeton, N. J. *Bacteriology*. Parsons, Kans, 85. A.B, Illinois, 08; M.D, Harvard, 13. Asst. path, Harvard Med. Sch, 13-15; asst. and assoc. animal path, Rockefeller Inst, 15-20; assoc. prof. and *prof. bacter*, Peking Union Med. Col, 20-27; *animal path*, Rockefeller Inst, Princeton, 27- A.A; Soc. Exp. Biol; Ass. Path. and Bact; Ass. Immunol. Dysentery; paratyphoid bacilli; tetanus; animal diseases.
- Tendler, Dr. Alexander D**, 228 E. 19th St, New York, N. Y. *Psychology*. Russia, Jan. 25, 93. B.S, N. Y. Univ, 16; A.M, Columbia, 18, Ph.D, 23. Case consultant, *Jewish Board Guardians*, 22-24, *director research and chief psychologist*, *psychol. clinic*, 24- Instr, Col. City of N. Y; N. Y. Post-Grad. Med. Sch. and Hosp. Psychol. Ass. Abnormal, clinical and social psychology; mental tests.
- Tennent, Prof. David H (ilt)**, Bryn Mawr College, Bryn Mawr, Pa. *Zoology*. Janesville, Wis, May 28, 73. B.S, Olivet, 00; Hopkins, 00-01, fellow, 02-04, Ph.D, 04, Bruce fellow, 04, 11-12. Acting prof. biol. and physics, Randolph-Macon, 03; lecturer *biol*, Bryn Mawr, 04-05, assoc, 05-06, assoc. prof, 06-12, *prof*, 12- Instr, Woods Hole, 02-05, in charge instruction embryol, 20-21. A.A; Soc. Nat; Soc. Zool. (pres, 16); Phila. Physiol. Soc. Embryology; experimental embryology; cytology.
- Teodoro (y Gregorio), Dr. N (icanor) G (onzalo)**, Bureau of Agriculture, Manila, P. I. *Biology*. Santa Cruz, Laguna, P. I, Jan. 10, 90. B.Agr, Philippines, 15; M.S, Wisconsin, 20, Ph.D, 23. Sci. asst, *Bur. Agr*, P. I, 17-23, plant pathologist, 23-24, *acting chief plant pests control div*, 24-, *chief plant quarantine inspector*; *lecturer biol*, Philippines. Philippine Govt. delegate, Am. Phytopath. Soc. Convention, St. Louis, 20; Fourth Int. Phytopath. Conference, 22. Collaborator, Int. Inst. Agr, Rome, Italy. A.A; Bot. Soc; Hort. Soc; Phytopath. Soc; Soc. Bact; Crop Protection Inst. Plant pathology; Philippine bananas; macrosporium disease of onions; coconut stem bleeding diseases; abaca diseases; diseases of citrus, rubber, coffee and rice.
- Terman, Dr. Frederick Emmons**, Stanford University, Calif. *Electrical engineering*. English, Ind, June 7, 00. A.B, Stanford, 20, E.E, 22; Sc.D, Mass. Inst. Tech, 24. *Instr. elec. eng*, Stanford, 25- Elec. Eng; Radio Eng. Long distance transmission of power; radio antennas; theory of radio circuits; impact excitation.
- Terman, Prof. Lewis M (adison)**, Stanford University, Calif. *Psychology*. Johnson Co, Ind, Jan. 15, 77. A.B, Indiana, 02, A.M, 03; fellow, Clark, 03-05, Ph.D, 05. Prin, high sch, Calif, 05-06; prof. child study and pedag, Calif. State Nor. Sch, Los Angeles, 06-10; asst. prof. educ, Stanford, 10-12, assoc. prof, 12-16, *prof*, 16-22, *psychol. and head dept*, 22- Summers, lecturer, Washington (Seattle), 12, Columbia, 17. Nat. Research Council, 19-22, 25- Committee on classification of personnel, War Dept, 17-19, committee on classification of recruits, 17-19; major, U.S.A, 18-19. A.A; Psychol. Ass. (councilor, 19-22, pres, 23); Sch. Hygiene Ass. v. pres, 14, councilor, 14-, pres, 16). Child psychology and hygiene; sleep of school children; genius and stupidity; Binet intelligence tests; measurement of intelligence; intelligence of school children; gifted children; group tests of mental ability; genetic studies of genius; sex differences in mental traits.
- Terrell, Prof. Daniel V (oiers)**, University of Kentucky, Lexington, Ky. *Civil engineering*. Bedford, Ky, Oct. 5, 86. B.C.E, Kentucky, 10, C.E, 14. Prof. highway eng, Kentucky, 13-16, acting dean *civil eng*, 16-17, *prof. and head dept*, 17- Civil Eng; Eng. Educ; Soc. Test. Mat; Concrete Inst; Ass. State Highway Officials. Concrete; highway materials; design and construction of University of Kentucky stadium.
- Terrill, Dr. Harold M (orlock)**, 160 Seminary Ave, Rahway, N. J. *Physics*. Rahway, July 29, 90. B.S, Rutgers, 12; A.M, Columbia, 17, Ph.D, 24. Asst. *physics*, Columbia, 19-24, *assoc*, 25- Physical Soc. X-rays; cathode rays.
- Terry, Dr. Benjamin T (aylor)**, 503 Scottwood Apartments, Scottwood and Monroe Sts, Toledo, Ohio. *Pathology*. Birmingham, Ala, June 10, 76. A.B, Vanderbilt, 98, A.M, 00; M.D, Hopkins, 04; fellow, Chicago, 04-05. Asst. chem, Vanderbilt, 98-99; fellow protozoal, Rockefeller Inst, 06-08, asst, 08-10, assoc, 10-13; instr. and assoc. path, Columbia, 13-18; prof, Vanderbilt, 18-25; *director laboratories*, Toledo Hosp, 25- Director laboratories, Kings Co.

- Hosp, Brooklyn, 14-18. A.A.; Ass. Path. and Bact; Soc. Exp. Biol; Soc. Pharmacol. Immunity and chemiotherapy in trypanosome infections; standardization of Wassermann reaction; tissue stains.
- Terry, Prof. E(arle) M(elvin)**, University of Wisconsin, Madison, Wis. *Physics*. Battle Creek, Mich, Jan. 16, 79. A.B, Michigan, 02; A.M, Wisconsin, 04, Ph.D, 10. Asst. *physics*, *Wisconsin*, 02-04, instr, 04-10, asst. prof, 10-16, *assoc. prof*, 16- Research staff, U.S.N. Exp. Sta, New London, Conn; in charge radio school, Wisconsin. A.A; Physical Soc; Int. Union Sci. Radio Telegraphy (exec. committee, Am. sect). Effect of temperature upon magnetic properties of iron, nickel and cobalt; modulation in radio telephony.
- Terry, Prof. Elwood I(dell)**, Mount Berry, Ga. *Forestry*. Coxsackie, N. Y, May 1, 79. B.S, Harvard, .07, M.F, 18. Chief forest investigations, Mont. dist. U. S. Forest Service, 08-11; director sch. forestry, Colo. Col, 12-17; exchange prof. forestry, Harvard, 17-18; prof, Middlebury, and manager, Battell Forest, 19-23; forester, Mass. Forestry Ass, 23-25; *forest manager*, *Berry Schools*, Mount Berry, 25- Soc. Foresters. Estimation of timber; regeneration of white pine in New England; regeneration of southern pines and hardwoods.
- Terry, Dr. Ethel Mary (Mrs. Herbert McCoy)**, University of Chicago, Chicago, Ill. *Chemistry*. Hamilton, N. Y, 87. A.B, Chicago, 07, Ph.D, 13. Instr. *chem*, *Chicago*, 12-18, *asst. prof*, 18- Chem. Soc. Physico-organic chemistry; catalysis; hydrolysis of esters; fumaric and maleic acids; oxidation.
- Terry, Commodore N(athaniel) M(atson)**, U.S. N, Lyme, Conn. *Physics*. Lyme, April 6, 44. A.B, Amherst, 67; Ph.D, Göttingen, 71; hon. A.M, Yale, 72, LL.D, 17. Prof. physics, U. S. Naval Acad, 72-17, retired with rank of commodore, 17, head dept. physics and chem, 86-13. Naval Inst. (board control, 87-). Applications of electricity to naval service.
- Terry, Dr. Oliver P(erkins)**, 215 Sheetz St, Lafayette, Ind. *Physiology*. Lafayette, July 23, 82. B.S, Purdue, 03; M.S, M.D, St. Louis, 06. Asst. *physiol*, St. Louis, 04-06; *prof. physiol. and anat*, *Purdue*, 06-, *med. adviser*, 12- Prof, Ind. Med. Col, and instr, Woods Hole, 06-07. *Physiol. Soc*; Am. Med. Ass. Physiological chemistry; paroxysmal hemoglobinuria; effect of anesthetics on catalysis by blood.
- Terry, Dr. R(obert) J(ames)**, Washington University School of Medicine, St. Louis, Mo. *Anatomy*. St. Louis, Jan. 24, 71. Cornell, 90-92; M.D, Mo. Med. Col, 95; Edinburgh, 98; A.B, Washington (St. Louis), 01; Freiburg, 03. Austin teaching fellow, Harvard, 06-07; demonstrator *anat*, Mo. Med. Col, 96-99; asst. *prof. sch. med*, *Washington (St. Louis)*, 99-00, *prof*, 00- Anthropologist, Barnes and St. Louis Children's Hospitals. Collaborator, 'Am. Jour. Anat,' 01-02; *assoc. ed*, 'Am. Jour. Physical Anthropol.' Int. Cong. Arts and Sciences, St. Louis, 04. A.A. (chairman, H, 27); Ass. Anat. (exec. committee, 08-12, 21-24); Eugenics Soc. (advisory council); St. Louis Acad. (councilor); St. Louis Anthropol. Soc; Anat. Soc. Gt. Britain. Human anatomy; physical anthropology; constitution; variation cranium; symmetry.
- Terry, Dr. Wallace I(rving)**, 384 Post St, San Francisco, Calif. *Surgery*. Sacramento, Calif, Nov. 26, 68. B.S, California, 90, M.D, 92. Instr. *surgery, med. sch*, *California*, 99-06, asst. *prof*, 06-12, *prof*, 12- Am. Med. Ass; Surg. Ass; Pacific Coast Surg. Ass; Calif. Acad. Med. Surgery for goiter; surgery of stomach.
- Terwilliger, Prof. Charles V(an) O(rden)**, U. S. Naval Academy, Annapolis, Md. *Electrical engineering*. Albany, N. Y, May 14, 94. B.E, Union (N. Y), 16, M.S, 19; M.S, Harvard, 22. Instr. *math*, Union (N. Y), 16-17, 18-21; *elec. eng*, Harvard, 22-24; *asst. prof*, Ohio State, 24-25; U. S. Naval Acad, 25- Gen. Elec. Co, 17-18. Elec. Eng; Eng. Educ; Ohio Acad.
- Terzaghi, Dr. Ch(arles)**, Massachusetts Institute of Technology, Cambridge, Mass. *Engineering, Geology*. Prague, Czecho-Slovakia, Oct. 2, 83. M.E, Tech. Hochschule, Austria, 04, D.E, 11. In charge foundation work and hydroelec. power develop, Austria, Hungary, Russia and west. U. S, 06-14; *prof. eng*, Turkish Univ, 16-18; consulting engineer and prof, Robert Col, Constantinople, 18-25; lecturer *soil mech*, *Mass. Inst. Tech*, 25-26, *assoc. prof*, 26- Clemens Herschel prize, Boston Soc. Civil Eng. Civil Eng; Boston Soc. Civil Eng; Austrian Civil Eng. and Archit. Soc; Gesell. für Angewandte Math. und Mech. Soil physics; capillary physics; geomorphology; theory of foundations.
- Tesh, Dr. K(endall) S(iebert)**, 4514 Center Ave, Pittsburgh, Pa. *Organic chemistry*. Millville, Pa, May 6, 95. B.Chem, Pittsburgh, 18, M.S, 22, Ph.D, 24. Lecture asst, *Pittsburgh*, 17-18, instr. *inorg. chem*, 19-24, *asst. prof*, 24- Contrib. ed, 'Jour. Chem. Educ.' Chem. Soc. Electrolytic organic chemistry.
- Tesla, Dr. Nikola**, 8 W. 40th St, New York, N. Y. **Electrical engineering*. Smiljan, Austria, 57. Polytech, Graz; Prague and Budapest; hon. A.M, Yale; LL.D, Columbia. *Electrical engineer and inventor*. Elec. Eng. Electricity; electric oscillations.
- Test, Charles D**, Riverside Junior College, Riverside, Calif. *Chemistry*. Dundee, Ill, June 18, 74. B.M.E, Purdue, 94, A.C, 96. Asst. *prof. chem*, Colo. Sch. Mines, 07-18; chief chemist, West. Potash Works, 18; chem. expert, U. S. Tariff Commission, 18-19; research chemist, fixed nitrogen research lab, American Univ, 19-20; Tungsten Products Co, 20-24; *head dept. chem*, *Riverside Junior Col*, 24- Chem. Soc. Inorganic and analytical chemistry; analysis of lime nitrogen.
- Test, Prof. Louis Agassiz**, 511 Russell St, Lafayette, Ind. *Chemistry*. Dundee, Ill, June 18, 74. B.M.E, Purdue, 94, A.C, 96; Ph.D, Chicago, 07. Prof. chem, Occidental, 07-09; asst, Mo. Sch. Mines, 09-13; *assoc*, Iowa Col, 13-18; *prof. gen. chem*, *Purdue*, 18- A.A; Chem. Soc. Inorganic chemistry; cobalt compounds; influence of the constitution of dyes on bacteria; chemical education.

Test, Prof. W(illiam) H(enry), 518B S. Catalina Ave, Redondo Beach, Calif. *Chemistry*. Richmond, Ind, Feb. 1, 71. B.S, Purdue, 92, M.S, 93. Asst. chem, *Purdue*, 93-95, instr, 95-01, asst. prof, 01- Soc. Chem. Indust. Sugars; water; fuels; valuation of fuels; industrial chemistry.

Tester, Prof. Allen C(rawford), State University of Iowa, Iowa City, Iowa. *Geology*. New Haven, Mo, Oct. 30, 97. A.B, A.M, Kansas, 21. Instr. *geol*, Kansas, 21-22; instr, Wisconsin, 24-25; *assoc*, Iowa, 25- Expeditions, U. S. Geol. Surv, Kans. Geol. Surv, Iowa Geol. Surv. Ass. Petrol. Geol.; Paleont. Soc; Iowa Acad. (exec. committee, 26). Stratigraphy; sedimentation; the Comanchean of Kansas; the 'Dakota' formation of Kansas, Nebraska, Iowa and South Dakota; the Pennsylvanian of Colorado; primary structures of sedimentary rocks.

Tetrault, Prof. P(hilippe) A(rmand), 306 Russell St, West Lafayette, Ind. *Bacteriology*. Southbridge, Mass, Sept. 6, 89. A.B, Clark, 12; M.S, Purdue, 14. Asst. prof. *biol*, *Purdue*, 17, *assoc. prof*, 19- Soc. Bact; Pub. Health Ass.

Thalhimer, Dr. William, Columbia Hospital, Milwaukee, Wis. *Pathology*. San Francisco, Calif, Oct. 12, 85. B.S, Richmond, 03; M.D, Hopkins, 08. Surg. intern, Mt. Sinai Hosp, New York, 08-10; instr. path, Virginia, 10-11; asst, Mt. Sinai Hosp. Lab, 11-18, adjunct attending surgeon, 18; *director*, *Columbia Hosp. Laboratories*, 18- Ass. Path. and Bact; Am. Med. Ass; Col. Physicians; N. Y. Acad. Med; Chicago Internal Med. Soc; Milwaukee Acad. Med. Experimental pathology and surgery; rheumatic fever; regeneration of bone; gastric ulcer; gastric carcinoma; lethargic encephalitis; non-diabetic acidosis; carbohydrate metabolism.

Tharaldsen, Prof. C(onrad) E(ngerud), New York Homeopathic Medical College and Flower Hospital, 64th St. and Ave. A, New York, N. Y. *Zoology*. Battle Lake, Minn, May 20, 84. B.S, St. Olaf, 07; A.M, Columbia, 18, Ph.D, 25. Instr, high sch, Wis, 07-09; *biol*, N. Dak. State Nor. Sch, 09-17; asst. prof. zool, Northwestern, 18-20, 21-25, *assoc. prof*, 25-27, acting head dept, 24-27; *prof. and head dept. anat*, N. Y. *Homeop. Med. Col*, 27- A.A; Hist. Sci. Soc; Ill. Acad. Cytology; experimental embryology; morphology; anatomy.

Tharp, Dr. B(enjamin) C(arroll), 206 Bellevue Place, Austin, Texas. *Botany*. Pankey, Texas, Nov. 16, 85. B.A, Texas, 14, M.A, 15, Ph.D, 25. Assoc. prof. *biol*, Sam Houston State Teachers Col, 17-19; instr. *bot*, *Texas*, 19-20, adjunct prof, 20-25, *assoc. prof*, 25- A.A; Bot. Soc; Ecol. Soc. Taxonomy; ecology.

Thatcher, Pres. R(oscoe) W(ilfred), Massachusetts Agricultural College, Amherst, Mass. *Agricultural chemistry*. Chatham Center, Ohio, Oct. 5, 72. B.S, Nebraska, 98, A.M, 01, D.Agr, 20; LL.D, Hobart, 25. Instr, high sch, Nebr, 99-00; asst. chemist, Nebr. Exp. Sta, 00-02; Wash. Exp. Sta, 01-03, chemist, 03-10, director, 07-13, *assoc. prof. chem*, Wash. Col, 03-10, prof. agr. chem. and head dept. agr, 10-13; prof. agr. chem, Minnesota, 13-17, agr. biochemist, Exp.

Sta, 13-17, dean dept. agr, and director, Exp. Sta, 17-21; director, N. Y. Exp. Sta, 21-24, exp. stations, Cornell, 24-27; *pres*, *Mass. Col*, 27-A.A; fel. Soc. Agron. (pres, 11-12); Am. Geog. Soc. Phytochemistry; chemistry of insecticides and fungicides; nutrition.

Thaxter, Prof. Roland, 7 Scott St, Cambridge, Mass. **Botany*. Newton, Mass, Aug. 28, 58. A.B, Harvard, 82, A.M, Ph.D, 88. Mycologist, Conn. Exp. Sta, 88-91; asst. prof. *crypt. bot*, *Harvard*, 91-01, prof, 01-19, *emer. prof. and hon. curator*, *Farlow Herbarium*, 19- Am. ed, 'Annals of Bot,' 07- Nat. Acad; A.A; Bot. Soc. (pres, 09); Phytopath. Soc; Am. Acad; New Eng. Bot. Club; Boston Soc. Nat. Hist; hon. mem. British Mycol. Soc; London Linnean Soc; Bot. Soc. Edinburgh; Royal Swedish Acad; hon. mem. Bot. Gesell; Inst. de France; Acad. de Sci; Royal Bot. Soc. Belgium; Royal Acad. Denmark. Thallophytes; fungi; fungous parasites of insects; Laboulbeniaceae.

Thayer, Prof. Clark L(eonard), Massachusetts Agricultural College, Amherst, Mass. *Floriculture*. Enfield, Mass, Nov. 17, 90. B.S, Mass. Col, 13. Asst. *floriculture*, Mass. Col, 13-14; asst. and instr, Cornell, 14-19; *prof. and head dept*, *Mass. Col*, 19- The genus *Phlox*.

Thayer, Floyd K(inyon), Waukegan, Ill. *Chemistry*. Castle Rock, Colo, July 22, 96. A.B, Denver, 18; A.M, Illinois, 20. Asst. chem, Illinois, 19-20; research chemist, *Abbott Laboratories*, Ill, 20-25, *manager chem. sales dept*, 25- Chem. Soc. Mixed alkyl sulfates; anesthetic antiseptics.

Thayer, Prof. Horace R(ichmond), 1019 Clay Ave, Scranton, Pa. *Civil engineering*. Blackstone, Mass, Sept. 3, 26. B.S, Mass. Inst. Tech, 98; M.S, Lehigh, 06. Prof. civil eng, Carnegie Inst. Tech, 06-21; *Int. Correspondence Schools*, 23- Civil Eng; West. Pa. Eng. Soc. (past chairman). Arch analysis, mathematics of skew structures; elastic arches; failures of structures; structural design.

Thayer, Paul, State College, Pa. *Pomology*. Benton Harbor, Mich, Oct. 16, 75. B.S, Mich. State Col, 00, M.S, 13. Asst. horticulturist, Ohio Exp. Sta, 11-19, *assoc*, 19-22; *prof. pomol. exten*, *Pa. State*, 22- Ass. Hort. Sci. Strawberries; apples; currants.

Thayer, Dr. W(illiam) S(ydney), 1208 Eutaw Place, Baltimore, Md. **Medicine*. Milton, Mass, June 23, 64. A.B, Harvard, 85, M.D, 89; Berlin and Vienna, 89-90; Paris, 93; LL.D, Washington (Md), 07. Res. physician, Hopkins Hosp, 91-98; *assoc. med*, Hopkins, 95, *assoc. prof*, 96-05, *prof. clin. med*, 05-18, *med*, 18-21, *assoc*, Hopkins Hosp, 99-05, *assoc. physician*, 05-18, *physician-in-chief*, 18-21. Med. sect. and committee on foreign relations, Nat. Research Council. Brig. gen, M.C, and chief consultant, med. service, U.S.A, 18-19. Pres, Cong. Am. Physicians and Surg, 16; hon. pres, Int. Med. Cong, Moscow, 97, London, 13. D.S. medal. A.A; Am. Med. Ass; Am. Physicians (pres); Soc. Trop. Med. (pres); Soc. Clin. Invest; Md. Med. and Chirurg. Faculty; Wash. Acad; hon. fel. N. Y. Acad. Med; hon. fel. Royal Soc. Trop. Med. and Hygiene; hon. mem. Ass. Phy-

- sicians Gt. Britain and Ireland; hon. fel. Royal Soc. Med. London; hon. fel. Royal Col. Physicians Ireland; cor. mem. Gesell. für Inner. Med. und Kinderheilkunde Wien; for. assoc. mem. Acad. méd. de Paris; hon. cor. mem. Soc. d'Hôp. Paris; cor. mem. Soc. d'Hôp. Lyon; Soc. Royale des Sci. Méd. et Nat. Bruxelles; hon. mem. Budapest Royal Soc. Physicians; hon. mem. Moscow Therapeut. Soc. Parasites and etiology of malaria; the blood in pathological conditions; the blood in typhoid fever; cardiac and vascular complications of typhoid fever; cardiac complications of chorea; arteriosclerosis; experimental cardiac murmurs; Adams-Stokes syndrome and heart-block; bacterial and rheumatic diseases of the heart; medical education.
- Theis, C(harles) V(ernon)**, University of Cincinnati, Cincinnati, Ohio. *Geology*. Newport, Ky, March 27, 00. C.E. Cincinnati, 22, 22-25. *Instr. geol. Cincinnati*, 23- Summers, Ky. Geol. Surv., 23-26. Coals and structure of eastern Kentucky; by-product coke in Ohio valley.
- Theobald, Dr. Samuel**, 968 N. Howard St, Baltimore, Md. *Ophthalmology, Otolaryngology*. Baltimore, Nov. 12, 46. M.D., Maryland, 67; Vienna and London, 70-71. Prof. diseases of eye and ear, Baltimore Polyclinic, 84; *surgeon, Baltimore Eye, Ear and Throat Charity Hosp.*, 82-; clin. prof. ophthal. and otol. sch. med., *Hopkins*, 94-12, *ophthal.*, 12-25, *emer. clin. prof.*, 25-, *aural surgeon, Hopkins Hosp.*, 94-12, *ophthal. surgeon*, 12- Ophthal. Soc. (pres, 09-); Otol. Soc; Am. Med. Ass; Md. Med. and Chirurg. Faculty (pres, 00). Anatomy and pathology of stricture of the lachrymal passages; the mode of production of tinnitus aurium; muscular anomalies of the eyes; otomycosis; the pathogenesis of sympathetic ophthalmitis; subnormal accommodative power as a cause of defective vision and asthenopia in young persons; production of reflex aural neuroses by eye-strain.
- Thiel, A(lbert) F(rederic)**, University of Nebraska, Lincoln, Nebr. *Botany*. Staples, Minn., April 26, 87. A.B., Minnesota, 16; A.M., Nebraska, 17. Asst. bot., Nebraska, 16-17; field asst., *bur. plant indust., U. S. Dept. Agr.*, 17-19, asst. pathologist, 19-20, *assoc. pathologist in charge barberry eradication in Nebr.*, 21- Bot. Soc; Phytopath. Soc. Plant physiology and pathology; stem rust.
- Thiel, Dr. Geo(rge) A**, University of Minnesota, Minneapolis, Minn. *Geology*. Staples, Minn., Nov. 19, 92. A.B., St. Paul's Col., 17, A.M., 20; Ph.D., Minnesota, 23. Teaching fellow animal biol., *Minnesota*, 16-17, *prof. geol. and miner.*, 20- Engineer, Sanit.C., 18-19. Field geologist, Minn. Geol. Surv., 20-25. Gas factors in accumulation of petroleum in oil sands; the manganese minerals; iron sulphides and high temperature veins on the Cuyuna Range; stilpnomelane; magnetite slates of the Cuyuna Range; deposition of sedimentary manganese ores.
- Thienes, Dr. C(linton) H(obart)**, Medical School, University of Oregon, Portland, Oregon. *Pharmacology*. Evansville, Ind., Aug. 9, 96. A.B., Oregon, 18, A.M., M.D., 23. Instr. anat., med. sch., Oregon, 21-22, pharmacol., 22-24; Nat. Research Council fellow med., Stanford, 25-26. Mycotic dermatoses; effect of pituitary extract upon gastrointestinal absorption of drugs; smooth muscle poisons.
- Thiessen, Capt. Alfred Henry**, Wright Field, Ohio. *Meteorology*. Troy, N. Y., April 8, 72. B.S., Cornell, 98. Meteorologist, U. S. Weather Bur., 98-17, 19-20; capt., *U.S.A.*, 18, 20-27, *meteor. officer, Wright Field*, 27- Fel. Meteor. Soc. Normal climatic factors of Maryland and Delaware; visibility meter; application of wireless to wind instrument records; hysteresis of iron.
- Thiessen, Dr. Reinhardt**, U. S. Bureau of Mines, Pittsburgh, Pa. *Chemistry, Botany*. New Holstein, Wis., May 1, 67. Ph.B., Lawrence, 95; B.S., Chicago, 03, fellow, 06-07, Ph.D., 07. Asst. prin., high sch., Wis., 95-98; teacher science, Red River Valley Univ., 98-01; biol., Des Moines, 02-04; instr. bot., Univ. High Sch., Chicago, 06; *research chemist, U. S. Bur. Mines*, 07- Exchange prof., Univ. Sheffield, Eng. Safety in Mines Research Board, 25-26. Silver medal, Royal Soc. Arts, London, 26. A.A.; Chem. Soc; Bot. Soc. Origin and composition of coals, lignite and peat; sulphur compounds in coal; correlation of coal beds by spores and other constituents; origin, composition and structure of boghead coals, cannel coals and oil shales; the nature of coals in relation to coking, spontaneous heating and explosibility.
- Thilly, Prof. Frank**, Ithaca, N. Y. *Philosophy*. Cincinnati, Ohio, Aug. 18, 65. A.B., Cincinnati, 87, LL.D., 08; Berlin, 87-89; A.M., Ph.D., Heidelberg, 91; fellow, Cornell, 91-92; LL.D., Missouri, 13, Hobart, 22. Instr. philos., Cornell, 92-93; *prof.*, Missouri, 93-04; psychol., Princeton, 04-06; *philos.*, Cornell, 06-, dean col. arts and sciences, 15-21. Managing ed., 'School Rev.', 92-93; ed., 'Univ. of Missouri Studies', 01-04; 'Int. Jour. of Ethics', 09-14; assoc. ed., 'Kant Studien', 25-; 'Philos. Rev.', 25- Psychol. Ass; Philos. Ass. (sec'y, 05-08, pres, 12); West. Philos. Ass. (pres, 00-02). Logic; history of philosophy; ethics; history of rationalism.
- Thing, Dr. Curtis W(illard)**, Gorham, N. H. *Chemistry*. Arcadia, Nebr., Nov. 14, 94. B.S., Lenox Col., 14; M.S., Washington (Seattle), 17, Ph.D., 20. Teacher, high sch., Calif., 17-18; assoc. chem., Washington (Seattle), 19-20; *research chemist, Brown Co., Berlin, N. H.*, 20- Potash from incinerator ashes; passivity of cobalt; cacodyl derivatives.
- Thom, Dr. Charles**, U. S. Department of Agriculture, Washington, D. C. **Microbiology, Botany*. Minonk, Ill., Nov. 11, 72. A.B., Lake Forest, 95, A.M., 97; Ph.D., Missouri, 99. Instr. biol., Missouri, 97-99, bot., 99-01, asst. prof., 01-02; asst., Cornell, 02-04; mycologist, *U. S. Dept. Agr.*, 04-14, in charge microbiol. lab., bur. chem., 14-27, in charge soil microbiol., bur. chem. and soils, 27- Delegate, Int. Dairy Cong., 05. A.A.; Bot. Soc; Phytopath. Soc; Soc. Bact; Dairy Sci. Ass; Wash. Acad. Food microbiology; saprophytic molds; cheese and cheese ripening; food poisoning; food infections; soil microbiology.

- Thom, Dr. W(illiam) T(aylor), Jr.**, U. S. Geological Survey, Washington, D. C. *Geology*. Roanoke, Va., June 9, 91. B.S., Washington and Lee, 13; fellow, Hopkins, 16-17, Ph.D., 17. Surveyor, D. C. Water Dept., 09-10; *geologist*, U. S. *Geol. Surv.*, 19-, in charge coal sect., 23-24, *sect. fuel geol.*, 24- Summers, field asst., *geol. surveys*, 12-16. Bur. statist., U. S. Fuel Ad., 17-19. *Geol. Soc.*; *Soc. Econ. Geol.*; *Ass. Petrol. Geol.*; *Min. and Metal. Eng.*; *Wash. Geol. Soc.*; *Wash. Acad. Geology of petroleum and coal.*
- Thomas, Adrian**, Huron Milling Co, Harbor Beach, Mich. *Chemistry*. Savannah, Ga., Dec. 18, 89. B.S., Richmond Col., 14; A.M., Clark, 15. Pathologist, Bur. Fisheries, 15-16; acting pathologist, Va. Dept. Game and Inland Fisheries, 16-17; anal. and consulting chemist, 16-17; research chemist, Parke, Davis and Co., 19-25; *assoc. and research chemist*, *Huron Milling Co.*, 25- Summers, investigator, Bur. Fisheries, 11-15. Second lieut., Sanit.C., 18, capt., Sanit. O.R.C., 23- A.A.; *Chem. Soc.*; *Fisheries Soc.*; *Mich. Acad. Physiological chemistry*; *toxicology of fishes and stream pollution*; *osmotic pressure and viscosities of lipid suspensions.*
- Thomas, Prof. Arthur W(aldorf)**, Columbia University, New York, N. Y. *Chemistry*. New Brunswick, N. J., Feb. 18, 91. Ch.E., Columbia, 12, A.M., 14, Ph.D., 15. Instr. *food chem.*, *Columbia*, 12-17, asst. prof., 19-23, *assoc. prof.*, 23- Lieut-capt., Sanit.C., 17-19. A.A.; *Chem. Soc.* (sec'y, leather div., 21-, v. chairman, N. Y. sect., 26, chairman, 27); *Soc. Biol. Chem.*; *Leather Chem. Ass.*; *Oil Chem. Soc.*; *Soc. Exp. Biol.*; *Soc. de Chim. indust.* (sec'y, Am. sect., 21-). *Colloids*; *protein tannin reactions.*
- Thomas, Dr. B(enjamin) A(braham)**, 1900 Spruce St, Philadelphia, Pa. *Urology*. Valley Forge, Pa., 78. A.B., Swarthmore, 99, A.M., 08; M.D., Pennsylvania, 03. Instr. *surg.*, *Pennsylvania*, 06-19, *prof. genito-urinary surg.*, *Polyclinic Hosp. and Col. for Graduates in Med.*, 11-18, *prof. and v. dean urol.*, *grad. sch. med.*, 18- *Genito-urinary surgeon*, *Presb. Hosp.*, Phila.; consulting genito-urinary surgeon, Pa. Ry.; consulting surgeon, Phila. Prison, 16- Am. Med. Ass.; *fel. Col. Surg.*; *Phila. Col. Physicians*; *Phila. Acad. Surg.*; *Phila. Path. Soc.* *Genito-urinary diseases*; *urology.*
- Thomas, Carl C(lapp)**, 165 Puente Drive, Pasadena, Calif. *Mechanical engineering*. Detroit, Mich., July 14, 72. Stanford, 91-94; M.E., Cornell, 95. Asst. engineer, Globe Iron Works Co., 95-97, chief engineer, 97-99; chief draftsman, marine dept., Md. Steel Co., 99-01; *prof. marine eng.*, N. Y. Univ., 01-03; Cornell, 04-08; steam and gas eng., Wisconsin, 08-13; head dept. mech. eng., Hopkins, 13-20; west. rep. and v. pres., Dwight P. Robinson and Co., Inc., 20-27; *assoc. research eng.*, *Calif. Inst.*, 27- Manager machinery fabrication, Hog Island Ship Yard, 17-19. *Mech. Eng.*; *Naval Archit. and Marine Eng.* *Steam and gas engineering*; *steam turbines*; *specific heat of superheated steam*; *the measurement of the quality of steam and of the flow of gas by weight instead of by volume by means of an electric meter.*
- Thomas, Cecil C(alvert)**, U. S. Department of Agriculture, Washington, D. C. *Botany*. Near Huron, S. Dak. A.B., Wabash, 12, A.M., 13; Cornell, 13-17. Asst. bot., Wabash, 12, instr., 13; Cornell, 13-17; asst. plant disinfection, fed. hort. board, U. S. *Dept. Agr.*, 18, path. inspector, 18-19, asst. plant path., *office for seed and plant introd.*, *bur. plant indust.*, 19-24, *assoc. horticulturist*, 24- A.A.; *Bot. Soc.* *Seed disinfection*; *nursery stock propagation.*
- Thomas, Major Charles D(ura)**, 504 Harvard St, Hempstead, N. Y. *Engineering*. Brownville, Maine, Dec. 27, 73. B.C.E., Maine, 95, C.E., 25. Asst. building constructor, L. F. Rogers, Boston, 95; rodman, with city engineer, Taunton, Mass., 95-96; rodman and instrumentman, Metropolitan Water and Sewerage Commission, Boston, 96-01; in charge construction surveys, U. S. Navy Yards, Boston and New York, 01-06; chief precise surveys, and asst. engineer, Pa. Ry. tunnels under Hudson River, 06; office of pres., borough of Manhattan, 06-09; *asst. junior and sect. engineer*, *Board Transportation*, *New York*, 09- Capt., C.Eng., 17-19; major, O.R.C., 25- U. S. Govt. World War medal. *Ass. Eng.* (committee, N. Y. chap., 25); *Civil Eng.*; *Soc. Mil. Eng.*
- Thomas, Prof. Charles F(rank)**, Case School of Applied Science, Cleveland, Ohio. *Mathematics*. Union City, Pa., June 24, 75. A.B., Amherst, 05; M.S., Case, 27. Instr. *math.*, Amherst, 05-06; *Case*, 06-18, asst. prof., 18-20, *assoc. prof.*, 20- *Math. Ass.*; *Eng. Educ.*
- Thomas, E(lmslie) T(imbs)**, Collins, Ohio. *Geology*. Wakeman, Ohio, Nov. 25, 92. A.B., 16, B.S., 17, A.M., 19. Instr. Kent State Nor. Col., 17; head sci. dept., high sch., Ohio, 18; instr., Northwestern, 19-21, 24; asst. prof., Arkansas, 22-23. *Geologist*, Ill. *Geol. Surv.*, 20. A.A.; *Ass. Petrol. Geol.*; *Ill. Acad. Geology of Grays Lake*, Illinois quadrangle; *effects of pressure on migration of oil in sands variously saturated with water.*
- Thomas, Prof. Evan**, 187 Loomis St, Burlington, Vt. *Mechanics*. Llangranog, South Wales, Aug. 25, 53. B.S., Denison, 76; B.D., Yale, 80; Dartmouth, 84-86. Instr. prep. dept., Oberlin, 76-78; minister and journalist; instr. *math.*, *Vermont*, 92-02, asst. prof., 06-12, *assoc. prof.*, 12-13, *prof. math. and mech. col. eng.*, 13- A.A.; *Math. Soc.*; *Eng. Educ.*; *Vt. Soc. Eng.* *Mathematics*; *pedagogy.*
- Thomas, Dr. F(rank) L(incoln)**, College Station, Texas. *Entomology*. Waltham, Mass., Oct. 16, 87. B.S., Mass. Col., 10, Ph.D., 14. Asst. entomologist, Ala. Exp. Sta. and asst. prof. zool. and entom., Ala. Polytech., 15-18, exten. entomologist, 18-19, *assoc. entomologist*, *Exp. Sta.*, 20-23; acting entomologist, Ala. Polytech., 24, acting head dept. zool. and entom., 24; *chief div. entom.*, *Texas Exp. Sta.*, and *state entomologist*, 24- A.A.; *Entom. Soc.*; *Ass. Econ. Entom.* *Cotton*, *truck crop and citrus fruit insects.*
- Thomas, Prof. Franklin**, California Institute, Pasadena, Calif. *Civil engineering*. Red Oak, Iowa, May 19, 85. B.E., Iowa, 08, C.E., 13. Construction foreman, Mines Power Co., Cobalt, Ont., 09-10; instr. eng., Michigan, 10-12; de-

- signer, Ala. Power Co, 12-13; assoc. prof. and prof. civil eng, Calif. Inst, 13- Asst. engineer, U. S. Reclamation Service, 19- With Colo. River dam-site exploration, U. S. Geol. Surv, 22. A.A.; Civil Eng. (pres, Los Angeles sect, 24); Seismol. Soc. Irrigation hydraulics; silt deposits.
- Thomas, Prof. H(arvey) E(arl)**, Cornell University, Ithaca, N. Y. *Plant pathology*. Grant, Va, Nov. 18, 90. B.S, Va. Polytech, 15, M.S, 16; Ph.D, Columbia, 20. Asst. plant pathologist, Va. Exp. Sta, 16-17; Mayaguez, P. R, 17; asst. exten. prof. *plant path*, Cornell, 20-21; *asst. prof*, Pa. State, 21-22; *Cornell*, 22- Vigor of plants in relation to disease; diseases of fruit trees.
- Thomas, H(oward) R(ice)**, University of Texas, Austin, Texas. *Civil engineering*. Montvale, Va, July 12, 87. C.E, Texas, 12; fellow, Illinois, 12-14, M.S, 14. Asst. testing engineer, joint committee, Soc. Civil Eng. and Ry. Eng. Ass, 14-18; *testing engineer*, Emergency Fleet Corp, 18-19; *Texas*, 19- Concrete materials; stresses in railroad track.
- Thomas, Prof. J(acob) Ear(l)**, Jefferson Medical College, Philadelphia, Pa. *Physiology, Pharmacology*. Steilcoom, Wash, Jan. 31, 91. B.S, M.D, St. Louis, 18, M.S, 24. Asst. physiol, St. Louis, 14-18, instr, 18-20, asst. prof, 20; assoc. prof, West Virginia, 20-21; St. Louis, 21-27; *prof. physiol. and med. jurisprudence*, *Jefferson Med. Col*, 27- Physiol. Soc; Soc. Pharmacol; Soc. Exp. Biol. Gastric sphincters; innervation of viscera; enteric plexuses; physiology of smooth muscle; toxicology of nicotine.
- Thomas, J(ohn) Elmer**, 602 Fort Worth Club, Fort Worth, Texas. *Geology*. Toledo, Ohio, Sept. 9, 92. B.S, Chicago, 12. Mining geologist, Mex, 12-13; petrol. geologist, Minnehoma Oil Co, Okla, 14-15; chief geologist, Sinclair Oil and Gas Co, 16-17; Chicago Oil Co, 17-18; Shaffer Oil and Ref. Co, Ill, 21-24. A.S, U.S.A, 18. Ass. Petrol. Geol. (pres, 17); Min. and Metal. Eng. Petroleum geology.
- Thomas, Dr. J(ohn) J(enks)**, 88 Bay State Road, Boston, Mass. *Medicine, Neurology*. Columbus, Ohio, Sept. 6, 61. A.B, Williams, 86; A.M, M.D, Harvard, 90. Physician diseases of nervous system, Boston City Hosp, 93-25; pathologist, Boston Insane Hosp, 98-03; instr. *neur. med. sch*, Tufts, 02-06, asst. prof, 06-12, prof, 12-16, *emer. prof*, 16- Physician, Boston Dispensary, 92-96; consulting neurologist, Quincy Hosp, 06- Lieut. col, B.E.F, 15; major and consulting psychiatrist, U.S.A, 18-19. A.A; Neur. Ass. (v. pres, 08-16); Am. Med. Ass; Boston Soc. Psychiat. and Neur. (pres, 11). Pathology and pathological anatomy of the nervous system.
- Thomas, Dr. Joseph Miller**, Princeton University, Princeton, N. J. *Mathematics*. Ridley Park, Pa, Jan. 16, 98. A.B, Pennsylvania, 18, Ph.D, 23. Instr. *math*, Pennsylvania, 19-24; *Nat. Research Council fellow*, Princeton, 24- Math. Soc. Differential geometry.
- Thomas, Prof. L(ewis) F(rancis)**, 2032 Alameda Ave, St. Louis, Mo. *Geography*. Pioneer, Ohio, Nov. 1, 86. B.S, Denison, 10; fellow, Missouri, 16-18, A.M, 17; Ph.D, Chicago, 25. Prof. geol, Drury Col, 12-16; instr, Missouri, 16-18; asst. and assoc. prof. *geog*, Washington (St. Louis), 19- Summers, Southwest Teachers Col, 14-16, Colorado, 20-24. A.A; Am. Geog. Soc; Nat. Council Geog. Urban geography of St. Louis; the localization of business activities in metropolitan St. Louis.
- Thomas, Dr. L(yell) J(ay)**, University of Illinois, Urbana, Ill. *Zoology*. Minnewaukan, N. Dak, Sept. 14, 92. B.S, Fargo, 17; M.S, Illinois, 21, fellow, 22-23, Ph.D, 23. Asst. chem, Fargo, 16-17; prin, Williams Consol. Sch, N. Dak, 19; asst. prof. *zool*, Illinois, 19-22, in charge *zool. I lab*, 23- Summer, instr, Ill. State Nor. Sch, 25. Second lieut, Sig.R.C, 17-18. A.A; Soc. Parasitol; Ass. Med. Progress; Ill. Acad. Parasitology; hydroids.
- Thomas, Major Robert Gibbes**, State Highway Dept, Drawer 191, Columbia, S. C. *Mathematics*. Columbia, July 22, 59. Grad, Carolina Mil. Inst, 77; Chicago, 13. Prof. math. and physics, Carolina Mil. Inst, 81-82; U. S. asst. engineer, 83-89; asst. engineer, railways, 80-88; prof. *math. and eng*, *The Citadel*, Charleston, S. C, 89-20, *emer. prof*, 20-; ed, 'Bul,' and engineer in charge records, S. C. State Highway Dept, 20-25, marking historic ground on or near state highways, 25- A.A; Eng. Educ; S. C. Acad. Applied calculus; essentials of applied calculus.
- Thomas, Dr. Marguerite Willcox (Mrs. L. N)**, 761 Lawrence Ave, East Aurora, N. Y. *Chemistry*. Worcester, Mass, June 23, 92. A.B, Mt. Holyoke, 13; A.M, Ph.D, Bryn Mawr, 16. Asst. prof. chem, Agnes Scott, 16-18; Wells, 18-19; Wellesley, 19-20; chemist, Nat. Aniline and Chem. Co, 20-22; asst. prof. *chem*, Skidmore, 22-23; *private tutor*, 23- Summer, anal. chemist, Nat. Aniline and Chem. Co, 19. Chem. Soc. Reversible replacement of alcohols in aldehyde alcohols.
- Thomas, M(oyer) D(elwyn)**, Utah Experiment Station, Logan, Utah. *Agricultural chemistry*. Salt Lake City, Utah. A.B, Utah, 14; B.A, Oxford, 16, B.Sc, 19, M.A, 21. *Assoc. prof. agron*, Utah Col, and assoc. soil chemist, Utah Exp. Sta. Chemist, Am. Smelting and Ref. Co, Utah, 26- Rhodes scholar, 14-19. Chem. Soc; West. Soc. Soil Sci. (sec'y, 24, pres, 25). Soil alkali; soil structure; action of smelter waste products on soil and vegetation.
- Thomas, Percy H(olbrook)**, 120 Broadway, New York, N. Y. *Electrical engineering*. Boston, Mass, March 31, 72. B.S, Mass. Inst. Tech, 93. Eng. dept, Westinghouse Elec. and Mfg. Co, Pa, 93-02; chief engineer, Cooper-Hewitt Elec. Co, 03-07; consulting engineer, 07-16; consulting elec. engineer, Guggenheim Bros, 16-23; *consulting engineer*, 23- Fel. Elec. Eng; Mech. Eng; N. Y. Eng. Club; N. Y. Tech. Club.
- Thomas, Roy C(urtis)**, Agricultural Experiment Station, Wooster, Ohio. *Plant pathology*. Chesterville, Ohio, Dec, 87. A.B, Wooster, 13; Ohio State, 15-16; A.M, Michigan, 17. Teacher, high sch, Ohio, 13-15; asst. bot, Michigan, 16-17. Collaborator seed dept, bur. plant indust, U. S.

- Dept. Agr. 15. Bacteriologist, U.S.A., 17-19. A.A.; Phytopath. Soc; Bot. Soc; fel. Ohio Acad.
- Thomas, Prof. Roy Z(achariah)**, 620 Aiken Ave, Rock Hill, S. C. *Chemistry*. Frederick, Md, March 19, 79. A.B, Western Maryland, 00; Hopkins, 00-02; A.M, West Lafayette Col, 03; Ph.D, Kansas City, 04. Prof. sci. and math, West Lafayette Col, 03-07; chem. and physics, Newberry Col, 07-13; Winthrop Col; *head dept. chem, S. C. Col. for Women*, 13- Chautauqua lecturer; S. C. state food inspector. Contrib. ed, 'Jour. Chem. Educ.' A.A.; Chem. Soc; S. C. Chem. Soc. (pres); S. C. Acad. (v. pres). Food and household chemistry.
- Thomas, Prof. Stanley (Judson)**, Lehigh University, Bethlehem, Pa. *Bacteriology*. Scranton, Pa, Feb. 10, 89. B.S, Lafayette, 12; M.S, Lehigh, 13, A.M, 16. Asst. biol, Lehigh, 12-13, instr, 13-16, asst. prof, 16-17; research bacteriologist, H. K. Mulford Co, 17, asst. director biol. lab, 17-19, assoc. director, 19-22; *assoc. prof. bacter, Lehigh*, 22- Haematologist, St. Luke's Hosp, Bethlehem, 23-, lecturer, St. Luke's Nurses Training Sch, 23- A.A.; Soc. Bact; Chem. Soc. Bacteriology; haematology; sanitary chemistry.
- Thomas, Dr. Walter Stevens**, Clifton Springs, N. Y. *Pathology*. Weimar, Texas, Aug. 23, 84. M.D, Texas, 06. Fellow path, Hopkins, 08-09, asst, 09-10; instr. and assoc, Washington (St. Louis), 11-17; *director laboratories, Clifton Springs Sanitarium*, 17- Capt. and major, M.C, 17-19. A.A; Am. Med. Ass; fel. Col. Physicians; Ass. Path. and Bact; Soc. Clin. Path; Soc. Bact; Soc. Exp. Biol. Blood in malignant diseases; hydrocephalus; intestinal Protozoa; nephritis; biological stains.
- Thomas, W(illiam) A(ndrew)**, Chadbourn, N. C. *Entomology*. Bennettville, S. C, Oct. 1, 83. B.S, Clemson, 08. Acting state entomologist, 08-09; asst. entom. S. C. Exp. Sta, 09-13, asst. prof. zool. and entom, 13-18; exten. entomologist for N. C, *bur. entom, U. S. Dept. Agr*, 18-19, agent and expert, 19-20, collaborator, 20-21, junior entomologist, 21-25, *asst. entomologist*, 25- Teacher, high sch, N. C, 21. A.A; Entom. Soc; Ass. Econ. Entom. Southern corn-root worm; cabbage harlequin bug; cotton and strawberry root aphid; corn lantern fly; strawberry weevil; Porto Rico mole-cricket; spinach wireworm; seed-corn maggot of potatoes; melon and pickle worms; bean leaf beetle; squash lady bird.
- Thompson, Dr. A(lfred) Paul**, 3961 Locust St, Long Island City, N. Y. *Metallurgy*. Florence, Colo, Nov. 6, 93. B.S, Mont. Col, 15; M.S, Illinois, 23, du Pont fellow, 22-25, Ph.D, 25. Testing engineer and chemist, Anaconda Copper Mining Co, 15-16; chemist, asst. chemist and acting chief chemist, Great Falls, Mont, 16-22; asst. chem, Illinois, 22-25; *research chemist, Gen. Chem. Co, N. Y.*, 25- A.A; Chem. Soc. Chemistry and metallurgy of the rare earth elements; inorganic chemistry.
- Thompson, David G(rosch)**, U. S. Geological Survey, Washington, D. C. *Geology*. Lockland, Ohio, May 12, 88. A.B, Northwestern, 11; A.M, Illinois, 13; Hopkins, 15-17. Asst. geol, Illinois, 12-14; instr, Lehigh, 14-15; Goucher, 15-17; *asst. and assoc. geologist, U. S. Geol. Surv*, 17-, in cooperation with N. J. Dept. Conservation and Develop, 23-27. Summers, instr, Hopkins, 16, field asst, Ill, Wis, Md. and U. S. Geol. Surveys, 11-16. A.A; Ass. Geog; Water Works Ass; Wash. Geol. Soc. Ground water hydrology; geography.
- Thompson, Dr. David H(iram)**, 511 W. Illinois St, Urbana, Ill. *Zoology*. Dayton, Ind, Feb. 27, 97. B.S, Purdue, 19; M.S, Illinois, 21, Ph.D, 24. Research asst. zool, Illinois, 19-22, asst, 22-23; *zoologist, Ill. Nat. Hist. Surv*, 23- Ind. Acad. Genetics; biology of Rock River and Illinois River.
- Thompson, E(imer) J(ohn)**, North Dakota Agricultural College, Agricultural College, N. Dak. *Animal husbandry*. Nameoki, Ill, April 1, 86. B.S, Illinois. Instr. and asst. *animal husbandry, N. Dak. Col*, 10-13, asst. prof, 13-15, *prof*, 15- Sec'y, Stallion Registration Board, 15-19. N. Dak. Aberdeen Angus Ass. (sec'y, 18-). Horses; beef cattle.
- Thompson, Prof. Geo(rge) E(llsworth)**, Iowa State College, Ames, Iowa. *Physics*. Warren, Ind, April 2, 87. A.B, Indiana, 09, A.M, 10; Ph.D, Cornell, 13. Instr. *physics*, Cornell, 11-14; *assoc. prof, Iowa Col*, 14- Physical Soc; Iowa Acad. Photo-electric cells; heat penetration in canned foods; high frequency electrical phenomena.
- Thompson, Dr. Gustave W(hyte)**, National Lead Co, 105 York St, Brooklyn, N. Y. *Chemistry*. Brooklyn, July 27, 65. Hon. Sc.D, Armour, 27. *Chief chemist, Nat. Lead Co*, 92-, *director*, 16-; *Williams-Harvey Corp*, 17-, v. *pres*, 19-; director, Williams-Harvey Co, Ltd, 17-; Titanium Pigment Co, 20-; director and v. *pres*, United Lead Co, 23-; director and treas, Metal. and Chem. Corp, 25- A.A; Chem. Soc; Soc. Chem. Indust; Chem. Eng. (pres, 18); Soc. Test. Mat. (v. pres, 27); N. Y. Chemists Club. Analysis of paints and of alloys; paint tests; lead compounds.
- Thompson, Prof. Helen B(ishop)**, University of California at Los Angeles, Los Angeles, Calif. *Biochemistry*. B.S, Kansas Col, 03, M.S, 07; A.M, Columbia, 13; Ph.D, Yale, 17. Prof. household econ, Lincoln, 07-09; R. I. Col, 09-12; *prof. and dean women, New Hampshire*, 13-15; *prof. nutrition and dietetics, Conn. Col. for Women*, 15-18; *prof. nutrition and dietetics and dean div. home econ, Kansas Col*, 18-23; *prof. home econ, California at Los Angeles*, 23- Lecturer, Brown, 11-12. A.A; Home Econ. Ass; Calif. Dietetic Ass. Nutrition; growth in the albino mouse; biology and chemistry of food.
- Thompson, Prof. H(enry) D(allas)**, Princeton University, Princeton, N. J. **Mathematics*. Metuchen, N. J, Aug. 24, 64. A.B, Princeton, 85, fellow, 85-86, A.M, 88, Sc.D, 89; fellow, Hopkins, 86-87; Ph.D, Göttingen, 92. Tutor, asst. prof. and *prof. math, Princeton*, 88- A.A; Math. Soc. Hyperelliptic functions; geometry. [Died, 27.]
- Thompson, Prof. H(omer) C**, N. Y. State College of Agriculture, Ithaca, N. Y. *Botany*. Mont-

- gomery Co, Md, Jan. 5, 85. B.Sc, Ohio State, 09, M.S, 23, Ph.D, 26. Asst. prof. hort. and asst. horticulturist, Miss. Agr. and Mech. Col, 09-10; assoc. prof. hort, Clemson Col, 10-11; asst. horticulturist, U. S. Dept. Agr, 11-14, horticulturist, 14-18; *prof. veg. gardening, Cornell, 18-*, *head dept, 21-* A.A; Soc. Hort. Sci. (v. pres, 24, pres, 25); Wash. Bot. Soc. Vegetable production and storage problems; vegetable cultivation experiments; factors in seed stalk development of celery.
- Thompson, Gen. John T(aliaferro)**, Suite 805, 302 Broadway, New York, N. Y. *Mechanical engineering*. Newport, Ky, Dec. 31, 60. Grad, U. S. Mil. Acad, 82; U. S. Eng. Sch, 84; U. S. Artillery Sch, 90; LL.D, Indiana, 22. All grades from second lieut. to col, U.S.A, 82-14; senior asst. instr. ordnance and gunnery, U. S. Mil. Acad, 96-98; senior asst. to chief ordnance, U.S.A, 07-14; lecturer ordnance, Army War Col, 07-13; gen. ordnance engineer, Remington Arms Union Metallic Co, and consulting engineer, Remington Arms Co, Del, 14-17; *consulting engineer, 19-* D.S. medal. Chief small arms div, War Dept, advisory engineer to chief ordnance, director arsenals, brig. gen. ordnance dept, 17-18; brig. gen. ordnance, O.R.C. Steel for rifles; modern weapons of war.
- Thompson, Prof. Joseph O(sgood)**, Amherst College, Amherst, Mass. **Physics*. Weymouth, Mass, July 29, 63. A.B, Amherst, 84; Ph.D, Strassburg, 91. Instr. math, Amherst, 87-89; *physics, Haverford, 91-94*; assoc. prof, *Amherst, 94-18, prof, 18-* A.A; Physical Soc. Elasticity of metals.
- Thompson, Dr. Louis T(en) E(yck)**, Naval Proving Ground, Dahlgren, Va. *Physics*. South Haven, Mich, Oct. 24, 91. B.S, Kalamazoo, 14; A.M, Clark, 15, Ph.D, 17. Instr. and asst. prof. physics, Clark, 17-19, research fellow, ballistic inst. and indust. research laboratories, 19-20; Nat. Research Council fellow, 20-23; *physicist, Naval Proving Ground, 23-* A.A; Physical Soc; Math. Soc; Ill. Acad; Mich. Acad. Dynamics; thermodynamics; ballistics; internal combustion; erosion.
- Thompson, Dr. Luther**, Mayo Clinic, Rochester, Minn. *Bacteriology*. South Londonderry, Vt, Jan. 3, 90. A.B, Clark, 16; A.M, Illinois, 23, Ph.D, 25. Instr. *bacter, Pennsylvania, 20-21*; asst, Illinois, 21-24; *instr, Mayo Foundation, Minnesota, 25-*; *first asst. clin. path, Mayo Clinic, 25-* Soc. Bact. Food poisoning; blood agar classification of spore-forming anaerobic bacteria.
- Thompson, Dr. M(aurice) de Kay**, Massachusetts Institute of Technology, Cambridge, Mass. *Electrochemistry*. Covington, Ky, July 23, 77. B.S, Mass. Inst. Tech, 98; Ph.D, Basel, 03. Asst. physics, *Mass. Inst. Tech, 98-01*, instr. *electrochem, 01-07*, asst. prof, 07-13, *assoc. prof, 13-* Electrochem. Soc; Am. Acad. Applied electrochemistry; dielectric constant of liquid ammonia; Siemens process for winning copper; free energy of some halogen and oxygen compounds; equilibria of monovariant systems at high temperatures.
- Thompson, M(aurice) R(aymond)**, U. S. Bureau of Standards, Washington, D. C. *Electrochemistry*. Lexington, Mass, Dec. 5, 88. B.S, Mass. Inst. Tech, 11. *Chemist and metallurgist, Nat. Carbon Co, 11-12*; Chile Explor. Co, 12-16; Gen. Elec. Co, 16-18; Baltimore Copper Smelting and Rolling Co, 18-21; *Bur. Standards, 21-* C.W.S, U.S.A, 18. Electrochem. Soc. (publication committee, 26). Electroplating and the electrodeposition of metals.
- Thompson, Noel F(inley)**, State Capitol Annex, Madison, Wis. *Plant pathology*. Oakland, Calif, Feb. 6, 91. Whitworth Col, 11-14; B.S, Washington (Seattle), 15, M.S, 16; Wisconsin, 20-25. Field asst, U. S. Dept. Agr, 17-18; asst. prof. bot, Idaho, 19-20; assoc. pathologist, office cereal investigations, U. S. Dept. Agr, 20-27; *assoc. plant pathologist, Wis. State Dept. Agr, 27-* U.S.A, 18. A.A; Phytopath. Soc. Plant disease control in Wisconsin.
- Thompson, Dr. R(alph) L(eroy)**, 607 N. Grand Ave, St. Louis, Mo. *Pathology*. Lisbon, Maine, Nov. 15, 73. A.B, Bates, 96, A.M, 02; M.D, Harvard, 00. Fellow, Rockefeller Inst, 02-03; asst. pathologist, Boston City Hosp, 03-04; *assoc. prof. path, St. Louis, 04-06, prof, 06-*, *director, Nat. Path. Lab, 18-* A.A; Ass. Path. and Bact; Am. Med. Ass. Immunity; pathological anatomy; surgery and pathology of the thyroid and parathyroid glands.
- Thompson, Prof. Robert N(eal)**, 467 Greenwood Ave, N. E, Atlanta, Ga. *Physics*. Kingston Springs, Tenn, Aug. 23, 75. B.S, Nashville, 05; Chicago, 06-09; Columbia, 15-16. Instr. *physics, Montana, 09-10*, asst. prof. and head dept, 10-20; asst. prof, *Ga. Tech, 20-22, assoc. prof, 22-* A.A; Physical Soc.
- Thompson, Prof. R(oyal) B(urleigh)**, 215 Monroe St, Stillwater, Okla. *Poultry husbandry*. Dora, Oregon, Oct. 4, 89. B.S.A, Oregon Col, 13. Foreman, Oregon Exp. Sta. Poultry Farm, 13-16; *head poultry dept, N. Mex. Col, 16-20*; Arizona, 20-23; *Okla. Agr. and Mech. Col, 23-* Poultry Sci. Ass. Poultry feeding, breeding and management.
- Thompson, Sanford E(leazer)**, Thompson and Lichtner Co, Boston, Mass. *Engineering*. Ogdensburg, N. Y, Feb. 13, 67. B.S, Mass. Inst. Tech, 89. Eng. construction, 86-96; consulting engineer, 96-17; *Thompson and Lichtner Co, 17-25, pres, 25-* Committee on Elimination of Waste in Indust, 21; econ. advisory board, Unemployment Conf, 21, engineer, N. E. Council, 26. Civil Eng; Mech. Eng; Soc. Test. Mat. (past chairman, C. 9); Concrete Inst. (past director and v. pres); Taylor Soc. (past director); Boston Soc. Civil Eng. Development of scientific methods in industry and construction; factory organization and management; industrial research.
- Thompson, Prof. T(heos) J(efferson)**, University of Nebraska, Lincoln, Nebr. *Chemistry*. Northville, S. Dak, Nov. 1, 86. Houghton Col; Michigan; Chicago; A.B, Nebraska, 13, A.M, 15, Ph.D, 21. Instr. chem. and physics, Miltonvale Wesleyan Col, 13-14; asst. chem, Nebraska, 14-15; prof. and dean men, Miltonvale Wesleyan Col, 15-18; asst. and instr. *chem, Nebraska, 18-*

21, asst. prof, 21-25, assoc. prof, 25-27, *prof. and dean student affairs*, 27- Hercules Powder Co, 18-19. A.A.; Chem. Soc. Solubilities of fatty acid salts; hydrolysis of proteins; the relation of diet to blood constituents; synthesis of coumarins, hydantoin and substituted succinic acids; benzyl esters.

Thompson, Prof. Thomas G(ordon), University of Washington, Seattle, Wash. *Chemistry*. Rosebank, N. Y., Nov. 28, 88. A.B., Clark; M.S., Ph.D., Washington (Seattle). Asst. chemist, Am. Brass Co, 06-11; Am. Steel and Wire Co, 12; teaching fellow chem, Washington (Seattle), 14-17, asst. prof, 19-23, *assoc. prof*, 23- Carnegie scholar, British Iron and Steel Inst, 15. Capt. C.W.S., 17-19, C.W.S.R.C., 19-24, major, 24- Chem. Soc. (v. chairman, div. chem. educ, 24, div. water, sewage and sanit, 24, chairman, Puget Sound sect, 22-25). Inorganic and analytical chemistry; chemistry of the sea.

Thompson, Prof. W(alter) P(almer), University of Saskatchewan, Saskatoon, Sask, Can. *Botany*. Jarvis, Ont, April 3, 89. B.A., Toronto, 10, 1851 Exhib. scholar, 10-13; A.M., Harvard, 12, Ph.D., 14. *Prof. biol. and head dept, Saskatchewan*, 14- A.A.; Bot. Soc; fel. Royal Soc. Can; Sask. Nat. Soc. (pres, 17). Anatomy of seed plants; genetics and cytology of wheat.

Thompson, Dr. Warren S(impson), Miami University, Oxford, Ohio. *Sociology, Statistics*. Weeping Water, Nebr, April 29, 87. A.B., Nebr. Wesleyan, 07; A.M., Nebraska, 11; Chicago, 11-12; Ph.D., Columbia, 15. Instr. sociol, Michigan, 13-18; acting prof. rural sociol, Cornell, 19-20, prof, 20-22; *director, Scripps Foundation for Research in Population Problems, Miami*, 22- Statist. expert, War Dept, 18-19. Sociol. Soc; Statist. Ass. The growth of population.

Thompson, Willard C(handler), Rutgers University, New Brunswick, N. J. *Poultry husbandry*. Sun Prairie, Wis, Nov. 24, 90. B.S.A., Wisconsin, 12. Acting head dept. animal husbandry, Arkansas, 12-13; *prof. poultry husbandry, Rutgers, and poultry husbandman, N. J. Exp. Sta*, 13- Director, Nat. Inst. Poultry Husbandry, Harper Adams Agr. Col, Eng, 24-26. Assoc. ed, 'Poultry Science,' 26-29. Commander, Order of Merit, Spain. Second lieut, Sanit.C, 18. Poultry Sci. Ass; Int. Ass. Poultry Husbandry (exec. committee for Eng, 24-26). Poultry nutrition, housing and environment; commercial poultry breeding and rabbit culture for fur and wool; water-fowl culture; pigeon production for table purposes.

Thompson, Prof. Willard C(urtis), University of Texas, Austin, Texas. *Organic chemistry*. Marion, Kans, Sept. 15, 94. A.B., Kansas, 18, M.S., 22; Texas, 27. Chemist, Bonner Portland Cement Co, 19; Fort Worth Lab, 19-20; instr. chem, Iowa Col, 20-21; asst. city chemist, Kansas City, Mo, 22-23; prof. chem, Daniel Baker Col, 23-27; *tutor and grad. student, Texas*, 27- Chem. Soc. Thiazolidins of known structure; isothiourea ethers.

Thompson, W(illiam) F(rancis), University of Washington, Seattle, Wash. *Zoology*. St. Cloud, Minn, April 3, 88. A.B., Stanford, 11.

Ichthyol. asst, Stanford, 09-13; asst. fish and game commissioner, Calif, 13; sci. asst, British Columbia, 14-17; director, Calif. State Fisheries Lab, 17-24; *director, Int. Fisheries Commission*, 25- A.A. Fishes of Japan and South America; economic survey of Mollusca of British Columbia; life history of the sardine, albacore and halibut; condition of the fishery.

Thompson, Dr. W(illiam) Gilman, 17 E. 61st St, New York, N. Y. *Medicine*. New York, Dec. 25, 56. Ph.B., Yale, 77; M.D., Columbia, 81. *Consulting physician, Bellevue, Woman's and Reconstruction Hospitals*; prof. med, med. col, Cornell, 98-11, *emer. prof*, 11- Visiting physician, N. Y. Hosp, 87-95; Presb. Hosp, 87-12; Bellevue Hosp, 95-16, consulting physician, 16-; prof, N. Y. Univ, 87-98; pres, N. Y. Bot. Garden, 11-21; Reconstruction Hosp, 18-25. Am. Physicians; Am. Med. Ass; N. Y. Acad. Med; fel. N. Y. Acad. Practical dietetics and medicine; occupational diseases. [Died Oct. 27, 27.]

Thompson, Dr. W(illiam) B(obin), European Parasite Laboratory, Le Mont Fenouillet, Hyères, France. *Entomology*. London, Ont, Can, June 29, 87. B.S.A., Ont. Agr. Col, 09; M.S., Cornell, 12; D.Sc., Paris, 21; Ph.D., St. Maximin, France, 24. *Bur. entom, U. S. Dept. Agr*, 09-10, 12-13, 19- Asst, Cornell, 11; demonstrator, Cambridge, 14-15; British Navy, 15-19. Prix Passet, Soc. entom. de France, 22. Entom. Soc; Wash. Entom. Soc; Soc. entom. de France; Soc. zool. de France. Problems relating to the biology, development and anatomy of insect parasites.

Thomson, Dr. Elihu, General Electric Co, Lynn, Mass. **Electrical engineering*. Manchester, Eng, March 29, 53. A.B., A.M., Cent. High Sch. Phila, 70; hon. A.M., Yale, 90; hon. Ph.D., Tufts, 96; hon. Sc.D., Harvard, 09; LL.D., Pennsylvania, 24; Sc.D., Manchester, 24. Asst. prof. chem, Cent. High Sch. Phila, 70-75, prof, 75-80; *electrician, Thomson-Houston and Gen. Elec. Companies*, 80-; *engineer, Thomson Elec. Welding Co*. Lecturer, Mass. Inst. Tech, acting pres, 20-22. Pres, Int. Electrochem. Commission, 08-11. La. Purchase Expos, 04. John Scott medals, 88, 00; Grand Prix (elec. invention), Paris, 89, 00; Rumford medal, 02; Edison medal, Elec. Eng, 10; Elliott Cresson medal, Franklin Inst, 12; John Fritz medal, 16; Hughes medal, Royal Soc. London, 16; Kelvin medal, 24; Franklin medal, 25; Faraday medal, British Inst. Elec. Eng, 27. Chevalier and Officier, Légion d'honneur, 89. U. S. delegate, Int. Elec. Cong, 93; pres, Elec. Cong, St. Louis, 04, pres. chamber of delegates. Nat. Acad; A.A. (v. pres, 99); Physical Soc. (v. pres, 03, 05); Elec. Eng. (past pres); Chem. Soc; Illum. Eng. Soc; Electrochem. Soc; Philos. Soc; hon. mem. Franklin Inst; fel. Am. Acad. (v. pres); hon. mem. British Inst. Elec. Eng; British Inst. Civil Eng; Soc. française des Elec; Soc. d'Encourag. pour l'Indust. nat. Phenomena of alternating current induction; high potentials and high frequency apparatus; fused quartz production and application; electric welding; general development in electricity and allied fields.

Thomson, Dean Francis A(ndrew), University of Idaho, Moscow, Idaho. *Mining, Metallurgy*.

- London, Eng. Dec. 21, 79. E.M. Colo. Sch. Mines, 04, M.S., 14, Sc.D., 23. Professional practise, B. C. Colo, Nev, Idaho and Calif, 96-06; prof. mining and metal, Wash. Col, 07-11, acting dean faculty, 14-16; *dean sch. mines, Idaho, 17-* Director, Idaho Bur. Mines and Geol, 19-; consulting metallurgist, U. S. Bur. Mines. Min. and Metal. Soc; Min. and Metal. Eng. (chairman, Columbia sect, 14); Eng. Educ. Cyanidation of gold and silver ores; flotation; geology of gold and silver deposits.
- Thomson, Prof. J. Ellis**, University of Toronto, Toronto, Ont, Can. *Mineralogy*. Toronto, July 27, 82. B.A.Sc., Toronto, 07. Demonstrator *miner, Toronto*, 12-14, lecturer, 14-21, *asst. prof, 21-* Field work, Can. Geol. Surv, 18-; Ont. Dept. Mines, 10, 15, 16. Fel. Miner. Soc; Can. Inst. Min. and Metal. (sec'y, Toronto branch, 21-24, chairman, 24); Royal Inst. Can. (hon. sec'y, 27-); British Ass; London Miner. Soc. Crystallography; mineralography.
- Thomson, R(obert) B(oyd)**, University of Toronto, Toronto, Ont, Can. *Botany*. Prescott, Ont, Sept. 16, 70. B.A., Toronto, 99. Lecturer and assoc. prof. bot. and *prof. phanerog. bot, Toronto, 06-* A.A.; Bot. Soc; Royal Soc. Can. Phanerogamic botany; anatomy and reproduction of gymnosperms; experimental morphology and plant breeding; teratological features of conifers.
- Thomssen, Dr. E(dgar) G(eorge)**, Winona, Minn. *Chemistry*. Masulipatam, India, 86. B.S., Columbia, 07, A.M., 08, Ph.D., 10. Chemist, Bayer and Co, 08-09; asst. chem, Columbia, 09-10; chemist, Lightfoot Schultz Co, 11-13; research chemist, dairy div, U. S. Dept. Agr, 13-14; v. pres. and sec'y, Lightfoot Schultz Co, 14-23; *chief chemist, J. E. Watkins Co, 23-* Contrib. ed, 'Am. Perfumer and Essential Oil Rev.' A.A.; Chem. Soc; N. J. Chem. Soc. Food products; pharmaceuticals; fats; oils; soap.
- Thone, Dr. Frank (Ernest Aloysius)**, 21st and B Sts, N. W., Washington, D. C. *Plant ecology*. Davenport, Iowa, April 12, 91. B.S., Grinnell, 15; Hopkins, 19-20; Ph.D., Chicago, 22. Instr. biol, N. Dak. Col, 23; assoc. prof. bot, Florida, 23-24; *staff mem, Science Service, 24-* Summers, naturalist-lecturer, Yellowstone Nat. Park, 22-24. A.A.; Ecol. Soc; Bot. Soc; Soc. Plant Physiol. Scientific journalism; ecology of the Starved Rock region, Illinois; atmometry.
- Thorburn, A(lbert) D(avid)**, 2223 Fourth Ave, Los Angeles, Calif. *Pharmacy*. Near St. Catherines, Ont, Can, Nov. 11, 72. Grad, Chicago Col. Pharmacy, 94. Asst. prof. chem, Chicago Col. Pharmacy, 94-97; chemist, Searle and Hereth Co, 01-06; *in charge production med. preparations, Pitman-Moore Co, 06-19; Swan-Myers Co, 19-* Prof, col. med, Illinois, 01-04; assoc. prof, Indiana, 13-17. Drugs; medicinal products.
- Thornber, Prof. J(ohn) J(ames)**, University of Arizona, Tucson, Ariz. *Botany*. Rantoul, Ill, Feb. 8, 72. B.S., S. Dak. Col, 95; Nebraska, 97, A.M., 01. Instr, high sch, Nebr, 97-01; biologist, *Arizona, 01-22, dean col. agr, 22-*, botanist, *Exp. Sta, 01-21, director, 21-* Asst, Nebr. Bot. Surv, 97-01. A.A.; Bot. Soc; Bot. Cent. States. Ecological aspects of the flora of eastern Nebraska; taxonomy and ecology of the flora of Arizona; range conditions in Arizona.
- Thornberry, Martin H(armon)**, Missouri School of Mines, Rolla, Mo. *Metallurgy*. Newtonia, Mo, July 13, 82. B.S., Mo. Sch. Mines, 12, B.S. (Metal), 17, Metal. Eng, 20. *Research metallurgist, Mo. Sch. Mines, 15-*; *in charge State Mining Exp. Sta. Min. and Metal. Eng; Ceramic Soc. Chemistry; flotation; ore dressing; clays.*
- Thornburg, Prof. C(harles) L(ewis)**, Lehigh University, Bethlehem, Pa. *Mathematics, Astronomy*. Barboursville, W. Va., April 17, 59. Fellow, Vanderbilt, 80-83, B.S., 82, C.E., 83, Ph.D., 84; LL.D., Lehigh, 25. Teacher, pub. schools, W. Va, 77-79; asst. eng, Vanderbilt, 84, instr, 85-87, adjunct prof, 87-95; prof. *math. and astron, Lehigh, 95-25, emer. prof, 25-* A.A.; Eng. Educ. Calculus; elementary differential equations.
- Thorndike, Prof. Edward L(ee)**, Teachers College, New York, N. Y. **Psychology*. Williamsburg, Mass, Aug. 31, 74. A.B., Wesleyan, 95, Sc.D., 19; A.B., Harvard, 96, A.M., 97; Ph.D., Columbia, 98; LL.D., Iowa, 23. Instr. educ. and teaching, Col. for Women, Western Reserve, 98-99; psychol, *Teachers Col, Columbia, 99-01*, adjunct prof, 01-03, *prof. educ. psychol, 04-*, *director div. psychol, Inst. Educ. Research, 22-* Head dept. comp. psychol, Woods Hole, 00-02. Chairman committee on classification of personnel, U.S.A., 17-18. Nat. Acad; A.A. (chairman, sections H and L); Soc. Nat; Psychol. Ass. (pres, 12); Econ. Ass; Sociol. Soc; Galton Soc; Philos. Ass; fel. N. Y. Acad. (pres). Animal psychology; educational psychology; educational statistics.
- Thorndike, Sturgis H(opper)**, 44 School St, Boston, Mass. *Civil engineering*. Beverly, Mass, June 11, 68. A.B., Harvard, 90; B.S., Mass. Inst. Tech, 95. Engineer, City of Boston, 95-13; *partner, Fay, Spofford and Thorndike, 14-* Instr, Mass. Inst. Tech, 04-06. Civil Eng; New Eng. Water Works Ass; Boston Soc. Civil Eng. (director, 19-). Engineering economics.
- Thorndike, Dr. T(ownsend) W(illiam)**, 75 Fresh Pond Parkway, Cambridge, Mass. *Dermatology*. Boston, 72. Harvard, 94-95, M.D., 02. *Dermatologist, Carney Hosp, 07-14; Boston City Hosp, 07-*; *prof. dermat, med. sch, Tufts; Harvard Med. Sch. A.A.; Am. Med. Ass; New Eng. Soc. Dermat. (v. pres, 15-)*. Dermatology; syphilis; history of medicine.
- Thorne, Charles E(mbree)**, Ohio Agricultural Experiment Station, Wooster, Ohio. *Agriculture*. Greene Co, Ohio, Oct. 4, 46. Mich. State Col, 66; Antioch, 68-70; hon. M.S.A., Ohio State, 90; hon. Sc.D., Wooster, 26. Farm manager, Ohio State, 77-81; director, *Ohio Exp. Sta, 87-21, consulting chief soil fertility, 21-* Assoc. ed, 'Farm and Fireside,' 81-88. A.A.; Soc. Agron. (pres, 15); Soc. Animal Production. Maintenance of soil fertility; farm manures.
- Thornton, Prof. M(armaduke) K(nox), Jr**, College Station, Texas. *Chemical engineering*. Helena, Ark, Feb. 8, 92. B.S., Miss. Agr. and

Mech. Col, 09; A.M., Columbia, 14. Chemist, Tenn. Coal, Iron and Ry. Co, Ala, 09-11; instr, Agr. and Mech. Col. Texas, 11-15; junior chemist, ordnance dept., Picatinny Arsenal, N. J., 15-18; shift supervisor, Hercules Powder Co, 18-19; *prof. indust. chem., Agr. and Mech. Col. Texas*, 19- Chem. Soc. Explosives; fuels for internal combustion engines; lubrication of engines.

Thornton, Prof. Robert A(mbroise), Kittrell College, Kittrell, N. C. *Physics*. Houston, Texas, July 6, 97. B.S., Howard, 22; M.S., Ohio State, 25. *Prof. physics*, Shaw, 22-26; *Kittrell Col*, 26- Math. Soc. Short methods and applications in the theory of ordinary differential equations; derived solutions of differential equations of mathematical physics.

Thornton, Dr. William M(ynn), Jr., Johns Hopkins University, Baltimore, Md. *Chemistry*. Charlottesville, Va, Feb. 7, 84. A.B., Hampden-Sidney, 04; A.M., Virginia, 07; Yale, 12, Ph.D, 14. Asst. chem, Mass. Col, 07-08; chemist, Va. Geol. Surv, 08-11; tutor, Col. City of N. Y., 14-15; chemist, E. I. du Pont de Nemours and Co, 15-17; *assoc. chem., Hopkins*. A.A.; Chem. Soc.; Soc. Test. Mat. Analytical chemistry; laboratory appliances; mineralogy; titanium.

Thorp, Prof. F(rank) H(all), Bloomington, Ill. **Chemical technology*. Bloomington, Feb. 25, 64. B.S., Mass. Inst. Tech, 89; Ph.D., Heidelberg, 93. Asst. chem, Mass. Inst. Tech, 89-91, instr, 94-00, asst. prof. indust. chem, 01-16. Field asst, U. S. Geol. Surv, 86-87. Assoc. ed, 'Jour. Indust. and Eng. Chem,' 08-09. A.A. The preparation of boiled linseed oil; oxims of substituted benzophenones.

Thorpe, Dr. Malcolm R(utherford), 82 Linden St, New Haven, Conn. *Geology*. Bristol, Conn, March 12, 91. A.B., Yale, 13, Ph.D, 16. *Asst. prof, Yale, research assoc. and curator vert. paleont., Peabody Museum*, 23- Field expeditions. A.A.; fel. Geol. Soc; fel. Am. Geog. Soc; Ass. Mammal; Paleont. Soc; Ass. Mus; Conn. Acad. Vertebrate paleontology.

Thorvaldson, Prof. T(horbergur), University of Saskatchewan, Saskatoon, Sask, Can. *Chemistry*. Iceland, Aug. 24, 83. B.A., Manitoba, 06; A.M., Harvard, 09, Ph.D, 11, 13-14; Tech. Hochschule, Dresden, 11-12; Liverpool, 12-13. Asst. chem, Manitoba, 06-08; asst. prof, *Saskatchewan*, 14-17, *prof*, 17-, *head dept*, 19- Assoc. committee of chemists, Can. Research Council, 19-23. A.A.; Chem. Soc; fel. Royal Soc. Can; Can. Inst. Chem. Atomic weights of iron and lead; thermochemistry; liquids; hydraulic cements.

Thro, Prof. William C, 477 First Ave, New York, N. Y. *Medicine*. Elmira, N. Y., May 1, 75. B.S.A., Cornell, 00, A.M., 01, M.D., 07. Instr. histol. and embryol, Cornell, 01-05; bacteriologist, research lab, Dept. Health, New York, 08-09; instr. bacter, Univ. and Bellevue Hosp. Med. Col, 09-10; asst. prof. *clin. path. med. col, Cornell*, 10-18, *prof*, 18-; *pathologist, Reconstruction Hosp, St. Mark's Hosp.* A.A.; Am. Med. Ass; Ass. Anat; Ass. Path. and Bact; Soc. Clin. Path; Soc. Bact; Ass. Immunol; Soc. Exp. Biol. Entomology; embryology; bacteriology of tuber-

culosis; rhinoscleroma; fermentation of Streptococci; blood diseases; asthma; calcium in the blood; clinical pathology.

Throckmorton, Prof. R(ay) I(ams), 825 Houston, Manhattan, Kans. *Soils*. Waynesburg, Pa, Dec. 10, 86. B.S., Pennsylvania, 11; M.S., Kansas Col, 22. Asst. soils, *Kansas Col*, 11-14, *assoc. prof*, 14-18, *prof*, 18-25, *agron*, 25- Soc. Agron. Soils; soil fertility.

Thrun, Dr. Walter E(ugene), Michigan State College, East Lansing, Mich. *Agricultural chemistry*. Bloomfield, Wis, March 22, 92. A.B., Michigan, 12, M.S., 14; Ph.D., Missouri, 17. Asst. chemist, Exp. Sta, Missouri, 14-17; instr. *physiol. chem*, Illinois, 17; fellow, sch. hygiene and pub. health, Hopkins, 19; *prof. chem*, col. med, Baylor, 19-20; *assoc. prof*, Miss. Agr. and Mech. Col, 20-23; *asst. prof*, Louisville, 23-24; *instr*, Lehigh, 25-27; *Mich. State Col*, 27- U.S.A., 17-18. A.A.; Chem. Soc. (sec'y, Mo. sect, 16). Amino acids of bovine flesh proteins; detection of carotin; flat luminous flames; electron method of teaching oxidation.

Thurber, Dr. C(larence) H(owe), University of Buffalo, Buffalo, N. Y. *Education*. Brattleboro, Vt, Sept. 18, 88. A.B., Colgate, 12; A.M., Columbia, 21, Ph.D, 22. Instr, Phillips Acad, 12-13; *prof*, Wabash, 13-15; Purdue, 15-20; *assoc. prof*, Syracuse, 22-24; *exec. sec'y*, *Buffalo*, 24- Lecturer, William and Mary, 22. The cost and support of state higher education.

Thurber, Dr. F(rancis) H, 2719 Arnold Way, Corvallis, Oregon. *Chemistry*. Ellsworth, Wis, Dec. 27, 89. A.B., Lawrence Col, 13; A.M., Nebraska, 15; Ph.D., Chicago, 24. Teacher, high sch, 15-18; asst. chemist, Texas Exp. Sta, 18; instr. chem, Wash. Col, 18-19; asst. prof. *org. chem*, *Oregon Col*, 21-23, *assoc. prof*, 23- Chem. Soc. Organic chemistry; optical activity.

Thuringer, Prof. J(oseph) M(arion), 731 Jenkins St, Norman, Okla. *Histology, Embryology*. Altstätten, Canton St. Gall, Switzerland, March 23, 86. Kantonsschule, St. Gall, 04; M.D., Creighton, 11. Asst. histol. and embryol, Harvard, 15-16; asst. prof. anat. and head dept, Alabama, 16-18; asst. prof. anat, Tulane, 18-20; *prof. histol. and embryol*, *Oklahoma*, 20- Swiss vice consul, Alaska and Wash, 13-15. A.A.; Am. Med. Ass; Ass. Anat; Okla. Acad; Schweiz. Naturschutz Verein. Histological methods; regeneration of normal epithelia.

Thurlow, O(scar) G(owen), Alabama Power Co, Birmingham, Ala. *Civil engineering*. Newburyport, Mass, June 7, 81. B.S., Mass. Inst. Tech, 04. Chief engineer, *Ala. Power Co*, 15, *v. pres. in charge eng*; *v. pres*, *Dixie Construction Co*, 18- Consulting engineer, U. S. Govt, 18- Civil Eng; Mech. Eng. Hydraulic engineering.

Thurman, Dr. (Edgar) Neal, 1428 Welch Boulevard, Flint, Mich. *Chemistry*. Somerset, Ky, Dec. 20, 01. B.S., Kentucky, 21; M.S., Northwestern, 22, Ph.D, 24. *Research chemist, cellulose products div, E. I. du Pont de Nemours and Co*, 24- The preparation and reactions of certain organic mercury compounds.

Thurmond, Dr. G(ilbert) I(vo), University of Cincinnati, Cincinnati, Ohio. *Chemistry*. Nash-

- ville, Tenn, April 25, 98. A.B, Vanderbilt, 19; A.M, Virginia, 20, Ph.D, 23. Teaching fellow, Virginia, 20, 22-24, *instr. chem*, 21; *physical chem*, *Cincinnati*, 24- Summers, Virginia, 22, 23, 24. Chem. Soc. Equilibrium in oxyhydroxide acids, water and anhydride systems.
- Thurston, Prof. Edward D(ay), Jr**, Columbia University, New York, N. Y. *Mechanical engineering*. New York, Oct. 23, 82. A.B, Columbia, 05, M.E, 07. Asst. *mech. eng*, *Columbia*, 07-08, tutor, 08-09, *instr*, 09-15, asst. prof, 15-20, *assoc. prof*, 20- Lieut, U.S.N.R.F, 17-19. Mech. Eng; Automotive Eng. Gas power.
- Thurston, Prof. H(enry) W, Jr**, Pennsylvania State College, State College, Pa. *Plant pathology*. La Grange, Ill, Jan. 3, 93. B.S, Illinois, 15; Ph.D, Columbia, 23. Assoc. prof. plant path. and physiol, Nebraska, 17-18; pathologist, office cereal investigations, bur. plant indust, U. S. Dept. Agr, 19-20; *asst. prof. plant path*, *Pa. State*, 20- Phytopath. Soc.
- Thurstone, Prof. L(ouis) L(eon)**, University of Chicago, Chicago, Ill. **Psychology*. Chicago, May 29, 87. M.E, Cornell, 12; Ph.D, Chicago, 17. Asst. psychol, Carnegie Inst. Tech, 15-17, *instr*, 17-18, asst. prof, 18-19, *assoc. prof*, 19-20, prof, 20-23; psychologist, Inst. for Govt. Research, 23-24; *assoc. prof. psychol*, *Chicago*, 24- Psychologist, Inst. for Juvenile Research, Chicago. Assoc. ed, 'Jour. Personnel Research,' Chairman committee on personnel research, Nat. Research Council. Trade test staff, War Dept, U.S.A. Psychol. Ass. (councilor); Eng. Educ. (chairman, committee No. 22). The nature of intelligence; statistics; learning curve equation; trade tests; intelligence tests for colleges.
- Thwaites, F(redrik) T(urville)**, University of Wisconsin, Madison, Wis. *Geology*. Madison, Dec. 23, 83. A.M, Wisconsin, 08. Asst. geologist, Wis. Geol. and Nat. Hist. Surv, 08-11; *curator geol. museum*, *Wisconsin*, 11-; *geologist*, *Wis. Geol. and Nat. Hist. Surv*, 16- Geol. Soc; Wis. Acad; Wis. Hist. Soc. Glacial geology; underground waters in Paleozoic formations of Wisconsin.
- Thwing, Prof. Charles B(urton)**, 3339 Lancaster Ave, Philadelphia, Pa. **Physics*. Theresa, N. Y, March 9, 60. A.B, Northwestern, 88; Ph.D, Bonn, 94. Instr. physics, acad, Northwestern, 88-93; Wisconsin, 94-96; prof, Knox, 96-01; Syracuse, 01-05; research, Western Reserve, 05-06; *manufacturer pyrometers*, *Phila*, 06- Physical Soc; Electrochem. Soc; Ceramic Soc; Optical Soc. Dielectric constant; gravitation; color photography; thermoelectric properties of alloys; calorimetry.
- Tibbals, Prof. C(harles) Austin, Jr**, 511 Hawthorn Lane, Winnetka, Ill. *Chemistry*. New York, N. Y, July 23, 81. Columbia, 99-02; A.B, Wisconsin, 04, A.M, 06, Ph.D, 08. Asst. chem, Wisconsin, 03-05, *instr*, 05-08; asst. prof, *Armour*, 08-10, *assoc. prof*, 10- Special chemist, Underwriters' Laboratories, Inc, 19- Capt, ordnance dept, U.S.A, 18-19, ordnance reserve, 19- A.A; Chem. Soc. Inorganic chemistry; chemistry of tellurium; high explosives; fire protection chemistry.
- Tickell, Prof. F(rederick) G(eorge)**, Stanford University, Calif. *Petroleum geology*. Belleville, Ont, Can, 86. B.S, California, 12. Geologist, South. Pacific Co, 16-21; *prof. petrol. eng*, *Stanford*, 21- Ass. Petrol. Geol. Correlation of sub-surface strata.
- Ticknor, Dr. A(rthur) A(nderson)**, 1407 Marlborough Ave, Plainfield, N. J. *Chemistry*. West Claremont, N. H, Oct. 6, 92. Ph.B, Yale, 14, Cott-a-Lapp fellow, 16-17, Ph.D, 17. Asst. anal. chem, Sheffield Sci. Sch, Yale, 14-16; *research chemist*, Calco Chem. Co, 17-20; Tubize Artificial Silk Co. of Amer, 20-24; *Calco Chem. Co*, 24- Chem. Soc; fel. Inst. Chem. Organic chemistry; dyes and intermediates; pharmaceuticals; derivatives of amino acids; cellulose and cellulose esters; collodion; solvent recovery; Chardonnnet artificial silk; cellulose nitrate denitration; inorganic sulphur derivatives.
- Tidd, George W(ashington)**, Hendersonville, N. C. *Engineering*. Wakefield, Ohio, Sept. 28, 73. B.S, Valparaiso, 98; M.S, Iowa Col, 11. Head science dept, Steinman, 98-04; teacher, pub. sch, and engineer, 04-13; head dept. physics, Kansas State Nor. Sch, 13-17; prof. math. and eng, Phillips, 17-18; head dept. eng, Marion Mil. Inst, 18-19; private practise, 19-20; gen. manager, Ala. Concrete Products Co, 20-23; Carolina Eng. Co, 23-24; city engineer, Union, S. C, 24-25; *land develop. engineer and private practise*, *Hendersonville*, 25- A.A; Elec. Eng; Ass. Eng; Physical Soc; Chem. Soc; Okla. Eng. Soc; Piedmont Eng. Club (v. pres). Strength of materials; optical properties of metals; structures and pavements; densifying and ornamenting concrete.
- Tidestrom, Ivar**, U. S. Department of Agriculture, Washington, D. C. *Botany*. California, 91-95; Catholic Univ, 96-98, Ph.B, 97. *Asst. botanist*, *bur. plant indust*, *U. S. Dept. Agr*. Torrey Bot. Club; Wash. Bot. Soc; Wash. Biol. Soc.
- Tieje, Dr. Arthur J(errold)**, 2016 S. La Salle Ave, Los Angeles, Calif. *Geology, Paleontology*. Dayton, Ohio, Dec. 24, 91. A.B, Cornell, 13, A.M, 14; Ph.D, Minnesota, 20. Instr. sci. composition, Minnesota, 14-17, geol, 18-20; asst. prof, Colorado, 20-22; *consulting geologist and paleontologist*, *Los Angeles*, 23-; *assoc. prof. geol*, *Southern California*, 24- Paleont. Soc; Ass. Petrol. Geol. Cambrian stratigraphy of Wyoming; red beds of Colorado; Pliocene and Pleistocene of Southern California.
- Tiffany, Prof. L(ewis) H(anford)**, Ohio State University, Columbus, Ohio. *Botany*. Lawrenceville, Ill, July 29, 94. Grad, Ill. State Teachers Col, 15; B.S, Chicago, 19; M.S, Ohio State, 21, Ph.D, 23. Instr, high sch, Ill, 15-17; *instr. bot*, *Ohio State*, 20-25, *asst. prof*, 25- Summers, algologist, Surv. of Ohio Fishes, 20-21, Lakeside Lab, Iowa Col, 23. Business manager, 'The Ohio Jour. of Science,' 21-; asst. ed, algae, 'Bot. Abstracts,' 22-25. Second lieut, F.A, 18. A.A; Bot. Soc; Ecol. Soc; Ill. Acad; Ohio Acad. Physiology and taxonomy of freshwater algae; algal food of fishes; algae of Ohio and Iowa; Oedogoniales.
- Tigert, Dr. Jno. J(ames)**, U. S. Commissioner of Education, Washington, D. C. *Psychology*,

Education. Nashville, Tenn, Feb. 11, 82. A.B, Vanderbilt, 04; B.A, Oxford, 07, M.A, 15; Minnesota, 16; LL.D, Kentucky, 21, Bates, 24, New Mexico, 24; Ed.D, Rhode Island, 23. Prof. philos, Central (Mo), 07-09; pres, Ky. Wesleyan, 09-11; prof. philos, Kentucky, 11-17, psychol, 17-21; *U. S. Commissioner Educ*, 21- Educ.C, U.S.A, 18-19. V. chairman, Fed. Board Vocational Educ; Fed. Board Maternity and Infant Hygiene; chairman, Fed. Council Citizenship Training. Hon. mem. Second Pan-Am. Sci. Cong. A.A.

Tilden, Prof. C(harles) J(oseph), Yale University, New Haven, Conn. *Civil engineering*. Brookline, Mass, Oct. 3, 73. B.S, Harvard, 96; A.M, Yale, 19. Structural draftsman, 97-00; asst. engineer, N. Y. Rapid Transit Commission, 01-03; instr. civil eng, Cornell, 04; Michigan, 05-06, asst. prof, 06-08, junior prof, 08-11, prof. eng. mech. and head dept, 11-13; prof. civil eng, Hopkins, 13-19; *prof. eng. mech. and chairman dept, Yale*, 19- Highway research specialist, U. S. Bur. Pub. Roads, 22- Capt, R.C.Eng, 17-; dept. educ. and training, Emergency Fleet Corp, 18. A.A; Civil Eng. Reinforced concrete tests; structural steel work; eccentric tension in angles; reinforced concrete highway bridges; stress distribution in girders; civil engineering history.

Tilden, Prof. Josephine E(lizabeth), 2105 First Ave, S, Minneapolis, Minn. *Botany*. Davenport, Iowa. B.S, Minnesota, 95, M.S, 97. Instr. bot, Minnesota, 98-02, asst. prof, 02-10, *prof*, 10- Delegate, Pan-Pacific Science Conf, Honolulu, 20, Melbourne and Sydney, Australia, 23, Tokyo, Japan, 26. Pan-Pacific Food Conservation Conf, Honolulu, 24. A.A; Bot. Soc; Am. Geog. Soc. American algae; the algae of the Hawaiian Islands; South Pacific algae; Myxophyceae of North America; index *Algarum universalis*; algal food of animals.

Tileston, Prof. Wilder, 15 Edgehill Road, New Haven, Conn. *Medicine*. Concord, Mass, Jan. 22, 75. A.B, Harvard, 95, M.D, 99. Asst. clin. chem, Harvard Med. Sch, 01-03, clin. med, 06-08; asst. prof. med, Yale, 09-19, *clin. prof*, 19- Past asst. visiting physician, Long Island Hosp, Boston; consulting physician, Mass. Charitable Eye and Ear Infirmary; visiting physician, New Haven Hosp; chief staff, Grace Hosp. Am. Physicians; Soc. Clin. Invest. Internal medicine; hematology; tuberculosis; the digestive system; diseases of the pancreas and liver.

Tillman, Gen. S(amuel) E(scue), Century Association, 7 W. 43d St, New York, N. Y. *Chemistry, Geology*. Shelbyville, Tenn, Oct. 2, 47. Grad, U. S. Mil. Acad, 69; A.M, Yale, 06. Officer, E.C, 72-81; prof. chem, miner. and geol, U. S. Mil. Acad, 81-11; *retired*, 11. Asst. astronomer, U. S. transit of Venus exped, Tasmania, 74-75; asst. engineer, U. S. Geog. Surv, War Dept, west of 100th meridian, 73-74, 76-79; supt, U. S. Mil. Acad, 17-19, brig. gen, 19. D.S. medal. A.A. Descriptive general chemistry; heat; mineralogy.

Tillotson, Dr. E(dwin) Ward (Jr), Mellon Institute, Pittsburgh, Pa. *Chemistry, Ceramics*. Farmington, Conn, Feb. 28, 84. A.B, Yale, 06,

fellow, Ph.D, 09. Asst. chem, Yale, 06-07; indust. fellow, Kansas, 09-13; *asst. director, Mellon Inst*, 13- Chem. Soc. (chairman, Pittsburgh sect, 20); Ceramic Soc. (sec'y, glass div, 19-21, v. pres, 22, pres, 25); Soc. Glass Technol; Optical Soc. Organic chemistry; the relation between the optical properties and the chemical composition of glass.

Tillson, Benjamin F(ranklin), Franklin Borough, N. J. *Engineering*. Norwich, N. Y, April 11, 84. Ph.B, Yale, 05; E.M, Columbia, 07. Asst. mine capt, N. J. Zinc Co, 07-10, *head min. dept. and asst. supt*, 10- Consultant, U. S. Bur. Mines, chairman advisory board, research of rock drill steel; research of steel hoisting ropes, U. S. Bur. Standards. Director, mem. exec. committee, v. pres. and chairman min. sect, Nat. Safety Council. A.A; Min. and Metal. Eng. (chairman committees); Min. and Metal. Soc; Civil Eng; Mech. Eng; Elec. Eng; Chem. Soc; Automotive Eng; Radio Eng; Math. Soc. Mining methods; mine accounting; rock drill steel; steel hoisting ropes; design and testing of rock drills; design and performance of storage battery mine locomotives.

Tillson, Dr. Geo(rge) W(illiam), 313 S. Catherine Ave, La Grange, Ill. *Civil engineering*. Thomaston, Maine, Dec. 18, 52. B.S, C.E, Bowdoin, 77, Sc.D, 19. City engineer, Omaha, Nebr, 87-92; asst. engineer, Dept. Pub. Works, Brooklyn, N. Y, 95-02; chief engineer, Bur. Highways, Brooklyn, 02-07; Manhattan, 07-11; consulting engineer to borough pres, Brooklyn, 11-18; *retired*, 18. Civil Eng. (past director, past treas); Soc. Munic. Improv. (past pres. and sec'y); Road Ass. (past pres); West. Soc. Eng; Brooklyn Eng. Club (past pres); N. Y. Munic. Eng. (past pres). General improvement of cities; street pavements.

Tillyer, Edgar D(erry), 4 Maple St, Southbridge, Mass. *Optical science*. Dover, N. J, 81. B.S, Rutgers, 02, M.S, 05; George Washington, 03. Asst. 'Nautical Almanac' Office, 02-06; U. S. Naval Observatory, 06-11; Bur. Standards, 11-16; *optical designer, Am. Optical Co*, 16- Optical Soc; Physical Soc; Illum. Eng. Soc; Wash. Acad. Astronomy; optical design; aberration-free spectacle lens.

Tilney, Prof. Frederick, 22 E. 63d St, New York, N. Y. *Neurology*. Brooklyn, N. Y, June 4, 76. A.B, Yale, 97; M.D, L. I. Col. Hosp, 03; Ph.D, Columbia, 12. Lecturer embryol, L. I. Col. Hosp; *prof. neur*, Columbia. Ass. Anat; Neur. Ass; N. Y. Neur. Soc; N. Y. Med. Soc. Comparative histology of hypophysis cerebri; axial veins and lymphatic in Tragulus; venous return to iliac veins; morphology of the diencephalic floor; craniate homology; vascularization of the nervous system; nucleogenesis of the optic thalamus; form and functions of the central nervous system.

Tilt, Prof. Jennie, Florida State College for Women, Tallahassee, Fla. *Nutrition*. West Lafayette, Ind, Oct. 25, 86. B.S, Purdue, 07, M.S, 10; Ph.D, Chicago, 23. Asst. chem, Purdue, 07-10; instr, Wellesley, 10-15; Radium Research Lab, 17-20; *research prof. nutrition, Florida State*, 23- A.A; Chem. Soc; Home

- Econ. Ass. Basal metabolism of girls; the nutritional value of Florida products.
- Tilton, Prof. John L (ittlefield)**, University of West Virginia, Morgantown, W. Va. *Geology*. Nashua, N. H., Jan. 11, 63. A.B., Wesleyan, 85, A.M., 88; A.M., Harvard, 95; fellow, Chicago, 02-03, Ph.D., 10. Asst. nat. hist., Wesleyan, 86-88; prof. geol. and physics, Simpson, 88-20; assoc. prof. *geol. West Virginia*, 20-23, *prof.*, 23- Geologist, Iowa Geol. Surv.; paleontologist, W. Va. Geol. Surv. A.A.; fel. Geol. Soc.; fel. Paleont. Soc.; fel. W. Va. Acad.; fel. Iowa Acad. (pres, 07). Geology of central and southwestern Iowa; paleontology and general geology of West Virginia.
- Tilton, L (eroy) W (illiam)**, 1823 Kalorama Road, N. W., Washington, D. C. *Physics*. Hammon- ton, N. J., Sept. 27, 88. A.B., George Washing- ton, 20. Asst. physicist, *Bur. Standards*, 21-24, *assoc. physicist*, 24- Technical staff, ordnance dept, U.S.A., 19-21. A.A.; San Antonio Sci. Soc. (governing board, 16). Refractometry; re- fractive index density and dispersion.
- Timberlake, P (hilip) H (unter)**, Citrus Experi- ment Station, Riverside, Calif. *Economic entomology*. Bethel, Maine, June 5, 83. A.B., Bowdoin, 08; A.M., Harvard, 10. Entom. asst., bur. entom. U. S. Dept. Agr., 10-15; asst. entomologist, exp. sta., Hawaiian Sugar Planters' Ass., 16-24; *asst. prof. entom. California, and assoc. entomologist, Citrus Exp. Sta.*, 24- A.A.; Entom. Soc.; Ass. Econ. Entom.; Wash. Entom. Soc.; Hawaiian Entom. Soc. Insect parasites.
- Timbie, Prof. W (illiam) H (enry)**, 295 Highland Ave, West Newton, Mass. *Electrical engineer- ing*. Pittsfield, Mass., Aug. 20, 77. A.B., Wil- liams, 01. Head dept. applied sci., Wentworth Inst., 11-18; *prof. elec. eng. and indust. prac- tise, Mass. Inst. Tech.*, 19- Ed-in-chief, War Dept. Committee, Educ. and Special Training, 18-19. Fel. Elec. Eng.; Mech. Eng.; East. Ass. Physics Teachers (pres, 14). Industrial elec- tricity; alternating current.
- Timm, Dr. John A (rrend)**, 110 Vista Terrace, New Haven, Conn. *Chemistry*. New Haven, Oct. 31, 98. Ph.B., Yale, 19, Ph.D., 23. Teaching asst. *chem. Yale*, 19-23, instr., 23-27, *asst. prof.*, 27- Chem. Soc. Structure of cellulose; cyclic acetals; derivatives of barbituric acid; acetanilide.
- Timme, Dr. Walter**, 2 W. 67th St, New York, N. Y. *Neurology*. New York, Feb. 24, 74. B.S., Col. City of N. Y., 93; M.D., Columbia, 97. Chief of clinic, Vanderbilt Clinic, 13-15; asst. attending physician, *Neur. Inst., New York*, 15-20, *attending physician*, 20-; *clin. prof. neur.*, Columbia. Prof., Broad St. Hosp., 20- Neur. Ass.; Am. Med. Ass. (chairman, sect. nervous and mental diseases, 23); Ass. Research Nervous and Mental Diseases (pres, 19-26); Ass. Study Int. Secretions (pres, 24); Therapeut. Soc.; N. Y. Acad. Med.; N. Y. Neur. Soc. (pres, 19-21). Neuroendocrinology; growth and pituitary dis- turbances; pluriglandular syndromes.
- Tims, Dr. E (ugene) C (hapel)**, Louisiana Agri- cultural Experiment Station, Baton Rouge, La. *Plant pathology*. Learned, Miss., July 19, 94. B.S., Miss. Agr. and Mech. Col., 19; Ph.D., Wis- consin, 24. *Asst. plant pathologist, La. Exp. Sta.*, 24- Bot. Soc.; Phytopath. Soc.
- Tingle, Alfred**, Department of National Revenue, Ottawa, Ont., Can. *Chemistry*. Sheffield, Eng., 76. B.Sc., Aberdeen, 96; London, 97; Ph.D., Pennsylvania, 99. Positions, Chinese Govt., 03-10; research chemist, E. B. Eddy Co, Ltd., Can., 20-23; *senior customs analyst, Can.*, 25- Chem. Soc.; Soc. Chem. Indust. Chemistry of di- ketones and related substances; the pulp and paper industry; anti-narcotic legislation; ana- lytical methods; organic analysis.
- Tinker, Dr. Martin B (uel)**, Cornell Heights, Ithaca, N. Y. *Surgery*. Granville, Mass., March 17, 69. M.D., Jefferson Med. Col., 93; B.S., Har- vard, 95; M.D., Berlin, 99. Asst. physiol., Har- vard, 95-96; demonstrator surg. and path., Jef- ferson Med. Col., 97-00; first asst. res. surgeon, Hopkins Hosp., 00-03; lecturer surg., Cornell, 03-09, asst. prof., 09-11. Lieut. col., M.R.C. A.A.; Surg. Ass.; Am. Med. Ass. (sec'y, surg. sect., 11); Col. Surg.; Am. Acad. Med.; N. Y. State Med. Soc. (chairman, surg. sect., 12, past pres); Gesell. Chirurg. Thyroid and abdominal sur- gery; hand disinfection; surgical tuberculosis.
- Tisdale, Dr. W (endell) H (olmes)**, E. I. du Pont de Nemours and Co, Wilmington, Del. *Plant pathology*. Georgiana, Ala., Jan. 5, 92. B.S., Ala. Polytech., 14; M.S., Wisconsin, 15, Ph.D., 17. U. S. Dept. Agr., 16-18; N. C. Exp. Sta., 18-19; bur. plant indust., U. S. Dept. Agr., 19-26; *fungicide and insecticide dept.*, E. I. du Pont de Nemours and Co, 26- A.A.; Phytopath. Soc.; Bot. Soc.; Wash. Acad. Diseases of the tomato, flax, corn, wheat, barley, oats and rice.
- Tisdale, Dr. W (ilbur) E (arle)**, National Research Council, Washington, D. C. *Physics*. Cedar Rapids, Iowa, Sept. 29, 85. B.S., Iowa, 12, A.M., 15, Ph.D., 17. Instr.: physics, Rice Inst., 17-19; Yale, 19-20; sci. asst. to supt. bur. lighthouses, Staten Island, 20; research assoc., Wisconsin, 21; *exec. sec'y, div. physical sci- ences, Nat. Research Council and research fel- lowship board in physics, chem. and math.*, 21- Physical Soc.; Wash. Acad. Production and properties of tellurium and selenium crystals.
- Tisdale, Dr. W (illiam) B (urleigh)**, Tobacco Ex- periment Station, Quincy, Fla. *Plant pathology*. Georgiana, Ala., Sept. 13, 90. B.S., Ala. Poly- tech., 14; M.S., Wisconsin, 17, Ph.D., 20. Instr. bot., Miss. Agr. and Mech. Col., 15-16; plant path., Wisconsin, 19-22; *plant pathologist in charge tobacco investigations, Fla. Exp. Sta.*, 22- A.A.
- Titsworth, Prof. Waldo A (lberti)**, Alfred Univer- sity, Alfred, N. Y. *Mathematics*. New Market, N. J., Sept. 17, 79. A.B., Rutgers, 00; A.M., Alfred, 02; M.S., Wisconsin, 09. Instr., Alfred, 00-07; asst. math. and physics, Wisconsin, 07-09; *prof. math.*, Des Moines, 09-12; physics, Alfred, 12-20, *math.*, 20-, *registrar*, 15- Di- rector summer sch., 24- Summer, supervisor, dept. audits and records, War Risk Bur., 18. Math. Ass.; Ass. Col. Registrars. Higher math- ematics.
- Tittmann, Dr. Otto H (ilgard)**, Leesburg, Va. *Geodesy*. Belleville, Ill., Aug. 20, 50. Hon. Sc.D.,

- Stevens; Washington (St. Louis); LL.D, George Washington. Aid, U. S. Coast and Geod. Surv. 67-00, supt, 00-15. Asst. astronomer, transit of Venus exped, 74; asst. in charge, U. S. Weights and Measures, 87-94; permanent committee, Int. Geod. Ass. 00-15; U. S. Commissioner, Alaska Boundary, 06-; U. S. Commissioner, U. S. and Canada Boundary, 08-15. Astron. Soc; Philos. Soc; Wash. Philos. Soc. (pres, 99).
- Titus, Prof. C(harles) M(antor)**, Davis, Calif. *Mathematics*. Ada, Mich, Oct. 26, 67. S. Dak. Col; North. Ind. Nor. Sch; A.B, Stanford, 04, A.M, 06. Instr. math, North. Ind. Nor. Sch. 95-98; teacher, high sch, 06-10; instr. *math. and surv, California*, 10-22, *asst. prof*, 22-, *assoc. statistician*, 25- Math. Ass. Applied mathematics; statistics.
- Titus, Dr. E(dward) G(aige)**, 1228 Bryan Ave, Salt Lake City, Utah. *Entomology, Genetics*. Quaker Street, N. Y, May 26, 73. B.S, Colo. Agr. Col, 99, M.S, 01; Sc.D, Harvard, 11. Teacher, pub. schools, Colo, 97, 98, 00; asst. zool. physiol. and entom, Colo. Agr. Col, 00-01; field asst. to state entomologist, Ill, 01-03; special field agent, bur. entom, U. S. Dept. Agr, 03-07, in charge gipsy moth lab, 06-07; assoc. prof. zool. and entom, Utah Col, 07-08, prof, 08-16, entomologist, Exp. Sta, 07-16; technologist, sugar plant investigations, bur. plant indust, U. S. Dept. Agr, 16-20; *director agr. research, Utah-Idaho Sugar Co*, 20- Utah State Hort. Commission, 09-12, 16-18. A.A; Entom. Soc; Ass. Econ. Entom; Phytopath. Soc; Ecol. Soc; Eugenics Soc; Science League of Amer; fel. Utah Acad. (pres, 12); Utah Geneal. Soc; Utah Eugenics Soc. (sec'y, 12-); Wash. Entom. Soc. Apoidea; genetics; sugar-beet breeding; inheritance of valuable human characters.
- Titus, Harry W(altner)**, U. S. Experiment Farm, Beltsville, Md. *Animal nutrition*. Laramie, Wyo, March 30, 96. A.B, Wyoming, 18, A.M, 25. Am-Scandinavian Foundation fellow, Stockholms Högskola and Nobelinstitutet, 19-20; A.M, Wyoming, 25. Asst. state chemist, Wyo, 18-19; head dept. chem, Okla. Sch. Mines and Metal, 20-21; nutrition chemist, N. Mex. Col, 21-24, nutrition, 24-26; *assoc. biochemist, bur. animal indust, U. S. Dept. Agr*, 26- Chem. Soc; Agr. Chem. Nutritive value of special type of feeds; effect of a variation in proportion of nutrients on digestibility; poultry nutrition.
- Tobey, James A(iner)**, 350 Madison Ave, New York, N. Y. *Public health*. Quincy, Mass, July 15, 94. B.S, Mass. Inst. Tech, 16, D.P.H, 27; LL.B, Wash. Col. Law, 22; M.S, American Univ, 23. Asst. health officer, Summit, N. J, 16-17; health officer, W. Orange, N. J, 17-18; sci. asst, U. S. Pub. Health Service, 18; N. J. State Dept. Health, 19; asst. director health service, Red Cross, 20-21; sec'y, Nat. Health Council, 22-24; senior staff, Inst. Govt. Research, 25-27; *sch. consultant, Borden Co*, 27- Lecturer, Mass. Inst. Tech; Columbia; Yale; Harvard. Assoc. ed, 'Jour. Pub. Health,' 18- Chairman health div, Nat. Conf. Social Work, 26. Lieut, Sanit.C, 18-19, major, Sanit.R.C. A.A; fel. Pub. Health Ass. (chairman, health educ. and publicity sect, 25, mem. governing council, 26). Public health administration, especially legal aspects; national government and public health; public health law.
- Tobie, Prof. Walter Eaton**, 3 Deering St, Portland, Maine. *Surgery*. Lewiston, Maine, Dec. 12, 69. M.D, Maine, 99. Asst. demonstrator and lecturer anat. and instr. surg, *Maine*, 03-06, *prof. anat*, 06-; *surg, Bowdoin*, 17-; pathologist, *Maine Gen. Hosp*, 02-03, adjunct surgeon, 03-06, assoc. surgeon and *visiting surgeon*, 06-; *surgeon, Maine Eye and Ear Infirmary*. Maine State Board of Anat. Ass. Anat; Am. Med. Ass; Maine Med. Ass. (sec'y, 03-08). Pathology; renal casts; congenital cystic kidney; surgical anatomy of the abdominal wall; female perineum.
- Tobin, Dr. Elise**, Wells College, Aurora, N. Y. *Chemistry*. Brooklyn, N. Y, Feb. 23, 94. B.S, Barnard, 15; Ph.D, Bryn Mawr, 19. Research chemist, Fleischmann Yeast Co, 19-20; Merck and Co, 20-23; instr. chem, *Wells Col*, 23-25, *asst. prof*, 25- Limits of esterification.
- Toch, Maximilian**, 443 Fourth Ave, New York, N. Y. **Chemistry*. New York, July 17, 64. Ch.E; Sc.D; N. Y. Univ, 84-86; Columbia, 87-90. Lecturer org. chem, Columbia, 05-06; munic. lecturer paint, Col. City of N. Y, 09; adjunct prof. indust. chem, Cooper Union, 19-24; hon. prof, Peking Tech. Col, 24; prof. chem. of fine arts, N. Y. Acad. Design; v. *pres, Toch Bros, Inc, and Standard Varnish Works*. Exec. committee and pres, sect. paints, Eighth Int. Cong. Applied Chem, New York, 12. A.A; Chem. Soc; Soc. Chem. Indust. (past chairman, N. Y. sect); Chem. Eng; Soc. Test. Mat; N. Y. Chemists Club (past pres); fel. Royal Photog. Soc; fel. London Chem. Soc; London Soc. Chem. Indust. (past v. pres); London Paint and Varnish Soc; Chem. Gesell; Chem. Verein. Chemistry and technology of paints; materials for permanent painting.
- Todd, Prof. C(lare) C(hrisman)**, College Station, Pullman, Wash. *Chemistry*. McMinnville, Oregon, March 4, 80. B.S, Wash. State, 06; fellow, Chicago, Ph.D, 14. Instr. asst. prof, assoc. prof. and later *prof. org. and physiol. chem. and head dept. chem, Wash. State*, 07- A.A; Chem. Soc. Organic chemistry.
- Todd, Prof. David**, 'Matsuba,' Coconut Grove, Fla. *Astronomy, Aeronautics*. Lake Ridge, N. Y, March 19, 55. A.B, Amherst, 75, A.M, 78; Ph.D, Washington and Jefferson, 88. Asst, U. S. Transit of Venus Commission, 75-78; chief asst, 'Nautical Almanac' Office, 78-81; prof. astron. and higher math, Smith, 81-87; *astron. and navigation*, and director observatory, *Amherst*, 81-20, *emer. prof*, 20- Chief eclipse expeditions, Texas, 78, Japan, 87, 96, West Africa, 89-90, Tripoli, 00, Dutch East Indies, 01, Tripoli, 05, Russia, 14, Florida, 18, mid-Atlantic, 19, Mitchell Field, 25; in charge observations of transit of Venus, Lick Observatory, 82; Mars exped, S. Amer, 07, Bahamas, 22. Imp. Saki cup, Emperor of Japan, 97. A.A; Astron. Soc; Aerial League (governor); Wash. Philos. Soc; fel. Royal Soc. Arts; Astron. Gesell; cor. mem. Cherbourg Soc. nat. des Sci. nat. et math; Soc. Geog. de Lima. Observations and tables of Jupiter's satellites; total eclipses; solar par-

- allax; trans-Neptunian planet; sun's corona; improvements in observatories and instruments, especially the automatic photography of total eclipses; photography of Mars; standard time; mountain observatories; maps and tables of future eclipses; aero-astronomy.
- Todd, Prof. James C(ampbell)**, 848 Tenth St, Boulder, Colo. *Pathology*. Shreve, Ohio, March 17, 74. Ph.B, Wooster, 97; M.D, Pennsylvania, 00. Asst. biol, Wooster, 95-96; res. physician, Allegheny Gen. Hosp, 00-01; asst. path, Denver, 04-05, lecturer, 05-08, assoc. prof, 08-10, prof, 10-11; *prof, Colorado*, 11-16, *clin. path*, 16- Sec'y, Boulder div, sch. med, Colorado, 11-16. A.A; Am. Med. Ass; Col. Physicians; Soc. Clin. Path; hon. mem. Col. Soc. Clin. Path. Clinical laboratory methods; parasitology; hematology.
- Todd, Dr. John L**, McGill University, Montreal, Que, Can. *Parasitology*. Victoria, B. C, Sept. 10, 76. B.A, McGill, 98, M.D, C.M, 00; L.R.C.P, Univ. Col, London, 07; hon. D.Sc, Liverpool, 09. House surgeon, Royal Victoria Hosp, Montreal, 00-01; research asst. and asst. lecturer, Liverpool Sch. Trop. Med, 01-05, director research laboratories, 05-07; assoc. prof. parasitol, McGill, 07-26. Liverpool Sch. Trop. Med. exped, Gambia, 01, 11, Congo, 02-05; League of Red Cross Societies typhus exped, Poland, 20. Mary Kingsley medal, Liverpool Sch. Trop. Med, 10. Ass. Path. and Bact; Soc. Exp. Biol; Soc. Trop. Med; Soc. de Path. exot. Tropical medicine; trypanosomiasis; tick fever; typhus.
- Todd, Dr. J(ohn) W(elhoff)**, University of Southern California, Los Angeles, Calif. *Psychology*. Aurora, Ind, Nov. 20, 80. A.B, Indiana, 05, A.M, 10; Ph.D, Columbia, 12. Asst. exp. psychol, Indiana, 09-10; Columbia, 10-12; assoc. prof. *psychol*, North Dakota, 12-20; *prof, South. California*, 20- Acting director exp. psychol. laboratories and psychol. clinic, Indiana, 15-16. A.A; Psychol. Ass. Experimental psychology; reaction time; association; fatigue; educational measurements.
- Todd, Prof. (Thomas) Wingate**, Western Reserve Medical School, Cleveland, Ohio. *Anatomy*. Sheffield, Eng, Jan. 15, 85. M.B, Ch.B, Manchester, 07. Demonstrator *anat*, Manchester, 07-08, senior demonstrator, 08-09, lecturer, 10-12; *prof, Western Reserve*, 12-, *director, Hamann Museum Comp. Anthropol. and Anat*. House surgeon, Manchester Royal Infirm, 09-10; surg. research scholar, Manchester, 12; examiner dental anat, 11-12; surgeon to zool. collection, 10-12; Cleveland, 12-16. A.A; Ass. Anat. (v. pres, 20); Anthropol. Ass; Anat. Soc. Gt. Britain and Ireland (council, 12); cor. mem. Soc. d'Anthropol. de Paris; Acad. Royale de Méd. de Belg. Clinical and veterinary anatomy; dental anatomy; anthropology.
- Todd, W(alter) E(dmond) Clyde**, Carnegie Museum, Pittsburgh, Pa. *Ornithology*. Smithfield, Ohio, Sept. 6, 74. High sch. Asst. biol. surv, U. S. Dept. Agr, 91-99; *curator ornith*, Carnegie Museum, Pittsburgh, 99- Fel. Ornith. Union; Wash. Biol. Soc. Ornithology of western Pennsylvania and the Hudson Bay region; geographic distribution of birds; neo-tropical birds.
- Toepelman, Prof. W(alter) C(arl)**, 825 15th St, Boulder, Colo. *Geology*. Madison, Wis, Sept. 22, 94. Wisconsin, 12-15; A.B, Oklahoma, 16; fellow, Chicago, 17-20, Ph.D, 25. Geologist, S. Dak. Geol. and Nat. Hist. Surv, 19-22; asst. prof. *geol*, South Dakota, 20-22; *Colorado*, 22-26, *assoc. prof*, 26-; *geologist, Colo. Geol. Surv*, 22- Asst, Oklahoma, 15-16; geologist, Kans, 16. A.A; Ass. Petrol. Geol; Paleont. Soc. Paleontology and geology of South Dakota; areal geology of eastern Colorado; water resources in the Arkansas Valley; Colorado stratigraphy.
- Toll, Prof. Charles H(ansen)**, Amherst College, Amherst, Mass. *Psychology*. Denver, Colo, May 21, 82. A.B, Hamilton, 04; A.M, Harvard, 05, John Harvard fellow, 06-08; Ph.D, Freiburg, 09. Asst. prof. philos, Amherst, 09-12, assoc. prof, 12-24, *prof. philos. and psychol*, 24- A.A; Psychol. Ass; Philos. Ass. Dissociation; intelligence tests.
- Tolmachoff, Prof. I(nnokenty) P(avlovich)**, Carnegie Museum, Pittsburgh, Pa. *Geology, Geography*. Irkutsk, Siberia, April 13, 72. Grad, St. Petersburg, 97. Asst. prof. geol, Dorpat Univ, 97-99; curator geol. museum, Russian Acad. Sciences, St. Petersburg, 99-13, chief curator, 13-20; prof. geol. and paleont, Far East. Polytech. Inst, Siberia, 20-22; *curator invert. paleont, Carnegie Museum, Pa*, 22-; *prof, Pittsburgh*, 26- Prof. and director, Geog. Inst, St. Petersburg, 16-19; prof, Agr. Inst, Omsk, Siberia, 18; dean sch. mines, Far East. Polytech. Inst, 21-22; head, Khatanga exped, Siberia, 05, Chukotsk exped, 09; v. director, Far East. Geol. Surv, Vladivostock, 20-22. Ass. Petrol. Geol; Paleont. Soc; Min. and Metal. Eng; Schweiz. Geol. Gesell; Russian Geog. Soc; Russian Paleont. Soc; St. Petersburg Miner. Imp. Soc; St. Petersburg Imp. Soc. Nat; Swedish Geol. Soc. Petrology; geology of Siberia; geography and geology of the Polar lands of the Eurasia; paleontology of the Paleozoic; micropaleontology.
- Tolman, Prof. Cyrus Fisher, Jr**, Stanford University, Calif. **Geology*. Chicago, Ill, June 2, 73. B.S, Chicago, 96, fellow, 97-98. *Consulting geologist*, 00-; prof. geol, Arizona, 05-06, geol. and mining eng, 06-12; assoc. prof. *econ. geol, Stanford*, 12-18, *prof*, 18- Territorial geologist, Ariz, 11-12. A.A; fel. Geol. Soc; Min. Eng; Am. Geog. Soc. Graphical solution of fault problems; petroleum and ore deposits.
- Tolman, Dr. Edward C(hace)**, University of California, Berkeley, Calif. *Psychology*. West Newton, Mass, April 14, 86. B.S, Mass. Inst. Tech, 11; A.M, Harvard, 12, Ph.D, 15. Instr. *psychol*, Northwestern, 15-18; *California*, 18-20, asst. prof, 20-23, *assoc. prof*, 23- Psychol. Ass. Experimental and theoretical psychology; animal behavior.
- Tolman, L(ucius) M(oody)**, 7217 Yale Ave, Englewood Station, Chicago, Ill. *Chemistry*. Brookfield, Vt, April 7, 75. B.S, Pomona, 96; M.S, California, 98. Chemist, Board Health, Oakland, Calif, 98-99; asst. chemist, bur. chem, U. S. Dept. Agr, 00-06; chemist, bur. internal revenue, Treasury Dept, 06-07; chief food in-

- spection lab, bur. chem, U. S. Dept. Agr, 07-13, food inspection div, 13-14, cent. food and drug inspection dist, 14-17; chief chemist, Wilson and Co, 17-22; v. pres, United Chem. and Org. Products Co, 22-25; *pres, Cent. Chem. Co, 25-* Chairman, Joint Committee on the Unification of Methods of Analysis of Fats and Oils. A.A.; Chem. Soc. (v. pres, 06, pres, Wash. sect, pres, Chicago sect, 17); Chem. Eng; Agr. Chem; Leather Chem. Ass; Soc. Cotton Products Analysts. Chemistry of fats and oils, sugars, food products and distilled liquors; effect of age on the composition of whiskies; vinegars; denatured alcohol.
- Tolman, Prof. Richard C(hace)**, California Institute, Pasadena, Calif. **Physics, Chemistry*. West Newton, Mass, March 4, 81. B.S, Mass. Inst. Tech, 03, Dalton fellow, 05-07, Ph.D, 10; Berlin and Crefeld, 03-04. Asst. tech. anal, Mass. Inst. Tech, 04-05, instr. theoret. chem, 07-09, research assoc. physical chem, 09-10; instr, Michigan, 10-11; asst. prof, Cincinnati, 11-12; chem, California, 12-16; prof. physical chem, Illinois, 16-18; assoc. director fixed nitrogen research lab, nitrate div, ordnance dept, U.S.A., 19-20, director, 20-22; *prof. physical chem. and math. physics, Calif. Inst, 22-* Chief dispersoid sect. and major, C.W.S., 18. Nat. Acad; A.A.; Physical Soc; Chem. Soc; Optical Soc; Am. Acad; Wash. Acad. Ionization colloids; relativity of motion; metallic conductors; principle of similitude; statistical mechanics; rate of reaction; quantum theory.
- Tomecko, Prof. Cyprian G(eorge)**, St. Procopius College, Lisle, Ill. *Chemistry*. Moyer, Pa, April 27, 90. A.B, St. Procopius Col, 17; A.M, Illinois, 22, Ph.D, 26. Instr, St. Procopius Col, 17-21; Illinois, 21; *prof. chem. and head dept, St. Procopius Col, 26-* A.A.; Chem. Soc. Allyl ethers of various carbohydrates; synthesis of hydroxystearic acids.
- Tomhave, Prof. W(illiam) H(enry)**, 817 Exchange Ave, Chicago, Ill. *Animal husbandry*. Fergus Falls, Minn, Dec. 19, 81. B.S, Minnesota, 07; M.S, Pa. State, 20. Asst. animal husbandry, Pa. State, 07-08; live stock expert, Chinese Govt, Manchuria, 08-10; exten. specialist, Minnesota, 10-12; prof. animal husbandry, Pa. State, 12-27; *sec'y, Am. Aberdeen Angus Breeders' Ass, 27-* Trustee, East States Expos, Springfield, Mass. A.A; Soc. Animal Production. Cattle feeding; meat and meat products.
- Tomlinson, Prof. Alfred Harding**, Ontario Agricultural College, Guelph, Ont, Can. *Horticulture*. Plymouth, Eng, Oct. 1, 80. B.S, Toronto. Asst. govt. horticulturist, British Columbia, 13-16; *lecturer and prof, Ont. Agr. Col, 16-* Can. Rose Soc. (director); Can. Soc. Tech. Agr. Ornamental horticulture; tundra.
- Tomlinson, Dr. C(harles) W(eldon)**, 1610 Bixby Ave, Ardmore, Okla. *Geology*. Detroit, Mich, April 23, 92. A.B, Wisconsin, 13, fellow, 13-14, A.M, 14; fellow, Chicago, 15-16, Ph.D, 16. Asst. geol, Minnesota, 14-15; prof, Miss. Agr. and Mech. Col, 16-17; assoc, Illinois, 17-18; *geologist, Gulf Oil Corp, 18-21; Schermhorn-Ardmore Co, 21-* A.A; Geol. Soc; Ass.
- Petrol. Geol. Origin of red beds; Paleozoic stratigraphy of northern Rocky Mountain states; petroleum geology of the mountain states and mid-continent region.
- Tompkins, Dr. C(hristian) Milton**, Utah Agricultural College, Logan, Utah. *Biology*. Jan. 15, 96. B.S, Colo. Agr. Col, 21, M.S, 22; Ph.D, Wisconsin, 25. Deputy state horticulturist, Colo. Agr. Col, 17-25; asst. prof. biol, Carleton Col, 25-26; *asst. pathologist, office sugar plants, Utah Agr. Col, 26-* A.A; Phytopath. Soc; Soc. Hort. Sci. Mosaic diseases of potatoes; sugar beet diseases.
- Tondorf, Rev. F(rancis) A(nthony)**, Georgetown University, Washington, D. C. *Seismology*. Boston, Mass, July 17, 70. A.B, Woodstock, 95; Hopkins, 97-99; Ph.D, Georgetown, 14. Prof. physics, Loyola, 95-97; *Georgetown, 02-05, asst, observatory, 05-07, prof. physics, 13-* Geophys. Union. A.A; Seismol. Soc; Meteor. Soc; Wash. Acad; fel. Royal Astron. Soc. Microseisms; epicenters.
- Tone, Frank J(erome)**, Carborundum Co, Niagara Falls, N. Y. *Chemical engineering*. Bergen, N. Y, Oct. 16, 68. E.E, Cornell, 91. Gen. Elec. Co, 91-93; Pittsburgh Ry. Co, 93-95; *works manager and pres, Carborundum Co, 95-* Chem. Eng; Chem. Soc; Soc. Chem. Indust; Electrochem. Soc. (pres, 18); Min. Eng; Ceramic Soc. Silicon; silicon compounds; silfrax; artificial abrasives; high temperature refractories.
- Tonks, Lewi**, General Electric Co, Schenectady, N. Y. *Physics*. New York, N. Y, Dec. 13, 97. B.S, Columbia, 17, Tyndall fellow, 21-22, Barnard fellow, 22-23, Ph.D, 24. Asst. physics, Columbia, 15-18; special govt. expert, New London, 18-19. A.A; Physical Soc. Condensation of vapors as a function of surface.
- Tool, Dr. Arthur Q(uincy)**, U. S. Bureau of Standards, Washington, D. C. *Physics*. Monroe, Iowa, Dec. 5, 77. B.S, Grinnell, 04; A.M, Nebraska, 06; Ph.D, Berlin, 14. Instr. physics, Nebraska, asst. prof, 16-18; assoc. physicist and *physicist, Bur. Standards, 18-* Physical Soc; Optical Soc; Ceramic Soc; Soc. Glass Technol; Physik. Gesell. Optical constants of metals; mobility of ions in gases; photo-electric effect; physical properties of glasses.
- Toole, Dr. Eben H(enry)**, U. S. Department of Agriculture, Washington, D. C. *Botany*. Baraboo, Wis, Jan. 6, 89. A.B, Wisconsin, 15, A.M, 16, fellow, 19-20, Ph.D, 20. Asst. bot, Wisconsin, 15-16; instr, Kansas Col, 16-17; asst. prof. plant physiol. and path, Purdue, 17-19; *assoc. physiologist, seed lab, bur. plant indust, U. S. Dept. Agr, 20-* Asst. pathologist, office cereal investigations, U. S. Dept. Agr, 18-19. A.A; Bot. Soc; Chem. Soc; Wis. Acad; Ind. Acad. Plant physiology; plant nutrition and metabolism.
- Toops, Prof. H(erbert) A(nderson)**, Ohio State University, Columbus, Ohio. *Psychology*. Kiousville, Ohio. A.B, B.S, Ohio State, 16, A.M, 17; Ph.D, Columbia, 21. Asst. psychol, Ohio State, 16-17; indust. personnel work, 20-21; *develop. specialist, schools, Ill, 20-21; research assoc, Inst. Educ. Research, Teachers Col, Columbia,*

- 21-23; *Ohio State*, 23- Lecturer, Metropolitan Hosp. Sch. for Nurses, 19-20; consulting statistician, Minnesota and Ohio Inst., 24-25. U. S. Employment Service and Nat. Research Council, 19-20. Trade test committee, War Dept., 18-19. A.A.; Psychol. Ass; Statist. Ass; Nat. Vocational Guidance Ass; Educ. Research Ass; Soc. Prom. Educ. Statistics; vocational education and guidance; mental tests.
- Toops, Dr. Laura (Merrill) Chassell**, 458 W. Eighth Ave, Columbus, Ohio. *Educational psychology*. Sundance, Wyo, March 24, 93. A.B., Cornell (Iowa), 12; M.Di, Iowa State Teachers' Col, 13; A.M., Northwestern, 14; Chicago, 15; Am. Univ. fellow, Columbia, 17-18, Ph.D., 20. Inst. educ. and psychol. Ill. Woman's Col, 14-15; modern languages, Wis. State Nor. Sch., La Crosse, 15-17; asst. educ. psychol. Teachers Col, Columbia, 18-19; instr., Ohio State, 20-23. Summers, instr. and acting dean women, Coe Col, 15-17; director educ. measurement surv., Scarborough Sch., 18-19; special psychol. examiner, Horace Mann Sch., 20. A.A.; Psychol. Ass; Ohio Acad. Originality and religious ideas; good citizenship scales; motor difficulties of gifted children; qualities associated with success; sectioning of college students on the basis of intelligence; control of the eliminative functions in infants.
- Torbert, John B(ryant)**, 3415 Ashley Terrace, Cleveland Park, D. C. *Geography, Geology*. Washington, D. C, May 8, 67. LL.B., George Washington, 88, LL.M., 89. Topog. and geol. draftsman, U. S. Geol. Surv., 86-93; topog. draftsman and geographer, topographer's office, U. S. Post Office Dept., 93-08; *sci. illustrator*, U. S. Geol. Surv., 08- Hist. cartographer, Jamestown Expos, 07; geol. cartographer, Alaska-Yukon-Pacific Expos, 09. Int. Geog. Cong, Washington, 04. Wash. Anthropol. Soc; Wash. Geol. Soc. Development of maps; geography as an aid to history; relation and influence of topography on human activities and the progress of the world; primitive map making; growth and development of United States illustrated by a series of maps; the earliest authentic Arctic explorations; the derivation and meaning of geographic names; influence of sea power on American history.
- Toro, Rafael A(ndres)**, 6 Arzuaga St, Rio Piedras, P. R. *Plant pathology*. San German, P. R, Nov. 29, 97. B.S., Porto Rico, 21; M.S., Cornell, 25. Teacher, continuation sch., 21-22; deputy inspector agr., 22-23; *asst. pathologist, Insular Exp. Sta., P. R.*, 23-Summer, N. Y. Bot. Garden, 25. A.A.; Phytopath. Soc; Bot. Soc. Porto Rican pyrenomyces; banana anthracnose; Cercosporas of Porto Rico; fungi.
- Torpen, B(ernhardt) E**, Bull Run Storage Project, Portland, Oregon. *Engineering*. Osseo, Wis. B.S., Wash. Col, 10, C.E., 24. Asst. engineer, Calgary Power Co, Can., 11-14; field engineer, Aberdeen Munic. Water Supply, Wash., 15-17; construction engineer, Cerro de Pasco Copper Corp, Peru, S. A., 17-20; field eng, Port of Grays Harbor, 21-22; hydraul. engineer and supt. design and construction, Cushman Power Project, Tacoma, 23-25; *supt. design and construction, Bull Run Storage Project*, 27- Civil Eng; Ass.
- Eng. Design construction and tests on arch dams.
- de la Torre Bueno, J(ose) R(ollin)**, 11 North Broadway, White Plains, N. Y. *Biology*. Lima, Peru, Oct. 6, 71. Col. City of N. Y., 88-90; sch. mines, Columbia, 90-92. Board editors, 'N. Y. State List of Insects.' A.A.; Entom. Soc; Ecol. Soc; Nature Study Soc; Agassiz Ass; Wash. Entom. Soc; Brooklyn Entom. Soc. (rec. sec'y, 15, 18, pub. committee, 13-, ed, 18-, v. pres, 20); London Entom. Soc; Soc. entom. de France; Soc. Linnean de Lyon; Soc. Entom. de España; Soc. Ibérica de Cienc. Nat; Soc. Cubana Hist. Nat. Life histories, ethology, distribution and taxonomy of heteropterous Hemiptera, especially aquatic forms.
- Torrey, Dr. Harry Beal**, 40 Gramercy Park, New York, N. Y. *Biology*. Boston, Mass., May 22, 73. B.S., California, 95, M.S., 98; fellow, Columbia, 00-01, Ph.D., 03; M.D., Cornell, 27. Asst. zool., California, 95-98, instr., 98-00, 01-04, asst. prof., 04-08, assoc. prof., 08-12; prof. biol., Reed, 12-20; zool., Oregon, 20-26, director research med. science and prof. exp. biol. med. sch., 20-26. Librarian, Marine Biol. Ass. of San Diego, 02-12; temporary asst., Bur. Fisheries, 06. A.A.; Soc. Nat; Soc. Zool; Soc. Exp. Biol; Am. Med. Ass; West. Soc. Nat. (pres, 14, 24). Taxonomy, embryology, non-sexual reproduction, regeneration and behavior of invertebrates; experimental biology; the rôle of the thyroid; cell differentiation; factors of differentiation.
- Torrey, Prof. John C(utler)**, Cornell University Medical College, New York, N. Y. *Bacteriology*. Burlington, Vt, April 19, 76. A.B., Vermont, 98, hon. Sc.D., 22; Ph.D., Columbia, 02; fellow, med. col., Cornell, 04-07. Asst. zool., Columbia, 00-01; bacteriologist, Sea Side Hosp., Staten Island, 03-04; asst. instr. histol. and bacter., med. col., Cornell, 03-04, lecturer hygiene and instr. exp. path., 08-10, asst. prof. exp. path. and lecturer hygiene, 10-16, *prof. hygiene*, 16-; *bacteriologist, Mem. Hosp.*, 23- Ed., 'Jour. Immunol.' A.A.; Soc. Bact; Ass. Path. and Bact; Soc. Exp. Biol; Ass. Immunol; Pub. Health Ass; Harvey Soc. Preventive medicine; the development of the mesoblast in *Thalasemia*; dysentery and dysentery-like organisms; absorption; immunity to the gonococcus; canine distemper; regulation of intestinal bacteria through diet; intestinal bacteriology; pernicious anemia.
- Torrey, Dr. R(ay) E(than)**, Massachusetts Agricultural College, Amherst, Mass. *Botany*. N. Leverett, Mass, Dec. 15, 87. B.S., Mass. Col, 12; A.M., Harvard, 16, fellow, 16-17, Sheldon traveling fellow, 17-18, Ph.D., 18. Asst. prof. biol., Grove City Col, 12-15; Wesleyan, 18-19; instr. biol., Mass. Col, 19-21, *asst. prof. bot.*, 21- A.A. Morphology; lignitic woods.
- Tory, Pres. H(enry) Marshall**, University of Alberta, Edmonton, Alta, Can. *Mathematics*. Guysboro, N. S., Jan. 11, 64. B.A., McGill, 90, M.A., 95, LL.D., 07; D.Sc., Cambridge, 03. Lecturer math. and demonstrator physics, McGill, 92-98, lecturer math., 98-03, assoc. prof., 03-08; *pres, Alberta*, 08- Sec'y, Univ. Exam. Board, 96-02. Pres. Can. Research Council, 23- Col.

director educ. service, C.E.F., 17-20. Math. Soc; fel. Royal Soc. Can. Comparison of Le Chatelier pyrometers with platinum resistance pyrometers; standardizing thermo-junctions; effect of dissolved gases on metallic surfaces; a direct reading air thermometer.

Totten, Prof. H(enry) R(oland), Chapel Hill, N. C. *Botany*. Matthews, N. C., Nov. 6, 92. A.B., North Carolina, 13, A.M., 14, Ph.D., 23; Paris, 19. Instr. bot., North Carolina, 14-17, 19-23, asst. prof., 23-25, *assoc. prof.*, 25- Second lieut. U.S.A., 17-19. A.A.; Bot. Soc.; Pharmaceut. Ass.; N. C. Acad. (sec'y, treas., 27-); Elisha Mitchell Sci. Soc. (cor. sec'y and treas., 20-24, v. pres, 24, pres, 25). Trees of North Carolina; Rhizopogon; Coprinus.

Tottingham, Dr. W(illiam) E(dward), University of Wisconsin, Madison, Wis. *Agricultural chemistry*. Templeton, Mass., Nov. 2, 81. B.S., Mass. Col., 03; M.S., Wisconsin, 08; Hopkins, 12-13, Ph.D., 17. Asst. chem., Mass. Exp. Sta., 05; instr., Mass. Col., 06; asst. chemist, N. Y. Exp. Sta., Geneva, 07; instr. agr. chem., Wisconsin, 07-10, asst. prof., 10-17, *assoc. prof.*, 17- A.A.; Chem. Soc.; Bot. Soc.; Soc. Plant Physiol. Climatic factors and the nutrition and metabolism of plants.

Toumey, Prof. J(ames) W(illiam), 459 Prospect St., New Haven, Conn. **Forestry*. Lawrence, Mich., April 17, 64. B.S., Mich. State Col., 89, M.S., 96, hon. D.F., 27; M.A., Yale, 06; hon. Sc.D., Syracuse, 20. Instr. bot., Mich. State Col., 90-91; prof., Arizona, 92-98; supt. sect. forest exten., bur. forestry, U. S. Dept. Agr., 99-00; asst. prof. forestry, Yale, 01-03, prof. and director bot. gardens, 03-10, *Morris K. Jesup prof. silviculture, forest sch.*, 10-, acting director, 10-11, *director*, 11-, dean, 13-22. Council, Northeast. Forest Research Sta. A.A.; Soc. Nat.; Soc. Foresters; Forestry Ass.; Bot. Soc. Seeding and planting in the practise of forestry; foundations of silviculture upon an ecological basis.

Tour, Prof. R(euben) S., University of Cincinnati, Cincinnati, Ohio. *Engineering*. Troy, N. Y., Aug. 20, 89. B.S., Ch.E., Michigan, 10, M.S.E., 15. Asst. supt., Consol. Gas Co., N. Y., 11-13; asst. prof. gas eng., California, 13-17; chem. engineer, nitrate div., ordnance dept., U.S.A., 19-21; *prof. chem. eng., Cincinnati*, 21- Capt., U.S.A., 17-19; U. S. Fixed Nitrogen Commission, Europe, 19. Chem. Soc.; Mech. Eng.; Inst. Chem. Eng.; Gas Ass. Nitrogen fixation; complete gasification of coal.

Towar, Prof. J(ames) D(eLoss), Lansing, Mich. *Agriculture*. Lansing, Sept. 26, 63. B.S., Mich. State Col., 85, M.S., 02. Agriculturist, R. I. Exp. Sta., 91-98; Mich. Exp. Sta., 98-02; prof. agr., South Australia, 02-04; Wyoming, and director, Exp. Sta., 07-10. Lecturer, farmers' institutes, Mich., 04-07. Farm crops and fertilizers; dry farming.

Tower, Geo(rge) W(arren), Jr., 120 Broadway, New York, N. Y. *Geology, Mining*. Cambridge, Mass., Oct. 27, 71. A.B., Harvard, 94, A.M., 95. Instr. physics, Boston, 94; teacher, high sch., Mass., 95; geologist, U. S. Geol. Surv., 95-99; consulting engineer, W. A. Clark, 00-04; consulting geologist and mining engineer, 04-

09, 11-15; gen. manager, Socorro Mines, N. Mex., 10-11; Am. tungsten interests, Portugal, 15-17; *consulting mining engineer, Guggenheim Bros.*, 18- Min. Eng.; Mont. Eng. Soc.; Wash. Geol. Soc. Economic geology; mining and mine examinations.

Tower, Prof. O(lin) F(reeman), Western Reserve University, Cleveland, Ohio. **Physical chemistry*. Brooklyn, N. Y., March 19, 72. A.B., Wesleyan, 92, A.M., 93; Ph.B., Leipzig, 95. Asst. chem., Wesleyan, 93-94, 96-98; instr., *Adelbert Col., Western Reserve*, 98-01, asst. prof., 01-07, *prof. and head chem. lab.*, 07- Asst. chemist, food investigation, U. S. Dept. Agr., Middletown, Conn., 95-98. A.A.; Chem. Soc.; Electrochem. Soc.; London Chem. Soc.; Chem. Gesell. Manganese superoxid electrodes; conduct of aqueous solutions of various organic salts of Ni and Co; transport number of sulphuric acid; action of nitrogen on water vapor at high temperatures.

Tower, Dr. William Lawrence, Carmel, Calif. **Zoology*. Halifax, Mass., Dec. 22, 72. Lawrence Sci. Sch., Harvard, 93-96, grad. sch., 98-00; B.S., Chicago, 02. Asst. entom., Mass. Dept. Agr., 93; zool., Harvard, 94-96; instr., high sch., Ohio, 97-98; asst., Harvard, 98-00; prof. zool. and physiol., Antioch, 00; asst. embryol., Chicago, 01-02, *assoc. embryol. and comp. anat.*, 03, instr. embryol., 04-07, asst. prof. and *assoc. prof.*, zool., 07-18; *capt., Sanit. C.*, 18- A.A.; Soc. Zool.; Chicago Acad. Nervous system of cestodes; insect metamorphoses; development of colors and color pattern in insects; effect of temperature, moisture, etc., upon insect variations; production of new characters, races and species in insects; evolution in chrysomelid beetles; heredity and bionomic processes; tropical biology.

Towl, Forrest M(ilton), Room 2611, 26 Broadway, New York, N. Y. *Civil engineering*. Parma, Ohio. C.E., Cornell, 86. Eng. dept., Nat. Transit Co., 86-01; manager pipe line dept., Pacific Coast Oil Co., 02-03; gen. supt., pipe lines, Standard Oil Co., 04-07, engineer, 07-11; *pres., South. Pipe Line Co.; S. W. Pa. Pipe Line Co.; Eureka Pipe Line Co.; Cumberland Pipe Line Co., Inc.*, 11- Hon. lecturer, Columbia. Civil Eng.; Mech. Eng.; Min. and Metal. Eng. Pipe line transportation of oil and gas; measurement of gas.

Towle, Prof. W(illiam) M(ason), Enosburg Falls, Vt. *Mechanical engineering*. Franklin, Vt., Dec. 21, 51. B.S., Worcester, 77. Instr. machine tool work, Rose, 86-88; instr. and foreman machine shop, Cornell, 89-91; asst. prof. practical mech., Pa. State, 92-02; *assoc. prof. and supt. shops*, Syracuse, 02-04; *prof. indust. eng., Clarkson Tech.*, 07-17, *emer. prof.*, 17- A.A.; Mech. Eng.; Eng. Educ.; Royal Soc. Arts. Industrial engineering.

Towler, Emmett D., Box 913, La Grande, Oregon. *Ecology*. Patoka, Ill., Oct. 4, 91. B.Pd., 13; B.S., 16; M.S., 26. Teacher, *high sch., Oregon*, 19-21, *prin.*, 21- Summers, instr., Puget Sound Biol. Sta., 21, 22, 26. A.A.; Ecol. Soc.; Am. Geog. Soc. Marine ecology.

Town, Dr. Clara Harrison, 547½ Franklin St., Buffalo, N. Y. *Psychology*. Philadelphia, Pa., Oct. 11, 74. B.S., Temple, 07; Ph.D., Pennsyl-

- vanía, 09; Sorbonne, Paris, 20-21. Res. psychologist, Friends Asylum, Frankford, Pa, 05-10; asst. psychol. clinic, Pennsylvania, 09-11; state psychologist, Lincoln State Sch. and Colony, Ill, 11-14; psychologist, orthogenic clinic, Rush Med. Col, 14-16; prof. psychol. Colo. State Teachers Col, 16-18; psychologist, child welfare research sta, Iowa, 18-19; director orthogenic clinic and classes, pub. schools, Mo, 19-20; *psychol. clinic, Children's Aid Soc, Buffalo, 22*—Summers, instr, Pittsburgh, 13, 18, 19, Lehigh, 22. A.A.; Psychol. Ass; Ass. Social Workers; N. Y. Ass. Consulting Psychologists. Abnormal psychology.
- Town, Prof. G(eorge) G(alloway)**, 811 E. College Ave, Waukesha, Wis. *Chemistry*. Detroit, Mich, Feb. 11, 91. B.S., Wisconsin, 18, M.S., 20, Ph.D., 22. Asst. chemist, Forest Products Lab, Madison, Wis; chief chemist, Thompson's Malted Food Co, Wis; *asst. prof. chem, Wisconsin; consulting chemist, Waukesha, Wis.* Chem. Soc. Evaporation of creosote; hygroscopicity of hide glue; vapor pressure of selenium oxychloride; action of selenium oxychloride on the metals and oxides of the second group in the periodic system; determination of alkaloids.
- Towne, Prof. E(dward) B(ancroft)**, 350 Post St, San Francisco, Calif. *Surgery*. West Newton, Mass, Aug. 16, 83. A.B., Harvard, 06, M.D., 13. Asst. *surg.*, Harvard, 16-17; instr, *sch. med, Stanford*, 20-21, asst. prof, 21-23, assoc. prof, 23-26, *assoc. clin. prof, 26*—Soc. Neur. Surg; Am. Med. Ass; Soc. Exp. Biol; Calif. Acad. Surgical pathology; experimental surgery; poliomyelitis; pituitary gland, especially in relation to diabetes insipidus; tumors of the brain and spinal cord.
- Townley, Prof. Sidney D(ean)**, Stanford University, Calif. *Astronomy*. Waukesha, Wis, April 10, 67. B.S., Wisconsin, 90, fellow, 90-92, M.S., 92; fellow, California, 92-93; Sc.D., Michigan, 97. Asst. astron, Wisconsin, 90-92; instr, Michigan, 93-98; California, 98-03; astronomer in charge, Int. Lat. Observatory, Ukiah, Calif, 03-07; asst. prof. *applied math, Stanford*, 07-09, assoc. prof, 09-18, *prof, 18*—Lecturer, California, 04-07; Harvard, 25-26. A.A.; Astron. Soc; Seismol. Soc. (sec'y-treas, chief ed, 'Bul,' 11-); Pacific Astron. Soc. (pres, 16); Calif. Acad; Wis. Acad; Astron. Gesell. Practical astronomy; variable stars; asteroids; comets; variations of latitude; earthquakes.
- Townsend, Dr. C(harles) H(askins)**, Aquarium, New York, N. Y. *Zoology*. Parnassus, Pa, Sept. 29, 59. Acad. Nat. Sciences, Phila, 82-83; hon. Sc.D., Washington and Jefferson, 09. Asst, U. S. Fish Commission, 83; naturalist, U. S. S. 'Corwin,' Arctic exped, 85; res. naturalist, 'Albatross' exped, 86-96; chief div. fisheries, U. S. Fish Commission, 97-02; *director, N. Y. Aquarium, 02*—U. S. Fur-seal Commission, 96-97; fishery expert, Russo-Am. arbitration, The Hague, 02; acting director, Am. Museum Nat. Hist, 10-11. A.A.; Ornith. Union; Fisheries Soc. (pres, 12); fel. N. Y. Zool. Soc. Oceanog. Inst. Paris (councilor). Oceanography.
- Townsend, Dr. Charles H(enry) T(ylor)**, Apartado 350, Lima, Peru. *Entomology*. Oberlin, Ohio, Dec. 5, 63. George Washington, 87-90, B.S., 08, Ph.D., 14. Asst. entomologist, U. S. Dept. Agr, 89-91; prof. entom, zool. and physiol, N. Mex. Col, and entomologist, Exp. Sta, 91-93; curator museum, Inst. Jamaica, 93-94; temporary field agent, div. entom, U. S. Dept. Agr, 94-98; biogeographer and syst. entomologist, N. Mex. Exp. Sta, 98-99; teacher, high sch, P. I, 04-06; expert in charge dipterous parasites, gipsy moth lab, bur. entom, U. S. Dept. Agr, 07-09; in charge collections Muscoidea, U. S. Nat. Museum, 07-09; govt. entomologist, Peru, 09-14; asst, bur. entom, U. S. Dept. Agr, 14-19; custodian muscoid Diptera, U. S. Nat. Museum, 14-25; expert, cotton plagues and culture, Chamber Commerce and Agr, Loreto, Peru, 25-26; *chief entom. sect. and director, Inst. de Parasitol. Agr, Peru, 26*—State entomologist, Sao Paulo, Brazil, 19-22; in charge cyanogas work, Am. Cyanamid Co, Brazil, 23; director cotton plagues lab, Piura, Peru, 23-24. Geological history, ontogeny, phylogeny, bionomics and distribution of Muscoidea.
- Townsend, Dr. C(harles) O(rrin)**, U. S. Tariff Commission, Washington, D. C. *Plant pathology*. Washtenaw Co, Mich, Jan. 16, 63. B.Pd, Mich. State Nor. Sch, 91; B.S., Michigan, 88, M.S., 91; Leipzig, 95-97, Ph.D., 97. Prof. nat. science, St. John's (Md), 88-91; Wesleyan (Ga), 91-95; instr. bot, Barnard, Columbia, 97-98; prof, Maryland, and state plant pathologist, 98-01; plant pathologist in charge sugar-beet investigations, U. S. Dept. Agr, 01-10; consulting agriculturist, U. S. Sugar and Land Co, 10-12; pathologist, bur. plant. indust, U. S. Dept. Agr, 12-14, in charge sugar-beet investigations, 14-15, in charge sugar-plant investigations, 15-23; special expert, *U. S. Tariff Commission, 23-25, chief sugar div, 25*—A.A.; Soc. Agron; Wash. Bot. Soc. Physiology and pathology of plants; the influence of nuclei on the formation of the cell-wall; diseases of the sugar-beet; the development of a beet seed ball containing a single seed; treatment of beet seed balls to improve germination; selection of sugar-beet to increase tonnage, sugar content and alkali resistance; improved methods of cultivating and breeding sugar plants.
- Townsend, Dr. Charles W(endell)**, Ipswich, Mass. *Pediatrics*. Boston, Mass, Nov. 10, 59. A.B., Harvard, 81, M.D., 85. Visiting physician, Sea Shore Home, 87-90; physician to out-patients, Children's Hosp, 87-03; Boston Lying-in Hosp, 87-98; Mass. Gen. Hosp, 91-09; visiting physician, Floating Hosp, 07-09. Can. Geol. Surv. exped, Labrador, 15. A.A.; Am. Med. Ass; Pediat. Soc; fel. Ornith. Union; Nuttall Ornith. Club (past v. pres); New Eng. Pediat. Soc. (v. pres, 09); Mass. Audubon Soc. (director). Ornithology.
- Townsend, Clinton Paul**, 30 E. 42d St, New York, N. Y. *Chemistry*. Fulton, N. Y, July 31, 68. B.S., Columbian, 99. Examiner electrochem, U. S. Patent Office, 96-03; *mem. patent law firm, Byrnes, Townsend and Brickenstein, 03*—; *research director, Union Carbide and Carbon Corp, 19*—Exec. board, Nat. Research Council, 19—Consulting chemist, ordnance dept, U.S.A., 18—Chem. Soc; Electrochem. Soc. (v. pres, 09);

Soc. Chem. Indust; Soc. de Chim. indust. Elec-
trolytic alkali industry.

Townsend, Prof. E(dgar) J(erome), 510 John St,
Champaign, Ill. **Mathematics*. Litchfield,
Mich, Feb. 22, 64. Ph.B, Albion, 90, LL.D, 15;
Ph.M, Michigan, 91; Ph.D, Göttingen, 00. Instr.
math, Chicago Manual Training Sch, 91-93;
asst. prof, *Illinois*, 93-95, assoc. prof, 95-05,
prof, 05-, dean col. science, 05-13. A.A; Math.
Soc. Foundations of geometry; calculus; func-
tions of a complex variable.

Townsend, Prof. M(yron) T(homas), St. John's
College, Annapolis, Md. *Ecology*. Westhamp-
ton, Mass, May 8, 97. B.S, Bates Col, 18; M.S,
Illinois, 21, fellow, 23-24, Ph.D, 25. Asst.
zool, *Illinois*, 19-23; *asst. prof. biol*, *St. John's*
(Md), 24- A.A; Ecol. Soc; Entom. Soc. Re-
actions of the jelly-fish, *Aequorea*; the burrow-
ing reaction of the American toad; the break-
up of hibernation in the codling moth larva.

Townshend, Dr. Bailey, 50 Broad St, New York,
N. Y. *Physics*. New York, 95. B.S, Mass.
Inst. Tech, 16, Sc.D, 23. Instr. physics, Mass.
Inst. Tech, 19-23; Yale, 24; *research engineer*,
Int. Business Machine Corp, 24- Ensign and
lecturer, A.S, U.S.N.R, 18. A.A; Physical Soc;
Chem. Soc; Elec. Eng. Thermodynamics.

Tozzer, Prof. Alfred M(arston), Harvard Univer-
sity, Cambridge, Mass. **Anthropology*. Lynn,
Mass, July 4, 77. A.B, Harvard, 00, A.M, 01,
Ph.D, 04. Instr. archeol, *Harvard*, 05-12, asst.
prof. *anthrop*, 12-19, assoc. prof, 20-21, *prof*,
21-, asst. and curator, *Peabody Museum*, 05-
Am. fellow, *Archeol. Inst*, 02-05; exped, Cent.
Amer, 02-05; in charge, *Peabody Museum*
exped, Cent. Amer. and British Honduras, 09;
director, Int. Sch. Archeol. and Ethnol, Mex,
13-14. A.A; Anthropol. Ass; Antiq. Soc; Folk-
Lore Soc; fel. Ethnol. Soc; Am. Acad; Mass.
Hist. Soc; Mass. Colonial Soc; Royal Anthropol.
Inst; Royal Geog. Soc; cor. mem. Paris Soc. des
Américanistes; Hispanic Soc. Ethnology and
archeology of Central America; sociology.

Tozzer, Arthur C(larence), Turner Construction
Co, 178 Tremont St, Boston, Mass. *Civil en-
gineering*. Lynn, Mass, July 18, 79. B.S, Dart-
mouth, 02, C.E, 03. *Turner Construction Co*,
06-, v. pres. and director. Overseer, Thayer Sch.
Civil Eng, Dartmouth. Civil Eng; Concrete
Inst. (director, 26-28); Boston Soc. Civil Eng;
Boston Building Cong. (treas); N. Y. Eng.
Club.

Trabue, Prof. M(arion) R(ex), University of
North Carolina, Chapel Hill, N. C. *Psychology*,
Education. Kokomo, Ind, April 30, 90. A.B,
Northwestern, 11; A.M, Columbia, 14, Ph.D, 15.
Instr. educ. administration, Teachers Col, Co-
lumbia, 14-16, asst. prof. educ, 17-22, director
bur. educ. service, 19-22; *prof. educ. adminis-
tration*, *North Carolina*, 22-, director bur. educ.
research, 23- Chief psychol. examiner, Sanit.
C, 17-18. A.A; Psychol. Ass; Nat. Soc. Study
Educ; Educ. Research Ass. (pres, 25); Eugenics
Research Ass; Statist. Ass; S. Soc. Philos. and
Psychol. Measurement of intelligence and edu-
cational achievements.

Tracey, J(oshua) I(rving), Yale University, New
Haven, Conn. *Mathematics*. Upperco, Md,
Aug. 19, 83. B.S, Dickinson, 06; fellow, Hop-
kins, 10-12, Ph.D, 12. Instr. *math*, *Yale*, 12-
16, asst. prof, 16-26, *assoc. prof*, 26- A.A;
Math. Soc; Math. Ass. Rational curves of the
fourth and fifth degree and associated covariant
curves.

Tracy, Dr. F(rederick), 173 Walmer Road, To-
ronto, Ont, Can. *Philosophy*. Claremont, Ont,
May 18, 62. Pickering, 83-84; B.A, Toronto,
89, fellow, 90-92; fellow, Clark, 92-93, Ph.D,
93. Commercial master, Pickering, 85; lecturer
philos, *Toronto*, 93-05, assoc. prof, 05-16, *prof*.
ethics, 16- Lecturer, McMaster, 01-07. Philos.
Ass; Religious Educ. Ass; Ill. Soc. Child Study;
Ont. Child Study Ass. Left-handedness; the
psychology of childhood and adolescence; theory
of knowledge; child study.

Tracy, Prof. Henry C(arroll), University of Kan-
sas, Lawrence, Kans. *Anatomy*. Hartford, Vt,
July 11, 79. A.B, Dartmouth, 02; A.M, Brown,
05, Ph.D, 10. Submaster, high sch, Vt, 02-04;
asst. physiol, Brown, 04-07; asst. biologist, R.
I. Fish Commission, 07-10; instr. *anat*, North-
western, 10-13; *prof*, Marquette, 13-20; *Kan-
sas*, 20-; *biol. surv*, *Mt. Desert Biol. Lab*, 26-
Sci. asst, U. S. Bur. Fisheries, Woods Hole, 10,
11, 23. A.A; Ass. Anat. Life histories of
fishes; the swim bladder; nervous system in
fishes.

Tracy, Prof. J(ohn) C(layton), 345 Winthrop
Ave, New Haven, Conn. *Mathematics*. Willi-
mantic, Conn, Nov. 3, 69. Ph.B, Yale, 90, C.E,
92. Structural engineer, King Bridge Co, 90-
91; instr. civil eng, *Yale*, 91-02, asst. prof.
structural eng, 02-15, *prof. civil eng*, 15- Eng.
Educ. Descriptive geometry; surveying; me-
chanics applied to the calculation of stresses and
the strength of materials.

Tracy, Dr. M(artha), 2101 N. College Ave, Phila-
delphia, Pa. *Hygiene*. Plainfield, N. J, April
10, 76. A.B, Bryn Mawr, 98; M.D, Woman's
Med. Col. of Pa, 04; D.P.H, Pennsylvania, 17.
Assoc. prof. chem, *Woman's Med. Col. of Pa*,
09-15, *prof*, 15-17, hygiene, 17-20, nutritional
hygiene, 22-23, *hygiene and prev. med*, 23-,
dean faculty, 18- Micro-chemical reactions and
cancer cells; the toxins of the *Bacillus prodigio-
sus*; experimental tumors; absorption from the
peritoneal cavity; the excretion of phosphates in
infancy; creatinine.

Transeau, Prof. E(dgar) N(elson), Ohio State
University, Columbus, Ohio. **Botany*. Willi-
amsport, Pa, Oct. 21, 75. A.B, Franklin and
Marshall, 97; Chicago, 00-01; Ph.D, Michigan,
04. Prof. biol, Alma, 04-06; staff, Cold Spring
Harbor, 06-07; *prof. bot*, East. Ill. State Teach-
ers Col, 07-15; *Ohio State*, 15-, head dept, 18-
Staff, Cold Spring Harbor, 23-24. A.A; Soc.
Nat; Bot. Soc; Ass. Geog; Ecol. Soc. (v. pres,
22, pres, 24); Ohio Acad. (pres, 24). Plant
physiology; vegetation of Ohio; ecology of
freshwater algae.

Traphagen, Dr. F(rank) W(eiss), Utah Junction,
Colo. *Metalurgy*. Eaton, Ohio, July 20, 61.
Ph.B, Columbia, 82, Ph.D, 83. Instr. chem,
Staunton Mil. Acad, 84-87; prof, Col. of Mont,

- 87-93; Mont. Col. and chemist, Exp. Sta, 93-03; prof. metal. and assaying, Colo. Sch. Mines, 03-16; S. Dak. Sch. Mines, 16-22; metallurgist and gen. manager, White Hills Mining Co, Ariz, 22-25; *research metallurgist, Standard Metal. and Chem. Co, 25-* Assayer, Champion Mining Co, 90-93; in charge Mont. mining exhibits, Columbian Expos, 93; consulting expert, mining companies. A.A.; Min. Eng; Chem. Soc; Soc. Chem. Indust; Inst. Social Sci; West. Ass. Tech. Chem. and Metal. (pres, 04); Franklin Inst; Royal Soc. Arts; London Chem. Soc. Chemistry of soils; foods; metallurgical chemistry and ore dressing; plants and waters poisonous to stock and vegetation.
- Trask, Dr. John W(illiam)**, U. S. Marine Hospital, Baltimore, Md. *Public health*. Bay City, Mich, Feb. 18, 77. M.D, Michigan, 01. Asst. surgeon, U. S. Pub. Health Service, 02-07, past asst. surgeon, 07-09, *surgeon, 14-* In charge div. sanit. reports and statist, 09-18; med. director, U. S. Employees Compensation Commission, 18-22; in charge, U. S. Marine Hosp, Buffalo, 22-26, Baltimore, 26- Am. Med. Ass; Pub. Health Ass. (chairman, sect. vital statist, 15-17). Sanitation; vital statistics; tuberculosis; malaria; spread and geographic distribution of disease.
- Trask, Parker D(avies)**, Yale University, New Haven, Conn. *Geology*. Springfield, Mass, May 7, 99. A.B, Texas, 17; A.M, California, 20, Ph.D, 23. Instr. geol, Yale, 24-26; *research assoc, Petrol. Inst, 26-* James M. Goewey traveling fellow, Europe, 23-24. Paleont. Soc; Min. Eng. Briones formation of California; geology of Point Sur quadrangle, Santa Lucia Coast Range, California; sedimentation; origin and environment of the source beds of petroleum.
- Traum, Dr. J(acob)**, University of California, Berkeley, Calif. *Veterinary science*. Galicia, Austria, Nov. 23, 82. D.V.M, Cornell, 05, M.S, 23. Bur. animal indust, U. S. Dept. Agr, 05-14; *assoc. prof. vet. science, California, 14-* U. S. Foot and Mouth Commission, Europe, 25-27. Vet. Med. Ass. Infectious abortion in cattle; bovine tuberculosis; foot and mouth disease.
- Travis, Dr. L(ee) E(dward)**, 1144 E. College St, Iowa City, Iowa. *Psychology*. Imperial, Nebr, June 23, 96. A.B, Iowa, 22, A.M, 23, Ph.D, 24. *Nat. Research Council fellow psychol, Iowa, 24-* Abnormal and physiological psychology; speech defects.
- Treadwell, Prof. Aaron L(ouis)**, Vassar College, Poughkeepsie, N. Y. *Zoology*. Redding, Conn, Dec. 23, 66. B.S, Wesleyan, 88, M.S, 90; Ph.D, Chicago, 99. Asst. nat. hist, Wesleyan, 88-91; *prof. biol. and geol, Miami, 91-00*; biol, *Vassar, 00-14, zool, 14-* Staff, Woods Hole, 98-06, 13; Carnegie Institution at Dry Tortugas, Bermuda, Porto Rico, Tobago, Fiji, Samoa and Jamaica. A.A.; Soc. Nat. (sec'y, 12); Soc. Zool. (v. pres, 21). Annelid morphology and embryology; West Indian polychaetes.
- Treasher, Ray(mond) O(larence)**, University of Oregon, Eugene, Oregon. *Geology*. Chicago, Ill, July 28, 98. B.S, Wash. Col, 24, M.S, 25. Office asst, Wash. State Highway Dept, Yakima, Wash, 22-23; teaching fellow *geol, Wash. Col,*
- 24-25, instr, 25-26; *teaching fellow, Oregon, 26-* Summer, geologist's asst, Wash. State Geol. Surv, 24. Assoc. Min. and Metal. Eng; Northwest Sci. Ass. Origin of the loess of the Palouse Region and of the Columbia Plateau; simplified detail work of mineralography.
- Treace, Prof. E(lbert) Lee**, 714 McCook St, Lawrence, Kans. *Bacteriology*. Blue Mound, Kans, Oct. 25, 92. B.S, Kansas, 15, M.S, 19, Ph.D, 26. Asst. bacteriologist, Kans. State Water and Sewage Lab, 16-17; instr. *bacter, Kansas, 17-21*, asst. prof, 21-25, *assoc. prof, 25-* Asst. city chemist, Kansas City, Mo, 16-17. Soc. Bact. Bacterial metabolism; classification of bacteria.
- Trelease, Dr. Sam F(arlow)**, Columbia University, New York, N. Y. *Plant physiology*. St. Louis, Mo, July 3, 92. A.B, Washington (St. Louis), 14; Ph.D, Hopkins, 17. Asst. *plant physiol, Hopkins, 16-17*; asst. prof, Philippines, 17-19, *assoc. prof, 19-20*; instr, Hopkins, 20-23; asst. prof, Louisville, 23-25; *assoc. prof, Columbia, 25-* Lecturer, Philippines, 19-20; collaborator, Bur. Forestry, P. I., 19-20; ed, 'Philippine Agriculturist,' 19-20; ed. board, 'Philippine Jour. Sci'; 'Bot. Abstracts,' 20-26. A.A. (asst. sec'y, 21-23, sec'y, council, 21-, program ed, 23-, sec'y, G, 25-); Soc. Plant Physiol; Bot. Soc; Phytopath. Soc; Torrey Bot. Club (assoc. ed, 'Bul,' 25-). Agricultural botany; ecology; mineral requirements of plants; water relations.
- Trelease, Prof. William**, University of Illinois, Urbana, Ill. *Botany*. Mount Vernon, N. Y, Feb. 22, 57. B.S, Cornell, 80; Sc.D, Harvard, 84; LL.D, Wisconsin, 02, Missouri, 03, Washington (St. Louis), 07. Prof. bot, Wisconsin, 83-85; Washington (St. Louis), 85-13; director, Mo. Bot. Garden, 89-12; prof. bot. and head dept, Illinois, 13-26; *retired*. Special agent on cotton insects, U. S. Dept. Agr, 79; lecturer, Hopkins, 83-84; summers, in charge bot, Harvard, 83-84. Chairman Am. editors, 'Bot. Centralblatt,' 00-20. City Planning Commission, St. Louis, 11-12; Ill. Board Nat. Resources and Conservation. Nat. Acad. (chairman, sect. bot); A.A. (chairman, G, 00); Soc. Nat. (pres, 03); Bot. Soc. (chairman, organization committee, pres, 95, 18, sec'y, 06); Philos. Soc; Am. Acad; Bot. Cent. States (pres, 05); Torrey Bot. Club; Wis. Acad; Ill. Acad. (pres, 16); Calif. Acad; Iowa Acad; Mass. Hort. Soc; Wis. Hort. Soc. (sec'y, 82-85); Boston Soc. Nat. Hist; Cambridge Entom. Club (pres, 88); St. Louis Acad. (sec'y, 96-03, pres, 09-12); Phila. Acad; Phila. Col. Pharmacy; Edinburgh Bot. Soc; Bot. Gesell; Bot. Gesell, Brandenburg; Soc. d'Acclimat. de France; Soc. bot. de France; Soc. Linnean de Lyon; Soc. Nat. Sci. Cherbourg; Copenhagen Bot. Soc; Soc. Royale de Bot. de Belg; Soc. Centr. Forest. Belg; Soc. Bot. de Geneve; Soc. Cient. Ant. Alz; Acad. Int. Geog. Bot. (pres, 96). Botany and entomology, especially pollination arrangements, parasitic fungi and certain groups of flowering plants; Agaveae; Yuccaeae; Phoradendron; Quercus; Piperaceae.
- Trentham, Prof. S(hannon) O(tis)**, Mars Hill College, Mars Hill, N. C. *Biology*. Gatlinburg, Tenn, Nov. 16, 94. B.S, Carson-Newman Col, 25; North Carolina. Asst. *biol, Carson-Newman,*

- 24-25; head dept, Mars Hill Col, 25- Research, Carson-Newman Col, 24-25. A.A. Zoology; botany.
- Tressler, Dr. Donald K(iteley)**, Mellon Institute, Pittsburgh, Pa. *Chemistry*. Cincinnati, Ohio, Nov. 7, 94. A.B. Michigan, 13; Ph.D. Cornell, 18. Scientist, bur. soils, U. S. Dept. Agr, 17; instr. chem, Oregon Col, 17-18; asst. Bur. Fisheries, 18-19; *indust. fellow, Mellon Inst*, 20- Delegate, U. S. Dept. Commerce, Brazilian Centennial Expos, 22-23, exhibitor's gold medal, 23. Chem. Soc; Fisheries Soc. Soil chemistry; preservation and nutritive value of fish; fishery and beet sugar by-products.
- Trettien, Prof. Augustus W(illiam)**, Toledo University, Toledo, Ohio. *Psychology*. Appleton, Wis. B.L. Wisconsin, 99; Ph.D. Clark, 04. Prof. psychol, Wis. State Nor. Sch, Oshkosh, 00-07; South Dakota, 07-11; assoc. prof. educ, Kansas, 11-14; *prof. psychol. and director clinic, Toledo*, 15- Summers, lecturer, Iowa, 08, Missouri, 10, 15, Washington (Seattle), 13, 14. A.A. Psychol. Ass; Eugenics Soc; Ohio Acad. Education; personal efficiency; instincts and habits; speech defects; hysteria; emotional disturbances; personnel.
- Trevor, Prof. J(oseph) E(llis)**, The Circle, Ithaca, N. Y. **Physics*. Lockport, N. Y., Oct. 11, 64. Cornell, 88-90; Ph.D. Leipzig, 92. Asst. prof. gen. and physical chem, Cornell, 92-00, *prof*, 00-08, *thermodynamics*, 08- Ed, 'Jour. Physical Chem,' 96-09. Math. Soc. Thermodynamics.
- Trickey, John P(aul)**, 1212 Central St, Evanston, Ill. *Chemistry*. Rochester, N. H., Sept. 26, 87. B.S. New Hampshire, 09; fellow, Kansas, 10-12; M.S. Northwestern, 16. Acting prof. chem, Monmouth, 12-13; instr, Allegheny, 13-15; Northwestern, 15-17; *research chemist, Miner Laboratories, Ill*, 19- Demonstrator, Toronto, 09-10. Lieut. C.Eng. and capt, C.W.S. 17-19, major, C.W.S.R. Chem. Soc. Quantitative analysis of non-ferrous metals; electrical conductivity of non-aqueous solutions; fufural resins; antiseptic and germicidal properties of fufural; fufural derivatives as rubber accelerators.
- Trimble, Dr. H(arry) C(lyde)**, Harvard Medical School, Boston, Mass. *Chemistry*. Geneva, Iowa, March 7, 89. A.B. Cornell (Iowa), 10; M.S. Chicago, 16, Ph.D. 18. Teacher, high sch, Iowa, 10-12; asst. physics and biol, Bradley Polytech, 12-14; org. chem, Chicago, 15-17; instr. chem, North Dakota, 17-18, asst. prof, 18-21, assoc. prof, 21-24; *asst. prof. biochem, Harvard Med. Sch*, 24- Nat. Research Council fellow, Harvard Med. Sch, 23-24. Chem. Soc. Organic chemistry; molecular rearrangements of amins, amids and amidins; phosphotungstic acids; intermediary metabolism of carbohydrates.
- Trinks, Prof. C. L. W(illibald)**, 1410 Denniston St, Pittsburgh, Pa. *Mechanical engineering*. Dec. 10, 74. B.S. Technische Hochschule, Charlottenburg. Chief engineer, Wm. Tod Co, Ohio, 02-05; *prof. mech. eng, Carnegie Inst. Tech*, 05- Consulting engineer, commercial companies, 08- Mech. Eng; Automotive Eng; Iron and Steel Inst; Iron and Steel Elec. Eng; W. Pa. Eng. Soc. Heat transfer in furnaces.
- Triplett, Prof. Norman**, Kansas State Teachers College, Emporia, Kans. *Philosophy, Psychology*. Perry, Ill, Oct. 1, 61. A.B. Illinois, 89; A.M. Indiana, 98; Ph.D. Clark, 00. Supt. pub. sch, Ill, 89-91; instr, high sch, 94-97; pedagogue, Mt. Holyoke, 00-01; *prof. psychol. and child study, Kansas State Teachers Col*, 01-06, *philos. and psychol*, 06- Psychol. Ass. Dynamogenic factors in competition; the psychology of conjuring deceptions; the educability of the perch; rhythm; nursery rhymes; the faults of children; individual psychology; pedagogical arrests and peculiarities.
- Tripp, Prof. M(yron) O(wen)**, Springfield, Ohio. *Mathematics*. Grand Haven, Mich, March 19, 74. B.S. Valparaiso, 95; A.B. Indiana, 01; Ph.D. Columbia, 09. Instr. math, Col. City of N. Y., 03-12; prof, Olivet, 14-17; asst. prof, Maine, 17-19, assoc. prof, 19-21; *prof, Wittenberg (Ohio)*, 21- Math. Soc. Theory of abstract groups.
- Troland, Dr. L(eonard) T(hompson)**, 66 Fresh Pond Lane, Cambridge, Mass. **Psychology, Physics*. Norwich, Conn, April 26, 89. B.S. Mass. Inst. Tech, 12; A.M. Harvard, 14, Ph.D. 15. Instr. *psychol, Harvard*, 16-19, faculty instr, 19-22, *asst. prof*, 22-; research engineer, Kalmus, Comstock and Westcott, Inc, 18-25; *director research and process control, Technicolor Motion Picture Corp*, 25- Sheldon traveling fellow, Harvard, 15-16, fellow, 16-17. A.A; Psychol. Ass; Physical Soc; Illum. Eng. Soc; Optical Soc. (exec. committee, 18-20, pres, 22-24). Physiological and photographic optics; color photography; radio telephony; acoustics; enzymes.
- Troop, Prof. James**, Purdue University, Lafayette, Ind. *Entomology*. Bennington, N. Y., March 14, 53. B.S. Mich. State Col, 78, M.S. 82. *Prof. hort. and entom, Purdue*, 84-12, *entom*, 12- State entomologist, Ind, 99-07. A.A; Entom. Soc; Ass. Econ. Entom; Pomol. Soc. Life history and control of the codling moth and other injurious insects; control of the tropical poultry mite by fumigation.
- Trost, John F(rancis)**, 525 Dodge St, West Lafayette, Ind. *Plant pathology*. Indianapolis, Ind, May 30, 97. B.S.A. Purdue, 18, M.S. 22. Asst. plant pathologist, *bur. plant indust, U. S. Dept. Agr*, 18-24, *assoc. plant pathologist*, 24- A.A; Phytopath. Soc; Soc. Plant Physiol; Chem. Soc; Genetic Ass. Root and stalk rots of corn.
- Trotter, Dr. Mildred**, Washington University, St. Louis, Mo. *Anatomy*. Monaca, Pa, Feb. 3, 99. A.B. Mt. Holyoke, 20; M.S. Washington (St. Louis), 21, fellow, 20-22, Ph.D. 24. Research asst. *anat, Washington (St. Louis)*, 20-22, asst, 22-24, instr, 24-26, *asst. prof*, 26- Fellow, Nat. Research Council, 25-26. A.A; Ass. Anat. Hair.
- Trotter, Dr. Spencer**, West Chester, Pa. *Zoology*. Philadelphia, Pa, Feb. 8, 60. M.D. Pennsylvania, 83. Res. physician, Pa. Hosp, 83-85; *prof. biol, Swarthmore*, 88- A.A; Ornith

- Union; Phila. Acad; fel. Royal Geog. Soc. Ornithology; anthropology; history of nature names; Americana.
- Trout, Dr. Hugh H.** Jefferson Hospital, Roanoke, Va. *Surgery*. Staunton, Va., June 8, 78. M.D., Virginia. *Chief surgeon, Jefferson Hosp.*, 08-Surg. Ass; S. Surg. Ass. *Surgery*.
- Trow, W(illia)m Clark**, 1101 Berkshire Road, Ann Arbor, Mich. *Educational psychology*. Northampton, Mass, Dec. 11, 94. A.B., Colgate, 15; A.M., Columbia, 20, Ph.D., 23. Instr. and asst. prof. *educ. psychol.*, Rochester, 19-22; *assoc. prof.*, Cincinnati, 23-26; *Michigan*, 26- Visiting assoc. prof., Yale, 25-26; summer, Northwestern, 25. Personality traits.
- Trowbridge, Prof. A(rthur) C(arleton)**, 1182 E. Court St, Iowa City, Iowa. *Geology*. Glasgow, Mo, March 4, 85. B.S., Chicago, 07, Ph.D., 11. Asst. *geol.*, Chicago, 07-09, instr., 09-11; *prof.*, Iowa, 11- Field asst., Ill. Geol. Surv., 07, geologist, 10; asst. geologist, U. S. Geol. Surv., 13-20, geologist, 20-24, assoc. geologist, 24-; geologist, Turkish Petrol. Co, Ltd., 25-26. A.A.; fel. Geol. Soc; fel. Iowa Acad. Stratigraphic geology; terrestrial deposits; physiographic work in driftless area; sedimentology.
- Trowbridge, Dr. Augustus**, 20 rue de la Baume, Paris, France. **Physics*. New York, N. Y., Jan. 2, 70. Columbia, 90-93; Ph.D., Berlin, 97. Instr. physics, Michigan, 98-00; asst. prof. math. physics, Wisconsin, 00-03, prof., 03-06; physics, Princeton, 06-25; *director science, Int. Educ. Board*, 25- Chairman, div. physical sciences, Nat. Research Council, 20. Nat. Acad; A.A.; Physical Soc; Philos. Soc; Wash. Acad. Infra-red radiation; explosive mixtures; internal combustion engine.
- Trowbridge, Prof. D(ie) Hector**, Lewis Institute, Chicago, Ill. *Chemistry*. Centerville, Mich, Nov. 19, 73. B.S., Michigan, 98. Instr., high sch., Mich., 98-99; *Lewis Inst.*, Chicago, 99-07, asst. prof. chem., 07-13, *prof. anal. chem.*, 13- Summers, asst., Michigan, 99, 00. Chem. Soc. Influence of moisture on dielectric strength of oils; influence of temperature and pressure on gases used for heating and lighting; sanitary inspection of water, milk and cream; gases and fuels; deposition of silver on glass and china.
- Trowbridge, Prof. E(dwin) A.** Agricultural Experiment Station, Columbia, Mo. *Animal husbandry*. Mondovi, Wis, April 27, 85. B.S.A., Wisconsin, 06. Asst. *animal husbandry, Missouri*, 06-07, instr., 07-10, asst. prof., 10-, *chairman dept. animal husbandry, Exp. Sta.*, 09-A.A.; Soc. Animal Production (pres, 24); Genetic Ass. Live stock feeding and breeding.
- Trowbridge, Prof. P(erry) F(ox)**, Agricultural College, N. Dak. *Chemistry*. Three Rivers, Mich, April 25, 66. B.Pd., Mich. Nor. Col., 92, M.Pd., 08; Ph.B., Michigan, 92, A.M., 05; Ph.D., Illinois, 06. Instr. pedag., Mich. Nor. Col., 92-93; asst. chem., Michigan, 93-95, instr., 95-02; asst. nutrition and instr. chem., Illinois, 05-07, asst. prof. chem., 07; agr. chem., Missouri, and assoc. chemist, Exp. Sta., 07-08, prof. and chemist, 08-18; *director, N. Dak. Exp. Sta.*, 18- Prof., Kalamazoo, 94. A.A.; Chem. Soc; Agr.
- Chem. (pres, 18); Soc. Agron; Soc. Animal Production. Chemistry of nutrition.
- Troxell, Dr. Edward L(effingwell)**, Trinity College, Hartford, Conn. *Vertebrate paleontology*. Deshler, Nebr, April 15, 84. A.B., Northwestern, 08, A.M., 11; Ph.D., Yale, 14; Sorbonne, Paris, 19. Asst. museum, Michigan, 14-17; research assoc. paleont., Yale, 19-25; asst. prof. *geol.*, Trinity (Conn.), 20-25, *prof. and dean*, 25- Private collecting expeditions. Capt., U.S.A., 17-19. A.A.; Paleont. Soc; fel. Geol. Soc; Soc. Mammal. Paleontology; general geology; museum methods.
- Troy, Prof. Hugh C(harles)**, Cornell University, Ithaca, N. Y. *Dairy husbandry*. Spencer, N. Y., 67. B.S.A., Cornell, 96. Chemist, Cayudutta Chem. Co, 96-97; instr. *dairying, Cornell*, 97-12, *prof.*, 12- Chemist, N. Y. State Dept. Agr., 97-12, consulting chemist, 12- Chem. Soc; Dairy Ass; N. Y. Dairymen's Ass. (pres, 18-20). Testing of dairy products; analysis of food products.
- True, Dr. A(lfred) C(harles)**, U. S. Department of Agriculture, Washington, D. C. *Agriculture*. Middletown, Conn, June 5, 53. A.B., Wesleyan, 73, A.M., 76, hon. Sc.D., 06; Harvard, 82-84; hon. Ph.D., Erskine, 86. Prin., high sch., N. Y., 73-75; instr., Mass. State Nor. Sch., Westfield, 75-82; Wesleyan, 84-88; ed., office exp. stations, U. S. Dept. Agr., 88-91, asst. director, 91-93, director, 93-15, states relations service, 15-23, *specialist, states relations work*, 23-, dean grad. sch. agr., 02-16. Ed., 'Exp. Sta. Record.' Trustee, American Univ. A.A.; Ass. Agr. Col. (pres, 14); Wash. Philos. Soc. Agricultural education and the organization and management of institutions for agricultural research.
- True, Prof. Gordon H(aines)**, University of California, Berkeley, Calif. *Agriculture*. Baraboo, Wis, 68. B.S., Wisconsin. Instr. dairy husbandry, Mich. State Col., 94-99; prof. animal husbandry, Arizona, 99-03; agr. and animal husbandry, Nevada, 03-13, director, Exp. Sta., 12-13; *prof. animal husbandry, California*, 13- Agent and expert. irrig., U. S. Dept. Agr; Nev. State Board Agr., 00-13; state quarantine officer, Nev., 12-13; chairman, livestock commission for Calif., Food Ad., 17-19. A.A.; Genetic Ass; Soc. Animal Production; Am. Hist. Ass. Animal husbandry; arid farming in Nevada; relation of irrigation to chemical composition of grain.
- True, Dr. Rodney H(oward)**, University of Pennsylvania, Philadelphia, Pa. **Plant physiology*. Baraboo, Wis, Oct. 14, 66. B.S., Wisconsin, 90, M.S., 92; Ph.D., Leipzig, 95. Instr. pharmacog., Wisconsin, 96-97, asst. prof., 97-00; lecturer bot., Harvard, 01-02; physiologist in charge physiol. investigations, bur. plant indust., U. S. Dept. Agr., 02-20; *prof. bot. and director bot. garden, Pennsylvania*, 20- Revision committee, ninth edition, 'U. S. Pharmacopœia.' A.A. (v. pres, G, 20, see'y, committee of 100, 24-28, councilor, 25-); Bot. Soc; Agr. Hist. Soc. (pres, 19); Philos. Soc; Phila. Soc. Prom. Agr; Franklin Inst; D. C. Fed. Employees Union Number Two (pres, sci. tech. sect, 19). Electrolytic dissociation and physiological action in solutions; growth rate; turgor and temperature change;

tea and tobacco fermentations; toxic action of solutions, simple and mixed; physiological functions of mineral plant nutrients; utilization of marls.

Trueblood, Dr. H(oward) M(offitt), American Telephone and Telegraph Co, 195 Broadway, New York, N. Y. *Thermodynamics*. Richmond, Ind, April 16, 84. B.S., Earlham, 02; B.S., Haverford, 03; Mass. Inst. Tech, 08-09; fellow, Harvard, 12-13, Ph.D, 13. Aid and asst, U. S. Coast and Geod. Surv, 03-08; asst. physics, Harvard, 12-14; instr. and asst. prof. elec. eng, Pennsylvania, 14-17. A.A.; Physical Soc; Elec. Eng; Soc. de Physique. Joule-Thomson effect in superheated steam; inductive interference.

Truitt, Prof. R(eginald) V(an Trump), University of Maryland, College Park, Md. *Zoology*. Snow Hill, Md, Aug. 12, 91. A.B., Maryland, 14, M.S., 21. Prin, high sch, Md, 14-18; asst. zool, Maryland, 18-19, asst. prof, 19-22, *prof. aquiculture*, 22- Biologist, Md. Conservation Dept, 19-, in charge, Chesapeake Biol. Sta, 23-26; summers, sci. asst, Bur. Fisheries, 19-22. A.A.; Soc. Ichthyol. and Herp; Fisheries Soc; Ecol. Soc; Md. Acad. Oysters; fish; birds; the Chesapeake blue crab.

Truman, O(rlay) H(osmer), 402 Calhoun Ave, Apt. 2, Houston, Texas. *Astronomy*. Iowa Falls, Iowa, July 9, 88. A.B., Iowa, 11, M.S., 12. Instr, Graceland, 12-13; math. and astron, Iowa, 13-19; astronomer, Lowell Observatory, 19-24; *geophysicist, Humble Oil and Ref. Co*, 24- Lowell eclipse exped, 18. Astron. Soc; Pacific Astron. Soc. Spectroscopy of the spiral nebulae; Mars; oil discovery.

Trumbull, Dr. Harlan L(eo), Hudson, Ohio. *Physical chemistry*. Adair, Iowa, May 29, 86. A.B., Washington (Seattle), 07, A.M., 08; Ph.D., Chicago, 11. Instr. chem, Washington (Seattle), 11-16, asst. prof, 16-18; fellow, Mellon Inst, 18-19; research chemist, *B. F. Goodrich Co*, 19-22, *dept. manager*, 22- Capt, C.W.S., 18-19; expert, W.T.B., 19. A.A.; Chem. Soc; Chem. Eng. Molecular rearrangement and weight; irradiation of fungi; potash from kelp; toxic gases; rubber.

Trumbull, R(obert) S(amuel), El Paso, Texas. *Agriculture*. Lakeport, N. Y., Jan. 18, 81. A.B., B.S., Nebr. Wesleyan, 07; A.M., Nebraska, 08. Instr. agr. chem, Nebraska, 08-09; adjunct prof. agr. and asst. agr. chemist, Nebr. Exp. Sta, 08-13; agr. agent, El Paso and Southwest. Ry. System, Texas, 13-21; asst. state leader, county agent work, Arizona, 22-23; *county agr. agent, Agr. and Mech. Col. Texas*, and U. S. Dept. Agr, El Paso, 24- A.A. (sec'y-treas, southwest. div, 23-25). Nitrogen in soils; soils moisture.

Trump, Edward N(eedles), 1912 W. Genesee St, Syracuse, N. Y. *Engineering*. Philadelphia, Pa., Nov. 9, 57. Cornell, 77-78. Apprentice, machinist's shop, 74-76; asst. supt, Delaware Beet Sugar Co, 79-81; asst. eng, Solvay Process Co, 82-93, gen. manager and chief engineer, 93-06, v. pres, 06-21; *consulting engineer*, 21- Eng. Council, 25-26. Mech. Eng. (v. pres, 05-07); Min. Eng. Mechanical and chemical en-

gineering; by-product coke ovens; Unaflo steam engines; alkali manufacture.

Trumpler, Dr. Robert (Julius), Lick Observatory, Mt. Hamilton, Calif. *Astronomy*. Zurich, Switzerland, Oct. 2, 86. Zurich, 06-08; Ph.D., Göttingen, 10. Astronomer, Swiss Geod. Commission, 11-15; asst, Allegheny Observatory, 15-19; Kellogg fellow, *Lick Observatory*, 19-20, asst. astronomer, 20-26, *assoc. astronomer*, 26- Astron. Soc; Pacific Astron. Soc; Astron. Gesell; Soc. astron. de France. Telegraphic longitude determinations; positions, proper motions and parallaxes of fixed stars; stellar clusters; eclipse test of Einstein theory; Mars.

Truog, Prof. E(mil), University of Wisconsin, Madison, Wis. *Agriculture*. Independence, Wis, March 6, 84. B.S., Wisconsin, 09, M.S., 12. Asst. *soils, Wisconsin*, 09-12, instr, 12-16, asst. prof, 16-17, *assoc. prof*, 17-21, *prof*, 21- A.A.; Chem. Soc; Soc. Agron; Soil Surv. Ass; Wis. Acad; Int. Soc. Soil Sci. Availability of phosphates; soil acidity; feeding power of plants; soil phosphorus and potassium; soil colloids; methods of using fertilizers.

Tryon, F(rederick) G(ale), U. S. Bureau of Mines, Washington, D. C. *Economics*. Minneapolis, Minn, 92. A.B., Minnesota, 14, A.M., 16; Hopkins, 21. Asst. geologist, Empire Gas and Fuel Co, 16-17; mineral geographer in charge coal and coke statistics, U. S. Geol. Surv, 20-25; statistical adviser, U. S. Coal Commission, 22-23; *fuel industries, U. S. Bur. Mines*, 25- In charge statistics, raw mineral materials, Council Nat. Defense, 17, Statistics Branch, Gen. Staff, U.S.A., 18- Lecturer, Pennsylvania, 24-25, Robert Brookings Grad Sch. Econ. and Govt. Staff, Inst. Econ, Washington, 25-26. Mem. econ. sect, Am. Commission to Negotiate Peace, 19. Delegate, World Power and Fuel Conference, London, 24. Econ. Ass; fel. Statist. Ass; Inst. Min. and Metal. Eng; Wash. Geol. Soc; Wash. Acad. Economics of fuel and power with special reference to exhaustion of resources.

Trytten, M(erriam) H(artwick), University of Pittsburgh, Pittsburgh, Pa. *Physics*. Albert Lea, Minn, Jan. 17, 94. A.B., Luther, 16; M.S., Iowa, 24. *Instr. physics* and head dept, Luther, 18-24; *Pittsburgh*, 24- Am-Scandinavian Foundation fellow, Norway, 20-21. Physical Soc. Photomagnetism.

Tsai, Prof. Chiao, Fuh Tan University, Shanghai, China. *Physiology*. Swatow, China, 98. Ph.D., Chicago, 24. *Prof. psychobiol. and dean sch. biol. sciences, Fuh Tan Univ.* Ass. Anat. Neurophysiology; relative strength of hunger and sex in the albino rat; thalamus and mid-brain of the Virginian opossum; Necturus brain.

Tubbs, Prof. F(rank) D(ean), 129 Wood St, Lewiston, Maine. *Geology*. Mexico, N. Y., April 9, 64. A.B., Ohio Wesleyan, 88, A.M., 93, S.T.D., 98. Puebla, Mex, 89-94; Mercedes, Argentina, 94-97; Kans. Wesleyan, 99-01; high sch, Ohio, 03-07; *prof. geol, Bates*, 07- Lecturer, Bangor Theol. Sem, 11-13. A.A.; Am. Geog. Soc; Meteor. Soc; Hist. Sci. Soc. Geological history of the State of Maine.

- Tucker, Dr. Beverley Randolph**, 212 W. Franklin St, Richmond, Va. *Medicine*. Richmond, April 26, 74. M.D., Med. Col. of Va, 05. *Prof. neur. and psychiat, Med. Col. of Va, 13-; physician in charge, Tucker Sanitarium*. Int. Pellagra Commission, 08-11. *Neur. Ass; Am. Med. Ass; Therapeut. Soc. Pellagra; pituitary gland disturbance; brain tumors; lethargic encephalitis; von Recklinghausen's disease.*
- Tucker, C(larence) M(itchell)**, Porto Rico Agricultural Experiment Station, Mayaguez, P. R. *Plant pathology*. Centralia, Mo, Oct. 28, 97. B.S., Missouri, 20. *Prof. plant path, Porto Rico, 20-23; plant pathologist, P. R. Exp. Sta, 23-A.A; Bot. Soc; Phytopath. Soc. Diseases of tropical plants, especially cocoanuts, vanilla, citrus and cotton.*
- Tucker, Dr. David A, Jr**, 3550 Holly Lane, Cincinnati, Ohio. *Internal medicine*. Greensburg, Ind, Dec. 21, 90. Chicago; A.M., Michigan, 14; M.D., Cincinnati, 16. *Prof. chem, Hillsdale, 10-12; asst. zool, Michigan, 12-14; instr. pharmacol, Cincinnati, 14-16, asst. prof, 16, assoc. prof. and acting head dept, 16-17, assoc. prof. contagious diseases, 20-, asst. to dean med. col, 25-A.A; fel. Am. Med. Ass; Cincinnati Acad. Disease of the thyroid; acute infectious diseases.*
- Tucker, Prof. Forrest G(lenn)**, Cornell University, Ithaca, N. Y. *Physics*. Georgetown, Ind, July 3, 92. A.B., Indiana, 14, A.M., 16; Ph.D., Chicago, 22. *Asst. prof. physics, Wash. Col, 15-17, 19-20; Reed Col, 22-23; Cornell, 23- Lieut. capt. and major, C.A.C, 17-19. A.A; Physical Soc. Photo-electricity.*
- Tucker, F(rederick) H(arrig)**, Delta Laboratory, Tallulah, La. *Chemistry*. Ky, June 29, 78. B.S., Kentucky, 09. Ky. Exp. Sta. and Pa. Ry, 09; U. S. Geol. Surv, 09-10; Bur. Standards, 10-20; Chile Explor. Co, 20-21; Bur. Pub. Roads, 21-24; *chemist, bur. entom, U. S. Dept. Agr, 24- Chem. Soc. Inorganic physical engineering.*
- Tucker, Prof. R(ichard) H(awley)**, 1525 Waverly St, Palo Alto, Calif. *Astronomy*. Wiscasset, Maine, Oct. 29, 59. C.E., Lehigh, 79, Sc.D., 22. *Asst. Dudley Observatory, 79-83; instr. math. and astron, Lehigh, 83-84; asst. Argentine Nat. Observatory, Cordoba, 84-93; astronomer, Lick Observatory, 93-08; director south. observatory, Carnegie Institution, Argentina, 08-11; astronomer, Lick Observatory, 11-26. A.A; Astron. Soc; Seismol. Soc; Philos. Soc; Pacific Astron. Soc; Soc. Astron. de Mex; Astron. Gesell; Soc. astron. de France. Meridian circle work; Cordoba Durchmusterung; meridian circle observations.*
- Tucker, Samuel A(uchmuty)**, 485 Park Ave, New York, N. Y. *Chemistry*. New York, April 29, 69. Ph.B., Columbia, 95. *Asst. physics, col. physicians and surg, Columbia, 95-97, head demonstrator physics and chem, 97-98, tutor indust. chem, Columbia, 98-05, adjunct prof. and prof. electrochem, 05-19; chief chemist, Chem. Foundation, Inc, 19- Consulting chemist, ordnance dept, U.S.A; chem. adviser, W.I.B; major, C.W.S. Chem. Soc. (v. chairman, N. Y. sect, 10); Soc. Chem. Indust; Electrochem. Soc; fel. London Chem. Soc. Electrochemistry; electric furnace; varnish; storage battery; carbids; nitrogen fixation.*
- Tucker, Prof. W(illiam) M(otier)**, 505 Ballantine Road, Bloomington, Ind. *Geology*. Holton, Ind, Nov. 18, 77. A.B., Indiana, 08, A.M., 09, Ph.D., 16. *Asst. geog, Ind. State Nor. Sch, 02-03, instr, 07; teaching fellow, Indiana, 08-10; asst. geologist, Ind. Geol. Surv, 09-12, 15-17; head geog. dept, Minn. State Nor. Sch, Moorhead, 13-15; adjunct prof. geol, Texas, 17; asst. prof, Ohio State, 17-20; Indiana, 20-23, assoc. prof, 23- Asst. geologist, Ohio Geol. Surv, 18-20; state hydrologist, Ind, 20- Gimble exped, British Guiana, 10. A.A; Ind. Acad; Ohio Acad. Hydrology of Indiana; pyrite deposits in Ohio coals.*
- Tuckerman, Dr. Frederick**, Amherst, Mass. *Anatomy*. Greenfield, Mass, May 7, 57. B.S., Mass. Col. and Boston, 78; M.D., Harvard, 82; London and Berlin, 82-83; fellow, Clark, 89-90; Berlin, London and Heidelberg, 92-94; A.M. and Ph.D., Heidelberg, 94. *Lecturer anat. and physiol, Mass. Col, 83-86. A.A; Soc. Nat; Ass. Anat; Boston Soc. Nat. Hist; Anat. Gesell. Anatomy, morphology and embryology of the gustatory organs in Vertebrata, chiefly in Mammalia.*
- Tuckerman, L(ouis) B(ryant)**, 4605 Stanford St, Chevy Chase, Md. *Physics, Engineering*. West Williamsfield, Ohio, Sept. 26, 79. A.B., Western Reserve, 01; Nebraska, 01-02; Ph.D., Hopkins, 21. *Asst. physics, Ohio State, 02-04; Berlin, 04-06; instr, Nebraska, 06-07, adjunct prof, 07-08, asst. prof, 08-13, assoc. prof, 13-16, prof, 16-19; engineer physicist, Bur. Standards, 19-25, asst. chief div. eng. physics, 25- A.A; Physical Soc; Optical Soc; Soc. Test. Mat; Wash. Acad; Wash. Philos. Soc; Physik. Gesell; Gesell. Tech. Physik. Spectrophotometry; double refraction; materials and structural testing; aeronautics; airship designing; engineering instruments.*
- Tufte, Prof. E(ngebret) T**, St. Olaf College, Northfield, Minn. *Biology*. Northwood, N. Dak, April 5, 84. B.S., St. Olaf, 09; A.M., North Dakota, 11. *Prin. schools, Minn, 09-10; instr, North Dakota, 10-12; head dept. biol, St. Olaf, 13- Lieut. Sanit.C, 18-19. Embryology of Hosakia Americana.*
- Tufts, Prof. James H(ayden)**, University of Chicago, Chicago, Ill. *Philosophy*. Monson, Mass, July 9, 62. A.B., Amherst, 84, LL.D., 04; B.D., Yale, 89; Berlin and Freiburg, 91-92; Ph.D., Freiburg, 92. *Instr. math, Amherst, 85-87; philos, Michigan, 89-91; asst. prof, Chicago, 92-94, assoc. prof, 94-00, prof, 00-, head dept, 05-, dean senior colleges, 99-04, dean faculties, 23-26, v. pres, 24-26. A.A; Philos. Ass. (pres, 14); Psychol. Ass; West. Philos. Ass. (pres, 05, 14). Development of individuality and its influence upon philosophy; morality; industrial relations.*
- Tufts, Dr. Matilde Castro (Mrs. James H)**, University of Chicago, Chicago, Ill. *Education, Psychology*. Chicago, March 16, 79. A.B., Chicago, 00, Ph.D., 07. *Prin. high sch, Ill, 01-03; instr. psychol. and philos, Mt. Holyoke, 04-05; instr. and acting head dept. philos, Vassar, 06-09; prof. psychol, Rockford Col, 10-12; assoc.*

prof, prof. and head dept. educ. and director, Phoebe Anne Thorne Model Sch, Bryn Mawr, 12-23. A.A.; Psychol. Ass; Philos. Ass.

Tufts, Prof. Warren P(orter), University Farm, Davis, Calif. *Pomology*. Cedarville, Ohio, Jan. 8, 90. B.S. California, 12; M.S. Oregon Col, 14; Ph.D. Wisconsin, 27. Instr. *pomol*, Oregon Col, 14-15; *California*, 15-17, *asst. prof*, 17- A.A.; Soc. Hort. Sci. Pollination and pruning of deciduous fruits; nutritional and morphological studies with deciduous fruits.

Tugman, Prof. Orin, University of Utah, Salt Lake City, Utah. *Physics*. Rockville, Ind, May 26, 80. A.B. Indiana, 03, A.M. 06; Ph.D. Cornell, 09. Asst. physics, Indiana, 03; instr. Purdue, 03-06; Cornell, 06-09; asst. physicist, Bur. Standards, 09-11; engineer, West. Elec. Co, 11-13; assoc. physicist, Eastman Kodak Co, 13-15; assoc. prof. *physics*, Utah, 15-19, *prof*, 19- A.A.; fel. Physical Soc; fel. Utah Acad. (pres, 19). Spectroscopy; electrical oscillations; photographic plates; metallic films; photographic reversal; sound.

Tulgan, Dr. Joseph, 338 E. 26th St, New York, N. Y. *Physiology*. New York, Nov. 24, 96. A.B. Col. City of N. Y, 20; A.M. Columbia, 21, Ph.D. 23. Instr. biol. Col. City of N. Y, 20-23; physiologist, Columbia, 23-24; N. Y. Univ, 24-25, *student med*, *Univ. and Bellevue Hosp. Med. Col*, 25- A.A. The nervous control of the cardiovascular mechanism; reciprocal action of antagonistic muscles.

Tulloss, Rev. Rees E(dgar), 372 E. Madison Ave, Springfield, Ohio. *Psychology*. Leipsic, Ohio, July 26, 81. A.B. Wittenberg, 06, B.D. 09; Ph.D. Harvard, 18; D.D. Lenoir-Rhyne; LL.D. Muhlenberg. Pres, Wittenberg. A.A. Learning process in telegraphy and typewriting; radio operating.

Tunnick, Dr. Ruth, 637 S. Wood St, Chicago, Ill. *Bacteriology*. Macomb, Ill, May 1, 76. A.B. Vassar, 96; M.D. Rush Med. Col, 03. Intern, hosp, *McCormick Inst*, 03-04, *research worker*, 03- Contract surgeon, U.S.A, 18. Soc. Bact; Ass. Path. and Bact; Am. Med. Ass; Inst. Med; Ass. Immunol; Tuber. Ass; Chicago Path. Soc. (pres, 25). Immunity; phagocytosis; anaerobic bacteria; measles; influenza; scarlet fever.

Tupper, Dr. Walter W(esselhoeft), University of Michigan, Ann Arbor, Mich. *Botany*. Newtonville, Mass, April 22, 88. A.B. Harvard, 10, A.M. 12, Sc.D. 18. Austin teaching fellow bot, Harvard, 10-12, asst. Harvard and Radcliffe, 12-13; instr. *Michigan*, 13-20, *asst. prof*, 20- Bur. Aircraft Production and Red Cross, 18-19. A.A.; Bot. Soc; New Eng. Bot. Club; Mich. Acad. Morphology and anatomy of woody plants; cell size; vascular tissue.

Turley, Prof. Louis A(lvin), 763 Asp Ave, Norman, Okla. *Medicine*. Utah, Feb. 6, 79. B.S. Idaho, 03; A.M. Harvard, 06, Ph.D. 16. *Prof. path.* and *asst. dean sch. med*, *Oklahoma*, 08- Pathologist, Univ. Hosp, and consulting pathologist, St. Anthony's Hosp, Oklahoma City; consulting pathologist, El Reno Sanitarium; Cent. State Psychopath. Hosp, Norman. Soc. Clin.

Path; Okla. Acad. Med; assoc. Okla. Med. Ass. Pathology; histology; bacteriology; carcinoma; myxadenoma of the intestines; chronic nephritis; bacteriology and pathology of tonsils.

Turlington, Dr. J(ohn) E(dwin), University of Florida, Gainesville, Fla. *Agricultural economics*. Clinton, N. C, June 1, 84. B.Agr. N. C. State, 07; M.S. Cornell, 11, Ph.D. 12. Adjunct prof. agron, Georgia, 12-13; supt, Craven Co. Farm Life Sch, N. C, 13-16; *prof. agron*, *Florida*, 16- Summer, teacher, North Carolina, 13. Soc. Agron; Farm Econ. Ass. Farm management; agricultural economics.

Turneure, Prof. F(rederick) E(ugene), University of Wisconsin, Madison, Wis. *Civil engineering*. Freeport, Ill, July 30, 66. C.E. Cornell, 89; hon. D.Eng. Illinois, 05. Instr. civil eng, Washington (St. Louis), 90-92; *prof. bridge and hydraulic eng*, *Wisconsin*, 92-03, *eng. and dean col. mech. and eng*, 03- A.A.; Civil Eng; Eng. Educ. (pres, 09); Soc. Test. Mat; West. Soc. Eng; Wis. Eng. Soc. (pres, 09). Reinforced concrete; stresses in bridges under moving train loads; water supply engineering.

Turner, Prof. Abby H(owe), Mt. Holyoke College, South Hadley, Mass. *Physiology*. Nashua, N. H, 75. A.B. Mt. Holyoke, 96, fellow, 01-02; Pennsylvania, 99-00; Chicago, 01-02; Harvard, 09-11, 24-25, Ph.D. Radcliffe, 26. Asst. and instr. zool, Mt. Holyoke, 96-99, 00-01; instr. zool, Wellesley, 03-04; instr. assoc. prof. and *prof. physiol*, *Mt. Holyoke*, 04- Investigator, Rockefeller Study of Nursing Educ, 19-21. Summers, Woods Hole. A.A.; Social Hygiene Ass. Circulation and respiration of young women.

Turner, Dr. Alva, Hunter College, New York, N. Y. *Physics*. High Falls, N. Y, July 24, 96. B.S. Columbia, 18, Ph.D. 22. Instr. *physics*, *Hunter*, 22-26, *asst. prof*, 26- A.A.; Physical Soc; Radio Eng. Characteristics of magnetically active iron; the shielding of electric and magnetic fields.

Turner, Prof. B(enjamin) B(ernard), 1017 Park Ave, Indianapolis, Ind. *Pharmacology*. Hongkong, China, Feb. 6, 71. Cent. Tech. Col, London, 88-92; B.S. London, 94; Ph.D. Göttingen, 99; Strassburg, 04; Hopkins, 07-08. Lecturer chem, Borough Polytech. Inst, London, Eng, 92-97; asst. chem, Cornell, 00-01, 02-03; prof, Conn. Col, 03-06; Carnegie research asst. chem. and pharmacol, Hopkins, 08-15; assoc. prof. *pharmacol*, *Indiana*, 15-17, *prof*, 17- Acting asst. prof, Missouri, 01-02. Chem. Soc; fel. London Chem. Soc. Chemistry; dielectric constants; vividiffusion; plasmaphaeresis.

Turner, Prof. B(ird) M(argaret), 408 Spruce St, Morgantown, W. Va. *Mathematics*. Moundsville, W. Va. A.B. West Virginia, 15, A.M. 17; M. Carey Thomas fellow, Bryn Mawr, 16, fellow, 19-20, Ph.D. 20. Asst. West Virginia, 13-15; prin. high sch, W. Va, 15-16; asst. director, Phoebe Anne Thorne Model Sch, Bryn Mawr, 17-18, reader *math*, 18-19; instr, Illinois, 20-23; asst. prof, *West Virginia*, 23-25, *assoc. prof*, 25- A.A.; Math. Soc; Math. Ass. Geometry; theory of plane cubic curves; configurations.

- Turner, Prof. C(harles) W(esley)**, University of Missouri, Columbia, Mo. *Dairy husbandry*. Chicago, Ill., Jan. 20, 97. B.S.A., Wisconsin, 19, Ph.D., 27; A.M., Missouri, 21. Asst. *dairy husbandry*, Missouri, 19-20, instr., 20-24, asst. *prof.*, 24- Genetics; the inheritance of milk secretion in dairy cattle.
- Turner, Prof. C(lair) E(ismere)**, Massachusetts Institute of Technology, Cambridge, Mass. *Biology*, *Public health*. Harmony, Maine, April 28, 90. A.B., Bates, 12; A.M., Harvard, 13; C.P.H., Mass. Inst. Tech., 18. Acting head dept. biol., Bates, 13-14; asst. research, *Mass. Inst. Tech.*, 14-15, instr. *biol.* and *assoc. research*, 15-19, asst. *prof.*, 19-22, *assoc. prof.*, 22-; *hygiene*, *med.* and *dental schools*, Tufts, 19- Instr., Sch. for Health Officers, 15-22. Ed. asst., 'Am. Jour. Pub. Health,' 14-15. Trustee, Bates Col., 22- A.A.; Soc. Bact.; Micros. Soc.; fel. Pub. Health Ass.; Boston Soc. Bact. Sanitation; natural purification of streams; general hygiene; health education; public health training.
- Turner, Prof. C(larence) L(ester)**, Evanston, Ill. *Zoology*. Delaware, Ohio, 90. A.B., Ohio Wesleyan, 12, A.M., 14; Ph.D., Wisconsin, 18. Instr. zool., Kansas, 13-14; asst. biol., Wisconsin, 14-15; instr., asst. *prof.* and *prof.*, Marquette, 15-17; zool., Wooster, 18; Beloit, 20-27; *assoc. prof.*, Northwestern, 27- A.A.; Soc. Zool.; Ass. Anat.; Ecol. Soc.; Fisheries Soc.; Wis. Acad.; Ohio Acad. Embryology and cytology of vertebrates; insect behavior; ecology and habits of fishes; ecology, distribution and sex-characters of cray-fishes; genetics.
- Turner, C(laude) A(llen) P(orter)**, 300 Builders Exchange, Minneapolis, Minn. *Civil engineering*. Lincoln, R. I., 69. C.E., Lehigh, 90. Engineer, Edgmore Bridge Co., 91-92; Columbus Bridge Co., 92; Pottsville Iron and Steel Co., 96-97; Gillette Herzog Co., 97-00; Am. Bridge Co., 01; *consulting engineer*, 01- Civil Eng.; Mech. Eng.; Ass. Eng. Stresses; skew details; elasticity and strength of materials; reinforced concrete; concrete bridge design and construction; theory of flat slabs.
- Turner, Daniel L(awrence)**, 9 E. 39th St., New York, N. Y. *Engineering*. Portsmouth, Va., Oct. 25, 69. C.E., Rensselaer, 91. Instr., Rensselaer, 92; Lawrence Sci. Sch., Harvard, 93-00; conducted Harvard eng. camp, 01-02; chief engineer, Pub. Serv. Commission and office, Transit Construction Commissioner, New York, 17-21; *consulting engineer*, *Transit Commission* and *Board Transportation*, New York *Rapid Transit Commission*, *Detroit City Transit Commission*, *Pittsburgh and North Jersey Transit Commission*, 21- Art commission, N. Y. Inst. Consulting Eng.; Civil Eng.; Ass. Eng.; Elec. Ry. Ass.; Eng. Educ.; Soc. Eng.; Munic. Eng. New York; Boston Soc. Civil Eng. Rapid transit.
- Turner, Francis M(ills), Jr.**, 419 Fourth Ave., New York, N. Y. *Chemistry*. Brockville, Ont., Can., June 19, 90. Provincial Nor. Sch., Sask., Can.; B.A., Toronto, 14. Research dept., Vanadium Corp. of Amer., 14-17; tech. ed., *Chem. Catalog Co., Inc.*, 17-25, v. *pres.*, 25- Lecturer, Toronto, 23. Chem. technologist, Econ. and Develop. Commission, Can., 16. Chem. Soc.; Soc. Chem. Indust. (exec. committee, Am. sect., 19-); Electrochem. Soc.; Soc. Test. Mat. Corrosion of metals; chemical resistance of engineering materials.
- Turner, Prof. H(enry) W(ard)**, Mills Building, San Francisco, Calif. **Geology*. Silver Lake, Pa., Aug. 22, 57. Cornell, 74-76, 81; Leipzig, 79-80; B.S., George Washington, 95. Asst. entom., Cornell, 80; U. S. Dept. Agr., 82; asst. geologist, U. S. Geol. Surv., 83-95, geologist in charge party, 95-01; consulting econ. geologist and mining engineer, 01-04, 08-09; manager, Marfa and Mariposa Quicksilver Mine, 04-05; consulting engineer, Ladd Metals Co., 06-07; geologist, Kyshtim Mining Works, Russia, 11; Russian Mining Corp., 14; v. *pres.*, *Oroville Dredging, Ltd.*, 16-, *agent*, London, 21- Econ. geologist and min. engineer, 21- Geol. Soc.; Soc. Econ. Geol.; Min. Eng.; Min. and Metal. Soc.; Inst. Min. and Metal. Gt. Britain; cor. mem. Madrid Nat. Hist. Soc. Geology; petrography and ore deposits; nomenclature of igneous rocks; geological mapping and structure studies.
- Turner, Prof. H(omer) G(riffith)**, 1216 Wood St., Bethlehem, Pa. *Geology*. Toronto, Ont., Can., Nov. 3, 87. B.S., Syracuse, 12, M.S., 14. Instr. miner, Syracuse, 14-16, asst. *prof.*, 16-17; *geol.*, Lehigh, 17- Vt. Geol. Surv., 12, 13. Coal Research Club Eng. and Amer. The terranes of Greensboro, Vermont; microscopical structure of anthracite; adsorption of carbon dioxide by coal.
- Turner, Prof. H(ubert) M(ichael)**, 88 Barnett St., New Haven, Conn. *Electrical engineering*. Hillsboro, Ill., July 20, 82. B.S., Illinois, 10, M.S., 15. Asst. instr. *elec. eng.*, Illinois, 10-12; instr., Minnesota, 12-18; asst. *prof.*, Yale, 18-26, *assoc. prof.*, 26- First prize, New Eng. Convention Elec. Eng., 24. Elec. Eng.; Radio Eng.; Int. Union Sci. Radio Telegraphers. Inductance of coils; transient visualizers; a new property of parallel circuits; a micrometer method of determining high frequency bridge balance.
- Turner, Prof. James J(esse)**, Hiram College, Hiram, Ohio. *Botany*. Hiram, 80. Ph.B., Hiram, 02, M.S., 13; Ph.D., Chicago, 23. *Prof. bot.*, Hiram, 06- Summer, teacher, Kent State Nor. Col. Morphology of Lycopodium.
- Turner, Prof. J(ohn) S(idney)**, 2514 Knapp St., Ames, Iowa. *Mathematics*. Liverpool, Eng., Sept. 4, 84. B.A., Cambridge, 06, M.A., 19; A.M., Chicago, 16, fellow, 16-17, Ph.D., 22. Lecturer *math.*, Bishop's Col. (Can.), 06-08; King's Col. (Can.), 09-10, *prof.*, 10-11; instr., Arkansas, 12-15; Minnesota, 15-16; *prof.*, Ala. Polytech., 20-21; asst. *prof.*, Iowa Col., 21- Searle prize, Cambridge, 06. Math. Soc.; Math. Ass.; fel. Royal Meteor. Soc. Theory of numbers.
- Turner, Prof. Louis A(lexander)**, Palmer Physical Laboratory, Princeton, N. J. *Physics*. Cleveland, Ohio, Jan. 1, 98. A.B., A.M., Cornell, 20; Ph.D., Princeton, 23. Instr. *physics*, Princeton, 22-23; Nat. Research Council fellow, Harvard, 24-25; asst. *prof.*, Princeton, 25- Physical Soc. Spectroscopy and theory of atomic structure.

- Turner, R(ichard) G.**, University of Tennessee, Knoxville, Tenn. *Plant pathology*. Bells, Tenn, Jan. 15, 94. B.S., Tennessee, 25. *Instr. bot, Tennessee*, 25— General botany.
- Turner, Dr. Thomas W(yatt)**, Hampton Institute, Hampton, Va. *Botany*. Maryland, 77. A.B., Howard, 01, A.M., 05; Ph.D., Cornell, 21; Cold Spring Harbor; Columbia. Teacher, high schools, Md. and Mo., 02–14; prof. bot, Howard, 14–24; *head dept. biol, Hampton Inst*, 24— Summer, investigator, Presque Isle, Maine, U. S. Dept. Agr., 18. A.A.; Bot. Soc.; Phytopath. Soc.; Potato Ass.; Va. Acad. Physiological effects of mineral nutrients on root growth in seed plants; physiological effects of nitrogen and of phosphorus upon plants.
- Turner, Dr. W(illiam) A(bbey)**, Bureau of Dairying Experiment Station, Beltsville, Md. *Chemistry*. Housatonic, Mass., May 13, 87. Ph.B., Yale, 10, A.M., 14, Ph.D., 16. Asst. chem., Mass. Col., 10–12; Yale, 12–16; instr., Pennsylvania, 16–17; asst. prof., Wesleyan, 19–20; St. Lawrence, 20–21; *assoc. chemist, bur. dairying, U. S. Dept. Agr.*, 21— Lieut., Sanit. C., 17–19. A.A.; Chem. Soc. Sulphates; vanadium; mineral metabolism.
- Turner, Prof. W(illiam) D(eGarmo)**, Missouri School of Mines, Rolla, Mo. *Chemistry*. Sioux City, Iowa, Sept. 25, 89. B.S., Chicago, 09, Ph.D., 17. Commercial chemist, 09–15; *assoc. chem.*, Chicago, 15–17; asst. prof., Mo. *Sch. Mines*, 17–19, *prof. and head dept.*, 19— A.A.; Chem. Soc.; Chem. Eng.; Electrochem. Soc.; Ceramic Soc. Diffusion of gases; atomic weight of chlorin; potash from oak ashes; xylene isomers; periodic law; potash in United States deposits.
- Turrentine, Dr. J(ohn) W(illiam)**, Cosmos Club, Washington, D. C. *Chemistry*. Burlington, N. C., July 5, 80. Ph.B., North Carolina, 01, M.S., 02; Ph.D., Cornell, 08. *Instr. chem, Lafayette*, 02–05; asst., Cornell, 05–06, *electrochem*, 06–08; *instr. physical chem, Wesleyan*, 08–11; *chemist, bur. soils, U. S. Dept. Agr.*, 11–17, *in charge exp. kelp potash plant*, 17–21, *potash investigations*, 21— A.A.; Chem. Soc.; Wash. Acad.; Int. Soc. Soil Sci. Chemistry of rare earths; electrochemistry; corrosion of metals; chemistry of hydrazine; reduction of hydronitric acid; salines and potash resources of the United States; fish fertilizer industries; city wastes; kelp as a source of potash, bleaching carbon, iodine and ammonia; synthetic and by-product ammonia, dietetics and goiter eradication; potash manufacture from American sources.
- Tuska, Gustave R.**, 68 William St., New York, N. Y. *Engineering*. New York, July 15, 69. B.S., Col. City of N. Y., 88, M.S., 91; C.E., Columbia, 91. Asst. engineer, Link Belt Eng. Co., 91–92; bridge engineer, L. I. Ry., 92–93; lecturer civil eng., Columbia, 93–97, 15–17; chief engineer, Panama Ry. and superintending engineer, Panama Steamship Co., 96–99; *pres, Am. Process Co. in charge construction plants handling waste products*, 99—; *pres, Int. Eng. Corp.*, 23— Lecturer, N. Y. Univ., 08; res. engineer, Knoxville, Cumberland Gap and Louisville Ry. Co., 94–95; Cent. N. Y. and West. Ry., 96; engineer to Health Dept., New York, 94–96; chief engineer, Atlantic Construction Co., 99–07; consulting engineer, New York, St. Louis, Chicago, Buffalo and Washington, D. C. Steel Committee, War Indust. Board, 18; Mexican Committee, U. S. Govt., 19. Major, C. Eng., 17–19, lieut. col., Eng. R. C., 23— A.A.; Civil Eng.; Mech. Eng.; Soc. Naval Archit.; Soc. Munic. Improv.; Pub. Health Ass.; Inst. Social Sci.; Acad. Polit. Sci.
- Tuttle, Arthur Smith**, 111 Montague St., Brooklyn, N. Y. *Civil engineering*. Burlington, Conn., March 26, 65. B.S. and C.E., N. Y. Univ., 85. Asst. engineer, Dept. Water Supply, Gas and Elec., New York, 98–01; chief engineer, irrig. and water power develop., Bishop Estate, Honolulu, 01–02; prin. asst. engineer and deputy chief engineer, *Board Estimate and Apportionment, New York*, 02–20, *chief engineer*, 21— Medal for invention of premier water meter, Panama-Pacific Expos., 15. Civil Eng. (past director, past treas.); Water Works Ass.
- Tuttle, E(lbert) B(arrett)**, Bell Telephone Co. of Pennsylvania, Philadelphia, Pa. *Physics*. Niles, Mich., April 17, 74. B.S., Iowa Col., 99, E.E., 09; fellow, Cornell, 05–06. *Instr. physics*, Iowa Col., 00–05; elec. engineer, Cent. Dist. and Printing Telegraph Co., 06–10; asst. engineer, *Bell Telephone Co. of Pa.*, 10–22, engineer of transmission and protection, 22–26, *engineer of transmission and outside plant*, 26— Elec. Eng.; assoc. Radio Eng.; Franklin Inst.; Phila. Eng. Club. Sound and sound transmission; hysteresis in iron; speech transmission.
- Tuttle, Prof. Franklin E(liott)**, 125 E. Maxwell St., Lexington, Ky. *Chemistry*. Hadley, Mass., June 17, 64. A.B., Amherst, 89; Ph.D., Göttingen, 93. *Instr. chem. and miner, Pa. State*, 89–93, asst. prof. chem., 93–04, *prof. quant. anal.*, 04–06; *chem, Kentucky*, 06— U. S. Assay Commission, 16. A.A.; Chem. Soc.; Soc. Chem. Indust.; Chem. Gesell.; Soc. de Chim. indust. Analytical chemistry; terpenes; crystallography.
- Tuttle, John B(etley)**, 133 Harris Ave., Long Island City, N. Y. *Chemistry*. Philadelphia, Pa., May 25, 82. B.S., Pennsylvania, 08. Lab. asst., Bur. Standards, 08–10, asst. chemist, 10–15, assoc. chemist, 15–18; research chemist, Firestone Tire and Rubber Co., 18–19, chief chemist, plant 2, 19–20; *consulting chemist*, 20— Chem. Soc. (sec'y, rubber sect., 16, 17, chairman, 18); N. Y. Chemists Club. Printing inks; oils and varnishes; gum arabic; pigments; rubber.
- Tuttle, Dr. J(ohn) R(oss)**, Allied Chemical and Dye Corp., New York, N. Y. *Chemistry*. Tweed, Ont., Can., 92. M.A., Queen's (Can.), 12, 1851 Exhib. fellow, 13–15; fellow, Columbia, 15–16, Ph.D., 16. *Chemist, Gen. Chem. Co.*, 16–20; Atmospheric Nitrogen Corp., 20–27; *Allied Chem. and Dye Corp.*, 27— Chem. Soc.
- Tuttle, Prof. W(aid) W(right)**, 305 W. Illinois St., Urbana, Ill. *Physiology, Psychology*. Wrightsville, Ohio, Sept. 4, 93. A.B., Huntington Col., 15; A.M., South Dakota, 22; fellow, Ohio State, 23–24, Ph.D., 24. *Instr. and prin. high schools, Colo. and S. Dak.*, 15–22; *instr. physiol, Illinois*, 24–25, *asst. prof.*, 25— Ohio Acad. Tonus of skeletal muscle; glands of in-

renal secretion; attention; sugar metabolism in insects.

Tweedy, Frank, 3416 13th St, Washington, D. C. *Topography*. New York, N. Y., June 12, 54. C.E. Union, 75. Engineer, N. Y. State Adirondack Surv, 75-79; sanit. engineer under George E. Waring, Jr, Newport, R. I., 80-81; asst. topographer, North. Transcont. Surv, 82-83; topographer, U. S. Geol. Surv, 84-15, topographic engineer, 15-26; *retired*, 26. Wash. Acad. Flora of Yellowstone Park.

Twenhofel, Prof. W(illiam) H(enry), University of Wisconsin, Madison, Wis. **Geology*. Covington, Ky, April 16, 75. A.B. Yale, 08, A.M., 10, Ph.D., 12. Prof. nat. science, East Texas Nor. Col, 04-07; asst. prof. *geol*, Kansas, 10-13, assoc. prof, 13-16; *Wisconsin*, 16-21, *prof*, 21-Shaler Mem. exped, Baltic, 14; state geologist, Kans, 15-16; guide, excursion A 1, Int. Geol. Cong, Toronto, 13; chairman committee sedimentation, Nat. Research Council, 24- A.A.; Geol. Soc. (councilor, 24-26); Paleont. Soc. (v. pres, 24); Kans. Acad; Wis. Acad. Sedimentation; invertebrate paleontology; stratigraphy of Silurian and Comanchean of Kansas; geology of Anticosti Island.

Twiss, Prof. W(ilfred) O(charles), University of Utah, Salt Lake City, Utah. *Botany*. San Jose, Calif, July 9, 68. A.B. Southern California, 95; A.M. California, 10; Ph.D. Columbia, 19. Instr. *bot*, Utah, 11-12, asst. prof, 12-15, assoc. prof, 15-19, *prof*, and *head dept*, 19- Torrey Bot. Club; Am. Geog. Soc. Cytology; Erythrophyllum delesserioides; plastids and mitochondria.

Twitchell, Dr. E(rnest), Wyoming, Ohio. *Chemistry*. Cincinnati, Ohio, Feb. 26, 63. B.S. Cincinnati, 86, hon. Sc.D, 15. Chemist, factory manager and chem. director, Emery Candle Co, 87-; *pres*, Am. Oil Treating and Hardening Co; chairman board directors, Twitchell Process Co. Assoc. ed, 'Jour. Indust. and Eng. Chem,' 08-Perkin medal, 17. A.A.; Chem. Soc; Soc. Chem. Indust. Chemistry of the fats and fatty acids.

Twitmyer, Dr. Edwin B(urket), University of Pennsylvania, Philadelphia, Pa. *Psychology*. McElhattan, Pa, Sept. 14, 73. Ph.B. Lafayette, 96, M.S., 99; Ph.D. Pennsylvania, 02. Instr. *psychol*, Pennsylvania, 97-07, asst. prof, 07-14, *prof*, and *asst. director psychol. lab. and clinic*, 14- A.A.; Psychol. Ass. The control of fine measuring instruments; diagnosis and methods of correction of speech defects.

Tyler, Chaplin, Tenth Ave. and 36th St, New York, N. Y. *Chemistry*. Washington, D. C, March 28, 98. B.Ch.E, Northeastern, 20; B.B.A, Boston, 22; M.S. Mass. Inst. Tech, 23. Research asst. applied chem, Mass. Inst. Tech, 20-22, research assoc, 23-24; *asst. ed*, 'Chem. and Metal. Eng,' 24- Junior mem. Chem. Eng. Applied, colloid and electrochemistry; chemical engineering; zinc plating; electrolysis of sodium sulphate; solubility of gases in rubber; cotton yarn; humidity equilibria.

Tyler, Prof. H(arry) W(alter), Massachusetts Institute of Technology, Cambridge, Mass. **Mathematics*. Ipswich, Mass, April 16, 63. B.S. Mass. Inst. Tech, 84; Göttingen, 87-88;

Ph.D, Erlangen, 89. Asst. *math*, Mass. Inst. Tech, 84-86, instr, 86-90, asst. prof, 90-92, assoc. prof, 92-93, *prof*, 93-, *head dept*, 02-, sec'y faculty, 89-90, 91-06. A.A.; Math. Soc; Math. Ass; Ass. Prof. (sec'y, 16-); Am. Acad. (librarian, 12-14, cor. sec'y, 14-24); Math. Verein. Determinants.

Tyler, Prof. John M(ason), Amherst, Mass. *Biology*. Amherst, May 18, 51. Amherst, 69-73; Göttingen, 76-78; Leipzig, 78-79; hon. Ph.D, Colgate. Teacher, Phillips Acad, 73-74; prof. *biol*, Amherst, 79-18, *emer. prof*, 18- Soc. Nat; Soc. Zool. Child growth.

Tyler, Paul M(cIntosh), 1817 37th St, N. W., Washington, D. C. *Metallurgy, Economics*. Oberlin, Ohio, April 18, 89. B.S. Mass. Inst. Tech, 12. Asst. chem. and metallurg, Mass. Inst. Tech, 12-13; mining eng, Moctezuma Copper Co, Mex, 13-14; metal. research, 14-15, 18; mine supt, Colo, 15-17; chief *metals div*, U. S. Tariff Commission, 18-24, *special expert*, 25- Consulting expert, finance committee U. S. Senate, 22; investigator, metal indust. and gen. econ. conditions, Europe, 19-21. Min. Eng. Tariff surveys; foreign and domestic pig iron costs; transportation; syndication in Germany; economics of iron and steel.

Tyler, Prof. R(ichard) G(aines), Massachusetts Institute of Technology, Cambridge, Mass. *Engineering*. Georgetown, Texas, Oct. 16, 85. C.E. Texas, 08; B.S. Mass. Inst. Tech, 10. Asst. engineer, Texas State Reclamation Dept, 12-13; asst. city engineer, Austin, Texas, 13-14; city engineer, Paris, Texas, 15-16; adjunct prof. highway and sanit. eng, Texas, 17-19, assoc. prof, 20-21; city engineer, Paris, Texas, 21-22; dean eng, Okla. Agr. and Mech. Col, 22-24, temporary pres, 23; assoc. prof. *sanit. eng*, Mass. Inst. Tech, 24-26, *prof*, 26- Capt, Q.M.C, 18-19, major, Eng.O.R.C, 22- Okla. State Board Highway Examiners, 22-23. Civil Eng; New Eng. Water Works Ass; Boston Soc. Civil Eng. Sanitary engineering; water purification; sewage disposal.

Tyndall, Prof. E(dward) P(hilip) T(heodore), Triangle Place, Iowa City, Iowa. *Physics*. Durban, Natal, S. Africa, April 29, 93. A.B. Richmond Col, 12; Ph.D. Cornell, 22. Teacher, high schools, Va. and N. C, 12-16; asst. Cornell, 16-17; lab. asst. and assoc. physicist, Bur. Standards, 17-19; instr, Cornell, 19-22; eng. dept, West. Elec. Co, N. Y., 22-24; assoc. *physics*, Iowa, 24-25, *asst. prof*, 25- Research assoc, Bur. Standards, 21; cooperating expert, reflectivity of non-metals, Int. Critical Tables, 24-25. Physical Soc; Optical Soc. Ultra-violet and visible optical absorption and reflection; physiological optics; magnetism.

Tyrode, Dr. Maurice Vejux, 416 Marlboro St, Boston, Mass. *Pharmacology*. Besançon, France, Nov. 6, 78. M.D. Harvard, 00; Dalton research fellow, Mass. Gen. Hosp, Boston, 00-01. Asst. *pharmacol*, Harvard Med. Sch, 00-01, instr, 01-08, *faculty instr*, 08- Formerly reviewer pharmacol. and toxicol, 'Boston Med. and Surg. Jour.' A.A.; Am. Med. Ass; Soc. Pharmacol; Boston Med. Library Ass; Boston Soc. Med. Sci. Pharmacology and therapeutics;

functions of isolated kidney; action of strophanthus, zygadenus, dog-wood, mercurial proteid compound, camphoric acid and thiosinamin; the action of the saline purgative; the action of salts and the ions of calcium and magnesium.

Tyrrell, J(oseph) B(urr), Lumsden Building, Toronto, Ont, Can. *Geology*. Weston, Ont, Nov. 1, 58. B.A. Toronto, 80, M.A., 89; B.S. Victoria (Ont), 89. Geologist, Can. Geol. Surv., 81-99; *consulting mining engineer*, 99-Back premium, Royal Geog. Soc; Murchison medal, London Geol. Soc. A.A.; Geol. Soc; Min. and Metal. Eng; Min. and Metal. Soc; hon. mem. Explorers Club; hon. mem. Minn. Hist. Soc; fel. Royal Soc. Can. Metal mining geology; geography and history of northwestern America.

Tyzzar, Prof. E(mest) E(dward), 175 Water St, Wakefield, Mass. **Pathology*. Wakefield, Aug. 30, 75. Ph.B. Brown, 97, A.M., 98; M.D. Harvard, 02, Bullard fellow, 02-03. Asst. path., *Harvard*, 03-05, supt. cancer research, 05-16, asst. prof. path., 08-16, *George Fabyan prof. comp. path.*, 16- A.A.; Ass. Path. and Bact; Soc. Exp. Path; Am. Med. Ass; Ass. Cancer Research (ed. committee); Soc. Exp. Biol; Am. Acad; Boston Soc. Nat. Hist. Protozoa in fishes; Coccidium oviforme in the rabbit's liver; leucocytes of the rabbit; etiology of variola and vaccinia; histology of skin lesions in varicella; pathology of the brown-tail moth dermatitis; inoculable and spontaneous tumors and heredity in mice; a fatal disease of the Japanese waltzing mouse due to *B. piliformis*; differentiation of *Leishmania* and *Leptomonads* of insects; a Monostomum of the European sparrow; black-head in turkeys; coccidiosis in poultry.

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Udden, Prof. J(ohan) A(ugust), University of Texas, Austin, Texas. *Geology*. Lekåsa, Sweden, March 19, 59. A.B. Augustana, 81, A.M., 89, hon. Ph.D., 00; Minnesota, 86; hon. Sc.D., Bethany (Kansas), 21; Texas Christian, 23. Instr. nat. science and civics, Bethany (Kans), 81-88; prof. nat. hist. and geol. Augustana, 88-11; geologist, *bur. econ. geol. and tech. Texas*, 11-14, *director*, 14- Special asst, Iowa Geol. Surv., 97-02; asst. geologist, Univ. of Texas Mineral Surv., 03-04; geologist, Ill. Geol. Surv., 06-11; special agent, U. S. Geol. Surv., 08-14; knighted by King of Sweden, 11. A.A.; fel. Geol. Soc; Min. Eng; cor. mem. Iowa Acad; cor. mem. Okla. Acad. Stratigraphic and areal geology; work of the atmosphere; elastic sediments; erratics of till in the upper Mississippi Valley; sub-surface geology; geology of quick-silver, oil and potash; potash in the Permian of Texas.

Udden, Jon A(ndreas), Bentonville, Ark. *Geology*. Lindsborg, Kans, May 19, 85. A.B. Augustana Col, 05; Iowa, 05-06; Chicago, 07-08. Geologist, Tenn. Coal, Iron and Ry. Co, 10-16; consulting geologist, 16-18; geologist, Sinclair Oil and Gas Co, 18-19, chief geologist, 19-23; *consulting geologist*, 23- Asst. geologist, N. Y. and Texas Land Co, 05. Summers, geol. aid, Iowa Geol. Surv, 03, U. S. Geol. Surv, 04, Ill. Geol. Surv, 07-09. Ass. Petrol. Geol; Min.

and Metal. Eng. (sec'y, treas, mid-continent sect, 22). Petroleum geology; shoal creek limestone; coal deposits and possible oil fields; diamond drill core; the limestone industry; sub-surface geology; classifying methods of oil discovery.

Uhlenhuth, Dr. Eduard, University of Maryland Medical School, Baltimore, Md. *Anatomy*. Vienna, Austria, July 19, 85. Ph.D. Vienna, 09. Asst. Biol. Versuchs-Anstalt, Vienna, 11-13; fellow, Rockefeller Inst, 14-16, assoc, 16-24; *assoc. prof. anat. Maryland*, 24- A.A.; Soc. Exp. Biol; Soc. Ichthyol. and Herp; Ass. Study Int. Secretions; Harvey Soc; fel. N. Y. Acad. General physiology; regeneration; growth; transplantation; development; internal secretions.

Uhler, Dr. H(orace) S(cudder), Yale University, New Haven, Conn. **Physics*. Baltimore, Md, Aug. 5, 72. A.B. Hopkins, 94, fellow, 04-05, Ph.D. 05. Lab. asst. physics, Hopkins, 94-96; instr. acad, Northwestern, 96-97; director lab, Univ. Sch, Baltimore, 97-02; Carnegie asst. physical chem, Hopkins, 05; instr. *physics*, Yale, 06-09, asst. prof, 09-22, *assoc. prof.*, 22-25; prof. and head dept, Gettysburg, 25-26; *assoc. prof. Sheffield Sci. Sch., Yale*, 26- Past assoc. ed, 'Physical Rev'; 'Am. Jour. Sci'; 'Math. Monthly.' A.A.; Physical Soc; Optical Soc. (assoc. ed, 'Jour'); Math. Soc; Math. Ass; life mem. Soc. de Physique. Geometrical optics; spectroscopy; X-rays; pure mathematics.

Uhlinger, Dr. R(oy) H(eman), 2020 W. Liberty Ave, Pittsburgh, Pa. *Chemistry*. Hartford, Ohio, May 15, 87. B.S. Allegheny, 10; fellow, Pittsburgh, 10-11, A.M., 11, Ph.D., 14. Chemist, Am. Nitro-Products Co, 14-15; supt, Carbo-Hydrogen Co. of Amer, 15-16; research chemist, Benedum-Trees Oil Co, 16-17, consulting chemist, 19-20; chief chemist, Thermatomic Carbon Co, 20-24; *consulting chem. engineer*, 24- Capt. C.W.S., 17-19. Chem. Soc. Engineering; analysis of the zinc group; bromination of oils and fats; natural gas products; production of carbon black; production of hydrogen for ammonia fixation and fat hardening.

Uichanco, Prof. L(eopoldo) B(ancain), College of Agriculture, Los Baños, P. I. *Entomology*. Calamba, Laguna, P. I., April 23, 94. B.S.A., Philippines, 15, M.S., 18; traveling fellow, Philippines at Harvard, 19-22, M.S., 20, Sc.D., 22. Asst. *entom. Philippines*, 15-18, instr, 18-19, asst. prof, 22-24, *assoc. prof.*, 24-, *acting head dept.*, 23- Ed. board, 'Philippine Jour. Science' and 'Philippine Agriculturist.' A.A.; Entom. Soc; Cambridge Entom. Club; Los Baños Biol. Club (sec'y, 24, pres, 26). Insect embryology; plant galls; Philippine economic entomology.

Ulich, L(ynne) H(erman), 2028 Grange Ave, Racine, Wis. *Chemistry*. Creston, Iowa, Jan. 2, 92. B.S. Grinnell, 14; M.S. Illinois, 18, du Pont fellow, 18-19, Ph.D., 20. Instr. high sch, Iowa, 14-15; science and math, Windom Col, 15-16; asst. chem, Illinois, 16-20; *research chemist, Newport Co, Carrollville, Wis.*, 20- Chem. Soc. Organic chemistry.

Ullmann, Prof. H(arry) M(aas), 20 W. Church St, Bethlehem, Pa. *Chemistry*. Springfield, Mo,

April 14, 68. A.B., Hopkins, 89, Ph.D., 92; Munich and Paris, 92-94. Instr. quant. and indust. anal, *Lehigh*, 94-04, asst. prof., 04-10, assoc. prof., 10-14, *prof. chem.*, 14- A.A.; Chem. Soc.; Chem. Eng.; Chem. Gesell. P-sulphamin benzoic acid; acetins; titanium in cement rocks; ash and phosphorus in coke and coal; aging of wool fats.

Ulrey, Prof. Albert B(rennus), 35th St. and University Ave, Los Angeles, Calif. *Biology*. North Manchester, Ind, Dec. 31, 60. A.B., Indiana, 92, A.M., 94; Woods Hole, 92; Rush Med. Col, Chicago, 00-01. Instr. zool, Indiana, 92-94; *prof. biol.*, Manchester, 95-99; *Southern California*, 01-, *director marine biol. sta.*, 01- Prof, Summer Sch. Biol, Warsaw, Ind, 95; summers, instr, biol. sta, Indiana, 96-98. A.A.; S. Calif. Acad. South American Characinidae; Embiotocidae; embryology of *Paragordius varius* Leidy; star-fishes of southern California.

Ulrey, Clayton T(ridle), Westinghouse Lamp Co, Bloomfield, N. J. *Physics*. North Manchester, Ind, Sept. 19, 84. A.B., Indiana, 11; A.M., Maine, 13; Ph.D., Columbia, 18. Instr, Maine, 11-13; asst. and instr, Columbia, 13-17, 19-20; *research dept.*, *Westinghouse Lamp Co*, 20- Lieut, Sig.C, 18-19. Physical Soc. X-rays.

Ulrey, Dr. Dayton L, Westinghouse Research Laboratory, East Pittsburgh, Pa. *Physics*. North Manchester, Ind, Sept. 19, 84. A.B., Indiana, 11, A.M., 12; Ph.D., Stanford, 17. Teaching fellow physics, Indiana, 11-12; instr, Pittsburgh, 12-15; asst, Stanford, 15-17; asst. prof, Pittsburgh, 17-18; *research physicist*, *Westinghouse Elec. and Mfg. Co*, 18- A.A.; Physical Soc; Chem. Soc. Specific inductive capacity; evolution and occlusion of gases by glasses; moisture penetration of insulating materials.

Ulrich, Dr. E(dward) O(scar), U. S. Geological Survey, Washington, D. C. **Geology*. Cincinnati, Ohio, Feb. 1, 57. Pulte and Ohio Med. Colleges, 76-78; A.M., German Wallace, 86, Ph.D., 92. Curator, Cincinnati Soc. Nat. Hist, 77-79; paleontologist, Geol. Surveys of Ill, Minn. and Ohio, 85-89, 91-97; asst. geologist, Ky. Geol. Surv, 89-90; *geologist*, *U. S. Geol. Surv.*, 97- Supt. mines, Boulder Co, Colo, 80-83. Assoc. ed, 'Am. Geologist,' 88-97. Assoc, U. S. Nat. Museum, 14- Nat. Acad; A.A; Geol. Soc; Wash. Acad; Paleont. Soc. (pres); Wash. Geol. Soc. (pres); Wash. Biol. Soc. Stratigraphy; invertebrate paleontology; paleogeography.

Ulrich, Dr. E(lmer) B(ixler), Drexel Hill, Delaware Co, Pa. *Plant physiology*. Brickerville, Pa, April 5, 80. M.Pd, West Chester State Nor. Sch, Pa, 99; B.S, Muhlenberg, 07; Ph.D, Pennsylvania, 10. Teacher biol, Cent. High Sch. Phila, 08-27; *head dept. science*, *Simon Gratz High Sch.*, 27- Lecturer, Pennsylvania, 10-11. A.A; Pa. Bot. Soc. Leaf movements of Oxalidaceae.

Ulrich, Dr. John Linck, Lehn and Fink, Bloomfield, N. J. *Psychology*. Menlo Park, Calif, Dec. 12, 77. B.S, Pennsylvania, 08, M.S, 09; fellow, Hopkins, 10-11, Ph.D, 13. Instr. psychol, Catholic Univ, 13-16, assoc. prof, 16-20; asst. physiol, Hopkins, 20-21, instr, 21-22; *Plant research lab*,

22- Prof, col. dent, Maryland, 23-24. A.A; Psychol. Ass. Animal psychology; physiology.

Umpleby, Dr. Joseph B(ertram), Braniff Building, Oklahoma City, Okla. *Geology*. Graysville, Ohio, Nov. 20, 83. A.B., Washington (Seattle), 08; M.S, Chicago, 09, fellow, 08-10, Ph.D, 10. Asst. geol, Washington (Seattle), 06-08; asst. geologist, U. S. Geol. Surv, 08-12, assoc. geologist, 12-14, geologist, 14-20; prof. geol. and director sch. eng. geol, Oklahoma, 19-24; *pres*, *Petrol. Reclamation Co. and Goldelline Oil Corp*, 25- Geologist, Wash. Geol. Surv, 09, 10; acting assoc. prof, California, 15-16. Mineral specialist, Am. Commission to Negotiate Peace, Paris, 18-19. A.A; Geol. Soc; Soc. Econ. Geol; Ass. Petrol. Geol; Min. and Metal. Eng. (chairman, petroleum production eng, 27-); Okla. Acad; Wash. Acad; Wash. Geol. Soc. Mining and petroleum geology; petroleum production engineering; economic and stratigraphic geology; genesis of ore and petroleum deposits; recovery methods in oil fields.

Underhill, Prof. A(nthony) L(ispenard), 417 11th Ave, S. E, Minneapolis, Minn. *Mathematics*. Bath, N. Y, June 6, 77. B.S, Chicago, 00, Ph.D, 06. Instr. *math*, Princeton, 05-07; Wisconsin, 07-09; asst. prof, *Minnesota*, 09-20, *assoc. prof.*, 20- Summers, asst. prof, Chicago, 10- Capt, C.A.C, 17-19. Math. Soc. Calculus of variations.

Underhill, Prof. Frank P(ell), 333 Cedar St, New Haven, Conn. **Medicine, Pharmacology*. Brooklyn, N. Y, Dec. 21, 77. Ph.B, Yale, 00, Ph.D, 03. Asst. physiol. chem, *Yale*, 00-03, instr, 03-07, asst. prof, 07-13, *prof. path. chem.*, 13-18, exp. med, 18-21, *pharmacol. and toxicol.*, 21- Goldsmith lecturer, N. Y. Path. Soc, 13; lecturer, Harvey Soc, 19. Assoc. ed, 'Chem. Abstracts'; 'Jour. Metal. Research.' Consulting path. chemist, war gas investigations, Bur. Mines, 17-18; C.W.S, 18, consultant, 26- Chairman committee on biochem, Nat. Research Council, 17-19. U. S. representative and v. pres, Interallied Gas Conf, Paris, 18. A.A; Soc. Pharmacol; assoc. Am. Med. Ass; Soc. Exp. Biol; Physiol. Soc; Soc. Biol. Chem. (v. pres, 17); Chem. Soc; London Soc. Biol. Chem; Halle Akad. der Naturforscher. Physiology of amino acids, proteoses and lethal war gases; the pancreas and diabetes; absorption from the liver; carbohydrate metabolism; experimental nephritis; pernicious vomiting of pregnancy; intermediary metabolism with reference to thyroids and parathyroids; toxicology; water exchange of tissues; action of metals in the body.

Underhill, Prof. James, Idaho Springs, Colo. *Geology*. New York, N. Y, April 9, 71. A.B, Harvard, 94; A.M, Colorado, 03, Ph.D, 06. *Consulting mining engineer*, 96-; *assoc. prof. mining*, *Colo. Sch. Mines*, 19- Colo. Geol. Surv, 07-08; Colo. Board Examiners for Engineers, 24- Min. and Metal. Eng. Geology and mining; mineral land surveying.

Underwood, Dr. H(enry) W(eeden), Jr, Massachusetts Institute of Technology, Cambridge, Mass. *Chemistry*. Wakefield, R. I, Aug. 14, 95. Ph.B, Brown, 16, M.S, 17, fellow, 17-19, Ph.D, 19. Research fellow, Brown, 19-20; *instr.*

org. chem., Mass. Inst. Tech., 20— Chem. Soc. Catalysis; pure and applied organic chemistry.

Underwood, Prof. P(aul) H(alladay), Cornell University, Ithaca, N. Y. *Civil engineering*. Ludlowville, N. Y., Dec. 29, 81. C.E., Cornell, 07. Instr. *civil eng.*, Cornell, 07–12, asst. prof., 12–22, *prof.*, 22— Asst. engineer, Isthmian Canal Commission, 11. A.A. Surveying; geodesy; hydraulic engineering; least squares.

Underwood, W(illia)m Lyman, Massachusetts Institute of Technology, Cambridge, Mass. *Biology*. Belmont, Mass., March 5, 64. Pub. sch. *Lecturer biol.*, Mass. Inst. Tech., 00— Chairman, Board Health, Belmont, 08— Ornith. Union; Mass. Zool. Soc.; Mass. Audubon Soc.; Am. Acad.; Boston Soc. Nat. Hist.; Nuttall Ornith. Club; Boston Bact. Club. Bacteriology applied to canning and preserving; extermination of mosquitoes.

Unger, Dr. W(illiam) Byers, Dartmouth College, Hanover, N. H. *Zoology*. Baltimore, Md., Dec. 19, 98. A.B., Western Maryland, 20; M.S., Lafayette, 22; Ph.D., Yale, 25. Instr. *biol.*, Lafayette, 20–22; asst. *zool.*, Yale, 22–25; *instr.*, Dartmouth, 25— A.A.; Soc. Zool. Protozoology; Paramecium.

Unnewehr, Prof. E(mory) C(arl), Baldwin-Wallace College, Berea, Ohio. *Physics*. Batesville, Ind., Nov. 9, 85. B.S., Purdue, 09; Ph.D., Columbia, 24. Dept. *physics*, Baldwin-Wallace, 12–15; lecturer, Columbia, 16–18; *prof.*, Baldwin-Wallace, 18— A.A.; Physical Soc.; Ohio Acad. Characteristic X-rays.

Updegraff, Dr. Harlan, University of California, Berkeley, Calif. *Education*. Sigourney, Iowa, Aug. 22, 74. Ph.B., Cornell (Iowa), 94; A.M., Columbia, 98, 00–02, 05–07, fellow, Teachers Col., 06–07, Ph.D., 08. Prin. and supt. pub. schools, Iowa and Md., 94–97, 98–00, 02–05; asst. educ., Teachers Col., Columbia, 00–02; chief, Alaska div., U. S. Bur. Educ., 07–10, collector, compiler, statist. and chief div. sch. admin., 10–12; *prof.* educ. and head dept., Northwestern, 12–13; educ. administrator, Pennsylvania, 13; past pres., Cornell (Iowa); lecturer, California, 27. Lecturer, George Washington, 08–09; expert asst. conf. chief state educ. officers, 10–13. The moving school in Massachusetts; school expenses, boards and chief executive officers; teachers' certificates and salaries; educational administration.

Updegraff, Dr. Helen, Women's Faculty Club, Berkeley, Calif. *Physiological chemistry*. Columbia, Mo., Aug. 1, 90. A.B., Cornell, 15; A.M., Illinois, 17; Ph.D., Michigan, 24. Research asst. chemist, Delaware Exp. Sta., 18; chemist, Columbia Hosp., Milwaukee, Wis., 19–21; research asst. *physiol. chem.*, Michigan, 22–24; *research assoc. biochem.*, California, 25— Chem. Soc. Blood sugar; sugar of spinal fluid; salivary sugar; deaminized proteins; sulfur metabolism; organic constituents of saliva; blood calcium.

Updegraff, Prof. Milton, Prescott, Ariz. *Astronomy*. Decorah, Iowa, Feb. 20, 61. B.S., B.C.E., Wisconsin, 84, M.S., 86. Aid, U. S. Coast and Geod. Surv., 82, 83; asst. astronomer, Washburn Observatory, Wisconsin, 84–87; astronomer, Argentine Nat. Observatory, Cordoba, 87–90; *prof.*

astron. and director, Laws Observatory, Missouri, 90–99; *prof. math.*, U.S.N., 99—, observer, U. S. Naval Observatory, 99–02, 08–10; director, Nautical Almanac, 07–10; in charge sci. work, geod. surv., Am. Samoa, 14. A.A.; Astron. Soc.; Wash. Philos. Soc.; St. Louis Acad.; Astron. Gesell. Errors of meridian circles; orbits of comets; astronomical time keeping; star places; errors of 6-inch transit circles and clocks of U. S. Naval Observatory; observations of fixed stars.

Upham, Charles M(elville), Raleigh, N. C. *Engineering*. Stoughton, Mass., March 6, 86. B.S., Tufts, 08, hon. M.S., 25; hon. C.E., North Carolina, 24. Engineer, Charles River Basin Commission, 08–09; Mass. Highway Commission, 09–12; testing engineer, Coleman du Pont Road, Del., 12, *chief engineer*, 15–17; du Pont Bur. Inspection, 13–15; co. engineer, Sussex Co., Del., 17; Del. State Highway Commission, 17–21; N. C. State Highway Commission, 21— Business director, Am. Road Builders Ass.; director, Highway Research Board, Nat. Research Council; consulting highway engineer, Mex. Fed. Govt. Civil Eng.; Concrete Inst.; Soc. Test. Mat.; Soc. Munic. Improv. Highway research.

Upham, Dr. Warren, Minnesota Historical Society, St. Paul, Minn. **Geology, Archeology*. Amherst, N. H., March 8, 50. A.B., Dartmouth, 71, hon. A.M., 94, Sc.D., 06. Asst., N. H. Geol. Surv., 74–78; Minn. Geol. Surv., 79–85; U. S. Geol. Surv., 85–93; Minn. Geol. Surv., 93–94; librarian, Western Reserve Hist. Soc., 95; sec'y and librarian, Minn. Hist. Soc., 95–14, *archeologist*, 14— A.A. (sec'y, E, 98); Geol. Soc.; Archeol. Inst.; Minn. Hist. Soc.; N. H. Hist. Soc.; Minn. Acad.; Boston Soc. Nat. Hist.; London Victoria Inst. The glacial lake Agassiz; glacial lakes; moraines; till; drumlins; eskers; kames; causes of the ice age; climatology; antiquity of mankind and its relation to the ice age; flora and fauna of Minnesota; origins and meanings of geographic names.

Uphof, Prof. J(ohannes) C(ornelis) T(heo)dorus, Rollins College, Winter Park, Fla. *Botany*. Amsterdam, Netherlands, June 11, 86. Germany, 08; Sweden, Norway and Denmark, 09; Switzerland, Italy, France and Belgium, 10; England, 11; Ph.D., Amsterdam. Instr. bot. and director bot. garden and herbarium, Mich. State Col., 12–13; asst. *prof. bot.* and plant breeding, Arizona, and asst. botanist and plant breeder, Exp. Sta., 13–18; in charge Plant Breeding Sta., Amsterdam, 18–21; *prof. bot. and head dept. biol.*, Rollins Col., 22— Research, British Govt., 20; Phytopath. Surv., The Netherlands, 22; research bot., Cuban Govt., 23. Bot. Soc.; Vereeniging voor Wetenschappelijke Teelt; Bot. Gesell.; Dendrol. Gesell.; Int. Verein für Limnol.; Soc. bot. de France. Plant species; cold resistance in spineless cacti; geographical distribution of cacti; physiological anatomy of xerophytic selaginellas; electric light and plant growth; plant formations on coral reefs; Mendelian factors in radishes; inheritance of acquired characters; purple bacteria as symbionts of a lichen; vital dynamics of distribution of life; rays; fourth aggregate; sulphur bacteria.

- Uppal, Dr. B(adri) N(ath)**, Iowa State College, Ames, Iowa. *Plant pathology*. Eminabad, Punjab, India, June 28, 00. A.B, Punjab, 21; Ph.D, Iowa Col, 25. Instr. *Iowa Col*, 24, research fellow, 24-25, *research asst*, 25- A.A; Bot. Soc; Phytopath. Soc; fel. Iowa Acad; Indian Bot. Soc. Physiological plant pathology; toxicity of organic compounds; studies in peronosporales.
- Upson, Prof. Fred W(ilbert)**, Station A, Lincoln, Nebr. *Chemistry*. Byron, Ill, Feb. 2, 83. B.S, Nebraska, 07, A.M, 08; Ph.D, Chicago, 10. Instr. chem, Cincinnati, 10-12; Chicago, 12-13; head dept. agr. chem, *Nebraska*, 13-18, *prof. chem, chairman dept. and director chem. laboratories*, 18- A.A; Chem. Soc. Substituted succinic acids; colloids; soils; sugars.
- Upson, Prof. Walter L(yman)**, Washington University, St. Louis, Mo. *Electrical engineering*. Cleveland, Ohio, July 3, 77. B.S, Princeton, 99, E.E, 02, M.S, 03; London, 07; M.E.E, Harvard, 08. Instr. *elec. eng*, Princeton, 04-06; asst. prof, Ohio State, 08-10; prof, Vermont, 10-12; asst. prof, Union, 12-14, assoc. prof, 14-20; *prof, Washington (St. Louis)*, 20- Consulting engineer, Gen. Elec. Co, 18-19. A.A; Elec. Eng. (chairman, Schenectady sect, 17); Eng. Educ. Electrical science; engineering education.
- Upthegrove, Prof. Clair**, University of Michigan, Ann Arbor, Mich. *Metallurgy*. Central Lake, Mich, Nov. 30, 84. B.Ch.E, Michigan, 14. Chemist and metallurgist, Detroit Copper and Brass Rolling Mills, 14-16; instr. chem. eng, *Michigan*, 16-17, asst. prof, 19-25, *assoc. prof. metal. eng*, 25- Capt, ordnance dept, 17-19. Min. Eng; Chem. Soc; Soc. Steel Treat; Soc. Test. Mat. Nonferrous metallurgy; properties of metals at elevated temperatures.
- Upton, Prof. Clifford B(rewster)**, Teachers College, Columbia University, New York, N. Y. *Mathematics*. Detroit, Mich, May 10, 77. Grad, Mich. State Nor. Col, 98; A.B, Michigan, 02; Columbia, 03-05, A.M, 07; Göttingen, 07; Paris, 08-10. Instr. *math*, secondary sch, 98-00; Horace Mann Sch, *Columbia*, 02-10, asst, *Teachers Col*, 04-07, instr, 07-10, asst. prof, 10-17, assoc. prof, 17-27, *prof*, 27-, sec'y, 11-19, provost, 19-24. Ed, 'Columbia Univ. Contributions to Educ,' 15-23; assoc. ed, 'Teachers Col. Record,' 15-23. Int. Commission on Teaching Math. Math. Soc; Math. Ass; Ass. Teachers Math. Middle States and Md. The teaching of mathematics in elementary and secondary schools; current business practises in arithmetic; modern calculating machinery and its uses; the teaching of mathematics in Europe.
- Urbahns, Theodore D**, California State Department of Agriculture, Sacramento, Calif. *Entomology*. Minden, Iowa. B.S, Colo. Agr. Col, 08. Insecticide tests, Colo. Exp. Sta, 08; field entomologist, bur. entom, U. S. Dept. Agr, 08-09; Minn. Exp. Sta, 09-11; entom. asst, bur. entom, U. S. Dept. Agr, 11-20; field entomologist, *Calif. State Dept. Agr*, 20-23, *entomologist*, 23- Collaborator, fed. hort. board, U. S. Dept. Agr, 20- A.A; Ass. Econ. Entom. Economic entomology; alfalfa seed chalcis-fly; grasshopper control for Pacific coast; strawberry leaf beetle; parasites of *Bruchophagus funebris*; insecticides and orchard insect control.
- Urban, Prof. Wilbur M(arshall)**, 18 Rope Ferry Road, Hanover, N. H. *Philosophy, Psychology*. Philadelphia, Pa, March 27, 73. A.B, Princeton, 95; Ph.D, Leipzig, 97. Reader in philos, Princeton, 97-98; *prof. philos. and psychol*, Ursinus, 98-02; *philos*, Trinity (Conn), 02-20; *Dartmouth*, 20- Asst. ed, 'Dict. Philos. and Psychol.' Philos. Ass. (pres, east. div); Psychol. Ass. The psychology of feelings and emotions, with special reference to the psychology of value; the memory of emotions in connection with esthetic creation and appreciation; experimental psychology of the value-judgment; value theory.
- Uren, Prof. Lester Charles**, University of California, Berkeley, Calif. *Mining engineering*. Grass Valley, Calif, Sept. 1, 88. B.S, California, 11. Eagle-Shawmut Mining Co, 04-12; *assoc. prof. petroleum eng, California*, 12- Engineer, U. S. Fuel Ad, 18; capt, C.W.S, 18-19. Min. and Metal. Eng; Petrol. Inst. Petroleum engineering.
- Urey, Dr. H(arold) C(layton)**, Johns Hopkins Club, Baltimore, Md. *Chemistry, Physics*. Walkerton, Ind, April 29, 93. B.S, Montana, 17; Ph.D, California, 23. Instr, Montana, 19-21; Am-Scandinavian Foundation fellow, Copenhagen, 23-24; *assoc, Hopkins*, 24- Physical Soc. The entropy of gases; atomic structure.
- Urie, Frank D(ickinson)**, Elgin Observatory, Elgin, Ill. *Astronomy, Physics*. Toledo, Ohio, June 27, 87. A.B, Michigan, 09. Asst, Detroit Observatory, Michigan, 09-10; astronomer, *Elgin Observatory*, 10-16, asst. director, 16-26, *director*, 26- A.A; Astron. Soc; fel. Royal Astron. Soc. Chronographic registration of radio time signals; watch tests.
- Urner, Dr. S(amuel) E(verett)**, Bakersfield, Calif. *Mathematics*. Mitchell, Ind, July 29, 87. Ph.B, Baker, 06; Harvard, 08-10, Ph.D, 11. Instr. math, high sch, Kans, 06-08; Wisconsin, 10-11; asst. prof, Miami, 11-18, assoc. prof, 18-19; *sec'y-treas, Urner and Janes, Inc.* Math. Soc. Transformations of real variables.
- Urquhart, Prof. L(eonard) C(hurch)**, Cornell University, Ithaca, N. Y. *Engineering*. Cleveland, Ohio, Oct. 24, 86. Western Reserve, 03-05; C.E, Cornell, 09. Instr, asst. prof. and *prof. eng, Cornell*, 11- Prof, Drexel Inst, 25-26. Officer, C.Eng, 18-19. Civil Eng; Concrete Inst. Design of concrete structures; stresses in simple structures.
- Utterback, Prof. W(illiam) I(rvin)**, Marshall College, Huntington, W. Va. *Zoology*. Crawfordsville, Ind, Oct. 11, 72. B.S, Wabash, 01; fellow, Missouri, 11, A.M, 15. Prin. and teacher, high schools, Ind. and Mo, 01-07, 08-09, 11-17; pres, Sch. of the Ozarks, 07-08; dept. *biol.*, Westminster Col, 09-11; high sch, Wash, 17-19; *prof, Marshall Col*, 19-, *head dept.* Sci. asst, Bur. Fisheries. W. Va. Acad; W. Va. State Teachers Ass. (chairman, sci. sect, 22-24). Naiades of Missouri; breeding record of Missouri mussels; mussel resources of Missouri.

Uyei, Dr. N(ao), 3800 E. Colfax Ave, Denver, Colo. *Organic chemistry*. Ohyodo, Miye, Japan, Dec. 29, 91. B.S. Oregon Col, 16; M.S. Illinois, 21, Ph.D., 24. Asst., Iowa, 17-18; chemist, United Chem. and Org. Products Co, 18-19; asst., Illinois, 20-24; *research chemist*, *Nat. Jewish Hosp*, 24- A.A.; Chem. Soc. Organic and bio chemistry; amino acids of feeds; glutathione content of animal tissues; tuberculosis.

V

Vail, Anna Murray, Héricy-sur-Seine, S. and M. France. *Botany*. New York, N. Y., Jan. 7, 63. Private instruction, Europe; student under Dr. N. L. Britton. Librarian, N. Y. Bot. Garden, 00-07. A.A.; Torrey Bot. Club. Taxonomy of Leguminosae and Asclepiadaceae; phylogeny.

Vail, James G(arrett), 121 S. Third St, Philadelphia, Pa. *Chemistry*. Philadelphia, Nov. 16, 86. Pennsylvania; Harvard; Tech. Hochschule, Darmstadt, 08-09. Chemist, *Phila. Quartz Co*, 05-12, *chem. director*, 12-, *sec'y*, 20-; *v. pres*, *Am. Doucil Co*, 24- Chem. Soc. (chairman, Phila. sect, 22); Chem. Eng; Soc. Chem. Indust; Ceramic Soc; Soc. Test. Mat; Franklin Inst. Soluble silicates; water-softening by base-exchanging materials.

Valasek, Prof. Joseph, University of Minnesota, Minneapolis, Minn. *Physics*. Cleveland, Ohio, April 27, 97. B.S. Case, 17; A.M. Minnesota, 20, Ph.D., 21. Asst. physicist, Bur. Standards, 17-19; Nat. Research Council fellow, 21-22; *asst. prof. physics*, *Minnesota*, 22- A.A.; Physical Soc; Optical Soc. Annealing glass; piezoelectric and dielectric properties of crystals.

Vallarta, Dr. M(anuel) S(andoval), Massachusetts Institute of Technology, Cambridge, Mass. *Mathematical physics*. Mexico City, Mex, Feb. 11, 99. B.S. Mass. Inst. Tech, 21, hon. fellow physics, 23-24, Sc.D., 24. *Research assoc*, *Mass. Inst. Tech*, 23- Math. Soc; Physical Soc; Elec. Eng; Electrochem. Soc. Electromagnetic theory; relativity; atomic mechanics.

Valleau, Prof. W(illiam) D(orney), Kentucky Experiment Station, Lexington, Ky. *Plant pathology*. Minneapolis, Minn, Feb. 17, 91. B.S.A. Minnesota, 13, Ph.D., 17. Asst. fruit breeding, Minn. Exp. Sta, 15-17, instr, Minnesota, 17-19; *assoc. prof. plant path*, *Kentucky*, and *pathologist*, *Exp. Sta*, 19- A.A.; Phytopath. Soc; Bot. Soc; Ecol. Soc; Ky. Acad. Varietal resistance of plums to brown rot; sterility in Fragaria; inheritance of sex in grape; corn root rot; tobacco diseases.

Van Alstine, Dr. E(rnest), University of Vermont, Burlington, Vt. *Agronomy*. Grand Ledge, Mich. B.S. Mich. State Col, 07; M.S. Illinois, 17; Ph.D. Rutgers, 20. Asst. agron., Illinois, 07, *assoc*, 15-18; *agr. col*, *Vermont*, 21- Agron. Soc; Chem. Soc. Soil fertility.

Van Arsdale, G(eorge) D(awes), 1011 S. Figueroa St, Los Angeles, Calif. *Metallurgy*. Newark, N. J., April 23, 74. B.S. Princeton, 96. Chemist, Parke, Davis and Co, 96; S. S. White Mfg. Co, 96-99; consulting chemist, Phelps, Dodge Corp, 99-21; *consulting engineer*, 21- Min. and Metal. Soc; Min. Eng; Chem. Soc. Non-ferrous metallurgy; hydro-metallurgy; flotation.

Vanatta, E(dward), Academy of Natural Sciences, 1900 Race St, Philadelphia, Pa. *Conchology*. Philadelphia, May 2, 76. *Asst. curator*, *Acad. Nat. Sciences*, *Phila.* Phila. Acad.

Van Benschoten, Prof. Anna L(avina), 230 N. Friends Ave, Whittier, Calif. *Mathematics*. Elmira, N. Y., Aug. 12, 66. B.S. Cornell, 94, Ph.D., 08; M.S. Chicago, 00; Göttingen, 00-01. Teacher, high sch., N. Y., 94-98; *prof. math*, Wells, 01-20; *Whittier*, 24- Prof., Arizona, 18. Math. Soc; Math. Ass. Birational transformations.

Van Biesbroeck, Prof. G(eorge), Yerkes Observatory, Williams Bay, Wis. *Astronomy*. Ghent, Belgium, Jan. 21, 80. D.Eng., Ghent, 02; Lauréat du Concours Universitaire, 02-03. Engineer, dept. bridges and roads, Brussels, 02-08; asst., Heidelberg Observatory, 05-06; Potsdam Observatory, 06-07; adjunct astronomer, Royal Observatory, Brussels, 08-15; visiting prof. *practical astron*, *Yerkes Observatory*, 15-16, asst. prof, 17-23, assoc. prof, 23-26, *prof*, 26- Gold medal, Acad. Copenhagen, 10; Donaho comet medal, 26. Astron. Soc; Royal Astron. Soc; Astron. Gesell; Soc. Belge d'Astron. Double stars; comets; stellar parallaxes; variable stars; asteroids.

Van Brunt, Charles (Gershon), General Electric Co, Schenectady, N. Y. *Chemistry*. Boston, Mass, Aug. 30, 70. A.B. Harvard, 93. Chemist, Kansas City Smelting and Ref. Co, 94-02; *research and consulting chemist and engineer*, *Gen. Elec. Co*, 05- A.A.; Chem. Soc; Electrochem. Soc. Reclamation of automobile engine oils.

Vance, Dr. B(enjamin) M(organ), 201 E. 30th St, New York, N. Y. *Pathology*. Louisville, Ky, Dec. 6, 86. A.B. Harvard, 08; M.D. Pennsylvania, 12. Pathologist, Bellevue Hosp, 12-15, second div, 15-20; *asst. med. examiner*, *New York*, 20- Instr. col. physicians and surg, Columbia, 20- Lieut. and capt, M.C., 17-19. Ass. Path. and Bact. Bacteriology.

Vance, Dr. Thomas F(ranklin), 1206 Orchard Drive, Ames, Iowa. *Psychology*. Shenandoah, Iowa. A.B. Coe, 09; A.M. Iowa, 11, Ph.D., 13. Asst. psychol., Illinois, 13-14; asst. prof, *Iowa Col*, 14-15, *assoc. prof*, 15- Psychol. Ass. Lower limit of tonality; pitch discrimination; mental tests.

Van Cleave, Prof. H(arley) J(ones), University of Illinois, Urbana, Ill. *Zoology*. Knoxville, Ill, Oct. 5, 86. B.S. Knox, 09; fellow, Illinois, 10, M.S., 10, Ph.D., 13. Instr. *zool*, *Illinois*, 13-16, *assoc*, 16-19, asst. prof, 19-22, *assoc. prof*, 22- Summers, staff, Ill. State Nor. Univ, 13-15; instr, Puget Sound Marine Sta, 16. Sect. ed, 'Biol. Abstracts.' A.A.; Soc. Zool; Micros. Soc. (treas, 15-18, *sec'y*, ed, 'Trans,' 25-); Fisheries Soc; Soc. Parasitol; Ill. Acad. (v. pres, 24, pres, 27). Parasitology; cell constancy; morphology and classification of Acanthocephala; teaching of zoology; invertebrate morphology; faunistic zoology.

Van Cleef, Prof. Eugene, Ohio State University, Columbus, Ohio. *Geography*. Chicago, Ill, Jan. 17, 87. B.S. Chicago, 08, summers, 09-11; Leipzig, 13-14; Ph.D. Clark, 25-26. Special

- investigator, sch. map dept, Rand, McNally and Co, 08-11; head dept. geog, Minn. State Teachers Col, 12-18; climatologist, Latin-Am. div, The House Inquiry, New York, 18; manager foreign trade dept, Van Cleef Bros, Ill, 19-21; asst. prof. *geog*, Ohio State, 21-24, *prof*, 24-Asst, U. S. Weather Bur, Chicago, 05-08; director, first Pub. Welfare Exhibit, Duluth, Minn, 12; summer, Geog. and Econ. Surv, Finland, 23. A.A.; Ass. Geog; Meteor. Soc; Am. Acad; Ill. Acad. Climatology; anthropogeography; foreign trade.
- Vandecaveye, Dr. S(ilvere) C(yril)**, State College of Washington, Pullman, Wash. *Bacteriology*. Zonnebeke, Belgium, Jan. 11, 88. B.S, Mich. State Col, 20; M.S, Iowa Col, 21, Ph.D, 23. *Bacteriologist*, Wash. State Exp. Sta, 24- Soc. Bact; Soc. Agron. Soils; availability and solubility through bacteria and organic matter; isolation of legume bacteria by use of dyes; direct microscopic count of market milk bacteria; efficient pure culture organisms for vinegar fermentation of apple cider.
- VanderHoof, Dr. Douglas**, Professional Building, Richmond, Va. *Medicine*. Brooklyn, N. Y., Dec. 31, 79. B.L, Dartmouth, 01, A.M, 07; M.D, Hopkins, 05. Asst. med, Med. Col. of Va, 06-14, *prof*, 14- Am. Med. Ass; Am. Physicians. Internal medicine.
- Vanderkleed, Charles E(dwin)**, 200 Harvard Ave, Collingswood, N. J. *Chemistry*. Lafayette, Ind, April 24, 78. Ph.G, Purdue, 95, Ph.C, 96, B.S, 99, A.C, 01; hon. Phar.D, Phila. Medico-Chirurg. Col, 08. Instr. chem, Purdue, 96-01; anal. chemist, Sharp and Dohme, Baltimore, 01-02; director chem. laboratories, H. K. Mulford Co, Phila, 02-17; lecturer drug chem, Phila. Medico-Chirurg. Col, 07-08, *prof*. pharmaceut. chem, 08-16; chemist, Hercules Powder Co, 18-19; *lecturer chem. control*, Phila. Col. Pharmacy, 16-; *supt*, Rob't McNeil Co, Phila, 20- Treas. and director, Henry C. Blair Co, 08-; sec'y, Cellulose Silk Co, 20-22. Chem. Soc; Pharmaceut. Ass. (chairman, sci. sect, 08). Analytical and pharmaceutical chemistry; artificial silk.
- Vanderpoel, Dr. Frank**, 369 Park Ave, Orange, N. J. *Chemistry*. Newark, N. J, Nov. 20, 53. E.M, Columbia, 75, Ph.D, 94. E. B. Benjamin, New York, 75-78; The Celluloid Co, 78-03; *retired*, 03. A.A.; Chem. Soc; Soc. Chem. Indust. Nitrogen compounds of cellulose; sulphur and nitrogen acids; physics.
- Van der Veer, Dr. Albert**, 28 Eagle St, Albany, N. Y. *Surgery*. Root, N. Y, July 10, 41. M.D, George Washington, 63, LL.D, 04; hon. M.D, Albany Med. Col, 69; A.M, Williams, 82; Ph.D, Hamilton, 83; Union, 83. Asst. and surgeon, N. Y. Vols, 62-65; *prof*. anat, Albany Med. Col, 69-74, *surg*, 76-14, dean, 96-14. Attending surgeon, Albany Hosp, 69-04, surgeon-in-chief, 14-19, senior consulting surgeon, 19-; attending surgeon, St. Peter's Hosp, 73-03; consulting surgeon, Hosp. Crippled and Deformed, West Haverstraw; regent, Univ. State of N. Y, 95-27, v. chancellor, 15-21, chancellor, 21-22. A.A.; Surg. Ass. (past pres); Ass. Obstet. and Gynec. (past pres); Am. Med. Ass. (pres, 16); S. Surg. and Gynec. Ass; N. Y. State Med. Soc. (past pres); Albany Co. Med. Ass. (past pres). Abdominal, gynecological and clinical surgery.
- Vander Veer, Dr. J(ames) N(ewell)**, 28 Eagle St, Albany, N. Y. *Surgery*. Albany, Dec. 12, 77. A.B, Union, 99, A.M, 03, M.D, Albany Med. Col, 03. *Clin. prof. genito-urinary surg*, Albany Med. Col, Union; attending urologist, Albany Hosp. Major, M.C, 17-19. Urol. Ass; Col. Surg; Am. Med. Ass; Ass. Mil. Surg.
- Van der Vries, Dr. John N(icholas)**, Metropolitan Building, Chicago, Ill. *Mathematics*. Kalamazoo, Mich, May 23, 76. A.B, Hope, 96, A.M, 99, LL.D, 21; fellow, Clark, 98-01, Ph.D, 01. Asst. prof. math, Kansas, 01-07, assoc. prof, 07-12, *prof*, 12-19; sec'y cent. dist, U. S. Chamber of Commerce, 18-22, *manager north. cent. div*, 22- A.A; Math. Soc. Theory of twisted curves and surfaces; monoids; Steinerian and quartic surfaces.
- Van Dine, D(elos) L(ewis)**, Central Baraguá, Baraguá, Camagüey, Cuba. *Entomology*. Tompkins Co, N. Y, Feb. 2, 78. Stanford, 99-00; B.S.A, Cornell, 01. Lab. asst. entom, Cornell, 01; entomologist, Hawaii Exp. Sta, 02-09; special field agent, bur. entom, U. S. Dept. Agr, 09-10; entomologist, Exp. Sta, Sugar Producers' Ass, Rio Piedras, P. R, 10-13; entom. asst, bur. entom, U. S. Dept. Agr, 13-17, entomologist, 19-22; specialist, exten. entom, Pa. State, 22-24; *local director*, Cuba Sugar Exp. Sta, Trop. Plant Research Foundation, 24- Capt, Sanit.C, 18-19. Nat. Malaria Committee. A.A; Entom. Soc; Ass. Econ. Entom; Wash. Entom. Soc. Insects of tropical crops and of live stock; insects affecting health of man; insects affecting troops in war; malaria mosquitoes; sugar cane insects.
- Vandiver, Prof. H(arry) S(hultz)**, University of Texas, Austin, Texas. **Mathematics*. Philadelphia, Pa, Oct. 21, 82. Pennsylvania, 04-05. Instr. math, Cornell, 19-25; *assoc. prof*, Texas, 25-; *Guggenheim Mem. Foundation fellow*, 27-Summer, lecturer, Chicago, 22. Heckscher Research Foundation grantee, Cornell, 20-23. Chairman committee on algebraic numbers, Nat. Research Council, 23- A.A; Math. Soc. (councilor, 26-); Math. Ass; Circolo Mat. di Palermo. Theory of numbers; algebra.
- Van Doren, Dr. Lloyd**, 52 Sandford Ave, Plainfield, N. J. *Chemistry*. Oldwick, N. J, Dec. 11, 89. B.S, Gettysburg, 09, M.S, 13; Ph.D, Hopkins, 12. Instr. chem, Lowell Textile Sch, 12-13; asst. prof, Akron, 13-14; *prof*. and head dept, Earlham, 14-19; chem. adviser, Emery, Varney, Blair and Hoguet, 19-20; consulting chemist and patent solicitor, Chem. Foundation Co, Inc, 20-22; *chem. consultant, patents and patent causes*, Mayer, Warfield and Watson, 22-Lieut, C.W.S. Chem. Soc; fel. Inst. Chem. (v. pres, 23-). Osmotic pressure; color lakes.
- Van Dusen, Dr. M(ilton) S(heldon)**, U. S. Bureau of Standards, Washington, D. C. *Physics*. Jamestown, N. Y, Feb. 2, 92. B.S, Syracuse, 13; Ph.D, Hopkins, 21. Asst. Bur. Standards, 13-16, asst. physicist, 16-18, assoc. physicist, 18-20; instr. physics, Hopkins, 20-21; *physicist*, Bur. Standards, 22- Physical Soc;

Refrig. Eng; Wash. Philos. Soc; Wash. Acad. Thermal properties of refrigerating media; heat transfer in connection with thermal insulation.

Van Duzee, Edward P(ayson), California Academy of Sciences, San Francisco, Calif. *Entomology*. New York, N. Y., April 6, 61. Private and public schools. Librarian, Grosvenor Library, Buffalo, N. Y., 85-12; Scripps Inst., 13-14, instr. entom., California, 14-16; *curator dept. entom., Calif. Acad. Sciences*, 16- A.A.; Entom. Soc; Ecol. Soc; Pacific Coast Entom. Soc; Calif. Acad; San Diego Nat. Hist. Soc; Buffalo Soc. Nat. Sci. Hemiptera.

Van Dyke, Prof. Edwin C(oo)per, University of California, Berkeley, Calif. *Entomology*. Oakland, Calif., April 7, 69. B.S., California, 93; M.D., Cooper Med. Col., 95. Asst. prof. *entom., California*, 15-21, assoc. prof., 21-27, *prof.*, 27- A.A.; Entom. Soc; Ass. Econ. Entom; Pacific Coast Entom. Soc. (pres., 08-27); Calif. Acad. Systematic, forest and ecological entomology; Coleoptera; geographical distribution.

Van Dyke, Prof. K(arl) S(killman), Wesleyan University, Middletown, Conn. *Physics*. Brooklyn, N. Y., Dec. 8, 92. B.S., Wesleyan, 16, M.S., 17; Ph.D., Chicago, 21. Eng. dept., Am. Tel. and Tel. Co., 17-19; asst. *physics*, Chicago, 19-21; asst. prof., *Wesleyan*, 21-25, *assoc. prof.*, 25- A.A.; Physical Soc. Viscosity of gases; piezoelectric crystals in radio circuits.

Van Epps, Dr. G(eorge) D(udley), 62 E. Isabella Ave., Muskegon, Mich. *Chemistry*. Atlanta, Ga., May 20, 92. B.S., Ga. Tech., 13; Ph.D., Hopkins, 16. *Chemist*, Texas Co., 16-18; Barrett Co., 18-19; Continental Motors Corp., 19-25; *Campbell, Wyant and Cannon Foundry Co.*, 25- Chem. Soc. Preparation of nitrils.

Van Es, Prof. L(eunis), University Farm, Lincoln, Nebr. *Veterinary medicine*. Melissant, Netherlands, Oct. 3, 68. V.S., Toronto, 93; M.D., Alabama, 98. Demonstrator histol. and bacter., Alabama, 98-02; *prof. vet. science*, N. Dak. Col. and veterinarian, Exp. Sta., 03-18; *animal path. and hygiene, Nebraska*, 18- Chief state veterinarian, N. Dak., 03-07; director, State Serum Inst., N. Dak., 07-18; bacteriologist and consulting veterinarian, N. Dak. State Live Stock Sanit. Board, 07-18. U. S. delegate, Cong. Vet. Med., The Hague, 09. A.A.; Vet. Med. Ass; Pub. Health Ass; Tuber. Ass; U. S. Live Stock Sanit. Ass. Tetanus; bovine and avian tuberculosis; glanders; hog-cholera; swamp fever; parasitic anaphylaxis; immunity to *Bacillus bipolaris*; host relations of *Bacillus tuberculosis*; tuberculosis of swine.

Van Eseltine, G(len) P(arker), 659 Castle St., Geneva, N. Y. *Botany*. Syracuse, N. Y., Oct. 21, 88. A.B., Syracuse, 13. Aid, U. S. Nat. Herbarium, 13-15; asst. office for seed and plant introduction, bur. plant indust., U. S. Dept. Agr., 15-19, asst. botanist, 19-22; teacher, North High Sch., Syracuse, 22-26; *assoc. hort.*, N. Y. State Agr. Exp. Sta., 27- A.A.; Bot. Soc; Ecol. Soc; Wash. Biol. Field Club. Taxonomy of flowering plants; Carex.

Van Gundy, C(harles) P(hilip), Baltimore and Ohio Railway, Mt. Clare, Baltimore, Md. *Chem-*

istry. Springfield, Ill., Jan. 5, 67. B.S., Illinois, 88. Asst. chemist, B. and O. Ry., 88-90; chemist, Laughlin and Co., Pittsburgh, 90-92; chief chemist, B. and O. Ry., 92-20, water engineer, 20-26, *engineer of tests*, 26- Chem. Soc; Soc. Chem. Indust; Soc. Test. Mat. Water treatment; water softening; foundry control.

Van Hook, Prof. J(ames) M., Indiana University, Bloomington, Ind. *Plant pathology, Mycology*. Washington Co, Ind., Dec. 19, 70. A.B., Indiana, 99, A.M., 00; Cornell, 01-04. Asst. bot., Cornell, 01-02, plant path., Exp. Sta., 02-04; Ohio State, 04-07; asst. *prof. bot., Indiana*, 07-21, *assoc. prof.*, 21-25, *prof.*, 25- A.A.; Phytopath. Soc; Bot. Soc; Crop Protection Inst; fel. Ind. Acad.

Van Horn, Prof. Frank R(obertson), Case School of Applied Science, Cleveland, Ohio. *Mineralogy, Geology*. Johnsonburg, N. J., Feb. 7, 72. B.S., Rutgers, 92, M.S., 93, Sc.D., 19; Ph.D., Heidelberg, Germany, 97. Asst. miner., Rutgers, 92-93; instr. *geol. and miner. Case*, 97-99, *asst. prof.*, 99-02, *prof.*, 02- Director, Cleveland Museum Nat. Hist., 20- A.A.; Geol. Soc. (librarian, 13-18); Min. and Metal. Eng; Seismol. Soc; fel. Miner. Soc. (sec'y, 23-); Ohio Acad. Petrographical and economic geology; clay, shale and stone industry of northeastern Ohio.

Vanleer, Blake R(agsdale), University of California, Berkeley, Calif. *Hydraulics*. Mangum, Okla., Aug. 16, 93. B.S., Purdue, 15, M.E., 22; M.S., California, 20. Instr. *mech. eng., California*, 15-17, *asst. prof.*, 20- Officer, C.Eng., 17-19. A.A.; Mech. Eng. Water measurement.

Van Liere, Prof. E(dward) J(erald), University of West Virginia, Morgantown, W. Va. *Physiology*. Kenosha, Wis., Oct. 31, 95. A.B., Wisconsin, 15, M.S., 16; M.D., Harvard, 20. Asst. biol., Wisconsin, 14-16; *physiol.*, Chicago, 17-18; *prof.*, South Dakota, 20-21; *West Virginia*, 21- Zoology; parasitology; physiology of the heart and the gastro-intestinal tract.

Van Name, Prof. Ralph G(ibbs), 60 Lincoln St., New Haven, Conn. *Chemistry*. New Haven, Oct. 22, 77. A.B., Yale, 99, Ph.D., 02; Leipzig, 02-03; Göttingen, 03-04. Instr. *chem., Yale*, 04-09, *asst. prof.*, 09-24, *assoc. prof.*, 24- Capt., C.W.S., 18-19. A.A.; Chem. Soc; Conn. Acad; Chem. Gesell. Rates of solution of metals in certain oxidizing agents; temperature coefficient of a heterogeneous reaction; triiodid equilibria; properties of hypophosphoric acid; electrode potentials.

Van Name, Dr. Willard G(ibbs), American Museum of Natural History, New York, N. Y. *Biology*. New Haven, Conn., April 18, 72. A.B., Yale, 94, Ph.D., 98; Berlin, 99-00. Asst. *physiol. chem.*, Yale, 94-95, *asst. biol.*, 97-99, *histol. and embryol.*, 02-03; specialist and *asst. ed., zool. and gen. biol.*, 'Webster's Int. Dictionaries,' 03-09; zoologist, N. Y. State Museum, Albany, 10-16; *asst. invert. zool.*, Am. Museum Nat. Hist., 16-21, *asst. curator*, 22-26, *assoc. curator*, 26- A.A.; Soc. Nat; *assoc. Ornith. Union*; Ecol. Soc; Am. Geog. Soc. Zoology; chemical composition of gelatin; embryology of the planarians; ascidians of the Bermuda Islands, the New England coast, the Philippines and the West Indies;

- isopod Crustacea of the Congo region, the West Indies and tropical America.
- Van Norman, Dr. Hubert Everett**, 160 N. La Salle St, Chicago, Ill. *Dairy husbandry*. Tilsonburg, Ont, Can. B.S., Mich. State Col, 97; LL.D., Syracuse, 23. Asst. dairying, Mich. State Col, 93; head dairy dept, Purdue, 98-05; prof. dairy husbandry, Pa. State, 05-13; California, dean univ. farm sch, and v. director, Exp. Sta, 13-24; educ. work, Nat. Dairy Ass, 24-25; *pres*, *Am. Dry Milk Inst*, 25- Delegate, Int. Inst. Agr, Rome, 22. Organizer, World's Dairy Cong, 21-24. A.A.; Genetic Ass; Dairy Sci. Ass; Child Health Ass; Farm Econ. Ass. Dairy cattle feeding; dairy manufacture; dairy educational method.
- Van Oosten, John**, University of Michigan, Ann Arbor, Mich. *Zoology, Ichthyology*. Grand Rapids, Mich, Dec. 10, 91. Calvin Col, 14-16; A.B., Michigan, 18, A.M., 21, Ph.D., 26. Teaching asst. zool, *Michigan*, 18-21, temporary asst, *Bur. Fisheries*, 20, *field asst*, 21- A.A.; Mich. Acad. Ichthyology; life-histories of the Coregonine fishes of the great lakes as determined from a study of scales.
- Van Ornum, Prof. J(ohn) L(ane)**, Washington University, St. Louis, Mo. *Civil engineering*. Hartford, Vt, May 14, 64. B.S., Wisconsin, 88, C.E., 91. Chief topographer, Mex. Boundary Surv, 92-94; major, Third U. S. Vol. Engineers, 98-99; *prof. civil eng*, *Washington (St. Louis)*, 99- Munic. ry. and govt. eng. works. A.A.; Civil Eng; Eng. Educ; Soc. Test. Mat; St. Louis Eng. Club (past pres); St. Louis Acad; Int. Ass. Test. Mat; Int. Ass. Navigation Congresses. Improved field methods of surveying; cements; concrete and reinforced concrete constructions; water and sewage purification; principles of river regulation and harbor improvement.
- Van Orstrand, C(harles) E(dwin)**, 1607 31st St, N. W, Washington, D. C. *Geophysics*. Near Pekin, Ill, Feb. 8, 70. B.S.(C.E.), Illinois, 96, B.S., 97; M.S., Michigan, 98. Computer, 'Nautical Almanac' Office, U. S. Naval Observatory, 98-99, asst, 99-00; asst. physical geologist, *U. S. Geol. Surv*, 01-13, assoc. physical geologist, 13-15, physical geologist, 15-24, *geophysicist*, 24- Lecturer, George Washington. Mem, Am. sect, Int. Geophys. Union. A.A.; Physical Soc; Min. and Metal. Eng; Math. Soc; Math. Ass; Astron. Soc; Meteor. Soc; Am. Geog. Soc; Genetic Ass; Forestry Ass; Nat. Hist. Soc; Wash. Geol. Soc; Wash. Philos. Soc; Wash. Acad; Soc. de Physique. Mathematical physics; mathematical tables; deep-earth temperatures.
- Van Patten, Nathan**, Stanford University, Calif. *Chemistry*. Niskayuna, N. Y., March 24, 87. Union Classical Inst. Gen. Elec. Co; Am. Locomotive Co; librarian, Wolcott Gibbs Library of Chem, Col. City of N. Y., 17-20; reference librarian, Mass. Inst. Tech, 20-21, asst. librarian, 21-23; chief librarian, Queen's (Can), 23-27; *director univ. libraries and prof. chem*, *Stanford*, 27- Instr, Col. City of N. Y.; Mass. Inst. Tech; Queen's (Can); cataloguer and organizer chem. library, N. Y. Univ. Library Ass; N. Y. Chemists Club; Med. Library Ass; Library Ass.
- United Kingdom; Chem. Gesell; Nederland. Chem. Vereen; Library Ass. China. Corrosion of metals; lubrication.
- Van Pelt, Prof. J(ohn) R(obert), Jr**, Cornell College, Mount Vernon, Iowa. *Geology*. Denver, Colo, April 2, 96. A.B., Cornell Col, 18; B.S. and E.M., Mich. Col. Mines, 22; Chicago, 26-28. Instr. *geol*, *Cornell (Iowa)*, 22-23, asst. prof, 23-24, *prof. and head dept*, 24- Teaching asst, Chicago, 26-28; asst, Ill. Geol. Surv, 27; geologist, Ranger-Naturalist staff, U. S. Nat. Park Service, 26. A.A.; Min. and Metal. Eng; Iowa Acad.
- Vansell, G(eorge) H(aymaker)**, College of Agriculture, Davis, Calif. *Entomology*. Muscotah, Kans, Jan. 8, 92. A.B., Kansas, 15, A.M., 17; Harvard; California; Stanford. Asst. prof. entom. and zool, Kentucky, 15-22; instr. entom, California, 22-25; *junior apiculturist*, *Exp. Sta*, *California*, 25- Exten. specialist, U. S. Dept. Agr. Ky. Beekeeping Ass. (past sec'y and treas); Calif. Beekeeping Ass. (sec'y and treas). Apiculture.
- Vanselow, Dr. Albert P(ercival)**, Citrus Experiment Station, Riverside, Calif. *Chemistry*. Grand Rapids, Mich, Dec. 19, 97. B.S., Syracuse, 20; Ph.D., California, 24. Org. research chemist, Semet-Solvay Co, 18-19; teaching fellow, California, 20-24; *Citrus Exp. Sta*, *California*, 24- Chem. Soc. Freezing points and activity coefficients; replaceable bases in soils.
- Van Slyke, Dr. D(onald) D(exter)**, 21 Woodside Ave, Bronxville, N. Y. **Chemistry*. Pike, N. Y., March 29, 83. A.B., Michigan, 05, Ph.D., 07; Sc.D., Yale, 25. Research chemist, N. Y. Exp. Sta, Geneva, 06; fellow *physiol. chem*, *Rockefeller Inst*, 07-08, asst, 08-10, assoc, 10-12, assoc. mem, 12-21, *mem*, 21- Nat. Acad; Chem. Soc; Soc. Biol. Chem. (pres, 21-23); Soc. Exp. Biol; Am. Physicians. Chemistry and physiology of proteins and amino acids; derivatives of triphenylmethane; laws of enzyme action; methods for blood analysis; acidosis; respiratory and renal functions.
- Van Slyke, Dr. L(ucius) L(incoln)**, New York Experiment Station, Geneva, N. Y. **Chemistry*. Centerville, N. Y., Jan. 6, 59. A.B., Michigan, 79, A.M., 81, Ph.D., 82; fellow by courtesy, Hopkins, 89-90. Instr. anal. chem, Michigan, 82-85; prof. chem, Oahu Col, and govt. chemist, Honolulu, 85-88; lecturer gen. chem, Michigan, 88-89; *chemist*, *N. Y. Exp. Sta*, *Geneva*, 90-, *prof. dairy chem*, *Cornell*, 20- A.A.; Chem. Soc; Soc. Biol. Chem; Agr. Chem. Chemistry of milk; chemistry of cheese-making and of cheese-ripening; methods of separation of nitrogen compounds of milk and cheese; isolation and study of proteins formed during the ripening of cheese; casein and paracasein; the chemistry of cider vinegar and the behavior of malic acid in apple juice during alcoholic and acetic fermentation; the proteins of butter; chemistry of the souring and curdling of milk; methods for determination of casein in milk; calcium polysulphid solutions; the hydrogen ion concentration of milk; carbonic acid and carbonates in fresh milk; carbon dioxide in milk as a means of distinguishing heated from unheated milk.

- Van Stone, Dr. N(athan) E(dward)**, 2033 W. 108th Place, Chicago, Ill. *Organic chemistry*. Bridgeport, Conn, May 18, 90. B.S., Michigan, 14, M.S., 15, fellow, 15-16, Ph.D., 16. Research chemist, West. Elec. Co., 16-17; *chem. director dye and intermediate dept, Sherwin-Williams Co.*, 17-; *supt, pyroxylin products dept, director chem. operations*. A.A.; Chem. Soc. Triphenyl-methyl; organic insulation products.
- Van Tuyl, Prof. Francis M(aurice)**, School of Mines, Golden, Colo. *Geology*. Denmark, Iowa, Oct. 15, 87. A.B., Iowa, 11, M.S., 12; fellow, Columbia, 12-13, Ph.D., 15; Chicago, 14-15. Asst. geol., Iowa, 11-12; paleont., Columbia, 13-14; asst. geologist, Ill. Geol. Surv., 14-15; instr. geol., Illinois, 15-17; assoc. prof. *geol. and miner.*, Colo. Sch. Mines, 17-19, *prof. and head dept*, 19- Geologist, Iowa Geol. Surv., 12-22; asst. geologist, Mo. Bur. Geol. and Mines, 14-15; geologist, Illinois, Hudson Bay Exped., 16; Texas Co., 19; Midwest Ref. Co., 20; Texas Co., 22. A.A.; fel. Geol. Soc.; Ass. Petrol. Geol.; Min. and Metal. Eng.; Paleont. Soc.; fel. Iowa Acad.; N. Y. Acad. Origin of dolomite, geodes, oölite and chert; stratigraphy and paleontology of the Mississippian formations of Iowa; geology of Hudson Bay region; classification of igneous and metamorphic rocks; geology of the Front Range of Colorado; relation of oil shale to petroleum; petroleum geology.
- Vanuxen, Dr. Mary**, Laurelton State Village, Laurelton, Pa. *Psychology*. Camden, N. J., July 30, 81. Pa. State Nor. Sch., West Chester; B.S., Columbia, 16, A.M., 16, Ph.D., 25. Teacher, schools, N. J. and Pa., 00-14; asst. educ. psychol., Teachers Col., Columbia, 15-16; assoc. supervisor, N. J. State Nor. Sch., 16-18; asst. psychol., Phila. Nor. Sch., 18-20, head dept., 20-21; lecturer, Woman's Med. Col. of Pa.; clin. psychologist, Woman's Hosp., Phila.; consulting psychologist, Laurelton State Village, 20-21, res. psychologist, 21-22, *asst. supt. and psychologist*, 22- Summers, asst. Teachers Col., Columbia, 16-18. Ass. Study Feeble-minded. Self-government as applied to feeble-minded women; values of institutional training shown by re-examination; education of feeble-minded women; education; personality; genetics.
- Van Velzer, Prof. C(harles) A(mbrose)**, Carthage College, Carthage, Ill. *Mathematics*. Baldwinsville, N. Y., Sept. 2, 51. B.S., Cornell, 76; fellow, Hopkins, 78-81; Ph.D., Hillsdale, 83. Instr. *math.*, Cornell, 76-77; Wisconsin, 81-83, asst. prof., 83-85, *prof.*, 85-06; *Carthage*, 20-A.A.; Math. Soc.; Math. Ass.; London Math. Soc. Compound determinants.
- Van Vleck, Prof. E(dward) B(urr)**, University of Wisconsin, Madison, Wis. **Mathematics*. Middletown, Conn., June 7, 63. A.B., Wesleyan, 84, LL.D., 25; Hopkins, 85-87, fellow, 86-87; Göttingen, 90-93, Ph.D., 93; LL.D., Clark, 09; Dr. Math. and Physics, Groningen, 14; Sc.D., Chicago, 16. Instr. *math.*, Wesleyan, 87-90; Wisconsin, 93-95; asst. prof., Wesleyan, 95-98, *prof.*, 98-06; *Wisconsin*, 06- Officier de l'Instruction Pub., 20. Nat. Acad.; A.A. (v. pres., A, 12); Math. Ass.; Math. Soc. (v. pres., 09, ed., 'Trans.', 05-10, pres., 13, 14); Math. Verein; Soc. math. de France; Circolo Mat. di Palermo. Theory of functions and differential equations.
- Van Vleck, Prof. J(ohn) H(asbrouck)**, 700 Tenth Ave., S. E., Minneapolis, Minn. **Physics*. Middletown, Conn., March 13, 99. A.B., Wisconsin, 20; A.M., Harvard, 21, Ph.D., 22. Instr. *physics*, Harvard, 22-23; asst. prof., *Minnesota*, 23-26, assoc. prof., 26-27, *prof.*, 27- Assoc. ed., 'Physical Rev.' Committee on ionization potentials, Nat. Research Council, 23-25. A.A.; Physical Soc.; Optical Soc. Quantum theory of atomic structure.
- Van Wagenen, Prof. M(arvin) J(ames)**, 1729 Irving Ave., S., Minneapolis, Minn. *Psychology*. Ohioville, N. Y., Nov. 13, 84. B.S., Columbia, 11, A.M., 12, Ph.D., 18. Instr. psychol., Ohio State, 14-15; *asst. prof. educ. psychol.*, *Minnesota*, 17- Visiting lecturer, California, 25. A.A.; Psychol. Ass.; Educ. Research Ass.; Nat. Soc. Study Educ. Educational scales; measurements of instruction.
- Van Wart, Prof. Roy M(cLean)**, 450 Audubon St., New Orleans, La. *Pathology*. Fredericton, N. B., Can., Oct. 5, 77. B.A., New Brunswick, 98; M.D., C.M., McGill, 02; fellow, Hopkins, 03. Lecturer diseases of nervous system, Tulane, 04-15, *prof. psychiat.*, 15-25; psychiatrist, Charity Hosp., 15-25; *neurologist, Touro Infirmary*, 04- Major, M.R.C. A.A.; Psychiat. Ass.; Medico-Psychol. Ass.; Ass. Path. and Bact.; Soc. Trop. Med.; Psychopath. Ass.; Royal Soc. Med. Nervous and mental diseases.
- Van Zandt, Dr. J(ohn) Parker**, 2-267 General Motors Building, Detroit, Mich. *Aeronautics*. Chicago, Ill., Jan. 16, 94. B.S., California, 14, Ph.D., 17. Dept. physics, California, 14-17; Air Service, U.S.A., 17-26; *Stout Air Service*, 25- Sec'y, Civil Aviation Committee, Dept. Commerce, 25. A.A.; Automotive Eng. Civil air transportation.
- Varney, Dr. Burton M(errill)**, University of California at Los Angeles, Los Angeles, Calif. *Climatology*. Lawrence, Mass., Sept. 2, 83. A.B., Harvard, 07, A.M., 10; Ph.D., Clark, 25. Asst. and teaching fellow physical geog. and meteor., Harvard, 08-10; teacher, high sch., Maine, 11-13; instr. meteor., California, 17-23; asst. meteorologist, and asst. ed., 'Monthly Weather Rev.', U. S. Weather Bur., 24-27; *assoc. prof. geog.*, *California at Los Angeles*, 27- A.A.; fel. Meteor. Soc. (ed., 'Bul.', 26-27); fel. Geog. Soc.; Wash. Philos. Soc.; Calif. Acad. Precipitation in California; equal annual ranges of temperature in the United States.
- Varnum, William B(entley)**, Dudley Observatory, Albany, N. Y. *Astronomy*. Concord, Mass., Nov. 9, 68. A.B., Boston, 91. Computist with Dr. Benjamin A. Gould, 91-94; *computist, asst. and astronomer, dept. meridian astronomy, Dudley Observatory*, 94- Fundamental observer, South. Exped., San Luis, Argentina, 08-11. Meridian circle observing differential refraction in positional astronomy and errors of the fundamental systems of Boss and Auwers.
- Varrelman, Prof. F(erdinand) A(rmin)**, American University, Washington, D. C. *Biology*. St. Louis, Mo., June 6, 88. Missouri; Washing-

- ton (St. Louis); A.B. California, 14; A.M. Columbia, 22. Instr. biol. Pa. State, 11-13; Christian Col, 13-14; asst. entom. Exp. Sta. California, 14-15; teacher, high. sch. Wash. and Calif, 15-18; acting prof. bot. Occidental, 18-20; prof. biol. N. Mex. State Teachers Col, 20-21; asst. zool. Columbia, 21-22; biologist, Nat. Research Council and Marine Piling Investigations, 22-24; *biologist, Marine Fouling Investigation, Bur. Fisheries, 24-* A.A.; Bot. Soc; Torrey Bot. Club; D. C. Biol. Soc; Calif. Acad. Plant physiology; economic marine biology; marine piling and fouling investigations.
- Vauclain, S(amuel) M(atthews)**, 500 N. Broad St, Philadelphia, Pa. *Mechanical engineering*. Philadelphia, May 18, 56. Hon. Sc.D, Pennsylvania, 06; LL.D, Villa Nova. Pa. Ry. System, 72-83; *pres, Baldwin Locomotive Works, 11-* Award as collaborator, Paris Expos, 00; Pan-Am. Expos, 01; La. Purchase Expos, 04; Lewis and Clark Expos, 08; Panama-Pacific Expos, 15. Mech. Eng. (manager); London Inst. Civil Eng. Railroad engineering; locomotive; railroad appliances.
- Vaughan, Dr. F(rancis) E(dward)**, Shell Company of California, Higgins Building, Los Angeles, Calif. *Geophysics*. Ludden, N. Dak, Sept. 12, 89. B.S. California, 12, M.S. 16, fellow, 17-18, Ph.D, 18. Mining engineer, Ariz, 12-14; *geologist*, N. Amer. Oil Co, Calif, 14-15; teaching fellow geol. and miner, California, 15-16; *Royal Dutch-Shell Combine, 18-* A.A.; Ass. Petrol. Geol; Min. and Metal. Eng; Petrol. Inst. Geophysics; oil; geology of San Bernardino Mountains north of San Geronimo pass; the Five Islands, Louisiana.
- Vaughan, Prof. George Tully**, 1718 I St, Washington, D. C. *Surgery*. Arrington, Va, June 27, 59. M.D, Virginia, 79; Univ. and Bellevue Hosp. Med. Col, 80; N. Y. Polyclinic, 85; Jefferson Med. Col; Berlin, Paris, Vienna and London, 94-95; LL.D, Georgetown, 19. Asst. surgeon, U. S. Pub. Health and Marine Hosp. Service, 88-92, past asst. surgeon, 92-00, surgeon, 00-02, asst. surgeon-gen, 02; *prof. surg, Georgetown, 97-* Chief surgeon, Georgetown Univ. Hosp; surgeon, Tuber. Hosp; consulting surgeon, St. Elizabeth's Hosp, Washington. Brigade surgeon, Spanish-Am. War, 98; operating surgeon, U.S.N, Vera Cruz, 14, chief surgeon, S.S. Leviathan, 17-19. Commander, M.C, 17-19. Fel. Surg. Ass; Am. Med. Ass; Ass. Mil. Surg. (pres, 07); fel. S. Surg. Ass; D. C. Med. Soc. (v. pres); hon. mem. Va. Med. Soc; hon. mem. Vanderbilt Co. (Ind) Med. Soc; Wash. Acad; cor. mem. Ass. French Mil. Surg; fel. Int. Surg. Ass. Principles and practise of surgery.
- Vaughan, R(ichard) E(nglish)**, University of Wisconsin, Madison, Wis. *Plant pathology*. Woodstock, Vt. B.S.A, Vermont, 07; M.S, Wisconsin, 12. Asst. hort, Vt. Exp. Sta, 07-08; instr. hort. and agron, Boys' Sch, Mt. Hermon, Mass, 09-11; asst. *plant path, Wisconsin, 11-14*, instr, 14-15, asst. prof, 15-19, *assoc. prof, 19-* A.A; Phytopath. Soc; Bot. Soc. Diseases of canning and truck crops.
- Vaughan, Dr. (Thomas) Wayland**, Scripps Institution, La Jolla, Calif. **Geology, Oceanography*. Jonesville, Texas, Sept. 20, 70. B.S, Tulane, 89; A.B, Harvard, 92, A.M, 94, Ph.D, 03. Instr. chem. and physics, Mt. Lebanon Col, 89-92; asst. La. Geol. Surv, 92; asst. geologist, *U. S. Geol. Surv, 94-02*, geologist, 02-03, paleontologist, 03-07, geologist in charge coastal plain investigations, 07-23, *senior geologist, 23-*; custodian Madreporaria, *U. S. Nat. Museum, 03-23*, *assoc. marine sediments, 24-*; *prof. oceanog. and director, Scripps Inst, California, 25-* Research assoc, Carnegie Institution, 13; div. geol. and geog, Nat. Research Council, 19-26, chairman, committee on sedimentation, 19-23. Geophys. Union. Nat. Acad; A.A; Geol. Soc. (councilor, 20-22, third v. pres, 23); Ass. Petrol. Geol; Ass. Geog; Paleont. Soc. (pres, 23); Seismol. Soc; Hist. Sci. Soc; Ecol. Soc; Soc. Exp. Biol; Philos. Soc; Am. Acad; Calif. Acad; Wash. Geol. Soc. (pres, 15); Wash. Acad. (pres, 23); cor. mem. Phila. Acad; fel. San Diego Soc. Nat. Hist. (pres, 26); for. cor. London Geol. Soc. Stratigraphy and paleontology of the Tertiary formations of the southern and eastern United States, West Indies and Central America; geologic history of the Floridian plateau; post-Paleozoic fossil and recent corals of northern and tropical America; recent corals of the Hawaiian, Cocos-Keeling, Murray and Fanning Islands and of the east coast of Africa; deep sea corals of the Pacific Ocean; coral reefs; ecology of corals; larger foraminifera; correlation of the Tertiary formations of the world; marine sediments.
- Vaughan, Dr. Victor C(larence)**, 2225 Burns Ave, Detroit, Mich. **Bacteriology*. Randolph Co, Mo, Oct. 27, 51. B.S, Mt. Pleasant, 72; M.S, Michigan, 75, Ph.D, 76, M.D, 78, LL.D, 00; Central Col. (Mo), 10; Jefferson Med. Col, 15; hon. Sc.D, Pittsburgh; M.D, Illinois. Prof. Latin, Mt. Pleasant, 72-74; instr. physiol. chem, *med. sch, Michigan, 76-80*, lecturer, 80-84, *prof. hygiene and physiol. chem, 84-*, dean, 91- Mich. State Board Health, 83-94, 01-19. Major and surgeon, U. S. Vols, and mem. Typhoid Commission, 98-99; col, M.C, in charge sect. on communicable diseases, 17-19; advisory board, hygienic lab, U. S. Pub. Health Service, 02-; Board Nat. Med. Examiners, 15- D.S. medal, 19. Nat. Acad; A.A; Am. Med. Ass. (pres, 14); Am. Physicians (pres, 09); Soc. Bact; Ass. Path. and Bact; Physiol. Soc; Soc. Exp. Biol; Soc. Pharmacol; Philos. Soc; N. Y. Acad; hon. mem. French and Hungarian Societies of Hygiene. The bacterial toxins; food poisoning; the nucleins; tuberculosis; medicolegal subjects.
- Veach, Harry O(rr)**, Bowen, Ill. *Physiology*. Brewster, Kans, Aug. 26, 97. B.S, Northwestern, 19; A.M, Harvard, 22, D.M.S, 24; M.D, Hopkins, 27. Teaching fellow physiol, Harvard, 21-24, Moseley traveling fellow, Harvard Med. Sch, 24-25. Peripheral inhibition; innervation of smooth muscle.
- Veasey, Dr. C(larence) A(rchibald)**, Paulsen Building, Spokane, Wash. *Medicine*. Pocomoke City, Md, Aug. 9, 69. Western Maryland, 85-87, A.M, 96; M.D, Jefferson Med. Col, 90. Asst. demonstrator surg, Jefferson Med. Col, 91-92, demonstrator diseases of the eye, 97-03, asst.

prof. ophthal, 05-08; *practising physician*, 08- Consulting ophthalmologist, Phila. Lying-in Charity Hosp, 92-08; clin. asst, Jefferson Med. Col. Hosp, 92-94, chief clin. asst. and asst. ophthal. surgeon, 94-05, asst. ophthalmologist, 05-08. Am. Med. Ass. (sec'y, sect. ophthal, 01); fel. Col. Surg; fel. Am. Acad. Med; Col. Surg; Ophthal. Soc; Acad. Ophthal. and Oto-Laryngol; Pacific Coast Oto-Laryngol. Soc; fel. Phila. Col. Physicians (sec'y, sect. ophthal, 05). Ophthalmology; ophthalmic operations on animals.

Veatch, A(rthur) C(lifford), 5 Central Drive, Port Washington, N. Y. *Geology*. Evansville, Ind, Oct. 26, 78. Indiana, 96, 98; Cornell, 98, 00-01; Wisconsin, 05. Teacher, high sch, Ind, 96-97; asst. state geologist, La, 98-00; geologist, Houston Oil Co, 01-02; prof. geol, Louisiana, and geologist, La. Geol. Surv, 02; asst. geologist, U. S. Geol. Surv, 02-06, geologist, 06-10; chief geologist, Gen. Asphalt Co, 10-11; sci. adviser, U. S. Dept. Justice, 12; *in charge* petrol. develop, foreign dept, S. Pearson and Son, 12-19; *explor. dept*, *Sinclair Consol. Oil Co*, 19- Summers, asst, Cornell, 00-02. Special commissioner to investigate operation of mining laws in Australia and New Zealand, 07-08; organizer and first chairman, Land Classification Board, U. S. Geol. Surv, 08-10. Bronze medal, Charleston Expos. A.A; fel. Geol. Soc; Am. Geog. Soc; Soc. Econ. Geol. (councilor, 20-22, exec. committee, 23-26); Ass. Petrol. Geol. (chairman, int. relations committee, 21-23); Min. and Metal. Soc. (chairman petrol. committee, 22-25, committee on for. min. policy, 21-); Wash. Geol. Soc; Wash. Acad; Royal Geog. Soc; London Geol. Soc. Petroleum exploration and development.

Veatch, J(ethro) O(tto), Michigan State College, East Lansing, Mich. *Soils*. Marionville, Mo, Aug. 21, 83. A.B, Missouri, 04; Wisconsin, 05. Asst. state geologist, Ga, 05-11; scientist, bur. soils, U. S. Dept. Agr, 12-21; *research assoc. soils*, Mich. State Col, 21- Soil classification.

Veatch, N(athan) T(homas), Jr, 701 Mutual Building, Kansas City, Mo. *Engineering*. Rushville, Ill, Aug. 25, 86. B.S, Kansas, 09, C.E, 24. Asst. engineer, Kans. State Board Health, 10-11; prin. asst, Worley and Black, 11-12; supt, City Water Co, Iowa, 12-13; *practising engineer*, Black and Veatch, 14- Am. Water Works and Elec. Co, 12-13; supervising engineer, U. S. Govt, at Fort Sill, Okla, Deming, N. Mex, and Camp Pike, Ark; summer, designer sewer system and sewage plant, Kans, 09; in charge drainage surv, Michigan, 09; res. engineer, Worley and Black, 09. Civil Eng; Mech. Eng; Ass. Eng; Water Works Ass; Soc. Munic. Improv. Water supply; water purification; sewerage; sewage disposal.

Veblen, Prof. A(ndrew) A(nderson), East San Diego, Calif. *Physics*. Ozaukee Co, Wis, Sept. 24, 48. A.B, Carleton Col, 77, A.M, 80; Hopkins, 81-83. Instr. English and math, Luther, 77-81; instr. and asst. prof. math, Iowa, 83-86, asst. prof. physics, 86-89, prof, 89-05. A.A; Iowa Acad. (pres, 01). Elasticity of certain solids; viscosity of liquids; mechanics of wave motion.

Veblen, Dr. Oswald, Princeton University, Princeton, N. J. **Mathematics*. Decorah, Iowa, June 24, 80. A.B, Iowa, 98; Harvard, 00; Ph.D, Chicago, 03. Lab. asst. physics, Iowa, 98-99; assoc. math, Chicago, 03-05; preceptor, *Princeton*, 05-10, *prof*, 10- Nat. Acad; A.A; Math. Soc. (pres, 23); Math. Ass; Physical Soc; Philos. Soc; Am. Acad; Soc. math. de France; Circolo Mat. di Palermo. Foundations of geometry; projective geometry; analysis situs; differential invariants.

Vedder, Lieut. Col. Edward B(right), U.S.A., Care Surgeon General, Washington, D. C. *Medicine*. New York, N. Y, June 28, 78. Ph.B, Rochester, 98, Sc.D, 24; M.D, Pennsylvania, 02, Scott fellow, 02-03, A.M, 03. Research student, Rockefeller Inst, 01; first lieut. asst. surgeon, U.S.A, P. I, 03-08, capt, M.C, 08-16, major, 16-17, *lieut. col*, 17-, chief med. research div, Edgewood Arsenal, 22-25, *Med. Research Board*, Manila, P. I, 26- Board for study trop. diseases, U.S.A, 10-13; asst. prof, Army Med. Sch, 13-19. Temporary col, U.S.A, 18-19. A.A; Am. Med. Ass; Ass. Mil. Surgeons; Col. Surg. Bacteriology; pathology; beriberi; sanitation for medical officers; syphilis and public health; the medical aspects of chemical warfare.

Vedder, Prof. John N, Union College, Schenectady, N. Y. *Thermodynamics*. Schenectady, Nov. 28, 73. A.B, Union (N. Y.), 95, A.M, 97; Columbia, 02-04. Investigator, Eng. Exp. Sta, Illinois, 10-14; *prof. thermodynamics*, Union (N. Y.), 14- A.A; Math. Soc; Mech. Eng. Expansive use of reheated compressed air.

Veeder, Dr. Borden S(mith), University Club, St. Louis, Mo. *Medicine*. Fonda, N. Y, Aug. 21, 83. M.D, Pennsylvania, 07. Instr. path, Pennsylvania, 09-11; instr, assoc. and *prof. clin. pediat*, Washington (St. Louis), 11- Lieut. col, M.C, 17-19. A.A; Pediat. Soc; Child Hygiene Ass. Nutrition; diseases of infancy.

Veihmeyer, Dr. Frank J, College of Agriculture, University of California, Davis, Calif. *Plant physiology*. Washington, D. C, Dec. 25, 86. B.S, George Washington, 12, C.E, 13; Ph.D, Hopkins, 27. Asst, bur. plant indust, U. S. Dept. Agr, 09-13, asst. irrigation engineer, office exp. stations, 13-17, irrigation engineer, 17-18; *asst. prof. irrigation investigations and assoc. irrigation engineer*, California, 18- Soc. Plant Physiol; Agr. Eng; West. Soc. Soil Sci; Int. Soc. Soil Sci. The water relation of plants; the physics of soil moisture movement; soil and irrigation physics.

Veitch, Dr. F(letcher) P(earre), U. S. Department of Agriculture, Washington, D. C. *Chemistry*. Baltimore, Md, May 22, 68. B.S, Maryland, 91, hon. Sc.D, 13; M.S, George Washington, 99. Asst, Md. Exp. Sta, 91-92; chemist, W. S. Powell and Co, 92-93; asst. chemist, Maryland, 94-99, asst. soil physicist, Exp. Sta, 99-01; asst. chemist, bur. soils, U. S. Dept. Agr, 01-02, *bur. chem*, 02-04, *chemist in charge leather and paper lab*, 04-, *chemist in charge enforcement Naval Stores Act*, 23- Lecturer, Maryland, 10-14. Chairman congressional committee on paper specifications, 11-; chairman committee on distinctive papers, Treas. Dept,

- 13-15; chairman paper tech. committee, Fed. Specifications Board, 24- Consultant, War Dept, 17-18. A.A.; Chem. Soc.; Agr. Chem. (referee, 01, 07-09); Leather Chem. Ass. (pres, 11); Soc. Test. Mat. (chairman, committee on turpentine specifications, chairman, naval stores committee, 25-); Soc. Agron.; Int. Leather Trades Chem. Ass. Soils; fertilizers; tanning materials; leathers; turpentine; wood products; paper-making materials; wool-scouring wastes; lime.
- Venable, Dr. Charles S(cott)**, The Viscose Co, Marcus Hook, Pa. *Chemistry*. Chapel Hill, N. C. Sept. 3, 91. A.B. North Carolina, 10, A.M., 11; Ph.D. Mass. Inst. Tech, 17. Instr. chem, North Carolina, 12-13; adjunct prof. org. chem, Virginia, 17-18; research assoc. applied chem, Mass. Inst. Tech, 19-20, asst. director research lab, 20-22; *director research, The Viscose Co, 22-* Capt, C.W.S., 18. Chem. Soc. Uric acid; rubber; cellulose.
- Venable, Dr. F(rancis) P(reston)**, Chapel Hill, N. C. **Chemistry*. Prince Edward Co, Va, Nov. 17, 56. Virginia, 74-78; Bonn, 79-80; Ph.D, Göttingen, 81; Berlin, 89; hon. Sc.D, Lafayette, 04; LL.D, Jefferson Med. Col, 13, Pennsylvania, South Carolina, Alabama. Prof. chem, North Carolina, 81-00, pres, 00-14, *prof. chem, 14-* Advisory committee, C.W.S. A.A. (sec'y, 96, v. pres, 99); Chem. Soc. (pres, 05); Philos. Soc.; Elisha Mitchell Sci. Soc. (sec'y, 16); fel. London Chem. Soc. Zirconium and its compounds; heptane and its derivatives; qualitative analysis; inorganic chemistry; history of chemistry; development of periodic law; the atom; radioactivity.
- Venable, Capt. William Mayo**, 822 N. St. Clair St, Pittsburgh, Pa. *Optics*. Cincinnati, Ohio, Feb. 14, 71. B.S. Cincinnati, 92, M.S., 93, C.E., 09. Electrician, 92-98; construction engineer, 00-12; *manager develop. dept, Blaw-Knox Co, Pittsburgh, 12-* A.A.; Civil Eng; Optical Soc. The visual sensations and their stimuli; the secondary spectrum of hydrogen.
- Verhoeff, Dr. F(rederick) H(erman)**, 82 Commonwealth Ave, Boston, Mass. *Ophthalmology*. Louisville, Ky, July 9, 74. Ph.B. Yale, 95; M.D. Hopkins, 99; A.M. Harvard, 02. Asst. surgeon, Baltimore Eye, Ear and Throat Charity Hosp, 99-00; asst. path, *Harvard Med. Sch, 00-02*, instr. ophthal. path, 07-16, asst. prof, 16-24, *prof. ophthal. research, 24-*; pathologist, *Mass. Charitable Eye and Ear Infirmary, 00-*, asst. ophthal. surgeon, 06-13, *ophthal. surgeon, 13-*, *ophthal. chief research, 25-* A.A.; Ophthal. Soc; Col. Surg; Am. Acad. Pathological anatomy of the eye; physiological optics; diseases of the eye.
- Vernon, Mrs. Anna Gertrude Riggs**, R. F. D. 6, Box 54, Muscatine, Iowa. *Physiological chemistry, Physiology*. Muscatine, Feb. 20, 98. B.S. Iowa Col, 21, fellow, 22-23, M.S., 23. Instr, high sch, Nebr, 21-22; foods and nutrition, Iowa Col, 23-24, substitute, 24-25. Iowa Acad. The relation of vitamin deficiency to muscle fatigue.
- Verrill, A(lpheus) Hyatt**, Museum of the American Indian, New York, N. Y. *Ethnology, Archeology*. New Haven, Conn, July 23, 71. Yale, 91. Nat. hist. exped, West Indies, 89-90; Cent. Amer, 92; Bermuda, 02; Dominica Island, W. I., 03-06; Santo Domingo, 06-07; British Guiana, 13-17; Panama, 18-21; Panama, Peru, Chile, 23-26. Remains of prehistoric race in Panama; entomology; ornithology.
- Ver Wiebe, Dr. Walter A(ugust)**, 3255 E. Pine St, Wichita, Kans. *Geology*. Schenectady, N. Y., Aug. 26, 87. A.B. Cornell, 11, Ph.D., 18. Asst. geol, Cornell, 10-12, instr, 12-13; agr. geol, Ohio State, 13-18; field geologist, Roxana Petrol. Co, 18-19; Sinclair Oil Co, 19-20; chief geologist, Mexican-Sinclair Co, 20-23; instr. *geol, Michigan, 23-27*; *prof, Wichita, 27-* Alliance française medal. A.A.; Ass. Petrol. Geol. Stratigraphy of the petroliferous areas of Ohio, Pennsylvania, Oklahoma, Alaska and Mexico; surface geology of Michigan.
- Very, Prof. F(rank) W(ashington)**, Westwood, Mass. **Astrophysics*. Salem, Mass, Feb. 12, 52. B.S. Mass. Inst. Tech, 73. Astronomer, Allegheny Observatory, 78-95; adjunct prof. astron. and instr. geol, Pittsburgh, 90-95; acting director, Ladd Observatory, and prof. astron. (pro tem), Brown, 96-97; special agent, U. S. Weather Bur, 00; Smithsonian Inst, 02; *director, Westwood Astrophys. Observatory, 06-* Prize, Utrecht Soc. of Arts and Sciences. A.A.; Astron. Soc. Radiation of the air, sun and moon; aurora; solar constant; photometry of the earthshine spectrum and Fraunhofer lines; hail storms; new stars; parallax of Nova Persei; cause of nebulousity of Nova Persei; microchemical analysis; migration of birds; phosphorescence; sun-spots; temperature of sun and moon; greenhouse theory; viscosity in aeroplane support; stellar evolution; radium; Röntgen rays; water vapor and oxygen on Mars; terrestrial and lunar albedoes; spiral nebulae; arc galaxies; limitation of gravitation; moon's motion; luminiferous ether; atoms; atmospheric thermodynamics; epitome of Swedenborg's science.
- Vestal, Prof. Arthur G(ibson)**, Stanford University, Calif. *Biology*. La Grange, Ill, Sept. 10, 88. A.B. Illinois, 11; A.M. Colorado, 13; fellow, Chicago, 14-15, Ph.D, 15. Instr. biol, Colorado, 11-14; prof. bot, East. Ill. State Nor. Sch, 15-20; *asst. prof. biol, Stanford, 20-* A.A.; Bot. Soc; Ecol. Soc; Am. Geog. Soc; Calif. Acad; Ill. Acad; British Ecol. Soc. Botany; zoology; plant and animal ecology and geography; vegetation of prairie region and of western United States.
- Vestal, Mrs. A. G. (Dr. Wanda (May) Pfeiffer)**, Stanford University, Calif. *Botany*. Red Oak, Iowa, March 11, 82. B.S. Chicago, 04, Ph.D., 08. Asst. bot, Chicago, 09-14, instr. plant path, 14-16. A.A.; Bot. Soc. Morphology of Azolla and Leitneria.
- Vibar, Dr. Toribio**, College of Agriculture, Los Baños, Laguna, P. I. *Agronomy*. Camalig, Albay, P. I., April 16, 88. B.Agr, Philippines, 12, B.S., 20, M.S.A., 21, fel, 21-23, Ph.D., 23. Teacher agr. and sci, P. I., 12-16, supervisor, 16-18; instr. *agron, Philippines, 18-21*, *asst. prof, 21-* Soc. Agron; Philippine Soc. Tech.

Agr; Los Baños Biol. Club. Seed and crop physiology; crop production.

Vibrans, Dr. Frank C(harles), 234 Hosea Ave, Cincinnati, Ohio. *Chemistry*. Cokeville, Wyo, March 15, 90. A.B. Wabash, 13; Harvard, 13-14; Ph.D, Michigan, 17. Asst. chem, Michigan, 14-17; *chemist*, Detroit Org. Chem. Co, 17; *Procter and Gamble Co*, 19- Lieut. C.W.S, 18. A.A.; Chem. Soc. Dicyanodiamid.

Vicari, Prof. E(milia), Sweet Briar College, Sweet Briar, Va. *Zoology, Genetics*. Newark, N. J, May 3, 94. A.B. Smith, 15, A.M, 17; fellow, Columbia, 20-23. Asst. Smith, 15-16; asst. animal geneticist, Carnegie Inst, 18-21; *asst. prof. zool, Sweet Briar*, 24- A.A.; Genetic Ass; Va. Acad. Experimental zoology.

Vickers, Prof. Herbert, University of British Columbia, Vancouver, B. C, Can. *Engineering*. Connah's Quay, Chester, Eng, Sept. 1, 86. Liverpool; Ph.D, Birmingham, Eng; M.Eng, Liverpool. *Prof. and head dept. elec. and mech. eng, British Columbia*. Senior lecturer, Bristol; Birmingham; London; Glasgow Royal Tech. Col. Elec. Eng; fel. London Physical Soc; London Inst. Physics. Electrical engineering.

Vickery, Prof. F(rederick) P(aul), 521 Spencer St, Glendale, Calif. *Geology*. San Rafael, Calif, April 20, 80. B.S, California, 05; A.M, Stanford, 19, Ph.D, 24. Instr. geol, California at Los Angeles, 21-22, asst. prof, 22-27; *geologist, Miley Oil Co*, 27- Instr, Stanford Geol. Surv, 19, paleontologist, 22, asst. director, 23; hon. curator, Museum of Hist, Sci. and Art. Sec'y, sub-committee of geol, committee of seismol, Carnegie Institution, 18-19; mem, committee features and changes of the shore line on the Pacific Coast, Nat. Research Council. Bran-ner Club; Le Conte Club (sec'y, 20). Structural geology; physiography.

Vickery, Dr. Herman F(rank), 26 Chestnut St, Brookline, Mass. *Medicine*. Rochester, N. Y, Aug. 20, 56. A.B, Harvard, 78, M.D, 82; Leipzig and Vienna, 82-83. Asst. clin. med, Harvard, 84-90, instr, 90-16; visiting physician, Mass. Gen. Hosp, 98-17; *retired*, 17. Emer. mem. Am. Physicians; Am. Med. Ass; Boston Soc. Med. Sci; Boston Soc. Med. Improv. (pres, 15); Boylston Med. Soc. (pres, 87); Suffolk District Med. Soc. (pres, 16). Internal medicine.

Vickery, Dr. H(ubert) B(radford), Connecticut Agricultural Experiment Station, New Haven, Conn. *Biochemistry*. Yarmouth, N. S, Can, Feb. 28, 93. B.S, Dalhousie, 15, M.S, 18; 1851 Exhib. fellow, Yale, 20-21, Ph.D, 22. Teacher, high sch, N. S, Can, 15-17; chemist, Imp. Oil, Ltd, 17-19; teacher chem, Nor. Col, Truro, N. S, 19-20; *research chemist, Carnegie Institution, at Conn. Exp. Sta*, 22-; *lecturer, Yale*, 24- Soc. Biol. Chem; fel. Can. Inst. Chem. Protein chemistry; chemical constitution of green plants.

Vickery, R(oy) A(lbion), 205 Beardsley Ave, Stratford, Conn. *Entomology*. Mora, Minn, March 15, 83. A.B, Minnesota, 06, A.M, 07. Asst. entom, Minn. Exp. Sta, 07-08; *asst, bur. entom, U. S. Dept. Agr*, 08- A.A.; Entom. Soc; Ass. Econ. Entom; Wash. Entom. Soc. Economic

entomology; cereal and forage plant insects; army worm parasites; wingless May beetles; Aphididae.

Viereck, H(enry) L(orenz), 1365 Clinton Ave, Irvington, N. J. *Entomology*. Philadelphia, Pa, March 28, 81. Jesup student, Phila. Acad. Nat. Sciences, 00-02; Jefferson Med. Col, 02-03; Medico-Chirurg. Col. Phila, 05-07. Asst. entomologist, Conn. Exp. Sta, 03-05; asst. path. lab, Medico-Chirurg. Col. Phila, 05-07; in charge zool. lab, Pa, 07-08; research entomologist, Parke, Davis and Co, 08-09; agent and expert, bur. entom, U. S. Dept. Agr, 09-13, asst. biologist, biol. surv, 16-23; asst. entomologist, entom. branch, Can. Dept. Agr, 23-26. Summers, mosquito surv, N. J, 03, in charge, Pa, 06; asst. curator Snow collections, Kansas, 13-14; entom. explorer and asst. supt, state insectary, Calif. State Commission Hort, 14-16. Entom. Soc; Ass. Econ. Entom; Wash. Biol. Field Club. Economic entomology; hymenopterology; Pan-American species of *Andrena*; classification of the Hymenoptera of the Canadian, Alleghanian and Carolinian faunal areas; Ichneumonidea of the world; hygiene and demography.

Vilbrandt, Prof. Frank C(arl), 401 Pittsboro St, Chapel Hill, N. C. *Industrial chemistry*. Fostoria, Ohio, Aug. 12, 93. A.B, Ohio State, 15, A.M, 16, Ph.D, 19. Asst. chem, Ohio State, 13-15, grad. asst, 15-16, 17-18; junior chemist, Bur. Standards, 16-17; instr. *indust. chem*, Ohio State, 18-21; *assoc. prof, North Carolina*, 21-, *head dept. chem. eng*, 27- Committee on substitution of sodium and potassium compounds, Nat. Research Council, 21-26. A.A.; Chem. Soc; Chem. Eng; Elisha Mitchell Sci. Soc; N. C. Acad. Technical analysis; metallography; oil shales; coal; emulsions; fats and oils; soaps; petroleum products; lubrication; gas engines; electro-plating; brick clays; quartzware; industrial hydrogenation.

Villars, Dr. D(onald) S(tatler), Harvard University, Cambridge, Mass. *Physical chemistry*. Blanchester, Ohio, Dec. 21, 00. A.B, Wilmington, 21; M.S, Ohio State, 22, Ph.D, 24. Asst. chem, Wilmington Col, 19-21; Ohio State, 21-24; *Nat. Research Council fellow, Harvard*, 25- Chem. Soc. Synthesis of urea by the enzyme urease; photolysis of potassium nitrate.

Villegas, Valente (Estrada), Los Baños College, Laguna, P. I. *Animal husbandry*. Los Baños, Laguna, May 21, 93. B.Agr, Philippines, 13; Ph.D, Iowa Col, 21. Asst. agr. inspector, Philippine Bur. Agr, 13, agr. asst, 13-17, inspector, 17; instr. animal husbandry, Philippines, 17-18, agron, 18-19; Govt. pensionado in U. S, 19-22; *asst. prof. animal husbandry, Philippines*, 22- Philippines agr. rep, Panama-Pacific Int. Expos, 15. The breeding, feeding and management of pure-bred draft horses in the United States.

Vinal, George Wood, 3810 Jenifer St, Washington, D. C. *Physics*. Ellington, Conn, Dec. 17, 82. A.B, Wesleyan, 06, A.M, 09; Hopkins, 06-07. Aid, U. S. Coast and Geod. Surv, 07; asst. physics, Wesleyan, 08; *Bur. Standards*, 08-, asst. physicist, 10-17, assoc. physicist, 17-20, *physicist*, 20-, *chief electrochem. sect*, 18- Physical Soc; Elec. Eng. (chairman, committee on electro-

- chem. and electrometal, 24-); Electrochem. Soc; Wash. Acad; Wash. Philos. Soc. Electric arc between metallic electrodes; the silver voltmeter; primary and secondary batteries; electrical properties of silver sulphid; standard cells; rectifiers.
- Vinal, Prof. William G(ould)**, New York State College of Forestry, Syracuse, N. Y. *Zoology*. Norwell, Mass, Nov. 29, 81. Mass. State Nor. Sch, Bridgewater, 03; B.S, Harvard, 06, A.M, 07; Ph.D, Brown, 22. *Prof.* and head dept. geol. and biol, Marshall Col, 07-09; geog, Mass. State Nor. Sch, Salem, 10; *nature study*, R. I. Col. Educ, 11-24; *N. Y. State Col. Forestry, Syracuse, 25-* Summers, biologist, Mass, 07-13; U. S. nature guide, Yosemite Nat. Park. Nature Study Soc. (past pres); Providence Franklin Soc. (past pres); R. I. Field Naturalists Club (past pres). Mollusks; *Anomia glabra*; nature guiding.
- Vincent, Mrs. Helen Cook**, 355 N. Fullerton Ave, Upper Montclair, N. J. *Psychology*. Montclair, N. J, Aug. 15, 83. A.B, Wellesley, 05, A.M, 07, Palmer fellow, 07-08; Ph.D, Würzburg, 09. Instr. psychol, Wellesley, 09-13; psychol. and hist. of educ, N. J. State Nor. Sch, Montclair, 13-16. Psychol. Ass. Sense psychology.
- Vincent, J(esse) G(urney)**, Packard Motor Car Co, Detroit, Mich. *Mechanical engineering*. Charleston, Ark, Feb. 10, 80. Int. Correspondence Schools. Supt. invention, Burroughs Adding Machine Co, 03-10; chief engineer, Hudson Motor Car Co, 10-12; *v. pres. eng, Packard Motor Car Co, 12-* Major, Sig.C, 17-18; lieut. col, A.S, 18. Mech. Eng; Soc. Test. Mat; Automotive Eng. (pres, 20); British Inst. Automobile Eng. Automotive engineering.
- Vincent, Prof. Swale**, Middlesex Hospital, University of London, London, Eng. *Physiology*. Staffordshire, Eng, May 24, 68. Birmingham, 89; L.R.C.P., 89; Heidelberg, 01; D.Sc, Edinburgh, 04; M.D, London, 07; LL.D, Manitoba, 20. Sharpey scholar, Univ. Col, London, 90, asst. prof. *physiol*, 90-02; *prof*, Manitoba, 04-20; *London, 20-* Chief demonstrator, Univ. Col, London; lecturer, Univ. Wales; examiner arts and med, Manitoba; science and med, London and Leeds. A.A; Physiol. Soc; fel. Royal Soc. Can; British Ass. (past sect. sec'y, local sec'y, 09, v. pres); Royal Soc. Med; British Med. Ass; fel. Royal Soc. Edinburgh. Secretion and internal secretion; chemistry of muscle; swim-bladder of fishes; hemolymph glands; vagus action; vaso-motor reflexes; respiratory reflexes.
- Vinson, Dr. A(lbert) E(arl)**, Port au Prince, Haiti. *Chemistry*. Dayton, Ohio, Oct. 30, 73. B.S, Ohio State, 01; Ph.D, Göttingen, 04. Asst. agr. chem, Ohio State, 96-99, instr, 99-02; assoc. chemist, Arizona, 05-08, *chemist*, 08-24; *Service Technique et de l'Enseignement Professionnel, Haiti, 24-* U. S. Assay Commission, 14. A.A; Chem. Soc; Soc. Agron; West. Soc. for Soil Management and Plant Nutrition (pres, 23). Agricultural chemistry; animal nutrition; soils and irrigation water; ripening and processing of the date.
- Viol, Dr. Charles H(erman)**, Box 22, Oakland Station, Pittsburgh, Pa. *Chemistry*. Lafayette, Ind, May 21, 86. B.S, Purdue, 07; fellow, Chicago, 09-10, Ph.D, 12. Instr. chem, S. Dak. Col, 07-09; asst, Chicago, 10-12; radiochemist, *Standard Chem. Co*, 12-13, *director radium research lab*, 13- Lecturer, Mellon Inst, 16-17. A.A; Chem. Soc. (v. chairman, Pittsburgh sect, 16, councilor, 18, 19). Electrochem. Soc; Assoc. Radium Soc. Radiochemistry; commercial production of radium and radon; radium technology and therapy.
- Viosca, (Paul) Percy, Jr**, Natural History Building, New Orleans, La. *Biology*. New Orleans, June 24, 92. B.S, Tulane, 13, M.S, 15. Instr. biol, Tulane, 13-15; entomologist, Board Health, New Orleans, 23-24; *biologist, La. Dept. Conservation, 17-* Curator reptiles, amphibians and fishes, La. State Museum, 15-; instr, Tulane, 23- A.A; Ecol. Soc; Soc. Ichthyol. and Herp; La. Entom. Soc; New Orleans Zool. Soc. (board directors, 23-). Entomology; ecology; taxonomy, habits and distribution of reptiles; distribution of cold-blooded vertebrates.
- Visher, Prof. Stephen S(argent)**, Bloomington, Ind. *Geography*. Chicago, Ill, Dec. 15, 87. B.S, Chicago, 09, M.S, 10; A.M, South Dakota, 12; fellow, Chicago, 13-14, Ph.D, 14. Instr. geol, South Dakota, 10-13; *prof. geog*, Minn. State Nor. Sch, Moorhead, 15-17; asst. prof, *Indiana*, 19-22, *assoc. prof*, 22- Bishop Museum fellow, Yale, 21-22; summers, lecturer, Colorado, 25, Cornell, 26-27; asst. geologist, S. Dak. Geol. Surv, 08-10, geologist, 10-14; sci. asst, desert lab, Carnegie Institution, 09. Land classifier, U. S. Geol. Surv, 18; scientist, bur. soils, U. S. Dept. Agr, 18, and geographer, Ind. Geol. Surv, 19- Summer, field asst, Univ. Chicago ecol. exped, Alaska, 07. A.A; Ass. Geog; Geol. Soc; fel. Meteor. Soc; Ecol. Soc; Ind. Acad; Royal Geog. Soc; Paris Geog. Soc. Biogeography; regional geography of South Dakota, Jamaica, Red River Valley, Wyoming, Indiana and Spain; climatic laws and changes; tropical cyclones and rainfall conditions; regional contrasts in productivity.
- Visscher, Prof. J(ohn) Paul**, Western Reserve University, Cleveland, Ohio. *Biology*. Holland, Mich, Sept. 19, 95. A.B, Hope, 17; A.M, Hopkins, 20, fellow, 23-24, Ph.D, 24. Instr. zool, Washington (St. Louis), 20-22; special investigator, U. S. Bur. Fisheries, 22-25; asst. prof. *biol, Western Reserve, 24-26, assoc. prof*, 26- Instr, Woods Hole, 20-23. Lieut, C.W.S, 18. A.A; Ohio Acad; Soc. Zool; Ecol. Soc; Soc. Parasitol. Protozoology; structure and function of Trichocysts; ecology; fouling of ships' bottoms; general physiology and behavior of lower organisms.
- Visscher, Dr. M(aurice) B**, University of Minnesota, Minneapolis, Minn. *Physiology*. Holland, Mich, Aug. 25, 01. A.B, Hope, 22; M.S, Minnesota, 24, Ph.D, 25. Nat. Research Council fellow med, University Col, London, 24-25; *asst. prof, Minnesota, 25-* Mechanical factors concerned with the effect of respiration on circulation; energy exchanges in the heart; diastase activity.

- Viteles, Prof. Morris S(imon)**, University of Pennsylvania, Philadelphia, Pa. *Psychology*. Svanetz, Russia, March 21, 98. A.B, Pennsylvania, 18, A.M, 19, Ph.D, 21. Instr. *psychol*, Pennsylvania, 18-25, *asst. prof*, 25- Am. Field Service fellow, Paris, 22-23. Consulting psychologist, Milwaukee Elec. Ry. and Light Co, 20-22; John Wanamaker, Phila, 20-24; Yellow Cab. Co, Phila; Phila. Rapid Transit Co, 24- Vocational adviser, fed. board for vocational educ, 19. Psychol. Ass; Vocational Guidance Ass. Application of psychology in selection of workers and in vocational guidance; psychological tests.
- Vivian, Prof. Alfred**, 1778 N. High St, Columbus, Ohio. *Chemistry*. Mineral Point, Wis, March 14, 67. Ph.G, Wisconsin, 94. Instr. *agr. chem*, Wisconsin, 94-02; *assoc. prof*, Ohio State, 02-05, *prof*, 05-, *dean col. agr*, 15- A.A; (councilor, 16); Chem. Soc. Agricultural chemistry; ripening of cheese; substitutes in cheesemaking; plant food in soils; phosphorus requirements of soils.
- Vivian, Prof. Roxana H(ayward)**, Wellesley College, Wellesley, Mass. *Mathematics*. Boston, Mass, Dec. 9, 71. A.B, Wellesley, 94; Ph.D, Pennsylvania, 01. Instr. and *prof. math*, Wellesley, 01-, director dept. hygiene, 18-21. Acting pres. and *prof*, Constantinople Col, 06-09; financial sec'y, Women's Educ. and Indust. Union, Boston, 13-15. A.A; Math. Soc; Statist. Ass; Ass. Math. Teachers. Statistics; administration.
- Vliet, Elmer B(ennett)**, 14th and Sheridan Road, North Chicago, Ill. *Chemistry*. Joliet, Ill, Jan. 22, 97. B.S, Illinois, 18, M.S, 26. Asst. research chemist, Fixed Nitrogen Research Lab, U. S. Dept. Agr, 19-20; *research chemist*, Abbott Lab, 20- Assoc. ed, 'Jour. Chemotherapy and Advanced Therapeut.' C.W.S, U.S.A, 18. Chem. Soc. Toxic smoke; preparation and properties of synthetic medicinals and related compounds.
- Voegtlin, Dr. C(arl)**, Hygienic Laboratory, Washington, D. C. **Pharmacology, Toxicology*. Bâle, Switzerland, July 28, 79. Ph.D, Freiburg, 02; Manchester, 03-04. Instr. chem, Wisconsin, 04; *asst. med*, Hopkins, 04-06, *assoc. prof. pharmacol*, 06-13; *prof*, U. S. Pub. Health Service, 13- Assoc. ed, 'Jour. Pharmacol. and Exp. Therapeut.' First and Second Int. Conferences Biol. Standards. A.A; Am. Med. Ass; Soc. Pharmacol; Physiol. Soc; Soc. Biol. Chem; Wash. Acad. Metabolism; function of parathyroid; calcium treatment of tetany; anaphylaxis; action of digitalis on coronary artery; dietary theory of pellagra; vitamins and deficiency diseases; chemotherapy of arsenicals and antimonials; serum preservatives; cyanide; heavy metals; biological significance of Glutathione.
- Vogel, Dr. K(arl)**, 100 E. 55th St, New York, N. Y. *Medicine*. New Orleans, La, Feb. 14, 77. M.D, Columbia, 00; Munich, 08. Intern, St. Luke's Hosp, 00-03, *asst. attending physician*, 00-15, *assoc. attending physician*, 15-, *asst. pathologist*, 08-10, *clin. pathologist*, 10-; *asst. path*, Columbia, 03-07, instr, 07-09, *asst. prof. clin. path*, 09-24, *assoc. prof*, 24- Ass. Path. and Bact; Soc. Clin. Invest; Soc. Exp. Biol; Harvey Soc. (sec'y, 18-20); N. Y. Path. Soc. (sec'y, 07-10). Internal medicine; laboratory diagnosis.
- Vogt, Dr. C(larence) C(harles)**, Armstrong Cork and Insulation Co, Gloucester, N. J. *Chemistry*. Zanesville, Ohio, April 29, 83. A.B, Wooster, 04; fellow, Ohio State, 04-05, A.M, 06, Ph.D, 09. Asst. chem, Ohio State, 05-06, instr, 06-09; *asst. prof. org. and physical chem*, Pittsburgh, 09-12, *prof. chem. and fellow*, Mellon Inst, 12-26; *research chemist*, Argo lab, Armstrong Cork and Insulation Co, 26- Chemist, U. S. Bur. Mines, and capt, C.W.S, 18. A.A; Chem. Soc; Ceramic Soc. Cerium compounds; dental and silicate cements; chemistry of preventive dentistry; insulating materials.
- Volwiler, Dr. E(rnest) H(enry)**, Abbott Laboratories, North Chicago, Ill. *Chemistry*. Hamilton, Ohio, Aug. 22, 93. A.B, Miami, 14; A.M, Illinois, 16, Ph.D, 18. Instr. chem, Miami, 14; *asst*, Illinois, 14-17; *chief chemist*, Abbott Laboratories, 18- Chem. Soc. (chairman, Chicago sect, 24, medicinal products div, 22-24). Pharmaceutical chemistry.
- von Ende, Dr. Carl L(eopold)**, University of Idaho, Moscow, Idaho. *Chemistry*. Burlington, Iowa, July 2, 70. B.S, Iowa, 93, M.S, 94; Ph.D, Göttingen, 99. Demonstrator chem, med. col, Iowa, 94-95; teacher science, high sch, Burlington, 95-96; instr. chem, Iowa, 96-97, 99-05, *asst. prof*, 05-07; research staff, Mass. Inst. Tech, 07-08; *prof. chem*, Idaho, 08- A.A; Chem. Soc; Iowa Acad. (v. pres, 07). Physical and inorganic chemistry; applied physical chemistry.
- von Engeln, Prof. O(scar) D(iedrich)**, Ithaca, N. Y. *Geography*. Dayton, Ohio, July 3, 80. A.B, Cornell, 08, Ph.D, 11. Asst. geol, Cornell, 05-07, instr. *physical geog*, 07-12, *asst. prof*, 12- Acting head dept. physical geog, 09-10. Sci. asst, U. S. Geol. Surv. exped, Yakutat Bay, Alaska, 06; Nat. Geog. Soc. research exped, Alaska, 09; summer, instr. in charge geog, Missouri, 11. Am. Geog. Soc; Ass. Geog. Geology; physical geography; glaciology; experimental physiography; regional geography of the West Indies.
- Von Glahn, Dr. William C(arson)**, 41 E. 70th St, New York, N. Y. *Pathology*. Wilmington, N. C, May 26, 89. B.S, Davidson Col, 11; M.D, Hopkins, 15. Intern, New Haven Hosp, 15-17; instr. path, Hopkins, 17-18, 19-20; Maryland, 19-20; *Presb. Hosp*, New York, 20-22, *assoc. visiting pathologist*, 22-; *assoc. path. col. physicians and surg*, Columbia, 20-23, *asst. prof*, 23-25, *assoc. prof*, 25- Asst. res. pathologist, Hopkins Hosp, 17-18; res. pathologist, City Hospitals, Baltimore, 19-20. M.C, U.S.A, 18-19. Ass. Path. and Bact; Harvey Soc; N. Y. Path. Soc.
- von Nardroff, Dr. E(rnest) R(obert)**, Stuyvesant High School, New York, N. Y. *Physics*. Brooklyn, N. Y, May 12, 64. E.M, Columbia, 86; hon. Sc.D, St. Lawrence, 03. Instr. physics, Barnard, Columbia, 91-97; head science dept, Erasmus

- Hall High Sch, Brooklyn, 97-98; *principal, Stuyvesant High Sch, New York*, 08-; Lecturer, Evening High Schools, Brooklyn, 87-98; Pub. Lecture System, New York, 92-; Physical Soc; N. Y. Acad. Diffraction of light; color apparatus; inaudible sound waves; new interferometer method for measuring refractive index of thin parallel plates singly and doubly refracting.
- von Schlichten, Prof. Otto Charles**, University of Cincinnati, Cincinnati, Ohio. *Geology*. Cincinnati, July 19, 86. A.B., Cincinnati, 11; Wisconsin, 12-13. Instr. geol. and German, Cincinnati, 11-12; geologist, Mo. Bur. Geol. and Mines, 13-15; instr. geol., Cincinnati, 15-16; Lehigh, 16-17; *asst. prof. geol. and miner. Cincinnati*, 17-; Abstractor, 'Jour. Miner. Soc'; 'Jour. Chem. Soc.' Mineralogy; nickel; cobalt.
- von Sholly, B(enjamin) R(udolph)**, 118 Madison Ave, Flushing, N. Y. *Chemistry*. Flushing, Nov. 27, 81. A.B., Columbia, 03, A.M., 05. Chemist, Consolidated Gas Co, N. Y., 05-06; Power and Mining Machinery Co, 06-08; research lab, Gen. Elec. Co, 08-10; U. S. Dept. Agr., 10-13; Vulcan Detinning Co, 13-14; state chemist, Tenn., 14-15; chemist, Compañía Oriental des Minas, 16-19; *indust. chemist*, 19-; Chem. Soc; N. Y. Chemists Club. Pine oil; composition of special steels; high melting alloys; separation of rare metals.
- Voorhees, Prof. E(dward) B(urnett)**, New Brunswick, N. J. *Agriculture*. Mine Brook, N. J., June 22, 56. A.B., Rutgers, 81, A.M., 84; Sc.D., Vermont, 00. Asst. chemist, Wesleyan, 81-82; N. J. Exp. Sta., 82-88, chemist, 88-92, director, 92-11; prof. agr., Rutgers, 90-11. V. pres, N. J. State Board Agr., 93-01, pres, 01-11; N. J. State Forestry Commission, 06-10; N. J. Conservation Commission, 08-10. Nichols medal, Chem. Soc, 03. A.A.; Chem. Soc; Agr. Chem. (pres, 94); Ass. Agr. Col. (sec'y and treas, 97-04, pres, 04); Forestry Ass; N. J. Micros. Soc; N. J. Hist. Soc. Agricultural chemistry; agronomy; fertilizers.
- Voorhees, Louis A(ugustus)**, 136 Livingston Ave, New Brunswick, N. J. **Chemistry, Public health*. New Brunswick, March 6, 65. A.B., Rutgers, 85, A.M., 88. Asst. chemist, N. J. Exp. Sta., 86-95, chief chemist, 95-05; *chemist, dept. health, New Brunswick, N. J.*, 18-; A.A.; Chem. Soc; Soc. Chem. Indust; Agr. Chem; Pub. Health Ass; Int. Ass. Dairy and Milk Inspectors. Agricultural and food chemistry; sanitation.
- Voorhees, V(ander)veer**, 1280 Davis Ave, Whiting, Ind. *Chemistry*. Alton, Ill., Aug. 23, 96. B.S., Illinois, 21, M.S., 22; Ph.D., Wisconsin, 24. *Research chemist*, Am. Writing Paper Co, 19; *Standard Oil Co. of Ind.*, 24-; Asst., Wisconsin; Illinois. Chem. Soc. Platinum oxides; alkyl iodides; barbituric acid; analysis of paper; petroleum technology.
- Vorhies, Prof. Cha(rls) T(aylor)**, University of Arizona, Tucson, Ariz. *Entomology*. Mt. Pleasant, Iowa, Sept. 7, 79. B.S., Iowa Wesleyan, 02; Ph.D., Wisconsin, 08. Instr. biol., Iowa Wesleyan, 02-04; asst. zool., Wisconsin, 04-08; prof., Utah, 08-15; asst. prof. biol., *Arizona*, 15-16, *prof. zool.*, 16-18, *entom.*, 18-; Summer, instr., Cornell, 15. A.A.; Entom. Soc; Ornith. Union; Soc. Mammal; Ecol. Soc; Cooper Ornith. Club; Wis. Acad; Utah Acad. Wisconsin Trichoptera; fauna of Great Salt Lake; economic insects of Arizona; grazing range rodents; ecology of desert animals.
- Vosburgh, Dr. Warren C(hase)**, State University of Iowa, Iowa City, Iowa. *Chemistry*. Voorheesville, N. Y., June 14, 94. B.S., Union, 14, M.S., 16; Ph.D., Columbia, 19. Asst. chem., Union, 13-16; Columbia, 16; chemist, Celluloid Co, 17-18; research asst., Columbia, 19, Nat. Research Council fellow chem., 19-21; director research, The Eppley Lab, 21-25; *instr. chem.*, Iowa, 25-; A.A.; Chem. Soc. Invertase action; analytical methods; optical rotation of sugars; standard and voltaic cells.
- Vose, Prof. F(red) H(ale)**, Case School of Applied Science, Cleveland, Ohio. *Mechanical engineering*. Milltown, N. B., Can., Dec. 22, 78. B.S., Maine, 00. Instr. *mech. eng.*, Maine, 00-02; Washington (St. Louis), 02-07, asst. prof., 07-09; *Case*, 09-12, assoc. prof., 12-14, *prof.*, 14-; Mech. Eng; Cleveland Eng. Soc. (pres, 21).
- Voskuil, Dr. Walter H(enry)**, Wharton School of Finance and Commerce, Philadelphia, Pa. *Geology*. Cedar Grove, Wis., Aug. 22, 92. B.S., Wisconsin, 21, M.S., 22, Ph.D., 24. Research asst., inst. research in land econ., Northwestern, 23-24; asst. geog., Wisconsin, 22-24; *asst. prof. indust.*, Wharton Sch., 24-; Summer, asst. prof., Northwestern, 26. Mineral resources; economic geography; depletion of soil phosphorus; utilization of our phosphate resources; water power situation in the United States; the potash industry.
- Voss, Walter C(harles)**, Old Town Road, Wellesley Farms, Mass. *Engineering*. Chicago, Ill., Nov. 16, 87. B.S., Illinois, 12. Structural engineer, Chicago, 12-14; head dept. archit. construction, Wentworth Inst., Boston, 14-25; *structural engineer, Portland Cement Ass, Boston*, 25-; Consultant, archit. construction, 14-; lecturer, Portland Cement Ass. Assoc. Civil Eng. (v. pres, New Eng. sect, 23); Eng. Educ; Concrete Inst. Structural engineering and materials; architectural construction.
- Voter, Prof. P(erley) Conant**, Middlebury College, Middlebury, Vt. *Chemistry*. Farmington, Maine, April 30, 89. A.B., Bowdoin, 09; A.M., Harvard, 11. Austin teaching fellow, Harvard, 10-12; instr. *chem.*, Middlebury, 12-13, asst. prof., 13-19, *prof. and head dept.*, 19-, *dean chem. sch.* Austin scholar, Harvard, 19-20. Chem. Soc. (chairman, Vt. sect, 18-20); New Eng. Ass. Chem. Teachers; Chem. Gesell. Analytical chemistry; toxicology; atomic weight of arsenic.
- Votey, Prof. J(osiah) W(illiam)**, University of Vermont, Burlington, Vt. *Civil engineering*. Ovid, N. Y., July 23, 60. C.E., Vermont, 84, hon. Sc.D., 11; Maine, 22. Instr. *civil eng.*, Vermont, 84-89, asst. prof., 89-90, assoc. prof., 90-93, *prof.*, 93-, *dean col. eng.*, 01-; City engineer, Burlington, 87; mem. and engineer, Vt. Highway Commission, 92-96; sanit. engineer, Vt. Board

Health, 08- A.A; Eng. Educ; Ry. Eng; Vt. Eng. Soc. (pres, 20).

Vreeland, Dr. Frederick K(ing), 90 West St, New York, N. Y. *Physics*. Bergen, N. J, March 4, 74. M.E, Stevens, 95, Sc.D, 21; A.M, Columbia, 09. Asst. engineer, Crocker-Wheeler Elec. Co, 98-00; *research work*, 00-; *pres*, *Vreeland Apparatus Co*, 05- Non-res. lecturer, Stevens, 07-09; Columbia, 09. A.A; fel. Physical Soc; fel. Elec. Eng; fel. Radio Eng; Math. Soc; Franklin Inst; N. Y. Acad. Electrical oscillations and their applications; multiplex telegraphy and telephony by alternating currents; radio-telegraphy; electrical analgesia.

Vuilleumier, Prof. Ernest A(lbert), Dickinson College, Carlisle, Pa. *Chemistry*. New City, N. Y, March 1, 94. B.S, Pennsylvania, 14; Ph.D, Bern, 18. Anal. chemist, Powers-Weightman-Rosengarten Co, 14-15, research chemist, 19-20; instr. chem, Drexel Inst, 15-16; assoc. prof. chem, Dickinson Col, 20-24, *prof*, 24-, *head dept*, 20- Chem. Soc; fel. Inst. Chem; Electrochem. Soc; Verein für Chem. der Universitaet Bern. Nickel deposition; alcoholometry.

Vysotsky, A(lexander), University of Virginia, Charlottesville, Va. *Astronomy*. Moscow, Russia, May 23, 88. Diploma, Moscow, 12. Astronomer, Poulkovo Observatory, Russia, 13-15; *instr*, *Virginia*, 23- A.A; Astron. Soc; Va. Acad. Proper motions and parallaxes of stars; double stars.

W

Wachter, Prof. Willard L(eigh), Lafayette College, Easton, Pa. *Genetics*. Rajaburi, Siam, June 9, 97. A.B, Park Col, 19; M.S, Harvard, 21, Sc.D, 22. Asst, Harvard, 20-22, asst. zool, 21-22; *instr*, *biol*, *Lafayette Col*, 22-23, *asst. prof*, 23- A.A; Genetic Ass. Color inheritance in plants and mammals; linkage.

Waddell, Dr. J(ames) A(lexander), University, Va. *Pharmacology*. Near Charlottesville, Va, May 20, 78. A.B, Virginia, 01, M.D, 11; Western Reserve; Harvard. Prin. high sch, Va, 01-02; blind dept, Va. Sch. for Deaf and Blind, 02-07; *instr*, *anat*, *Virginia*, 09-11, *adjunct prof*, *pharmacol*, 11-17, *prof*, 17- Summers, epidemiologist, Va. State Dept. Health, 09, 12-15; sec'y, med. faculty, Virginia, 15-, premed. adviser, 18-24, chairman, committee on admissions, 20-, acting prof, 24-25; sec'y, Charlottesville-University-Albemarle Board Health, 23- A.A; Soc. Pharmacol; Ass. Study Int. Secretions. Toxicology.

Waddell, Dr. J(ohn) A(lexander) L(ow), 150 Broadway, New York, N. Y. *Civil engineering*. Port Hope, Ont, Can, Jan. 15, 54. C.E, Rensselaer, 75; B.A.Sc, Ma.E, McGill, 82, D.Sc, 04; LL.D, Missouri, 04; hon. D.E, Nebraska, 11; Kogakuhakushi (Japan), Tokyo, 15. Draftsman, marine dept, Dominion Govt, 75; Can. Pacific Ry, 75-78; asst. prof. meeh, Rensselaer, 78-80; chief engineer, Raymond and Campbell, Iowa, 81-82; prof. civil eng, Tokyo, 82-86; *consulting engineer*, 87- Decorated by the governments of Japan, Russia, China and Italy. Norman medal, Am. Soc. Civil Eng, 09, 15. A.A; Civil Eng; Consult. Eng; Eng. Educ; Soc. Test.

Mat; Ry. Eng; Franklin Inst; West. Soc. Eng; Int. Soc. Test. Mat; Soc. Int. d'Etudes de Correspondance et d'Exchanges; Can. Inst. Eng; British Inst. Civil Eng; Soc. des Ing. civile de France; Soc. géog. de France; hon. mem. Japanese Eng. Soc; hon. mem. Eng. Soc. Peru; Paris Acad; cor. mem. Barcelona Acad. Railroad engineering; bridges; engineering education; foundations; nickel steel, purified carbon steel and high alloy steel for bridges; economics of engineering; creeping of railroad rails.

Wade, E. Marion, University of Minnesota, Minneapolis, Minn. *Public health*. Bristol, Eng, May 22, 83. B.A, Trinity (Can), 04; M.A, Toronto, 13. Asst. to Mrs. Ellen H. Richards, Mass. Inst. Tech, 07-08; research chemist, Gen. Elec. Co, N. Y, 08; bacteriologist and asst. director lab, Board Health, Boston, 08-13; *chief laboratories*, *div. prev. diseases*, *Minn. State Board Health*, 13- A.A; Ass. Path. and Bact; Soc. Bact; Pub. Health Ass; Tuber. Ass. Viability of typhoid bacilli; tuberculosis.

Wade, Dr. H(erbert) W(indsor), Culion Leper Colony, Culion, Palawan, P. I. *Pathology, Bacteriology*. Haddonfield, N. J, Nov. 23, 86. M.D, Tulane, 12. Demonstrator histol, McGill, 08-09; path. and bacter, Tulane, 09-12, *instr*, 12-15; pathologist and bacteriologist, Bur. Science, P. I, 16-18; prof. path. and bacter, col. med. and surg, Philippines, and chief dept. path, Philippine Gen. Hosp, 18-22; *chief pathologist*, *Culion Leper Colony*, *Philippine Health Service*, 22- Chairman, Leprosy Examining Committee, Manila, 17-22. A.A; Ass. Path. and Bact; Am. Med. Ass; Soc. Trop. Med; Far East. Ass. Trop. Med; Manila Med. Soc. (pres, 20); Culion Med. Soc. (pres, 25). Fungus infections; tropical pathology; leprosy.

Wade, Joe S(anford), U. S. Department of Agriculture, Washington, D. C. *Entomology*. Marrowbone, Ky, July 20, 80. Fairmount; Chicago. Assoc. entomologist, bur. entom, U. S. Dept. Agr, 13- Entom. exped, west. states, 14-16. A.A; Entom. Soc; Ass. Econ. Entom; Wash. Entom. Soc; Wash. Biol. Soc; Kans. Acad. Cicindelidae, Scarabaeidae and Tenebrionidae; control of cereal and forage insect pests; entomological bibliography.

Wadley, F(rances) M(arion), 126 S. Minneapolis Ave, Wichita, Kans. *Entomology*. Utica, Mo, Nov. 17, 92. B.S, Kansas Col, 16, M.S, 22; Minnesota. Field entomologist, Ill. Nat. Hist. Surv, 20; sci. asst, truck crop insects, bur. entom, U. S. Dept. Agr, 17-19, sci. asst. and junior entomologist, cereal and forage insects, 21- Summers, field asst, bur. entom, U. S. Dept. Agr, 14-16. A.A; Entom. Soc; Ass. Econ. Entom. Squash bug; strawberry leaf-roller; variegated cutworm; factors affecting proportion of alate aphids; cricket nematode; Hessian fly; chinch bug; Kansas aphids.

Wadlund, Prof. A(rthur) P(ehr) R(obert), Trinity College, Hartford, Conn. *Physics*. B.S, Trinity (Conn), 17, M.S, 22. Metallurgist, Greenfield Tap and Die Corp, 19-21; engineer of tests, and metallurgist, Henry Souther Eng. Co, 21-23; *asst. prof. physics*, *Trinity (Conn)*, 23- Physical Soc; Hartford Eng. Club.

- Wadsworth, Dr. Augustus (B)**, New Scotland Ave, Albany, N. Y. *Bacteriology*. Brooklyn, N. Y., Oct. 25, 72. B.S., Mass. Inst. Tech, 93; M.D., Columbia, 96. Intern, St. Luke's Hosp, 97-99; alumni fellow, Columbia, 99-05, Alonzo Clark scholar, 05-10, asst. and instr. bacter. and hygiene, 99-08, assoc. bacter, 08-09, asst. prof, 09-13; *director div. laboratories and research*, N. Y. State Dept. Health, 14- Asst. physician, out-patient dept, Roosevelt Hosp, 05-08, consulting bacteriologist, 09-14. Nat. Research Council, 27- Knight, Order of St. Olav, 22. Am. rep, Second Int. Conf. Standardization of Serum and Serol. Tests, health sect, League of Nations, Paris, 22. A.A.; Soc. Bact.; Ass. Path. and Bact. (pres, 25); Am. Med. Ass.; Am. Physicians; Soc. Clin. Invest; Ass. Immunol; Pub. Health Ass. (chairman, lab. sect, 20); Soc. Exp. Biol; Harvey Soc. (sec'y, 12); N. Y. Path. Soc. (pres, 13); N. Y. Acad. Med; Royal Inst. Pub. Health; Soc. de Chim. biol. Infection and immunity; puerperal infection; agglutination of pneumococcus; etiology of pneumonia; pneumococcus infection; antipneumococcus serum; action of immune serum on pneumococcus infection; standardization of antimeningococcus and antipneumococcus serums; complement fixation reaction in tuberculosis; chemistry of blood coagulation.
- Wadsworth, F(rank) L(awton) O(lcott)**, Box 268, E. Liberty Station, Pittsburgh, Pa. **Physics, Astronomy, Engineering*. Wellington, Ohio, Oct. 21, 67. E.M., Ohio State, 88, B.S., M.E., 89; Clark, 89-90. Asst. physics, Ohio State, 89; Clark, 90-92; senior asst. in charge astrophys. observatory, Smithsonian Inst, 92-94; asst. prof. physics, Chicago, 94-96; astrophys, Yerkes Observatory, 96-97, assoc. prof, 97-98; director, Allegheny Observatory, 00-04; gen. manager, Pressed Prism Plate Glass Co, 04-05; chief engineer, Am. Window Glass Co, 05-07; *consulting engineer*, 08-; *pres, Miller Non-Corrosive Metal Co*, 09- Asst. ed, 'Astrophys. Jour'; assoc. ed, 'Harper's Scientific Memoirs.' Consulting engineer, John A. Brashear Co, 00-04. Mem. eng. committee, Pittsburgh chamber of commerce, 10; pres, board visitors, Ohio State, 11-16; chief engineer, Sèverin commission, Germany-Holland, 13. Delegate from Smithsonian Inst. to Int. Bur. Weights and Measures, Paris, 92. A.A.; Astron. Soc; Mech. Eng; Inventors Guild (chairman, prof. committee, 10-12); Eng. Educ; Franklin Inst; West. Pa. Eng. Soc; hon. mem. Soc. Astron. de Mex; for. mem. Soc. Ital. di Spettroscop; assoc. Wash. Acad. Theory of the spectroscopy; astronomical photography; velocity of light; Newtonian constant of gravitation; solar structure; ruling of large grating plates (up to 15 inches); photography with curved plate camera; reduction of eclipse observations; measurement of star diameters and double stars; optical apparatus; telemeters and engineering instruments; manufacture of glass, steel, copper, electric lights, etc; industrial machinery; aeroplanes.
- van Wagenen, Dr. Gertrude**, University of California, Berkeley, Calif. *Anatomy*. Rock Rapids, Iowa, May 23, 93. A.B., Iowa, 13, Ph.D., 20. Research asst, Iowa, 13-20; *instr. anat*, Stanford, 20-21; *California*, 21- Barbados-Antigua exped, 18. A.A; Ass. Study Int. Secretions. Endocrinology.
- Waggoner, Prof. Harry Dwight**, 320 Sherman Ave, Macomb, Ill. *Biology*. Godfrey, Ill, Feb. 1, 77. A.B., Illinois, 09, A.M., 14, Ph.D., 16. Asst. bot, Illinois, 13-16; *prof. biol*, Macalester, 16-17; *West. Ill. State Nor. Sch*, 17- Bot. Soc. Plant physiology and pathology; agronomy; human aspects of modern biology.
- Wagner, Prof. Albert F(rederic)**, U. S. Naval Academy, Annapolis, Md. *Physics, Electrical engineering*. Lincoln, R. I., April 3, 89. B.S., R. I. Col, 10; M.S., Purdue, 13. Dept. physics, Purdue, 10-16; Eastman Kodak Co, 17-18; *U. S. Naval Acad*, 19-20, *prof. elec. eng. and physics*, 21- Research laboratory, Westinghouse Elec. and Mfg. Co; Gen. Elec. Co; West. Elec. Co. Physical Soc; Elec. Eng; Optical Soc. Magnetic testing; geometrical optics.
- Wagner, Pres. Frank C(asper)**, 1111 S. Sixth St, Terre Haute, Ind. *Engineering*. Ann Arbor, Mich, Oct. 5, 64. A.M., Michigan, 84, B.S., 85, hon. D.Eng, 27; hon. Sc.D, Rose Polytech, 24. Asst. physics, Michigan, 84-85; Thomson-Houston Elec. Co, 86-89; asst. prof. mech. eng, Michigan, 90-96; assoc. prof. steam and elec. eng, *Rose*, 96-04, prof. steam eng, 04-09, mech. and elec. eng, 09-21, mech. eng, 21-25, *pres*, 23- A.A; Mech. Eng; Elec. Eng; Eng. Educ; Ind. Eng. Soc. Dynamo and electromagnet design; steam-engine testing; steam and gas turbines; pyrometer measurements in furnaces.
- Wagner, Prof. George**, 1901 Jefferson St, Madison, Wis. *Zoology*. New Ulm, Minn, Feb. 4, 73. Ph.C, Michigan, 93, A.M., 03; A.B., Kansas, 99. Instr. bot. and pharmacog, Northwestern, 93-95; pharmacy, Kansas, 95-97, asst. prof, 97-99, assoc. prof, 99; asst. *zool*, Michigan, 99-03; instr, *Wisconsin*, 03-10, asst. prof, 10-19, *assoc. prof*, 19- A.A; Soc. Nat; Soc. Zool; Soc. Ichthyol. and Herp; Soc. Mammal; hon. mem. Kans. Acad. Vertebrate zoology; fauna of Wisconsin.
- Wagner, Dr. H(erman) A(lexander)**, Box 134, Mayer, Ariz. *Engineering*. Grahamtown, New Zealand, April 17, 64. E.M., Freiberg, 88; Ph.D., Heidelberg, 89. Metallurgist, Dowlais Steel and Iron Co, Wales, 89-90; supt. mines, Barnato Brothers, S. Africa, 90-99; metallurgist, F. A. Heinze, Mont, 01-04; engineer, Kalgurli Gold Mines, Ltd, W. Africa, 04-07; supt, British Guiana G. Dredging Co, 07-09; contractor, New York, 09-10; consulting engineer, Ill. and Mo, 10-14; chief engineer, Gray Eagle Red Co, Ariz, 14-17; manager, Mayer Ore Purchasing Co, Ariz, 17; *consulting engineer*, 17- A.A; Ass. Eng. (nat. director, 25-27); Elec. Eng; Mech. Eng; Min. and Metal. Eng. Electro-metallurgy; diaphragms; osmosis.
- Wagner, Samuel Tobias**, School House Lane, Germantown, Philadelphia, Pa. *Civil engineering*. Philadelphia, Aug. 30, 61. B.S., Pennsylvania, 81, C.E., 83. Phoenix Iron Co, 81-93; asst. engineer, Pa. Ave. Subway and Tunnel, Philadelphia, 93-00, improvement and filtration of water supply, 00-02; Phila. and Reading Ry. Co, 02-15, chief engineer, 15-27; *consulting en-*

gineer, 27— Trustee, hon. prof. and pres, Wagner Free Inst. James Laurie prize, Soc. Civil Eng, 14. Civil Eng. (director); Ry. Eng; Soc. Test. Mat; Eng. Educ; Concrete Inst; Franklin Inst. (board directors); Phila. Eng. Club; Int. Ass. Test. Mat.

Wagner, Dr. T(heodore) B(rentano), 160 Columbia Heights, Brooklyn, N. Y. *Chemistry*. Chicago, Ill, Oct. 12, 67. Ph.D, Wurzburg, 91. Gen. supt, Corn Products Co, 00–06, mem. exec. board, 06–19; v. pres, U. S. Food Products Corp, 19–22. Assoc. mem, U. S. Naval Consulting Board, and director, N. Y. State Board Indust. Preparedness, 17. Chem. Soc. (chairman, N. Y. sect, 16); Chem. Eng. (pres, 13); N. Y. Chemists Club (pres, 26–); London Soc. Chem. Indust. (v. pres, 08); Chem. Gesell; Soc. de Chim. indust. Foods.

Wagoner, Prof. Lovisa C(atherine), Vassar College, Poughkeepsie, N. Y. *Psychology*. Eagle Rock, Idaho, June 11, 86. A.B, A.M, Washington (Seattle); Ph.D, Iowa Col. Teacher and supervisor, schools, Wash, 13–18; research asst. *psychol*, Carnegie Inst. Tech, 18–19; research asst, Child Welfare Research Sta, Iowa, 19–20; instr, Wyoming, 20–21, asst. prof, 21–25; prof, Iowa Col, 25–27; *assoc. prof*, Vassar, 27— Child psychology; psychology of speech; child study.

Wahl, Dr. H(arry) Roswell, University of Kansas School of Medicine, Kansas City, Kans. *Pathology*. Minnesota City, Minn, 86. A.B, Wisconsin, 08, A.M, 10; M.D, Hopkins, 12; fellow, Western Reserve, 12–13. Asst. anat, Wisconsin, 08–10; instr. path, Western Reserve, 13–15, *assoc*, 15–19; *prof. path. and bacter*, Kansas, 19—, acting dean *sch. med*, 24–27, *dean*, 27— Assoc. visiting pathologist, Lakeside Hosp, Cleveland; director laboratories, Mt. Sinai Hosp, Cleveland; pathologist, St. Margaret, Bell Mem, Providence and Bethany Hospitals, Kansas City. A.A; Ass. Path. and Bact. Neuroblastomata; Gaucher's disease; toxin titrations in nephrectomized animals; transmission of influenza; cellular reactions after X-ray and radium therapy; alternaria infection.

Wahlin, Prof. G(ustaf) E(ric), University of Missouri, Columbia, Mo. *Mathematics*. Cannon Falls, Minn, Dec. 3, 80. A.B, Bethany, 03; Ph.D, Yale, 06; Marburg, 12–13. Instr. *math*, Iowa, 06–08; Illinois, 08–12, *assoc*. and asst. prof, 13–24; *prof*, Missouri, 24— Committee on algebraic numbers, Nat. Research Council. A.A; Math. Soc; Math. Ass. Theory of numbers.

Wahlin, Prof. H(ugo) B(ernard), 220 N. Murray St, Madison, Wis. *Physics*. McPherson, Kans, Feb. 28, 94. A.B, Bethany, 15; fellow, Kansas, 15–16, A.M, 16; fellow, Chicago, 20–21, Ph.D, 21. Asst. *physics*, Missouri, 16–17, instr, 17–20; Wisconsin, 21–25, *asst. prof*, 25— Physical Soc. Electron affinity of gases; nature of gaseous ions; electron conduction in gases.

Wainwright, Lieut. L(awrence), U.S.N, care of Navy Department, Washington, D. C. *Physics*. Washington, Oct. 21, 96. Grad, U. S. Naval Acad; M.S, Chicago, 23, Ph.D, 24. *Commissioned*, U.S.N, 17— Physical Soc; Math. Soc; U. S. Naval Inst. Exterior ballistics; gunnery.

Wait, Dr. G(eorge) E(ay), Department of Terrestrial Magnetism, 36th St. and Broad Branch Road, Washington, D. C. *Physics*. Chase, Kans, Sept. 7, 86. B.S, Kans. State Teachers Col, 14; M.S, Iowa, 17, fellow, 17–19, Ph.D, 20. Asst. instr, Kans. State Teachers Col, 13–14; prin. and head sci. dept, high sch, N. Dak, 14–16; asst. physics, Iowa, 19–20; *assoc. physicist*, dept. *terrestrial magnetism*, Carnegie Institution, 20— A.A; Physical Soc; Iowa Acad; Wash. Philos. Soc. Hall effect and specific resistance of thin films; magnetic permeability of metals; atmospheric electricity.

Wait, Henry H(eileman), Chesterton, Ind. *Electrical engineering*. Chicago, Ill, Oct. 27, 69. B.S, Mass. Inst. Tech, 91. West. Elec. Co, 92–05; consulting engineer, The Buda Co, Ill; Babcock-Wilcox and Goldie-McCulloch, Ltd. Elec. Eng; Mech. Eng; London Inst. Elec. Eng; Verein Ing; Soc. Int. des Elec. Mechanical engineering; Wait steam turbines and dynamos; motion of telephone diaphragms; air currents of fans.

Waite, Prof. Frederick C(layton), Western Reserve University, Cleveland, Ohio. *Anatomy, Zoology*. Hudson, Ohio, May 24, 70. B.Litt, Adelbert, 92; A.M, Western Reserve, 94; Harvard, 96, Ph.D, 98. Instr. biol, high schools, New York, 98–00; N. Y. Univ, 99; asst anat, Chicago, 00–01; asst. prof. *histol. and embryol*, Western Reserve, 01–04, *assoc. prof*, 04–06, *prof*, 06— A.A; Soc. Nat; Ass. Anat; Soc. Zool; Micros. Soc; Am. Med. Ass; Ohio Acad. (v. pres, 08); Boston Soc. Nat. Hist; Cleveland Acad. Med. Embryology and morphology of Crustacea; anatomy of Amphibia; medical and dental education; medical history.

Waite, Dr. H(erbert) H(arold), 2144 B St, Lincoln, Nebr. *Bacteriology, Pathology*. Leverett, Mass, July 4, 68. A.B, Amherst, 92, A.M, 03; M.D, Michigan, 01. Instr. bacter, Michigan, 96–01; asst. prof. *bacter. and path*, Nebraska, 02–05, *assoc. prof*, 05–07, *prof*, 07— State pathologist, Nebr, 04— A.A; Soc. Bact; Am. Med. Ass; Pub. Health Ass; Nebr. Acad. Disinfection of rooms; pyocyanus infections; acute infectious diseases of bone; typhoid fever; milk-borne epidemic of diphtheria; disease prevention.

Waite, M(erton) B(enway), U. S. Department of Agriculture, Washington, D. C. *Plant pathology*. Oregon, Ill, Jan. 23, 65. B.S, Illinois, 87. Asst. bot, Illinois, 87–88; asst. pathologist, U. S. Dept. Agr, 88–01, *pathologist in charge* diseases of orchard fruits, 01–08, *fruit disease investigations*, 08— Phytopath. Soc; Wash. Biol. Soc; Wash. Bot. Soc. Pear blight; pollination of pomaceous fruits; diseases of orchard fruits; little peach and other peach diseases; pecan and nut diseases; fungicides and methods of treating plant diseases.

Waite, Dr. Willis W(illard), Waite's Laboratories, El Paso, Texas. *Medicine*. Milford, Wis, 76. B.S, Wisconsin, 02; M.D, Hopkins, 06. Path. intern, City Hosp, New York, 06–07; bacteriologist, Dept. Health, New York, 07; city bacteriologist, Syracuse, 07–11; *director*, Waite's Laboratories, El Paso, 11— Pathologist, South. Pacific Ry. A.A; Am. Med. Ass; Soc.

- Clin. Path; Soc. Bact; Pub. Health Ass; South-west. Med. and Surg. Ass. (pres); Texas Path. Soc; El Paso Co. Med. Soc. (pres, 24). Pathology; syphilitic aortitis.
- Waltz, Dr. Paul**, Tacuba, Calle Parthenon 2, Mex. *Geology*. Brixen, Tirol, Austria, Nov. 29, 76. Ph.D, 03. *Chief geologist, Dept. Agr, Mex.* Cor. mem. Munich Geog. Gesell. Volcanology; petrography; hydrology; volcanoes of Mexico.
- Wakefield, R(oland) A(dell)**, Virginia Union University, Richmond, Va. *Physical chemistry*. Auburn, Maine, Sept. 22, 93. A.B, Bates, 16; A.M, Virginia, 23. Prof. math, *Va. Union*, 16-18, *head dept. chem*, 18- Chem. Soc; Va. Acad. Reaction kinetics.
- Wakeham, Prof. Glen (Raymond)**, 901 University Ave, Boulder, Colo. *Chemistry*. Council Bluffs, Iowa, Nov. 4, 84. B.Sc, London; Ph.D, Colorado, 24. Fachlehrer, Friedensauer Industrialschule, Germany, 04-07; teacher *chem*, Stanborough Col, London, 08-16, headmaster, 16-22; instr, *Colorado*, 22-24, *asst. prof*, 24- Fel. London Chem. Soc. Biochemistry; basal metabolism and the menstrual cycle; alkaline tide.
- Wakeman, Dr. Alfred J(ohn)**, 181 Edwards St, New Haven, Conn. *Chemistry*. Green's Farms, Conn, Feb. 8, 65. Ph.B, Yale, 87; Ph.D, Leipzig, 94. Instr. chem, Mass. Inst. Tech, 87-89; Sheffield Sci. Sch, Yale, 92-95; physiol. chem. research, Herter Lab, New York, 95-12; *protein chem. research, Conn. Exp. Sta*, 12- A.A; Physiol. Soc; Soc. Biol. Chem. Physiological chemistry.
- Wakeman, Prof. Seth**, Smith College, Northampton, Mass. *Psychology, Education*. Batavia, N. Y, May 18, 93. A.B, Hobart, 16, A.M, 17; Ph.D, Cornell, 22. Instr. educ, Cornell, 19-22, *asst. prof*, 22-25; *prof. and chairman dept, Smith*, 25- Psychol. Service, U.S.A., 18-19. A.A; Nat. Soc. Study Educ; N. Y. State Ass. Consulting Psychologists. Educational psychology; experimental education.
- Waksman, Dr. S(elman) A(braham)**, New Jersey Agricultural Experiment Station, New Brunswick, N. J. *Microbiology*. Priluka, Russia, July 29, 88. B.S, Rutgers, 15, M.S, 16; fellow, California, 16-17, Ph.D, 17. Asst. soil microbiol, *N. J. Exp. Sta*, 15-16, *microbiologist*, 18- Research biochemist, Cutter Laboratories, 17-18; bacteriologist, Takamine Lab, 19-20. First v. pres, Third Commission, Int. Ass. Soil Sci. A.A; Soc. Agron; Soc. Bact; Soc. Exp. Biol; Int. Ass. Soil Sci; hon. mem. Leningrad Microbiol. Soc. Soil fungi; actinomycetes; bacteria; Protozoa; bacteria concerned in oxidation of sulfur; origin and nature of soil 'humus.'
- Walcott, Dr. H(enry) P(ickering)**, 11 Waterhouse St, Cambridge, Mass. *Sanitary science*. Hopkinton, Mass, Dec. 23, 38. A.B, Harvard, 58; M.D, Bowdoin, 61; Vienna and Berlin, 62; LL.D, Yale, 07. Practising physician, Cambridge, 67-81; *chairman, Mass. State Board Health*, 86- Mem. board of pres. and fellows, Harvard, acting pres, 00-01; mem. Carnegie Institution. Boylston med. prize, 71. Int. Cong. Hygiene and Demography, 02 (pres). Emer. mem. Am. Physicians (v. pres); Am. Acad. (v. pres, pres); hon. fel. Royal Sanit. Inst. Purification of municipal water supplies; the disposal of sewage; the extension of malaria in Massachusetts.
- Waldbauer, Dr. L(ouis) J(ulius)**, Box 561, Bethlehem, Pa. *Physical chemistry*. St. Louis, Mo, July 15, 96. Ch.B, Cornell, 17; M.Sc, McGill, 22, Ph.D, 23. Asst. org. chem, Cornell, 16-17; research chemist, E. I. du Pont de Nemours and Co, 17-20; instr. chem, Maine, 20-21; demonstrator physical and org. chem, McGill, 21-23; lecturer physical chem, 23-24; *instr. chem, Lehigh*, 24- Chem. Soc. Specific heats at low temperatures; latent heats of fusion of organic compounds melting at low temperatures.
- Waldbott, Dr. Sigmund**, Court and Plum Sts, Cincinnati, Ohio. *Chemistry*. Münchweiler, Bavaria, April 19, 65. Grad, Polytech, Munich, 86; Ph.D, Bern, 89. Instr, Dr. Ustich's Pädagogium, Munich, 86-89; chemist, Rheinstrom Brothers, 90-93; Lloyd Brothers and librarian, Lloyd Library, 93-02; head dept. chem, Ohio Mech. Inst, 01-18; *consulting chemist, Lloyd-Waldbott Anal. Lab*, 18- Denatured alcohol chemist, U. S. Int. Revenue, Ohio, 07- A.A; Chem. Soc. (sec'y, Cincinnati sect, 97-99, pres, 05, abstractor, 'Abstracts,' 12-). Pharmacy; alcohol; Lloyd's alkaloidal reagent.
- Walden, Dr. G(eorge) H(enry), Jr**, Columbia University, New York, N. Y. *Chemistry*. Rochester, N. Y, July 23, 94. B.S, Rochester, 16, M.S, 17; Ph.D, Columbia, 24. Asst. chem, Columbia, 19-20, *instr*, 20- Chemist, Bur. Aircraft Production, 18-19. Chem. Soc. Inorganic and physical chemistry.
- Walden, Prof. P(ercy) T(albot)**, 210 St. Ronan St, New Haven, Conn. *Chemistry*. Brooklyn, N. Y, June 29, 69. Ph.B, Yale, 92, Ph.D, 96; Leipzig and Munich, 99-00. Asst. chem, *Sheffield Sci. Sch, Yale*, 92-94, instr, 94-99, *asst. prof*, 00-19, *prof*, 20-, *dean freshmen*, 24- Chairman chem. commission, Col. Entrance Examination Board, 22-26. Chem. Gesell. The double salts of iron and the alkali metals; the structure of the amidins; the double bromides of caesium and lead; the double halides of caesium and cadmium; the acid ammonium oxalates.
- Waldo, Prof. Edward H(ardenbergh)**, University of Illinois, Urbana, Ill. *Electrical engineering*. Hornell, N. Y, March 5, 66. A.B, Amherst, 88; M.E, Cornell, 90; M.S, Illinois, 14, E.E, 17. Gen. Elec. Co, 90-94; instr. elec. eng, Pennsylvania, 94-04; eng. dept, Crocker-Wheeler Co, 04-07; *asst. prof. elec. eng, Illinois*, 07- A.A; Elec. Eng. Economics of transformer design.
- Waldo, John H(ardenbergh)**, 330 E. 47th St, Indianapolis, Ind. *Organic chemistry*. Philadelphia, Pa, Feb. 15, 98. B.S, Illinois, 19, M.S, 20. Teacher, Morningside Col, 21-22; *Purdue*, 22-23; *research chemist, Eli Lilly and Co, Indianapolis*, 23- Chem. Soc. (sect. director and councilor, 25); Indianapolis Sciencetech Club. Biochemistry; insulin.
- Waldron, Dr. R(alph) A(ugustus)**, Pennsylvania State Normal School, Slippery Rock, Pa. Bot-

any. North Rochester, Mass, April 28, 88. B.S., Mass. Col, 10; M.S., Pa. State, 12; Ph.D., Pennsylvania, 18. Asst. entom., Mass. Col, 10; instr. bot., Pa. State, 10-14; Pennsylvania, 17-18; horticulturist; *prof. biol.* Thiel Col, 22-25; *Pa. State Nor. Sch., Slippery Rock*, 25- Director, Educ. Service. A.A.; Phytopath. Soc. Plant pathology; entomology; nature study.

Waldschmidt, W(illiam) A(lbert), 713 12th St., Golden, Colo. *Geology.* Riverton, Nebr., April 14, 97. B.S., S. Dak. Sch. Mines, 20, E.M., 21; M.S., Mass. Inst. Tech., 22. Curator geol. museum, S. Dak. Sch. Mines, 20-21; instr. *geol.*, *Colo. Sch. Mines*, 22-24, *asst. prof.*, 24- Sub-surface geologist, Midwest Ref. Co, 24- Miner. Soc. Petrography; mineralogy.

Walker, Dr. A(lbert) C(harles), 50 N. 20th St., East Orange, N. J. *Physical chemistry.* Denver, Colo., July 26, 93. Colorado, 14-16; B.S., Mass. Inst. Tech., 18; Ph.D., Yale, 23. Research, East. Mfg. Co, 19; *research chemist*, Winchester Repeating Arms Co, 20-21; Yale, 21-23; *Bell Telephone Laboratories, N. Y.*, 23- Chem. Soc. Homogeneous equilibrium in aqueous solutions; physical chemistry of textiles and fibers.

Walker, Prof. Arthur L(ucian), Columbia University, New York, N. Y. *Metallurgy.* New York, Jan. 14, 63. E.M., Columbia, 83. Engineer, Old Dominion Copper Co, Globe, Ariz., 83-88, gen. supt., 88-94; manager, Baltimore Electrolytic Ref. Co, 94-99; Am. Smelting and Ref. Co, Perth Amboy plant, 99-07, director, 07-08; *prof. metal.*, *Columbia*, 08- Min. and Metal. Eng; Min. Eng; Soc. Test. Mat; Electrochem. Soc; Inst. Min. and Metal. London. Copper-casting apparatus; electrolytic copper refining.

Walker, Dr. Bryant, 91 Alfred St., Detroit, Mich. *Zoology.* Detroit, July 3, 56. A.B., Michigan, 76, LL.B., 79, hon. Sc.D., 12. *Hon. curator Mollusca, museum zool.*, *Michigan*, 09- Non-Game License Commission, 11-25; board sci. advisers, Mich. Geol. and Biol. Surveys, 11-25. A.A.; Ecol. Soc; Mich. Acad. (pres, 95); N. Y. Zool. Soc; Detroit Zool. Soc. (pres, 12); Conchol. Soc. Gt. Britain and Ireland; London Malacol. Soc; Malachol. Gesell. Systematic conchology; distribution of land and fresh water Mollusca of North America.

Walker, Pres. B(uz) M. Agricultural College, Starkville, Miss. *Mathematics.* Starkville, Aug. 20, 63. B.S., Miss. Agr. and Mech. Col, 83, M.S., 86; Virginia, 85, 86, 87; Göttingen, 88-89; Berlin, 89; Ph.D., Chicago, 06. Instr. math., *Miss. Agr. and Mech. Col.*, 83-84, *asst. prof.*, 84-88, *prof.*, 88-25, *director sch. eng.*, 02-25, v. pres, 13-25, *pres*, 25- A.A.; Math. Soc; Math. Ass; London Math. Soc; Math. Verein; Circolo Mat. di Palermo. Quadratic one to two and one to three transformation between two planes; the resolution of higher singularities of algebraic curves into ordinary nodes.

Walker, Prof. E(dmund) M(urton), University of Toronto, Toronto, Ont., Can. *Zoology.* Windsor, Ont., Oct. 5, 77. A.B., Toronto, 00, M.B., 03. Lecturer zool., *Toronto*, 06-13, *asst. prof.*, 13-17, *assoc. prof.*, 18-26, *prof. invert. zool.*, 26- Summer, in charge, Dominion Fresh Water Biol. Sta.,

Georgian Bay, 07; house surgeon, Toronto Gen. Hosp., 03-04; asst. director, Royal Ont. Museum Zool., 18- Ed., 'Can. Entomologist,' 10-20. A.A.; Entom. Soc. (v. pres, 17); fel. Royal Soc. Can; Royal Inst. Can. (ed, trans, 24-); Ont. Entom. Soc. (pres, 11); Ottawa Field Nat. Club; Toronto Field Nat. Club (pres, 25-27). Entomology; insect morphology; Orthoptera and Odonata of Canada; genitalia of insects; morphology of grylloblatta.

Walker, Prof. Elda R(ema), University of Nebraska, Lincoln, Nebr. *Botany.* Forest Grove, Oregon, Oct. 2, 77. A.B., Pacific, 01, A.M., 04; fellow, Nebraska, 04-06, Ph.D., 07. Instr. *bot.*, *Nebraska*, 06-07, adjunct prof., 07-10, *asst. prof.*, 10-13, *assoc. prof.*, 13- Asst. pathologist, U. S. Dept. Agr., 17-18. A.A.; Bot. Soc; Phytopath. Soc; Forestry Ass; Micros. Soc; Nebr. Acad. (pres, 20). Plant morphology; ecology of algae of some sandhill lakes; the gametophytes of *Equisetum laevigatum*; structure of the pistils of some grasses.

Walker, Prof. Elton D(avid), 248 S. Burrows St., State College, Pa. *Civil engineering.* Taunton, Mass., March 8, 69. B.S., Mass. Inst. Tech., 90. Asst. civil eng., Mass. Inst. Tech., 90-91; civil engineer, Q.M.D., U.S.A., 91-92; mem. firm, Walker and Gallagher, 92-94; instr. civil eng., Union, 94-97, *asst. prof.*, 97-00; *Pa. State*, 00-01, *prof. hydraulic and sanit. eng.*, 01-, *head dept. civil eng.*, 06- Res. hydrographer, U. S. Geol. Surv., 98-00; acting dean eng. sch., Pa. State, 13-15. Capt., C.Eng., 17-19; major, Eng.R.C., 19-23, lieut. col., 24- Civil Eng; Eng. Educ; Mil. Eng; Water Works Ass; fel. Pub. Health Ass; New Eng. Water Works Ass. Hydraulic and sanitary engineering; sewage treatment.

Walker, Dr. Ernest Linwood, Hooper Foundation, University of California, Berkeley, Calif. *Medicine.* Freeport, Maine, June 24, 70. B.A.S., Harvard, 96, B.S., 03, Sc.D., 08. Bacteriologist, Mass. State Board Health, 96-10; asst. med. zool., Harvard Med. Sch., 08-10; protozoologist, Bur. Science, P. I., 10-13, chief biol. lab., 13-14; *assoc. prof. trop. med.*, *Hooper Foundation, California*, 14-21, *prof.*, 21- Am. Med. Ass; Soc. Trop. Med; Soc. Exp. Biol; Soc. Bact. Tropical medicine; chemotherapeutics.

Walker, Dr. George, 1 Centre St., Baltimore, Md. *Surgery.* Yorkville, S. C., July 27, 69. S. C. Col., 85-87; M.D., Maryland, 89; Breslau and Leipzig, 97-98; Berlin, 07; LL.D., South Carolina, 22. Private practise, Yorkville, S. C., 89-95; Baltimore, 98; asst. out-patient dept., Hopkins Hosp., 98-00, chief clinic, *Hopkins*, 00-02, instr. surg., 02-05, *assoc.*, 05-, *head out-patient surg. dept.*, *Hopkins Hosp.*, 14- Visiting surgeon, Church Home and Infirmary; Union Mem. Hosp; Mercy Hosp; Hebrew Hosp, 26- Chairman, Md. State-wide Vice Commission, 13; director, Social Service Corp. of Baltimore; U. S. Med. Advisory Board; Board Supervisors City Charities, Baltimore, 24- Citation, 19. D.S. medal, 22. Capt. and major, M.R.C., 17-18, lieut. col. and col., M.C., 18-19. Fel. Col. Surg; Ass. Anat; Am. Med. Ass; S. Med. and Surg. Ass; Md. Med. and Chirurg. Faculty. Generative organs; tuberculosis in the genito-urinary organs; accessory glands; venereal disease.

- Walker, H(oward) G(eorge)**, 429 S. Kensington Ave, La Grange, Ill. *Chemistry*. Madrid, N. Y., March 10, 84. A.B., Michigan, 08. Chemist, eng. dept, *West. Elec. Co.*, 09-16, *develop. engineer, mfg. dept.*, 16- Summer, instr, Michigan, 09. Chem. Soc. (ed, 'Bul', 24-26). Paper and pulp as insulating material in the electrical industry.
- Walker, Prof. I(saac) Chandler**, Peter Bent Brigham Hospital, Boston, Mass. *Medicine*. Lovell, Maine, 83. A.B., Hopkins, 05, M.D., 09. Asst. pharmacol, *Harvard Med. Sch.*, 13, med, 14-15, *asst. prof.*, 18- Lecturer, Iowa; assoc, Peter Bent Brigham Hosp, acting physician, 18- Assoc. Am. Physicians; Soc. Clin. Invest. Wassermann reaction; bronchial asthma; hay fever; eczema.
- Walker, Dr. John B(aldwin)**, 51 E. 50th St, New York, N. Y. *Medicine*. Lodi, N. J., Jan. 16, 60. A.B., Harvard, 84, M.D., 88. Prof. clin. surg, Columbia; *surgeon, Bellevue Hosp.* Surgeon, N. Y. Hosp. for Ruptured and Crippled; consulting surgeon, Manhattan State Hosp. Col, M.R.C. A.A.; Am. Med. Ass; Surg. Ass; Col. Surg; Hosp. Ass; N. Y. Surg. Soc; N. Y. Acad. Med; Soc. Int. de Chirurg. Surgery.
- Walker, Prof. J(ohn) C(harles)**, University of Wisconsin, Madison, Wis. *Plant pathology*. Racine, Wis., July 6, 93. B.S., Wisconsin, 14, M.S., 15, Ph.D., 18. Sci. asst, U. S. Dept. Agr, 17-19, asst. pathologist, *bur. plant indust.*, 19-20, *pathologist*, 20-; asst. *plant path.*, Wisconsin, 14-17, instr, 19, asst. prof, 19-21, *assoc. prof.*, 25- A.A.; Phytopath. Soc. Truck crop diseases; disease resistance; selection of *Fusarium* resistant cabbage.
- Walker, Major John E(dward)**, Army Medical School, Washington, D. C. *Bacteriology*. Alexander City, Ala, April 21, 92. B.S., Ala. Polytech, 10, M.S., 11; M.D., Hopkins, 15. *Major, M.C.*, 16-; *instr. bacter.*, sch. med, Hopkins, 22-23; *Army Med. Sch.*, 19-22, 25- Fel. Am. Med. Ass; Soc. Bact. Medical bacteriology and immunology; prophylaxis of syphilis; germicidal properties of soap; serum diagnosis of syphilis.
- Walker, Dr. John F(ortune)**, Victoria Museum, Ottawa, Ont, Can. *Geology*. Binbrook, Ont, 93. B.Sc., British Columbia, 22; fellow, Princeton, 23-24, Ph.D., 24. *Assoc. geol.*, Can. *Geol. Surv.*, 24- Inst. Min. and Metal. Can. *Geology* of southeastern British Columbia.
- Walker, L(ester) V(incent)**, Flannery Building, Pittsburgh, Pa. *Physical chemistry*. Babylon, N. Y., Dec. 18, 86. A.B., Cornell, 08, 09-11. Asst. physical chemist, U. S. Bur. Mines, *Pittsburgh*, 12; *chief physicist, Standard Chem. Co.*, 13- Lieut. C.W.S., 17-19. Chem. Soc. A small carborundum furnace; radioactivity; electrolytic method for the prevention of corrosion of iron in acid waters.
- Walker, Prof. Leva B(elle)**, University of Nebraska, Lincoln, Nebr. *Botany*. Forest Grove, Oregon, Dec. 2, 78. A.B., Pacific (Oregon), 01; fellow, Nebraska, 06-08, A.M., 08. Teacher, pub. schools, Wash, 01-06; *instr. bot.*, Nebraska, 08-11, adjunct prof, 11-13, asst. prof, 13-14, *assoc. prof.*, 14- Asst. pathologist, U. S. Dept.
- Agr, 18. A.A.; Bot. Soc; Phytopath. Soc; Micros. Soc; Nebr. Acad. Morphology of fungi; rots of small fruits.
- Walker, Dr. M(arion) N(ewman)**, Central Baraguá, Baraguá, Provincia de Camagüey, Cuba. *Plant pathology*. Fayetteville, Ark, Aug. 22, 00. B.S., Ala. Polytech, 21; M.S., Wisconsin, 23, Ph.D., 24. *Junior pathologist, U. S. Dept. Agr.*, 24- Phytopath. Soc. Mosaic disease of sugar cane.
- Walker, Percy H(argraves)**, U. S. Bureau of Standards, Washington, D. C. *Chemistry*. Huntsville, Ala, July 6, 67. Virginia, 85-87, 89-90; M.S., Iowa, 95; Heidelberg, 96; Berlin, 97. Teacher, sch, Va, 90-92; *instr. chem. and miner*, Iowa, 92-99; *assoc. prof. chem. and physics*, Arkansas, 00-02; *assoc. chem.*, Int. Correspondence Schools, 02-04; *assayer, bur. chem.*, U. S. Dept. Agr, 04-06, *chief contract lab.*, 06-14; *chemist, Bur. Standards*, 14-, *acting chief chem. div.*, 25. A.A.; Chem. Soc; Soc. Test. Mat. (exec. committee, 24); Wash. Chem. Soc. (pres, 09). Paint and paint materials; oils; inks.
- Walker, Prof. P(erley) F**, 1314 Louisiana St, Lawrence, Kans. *Engineering*. North Anson, Maine, April 28, 75. B.M.E., Maine, 96, M.E., 00; M.M.E., Cornell, 01. Instr. math. and mech. eng, Maine, 96-00, *prof. mech. eng.*, 02-05; *Kansas*, 05-15, *indust. eng.*, 15-, *dean sch. eng.*, 12- Draftsman and calculator, ship-building companies, 01-02; in charge building construction, 04-05; power plant design and erection, 08-09; consulting engineer, Okla, 14-16; *indust. engineer*, 19- Major, lieut. col. and col, C.Eng, 17-19. A.A.; Mech. Eng. (delegate, Eng. Council, 21-24); Eng. Educ. (councilor, 14-17, pres, 23); Soc. Mil. Eng. (councilor, 26-); Management Ass; Kans. Eng. Soc. (v. pres, 20). Gas power engineering; lubricating oils; metering natural gas; friction losses in universal joints; methane gas; industrial development; management engineering. [Died, Oct. 17, 27.]
- Walker, Robert C(oulter)**, 3633 Zumstein Ave, Cincinnati, Ohio. *Bacteriology*. Santa Fe, Tenn, April 16, 94. A.B., Univ. of the South, 15, A.M., 16; Baldwin research fellow, Cincinnati, 20-22, Seeley fellow, 23-24, M.D., 24. Instr. biol, Univ. of the South, 15-16, asst. prof. biol, 16-17; *asst. prof. bacter.*, col. med, Cincinnati, 24-; *asst. director bacter. service, Cincinnati Gen. Hosp.*, 24- Summer, clin. fellow, Trudeau Sanatorium, 24. Capt, Sanit.C, 18-19. Epidemiology of diphtheria; physiology of bacteria; water requirements of bacteria.
- Walker, Seth S(tetson)**, 3006 Waverly Ave, Tampa, Fla. *Chemistry*. Orleans, Ind, Jan. 26, 86. B.S., Chicago, 07, M.S., 09. Asst. chem, Purdue, 09-10; asst. chemist, Rubber Regenerating Co, 10-12; Fla. Exp. Sta, 12-15, *assoc. chemist*, 15-17; chemist, Fla. Fruit Products Co, 17-18; soil chemist, La. Exp. Sta, 18-20; chemist, Fla. Citrus Exchange and Exchange Supply Co, 20-26; chemist and gen. manager, Fla. Orange Juice Co, 26-27; *assoc. chemist, Wood-Thornton Laboratories*, 27- Chem. Soc; Ass. South. Agr. Workers. Citrus fruit fertilizers; soils; fruit products.

- Walker, Stanton**, National Sand and Gravel Association, 837 Munsey Building, Washington, D. C. *Engineering*. Vevay, Ind, March 18, 94. B.S., Illinois. *Assoc. engineer, structural materials research lab, Lewis Inst, Chicago*, 17-; *director engineering and research div, Nat. Sand and Gravel Ass*, 26- Test engineer in charge field tests. Joint Committee on Concretes and Reinforced Concrete, 23. Civil Eng; Soc. Test. Mat. Concrete and concrete materials.
- Walker, Prof. T(homas) L(eonard)**, University of Toronto, Toronto, Ont., Can. *Mineralogy*. Brampton, Ont, 67. M.A., Queen's (Can), 90; Leipzig, 94-97, Ph.D, 96. Demonstrator chem, Sch. Mining, Kingston, 93-95; asst. supt, Geol. Surv. of India, 97-01; *prof. miner. and petrog, Toronto*, 01- Geol. Soc; Can. Min. Inst; fel. London Geol. Soc. Petrography; crystallography; occurrences of tungsten and molybdenum in Canada.
- Walker, Prof. Walter O(wen)**, William Jewell College, Liberty, Mo. *Chemistry*. Maywood, Nebr, March 25, 96. A.B., William Jewell, 19; M.S., Chicago, 25. Teacher, high sch, 19-23; asst. prof. chem, *William Jewell*, 23-24, *assoc. prof*, 25- Chem. Soc; Mo. State Sci. Teachers Ass. (exec. committee, 23). Thermal decomposition of the cobaltic amines; application of the electron theory to the teaching of chemical valence and reactions.
- Walker, Prof. W(illiam) H(ultz)**, Massachusetts Institute of Technology, Cambridge, Mass. **Chemical engineering*. Pittsburgh, Pa, April 7, 69. B.S., Pa. State, 90; Ph.D., Göttingen, 92; Sc.D., Pittsburgh, 15. Instr. chem, Pa. State, 92-94; *Mass. Inst. Tech*, 94-99, *prof. indust. chem*, 02-20, *director div. indust. cooperation and research*, 20- Consulting chem. engineer, 00- Nichols medal, N. Y. sect, Chem. Soc, 08; D.S. medal, 19. V. pres, Int. Cong. Applied Chem, Berlin, 93. Commanding officer, Edge-wood Arsenal; lieut. col. col. and chief chem. service sect, C.W.S., in charge gas offense div. A.A.; Chem. Soc. (pres, N. E. sect, 04); Electrochem. Soc. (pres, 10); Iron and Steel Inst; Soc. Test. Mat; Am. Acad; London Soc. Chem. Indust. Production of art glass; the manufacture of sterling silver; the chemistry of cellulose and its industrial applications; corrosion of iron and steel; technology of petroleum.
- Wall, Edward Everett**, 5361 Pershing Ave, St. Louis, Mo. *Public health*. Cambridge, Mo. C.E., Missouri, 84. Ry. and munic. eng, 84-92; sewers and waterworks, *St. Louis*, 92-06, asst. water commissioner, 06-11, water commissioner, 11-25, *director pub. utilities*, 25- Thomas Fitch Rowland prize, Soc. Civil Eng, 08. Civil Eng. (director, 18-21, v. pres, 21-23); Pub. Health Ass; Soc. Munic. Improv; Water Works Ass. (trustee, 24-27); New Eng. Water Works Ass. Water supply and purification.
- Wallace, Prof. D(aniel) L(incoln)**, 5644 Christian St, Philadelphia, Pa. *Chemistry*. Philadelphia, Nov. 12, 60. Pub. sch; hon. Ch.D., Pennsylvania, 16. Instr. anal. chem, *Pennsylvania*, 92-20, asst. prof, 20-26, *prof*, 26- Chem. Soc. Electrolysis of metals.
- Wallace, Prof. E(arl) K(eeney)**, 1135 Murray Hill Ave, Pittsburgh, Pa. *Chemistry*. New-
manstown, Pa, May 1, 97. B.S., Pa. State, 19; A.M., Columbia, 23, Ph.D, 25. Instr. chem, Pa. Mil. Col, 19-21, asst. prof. math, 21-23; asst. chem, Columbia, 23-25; *prof. and head dept. chem. and physics, Pa. Col. for Women*, 25- Chem. Soc. Biochemistry; the influence of mercuric chloride on invertase action.
- Wallace, Dr. Errett**, U. S. Department of Agriculture, Washington, D. C. *Plant pathology*. West Core, N. S. Can, 77. B.S.A., Cornell, 08, fellow, 09-11, M.S.A., 09, Ph.D, 11. *Plant pathologist, bur. plant indust, U. S. Dept. Agr*, 11- A.A.; Phytopath. Soc; Wash. Bot. Soc.
- Wallace, Prof. George B(arclay)**, 338 E. 26th St, New York, N. Y. *Pharmacology*. Detroit, Mich, Sept. 21, 75. Oregon; M.D., Michigan, 97; Vienna, 99, 08; Strassburg, 04. Instr. *pharmacol*, Michigan, 97-00; *Univ. and Bellevue Hosp. Med. Col*, 01-03, lecturer, 03-05, asst. prof, 05-07, *prof*, 07- M.C., U.S.A., 17-19. A.A.; Soc. Nat; Soc. Pharmacol; Physiol. Soc; Soc. Physiol. Chem; Soc. Clin. Invest; Soc. Exp. Biol. (v. pres, 19, pres, 21-23); Harvey Soc. (pres, 14-16). Saline cathartics; volatile oils; cyanides; nitrites; diuretics; bile pigments.
- Wallace, L(awrence) W(ilkerson)**, American Engineering Council, 26 Jackson Place, Washington, D. C. *Engineering*. Webberville, Texas, Aug. 5, 81. B.S., Agr. and Mech. Col. Texas, 03; M.E., Purdue, 12. Special apprentice, Santa Fe Ry. Co, 03-06; from instr. to prof, Purdue, 06-17, in charge dept. ry. and indust. management, 17; asst. gen. manager, Diamond Chain and Mfg. Co, Ind, 17-19; director, Red Cross Inst. for Blind, Md, 19-21; *exec. sec'y, Am. Eng. Council, Washington*, 21- Exchange lecturer, Michigan, 15. Consulting engineering companies. Mem. advisory council, div. simplified practice, U. S. Dept. Commerce. Chairman and engineer director, Study of Waste in Industry; director, Ind. indust. surv. for Council of Nat. Defense; Eyesight Conservation Council; mem. Ind. fuel advisory committee, U. S. Fuel Ad, 17-18. A.A. (sec'y, eng. div, 23-25); Mech. Eng. (chairman, Ind. sect, 16, committees); Eng. Council (committees); Indust. Eng. (pres, 18-21); Polit. Sci. Ass; Acad. Polit. Sci; Wash. Soc. Eng; Ind. Eng. Soc. (pres, 15). Superheated steam in locomotives; air brakes; brake shoes; behavior of locomotive cinders and sparks; steel freight car design; railway and industrial management.
- Wallace, Prof. Louise B(aird)**, Mount Holyoke College, South Hadley, Mass. *Zoology*. New-
ville, Pa, Sept. 21, 67. Woods Hole, summers, 91-03; A.B., Mt. Holyoke, 98, hon. Sc.D, 19; Naples Zool. Sta, 01; A.M., Pennsylvania, 04, Ph.D, 08. Asst. zool, Mt. Holyoke, 93-96; Smith, 96-99; instr, Mt. Holyoke, 99-03, *assoc. prof*, 04-12; *prof. biol, Constantinople Col*, 12-27, dean faculty, 13-24, v. pres, 24-27; *prof. zool, Mt. Holyoke*, 27- Soc. Zool. Axillary gland of Batrachus; the germ-ring in the egg of Batrachus; spermatogenesis and oogenesis of the spider.

Wallace, Prof. R(obert) C(harles), University of Manitoba, Winnipeg, Man, Can. *Geology*. Orkney, Scotland, June 15, 81. M.A., Edinburgh, 01, B.Sc., 07, 1851 Exhib. scholar, 08-10, D.Sc., 12; Carnegie fellow, 10, St. Andrews, 09-10; Ph.D., Göttingen, 09. Science master, 01-05; demonstrator, St. Andrews, 09-10; lecturer *geol. and miner., Manitoba*, 10-12, *prof.*, 12- Commissioner, North Manitoba, 18-21; commissioner of mines, Manitoba, 27- A.A.; Soc. Econ. Geol.; Miner. Soc.; fel. Royal Soc. Can.; Can. Min. Inst.; fel. London Geol. Soc. Mineralogy; crystallography; economic geology; silicates; dolomitization; rock magmas; gypsum and anhydrite; gold mineralization; petrology of Precambrian; colloidal precipitation; sedimentary processes.

Waller, Dr. A(dolph) E(dward), Ohio State University, Columbus, Ohio. *Botany*. Louisville, Ky, Aug. 24, 92. B.S., Kentucky, 14; M.S., Ohio State, 16, fellow, 16-18, Ph.D., 18. Asst. agron., *Ohio State*, 14-16, *instr. bot.*, 18-21, *asst. prof.*, 21- Lecturer, Yazoo and Miss. Ry, 17; collaborating pathologist, U. S. Dept. Agr., 18. Summers, teacher, E. Ill. State Nor. Sch., 19, Bowling Green Nor. Col., 24. Assoc. ed., 'Ecol.' A.A.; Bot. Soc.; Ecol. Soc.; Ass. Geog.; Ohio Acad. (treas.). Physiology; ecology; economic botany; crop centers; xenia; ecology of crop plants.

Wallerstein, Dr. Max, 171 Madison Ave, New York, N. Y. *Chemistry*. Fuerth, Bavaria, 74. Ph.D., Munich, 96. *Consulting chemist*. A.A.; Chem. Soc.; Soc. Chem. Indust.; Chem. Verein. Fermentology.

Wallin, Prof. Ivan E, University of Colorado School of Medicine, Denver, Colo. *Anatomy*. Page Co, Iowa, Jan. 22, 83. B.S., Iowa, 05; fellow, Nebraska, 07-08, A.M., 08; Sc.D., N. Y. Univ., 15. Prof. biol., Upsala, 05-07; head dept., high sch., Wis., 08-10; *instr. anat.*, Univ. and Bellevue Hosp. Med. Col., 10-13; Louisville, 13-14; med. col., Cornell, 14-15; *asst. prof.* and *assoc. prof.*, Marquette, 15-18; *prof. and head dept.*, Colorado, 18- A.A.; Ass. Anat.; *assoc. fel.* Am. Med. Ass.; Soc. Exp. Biol. Thymus and development of blood in cyclostomes; trematodes; human embryology; cytology; mitochondria; microsymbiosis; evolution; symbiontism.

Wallin, Dr. J(ohn) E(dward) Wallace, Miami University, Columbus, Ohio. *Psychology, Education*. Bethesda, Iowa, Jan. 21, 76. A.B., Augustana, 97; A.M., Yale, 99, fellow and hon. fellow, 99-01, Ph.D., 01. Fellow, hon. fellow and research asst. to Pres. Hall, Clark, 01-02; *asst. philos.*, Michigan, 02-03; demonstrator exp. psychol., Princeton, 03-06; head dept. psychol. and educ. and v. prin., Pa. State Nor. Sch., E. Stroudsburg, 06-09; Nor. Training Sch., Cleveland, 09-10; director psychol. lab., N. J. Village for Epileptics, Skillman, 10-11; *asst. prof. educ. psychol.*, Pittsburgh, 12-13, *prof. clin. psychol.*, 13-14, director psychol. clin., 12-14; Psycho-Educ. Clinic and special schools, St. Louis, 14-21; *prof. clin. psychol. and director bur. special educ. and psycho-educ. clinic*, Miami, 21- Lecturer, Harris Teachers Col., 14-21; summers, lecturer, Vineland Training Sch., 10, Iowa, 17, California, 18, Montana, 20, New

York, 23; director psychol. research, oral hygiene committee, Nat. Dental Ass., 10-11; psychologist, Mellon Inst., 12-13. Collaborator, 'Jour. Delinquency'; 'Jour. Applied Psychol.' Chairman, committee on defective children, Mo. Children's Code Commission, 15-21; chairman, committee on mental hygiene, Mo. Conf. for Social Welfare, 19-20. Delegate, Univ. Pittsburgh, and conductor psychol. clinic, Fourth Int. Cong. Sch. Hygiene, 13; Panama-Calif. Expos., 15; Int. Council Educ. Exceptional Children. A.A. (committee, I, Q and H); Psychol. Ass. (chairman, sect. clin. psychol., 17); Nat. Soc. Study Educ.; Soc. Col. Teachers Educ.; Mo. Soc. Mental Hygiene (treas., 20); Mo. State Teachers Ass. (chairman, dept. special classes, 20-22); Ohio State Teachers Ass. (pres., 21, 26, pres. sect. special educ.). Abnormal and clinical psychology; mental tests, defects and hygiene; education of handicapped children.

Wallis, Prof. Everett S(tanley), St. John's College, Annapolis, Md. *Chemistry*. Waitsfield, Vt., Dec. 17, 99. B.S., Vermont, 21, M.S., 22; A.M., Princeton, 24, Charlotte Elizabeth Procter fellow, 24-25, Ph.D., 25. *Instr. chem.*, Vermont, 21-22; *asst.*, Princeton, 22-23; *asst. prof.*, St. John's (Md.), 25-26, *assoc. prof. and head dept.*, 26- Chem. Soc. Organic chemistry of nitrogen; Beckmann rearrangement.

Wallis, W(illiam) F(isher), Carnegie Institution, Washington, D. C. *Physics*. Baltimore, Md., June 5, 74. A.B., Hopkins, 96, 96-97, 98-99; B.S., Mass. Inst. Tech., 13. Teacher, Baltimore, 97-98, 99-00; magnetic observer, U. S. Coast and Geod. Surv., 00-10; *Carnegie Institution*, 13- A.A.; Wash. Philos. Soc. Terrestrial magnetism; atmospheric electricity; seismology.

Wallis, W(ilson) D(allam), Junior College, Fresno, Calif. *Anthropology*. Forest Hill, Md., March 7, 86. A.B., Dickinson, 07, A.M., 10; Rhodes scholar, Oxford, 07-10, B.Sc., 10; Harrison fellow, Pennsylvania, 10-11. *Instr. anthrop.*, Pennsylvania, 11-15; California, 15-16. Summer, field ethnologist, Can. Geol. Surv., 14. *Anthrop. Ass.* (exec. committee, 14-); Ethnol. Soc. Social anthropology; the Wahpeton division of the Dakota tribe; Messiahs, Christian and pagan.

Walsh, Prof. Ja(me)s J(oseph), 110 W. 74th St., New York, N. Y. *Psychology*. Archbald, Pa., April 12, 65. A.B., Fordham, 84, A.M., 85, Ph.D., 92; M.D., Pennsylvania, 95; Paris, Vienna and Berlin, 96-98; Litt.D., Georgetown, 09; Sc.D., Notre Dame, 10. *Instr. med.*, N. Y. Polytech., 00-02, *adjunct prof.*, 02-05; *prof. nervous diseases and dean sch. med.*, Fordham, 05-12; *prof. physiol. psychol.*, Cathedral Col., 09-; *med. director sch. sociol.*, Fordham, 17- Lecturer, Marywood Col.; trustee, Catholic Summer Sch. Lactare medal, 16. A.A.; Am. Med. Ass.; N. Y. Acad. Med.; N. Y. Hist. Soc. History of medicine; medical education and regulation; sociological history; psychoneuroses.

Walsh, Prof. J(oseph) L(eonard), 547 Widener Library, Cambridge, Mass. **Mathematics*. Washington, D. C., Sept. 21, 95. Columbia, 12-13; B.S., Harvard, 16, Ph.D., 20; M.S., Wisconsin, 17; München, 25-26. *Asst. math.*, Harvard, 15-16, *instr.*, 17, 19, 21-24, *asst. prof.*, 24- Sheldon

- traveling fellow, Chicago and Wisconsin, 16-17, Paris, 20-21; Int. Educ. Board fellow, München, 25-26. Math. Soc; Math. Ass; Math. Verein; Soc. math. de France; Circolo Mat. di Palermo. Location of roots of polynomials; expansion problems for functions of a real variable and for analytic functions of a complex variable.
- Walsh, Dr. L. S. Newman**, Washington University, St. Louis, Mo. *Pathology*. St. Louis. M.D., St. Louis, 16; D.V.M., Kansas City Vet. Col., 13. Asst. comp. path. sch. med., Washington (St. Louis), 16-18; res. pathologist, Barnes Hosp., 18-19; asst. path. med. sch., Washington (St. Louis), 19-21, instr., 21- Asst. pathologist, St. Louis Children's Hosp., 18-19; Barnes Hospital, 21-; pathologist, St. Luke's Hosp., 26- Ass. Path. and Bact. Comparative pathology; haemagglutination; cancer; thyroid; tissue culture; spermatoxins.
- Walster, Dean H(arlow) L(eslie)**, 1130 Fourth St, N. Fargo, N. Dak. *Agronomy*. Troy, Wis., April 20, 83. B.S.A., Wisconsin, 08; A.M., Harvard, 13; Ph.D., Chicago, 18. Asst. prof. soils, Wisconsin, 13-18; *agronomist and director soil surv.*, N. Dak. *Exp. Sta.*, 19-; *dean sch. agr.*, N. Dak. Col., 24- Soc. Agron; Ecol. Soc. Plant physiology; influence of temperature on growth of cereals; soil fertility; forage crops in northern latitudes.
- Walter, Prof. H(erbert) E(ugene)**, Brown University, Providence, R. I. **Biology*. Burke, Vt., April 19, 67. A.B., Bates, 92; A.M., Brown, 93; Freiburg, 93-94, 03; Ph.D., Harvard, 06. Instr. *biol.*, high sch., Ill., 94-04; asst., Harvard, 04-06; asst. prof., Brown, 06-13, assoc. prof., 13-23, *prof.*, 23- Instr., Cold Spring Harbor, 06-17, asst. director, 17- A.A.; Soc. Nat; Soc. Zool; assoc. Ornith. Union. Animal behavior; mammary organs; heredity; ornithology; comparative anatomy.
- Walters, Dr. A(rthur) L(ouis)**, Miami Beach, Fla. *Medicine*. Battle Ground, Ind., Jan. 20, 84. B.S., Purdue, 04; M.D., Hopkins, 12. Botanist, Eli Lilly and Co., 04-08, asst. director sci. div., 13-25; *med. director*, Allison Hosp., 26- Assoc. Indiana, 13-18. Cong. Internal Med. Am. Med. Ass; Chem. Soc. Pharmacology of alkaloids; insulin; diabetes.
- Walters, Dr. Francis M(arion), Jr**, 902 Kennebec St, Pittsburgh, Pa. *Physics*. Monticello, Ind., April 25, 88. A.B., Missouri, 11, A.M., 14, Ph.D., 20. Asst. physics, Missouri, 14-15; in charge dept., Montana, 15-16; instr., St. Joseph (Mo) Junior Col., 16-18; asst. physicist, Bur. Standards, 18-20, assoc. physicist, 20-21, 22-24; *prof. physics*, St. John's (Shanghai), 21-22; *director bur. metal. research*, Carnegie Inst. Tech., 24- Physical Soc; Optical Soc; Royal Photog. Soc. Spectroscopy; photography; regularities in spectra; photographic sensitometry.
- Walton, Prof. Arthur C(alvin)**, Knox College, Galesburg, Ill. *Biology*. Meadville, Pa., Oct. 92. A.B., Northwestern, 13, A.M., 15; Ph.D., Illinois, 23. Asst., Northwestern, 13-15; teaching fellow, Harvard and Radcliffe, 15-17; *prof. biol.*, Northwestern Col., 18-24; *Knox Col.*, 24-, *chairman dept.*, 25- Summers, instr., Illinois, 23-25. A.A.; Soc. Zool; Soc. Parasitol; Cent. Ass. Sci. and Math. Teachers; Ill. Acad. Nematology; cytology; coelenterate embryology.
- Walton, C(harles) F(ranklin), Jr**, U. S. Department of Agriculture, Washington, D. C. *Chemistry*. Portland, Maine, April 18, 90. A.B., Harvard, 13; Mass. Inst. Tech., 12-14. Asst. chem., Mass. Inst. Tech., 12-14; investigator nutrition, U. S. Dept. Agr., 14-16; Nat. Carbon Co., 16-17; Foote Mineral Co., 17-18; *assoc. chemist, bur. chem.*, U. S. Dept. Agr., 18- Chem. Soc. Carbohydrate chemistry; manufacture of sugar, syrup and molasses.
- Walton, Geo(rge) (Robert) P(elham)**, 6008 83d St, Chevy Chase, D. C. *Agricultural chemistry*. Richmond, Va., May 26, 88. B.S., George Washington, 12, M.S., 25. Asst. chemist, bur. chem., U. S. Dept. Agr., 12-22, *scientist, fertilizer investigations, and assoc. chemist in charge org. nitrogen investigations, bur. soils*, 22- Chairman linseed products committee, Ass. Feed Control Officials, 17. Chem. Soc; Agr. Chem. Definitions of linseed by-products; hydrogen-ion concentration of African sorrel; cocoa and apple by-products; utilization of the wastes from the small-scale slaughter of meat animals; municipal garbage.
- Walton, Dr. James H(enri)**, University of Wisconsin, Madison, Wis. *Chemistry*. Deer Isle, Maine, Feb. 26, 78. B.S., Mass. Inst. Tech., 99, Austin traveling fellow, 01-03; Ph.D., Heidelberg, 03. Asst. chem., Illinois, 99-00; Mass. Inst. Tech., 00-01; instr., Illinois, 03-06, assoc., 06-07; asst. prof., Wisconsin, 07-12, assoc. prof., 12-19, *prof.*, 19- Major, C.Eng., 17-19. Chem. Soc. Catalysis; growth of crystals; dehydration by sulfuric acid; pyrophoric metals; the phosphoric acids.
- Walton, Prof. L(ee) B(arker)**, Gambier, Ohio. *Biology*. Bear Lake, Pa., Nov. 12, 71. Ph.B., Cornell, 97, Goldwin Smith fellow, 01-02, Ph.D., 02; Bonn, 97-99; A.M., Brown, 00. Asst. *biol.*, Brown, 00-01; *prof. Kenyon*, 02- Asst., U. S. Fish Commission, 00; Am. Museum Nat. Hist., 01; instr., lake lab, Ohio State, 05-07, 09. A.A. (councilor, 15-17); Soc. Nat; Soc. Zool; Entom. Soc. Amer; Ohio Acad. (sec'y, 06-12, pres, 13); Boston Soc. Nat. Hist. Evolution; variation; genetics; aquatic biology; morphology of Hexapoda; land planarians of North America; dynamics as related to form and function of organisms; laboratory and museum technique.
- Walton, W(illiam) R(andolph)**, U. S. Department of Agriculture, Washington, D. C. *Entomology*. Brooklyn, N. Y., Sept. 23, 73. Grad., Stevenson Sch. of Art, Pittsburgh, Pa. Specialist and artist, Pa. State Div. Zool., Harrisburg, 06-10; agent and expert, *bur. entom.*, U. S. Dept. Agr., 10-17, entomologist in charge *cereal and forage insect investigations*, 17-23, *entomologist*, 23- A.A.; Entom. Soc. Amer; Ass. Econ. Entom; N. Y. Entom. Soc; Wash. Entom. Soc. (ed, past pres); Soc. entom. de France. Taxonomy of Diptera; cereal and forage insects.
- Wang, Dr. Chi Che**, Nelson Morris Memorial Institute, 2900 Ellis Ave, Chicago, Ill. *Chemistry*. Soochow, China. A.B., Wellesley, 14;

- M.S., Chicago, 15, Ph.D., 18. Asst., Chicago, 17-19, instr., 19-20; *head dept. chem., Nelson Morris Inst.*, 20- A.A.; Chem. Soc.; Soc. Biol. Chem.; Soc. Exp. Biol. Chemistry of foods; blood chemistry; energy and substance metabolism of undernourished children; energy metabolism of obese and thin people.
- Wang, Ging Hsi**, Sun Yat Sen University, Canton, China. *Psychobiology*. Tsinan, Shangtung, China, July, 97. A.B., National Univ., Peking, 19; Ph.D., Hopkins, 23. Asst. psychobiol., sch. med., Hopkins, 23-26, instr., 26-27; *director, Inst. Psychol., Sun Yat Sen Univ.*, 27- Animal behavior problems; spontaneous activity and its relations to internal secretions, especially the ovary.
- Wanless, Dr. Harold R(ollin)**, University of Illinois, Urbana, Ill. *Geology*. Chicago, Ill., Dec. 5, 98. B.S., Princeton, 20, fellow, 20-21, A.M., 21, fellow, Ph.D., 23. Reader *geol.*, Princeton, 21-22; instr., *Illinois*, 23-26, *assoc.*, 26- Summers, mem. Princeton *geol. exped.*, S. Dak., 20-23, geologist, Ill. State *Geol. Surv.*, 25-27. A.A.; Ill. Acad. Lithology and stratigraphy of White River formation of South Dakota; geology of the Alexis quadrangle, Illinois; geology of the Havana quadrangle, Illinois.
- Wann, Dr. Frank B(urkett)**, Utah Agricultural College, Logan, Utah. *Plant physiology*. Warsaw, Ind., April 16, 92. A.B., Wabash, 14; Shaw Sch. of Bot., 14-15; Ph.D., Cornell, 20. Teaching fellow, Shaw Sch. of Bot., 14-15; instr. bot., Cornell, 15-23, Nat. Research Council fellow *biol. sciences*, 23-26; *assoc. prof. bot.*, *Utah Col.*, 26- A.A.; Bot. Soc. Physiology of algae.
- Wanner, Atrous**, York, Pa. *Geology*. Washingtonville, Ohio, Sept. 26, 52. A.B., Franklin and Marshall, 73. Prin. high sch., York, Pa., 80-90, city supt., pub. schools, 90-22. A.A.; Anthropol. Soc. Local geology and archeology; mineralogy.
- Warburton, C(lyde) W(illiam)**, 20 W. Lenox St., Chevy Chase, Md. *Agronomy*. Independence, Iowa, Dec. 7, 79. B.S., Iowa Col., 02, hon. Sc.D., 25. Ed., book dept., Webb Publishing Co., Minn., 11-12; asst. agriculturist, office farm management, *U. S. Dept. Agr.*, 03-07, agronomist, office cereal investigations, bur. plant indust., 07-10, 12-23, *director exten. work*, 23- A.A.; Soc. Agron. (sec'y, 15-19, pres, 25, ed., 'Jour.', 15-21); Genetic Ass.; Wash. Acad.; Wash. Bot. Soc. Cereal production and breeding.
- Ward, Dr. A(rchibald) R(obinson)**, 1986 Waverly Ave., Detroit, Mich. *Veterinary science, Bacteriology*. Ithaca, N. Y., Sept. 12, 75. B.S.A., Cornell, 98, D.V.M., 01. Asst. dairy bacter., Cornell, and dairy bacteriologist, Exp. Sta., 98-01; instr. vet. science and bacter., California, and veterinarian to Exp. Sta., 01-03, asst. prof. bacter., 03-10, director, State Hygienic Lab., 05-10; chief, V.C. P. I., 10-14; pathologist, bur. animal indust., U. S. Dept. Agr., 14-18; lab. director, Goshen Laboratories, Inc.; *asst. chief dairy research div., Mathews Industries, Inc.*, Mich. Soc. Bact.; Vet. Med. Ass. The bacterial flora of the cow's udder; slimy fermentations of milk; bacteriology of market milk; infectious diseases of fowls.
- Ward, Cha(rle)s H(owell)**, 5 Prospect St., Rochester, N. Y. *Osteology*. Rochester, Oct. 28, 62. Alfred, 80; Rochester, 95-98. In charge dept. human anat., Ward's Nat. Science Estab., 91-99; manager *anat. lab. of Chas. H. Ward, Inc.*, 99-26, *pres.*, 26- A.A.; Soc. Nat.; Ass. Anat.; hon. mem. Rochester Dental Soc.; fel. Rochester Acad.; hon. mem. Seventh Dist. N. Y. Dental Soc. Osteology; odontology; anthropology.
- Ward, Dr. Fred W(ilbert)**, 20 Torrington Place, Ottawa, Ont., Can. *Biochemistry*. Toronto, Ont., Aug. 4, 91. B.A.Sc., Toronto, 16, M.A., 19; A.M., Harvard, 20; Ph.D., Cambridge, 23. Demonstrator *biochem.*, Toronto, 17-19, chem., 20-21; *chemist pharmacologist*, *Can. Dept. Health*, 23- A.A.; Chem. Soc. Purine metabolism; indol metabolism; spectroscopy.
- Ward, Dr. Freeman**, Lafayette College, Easton, Pa. *Geology*. Yankton, S. Dak., Aug. 9, 79. A.B., Yale, 03, Ph.D., 08. Asst. *geol. and miner.*, Yale, 03-05, Sheffield Sci. Sch., 05-07, instr., 07-12, asst. prof., 12-15; prof. *geol.*, South Dakota, and state geologist, S. Dak., 15-26; *head dept. geol., Lafayette Col.*, 26- A.A.; Geol. Soc.; Ass. Petrol. Geol. (pres, 19). Oil; chalk; clay; natural resources of South Dakota.
- Ward, Dr. H. Lee**, Washington University, St. Louis, Mo. *Chemistry*. Laurens, N. Y., May 18, 83. A.B., Yale, 06, Ph.D., 09. Instr. chem., Swarthmore, 09-12; Wesleyan, 12-14, *assoc. prof.*, 14-15; instr., Minnesota, 15-18; research physical chemist, Nat. Aniline and Chem. Co., 18-21; asst. prof. chem., *Washington (St. Louis)*, 21-26, *assoc. prof.*, 26- A.A.; Chem. Soc.; Electrochem. Soc. Oxalates in analysis; distillation of tars; physical properties of organic compounds; solubility.
- Ward, Prof. Henry B(aldwin)**, University of Illinois, Urbana, Ill. *Zoology*. Troy, N. Y., March 4, 65. A.B., Williams, 85, Sc.D., 21; A.M., Harvard, Ph.D., 92; Göttingen, Freiberg, Leipzig and Naples Zool. Sta., 88-90; Sc.D., Cincinnati, 20. Instr. high sch., N. Y., 85-88; *zool.*, Michigan, 93; *assoc. prof. and prof.*, Nebraska, 92-06, head prof., 06-09; *prof., Illinois*, 09- Dean *col. med.*, Nebraska, 02-09; in charge *biol. work*, Mich. Fish Commission, 94; *assoc. biol. surv.*, Great Lakes, U. S. Fish Commission, 98-09; Alaska salmon investigations, 06- Ed., 'Studies from Zool. Lab., Univ. of Nebr.'; asst. ed., 'Am. Naturalist'; 'Wood's Reference Handbook Med. Science'; 'Ency. Amer.'; founder and managing ed., 'Jour. Parasitol.' A.A. (sec'y, F, 01, gen. sec'y, 03, v. pres, 05); Soc. Nat.; Soc. Zool. (pres, 12); Soc. Parasitol. (pres); Ecol. Soc.; Micros. Soc. (sec'y, ed., 'Trans.', pres); Fisheries Soc. (v. pres, 13); *assoc. Am. Med. Ass.*; *Am. Med. Col.* (pres, 08); Nat. Cent. States; *Nbr. Acad.* (pres); Ill. Acad. (pres, 19); Soc. *zool. de France*; for. mem. Russian Soc. Acclim.; Soc. Sci. Bohemia (regent); for. cor. mem. Venezuela Acad. Med. Investigations on the Great Lakes; plankton; parasites of man and the domestic animals; worms; life history of Pacific salmon; stream pollution; parasites of man and of fish; origin of parasitic fauna.

- Ward, Henry L(evi)**, Kent Scientific Museum, Grand Rapids, Mich. *Zoology*. York, N. Y., Oct. 8, 63. Rochester, 85; California, 20. Ward's Nat. Science Estab, 84-87, comp. anatomist, 86-87; Mex. Govt. exped. in search West Indian seal, 86; osteologist, Mex. Geog. Exploring Commission, 87-91; dept. manager and v. pres, Ward's Nat. Science Estab, 91-02; *director*, Milwaukee Pub. Museum, 02-20; *Kent Sci. Museum*, 22- Mex. Commission, Paris Expos, 89. A.A.; Ass. Mus. (v. pres, 11, pres, 12); assoc. Ornith. Union; Soc. Mammal; Wis. Research Bur. (pres, 20); Wis. Acad. (pres, 16-18); Wis. Nat. Hist. Soc. (v. pres, 04-); Mich. Acad; Mich. Audubon Soc; Mich. Archeol. Soc. Mammals; birds; meteorites; museum administration.
- Ward, Dr. H(iram) Lee**, 51 Colvin St, Buffalo, N. Y. *Chemistry*. Laurens, N. Y., May 18, 83. A.B., Yale, 06, Ph.D., 09. Instr. chem, Swarthmore, 09-12; Wesleyan, 12-14, assoc. prof, 14-15; instr, Maine, 15-18; *research physical chemist*, Nat. Aniline and Chem. Co, 18- A.A.; Chem. Soc; Electrochem. Soc; Inst. Metals. Oxalates in analysis; distillation of tars; physical properties of organic compounds.
- Ward, Dr. Lenore (Babcock)**, University of Wyoming, Laramie, Wyo. *Genetics*. Syracuse, N. Y., March 30, 87. A.B., Indiana, 15; A.M., Michigan, 19, Ph.D., 22. Director nor. sch, Ohio, 15-18; teaching assoc. zool, Michigan, 18-22; *instr. physiol. and zool*, Wyoming, 26- Summer, Carl Braun fellow, Woods Hole, 21. Mich. Acad. (v. pres, 19). Genetics of *Drosophila melanogaster*.
- Ward, Dr. Lewis E(des)**, University of Iowa, Iowa City, Iowa. *Mathematics*. Plymouth, Mass, Aug. 6, 97. B.S., Harvard, 19, A.M., 20, Ph.D., 25. *Instr. math*, Rice Inst, 21-23; *Iowa*, 25- Instr, Harvard, 23-25. A.A.; Math. Soc; Math. Ass. Expansion of arbitrary functions.
- Ward, Prof. R(obert) DeC(ourcy)**, Harvard University, Cambridge, Mass. *Climatology*. Boston, Mass, Nov. 29, 67. A.B., Harvard, 89, A.M., 93. Asst. physical geog, Harvard, 90-94, meteor, 94-95, instr, 95-96, *climat*, 96-00, asst. prof, 00-10, *prof*, 10- Shaler Mem. exped, Brazil, 08. V. chairman, sect. meteor, Geophys. Union, 22. A.A.; Ass. Geog. (pres, 17); Meteor. Soc. (pres, 20-22); Am. Acad; Philos. Soc; fel. Royal Meteor. Soc; cor. mem. Meteor. Gesell. Relations of climate and man; climatology of the United States.
- Ward, Dr. Willard P(arker)**, 4 Liberty St, Savannah, Ga. *Metallurgy*. New York, N. Y., Oct. 12, 45. A.B., Columbia, 65, A.M.; Clausthal and Berlin, 65-69; Ph.D., Univ. State of N. Y., 77. Asst. engineer, U. S. Smelting Co, 72-73. Assoc. ed, 'Eng. and Min. Jour.', 70-71. A.A.; Min. Eng. (founder). Metallurgy of manganese; manufacture of blast furnace ferro-manganese.
- Warden, Prof. Carl J(ohn)**, 78 Morningside Drive, New York, N. Y. *Psychology*. Hamilton, Mo., March 18, 90. A.B., Cotner Col, 15; A.M., Nebraska, 16, fellow, 16-17; Ph.D., Chicago, 22. Instr. *animal psychol*, Wisconsin, 23-24; *Columbia*, 24-27, *asst. prof*, 27- A.A.; Psychol. Ass. Animal psychology; psychology of advertising; psychology of learning.
- Wardle, H(arriet) Newell**, Academy of Natural Sciences, Philadelphia, Pa. *Anthropology*. Philadelphia, Feb. 26, 75. Friends' Sch, Phila; Mt. Vernon Sem, 91; Acad. Nat. Sciences, Phila, 99-05. Asst. to curators, *Acad. Nat. Sciences, Phila*, 05-20, *asst. curator in charge dept. archeol*, 20- A.A.; Anthropol. Ass; Folk-Lore Soc; Int. Cong. Americanists. Eskimo mythology; American basketry; American symbolism; North American archeology; Polynesian technology.
- Ware, Prof. J(ohn) C(hristie)**, Saddle River, N. J. *Chemistry*. Vincentown, N. J., Dec. 5, 80. Ph.B., Wesleyan, 03, Sc.M., 07; Columbia, 04; Ph.D., N. Y. Univ, 22. Head science departments, secondary schools, 04-17; Newark City Col, 17-22; *assoc. prof. chem*, N. Y. Univ, 22- Inst. lecturer and expert chemist, U. S. Dept. Agr; chemist, City of Stamford, Conn; analyst, Stollwerck Mfg. Co, consulting chemist. Am. Inst; Chem. Soc; Stamford Sci. Soc. (pres, 05). Commercial pasteurization of milk; chemical effects of heat on milk; physiological effects of certain onium compounds; effect of light on chemical reactions.
- Warfield, Dr. C(alvin) N(orwood)**, University of Richmond, Richmond, Va. *Physics*. Baltimore, Md, Dec. 6, 01. B.E., Hopkins, 23, M.A., 25, Ph.D., 26. Asst. physicist, Edgewood Arsenal, 24-25; *assoc. prof. physics*, Richmond, 26- A.A.; Physical Soc; Elec. Eng; Am. Acad; Va. Acad. Optical excitation.
- Warfield, Dr. L(ouis) M(arshall)**, 193 Prospect Ave, Milwaukee, Wis. *Medicine*. Savannah, Ga, May 15, 76. A.B., Hopkins, 97, M.D., 01. Intern, Hopkins Hosp, 01-02; instr. med, Washington (St. Louis), 04-09; prof. clin. med, Marquette, 11-19; internal med. and head dept, Michigan, 22-24; *clin. director*, Milwaukee Co. Dispensary, 26- Major, M.C, 18-19. Am. Med. Ass; assoc. Am. Physicians. Internal medicine; blood pressure; arteriosclerosis.
- Waring, G(erald) A(shley)**, Margay Oil Corporation, Box 2103, Tulsa, Okla. *Geology*. Ouray, Colo, Sept. 6, 83. A.B., Stanford, 05. U. S. Geol. Surv, 06-17; oil geologist, Tulsa, Okla, 17-18; chief geologist, Trinidad Petrol. Develop. Co, Ltd, B. W. I., 19-23; *geologist*, Margay Oil Corp, 24- Hydrologist, Brazil Govt, 10-13. A.A.; Geol. Soc; Ass. Petrol. Geol; Seismol. Soc. Underground waters; mineral springs; petroleum geology.
- Waring, W(illiam) Geo(rge)**, 126 N. Webb St, Webb City, Mo. *Metallurgy*. Near Boalsburg, Pa, Feb. 21, 47. Pa. State, 64, hon. M.S., 16; Columbia; Stevens. Supt, Rico Reduction Works, Colo, 82-85; manager, Flagler Reduction and Smelting Works, N. Mex, 85-92; metallurgist, Hidalgo Mining Co, Mex, 87-94; Moctezuma Mining Co, 94-97; *owner*, Waring Research Laboratories, 00- Trustee, N. Mex. Sch. Mines, 91-94. A.A.; Min. Eng; Chem. Soc; Soc. Chem. Indust. Analysis of ores, minerals and cement; fume smelting of complex sulphide ores; ammonia leaching of metallurgical fumes; researches of mine waters; volumetric determina-

tion of zinc; zinc ores of the Joplin district; zinc compounds at high temperatures.

Warner, Arthur Howard, University of California at Los Angeles, Los Angeles, Calif. *Physics*. McComb, Ohio, Aug. 26, 93. A.B. Colorado, 17, B.S. 20; Ph.D. Calif. Inst. 27. Instr. *physics*, Colorado, 19-21; assoc. *California at Los Angeles*, 21-26, instr. 26- Physical Soc. Effect of temperature on photo-electric effect in tungsten; long wave length limit for tungsten.

Warner, Prof. E(arle) H(orace), 510 E. Fourth St, Tucson, Ariz. *Physics*. Cedar Falls, Iowa, Sept. 17, 89. A.B. Denver, 12; A.M. Illinois, 14, Ph.D. 18. Asst. *physics*, Illinois, 12-17, instr. 17-18; research engineer, West. Elec. Co, N. Y., 18-20; prof. *physics*, Lawrence Col, 20-23; asst. prof. *Arizona*, 23-27, prof. 27- Physical Soc; Optical Soc; Radio Eng. The direct current corona; solar radiation.

Warner, Prof. Edward P(earson), Massachusetts Institute of Technology, Cambridge, Mass. *Physics, Aerodynamics*. Pittsburgh, Pa, Nov. 9, 94. A.B. Harvard, 16; B.S. Mass. Inst. Tech. 17, M.S. 19. Instr. aero eng, Mass. Inst. Tech. 17-19; chief physicist, Nat. Advisory Committee for Aeronautics, 19-20; assoc. prof. *aero. eng*, Mass. Inst. Tech. 20-24, prof. 24-; Asst. Sec'y of Navy for Aeronautics, 26- Chairman subcommittee aircraft structures, Aeronaut. Safety Code Committee. Aeronautical engineer, A.S. 17-18. A.A.; Physical Soc; Mech. Eng. (chairman, aeronaut. div. 23); Soc. Automotive Eng. (v. pres. for aviation, 22, councilor, 25); Naval Archit. and Marine Eng; Am. Acad; assoc. fel. Royal Aeronaut. Soc. Aeronautical engineering; structural analysis of airplanes; flight testing of aircraft; wind tunnel design and operation; riding comfort of automobiles.

Warner, Worcester Reed, Tarrytown, N. Y. *Mechanics, Astronomy*. Cummington, Mass, May 16, 46. Pub. schools; hon. D.Sc.M, Pittsburgh, 97; hon. D.E, Case, 25. Asst. to Geo. B. Brayton, 65-68; engineer, Pratt and Whitney Co, 69-71, foreman, 71-80; established firm, *Warner and Swasey Co*, 81, pres. and v. pres. board directors. Trustee, Western Reserve; Case; Cleveland Sch. Art. Past pres, Cleveland Chamber Commerce. A.A.; Astron. Soc; hon. mem. Mech. Eng. (past pres); fel. Royal Astron. Soc; British Astron. Soc. Mechanical and scientific designs and inventions; engineering of telescopes.

Warren, Dr. Charles H(yde), Yale University, New Haven, Conn. *Geology*. Watertown, Conn, Sept. 27, 76. Sheffield Sci. Sch, 96, Ph.D, Yale, 99. Instr. miner, Sheffield Sci. Sch, Yale, 00-01; Mass. Inst. Tech. 01-04, asst. prof. 04-09, assoc. prof. 09-12, prof. 12-22; *Sterling prof. geol, Yale, and dean, Sheffield Sci. Sch*, 22- A.A.; Geol. Soc; Am. Acad. Chemical mineralogy; petrography and mineralogy.

Warren, Dr. D(on) C(ameron), Kansas State Agricultural College, Manhattan, Kans. *Genetics*. Saratoga, Ind, July 16, 90. A.B, Indiana, 14, fellow, 15-17, A.M, 17; fellow, Columbia, 22-23, Ph.D, 23. Sci. asst, Carnegie Institution, 14-15; field agent entom, Ala. Exp. Sta, 17-19; asst. state entomologist, Ga. State Board Entom, 19-21; *poultry geneticist, Kansas*

Col, 23- A.A; Soc. Zool; Ass. Econ. Entom; Kans. Acad. Genetics of *Drosophila* and poultry.

Warren, Edward R(oyal), 1511 Wood Ave, Colorado Springs, Colo. *Zoology*. Waltham, Mass, Oct. 17, 60. B.S. Mass. Inst. Tech. 81. Director museum, Colo. Col, 09-18. A.A; Ornith. Union; Soc. Mammal; Cooper Ornith. Club; Wilson Ornith. Club; Wash. Biol. Soc. Colorado birds and mammals.

Warren, Prof. G(eorge) F(rederick), Ithaca, N. Y. *Agriculture*. Harvard, Nebr, Feb. 16, 74. B.S. Nebraska, 97; B.S.A, Cornell, 03, M.S.A, 04, Ph.D, 05. Horticulturist, N. J. Exp. Sta, 05-06; asst. prof. agron, Cornell, 06-07, farm crops, 07-09, prof. farm management, 09-19, *agr. econ. and farm management*, 19- A.A; Statist. Ass; Farm Econ. Ass; Econ. Ass. Agricultural education; farm management.

Warren, Prof. Howard C(rosby), Princeton University, Princeton, N. J. *Psychology*. Montclair, N. J, June 12, 67. A.B, Princeton, 89, fellow, 89-90, A.M, 91; Leipzig, Berlin and Munich, 91-93; Ph.D, Hopkins, 17. Instr. logic, Princeton, 90-91, demonstrator exp. psychol, 93-96, asst. prof. 96-02, director psychol. lab, 04-24, prof. 02-14, *psychol*, 14- Assoc. ed, 'Am. Naturalist,' 96; 'Psychol. Rev,' 00-04, co-editor, 04-16, ed, 16-; 'Psychol. Bul,' 04-10; compiler, 'Psychol. Index,' 94-07, 10-14. A.A; Soc. Nat; Psychol. Ass. (pres, 13); Anthropol. Ass. Experimental psychology; bibliography; association psychology.

Warren, Dr. J(ohn) Collins, 58 Beacon St, Boston, Mass. **Surgery*. Boston, May 4, 42. A.B, Harvard, 63, M.D, 66, LL.D, 06; Jefferson Med. Col, 95; McGill, 11. Instr. *Harvard*, 71-72, *surg*, 72-82, asst. prof. 82-87, assoc. prof. 87-93, prof. 93-07, *emer. prof*, 07- Pres, Mass. Charitable Eye and Ear Infirmary, 86; overseer, Harvard, 08-14. Ed, 'Boston Med. and Surg. Jour,' 73-80. Surg. Ass. (pres, 96); hon. fel. Col. Surg; Am. Med. Ass; Am. Acad; Phila. Col. Physicians; hon. fel. Royal Col. Surg; hon. fel. Royal Col. Surg. Edinburgh. Rodent ulcer; columnae adiposae; carbuncle; healing of arteries; diseases of mammary gland. [*Died, Nov. 3, 27.*]

Warren, L(ewis) E(ugene), U. S. Department of Agriculture, Washington, D. C. *Chemistry*. Hillsdale, Mich, Aug. 14, 76. Hillsdale, 93-99; Ph.C, Michigan, 03, fellow, 05-07, B.S. 07. Asst. chem, Hillsdale, 98-99; chemist, Merck and Co, 03-05; food and drug inspection chemist, bur. chem, U. S. Dept. Agr, 07-09; assoc. chemist, lab, Am. Med. Ass, 09-17, 19-25; *pharmaceut. chemist, bur. chem, U. S. Dept. Agr*, 25- Ebert prize, Pharmaceut. Ass, 08, 11. Pharmaceut. Ass; Chem. Soc. Pharmaceutical and plant chemistry; poisonous plants; analysis of medicines.

Warren, Prof. L(loyd) A(rthur) H(eber), University of Manitoba, Winnipeg, Man, Can. *Mathematics, Astronomy*. Balderson, Ont, Nov. 18, 79. M.A, Queen's (Can), 02, fellow, 02-04; fellow, Clark, 04-07; Ph.D, Chicago, 13. Tutor *math*, Queen's (Can), 02-04; asst, Clark, 05-06; lecturer, Queen's (Can), 06-10; *Manitoba*, 10-12, asst. prof. 12-27, prof. 27- Assoc.

Actuarial Soc; Inst. Actuaries; fel. Casualty Actuarial Soc; Statist. Ass; Royal Astron. Soc. Can. (pres, Winnipeg branch, 15, 19); Winnipeg Sci. Club; fel. Royal Astron. Soc; Soc. astron. de France. Celestial mechanics; the problem of three bodies; actuarial science and insurance.

Warren, Dr. L(uther) F(iske), 200 Hicks St, Brooklyn, N. Y. *Internal medicine*. Waterford, Mich, Sept. 20, 85. A.B, Michigan, 07, M.D., 09. Instr. med, Michigan, 09-12; asst. prof. *internal med*, *L. I. Col. Hosp*, 12-14, assoc. prof, 14-15, *prof*, 15-, *practising physician*. Trustee, Polytech. Inst; Packer Inst. Am. Cong. Int. Med. A.A; Am. Med. Ass; fel. Col. Physicians; Ass. Study Int. Secretions; Heart Ass; N. Y. Acad. Med; Brooklyn Soc. Int. Med. (pres, 15); Brooklyn Path. Soc.

Warren, Dr. Mortimer, 131 State St, Portland, Maine. *Medicine*. Cumberland Mills, Maine, Dec. 17, 73. A.B, Bowdoin, 96; M.D, Hopkins, 00. Asst. clin. path, med. col, Cornell, 02-10; *pathologist*, Roosevelt Hosp, 10-16; *Maine Gen. Hosp*, 22- Major, M.C, 17-19, lieut. col, M.R.C. A.A; Am. Med. Ass; Soc. Clin. Path; Ass. Immunol; Ass. Study Int. Secretions.

Warren, Dr. Paul A(lanson), 104 Chandler Court, Williamsburg, Va. *Plant genetics*. Dover, Maine, June 22, 93. B.S, Maine, 15; fellow, Michigan, 19-22, Ph.D, 22. Asst. plant geneticist, Carnegie Institution, 15-17; *prof. bot*, *col. med*, *Virginia*, and *assoc. prof. biol*, *William and Mary*, 22- A.A; Bot. Soc; Mich. Acad; Va. Acad. (sec'y, biol. sect, 25). Heredity of fruit shape in the tomato; cytology of *Oenothera* and *Impatiens*.

Warren, Dr. William H(omer), Clark University, Worcester, Mass. *Chemistry*. Charleston, S. C, Nov. 4, 66. A.B, Harvard, 89, A.M, 91, Ph.D, 92. Chemist, E. R. Squibb and Sons, Brooklyn, N. Y, 92-96; N. Y. Quinine and Chem. Works, 96-97; consulting chemist, 97-98; *prof. chem*, sch. med, Washington (St. Louis), 98-11, dean, 08-11; asst. prof, Clark, 11-12; *prof*, Wheaton, 12-17; Peerless Color Co, 19-22; Noll Chem. and Color Co, 22-25; *prof. chem*, *Clark*, 25- Chem. Soc; St. Louis Acad; Chem. Gesell. Nitro derivatives of metabromtoluol; reactions of sodic alcoholates with tribrom-dinitro-benzol and tribrom-trinitro-benzol; turmerol; picrolonates of certain alkaloids; apparatus for absolute alcohol; case of alcaptonuria.

Warthin, Dr. A(ldred) S(cott), 1020 Ferdon Road, Ann Arbor, Mich. **Pathology, Anatomy*. Greensburg, Ind, Oct. 21, 66. A.B, Indiana, 88; A.M, Michigan, 90, M.D, 91, Ph.D, 93; Vienna and Freiburg, 93, 94, 95. Asst. internal med, *Michigan*, 91, demonstrator, 92-95, *instr. path*, 95-99, asst. prof, 99-02, junior prof, 02-03, *prof. and director path. lab*, 03- Ed, 'Annals Internal Med.' Committee of One Hundred on Pub. Health. Ass. Path. and Bact. (v. pres, 06, pres, 08); Soc. Exp. Path. (v. pres, 22, pres, 24); Ass. Anat; Am. Med. Ass. (councilor, physical therapy); Am. Physicians (councilor, 21-, v. pres, 27); Col. Physicians (first v. pres, 26-28); Soc. Exp. Biol; Soc. Cancer Research (pres, 27); Tuber. Ass; Mich. Ass. Tuber. (sec'y, 07, pres, 09); Ann Arbor Ass. Tuber. (sec'y,

08); Int. Bur. Tuber; Int. Ass. Med. Mus. (pres, 10-13, ed, 'Bul,' 13-19, councilor, 14-28). Pathology of Pacinian corpuscles; histology and pathology of hemolymph glands; hemolysis; secondary and pernicious anemias; tuberculosis; pathological changes produced by Röntgen rays; leucemia; histology and pathology of human parathyroids; status lymphaticus; fatty embolism; new pathology of syphilis; staining of *Spirochaeta pallida*; mustard-gas poisoning; pathology of goiter; heredity of cancer, gastric ulcer and carcinoma.

Warttman, Prof. Paul, Agricultural and Mechanical College, Miss. *Chemistry*. Cedar Falls, Iowa, July 5, 95. A.B, Iowa State Teachers Col, 18; M.S, Wisconsin, 21; Sage fellow, Cornell, 23-24, du Pont fellow, 24-25, Ph.D, 25. Asst. chem, Wisconsin, 19-21; *prof*, Concordia Col, 21-23; *assoc. prof. chem*, *Miss. Agr. and Mech. Col*, 25- Chem. Soc. Heavy metal azidodithio carbonates; reaction of sulfur trioxide and hydrogen cyanide.

Warwick, Dr. B(ruce) L(ester), Ohio Agricultural Experiment Station, Wooster, Ohio. *Genetics*. Aledo, Ill, Dec. 17, 93. D.V.M, Iowa Col, 19; M.S, Wisconsin, 22, Ph.D, 25. Asst. vet. science, Wisconsin, 21-23, research asst, 25-26; agent animal husbandry, U. S. Dept. Agr, 23-26; *asst. animal indust*, *Ohio Exp. Sta*, 26- A.A; Soc. Animal Production; Genetic Ass. Genetics in swine; infectious abortion of cattle and swine.

Washburn, Dr. E(dward) W(ight), U. S. Bureau of Standards, Washington, D. C. **Chemistry*. Beatrice, Nebr, May 10, 81. B.S, Mass. Inst. Tech, 05, Ph.D, 08. Research assoc. chem, Mass. Inst. Tech, 06-08; assoc. Illinois, 08-10, asst. prof, 10-12, *prof. physical chem*, 12-16, ceramic chem. and head dept. ceramic eng, 16-22; *ed-in-chief*, *Int. Critical Tables*, 22-; *chief chemist*, *Bur. Standards*, 26- V. chairman and acting chairman div. chem. and chem. technol, Nat. Research Council, 18-19, chairman, 22-23, mem. exec. committee, 22-; delegate, Int. Union Pure and Applied Chem, London, 19, Lyons, 22, Cambridge, 23, Washington, 26, councilor, 20- Int. Research Council, Brussels, 19, 22; Am. commissioner, Int. Annual Tables Physical and Chem. Constants, 21- A.A; Chem. Soc; Physical Soc; Ceramic Soc. (ed, 'Jour,' 21); Soc. Glass Technol; Wash. Acad; Ill. Acad; Royal Soc. Arts. Ionic hydration; hydrates in solution; thermodynamic chemistry; theory of solutions; refractories; glass technology; high temperature chemistry and physics; thermochemistry; electrochemistry; chemical composition of petroleum; physical constants.

Washburn, Prof. F(rederick) L(eonard), 1112 Sixth St, S. E, Minneapolis, Minn. *Zoology*. Brookline, Mass, April 12, 60. A.B, Harvard, 82, Thayer scholar, 87-88, A.M, 95; Hopkins, 85-86. Instr. zool, Michigan, 87-88; entomologist, Oregon Exp. Sta, 88-94; *prof. biol*, Oregon, 94-02; entom, Minnesota and entomologist, Exp. Sta, 02-18, *prof. econ. vert. zool*, 18-26. State entomologist, Minn, 02-18; state biologist, Oregon, 98. A.A; Soc. Nat; Ass. Econ. Entom. Bionomics of certain insects; acclimatization of eastern oyster on Oregon

coast; food fishes of Oregon; sex of *Ostrea lurida*; economic zoology.

Washburn, Prof. John Hosea, Buckingham, Pa. *Chemistry*. Bridgewater, Mass., June 5, 59. B.S., Mass. Col., 78; Brown, 80-81; A.M., Ph.D., Göttingen, 89. Prin. and supt., schools, Mass. and R. I., 78-80; asst. agr. chem., Mass. Col., 81-83; prof. agr. chem., Conn. Col., 83-87; pres., R. I. Col., 89-92; director, Nat. Farm Sch., 92-17. Chem. Soc.; Ass. Agr. Col. (sec'y-treas., 94-99). Agricultural chemistry and education.

Washburn, Prof. Margaret F(loy), Vassar College, Poughkeepsie, N. Y. **Psychology*. New York, N. Y., July 25, 71. A.B., Vassar, 91, A.M., 93; Ph.D., Cornell, 94. Prof. psychol. and ethics, Wells, 94-00; warden, Sage Col., Cornell, 00-02, lecturer psychol., 01-02; asst. prof., Cincinnati, 02-03; assoc. prof. philos. in charge psychol., Vassar, 03-08, *prof. psychol.*, 08- Ed., 'Am. Jour. Psychol.' A.A. (v. pres., 26); Psychol. Ass. (pres., 21); Philos. Ass. Space-perception of the skin; after-images; comparative psychology; psychology of the affective processes.

Washburne, Alva C(ourtenay), Pittsfield, Mass. *Mathematics*. Mt. Auburn, Ill., 66. Purdue, 84-88; U. S. Mil. Acad., 88-90. Asst. civil engineer, Lafayette, Ind., 82-84; instr. math. and mil. tactics, N. Y. Mil. Acad., Cornwall-on-Hudson, 90-91; Cheltenham Acad., Pa., 91-92; instr., Ogontz Sch. for Young Ladies, 91-92; Ossining Sem., 92-93; St. John's Sch., N. Y., 92-93; asst. prof. math., Mass. Col., 93-95; actuarial dept., Metropolitan Life Ins. Co., N. Y., 95-06; actuary, Hartford Life Ins. Co., 06-10; assoc. actuary, Berkshire Life Ins. Co., 10-11, *actuary*, 11-A.A.; Math. Soc.; Math. Ass.; assoc. Actuarial Soc.; fel. Statist. Soc. Applied mathematics; engineering; actuarial science.

Washburne, Chester W(esley), 27 William St., New York, N. Y. *Geology*. Eugene, Oregon, Nov. 17, 83. A.B., Oregon, 05; Harvard, 06-07; Chicago, 07-08. Field asst., U. S. Geol. Surv., 00-06, asst. geologist, 07-08, 09-11, 13-14; *consulting geologist*, New York, 14- Mexican Eagle Oil Co., 08-09, Patagonia, 11-13. Explor., oil fields, W. Africa, S. Amer., Alaska, Australia, New Zealand, Portugal and U. S. Fel. Geol. Soc.; Soc. Econ. Geol.; Ass. Petrol. Geol.; Am. Geog. Soc.; Min. Eng.; Engineers Club; Wash. Geol. Soc. Migration, concentration and metamorphism of petroleum; origin of normal faults.

Washington, Dr. Henry S(tephens), Geophysical Laboratory, Washington, D. C. **Petrology*. Newark, N. J., Jan. 15, 67. A.B., Yale, 86, A.M., 88; Am. Sch. of Classical Studies, Athens, 88-94; Ph.D., Leipzig, 93. Asst. physics, Yale, 86-88, miner, 95-96; private lab., 96-12; consulting mining engineer, 06-12; *petrologist*, *geophys. lab.*, Carnegie Institution, 12- Research asst., Carnegie Institution. Nat. Research Council, 27- Chem. assoc. and sci. attaché, Am. Embassy, Rome, 18-19. Cavalier, Order of the Crown, Italy. Chairman, Geophys. Union, 26-; v. pres., sect. volcanol., Int. Geophys. Union, 22-Nat. Acad.; Geol. Soc.; Miner. Soc. (pres., 24); fel. Archeol. Inst.; Chem. Soc.; Philos. Soc.; Wash.

Acad.; for. cor. London Geol. Soc.; London Miner. Soc.; Acad. de France; for. cor. Soc. Espan. Hist. Nat.; for. mem. Accad. dei Lincei; Soc. Geol. Italiana; Norway Acad.; Turin Acad. Petrology of igneous rocks, their chemical analysis and classification; a collection of all analyses of igneous rocks since 1883; chemical mineralogy; volcanology; diamonds in Arkansas and Brazil; petrographic provinces; pyroxenes and amphiboles; fumarolic salts of volcanoes; potash from leucitic lavas of Italy; rocks and isostasy; constitution of the earth; excavations in Greece; ancient Roman cement; volcanic rocks of the Pacific.

Wasteneys, Dr. Hardolph, University of Toronto, Toronto, Ont., Can. *Experimental biology*. Richmond, Eng., April 6, 81. Ph.D., Columbia, 16. Asst. govt. chemist, Queensland, Australia, 00-03; chemist and biologist, Brisbane Board Waterworks, 03-09; asst., Rockefeller Inst., 10-13, assoc. exp. biol., 13-16; assoc. prof. pharmacol., California, 16-18; asst. prof. *biochem.*, Toronto, 18-20, assoc. prof., 20-25, *prof.*, 25- A.A.; Soc. Exp. Biol.; Soc. Biol. Chem.; London Chem. Soc. Water purification; oxidation in sea urchin eggs; antagonistic salt action; artificial parthenogenesis; heliotropism; enzyme chemistry.

Waterman, Prof. Alan T(ower), Yale University, New Haven, Conn. *Physics*. Cornwall-on-Hudson, N. Y., June 4, 92. A.B., Princeton, 13, A.M., 14, Ph.D., 16. Instr. *physics*, Cincinnati, 16-17; Yale, 19-23, *asst. prof.*, 23- Lieut., meteor. sect., Sig.C., 17-19. A.A.; fel. Physical Soc. Conduction of electricity through solids; thermionic emission and allied effects.

Waterman, Prof. Frank A(llan), Smith College, Northampton, Mass. **Physics*. Oswego, N. Y., July 9, 65. A.B., Princeton, 88, Ph.D., 96. Instr. *physics*, Purdue, 91-92, *prof.*, 92-93; instr., Princeton, 93-97; *prof.*, Smith, 97- A.A.; Physical Soc.; Soc. de Physique. Calorimetry; specific heats of metals.

Waterman, Prof. W(arren) G(ookin), 2018 Orrington Ave., Evanston, Ill. *Botany*. Southport, Conn., Sept. 3, 72. A.B., Yale, 92, A.M., 07; Ph.D., Chicago, 17. Instr. nat. science, Fisk, 96-02, *prof. geol.*, 03-11; asst. *prof. biol.*, Knox, 12-15; *bot.*, Northwestern, 17-23, *assoc. prof.*, 23- A.A.; Bot. Soc.; Ecol. Soc. (senior chairman, committee on preservation nat. conditions, 23-); Mich. Acad.; Ill. Acad. (treas., 19-21, pres., 23). Dune and forest vegetation of western Michigan; bogs of Illinois; plant ecology of Glacier National Park.

Waters, Dr. C(ampbell) E(aster), U. S. Bureau of Standards, Washington, D. C. *Chemistry*. Baltimore Co., Md., Sept. 14, 72. A.B., Hopkins, 95, Ph.D., 99. Prof. chem. and physics, Conn. Col., 00-01; asst. chem., Hopkins, 01-04; asst. chemist, *Bur. Standards*, 04-09, assoc. chemist, 09-17, *chemist*, 17- A.A.; Chem. Soc.; Meteor. Soc.; Soc. Test. Mat.; Forestry Ass.; Fern Soc. (past pres. and sec'y); Wash. Chem. Soc. (past pres. and sec'y); Wash. Acad. Parasulphamin metatoluic acid; key to ferns based on the stipes; ferns; action of ozone on carbon monoxide; action of dry hydrochloric acid gas dissolved in anhydrous benzene on zinc; high tem-

perature and sunlight upon lubricating oils; sulphur in rubber; sulphur in petroleum oils; gum arabic.

Watkeys, Prof. C(harles) W(illiam), 287 Dartmouth St, Rochester, N. Y. *Mathematics*. Syracuse, N. Y., Sept. 30, 77. A.B., Rochester, 01; A.M., Harvard, 03. Asst. *math*, Rochester, 03-05, instr., 05-06, 08-10, asst. prof., 10-18, *prof*, 18- A.A.; Math. Soc.; Math. Ass. Elementary functions and applications.

Watkins, Howard R., U. S. Department of Agriculture, Washington, D. C. *Chemistry*. Grundy Center, Iowa, May 2, 78. A.B., Coe, 02; M.S., Iowa Col., 04. Asst. analyst, Iowa Exp. Sta., 02-04; asst. chem., Ohio State, 04-05; Kansas Col., 05-06; *asst. chemist*, Wash. Exp. Sta., 06-08; U. S. War Dept., 08-23; *bur. chem*, U. S. Dept. Agr., 23- Analytical and pharmaceutical chemistry; alkaloids.

Watkins, W(illard) H(askell), Deer Isle, Maine. *Chemistry*. Boston, Mass., Jan. 7, 74. B.S., Mass. Inst. Tech., 95. With various dye companies, 95-99; Nat. Aniline and Chem. Co., 00-05, in charge dyeing and application of dyes, 05-19, manager, Buffalo plant, 19-21. Lecturer, Buffalo. Mem. advisory committee, W.T.B.; Dyes Reparation Commission, 22. A.A.; Chem. Soc. (chairman, west. N. Y. sect, 09, 10, counselor, 16-); Soc. Chem. Indust.; British Soc. Dyers and Colorists. Application of dyestuffs.

Watkins, W(illiam) N(eiger), United States National Museum, Washington, D. C. *Forestry*. Factoryville, Pa., Oct. 12, 91. B.S., Syracuse, 16, 16-17. *Asst. curator sect. wood technol*, U. S. Nat. Museum, 13- Summers, nursery asst., N. Y. State Col. Forestry, Syracuse, 13, research, wood preservation, B. and O. Ry., 15. Rep., Smithsonian Inst. and U. S. Nat. Museum, Nat. Conf. on Utilization Forest Products, Washington, D. C., 24; Am. Forest Week Committee, 25-27. Soc. Foresters. Utilization of forest products; wood technology; industrial relation of forests.

Watson, Prof. A(rthur) E(ugene), 30 Congdon St, Providence, R. I. *Electrical engineering*. Providence, March 4, 66. A.B., Brown, 88, A.M., 98, Ph.D., 05. Draftsman, Thomson-Houston Elec. Co., 88; asst. foreman, drafting and eng. dept., Thomson-Houston and Gen. Elec. Companies, 89-95; instr. physics, Brown, 95-99, asst. prof., 99-20, *assoc. prof. elec. eng*, 20- Lecturer, Brown, 91-92. Elec. Eng.

Watson, Prof. Carl G(wartney), South Dakota School of Mines, Rapid City, S. Dak. *Physics*. Mauckport, Ind., June 12, 89. A.B., Indiana, 14, A.M., 17. Instr. *physics*, Purdue, 14-18; asst. prof., Pa. State, 18-20; *prof*, S. Dak. Sch. Mines, 20- Ind. Acad.

Watson, Prof. E(arnest) C(harles), California Institute, Pasadena, Calif. *Physics*. Sullivan, Ill., June 18, 92. Ph.B., Lafayette, 14. Asst. *physics*, Chicago, 14-17; asst. prof., Calif. Inst., 19-20, *assoc. prof*, 20- A.A.; Physical Soc. X-rays.

Watson, Dr. E(dward) A(rthur), Biological Laboratory, Ottawa, Ont., Can. *Pathology*. Devon, Eng., Jan. 2, 79. Grad. Ont. Vet. Col., 04; Ber-

lin; Frankfurt; Paris; Cambridge. Asst. bacter. lab., Pretoria, S. Africa, 00-01; asst. pathologist, *health of animals branch*, Can. Dept. Agr., 05-06, pathologist, 06-20, *chief pathologist*, 20- Assoc., committee on tuber, Can. Research Council. Capt., C.E.F., 15-19; bacteriologist, R.A.V.C., B.E.F., 17-19. Vet. Med. Ass. (past v. pres, committee on tuber).

Watson, Prof. Emery Ernest, Cedar Falls, Iowa. *Mathematics*. B.S., M.S., Iowa, 05; Chicago, 07-08. Prof. math. and physics, Wheaton, 05-08; asst. prof., Wash. Col., 08-10; *prof. math.* and astron., Parsons, 10-20; *math*, Iowa State Teachers Col., 20- Iowa Ass. Math. Teachers (pres, 17-19).

Watson, Prof. F(loyd) R(owe), University of Illinois, Urbana, Ill. **Physics*. Lawrence, Kans., April 23, 72. B.S., California, 99, Le Conte fellow, 99, Whiting traveling fellow, 00; Pres. White fellow, Cornell, 01, Ph.D., 02. Asst. physics, California, 97-99; instr., *Illinois*, 02-04, asst. prof., 04-15, *assoc. prof*, 15-17, *prof. exp. physics*, 17- A.A.; Physical Soc. Acoustics; intensity, absorption and transmission of sound.

Watson, Dr. Goodwin B(arbour), Teachers College, Columbia University, New York, N. Y. *Educational psychology*. Whitewater, Wis., July 9, 99. Wis. State Nor. Sch., Whitewater, 16; A.B., Wisconsin, 20; A.M., Columbia, 23, Ph.D., 25. Asst. physics, Wisconsin, 19-20; director religious educ., Denver, 20-21; New York, 21-23; instr., Union Theol. Sem., 23-25; educ. psychol., Columbia, 25-26, *asst. prof. educ*, 26- Asst., Wisconsin, 19-20; director research, Nat. Council, Y. M. C. A. Physical Soc. Religious education; measurement of prejudice; testing of religious and ethical knowledge; content of educational psychology.

Watson, Prof. John B(roadus), J. Walter Thompson Co., 244 Madison Ave., New York, N. Y. **Psychology*. Greenville, S. C., Jan. 9, 78. A.M., Furman, 99; fellow, Chicago, 01-03, Ph.D., 03; LL.D., Furman, 18. Prin., Batesburg Inst., 99-00; asst. exp. psychol., Chicago, 03-04, instr., 04-08, asst. prof. elec., 08; prof. exp. and comp. psychol. and director lab., Hopkins, 08-20; rep., J. Walter Thompson Co., 20-, v. pres, 24- Psychol. Ass.; Physiol. Soc.; Am. Acad. Animal psychology; animal education; normal body growth of white rat; kinesthetic and organic sensations of the white rat; behavior of noddly and sooty terns; color vision in monkeys; imitation in monkeys; color and brightness, vision in several species of mammals; conditioned motor and secretion reflexes; effect of drugs and distribution of practice on human learning; behavior of the human infant; behaviorism.

Watson, Prof. J(ohn) W(ilbur), Virginia Polytechnic Institute, Blacksburg, Va. *Chemistry*. Chatham, Va., June 18, 88. A.B., A.M., Virginia, 10, Ph.D., 13. Asst. chem., Virginia, 09-10, instr., 10-13; *prof. inorg. chem*, Va. Polytech., 13-, head dept. chem. and chem. eng., 25- Summers, director, Va. Polytech. A.A.; Chem. Soc. Abstraction of potassium during sedimentation.

- Watson, J(oseph) R(alph)**, Florida Agricultural Experiment Station, Gainesville, Fla. *Entomology*. Berea, Ohio, Aug. 1, 74. B.S., Baldwin, 97; A.M., Western Reserve, 99; Chicago, summers, 03-12. Asst. and instr. biol., Adelbert Col., Western Reserve, 99-01; instr. bot., physics and chem., Berea Col., 01-02; prof. biol., physics and chem., Rochester Nor. Univ., Ind., 03-06; instr., high sch., Wis., 06-07; prof. biol., New Mexico, 07-11; *entomologist, Fla. Exp. Sta.*, 11- Ed., 'Fla. Entomologist.' A.A.; Entom. Soc.; Ass. Econ. Entom.; Ecol. Soc.; Fla. Entom. Soc. (pres, 16). Economic entomology; common plants of Bernalillo County, New Mexico; plant societies of New Mexico; succession of animals; Thysanoptera of Florida; insects of citrus and truck crops in Florida.
- Watson, Dr. Thomas A(ugustus)**, 295 Beacon St., Boston, Mass. *Electrical engineering*. Salem, Mass., Jan. 18, 54. Mass. Inst. Tech.; A.M., Union; D.Eng., Stevens. With Alexander Graham Bell, 74-78; supt. and engineer, Bell Telephone Co., 78-81; mem. firm, F. O. Wellington and Co., 84-00; pres., Fore River Ship and Engine Co., 00-03. A.A.; Elec. Eng.; Boston Soc. Nat. Hist.; Essex Inst.; N. Y. Elec. Soc.
- Watson, Dr. W(illiam) F(ranklin)**, Athens, Ga., and Bradenton, Fla. *Chemistry, Biology*. N. B., Can., May 11, 61. A.B., Colby, 87, A.M., 90, Sc.D., 24; Pennsylvania, 92-93; Chicago, 98. Prof. chem. and biol. and curator museum, Furman, 90-11. Lecturer, Dept. Educ., New York, 14-15. Nat. Civic Fed. inspector educ., Gt. Britain, 08. Medal, S. C. Inter-state and W. I. Expos., 02. A.A.; Micros. Soc. (v. pres, 06); Health League; Ga. Acad.; Royal Soc. Arts. The extension garage; improved methods in photomicrography; photographing with natural lenses, using the crystalline lens of higher animals and the corneal lenses from the eye of an insect.
- Watson, Dr. William W(eldon)**, University of Chicago, Chicago, Ill. *Physics*. Eveleth, Minn., Sept. 14, 99. B.S., Chicago, 20, M.S., 22, Ph.D., 24. Instr. *physics, Chicago*, 24-27, *asst. prof.*, 27- Physical Soc. Spectroscopy; band spectra.
- Watt, Prof. James C(rawford)**, 20 Hawthorne Ave., Toronto, Ont., Can. *Anatomy*. Toronto, June 15, 86. B.A., Toronto, 08, M.B., 10, M.A., M.D., 18. Asst. anat., *Toronto*, 10-11, lecturer, 11-18, topog. anat., 15-18, *asst. prof. anat.*, 18-23, *assoc. prof.*, 23- A.A.; Ass. Anat.; Ont. Col. Physicians and Surg.; fel. Toronto Acad. Med. Embryology; young human embryos; abnormalities; calcification in bone; calcified areas.
- Watters, Dr. William H**, 80 E. Concord St., Boston, Mass. *Pathology*. Mechanic Falls, Maine, June 23, 76. A.A., McGill, 93, B.A., 97; M.D., Boston, 01, A.M., 06, Ph.D., 08. Lecturer path., *Boston*, 01-04, *prof.*, 04-26, *prev. med.*, 26- Pathologist, Mass. Homeopathic Hosp., 01-; assoc. med. examiner, Suffolk Co., 10- A.A.; Ass. Path. and Bact.; Soc. Clin. Path.; Am. Med. Ass.; Mass. Soc. Examining Physicians. Immunology; vaccine therapy; museum technique.
- Watts, Arthur S(imeon)**, Ohio State University, Columbus, Ohio. *Ceramics*. Zanesville, Ohio, March 27, 76. Ohio State; Tech. Hochschule, Berlin. Asst. to Prof. Edward Orton, Jr., Ohio State, 98-01; ceramic engineer, Bell Pottery Co., 02-03; New Lexington High Voltage Porcelain Co., 03-04; Locke Insulator Co., 05-09; quarry technologist, U. S. Bur. Mines, 11-14; assoc. prof. *ceramic eng., Ohio State*, 14-16, *prof. and head dept.*, 16- Ceramic Soc. (v. pres, 09, pres, 12). Pottery construction; porcelain for electrical purposes; bone china; transmission insulators; high tension insulation in Europe; dental porcelains; micro-structure of porcelains; deformation of silicate mixtures; kaolin mining in Europe and south Appalachian regions.
- Watts, Chester B(urleigh)**, U. S. Naval Observatory, Washington, D. C. *Astronomy*. Winchester, Ind., Oct. 27, 89. A.B., Indiana, 15. Computer and asst., *U. S. Naval Observatory*, 11-14, 15-24, *assoc. astronomer*, 24- Mem., U. S. Naval Observatory eclipse exped, 25. Astron. Soc.; Math. Soc. Positions of comets, asteroids, sun, moon, planets and fundamental stars; determination of time; rating of timepieces under test.
- Watts, Prof. Oliver P(atterson)**, Chemical Engineering Building, Madison, Wis. *Chemistry, Metallurgy*. Thomaston, Maine. A.B., Bowdoin, 89, A.M., 92, Sc.D., 24; Ph.D., Wisconsin, 05. Instr. math. and physical sciences, Franklin Acad., N. Y., 92-98; high sch., Mass., 98-03; in charge Carnegie research on electrolytic iron, *Wisconsin*, 05-06, *instr. applied electrochem.*, 06-08, *asst. prof.*, 08-17, *assoc. prof.*, 17- Electrochem. Soc.; Chem. Soc. Aluminothermic process; calcium alloys; silicides; borides; electric furnaces; electroplating, corrosion and protection of metals.
- Watts, Prof. R(alph) L(evi)**, State College, Pa. *Horticulture*. Kerrmoor, Pa., June 5, 69. B.S.A., Pa. State, 90, M.S., 99; Agr.D., Syracuse, 16. Horticulturist, Tennessee, 90-99; lecturer, farmers institutes, 99-08; prof. hort., *Pa. State*, 08-12, *dean and director sch. agr. and Exp. Sta.*, 12- Trustee, Canton Christian Col., China. A.A.; Soc. Hort. Sci.; Vegetable Growers Ass. (past pres). Vegetable gardening and forcing.
- Watts, Prof. Stephen H(urt)**, University of Virginia, Charlottesville, Va. *Surgery*. Lynchburg, Va., Aug. 6, 77. A.M., Randolph-Macon, 96, LL.D., 22; M.D., Hopkins, 01. House officer, asst. res. surgeon and res. surgeon, Hopkins Hosp., 01-07; *prof. surg., Virginia*, 07- A.A.; Am. Med. Ass.; Col. Surg.; Surg. Ass.; Soc. Int. de Chirurg. Suture of blood vessels; surgery of the pancreas.
- Waugh, Prof. F(rank) A(lbert)**, Amherst, Mass. *Horticulture*. Sheboygan, Wis., July 8, 69. B.S., Kansas Col., 91, M.S., 93; Cornell, 97-98; Hort. Sch., Dahlem, Germany, 10. Asst. hort., Kansas Col., 91; *prof.*, Okla. Agr. and Mech. Col., 93-95; Vermont, 95-02; *Mass. Col.*, 02- Landscape gardening; country planning; national and state forests and parks.
- Waugh, Dr. Karl T(insley)**, University of Southern California, Los Angeles, Calif. *Psychology*. Cawnpore, India, 79. A.B., Ohio Wesleyan, 00, A.M., 01, LL.D., 27; A.M., Harvard, 06, Ph.D., 07. Prof. philos. and math., Clafin, 00-04; asst. philos., Harvard, 06-07; assoc. psychol., Chicago, 07-09; prof. philos. and psychol., Beloit, 09-18;

- dean, Berea Col, 19-23; *col. lib. arts, and prof. psychol.*, Southern California, 23- Lecturer, Colorado, 09, 14; educ. research, India and China, 16-17. Supervisor, Fed. Board Vocational Educ, 19- Major, Sanit. C. and chief psychol. examiner, U.S.A., 17-19. A.A.; Psychol. Ass; Soc. Psychol. Research; Eugenics Research Ass; Ky. Acad. Comparative, abnormal and applied psychology.
- Wear, Dr. L(uther) E(wing)**, 68 S. Grand Oaks, Pasadena, Calif. *Mathematics*. Brownwood, Texas, July 2, 81. A.B, Cumberland, 02; Ph.D, Hopkins, 13. Prof. *math.*, Trinity (Texas), 04-08; instr, Washington (Seattle), 13-18; *prof.*, Calif. Inst, 18- *Math. Soc.* Geometry.
- Weatherby, C(harles) A(lfred)**, 11 Wells Ave, East Hartford, Conn. *Botany*. Hartford, Conn, Dec. 25, 75. A.B, Harvard, 97, A.M, 98. *Asst.*, Gray Herbarium, Harvard, 08, 09, 11, 15, 17- A.A.; Bot. Soc; Fern Soc. (sec'y, 14-18, ed, 'Jour,' 15-); Torrey Bot. Club; New Eng. Bot. Club; Conn. Bot. Soc. (v. pres, 10-); Vt. Bot. Club. Taxonomy of vascular plants.
- Weatherby, Dr. LeRoy S(amuel)**, University of Southern California, Los Angeles, Calif. *Chemistry*. Baldwin, Kans, March 29, 80. A.B, Kansas, 06, A.M, 08; fellow, Chicago, 09-11, Ph.D, 11. Instr. chem. and physics, Baker, 06-08; asst. prof. *chem.*, Okla. Agr. and Mech. Col, 08-09; asst. prof. and *prof.*, Southern California, 11- Summers, exchange prof, Northwestern, 24, Washington, 27; lecturer, Columbia, 24. A.A.; Chem. Soc. Physico-organic chemistry; synthetic organic chemistry; nutrition.
- Weatherill, Dr. Philip F(rancis)**, 1123 Church St, Ann Arbor, Mich. *Physical chemistry*. Brunswick, Maine, May 7, 94. A.B, Bowdoin, 16; A.M, Harvard, 17, Ph.D, 21. Instr. *gen. and physical chem.*, Michigan, 21-26, asst. *prof.*, 26- A.A.; Chem. Soc; Mich. Acad. Atomic weights, especially of silicon and antimony; change in volume upon solution in water of potassium chloride.
- Weatherwax, J(ames) L(oyd)**, 932 N. 65th St, Philadelphia, Pa. *Physics*. Clark, Ohio, Aug. 28, 84. A.B, Oberlin, 12; A.M, Missouri, 16. Instr. physics, Nevada, 16-18; research dept, Westinghouse Lamp Co, 18-21; *grad. sch. med.*, Pennsylvania, and *radiol. dept.*, Bur. Health, Phila, 21- Physical Soc; Franklin Inst; Phila. Röntgen Ray Soc. Measurements of the penetration and distribution of X-ray and radium radiation to determine a more exact knowledge of dosage as applied to the treatment for malignancy; apparatus to measure X-rays; application of physical measurements to radiation therapy.
- Weatherwax, Dr. Paul**, 416 S. Dunn St, Bloomington, Ind. *Botany*. Worthington, Ind, April 4, 88. A.B, Indiana, 14, A.M, 15, Ph.D, 18. Asst. *bot.*, Indiana, 13-15, instr, 15-19; *assoc. prof.*, Georgia, 19-21; *Indiana*, 21- Fellow, Waterman Inst. Research, 25- A.A.; Soc. Nat; Bot. Soc; Genetic Ass; Torrey Bot. Club; Ind. Acad. Morphology of grasses; Indian corn.
- Weaver, Prof. Andrew Thomas**, 126 N. Spooner St, Madison, Wis. *Psychology*. Waukesha, Wis, July 28, 90. A.B, Carroll Col, 10; A.M, Wisconsin, 11, Ph.D, 23. Instr, Dartmouth, 12-13; Northwestern, 13-17; *prof.*, Wis. State Nor. Sch, Whitewater, 17-18; *Wisconsin*, 18-, *chairman dept. speech*, 27- Summer, chairman dept. speech, California, 25. Nat. Ass. Teachers Speech (research committee, ed, research monographs, pres, 26). Vocal expression.
- Weaver, Prof. C(harles) E(dwin)**, University of Washington, Seattle, Wash. *Geology, Paleontology*. Utica, N. Y, May 1, 80. B.S, California, 04, Ph.D, 07. Instr. *geol.*, Washington (Seattle), 07-12, asst. *prof.*, 12-18, *assoc. prof.*, 18-21, *prof. paleont.*, 21- Summer, asst, U. S. Geol. Surv, Alaska, 06; geologist, Wash. Geol. Surv, 09-11, 13, 14, 17; on leave, *geol. research*, S. Amer, 19-25. A.A; Geol. Soc; Paleont. Soc; Wash. Acad. Tertiary paleontology and stratigraphy in Washington and California; geology of Northeastern Washington; Jurassic and Cretaceous paleontology and stratigraphy in Argentina and Chile.
- Weaver, Prof. E(dwin) O(scar)**, 473 Park Place, Springfield, Ohio. *Physics*. Springfield, April 1, 67. A.B, Wittenberg, 89, A.M, 92; Chicago, 94; Michigan, 04-06, 15-16; Sc.D, Carthage, 20. Instr. *math.*, Wittenberg Acad, 89-93, *prin.*, 93-96; acting *prof. math. and physics*, Wittenberg, 95-96, *prof. physics and biol.*, 96-04, *physics*, 04- A.A. Magnetic and expansion phenomena attending the recalescence of iron.
- Weaver, E(lmer) R(upel)**, Bureau of Standards, Washington, D. C. *Chemistry*. Longmont, Colo, May 5, 87. A.B, Stanford, 10. Asst. chemist, Standard Portland Cement Co, 10-12; *Bur. Standards*, 12-17, *chemist*, 19- Chem. Soc; Wash. Acad. Chemistry and physical chemistry of gases.
- Weaver, Floyd O(alvin)**, 1515 Park Road, Washington, D. C. *Physics*. Lafayette, Ind, July 24, 87. B.S, Purdue, 10. *Assoc. physicist*, Bur. Standards, 10-23; *Bur. Mines*, 23- Optical Soc; Astron. Soc; Wash. Philos. Soc. Optical surfaces; design of optical systems; precision electrical instruments; physical behavior of materials at low temperatures; high pressure gas and hydrostatic systems.
- Weaver, Prof. F(rederick) P(attison)**, 409 S. Barnard St, State College, Pa. *Agricultural economics*. Millersburg, Pa, Nov. 7, 82. B.S, Pa. State, 14; M.S, Cornell, 23. Instr. *agr. chem.*, 10-15; asst. state leader and state leader, county *agr. agents*, Pa, 15-25; *prof. agr. econ.*, Pa. State, 25- Prices of farm products, rural taxation and milk marketing in Pennsylvania.
- Weaver, Prof. George H(owitt)**, 629 S. Wood St, Chicago, Ill. *Pathology*. Sussex, Wis, Oct. 22, 66. Carroll, 82-85; Wooster, 85-86; M.D, Rush Med. Col, 89. Prof. *path.*, Woman's Med. Sch, Northwestern, 93-97; asst. *prof.*, Rush Med. Col, 99-18, *prof.*, 18- Physician in charge, Durand Hosp, McCormick Inst, 02- Attending physician contagious diseases, Cook Co. Hosp, 05-13. A.A; Ass. Path. and Bact; Soc. Bact; Am. Physicians; Am. Med. Ass; Chicago Path. Soc; Chicago Soc. Med. Hist. Bacteriology and immunity in contagious diseases.

- Weaver, Dr. J(ames) H(enry)**, Hilliards, Ohio. *Mathematics*. Madison Co, Ohio, June 19, 83. A.B, Otterbein, 08; A.M, Ohio State, 11; Ph.D, Pennsylvania, 16. Teacher, high sch, Ohio, 08-10; instr. *math*, Ohio State, 10-12; head dept, high sch, Pa, 12-15; instr, *Ohio State*, 17-22, asst. prof, 22-26, *prof*, 26- A.A; Math. Soc; Math. Ass. History of mathematics; geometry.
- Weaver, Prof. J(ohn) E(rnst)**, Station A, Lincoln, Nebr. **Botany*. Villisca, Iowa, May 5, 84. B.S, Nebraska, 09, A.M, 11; Ph.D, Minnesota, 16. Instr. bot, Wash. Col, 12-13, asst. prof, 13-14; instr, Minnesota, 14-15; asst. prof, *Nebraska*, 15-17, *prof. plant ecol*, 17- Research assoc, Carnegie Inst. Tech, 22- A.A; Bot. Soc; Ecol. Soc; Nebr. Acad. Plant ecology and physiology; root activities; crop ecology.
- Weaver, Paul, P. O. Drawer C**, Houston, Texas. *Geology, Technology*. Carrollton, Ky, May 18, 88. A.B, Columbia, 08. Aid, U. S. Coast and Geod. Surv, 08-09; asst, U. S. Geol. Surv, 09-10; geologist, Bermudez Co, Venezuela, 10-11; S. Pearson and Son, and C. M. de P. El Aguila, 11-17, supt, El Aguila, 17-20, geologist, 20-24, technical adviser, 24-26; *geologist, Gulf Production Co*, 26- Ass. Petrol. Geol; Soc. Econ. Geol; Min. and Metal. Eng; Ass. Eng; Inst. Petrol. Technol. Geology and technology of petroleum.
- Weaver, Prof. W(arren)**, 1852 Summit Ave, Madison, Wis. *Electromagnetism*. Reedsburg, Wis, July 17, 94. C.E, Wisconsin, 17, Ph.D, 21. Asst. prof. *math*, Throop, 17-18; Calif. Inst, 19-20; *Wisconsin*, 20-25, *assoc. prof*, 25- Second lieut, A.S, 17-19. A.A; Physical Soc; Math. Soc; Math. Ass. Electrodynamics.
- Webb, Prof. H(anor) A**, George Peabody College for Teachers, Nashville, Tenn. *Chemistry*. Nashville, April 1, 88. A.B, Nashville, 08; M.S, Chicago, 11; Ph.D, Peabody Col, 20. Instr, Nashville, 05-08; teacher, schools, Ga, Tenn. and Ky, 08-10; asst, lab, and senior asst, chem. lab, Chicago, 10-12; prof. psychol, West Tenn. State Nor. Sch, 12-14, prof. chem. and biol, 14-17; instr. *chem. and teaching of science*, *Peabody Col*, 17-20, *assoc. prof*, 20-24, *prof*, 24- Business manager, 'Peabody Jour. Educ,' 23-; ed, 'Current Science,' 27- A.A. (committee on place of science in educ, 24-); Chem. Soc; Ass. Sci. and Math. Teachers; Tenn. Acad. Education in science; reaction of children to science; analysis of science texts.
- Webb, Prof. Harold W(orthington)**, Columbia University, New York, N. Y. **Physics*. Ithaca, N. Y, July 27, 84. A.B, Columbia, 05, Ph.D, 09. Instr. *physics*, *Columbia*, 09-14, asst. prof, 14-24, *assoc. prof*, 24- A.A; Physical Soc. (sec'y, 23-). Short electric waves; metastable states in mercury vapor.
- Webb, J(esse) L(ee)**, U. S. Department of Agriculture, Washington, D. C. *Entomology*. Bloomington, Ill, April 9, 78. B.S, Wash. Col, 00; M.S, West Virginia, 02. Special field agent, *U. S. Dept. Agr*, 02-09, asst, *bur. entom*, 09-19, *in charge south. field crop insect investigations*, 19- A.A; Ass. Econ. Entom; Wash. Entom. Soc. Rice and forest insects; biology of Tabanidae.
- Webb, Prof. L(ouie) W(infield)**, Northwestern University, Evanston, Ill. *Psychology*. Texarkana, Ark, Sept. 8, 83. A.B, Ouachita, 06; Th.M, South. Baptist Theol. Sem, 09; A.M, Chicago, 13, Ph.D, 16. Prof. philos, Ouachita, 09-11; instr. psychol. and educ, *Northwestern*, 16-18, asst. prof. *educ*, 18-21, *assoc. prof*, 21- Summer, instr, Ill. State Nor. Univ, 16; lecturer, sch. commerce, Northwestern, 18- A.A; Psychol. Ass. Educational psychology; transfer of training and retroaction; methods of studying; tests.
- Webb, Dr. Robert W(illiam)**, 3517 13th St, N. W, Washington, D. C. *Plant pathology*. Anderson, S. C, March 4, 95. B.S, Clemson, 18; M.S, Washington (St. Louis), 19; fellow, Mo. Bot. Garden, 18-19, 19-21, Ph.D, 21; Wisconsin, 21-25. Research asst, Mo. Bot. Garden, 19-20; sci. asst, office cereal investigation, bur. plant indust, *U. S. Dept. Agr*, 21, asst. pathologist, 23-24, *assoc. pathologist*, 24-26, *assoc. physiologist*, 26-27, *assoc. cotton technologist*, *div. cotton marketing*, *bur. agr. econ*, 27- Summers, field asst, S. C. Exp. Sta, 17-19. Phytopath. Soc; Bot. Soc. Physiology of fungi; foot-rot diseases of wheat; virus diseases of plants.
- Webb, Dr. T(homas) J(efferson)**, University of California, Berkeley, Calif. *Physical chemistry*. Anderson, S. C, May 8, 00. B.S, Clemson Col, 21; A.M, Princeton, 23, Ph.D, 24. *Nat. Research Council fellow, California*, 24- Third law of thermodynamics; non-aqueous solutions of strong electrolytes.
- Webb, Walter Loring**, 31 Runnymede Ave, Lansdowne, Pa. *Civil engineering*. Rye, N. Y, June 25, 63. B.C.E, Cornell, 84, C.E, 89. Instr. civil eng, Cornell, 88-92; asst. prof, Pennsylvania, 93-01; *consulting engineer*, 01- Major and chief engineer, renting, requisitions and claims service, corps engineers, U.S.A, 17-20. Civil Eng; Ky. Eng; Phila. Eng. Club. Railroad engineering; economics of railway construction; reinforced concrete.
- Webb, W(illiam) R(obert)**, Kodak Gesellschaft, Berlin, Germany. *Chemistry*. Detroit, Mich, Oct. 30, 88. Mich. State Nor. Col, 06-09; B.Ch.E, Michigan, 14, M.S, 15. Teacher physics and chemistry, Howe Sch, Ind, 09-12; research chemist, *Eastman Kodak Co*, 15-18, *plant exec*, 18- Chem. Soc. (chairman, Rochester sect, 25). Preparation of free radicles; cellulose and its derivatives.
- Webb, Prof. W(illiam) S(nyder)**, University of Kentucky, Lexington, Ky. *Physics*. Greendale, Ky, Jan. 19, 82. B.S, Kentucky, 01, M.S, 02. Assoc. prof. *physics*, *Kentucky*, 13-17, *prof. and head dept*, 19-, *head dept. anthrop*. Major, F.A, 17-19. A.A; Physical Soc; Anthropol. Ass.
- Webber, Dr. H(erbert) J(ohn)**, University of California, Berkeley, Calif. **Plant physiology*. Lawton, Mich, Dec. 27, 65. B.S, Nebraska, 89, A.M, 90, Agr.D, 13; Ph.D, Washington (St. Louis), 01. Instr. bot, Nebraska, 89-90; Washington (St. Louis), 90-92; pathologist, U. S. Dept. Agr, 92-99, physiologist in charge plant breeding lab, 00-07; prof. plant biol, Cornell, 07-08, exp. plant breeding, 08-12, acting director col. agr, 09-10; dean grad. sch. trop. agr,

- California, and director, Citrus Exp. Sta, 13-19, director, Calif. Exp. Sta, 19-20; gen. manager, Pedigreed Seed Co, 20-21; *prof. sub trop. hort. and director, Citrus Exp. Sta, California, 21-*, acting dean col. agr, 23. Special citrus commissioner, Dept. Agr, Union S. Africa, 24-25. Rep. of U. S. Dept. Agr, Int. Conf. on Hybridization, 98. A.A.; Soc. Nat; Bot. Soc; Soc. Hort. Sci; Ecol. Soc. Plant reproduction; *Zamia* and Ginkgo; orange diseases; plant breeding; breeding of oranges, cotton, corn, pineapples, timothy and potatoes.
- Webber, Dr. W(infield) Paul**, Louisiana State University, Baton Rouge, La. *Mathematics*. 74. A.M, Defiance Col, 03; Cincinnati, 08, Ph.D, 11. *Instr.* schools, 97-02; math. and physics, Defiance Col, 03-04; Lebanon, 04-06; *math*, Cincinnati, 06-09; Okla. Agr. and Mech. Col, 09-11; Bethany, 11-13; Pittsburgh, 13-22; *Louisiana, 22-* Math. Soc; Math. Ass. Theory of periodic functions; teaching of secondary mathematics.
- Weber, Dr. G(eorge) F(rederick)**, Florida Agricultural Experiment Station, Gainesville, Fla. *Plant pathology*. Alexandria, S. Dak, 94. B.S, S. Dak. Col, 16; M.S, Wisconsin, 20, Ph.D, 22. Asst. bot. S. Dak. Col, 15-16; *plant path*, Wisconsin, 19-20; *Florida, 22-23, assoc, 23-*, asst. plant pathologist, *Exp. Sta, 22-23, assoc. plant pathologist, 23-* Summers, sci. asst, U. S. Dept. Agr, 19-22. Capt, F.A., 16-19. A.A.; Bot. Soc; Phytopath. Soc; Wis. Acad. Mycology; septoria diseases of cereals; phytopathology; diseases of truck crops and sub-tropical fruits; classification of fungi.
- Weber, Dr. Irving**, Fiberloid Corporation, Indian Orchard, Mass. *Organic chemistry*. Poland, March 1, 95. A.B, A.M, Texas, 21; Ph.D, Mass. Inst. Tech, 24. *Instr. chem*, Texas, 20-21; *director lacquer div, Fiberloid Corp, 24-* Chem. Soc. Catalytic reduction and dehalogenation of organic substances; nitro-cellulose plastics and lacquers.
- Weber, Prof. Joseph J(ohn)**, 343 State St, Rochester, N. Y. *Psychology, Education*. Odessa, Russia, April 3, 90. A.B, North Dakota, 16, A.M, 17; Ph.D, Columbia, 22. Assoc. prof. educ. psychol, Kansas, 21-22; head visual instruction and lecturer educ. psychol, Texas, 22-23; prof. secondary educ, Arkansas, 23-25; head dept. psychol. and educ, Drury Col, 25-26; *teaching film dept, Eastman Kodak Co, 27-* A.A. Comparative effectiveness of some visual aids in seventh grade instruction; standard achievement test on aims and functions in secondary education; some educative values of stereographs, photographs and lantern slides.
- Webster, Prof. David L(ocke)**, Stanford University, Calif. **Physics*. Boston, Mass, Nov. 6, 88. A.B, Harvard, 10, Ph.D, 13. *Instr. math*, Harvard, 09-12, asst. *physics*, 11-14, instr, 15-17; asst. prof, Michigan, 17; Mass. Inst. Tech, 19-20; *prof. and exec. head dept, Stanford, 20-* Nat. Acad; A.A; Physical Soc; Philos. Soc; Am. Acad. Light and electron theory; X-ray spectra.
- Webster, Prof. Hutton**, Station A, Lincoln, Nebr. *Anthropology*. Malone, N. Y, March 24, 75. A.B, Stanford, 96, A.M, 97; Harvard, 03, Ph.D, 04. Austin teaching fellow, Harvard, 02-04; asst. prof. econ, Williams, 04-07; *prof. social anthrop, Nebraska, 07-* Summer, prof, California, 13. A.A; Anthropol. Ass. (council, 19); Archeol. Inst; Am. Geog. Soc; Sociol. Soc; Hist. Ass; Folk-Lore Soc; Oriental Soc; Royal Anthropol. Inst; London Folk-Lore Soc; Inst. Int. de Sociol. Primitive society and religion; history of civilization.
- Webster, Prof. J(ohn) Clarence**, Shediak, N. B, Can. *Gynecology*. Shediak, 63. B.A, Mt. Allison, 82; M.B, C.M, Edinburgh, 88, M.D, 90, hon. D.Sc, L.L.D. *Prof. obstet. and gynec, Rush Med. Col, Chicago, 99-20, emer. prof, 20-* Obstetrician and gynecologist, Presb. Hosp, Chicago. Fel. Gynec. Soc; fel. Col. Surg; fel. Royal Soc. Can; fel. Royal Soc. Edinburgh; fel. Royal Col. Physicians Edinburgh; cor. mem. Soc. Ital. di Ostet. e Gynec; Palermo Reale Accad. d. Sci. Med. Anatomical, pathological, embryological and therapeutic obstetrics and gynecology.
- Webster, Dr. Leslie T(illotson)**, Rockefeller Institute, New York, N. Y. *Medicine*. New York, July 23, 94. A.B, Amherst, 15; M.D, Hopkins, 19. Asst. res. pathologist, Hopkins Hosp, 19-20; asst. path. sch. med, Hopkins, 19-20; asst. path, *Rockefeller Inst, 20-23, assoc. path. and bacter, 23-* Soc. Exp. Biol; Harvey Soc; Soc. Exp. Path. Pathology of lymphosarcoma; epidemic diseases.
- Webster, Dr. R(alph) W(aldo)**, 25 E. Washington St, Chicago, Ill. *Medical jurisprudence, Toxicology*. Monmouth, Ill, April 16, 73. Ph.B, Chicago, 95, M.D, Rush Med. Col, 98, fellow, 98-99, fellow, Chicago, 99-01, Ph.D, 03. Asst. physiol. chem, *Chicago, 01-04, assoc. chem, Rush Med. Col, 01-06, instr, 06-*, asst. prof. pharmacol. therapeut, 08-20, med. juris, 21-23, assoc. prof, 23-25, *prof. clin. med, 25-* Path. chemist, Cook Co. Hosp, 05-11; director, Chicago clin. lab. Assoc. ed, 'Legal Med. and Toxicol.' A.A; Am. Med. Ass; Soc. Biol. Chem; Ass. Path. and Bact; Soc. Bact; Chem. Soc; Chicago Path. Soc; Chicago Inst. Med. Biochemistry; experimental medicine; diagnostic methods; physical analysis of absorption of fluid by muscular tissues; diseases of metabolism; metabolism of Myositis ossificans; blood examinations; rheumatism; over-feeding and under-feeding; proteid bodies in urine of pneumonia; synthesis of glycuronic acid in the system; synthesis of polypeptid; acidosis; toxemia of pregnancy.
- Webster, Prof. R(obert) L(orenzo)**, State College of Washington, Pullman, Wash. *Entomology*. West Lafayette, Ind, Oct. 4, 85. A.B, Illinois, 08; Ph.D, Cornell, 21. Asst. entomologist, Iowa Exp. Sta, 08-14, acting entomologist, 14-18; prof. agr. entom. N. Dak. Col, and entomologist, Exp. Sta, 21-26; *prof. entom. and head dept. zool, Wash. Col, and entomologist, Exp. Sta, 26-* A.A; Entom. Soc; Ass. Econ. Entom; Ecol. Soc; Wash. Entom. Soc; N. Dak. Acad; fel. Iowa Acad. Economic entomology; life histories of North American insects; insecticides.

- Wechsler, Dr. D(avid)**, 501 Lexington Ave, New York, N. Y. *Psychology*. Lespedi, Roumania, Jan. 12, 96. A.B, Col. City of N. Y., 16; A.M, Columbia, 17, Ph.D., 25; field service fellow, Paris, 19-21. Psychologist, Bur. Children's Guidance, N. Y. Sch. Social Work, 22-25; *assoc, Psychol. Corp.*, 24- Psychol. Ass; British Psychol. Soc. The psychogalvanic reflex; measurement of emotional reactions; psychology of the emotions; retention defect in Korsakoff's psychosis; psychological tests for chauffeurs and drivers.
- Wechsler, Dr. Israel S(paner)**, 1112 Park Ave, New York, N. Y. *Neurology*. Roumania, May 26, 86. M.D, N. Y. Univ, 07. Instr. *neur, Columbia*, 17-20, *assoc*, 20-26, *asst. prof.*, 26-27, *assoc. prof.*, 27- Attending neurologist, Montefiore and Sydenham Hospitals; neurologist, Mt. Sinai Hosp, 19-25. N. Y. State prize in med, 18. Neur. Ass; Am. Med. Ass; N. Y. Neur. Soc; N. Y. Acad. Med. Extrapyramidal system and decerebrate rigidity; comparative anatomy of substantia nigra; dystonia musculorum deformans; psychoneuroses and internal secretions; tonic neck reflexes; sensory changes in neuritides.
- Wechter, Dr. Eugene J(acob)**, Speed, Ind. *Chemistry*. Berne, Ind, July 8, 00. A.B, De Pauw, 22; M.S, Wisconsin, 24, Ph.D., 25. Asst. chem, De Pauw, 21-22; instr, Wisconsin, 22-23, research asst, 23-25; *research chemist, Louisville Cement Co*, 25- Air oxidation of the selenites to selenates; action of ozone on selenium compounds; patents pending on plastering materials; cement.
- Wedderburn, Prof. J(oseph) H(enry) M(ac-lagan)**, Princeton University, Princeton, N. J. **Mathematics*. Forfar, Scotland, Feb. 26, 82. M.A, Edinburgh, 03, D.Sc, 08. Asst. *math*, Edinburgh, 05-09; *asst. prof*, Princeton, 09-21, *assoc. prof.*, 21- Ed, 'Annals of Math.' A.A; Math. Soc. (v. pres, 24); fel. Royal Meteor. Soc; fel. Royal Soc. Edinburgh; Edinburgh Math. Soc; Circolo Mat. di Palermo. Hypercomplex numbers; matrices.
- Wedgewood, Dr. Paul E(lmer)**, Naval Hospital, Philadelphia, Pa. *Biochemistry*. Monmouth, Ill, Aug. 11, 98. B.S, South Dakota, 22; Merrill fellow, Cincinnati, 24-26, Ph.D., 25, M.B., 26, M.D., 27. Instr. *biochem*, Cincinnati, 22-24; *asst. surg, U. S. Naval Hosp, League Island, Pa*, 26- Chem, Soc; Pediat. Soc. Chemical basis of immunity.
- Weeber, Dr. Lorle Stecher**, Box 3468, Honolulu, Hawaii. *Psychology*. St. Louis, Mo, Jan. 1, 91. A.B, Bryn Mawr, 12, A.M, 13; Ph.D, Columbia, 16. Psychologist, N. Y. State Commission on Ventilation, 15-16; instr. *psychol*, Temple, 16-17; psychologist, Children's Hosp, New York, 17-18; lecturer *psychol*, Barnard, Columbia, 18-19; research asst. prof, Iowa Child Welfare Research Sta, 19-24; *psychologist, The Kamehameha Schools*, 25- Psychol. Ass; Ass. Clin. Psychol. Experimental psychology; mental tests.
- Weed, Alfred C(leveland)**, Field Museum of Natural History, Chicago, Ill. *Zoology*. North Rose, N. Y, July 28, 81. A.B, Cornell, 05. Aid, div. fishes, U. S. Nat. Museum, 08-13; *asst. curator fishes, Field Museum*, 21- A.A; Ecol. Soc; Soc. Ichthyol. and Herp; Game Conservation Soc; Game Protective Ass; Wash. Biol. Soc. Classification and relationships of American fishes.
- Weed, Clarence M(oores)**, Lowell, Mass. **Entomology*. Toledo, Ohio, Oct. 5, 64. B.S, Mich. State Col, 83, M.S, 84; Sc.D, Ohio State, 91. Assoc. ed, 'Prairie Farmer', 84-85; *asst. state entomologist*, Ill, 85-87; *entomologist, Ohio Exp. Sta*, 88-90; *prof. zool. and entom*, New Hampshire, 91-04; instr. *nature study, Mass. State Nor. Sch, Lowell*, 04-21, *prin*, 21- Entomologist, N. H. Exp. Sta. Ed, entom. dept, 'Am. Naturalist', 93-96. A.A; fel. Entom. Soc; Ass. Econ. Entom. Insect life histories; relations of flowers and insects; Phalangidae of America; nature study in schools.
- Weed, Howard Evarts**, Beaverton, Oregon. *Horticulture*. Lansing, Mich, May 7, 70. B.S, Mich. State Col, 89, M.S, 90; Cornell, 02. Entomologist, Miss. Exp. Sta, 90-97; *practising landscape gardener*, 97- A.A. Economic entomology; peony and iris; spraying; park cemeteries.
- Weed, Prof. Lewis H(ill)**, Johns Hopkins University School of Medicine, Baltimore, Md. **Anatomy*. Cleveland, Ohio, Nov. 15, 86. A.B, Yale, 08, A.M, 09; M.D, Hopkins, 12. Cabot fellow in charge lab. surg. research, Harvard, 12-14; instr, *assoc. and assoc. prof. anat*, Hopkins, 14-19, *prof*, 19-, *dean med. faculty*, 23- A.A; Ass. Anat; Physiol. Soc; Ass. Path. and Bact; Soc. Mammal. Nuclear masses in the medulla; decerebrate rigidity; cerebro-spinal fluid; cerebro-spinal spaces.
- Weed, Walter Harvey**, Homestead, Oregon. **Geology*. St. Louis, Mo, May 1, 62. E.M, Columbia, 83. Asst. geologist, U. S. Geol. Surv, 83-92, geologist, 92-06; mining geologist, Gen. Develop. Co, 06-09; *consulting mining engineer*, 09-; *gen. manager, Idaho Copper Co, Homestead*, 26- Geologist, N. C. Geol. Surv, 04. Contrib. ed, 'Eng. and Mining Jour', 04; ed, 'Mines Handbook', 11-25. Jury awards, La. Purchase Expos, 04, hon. special expert in copper. Geol. Soc; Min. Eng; Wash. Geol. Soc; Wash. Acad; British Inst. Min. Eng; British Inst. Min. and Metal. Economic geology, especially ore genesis; geological mapping and investigation of Yellowstone Park and Montana; geology of Mexico; coal of Montana; secondary enrichment of ore deposits; copper deposits of the world; gold mines of the Marysville district, Montana.
- Weeks, Andrew Gray**, 15 State St, Boston, Mass. *Entomology*. Boston, Oct. 2, 61. A.B, Harvard, 83. *Hon. assoc. entom, Harvard Univ. Museum*, 03- New Eng. Zool. Soc; Cambridge Entom. Club; Boston Soc. Nat. Hist. Diurnal Lepidoptera.
- Weeks, J(ohn) R(ockwell)**, U. S. Weather Bureau, Binghamton, N. Y. *Meteorology, Climatology*. Kalamazoo, Mich, Feb. 3, 76. B.L, Mercer, 02. Asst. to sect. director and acting sect. director, Miss. U. S. *Weather Bur*, 98-99, Ala. and Mont, 99-00, *in charge river and flood district*, Fort Smith, Ark, 00-01, Macon, Ga,

- 01-05, *Binghamton*, 05- Lecturer, Mercer; Wesleyan Female Col; N. Y. State Dept. Educ. Asst., U. S. Dept. Justice, 17-18. Lieut. Nat. Guard, 93-98. A.A.; fel. Meteor. Soc; Micros. Soc; Am. Geog. Soc; Statist. Ass. Statistical methods applied to the discussion of meteorological data; relation between weather and disease; weather forecasting; weather and radio reception.
- Weeks, L(ewis) G(eorge)**, Guaranty Trust Co. of New York, 140 Broadway, New York, N. Y. *Engineering*. Chilton, Wis, May 22, 93. B.S, Wisconsin, 16; Cornell, 20. Wis. Geol. Surv, 15; min. geologist, Cananea Consol. Copper Mines, Mex, 16; min. engineer, Calumet and Ariz. Copper Mines, Ariz, 17; min. engineer in charge south mines div, Cananea Consol. Copper Mines, 19; instr. geol. Cornell, 20; petrol. geologist, Whitehall Petrol. Corp, Ltd, 20-24; *geologist*, *Standard Oil Co. of N. J., Venezuela*, 24- Chemist, T. N. T. Indian Head, Md, 18. A.A; Min. and Metal. Eng; Ass. Petrol. Geol. Geological and mining engineering.
- Weeks, Dr. Paul T(horne)**, 41 Ravine Ave, Caldwell, N. J. *Physics*. Clarksfield, Ohio, Nov. 19, 90. A.B, Oberlin, 13; Ph.D, Cornell, 17. Asst. physicist, Bur. Standards, 17-18; *physicist*, *Westinghouse Lamp Co*, 19- Lieut. Sig.C, 18-19. A.A; Physical Soc. X-ray measurements.
- Weeks, W(alter) S(cott)**, University of California, Berkeley, Calif. *Mining*. Chelsea, Mass, Oct. 1, 82. A.B, Harvard, 06, B.S, 07, M.E, 09. Teaching fellow, Harvard, 07-08, asst, 08-10, instr, 10-15; *assoc. prof. mining, California*, 15- Min. and Metal. Eng. Mine ventilation; compressed air.
- Weems, Dr. J(ulius) B(uel)**, Ashland, Va, *Chemistry*. Baltimore, Md, Aug. 27, 65. B.S, Md. Col, 88; Ph.D, Clark, 94. Instr. math. and chem, Md. Col, 89; prof. agr. chem, Iowa Col, 95-04; investigator rural life, 04-15; *chief chemist, Va. Dept. Agr., Richmond*, 15- A.A; Chem. Soc; Soc. Bact. Chemical composition of grasses; purification of sewage; soils; chemical composition of butter; methods of water and sewage analysis; agricultural education; soils of Virginia; fertilizers; foods; gasoline; paint; insecticides.
- Weese, Prof. A(sa) O(rrin)**, University of Oklahoma, Norman, Okla. *Zoology, Ecology*. Hutchinson, Minn, Nov. 7, 85. A.B, Minnesota, 09; A.M, Illinois, 17, Ph.D, 22. *Prof. biol*, New Mexico, 11-22; James Millikin, 22-24; *zool*, *Oklahoma*, 24- Summer, prof, Puget Sound Biol. Sta, 25; Rocky Mountain Biol. Sta, 26- A.A; Soc. Zool; Soc. Mammal; Entom. Soc; Ecol. Soc. (sec'y-treas, 20-); West. Soc. Nat; Okla. Acad. Physiological ecology; bio-ecology.
- Wegel, R(aymond) L(ester)**, 463 West St, New York, N. Y. *Physics*. Fond du Lac, Wis, July 13, 88. A.B, Ripon, 10. Asst. physics, Wisconsin, 10-12; *physicist*, Thos. A. Edison, 12-13; *West. Elec. Co*, 14- Physical Soc; Elec. Eng. Telephone transmission; telephone receivers and transmitters; hearing.
- Wegg, D(avid) S(pencer)**, 250 W. 85th St, New York, N. Y. *Electrical engineering*. Milwaukee, Wis, Feb. 8, 87. M.E, Cornell, 12, M.M.E, 14; Utah, 15. Hydro-electric work, Telluride Power Co, 08-21; power plant consultant, sugar mills, Cuba, 21-25; acting chief elec. equipment div, Bur. For. and Domestic Commerce, U. S. Dept. Commerce, 25-27; *asst. engineer, Elec. Bond and Share Co*, 27- Elec. Eng; Mech. Eng. Foreign trade, especially along electrical lines.
- Wegmann, E(dward)**, 13 Park Row, New York, N. Y. *Civil engineering*. Rio de Janeiro, Brazil, Nov. 27, 50. Brooklyn Polytech, 67-68; C.E, N. Y. Univ, 71. Ry. construction, 71-84; div. engineer and chief engineer, New Croton Aqueduct and reservoir, New York, 84-10, consulting engineer, dept. water supply, gas and elec, 10-14; *consulting engineer*, 14- Civil Eng; Water Works Ass. Design and construction of dams; water supply of the city of New York; conveyance and distribution of water for water supply.
- Wehmeyer, Dr. Lewis E(dgar)**, 68 Oxford St, Cambridge, Mass. *Botany*. Quincy, Ill, Jan. 1, 97. B.S, Michigan, 21, Cole fellow, 22-25, Ph.D, 25. *Nat. Research Council fellow, Harvard*, 25- A.A; Bot. Soc; Mich. Acad. Mycology; pyrenomycetous fungi.
- Weida, Prof. Frank M(ark)**, 1016 N. New St, Bethlehem, Pa. *Mathematics*. Allentown, Pa, Sept. 28, 91. B.S, Kenyon, 13; Hopkins, 13-14; Chicago, 16-17; Ph.D, Iowa, 23. Head master, St. Albans Sch, 14-16; asst. *math*, Chicago, 16-17; instr, Iowa, 17-24; *asst. prof*, Mont. Col, 24-25; *Lehigh*, 25- A.A; Math. Soc; Math. Ass; Statist. Ass; Eng. Educ; fel. Royal Statist. Soc. Statistics; mathematics of finance; actuarial theory; the present value of a life annuity with refund of an arbitrarily assigned part of purchase price.
- Weida, Dr. Geo(rge) F(rancis)**, Box 1103, Iowa Falls, Iowa. *Chemistry*. Allentown, Pa, Aug. 15, 70. B.S, Kansas, 90; fellow, Hopkins, 93-94, Ph.D, 94. Asst. pharmaceut. chem, Kansas, 88-90; prof. chem, Blackburn, 94-96; Baker, 96-97; Kansas Col, 97-03; Ripon Col, 03-07; Kenyon, 07-24; Centre (Ky), 24-25. A.A; Chem. Soc. Organic chemistry; diazo compounds; alkaloids.
- Weidlein, Dr. E(dward) R(ay)**, Mellon Institute, Pittsburgh, Pa. *Chemistry*. Augusta, Kans, July 14, 87. A.B, Kansas, 09, fellow, 09-12, A.M, 10; hon. Sc.D, Tufts, 24. Senior indust. fellow, *Mellon Inst*, and director exp. plant, Nev, 12-16, assoc. director, 16-21, acting director, 18, *director*, 21- Chem. expert, W. I. B, 18. A.A; Chem. Soc. (chairman, Pittsburgh sect, 23, counselor, 24-, v. chairman, div. indust. eng. chem, 24); Chem. Eng. (director, 24-, pres, 27); Soc. Chem. Indust. (exec. committee, Am. sect, 24-); Electrochem. Soc; Min. and Metal. Eng; Acad. Polit. and Social Sci; Franklin Inst; Wash. Acad; Pa. Acad; West. Pa. Eng. Soc; Kans. Acad; N. Y. Chemists Club (non-res. v. pres, 23-); Chem. Gesell; Soc. chim. de France; Soc. de Chim. indust; fel. Royal Soc. Arts. Chemical and metallurgical engineering; camphor; epi-

- nephridia; hydrometallurgy; heat insulation materials; industrial research methodology.
- Weidman, Prof. Fred D(eforest)**, University of Pennsylvania, Philadelphia, Pa. *Dermatology, Pathology*. Bristol, Conn, Oct. 16, 81. M.D., Pennsylvania, 08. Asst. demonstrator path, Pennsylvania, 09-14, histol, 09-11, instr. anat, 14-20; demonstrator path, Woman's Med. Col. of Pa, 11-13, prof, 14-17; asst. director dermat, research lab, Pennsylvania, 17-23, acting head dept. dermat, 21-24, *prof. dermat. research*, 23-, *asst. pathologist*, Phila. Zool. Soc, 10- Phila. Path. Soc. (pres, 21); Phila. Physiol. Soc; Phila. Dermat. Soc. (pres, 23); Phila. Col. Physicians; Int. Ass. Med. Mus. Mycology; animal parasitology.
- Weidman, R(obert) H(arrison)**, 318 McLeod Ave, Missoula, Mont. *Forestry*. San Francisco, Calif, July 25, 86. A.B., Michigan, 14. Forest examiner, U. S. Forest Service, Oregon, 14-21; *silviculturist in charge North. Rocky Mt. Forest Exp. Sta, Missoula*, 21- A.A.; Soc. Foresters; Ecol. Soc. Natural regeneration of Western yellow and white pine forests; accelerated growth after partial cuttings.
- Weidman, Dr. S(amuel)**, Norman, Okla. *Geology*. Reedsburg, Wis, Oct. 11, 70. B.S., Wisconsin, 94, fellow, 95-96, Ph.D, 98; fellow, Chicago, 96-97. Field asst, U. S. Geol. Surv, 94-96; asst. geologist, Wis. Geol. Surv, 97-99, geologist, 99-18; assoc. prof. *geol. Oklahoma*, 20-25, *prof.*, 25- A.A.; Geol. Soc; Ass. Petrol. Geol; Min. Eng; Min. Soc; Ass. Geog; Okla. Acad. (pres, 23). Precambrian geology; mineralogy; glacial and physiographic geology; geology of Wisconsin and Oklahoma.
- Weierbach, Dr. Lily A(melia)**, 3313 N. Smedley St, Philadelphia, Pa. *Botany*. Pleasant Valley, Pa. B.S., Muhlenberg Col, 21; A.M., Pennsylvania, 22, Joseph M. Bennett fellow, 22-24, Ph.D, 25. *Teacher*, Doylestown Township High Sch, Pa, 21; *science dept, William Penn High Sch*, 24-; *research worker, dept. bot, Pennsylvania*, 26- A.A.; Bot. Soc; Pa. Bot. Soc. Effects of sulfur dioxide upon plants.
- Weigel, Dr. C(harles) A(dolph)**, U. S. Department of Agriculture, Washington, D. C. *Entomology*. Methuen, Mass, Sept. 27, 87. B.S., New Hampshire, 16; M.S., Ohio State, 18, Ph.D, 25. Asst. zool. and entom. Ohio State, 16-17, instr, 17-18; entom. inspector, fed. hort. board, U. S. Dept. Agr, 18-20, asst. entomologist, *bur. entom.*, 20-21, *entomologist in charge insects affecting ornamentals*, 21- Entom. Soc; Ass. Econ. Entom; Wash. Entom. Soc. Insects injurious to ornamental and flowering plants.
- Weightman, R(ichard) Hanson**, 5914 Wisconsin Ave, W. Chevy Chase, D. C. *Meteorology*. Vicksburg, Miss, Aug. 26, 82. LL.B., 11. U. S. *Weather Bur*, 01-17, 19- Lieut, Sig.C, 17-19. Fel. Meteor. Soc. Meteorology; cyclones and anticyclones; weather forecasting.
- Weigle, Prof. J(ean) J(acques)**, University of Pittsburgh, Pittsburgh, Pa. *Physics*. Geneva, Switzerland, 01. B.S., Geneva, 21, Sc.D, 23. Asst. physics, Geneva, 21-23; research physicist, Westinghouse Co, 23-24; *asst. prof. physics, Pittsburgh*, 24- A.A.; Optical Soc; Physical Soc; Pittsburgh Physical Soc. (sec'y-treas, 25); Soc. Suisse de Physique; Physik. Gesell. Electric discharge in gases at high pressures; Paschen law and molecular field; electronic theory of metals; magnetic and electric susceptibilities of metallic vapors; photomagnetism.
- Weigle, Prof. Luther Allan**, Yale University, New Haven, Conn. *Psychology*. Littlestown, Pa, Sept. 11, 80. A.B., Gettysburg Col, 00, A.M, 03, D.D, 17; Ph.D, Yale, 05; D.D., Carleton Col, 16; Litt.D., Muhlenberg Col, 25. Prof. philos. and psychol., Carleton Col, 05-16, dean, 10-15; Horace Bushnell prof. Christian nurture, Yale, 16-24, *Sterling prof. religious educ*, 24- Holman lecturer, Lutheran Theol. Sem, 21, Duncan lecturer, 26; James Sprunt lecturer, Union Theol. Sem, 25. Psychol. Ass; Philos. Ass; Minn. Educ. Ass. (pres, 13). Psychology of religion; religious education.
- Weigle, Prof. O(tis) M(elvin)**, Fulton, Mo. *Chemistry*. Oil City, Pa, April 3, 80. A.B., Iowa State Teachers Col, 08; M.S., Iowa, 12. Prof. chem. and physics, Memorial, 08-10; instr. *chem.*, Lawrence Col, 12-14; Iowa State Teachers Col, 14-15; *prof. Westminster (Mo)*, 15- A.A.; Chem. Soc; Iowa Acad. Velocity coefficients of reactions in alcoholic solvents.
- Weimer, Prof. Bernal R(obinson)**, Bethany, W. Va. *Zoology*. Port Royal, Pa, Dec. 4, 94. A.B., West Virginia, 16, A.M., 18; Ph.D, Chicago, 27. Supt, schools, Pa, 19-21; *prof. biol. Bethany (W. Va)*, 21- A.A.; Soc. Zool; W. Va. Acad. (v. pres, 24, pres, 27). Physiology; animal behavior.
- Weimer, Dr. J(ames) L(e Roy)**, U. S. Department of Agriculture, Washington, D. C. *Plant pathology*. Avilla, Ind, July 12, 87. A.B., Washash, 12; fellow, Cornell, 12-13, Ph.D, 16. Asst. plant path, Cornell, 13-14, instr, 14-16; asst. bot., Purdue Exp. Sta, 16-17; *asst. plant pathologist, bur. plant indust, U. S. Dept. Agr*, 17- Phytopath. Soc; Bot. Soc; Wash. Bot. Soc. Cedar rust of apples; sweet potato, beans, cauliflower and alfalfa diseases.
- Weinard, Dr. F(rederick) F(rancis)**, 713 W. Iowa St, Urbana, Ill. *Plant physiology*. Lincoln, Nebr, Dec. 2, 93. B.S., Nebraska, 16, A.M., 17; Ph.D, Illinois, 22. Asst. bot., Nebraska, 16; field asst, U. S. Dept. Agr, 17; asst, *Illinois*, 19-22, *assoc. floricultural physiol*, 22-, *Exp. Sta*, 22- A.A.; Bot. Soc. Plant nutrition and propagation; diseases of ornamentals.
- Weinberg, Prof. Edward F. S.**, Rollins College, Winter Park, Fla. *Mathematics*. New York, N. Y, Feb. 23, 88. B.S., Manhattan Col, 06, C.E., 12. Asst. prof. *math.*, Manhattan Col, 12-17; *head dept, Rollins Col*, 23- Capt, Inf, and instr. math. and mil. map reading and making, U.S.A., 17-19. Math. Ass.
- Weinberger, Dr. B(ernhard) W(olf)**, 119 W. 57th St, New York, N. Y. *Dentistry*. Idaho Springs, Colo, June 5, 85. D.D.S., Pennsylvania, 08. *Librarian, first dist, Dental Soc. and dental sect, Acad. Med; sec'y-treas, Am. Dental*

- Library and Museum Ass., New York.* Lecturer, Col. Dentistry, N. Y. Univ. V. pres. sect. hist. science and library. Seventh Int. Dental Cong. A.A.; Dental Ass.; Soc. Orthodont; Dental Library and Museum Ass. (sec'y-treas, 18-); East. Ass. Orthodontists (past pres); Am. Med. Ass.; N. Y. Acad. Med. (librarian dental sect); fel. N. Y. Acad; N. Y. Dental Soc; Pacific Coast Soc. Orthodont; Fed. Dentaire Int. (commission of documentation, 22-). Orthodontics; dental bibliography, history and libraries.
- Weingarten, Dr. Fred(erick) S(eymour),** 310 West End Ave, New York, N. Y. *Medicine.* Chicago, Ill, Aug. 26, 74. B.S., Chicago, 04; M.D., Columbia, 07, A.M., Ph.D., 08. *Asst. surgeon, Skin and Cancer Hosp.* A.A.; Am. Med. Ass.; N. Y. Acad. Med. Surgery.
- Weinrich, Dr. M(orris) F(rancis),** Columbia University, New York, N. Y. *Astronomy, Physics.* Vienna, Austria, March 27, 82. M.E., Columbia, 04, A.M., 07, fellow, 08-09, Ph.D., 09. Engineer, Am. Beet Sugar Co, 04; N. Y. and N. J. Telephone Co, 05; asst. drafting, Columbia, 06-08; *instr. physics,* Stevens, 09-11; *Columbia, 11-Summer, voluntary asst, Yerkes Observatory, 07.* A.A. Determination of the positions and magnitudes of stars by means of stellar photographs; radiation; conduction; photometry; photography.
- Weinstein, Dr. Alexander,** University of Illinois, Urbana, Ill. *Biology.* Astrakhan, Russia, Nov. 22, 93. B.S., Columbia, 13, A.M., 14, fellow, 15-16, Ph.D., 17. *Asst. zool.* Columbia, 16-17; research asst, Carnegie Institution, 17-19; Sigma Xi research fellow, Columbia, 21-22; Nat. Research Council fellow, 23-24; Int. Educ. Board fellow, Cambridge, 24-25; *assoc. zool., Illinois, 26-* Soc. Zool; Hist. Sci. Soc; Cambridge Nat. Hist. Soc. Genetics; history of science.
- Weinstein, Dr. Israel,** 1032 Aldus St, New York, N. Y. *Bacteriology, Physiology.* New York, May 26, 93. A.B., Col. City of N. Y., 13; A.M., Columbia, 15, M.D., 26; Sc.D., N. Y. Univ., 17. *Instr. high sch., N. Y., 14-22; lecturer med. and sci. subjects, N. Y. Pub. Lecture Bur., State Dept. Health, N. Y., and N. Y. Bot. Garden, Univ. and Bellevue Hosp. Med. Col., 22-* Lieut. Sanit.C., 17-19, capt, Med.R.C., 19- Immunology.
- Weintraub, Dr. E(zechiel),** 14 rue des Marronniers, Paris, France. *Chemistry, Electrical engineering.* Moghileff-Podolsk, Russia, July 4, 74. Sorbonne, Paris, 91; Ph.D., Zurich, 98. Research lab, Gen. Elec. Co, Schenectady, 01-08, director, Lynn, Mass, 08-15; *consulting engineer.* Asst, Polytech. Zurich; prof, tech. sch., Winterthur, Switzerland; lecturer, Union. Chem. Soc; Electrochem. Soc; fel. Elec. Eng; Illum. Eng. Soc; Physical Soc; Inst. Metals (v. pres, 13). Arc and incandescent lighting; mercury arc; boron and its applications; copper casting; electric furnaces; heat insulation.
- Weinzirl, Prof. John,** 5239 19th Ave, N. E., Seattle, Wash. *Bacteriology.* Eau Galle, Wis, Sept. 10, 70. B.S., Wisconsin, 96, M.S., 99, Ph.D., 06; D.P.H., Harvard, 18. *Asst. prof. biol.* New Mexico, 98-00, prof. biol. and chem, 00-07; asst. prof. bacter, Washington (Seattle), 07-09, assoc. prof, 09-12, *prof., 12-, head dept., 15-A.A.; Pub. Health Ass; Soc. Bact. (v. pres, 15); Tuber. Ass. Bacteriology of foods; physiology of bacteria; tuberculosis; germicidal action of light; climate.*
- Weir, Dr. James R(obert),** U. S. Department of Agriculture, Washington, D. C. *Plant pathology.* Scottsburg, Ind, May 31, 82. Purdue, 04-05; Freiburg, 06; A.B., Indiana, 07; fellow, Harvard, 07-08; Ph.D., Munich, 11. *Asst. forest expert, bur. forestry, U. S. Dept. Agr., 05-07; director sci. laboratories, Culver Mil. Acad., 07-09; forest pathologist in charge lab. forest path, dist. No. 1, bur. plant indust, U. S. Dept. Agr., 11-21, pathologist in charge office path. collections, 21-* Consulting pathologist, U. S. Forest Service, 11-21; lecturer, Montana, 12-15; pathologist, rubber exped, Brazil, Departments Agr. and Commerce, 23-24; sugar cane, Cuba, Trop. Plant Research Foundation, 25. A.A.; Phytopath. Soc; Bot. Soc; Ecol. Soc; Forestry Ass; assoc. Soc. Foresters; Torrey Bot. Club; West. Phytopath. Soc; Calif. Bot. Soc; N. Y. Acad; Can. Plant Path. Soc; Can. Forestry Ass; Munich Verein für Naturkunde. Pathology; tropical crops; mycological exploration.
- Weir, Dr. R(obert) F(ulton),** 16 E. 96th St, New York, N. Y. *Surgery.* New York, Feb. 16, 38. A.B., Col. City of N. Y., 54, A.M., 57; M.D., Col. Physicians and Surg, N. Y., 59. *Asst. surgeon, U.S.A., 61-65; surgeon, St. Luke's Hosp., 65-75; N. Y. Hosp., 76-99; Bellevue Hosp., 81-83; Roosevelt Hosp., 99-08; prof. clin. surg., Columbia, 83-92, surg., 92-07, emer. prof., 07-* Surg. Ass. (pres, 00); N. Y. Acad. Med. (pres, 01); Greater N. Y. Med. Ass. (pres, 00-02); Phila. Col. Physicians; hon. fel. Royal Col. Surg; cor. mem. Soc. Chirurg. de Paris.
- Weis, Dr. Joseph D(eutsch),** 4704 St. Charles Ave, New Orleans, La. *Medicine.* New Orleans, June 12, 72. Harvard, 91-92, M.D., 98, Austin fellow, 00-02. House officer, Mass. Gen. Hosp, 98-99; asst. histol, Harvard Med. Sch, 99-00, bacter, 02-03; asst. prof. clin. med, Tulane, 07-14, *prof. trop. med., 14-* Visiting physician, Charity Hosp, and senior visiting physician, Touro Infirmary, New Orleans; chief of clinic to chair of med, Tulane. Ass. Path. and Bact; Am. Med. Ass; Boston Soc. Med. Sci. Bacteriology; internal medicine; blood in unciniariasis; etiology of cancer blastomyces; Hanot's disease; *Spirochaeta pallida*; cardiac and renal diseases.
- Weiser, Prof. Harry Boyer,** Rice Institute, Houston, Texas. **Chemistry.* Canal Winchester, Ohio, Sept. 5, 87. A.B., Ohio State, 11, A.M., 12; Ph.D., Cornell, 14. *Instr. chem., Tennessee, 14-15; Rice Inst., 15-18, asst. prof., 18-19, prof., 19-* Chairman, committee on chem. of colloids, Nat. Research Council. Capt, C.W.S. Chem. Soc. (sec'y, div. inorg. and physical chem, 24, v. chairman, 25, chairman, 26); Electrochem. Soc. Adsorption; chemical production of light; the hydrous oxides.
- Weiskotten, Dr. H(erman) G(ates),** 309 S. McBride St, Syracuse, N. Y. *Pathology.* Syracuse, Sept. 22, 84. A.B., Syracuse, 06, M.D., 09. Res. pathologist, Hosp. Good Shepherd, 09-10; instr. path. and bacter, Syracuse, 10-12, asst. prof.

- path*, 12-13, assoc. prof, 13-17, *prof*, 17-, *dean*, 25- Ass. Path. and Bact; Am. Med. Ass. Action of benzol; diphasic leucopenia; superficial burns.
- Weisner, Dr. Louis**, University of Rochester, Rochester, N. Y. *Mathematics*. New York, N. Y., May 1, 99. B.S., Col. City of N. Y., 20; A.M., Columbia, 22, Ph.D., 23. Asst. *math*, Columbia, 21-23; *instr*, Rochester, 23- A.A.; Math. Soc; Math. Ass. Algebra; algebraic geometry.
- Weiss, Prof. A(lbert) P(aul)**, Ohio State University, Columbus, Ohio. *Psychology*. Silesia, Germany, Sept. 15, 79. A.B., Missouri, 10, A.M., 12; Ph.D., 16. Asst. *psychol*, Missouri, 09-12; *instr*, Ohio State, 12-18, *prof*, 18- A.A.; Psychol. Ass. Experimental and theoretical psychology.
- Weiss, Dr. Freeman (Albert)**, U. S. Department of Agriculture, Washington, D. C. *Plant pathology*. Minneapolis, Minn., Nov. 30, 92. B.S., Minnesota, 15; Ph.D., Cornell, 23. Research asst., Minnesota, 16-17; asst. bot., Cornell, 18-19; *instr*. plant path., Minnesota, 19-20; *assoc. pathologist*, *bur. plant indust*, U. S. Dept. Agr., 20- A.A.; Phytopath. Soc. Plant physiology; potato wart and storage rots; taxonomy and physiology of *Fusarium*.
- Weiss, Dr. Harry**, 1112 Park Ave., New York, N. Y. *Bacteriology*, *Immunology*. New York, July 28, 91. C.E., Columbia, 13, A.M., 15, Ph.D., 17, M.D., 26. Board Water Supply, New York, 14; asst. prev. med. and hygiene, Harvard, 19-23; *instr*, Columbia, 23-24, *bacter*, *col. physicians and surg*, 24- Research worker, Harriman Foundation, 16-17. Major, Sanit. C., 17-19. Soc. Bact; Soc. Exp. Biol. Serology; colon; typhoid; dysentery; infectious diarrhoea; botulism; local immunity; meningitis.
- Weiss, H(arry) B(ischoff)**, 19 N. Seventh Ave., Highland Park, New Brunswick, N. J. *Entomology*. Philadelphia, Pa., Oct. 31, 83. Pennsylvania. Asst. biologist and chemist, Sci. Preservation Co., 06-08; field asst., Pa. Bur. Zool., 08-10; asst. to state entomologist, N. J., 11-16; chief inspector, N. J. Dept. Agr., 16-20, *chief bur. statistics and inspection*, 20- Winters, lecturer, N. J. Col., 11-16. A.A.; Entom. Soc; Ass. Econ. Entom; Genetic Ass; fel. Am. Geog. Soc; Statist. Ass; Econ. Ass; Cranberry Growers' Ass. (statistician, 23-); N. Y. Entom. Soc. (v. pres, 21, 22, pres, 23, 24, ed, 'Jour,' 24-); Newark Entom. Soc. (sec'y, 15, 16); Wash. Biol. Soc. Insect food habits, ecology and life history; agricultural statistics and economics.
- Weiss, John Morris**, Chemists Building, 50 E. 41st St., New York, N. Y. *Chemistry*. Philadelphia, Pa., March 11, 85. A.B., Cent. High Sch. Phila., 01; B.S., Pennsylvania, 05. Research chemist in charge chem., dept. laboratories, The Barrett Co., Pa., 05-11, chief chemist, New York, 11-17, manager, research dept., 17-20, director develop., 20-22; *partner*, Weiss and Downs, 22- Insulation committee, Nat. Research Council; benzol committee, Nat. Safety Council; cooperating expert, Int. Critical Tables. Potts gold medal, Franklin Inst., 22. A.A.; Chem. Soc; Chem. Eng; fel. Inst. Chem. (chairman, ethics committee, 24-26, pres, N. Y. chap, 25); Soc. Chem. Indust; Electrochem. Soc; Soc. Test. Mat. (Committees D4 and D8); Gas Ass; Franklin Inst. (committee science and arts); N. Y. Chemists Club; N. Y. Professional Eng; N. J. Professional Eng; Soc. de Chim. indust. Industrial chemistry; coal tar products; catalytic oxidation of benzene; coal carbonization; acid-resisting alloys; medicinals; research organization.
- Welch, Prof. Paul S(mith)**, University of Michigan, Ann Arbor, Mich. *Zoology*. Oconee, Ill., Jan. 28, 82. A.B., James Millikin, 10; A.M., Illinois, 11, Ph.D., 13. *Instr. entom*, Kansas Col., 13-14, asst. prof, 14-17, assoc. prof, 17-18; asst. prof. *zool*, Michigan, 18-22, *assoc. prof*, 22- Asst. Wm. Barnes Lepidoptera collection, 06-10; staff, Biol. Sta., Michigan, 11-13, 18-26, acting director, 24-25; Lake Lab, Ohio State, 17. A.A.; Soc. Zool; fel. Entom. Soc. (2nd v. pres, 25); Ecol. Soc; Micros. Soc. (sec'y-ed, 19-24); Mich. Acad. (ed, 21-25). Hydrobiology; aquatic insects; Oligochaetes; parasites of insects; respiration in aquatic insects.
- Welch, Dr. William H(enry)**, 807 St. Paul St., Baltimore, Md. *Pathology*, *Hygiene*. Norfolk, Conn., April 8, 50. A.B., Yale, 70, LL.D., 96; M.D., Columbia, 75, LL.D., 04; Strassburg, Leipzig, Breslau, Berlin, Vienna, Munich and Göttingen, 76-78, 84-85; hon. M.D., Pennsylvania, 94; LL.D., Western Reserve, 94, Harvard, 00, Toronto, 03, Jefferson Med. Col., 07, Princeton, 10, Washington (St. Louis), 15, Chicago, 16; D.Sc., Cambridge, 23; hon. Dr., Strasbourg, 23. Prof. path. anat. and gen. path., Univ. and Bellevue Hosp. Med. Col., 79-84; path., Hopkins, 84-16, pathologist, Hopkins Hosp., 89-16, director sch. hygiene and pub. health, 17-26, *prof. history of med*, 26- Dean med. faculty, Hopkins, 93-98; pres, Cong. Am. Physicians and Surg., 97; Md. State Board Health, 98-; board trustees, Rockefeller Inst., 01-; Carnegie Institution, 06- Ed, 'Jour. Exp. Med.', 96-04. Gold medal, Nat. Inst. Soc. Sci; Vienna. Major, lieut. col. and col., M.R.C., 17-18; col. med. sect., O.R.C., 19, brig. gen., 21. D.S. medal. Légion d'honneur. Nat. Acad. (pres, 13-17); A.A. (v. pres, 02, 03, pres, 06); Soc. Nat; Ass. Path. and Bact. (pres, 06); hon. mem. Soc. Exp. Path; Soc. Bact; Physiol. Soc; Am. Physicians (pres, 01); Soc. Exp. Biol; Am. Med. Ass. (pres, 10); Philos. Soc; Am. Acad; Phila. Col. Physicians; Md. Med. and Chirurg. Faculty (pres, 91); hon. fel. Royal Societies Med. London and Edinburgh; for. assoc. Acad. de Méd. de Paris; Soc. Royale de Sci. Med. et Nat. de Bruxelles; Accad. di Med. di Roma; for. mem. Vienna Imp. Med. Soc. Pulmonary edema; organic diseases of the stomach; fever; thrombosis; embolism; diphtheria; Micrococcus lanceolatus; a new gas-producing bacillus; hog cholera; surgical infections; glomerulo-nephritis.
- Weld, Prof. H(arry) P(orter)**, Cornell University, Ithaca, N. Y. *Psychology*. La Grange, Ark., Sept. 22, 77. Ph.B., Ohio State, 00; fellow, Clark, 09-10, Ph.D., 11. Prof. music, Peabody Col., 00-10; asst. *exp. psychol*, Clark, 10-11, *instr*, 11-12; asst. prof., Cornell, 12-19, *prof*, 19- Assoc. ed, 'Am. Jour. Psychol.', 21-26. A.A.; Psychol. Ass. Experimental psychology.

- Weld, Prof. LeRoy D(ougherty)**, 1531 B Ave, Cedar Rapids, Iowa. *Physics*. Cresco, Iowa, March 6, 80. B.S. Iowa, 99, M.S. 02, Ph.D. 22. Instr. high schools, 99-02; *prof. math. and physics*, Coe, 02-18, *physics*, 18- Exchange lecturer, Columbia, 12; Iowa, 15. Physical Soc; Optical Soc; Kelvin Soc. (pres); Iowa Acad. (pres). The sense of hearing in ants; the effects of temperature inequalities on the equal arm balance; minimum volume in solution; errors of observation; precise methods of focusing lenses; stereoscopic drawings; the crystallinometer; capillary viscometer; polarimeter for Malus' law.
- Weld, Lewis H(art)**, E. Falls Church, Va. *Zoology*. Ridgeway, N. Y. Dec. 30, 75. A.B. Rochester, 00; A.M. Michigan, 02; Cornell, 03-04. Asst. zool. Michigan, 00-02; Syracuse, 03; instr. biol. Evanston Acad, 04-17; zool. Northwestern, 18-19; specialist in Hymenoptera, U. S. Nat. Museum, 19-24. A.A.; Entom. Soc. Cynipidae.
- Welin, Prof. J(ohn) E(ric)**, Bethany College, Lindsborg, Kans. *Chemistry*. Stockholm, Sweden, June 11, 65. A.B. Augustana, 88, hon. A.M. 00; fellow, Kansas, 03-04, M.S. 04; hon. Sc.D. Bethany, 12. Instr. pub. schools, Kans, 88-90, prin. 90-91; *prof. chem*, Bethany (Kans), 91- A.A.; Chem. Soc; Kans. Acad. Analytical and educational chemistry; soils and waters of McPherson County, Kansas; food analysis.
- Welker, Prof. William H(enry)**, University of Illinois College of Medicine, Chicago, Ill. *Biochemistry*. Red Hill, Pa, Aug. 20, 79. A.C. Lehigh, 04; Ph.D. Columbia, 08. Instr. chem. and physics, Lehigh, 02-04; asst. biol. chem, Columbia, 04-07; path. asst. obstet. and research chemist, Sloane Maternity Hosp, 06-07; demonstrator physiol. chem, Pennsylvania, 07-10; assoc. physiol. chem, Columbia, 10-11, asst. prof. biol. chem, 11-12; *physiol. chem, col. med, Illinois*, 13-19, assoc. prof. 19-21, *prof*, 21- Examiner, subsidiary board, Nat. Board Med. Examiners. Prize, N. Y. Acad. Ed. board, 'Jour. Dental Research.' A.A.; Soc. Biol. Chem; Soc. Exp. Biol; assoc. fel. Am. Med. Ass; fel. Col. Physicians; Cong. Int. Med; Pub. Health Ass; Radium Inst; Harvey Soc; Ill. Acad; fel. Chicago Inst. Med; Columbia Biochem. Ass; Int. Ass. Dental Research. Colloid chemistry; metabolism; chemistry of blood; protein chemistry; laboratory methods and apparatus.
- Weller, Prof. Carl V(ernon)**, 1130 Fair Oaks Parkway, Ann Arbor, Mich. *Pathology*. St. Johns, Mich, Feb. 17, 87. A.B. Albion, 08; M.D. Michigan, 13, M.S. 16. Instr. *path, Michigan*, 11-17, asst. prof. 17-24, *prof. and asst. director*, 24- Ass. Physicians; Ass. Path. and Bact; Soc. Exp. Path; Ass. Cancer Research; Col. Physicians; Soc. Exp. Biol; Int. Ass. Med. Mus. Neoplasia; tuberculosis; blastophthoria; mustard-gas poisoning; experimental lead poisoning.
- Weller, J(ames) Marvin**, 700 W. Oregon St, Urbana, Ill. *Geology*. Chicago, Ill, Aug. 1, 99. B.S. Chicago, 23, Ph.D. 27. Asst. geologist, Ill. State Geol. Surv, 16-19; commercial geologist, foreign and domestic, 20-23; *geologist*, Ky. State Geol. Surv, 24-25; *Ill. State Geol. Surv*,
- 25- Structural and stratigraphic geology of Illinois, Kentucky and Missouri; paleontology of the coal measures.
- Weller, Prof. Stuart**, Walker Museum, University of Chicago, Chicago, Ill. **Geology*. Maine, N. Y. Dec. 26, 70. B.S. Cornell, 94; Ph.D. Yale, 01. Asst. *paleont. geol, Chicago*, 95-97, assoc. 97-00, instr. 00-01, asst. prof. 01-08, assoc. prof. 08-15, *prof*, 15- Paleontologist, N. J. Geol. Surv, 99-07; asst. geologist, U. S. Geol. Surv, 01-06, geologist, 06-; geologist, Ill. Geol. Surv, 06- A.A.; Geol. Soc; Paleont. Soc. (v. pres, 11, 26); cor. mem. N. Y. Acad; Ill. Acad. (pres, 26); Chicago Acad. (v. pres, 16). Paleozoic paleontology, especially in its relation to geologic problems; Paleozoic faunas of the Mississippi Valley; the Chester series in Illinois, Missouri and Kentucky.
- Wellhouse, Prof. Walter H(ousley)**, Iowa State College, Ames, Iowa. *Entomology*. Fairmount, Kans, Dec. 2, 90. A.B. Kansas, 13, fellow, 15-16, A.M. 17; Ph.D. Cornell, 20. Asst. state entomologist, Kans, 15-17; instr. *entom*, Cornell, 18-21; asst. prof. *Iowa Col*, 21-23, *assoc. prof*, 23- A.A.; Entom. Soc; Ass. Econ. Entom; Iowa Acad. Insect ecology of pomaceous fruits, especially those native to North America; insect fauna of Crataegus; ecology of spring cankerworm.
- Wellington, Prof. Charles**, 34 Amity St, Amherst, Mass. *Chemistry*. Limerick, Maine, May 4, 53. B.S. Mass. Col, 73; Virginia, 77; Ph.D. Göttingen, 85. Asst. chemist, U. S. Dept. Agr, 77-82; assoc. prof. chem, Mass. Col, 85-07, prof. gen. and agr. chem, 07-23; *retired*, 23. Chem. Soc; Chem. Gesell. Organic chemistry; carbohydrates.
- Wellington, Prof. Richard**, N. Y. State Agricultural Experiment Station, Geneva, N. Y. *Horticulture*. Waltham, Mass, Oct. 10, 84. B.S. Mass. Col, 06; M.S. Harvard, 11. Asst. horticulturist, N. Y. Exp. Sta, Geneva, 06-11, assoc. horticulturist, 12-13; asst. horticulturist, Minnesota, and pomologist, Exp. Sta, 13-19; prof. veg. gardening, Maryland, and veg. breeder, Exp. Sta, 19-20; *N. Y. Exp. Sta, Geneva*. A.A.; Soc. Hort. Sci. Ringing herbaceous plants; grapes, plums and cherries of New York; apple, raspberry and plum breeding; tomato genetics; parthenogenesis in Nicotiana.
- Wellish, Prof. E(dward) M(ontague)**, University of Sydney, Sydney, Australia. *Mathematics, Physics*. Sydney, April 14, 82. B.A. Sydney, 06, M.A. 07; B.A. Cambridge, 09. Asst. prof. physics, Yale, 11; lecturer math, *Sydney*, 15, *assoc. prof. applied math*, 26- Australian Nat. Research Council. Royal Soc. N. S. Wales. Mobilities of ions produced by Röntgen rays; radioactive material in electric fields; columnar ionization; electric displacement currents.
- Wells, A(ibert) H(untington)**, Bureau of Science, Manila, P. I. *Chemistry*. New York, N. Y. June 14, 85. A.B. Stanford, 11. Food and drug chemist, Bur. Science, P. I., 11-14; asst. prof. chem, Philippines, 11-14; *chief sect. foods and drugs, Bur. Sci., P. I.*, 17-18, *div. organic chem*, 18- Capt, C.W.S. Alcohol; palm sugar;

camphor; plant alkaloids and glucosides; beriberi.

Wells, Prof. B(ertram) W(hittier), State College, Raleigh, N. C. *Botany*. Troy, Ohio, March 5, 84. A.B., Ohio State, 11, A.M., 16; Ph.D., Chicago, 17. Instr. biol. Knox, 11-12; substitute in charge bot. dept. Conn. Col., 12-13; instr. bot., Kansas Col., 13-15; *prof.*, Arkansas, 18-19; N. C. Col., 19- A.A.; Bot. Soc. Plant pathological anatomy; ecology.

Wells, Pres. E(dgar) H(erbert), New Mexico School of Mines, Socorro, N. Mex. *Geology*. Grand Forks, N. Dak., 87. E.M., North Dakota, 09. Asst. engineer, Daly West Mine, Park City, Utah, 09; mining and leasing operations, Ga., 10-12; engineer and draftsman, Can. Collieries, Ltd., Cumberland, B. C., 12-14; instr. high schools, Utah, 14-17; asst. supt., Austin-Dakota Mining Co., Nev., 17; *prof. geol. and miner.*, N. Mex. Sch. Mines, 17-, *pres.*, 21- State geologist, N. Mex., 25-27; director, N. Mex. Bur. Min. and Metal. Engineers, 27-; summers, geol. field work, 18-20, geologist, Chino Copper Co., 20-23. Min. Cong. A.A.; Min. and Metal. Eng.; Eng. Educ. Ore deposits and oil and gas possibilities in New Mexico.

Wells, Dr. F(rederic) L(yman), 74 Fenwood Road, Boston, Mass. **Psychology*. Boston, April 22, 84. A.B., Columbia, 03, A.M., 04, Ph.D., 06. Asst. psychol., Columbia, 05-06, lecturer, Barnard, 06-07; asst. path. psychol., McLean Hosp., 07-21; *instr.*, *Harvard Med. Sch.*, and *chief psychol. lab.*, *Boston Psychopath. Hosp.*, 21- Div. anthrop. and psychol., Nat. Research Council, 25-28; Nat. Committee for Mental Hygiene. A.A.; Psychol. Ass. (councilor, 22-24); Psychopath. Ass.; New Eng. Soc. Psychiatry. Experimental psychopathology; psychology of values.

Wells, Prof. George R(oss Maurice), 94 Sherman St., Hartford, Conn. *Psychology*. Moose Jaw, Sask., Can., June 16, 84. B.A., McMaster, 06; A.M., Harvard, 09; Ph.D., Hopkins, 12. Instr. *psychol.*, Oberlin, 12-13, assoc. prof., 13-17; *prof.*, Ohio Wesleyan, 17-20; *Hartford Sem. Foundation*, 20- A.A.; Psychol. Ass.; Ohio Acad. Reaction time; control movement.

Wells, Prof. H(arry) E(dward), Smith College, Northampton, Mass. *Chemistry*. Hudson Falls, N. Y. B.S., Middlebury, 94, A.M., 95; Ph.D., Leipzig, 97. With Prof. W. O. Atwater, food investigations, 98-00; instr. *chem.*, Wesleyan, 99-01; *prof.*, Allegheny, 02-07; Washington and Jefferson, 07-18; instr., Harvard, 19-20; *prof.*, *Smith*, 20- Capt., C.W.S., 18-19. A.A.; Chem. Soc. Nutrition; inorganic chemistry; water analysis; atomic weight; colloids.

Wells, Prof. H(arry) Gideon, University of Chicago, Chicago, Ill. **Pathology*. New Haven, Conn., July 21, 75. Ph.B., Yale, 95, hon. A.M., 12; A.M., Lake Forest, 98; M.D., Rush Med. Col., 98, fellow, 99-00, Ph.D., Chicago, 03. Intern., Cook Co. Hosp., 98-99; asst. *path.*, Rush Med. Col., 01, assoc., *Chicago*, 01-02, instr., 02-04, asst. *prof.*, 04-09, assoc. *prof.*, 09-13, *prof.*, 13-; *director*, *Sprague Mem. Inst.*, 11- Pathologist, Cook Co. Hosp., 06- Commissioner to Roumania, Red Cross, 18-19. Nat. Acad.; A.A.; Ass. Path.

and Bact. (pres, 19); Soc. Exp. Path.; Am. Med. Ass. (chairman, sect. path. and physiol., 09-10); Am. Physicians; Soc. Exp. Biol.; Soc. Bact.; Soc. Biol. Chem.; Ass. Immunol.; Ass. Cancer Research (pres, 15-19); Chicago Path. Soc. Chemical and general pathology.

Wells, Dr. Herbert S(essions), 320 Sixth Ave., San Francisco, Calif. *Pharmacology*. Honolulu, Hawaii, April 13, 99. A.B., Stanford, 21; M.D., Hopkins, 25. *Nat. Research Council fellow med.*, 25- Absorption of carbon tetrachloride from intestinal tract.

Wells, Dr. James S(impson) Chester, Westport, Conn. *Chemistry, Metallurgy*. Brooklyn, N. Y., Sept. 13, 51. Ph.B., Columbia, 75, Ph.D., 77. Asst. anal. chem., Columbia, 75-79, instr., 79-05, adjunct *prof.*, 05-09; *consulting metallurgist and mining engineer*, 09- Manager, Empire Syndicate, Mont; supt., Silver Fissure Mining Co., Mont. Capt., C.E.F., 15-18. Electrochemistry.

Wells, Dr. M(orris) M(iller), 761 E. 69th Place, Chicago, Ill. *Zoology*. Woodston, Kans., Nov. 3, 85. B.S., Chicago, 12; Ph.D., Illinois, 15. Instr. zool., Chicago, 15-19; *Gen. Biol. Supply House*, 19- A.A.; Soc. Zool.; Ecol. Soc.; Entom. Soc.; British Ecol. Soc. Animal behavior; ecology; physiology of the invertebrates and the lower vertebrates.

Wells, Dr. P(hilip) V(arnum), Prudential Insurance Co. of America, Newark, N. J. *Physics*. Boston, Mass., Oct. 28, 89. B.S., Mass. Inst. Tech., 11; D.Sc., Paris, 20. Asst. physics, Mass. Inst. Tech., 11-13; assoc. physicist, Bur. Standards, 13-22; chief physicist, Redpath lab., du Pont-Pathé Film Mfg. Co., 22-25; *biophysicist, longevity service, Prudential Ins. Co.*, 25- Int. Ice Patrol, ice exped., 15; rep., Bur. Standards, Paris, 19-20. Physical Soc.; Optical Soc.; Statist. Ass.; Wash. Philos. Soc. Biophysics; physical chemistry; molecular physics; optics; statistics.

Wells, Dr. Roger C(lark), U. S. Geological Survey, Washington, D. C. *Chemistry*. Peterboro, N. Y., Oct. 24, 77. A.B., Harvard, 01, Ph.D., 04. Instr. chem., Harvard, 04-05; physical chem., Pennsylvania, 05-07; chemist, Gen. Elec. Co., 07-08; *physical chemist, U. S. Geol. Surv.*, 08- Chemist, potash explor. in Chile, Cameron Syndicate, 15; mineral resource specialist sodium compounds, U. S. Geol. Surv. and special agent, U. S. Census, 17-20. First Pan-Pacific Sci. Cong., Honolulu, 20. A.A.; Chem. Soc. (pres, Wash. sect., 22); Geol. Soc.; Miner. Soc.; Wash. Geol. Soc.; Wash. Acad.; Chem. Gesell. Inorganic and physical chemistry; atomic weights of sodium and chlorine; the analysis of minerals; the chemistry of ore deposition and natural waters; pure and applied geochemistry; the ages of minerals based on genetic relationships between the elements.

Wells, Dr. Volney H(unter), 3 Chapin Court, Williamstown, Mass. *Mathematics*. Dowagiac, Mich., June 18, 89. A.B., Olivet, 09; Ph.D., Michigan, 16. Instr. math., Hastings, 09-11, *prof.*, 11-13; instr., Michigan, 13-16; *prof. math.* and *statist.*, Pittsburgh, 16-17; statistician, Bur. War Risk Ins., 19-20; *prof. math.*, Carleton Col., 20-22; *asst. prof.*, *Williams*, 22- Ed. board,

'Math. Monthly,' 23- Lieut, A.S.A.P, 17-19. Math. Soc; Statist. Ass. Statistics; polar fields; military and naval insurance; modern geometry.

Wells, Prof. Wesley R (aymond), Lake Forest College, Lake Forest, Ill. *Psychology*. Bakersfield, Vt, June 20, 90. Ph.B, Vermont, 13; A.M, Harvard, 14, Ph.D, 17. Asst. philos, Harvard, 16-17; instr. educ, Washington (St. Louis), 17-19; asst. prof. *philos. and psychol*, Colby, 19-21; *prof, Lake Forest*, 21-, acting dean, 22-25, dean, 25-26. Summers, lecturer, Duke, 19, instr, Wyoming, 23. A.A.; Psychol. Ass; Philos. Ass. Psychology of religion; social and abnormal psychology; philosophy.

Wells, W(illia)m Firth, Box 503, Glen Cove, L. I, N. Y. *Biology*. Boston, Mass, Aug. 25, 87. Phillips Acad, 05; B.S, Mass. Inst. Tech, 10. Asst. bacter, North Dakota, 10-11; chemist, Washington Filter Plant, 08-09, 11-12; asst. munic. dairying, Illinois, 12-13; sanit. chemist and bacteriologist, U. S. Pub. Health Service, 13-17; sci. asst, Bur. Fisheries, 17; *biologist and sanitarian*, N. Y. State Conservation Commission, 19- Special investigator, State Board Health, Mass. and Conn. Lieut. and capt, Sanit.C, 17-19. Fel. Pub. Health Ass. Public health; propagation and purification of shellfish; system of quantitative bacteriology; seasonal variation of intestinal bacteria.

Welo, Dr. L(ars) A(lvin), Rockefeller Institute, New York, N. Y. *Physics*. Church's Ferry, N. Dak, Jan. 29, 88. B.S, N. Dak. Col, 11; M.S, Illinois, 15; fellow, California, 16-17, Ph.D, 18; Upsala, 21-22; Paris, 22. Asst. astron, Illinois, 15-16; physics, California, 17-18; engineer in forest products, Forests Products Lab, 18-19; asst. prof. physics, Minnesota, 19-21; research, Wisconsin, 22-23; asst, *Rockefeller Inst*, 23-26, *assoc*, 26- A.A.; Physical Soc; Soc. de Physique. Wehnelt cathode rays; photoelectric effect; effect of kiln drying on strength of airplane woods; oxides of iron; magnetic properties of complex salts.

Welsh, Dr. Thomas W(hitney) B(enson), Gardiner St, Bayside, N. Y. *Metallography, Microscopy*. Fort Buford, N. Dak, Sept. 11, 86. A.B, Cornell, 08, Ph.D, 13. Asst. chem, Cornell, 07-11, instr, 11-17; research chemist, Nat. Carbon Co, 19-21; *microscopist and metallographer, Union Carbide and Carbon Research Lab*, 21- Capt, C.W.S, 17-19. Chem. Soc; Electrochem. Soc. Behavior of the hydronitrogens and derivatives in liquid ammonia; anhydrous hydrazine as a solvent; chemical reactions in anhydrous hydrazine; electrolysis of a solution of sodium hydrazide in anhydrous hydrazine.

Wembridge, Mrs. Eleanor Rowland, 1877 E. 75th St, Cleveland, Ohio. *Psychology*. Lee, Mass, Dec. 9, 83. A.B, Radcliffe, 03, A.M, 04, Ph.D, 05. Asst. prof. psychol, Mt. Holyoke, 06-12; prof, Reed, 12-17; supervisor, reconstruction aides, S.G.O, War Dept, 18-21; *referee, Juvenile Court, Cleveland*, 21- Archeol. exped, Crete, 12. A.A.; Psychol. Ass. Clinical psychology.

Wendt, Dean Gerald L(ouis), Pennsylvania State College, State College, Pa. **Chemistry*. Davenport, Iowa, March 3, 91. A.B, Harvard, 13,

A.M, 14, Ph.D, 16. Austin teaching fellow, Harvard, 12-16; junior chemist in radioactivity, U. S. Bur. Mines, 16; instr. chem, Rice Inst, 16-17; quantitative anal. and radioactivity, Chicago, 17-18, asst. prof. chem, 18-21, assoc. prof, 21-22; asst. director research, Standard Oil Co. of Ind, 22-24; *dean sch. chem. and physics, Pa. State*, 24-, *director div. indust. research*, 25- Assoc. ed, 'Jour. Radiol.', 20-21; asst. ed, 'Chem. Abstracts,' 17-21; managing ed, 'Chem. Bul.' 18-21; ed-in-chief, 'Chem. Reviews,' 27- Capt, C.W.S, 18. Council, Int. Union Pure and Applied Chem, Bucharest, 25. A.A. (sec'y, C, 20); Chem. Soc. (councilor, 21-24, chairman, Chicago sect, 24, cent. Pa. sect, 26); Electrochem. Soc; Physical Soc; Eng. Educ; Hist. Sci. Soc; Am. Geog. Soc; Soc. Psychical Research; Franklin Inst; Pa. Acad; N. Y. Chemists Club; Chem. Gesell. Radioactivity; photochemistry; electronics; subatomic phenomena.

Wendt, Prof. W(ylie) B(rodbeck), University of Louisville, Louisville, Ky. *Civil engineering*. Newport, Ky, Nov. 19, 85. Cincinnati, 02-04; B.C.E, Kentucky, 06. Instr. civil eng, Mich. State Col, 06-09, asst. prof, 09-15; asst. prof. applied mech, Kansas Col, 16-18, assoc. prof, 18-20; testing engineer, Kans. Highway Dept, 16-20; *prof. civil eng*, S. Dak. Sch. Mines, 20-25; *Louisville*, 25- Civil Eng; Ass. Eng; Eng. Educ; Soc. Mil. Eng; Soc. Test. Mat; Kans. Eng. Soc; Louisville Eng. and Archit. Club. Road materials and concrete.

Weniger, Prof. W(illibald), Oregon Agricultural College, Corvallis, Oregon. *Physics*. Milwaukee, Wis, June 20, 84. A.B, Wisconsin, 05, A.M, 06, fellow, 06-08, Ph.D, 08. Asst. physics, Wisconsin, 05-06; instr, Oregon Col, 08-09, asst. prof, 09-10, prof, 10-14; physicist, Nela Research Lab, 14-20; *prof. physics, Oregon Col*, 20- Nat. Research Council. A.A.; Physical Soc; Optical Soc; Illum. Eng. Soc. Infra-red absorption spectra; reflection factors of tungsten; monocular and binocular field glasses; astatic galvanometers; infra-red vacuum spectrometer; blackboard illumination.

Wenner, Dr. F(rank), Bureau of Standards, Washington, D. C. **Physics*. Garrison, Iowa, Jan. 18, 73. B.S, Knox, 99; Ph.D, Pennsylvania, 09. Instr. physics, Iowa Col, 02-05; Pennsylvania, 05-07; asst. physicist, *Bur. Standards*, 07-13, assoc. physicist, 13-20, *physicist*, 20- A.A.; Physical Soc; Elec. Eng; Wash. Acad; Wash. Philos. Soc; London Physical Soc; Soc. de Physique. Galvanometers; electrical resistance and resistivity measurements; airplane armament; synchronous operation and precise control of the speed of machines; distribution of current in systems of linear conductors; distant and magnified registration of mechanical displacements.

Wenner, Dr. John J(eremiah), General Hospital, Allentown, Pa. *Bacteriology*. Allentown, Pa, 85. B.S, Muhlenberg, 13; A.M, Yale, 15, Ph.D, 18; M.D, Pennsylvania, 25. Asst. to Prof. Rettger, Storrs Exp. Sta, 16-18; bacteriologist, Pa. State Health Dept, 18-25; *pathologist and director lab, Allentown Gen. Hosp*, 26- Res. physician, Bryn Mawr Hosp, 25-26. Am. Med.

Ass; Pub. Health Ass. Hygiene; public health; animal diseases.

Wenrich, Prof. D(avid) H(enry), University of Pennsylvania, Philadelphia, Pa. **Zoology*. Le-compton, Kans, June 29, 85. A.B, Kansas, 11, A.M, 12; Ph.D, Harvard, 15. Teaching fellow *zool*, Kansas, 11-12; Austin teaching fellow, Harvard, 12-13, 14-15; instr, *Pennsylvania*, 15-19, *asst. prof*, 19- A.A; Soc. Nat; Soc. Zool. Chromosomes; spermatogenesis; mitosis in Protozoa; protozoan parasitism.

Wensel, Dr. H(enry) T(heodor), Bureau of Standards, Washington, D. C. *Physics*. St. Louis, Mo, March 5, 93. A.B, Washington (St. Louis), 17; A.M, Hopkins, 20, Ph.D, 23. Instr. physics, Hopkins, 19-23; *physicist*, *Bur. Stand-ards*, 17-19, 23- Optical Soc; Wash. Philos. Soc. Optics; pyrometry.

Wente, Dr. E(dward) C(hristopher), Bell Telephone Laboratories, Inc, New York, N. Y. *Physics*. Denver, Iowa, 89. A.B, Michigan, 11; B.S, Mass. Inst. Tech, 14; Ph.D, Yale, 18. *Research physicist*, *West. Elec. Co*, Bell Telephone Laboratories, 25- Acoustics; infra-red radiation.

Wentling, Prof. J(ohn) P(hilip), University Farm, St. Paul, Minn. *Forestry*. Knox, Pa, Feb. 2, 78. A.B, Franklin and Marshall, 02, A.M, 05. Teacher, pub. schools, Pa, 96-97; forester, U. S. Forest Service, 02-06; *prof. forestry*, Pa. Forest Acad, 06-08; *asst. prof*, *Minnesota*, 08-14, *assoc. prof*, 14- Soc. Foresters. Forest products; timber physics.

Wentworth, Dr. Chester K(eeler), University, Va. *Geology*. Aspen, Colo, May 7, 91. Clark, 14-16; B.S, Chicago, 18; M.S, Iowa, 21, Ph.D, 23. Machinist and instrument-maker, 06-12; civil engineer, 12-14; instrument-maker, dept. physics, Clark and Chicago, 14-18; research asst. geol, Iowa, 20-21, instr, 21-23; Bishop Museum fellow, Yale, 23-24; *assoc. geol*, Iowa, 24-25; grant, Sigma Xi Research Fund, 25-26; *acting assoc. prof. geol*, *Virginia*, 26- Summers, geol. aid, U. S. Geol. Surv, 16-17; *asst. geologist*, 19- Chief machinist's mate, U.S.N.R.F, 18. A.A; Geol. Soc; Am. Geog. Soc; fel. Iowa Acad; Wash. Geol. Soc. Coarse sediments; shapes of pebbles; coal resources of Virginia and Kentucky; laboratory methods in geology; pyroclastic rocks; physiography and sedimentation of Hawaiian Islands; terraces and gravels of the Atlantic coastal plain.

Wentworth, Prof. Edward N(orris), Armour and Co, Chicago, Ill. *Genetics*, *Economics*. Dover, N. H, Jan. 11, 87. B.S.A, Iowa Col, 07, M.S, 09; Cornell, 08; Harvard, 12. Instr. animal husbandry, Iowa Col, 07-09, *asst. prof*, 09-11, *assoc. prof*, 11-13; *prof. zootechny*, Chicago Vet. Col, 13-14; animal breeding, Kansas Col, 14-17; *bur. agr. research and econ*, *Armour and Co*, 19-22, *director livestock bur*, 22- *Assoc. ed*, 'Breeder's Gazette,' 13-14. Capt, U.S.A, 17-19; *asst. director col. agr*, A.E.F. Univ. Beaune. Officier du Mérite agricole. A.A; Soc. Nat; Soc. Zool; Soc. Animal Production; Statist. Ass; Econ. Ass; Farm Econ. Ass; fel. Iowa Acad; Kans. Acad; Ill. Acad. Inheritance of color and fer-

tility in domestic animals; marketing of livestock; economics of livestock production.

Wentz, Prof. John B(udd), Iowa State College, Ames, Iowa. *Agriculture*. Chariton, Iowa, March 4, 91. B.S, N. Dak. Col, 13; M.S, Cornell, 16. *Prof. agr. and biol*, S. Dak. State Nor. Sch, Spearfish, 13-14; U. S. Dept. Agr, 14-15; *asst*, Cornell, 15-16; *prof. agron*, Maryland, 16-21; *assoc. prof. farm crops*, Iowa Col, 21- A.A; Soc. Agron; Genetic Ass. Genetics; crop breeding; farm crops.

Wenzel, Robert N(icolais), 1112 Ramona St, Palo Alto, Calif. *Chemistry*. St. Louis, Mo, Oct. 15, 94. A.B, Stanford, 16, Ch.E, 17. Chemist, Am. Smelting and Ref. Co, 16-18; Monsanto Chem. Works, Mo, 18-22; *instr. applied math*, *Stanford*, 22-23, *chem*, 23- Chem. Soc.

Wenzke, Prof. Herman H(enry), University of Notre Dame, Notre Dame, Ind. *Chemistry*. Celina, Ohio, March 19, 99. B.S, Ohio State, 21; M.S, Notre Dame, 22, Ph.D, 24. *Asst. prof. chem. eng*, *Notre Dame*. Acetylene.

Werkman, Dr. C(hester) H(amlin), Iowa State College, Ames, Iowa. *Bacteriology*. Fort Wayne, Ind, June 17, 93. B.S, Purdue, 19; Ph.D, Iowa Col, 23. *Asst. bacteriologist*, *bur. chem*, U. S. Dept. Agr, 19-20; Exp. Sta, Idaho, 20-21; *instr. bacter*, Iowa Col, 21-24; *asst. prof. microbiol*, Mass. Col and Exp. Sta, 24-25; *bacter*, Iowa Col, 25- A.A; Soc. Bact; Iowa Acad. Immunity; fermentations.

Werner, Dr. Louis F, 759 Beechwood Ave, Cincinnati, Ohio. *Chemistry*. Cincinnati, March 2, 89. A.B, Cincinnati, 12, A.M, 14, Ph.D, 17. *Asst. chem*, Cincinnati, 12-16; *chemist*, *Werner Drug and Chem. Co*, 17-24, *partner*, 24- Instr, Wilmington, 17-; *prof*, Ohio Col. Dental Surg, 20-24. Chem. Soc. Organic chemistry; organic nitrogen compounds; quinolin dyes; alkaloids.

Wernicke, Prof. Paul, 3600 South Dakota Ave, N. E, Washington, D. C. *Mathematics*. Leipzig, Germany, Jan. 9, 68. Berlin; Ph.D, Göttingen, 03. *Prof. modern languages*, Kentucky, 94-06; *instr. math*, Washington (St. Louis), 06-08; Kansas, 08-10; *prof. math. physics*, Ohio Mechanics' Inst, 10-18; translator and patent examiner, U. S. Patent Office, 18-23; *asst. prof. physics*, Maryland, 23-24; *patent examiner*, U. S. Patent Office, 24- Math. Soc; Math. Ass. Analysis situs; mathematical physics; partial differential equations; vector analysis.

Wertheim, Prof. E(dgar), 18 N. Buchanan Ave, Fayetteville, Ark. *Organic chemistry*. La Salle, Ill, Feb. 22, 86. B.S, Northwestern, 18; M.S, Kansas, 19; Ph.D, Chicago, 21. *Asst. prof. chem*, Kansas, 18-20; *instr*, Chicago, 20-21; *assoc. prof*, *Arkansas*, 21- A.A; Chem. Soc. Chemistry of organic sulfur compounds and amines.

Wescott, Dr. Blaine B(enjamin), Mellon Institute, Pittsburgh, Pa. *Chemistry*, *Metallurgy*. Syracuse, N. Y, July 7, 95. B.S, Syracuse, 17; M.S, Pittsburgh, 20, Ph.D, 22. Research chemist, Fed. Dyestuffs and Chem. Corp, 17; junior physical chemist, U. S. Bur. Mines, 18; instr,

Pittsburgh, 18-22; *indust. fellow, Mellon Inst.*, 22- Chem. Soc. Organic and analytical chemistry.

Wesson, David, 111 S. Mountain Ave, Montclair, N. J. **Chemistry*. Brooklyn, N. Y., Jan. 14, 61. Brooklyn Polytech, 77-78; B.S., Mass. Inst. Tech, 83. Asst. to Prof. W. R. Nichols, 83-84; chemist, N. K. Fairbanks and Co, Chicago, 84-90; head chemist, Am. Cotton Oil Co, 90-95; pres, Wesson Mfg. Co, 95-00; *tech. director, South. Cotton Oil Co, New York*, 00- A.A.; Chem. Soc. (chairman, North Jersey sect); Soc. Chem. Indust; Chem. Eng. (past pres); Oil Chem. Soc. (chairman, referee); Am. Geog. Soc.; Soc. Cotton Products Analysts (past pres); N. Y. Chemists Club; Chicago Chem. Soc.; Montclair Eng. Soc. (pres, 27). Technology of oils; cotton oil and by-products; inventor of refining process of edible oils.

Wesson, Dr. L(aurence) G(oddard), 303 21st Ave, N, Nashville, Tenn. *Pharmacology*. Worcester, Mass, July 17, 88. B.S., Worcester, 10; Ph.D., Harvard, 19. Instr. org. chem, Case, 15-17; physiol. chem, Hopkins, 19; *asst. prof. pharmacol. sch. med, Vanderbilt*, 21- Organic and bio chemistry.

West, Prof. Augustus P(rice), University of the Philippines, Manila, P. I. *Chemistry*. Baltimore, Md, Feb. 6, 78. A.B., Hopkins, 01, Ph.D, 05. Research chemist and fellow by courtesy, Hopkins, 09-10; research chemist, Glaser's Consulting Lab, 06; analyst, Baltimore Copper Smelting and Rolling Co, 07; with Bur. Science, P. I, 10-12; asst. prof. chem, *Philippines*, 12-16, *prof. and head dept*, 16- A.A.; Chem. Soc. Vegetable oils; experimental organic chemistry; Philippine resins, gums and oils.

West, Dr. Byron L(illibridge), Pierce Ave, Hamburg, N. Y. *Chemistry*. Providence, R. I, Feb. 7, 93. Ph.B., Brown, 15, M.S, 16, Edwards fellow, 16-18, Ph.D, 18. Org. chemist, E. I. du Pont de Nemours and Co, 19-21; *org. research chemist, Nat. Aniline and Chem. Co, Buffalo*, 21- Summers, Nitrogen Products Co, 15, Fed. Chem. and Dye Corp, 16. Lieut, Sanit.C, 18-19. Nitrogen fixation; action of acetic anhydrid on alpha naphthyl propiolic acid; azo dyes and intermediates.

West, Dr. Cha(rlie)s I(gnatus), 924 M St, N. W, Washington, D. C. *Surgery*. Washington, Oct. 23, 68. M.D., Howard, 95. Asst. anat, *Howard*, 95-96, demonstrator, 96-02, lecturer topog. anat, 98-07, assoc. prof. anat, 07-26, *prof. topog. and clin. anat. and in charge dept*, 26- Prof, Freedmen's Hosp. Nurses' Training Sch, 95-04, intern, Freedmen's Hosp, 95-96, attending physician and gynecologist, 96-02, first asst. surgeon and exec. officer, 02-04; attending physician, People's Congregational Church Free Dispensary, 09-16; dean, People's Training Sch. for Nurses, 10-16. Am. Med. Ass; Ass. Anat; Wash. Medico-Chirurg. Soc. Anatomy of the American negro; human adrenals in their relation to cutaneous differences; internal secretions of the human kidney; laws of mechanics applied to muscle action and facial paralysis.

West, Dr. Clarence J(ay), National Research Council, Washington, D. C. *Chemistry*. Brighton, Mich, June 14, 86. B.S., Michigan, 09, Ph.D, 12. Research chemist, Rockefeller Inst, 12-18; director information dept, A. D. Little, Inc, 19-21; sci. assoc, *research information service, Nat. Research Council*, 21-22, *director*, 25-; *assoc. ed, Int. Critical Tables*, 23- Summers, instr, Michigan, 10-12; director, Research Information Service, 25- Assoc. ed, 'Chem. Abstracts'; contrib. ed, 'Paper,' 20-21. Major, C.W.S, 18-19, lieut. col, C.W.S.R. A.A.; Chem. Soc.; Soc. Biol. Chem; Tech. Ass. Pulp and Paper Indust. (chairman, committee on abstracts and bibliography). Carbonium salts; lipoids; aliphatic fatty acids; bibliography.

West, Dr. Edward S(taunton), Washington University School of Medicine, St. Louis, Mo. *Biochemistry*. Stuart, Va, Sept. 9, 96. A.B., Randolph-Macon, 17; M.S., Kansas Col, 20; Ph.D, Chicago, 23. Asst. and instr. chem, Kansas Col, 17-22; asst. org. chem, Chicago, 22-23; *instr. biochem. sch. med, Washington (St. Louis)*, 23-27, *asst. prof*, 27- Molecular rearrangements; condensation products of aldehydes and acetoacetic ester; carbohydrate metabolism.

West, Dean Frank L(orenzo), Utah Agricultural College, Logan, Utah. *Physics, Physical chemistry*. Ogden, Utah, Feb. 1, 85. B.S., Utah Col, 04; Stanford, 04-05; Chicago, 06-07, fellow, 10-11, Ph.D, 11. Prof. physics, Brigham Young, 05-06; asst, Chicago, 06-07; *prof, Utah Col*, 07-, *dean sch. gen. science*, 13-, *dean faculty*, 21- A.A.; Physical Soc; fel. Meteor. Soc; Utah Acad. Organic amalgams; freezing temperatures of fruit buds; orchard heating; soil moisture; long range prediction of temperature.

West, Prof. Luther S(hirley), Battle Creek College, Battle Creek, Mich. *Zoology*. Utica, N. Y., Sept. 6, 99. B.S., Cornell, 21, Ph.D, 25. Instr. parasitol. and med. entom, Cornell, 21-25; *prof. biol. and eugenics, Battle Creek Col*, 25- Summer, instr, Cornell, 25. A.A.; Entom. Soc; Ass. Econ. Entom; Soc. Parasitol; Eugenics Research Ass; Eugenics Soc; Mich. Acad. Insect parasitism; classification of Diptera, especially Muscoidea; biology of Dryopidae; lymphoid tissue in relation to senescence.

West, Dr. Paul V(ining), New York University, Washington Square, New York, N. Y. *Educational psychology*. Colorado Springs, Colo, Jan. 15, 85. A.B., Denver, 08, A.M, 15; fellow, Chicago, 17-18, Ph.D, 22. Supt. and prin, schools, Colo, 13-16; asst. prof. educ, Colo. Col, 18-20; Wisconsin, 20-23; prof. educ. and head dept, Chattanooga, 23-25; *asst. prof. educ. psychol, N. Y. Univ*, 25- Summers, Chicago, 22-24, Montana, 24, Missouri, 25. A.A.; Nat. Soc. Study Educ; Educ. Research Ass. Handwriting; statistical analysis of tests and test methods; intelligence quotient table; analysis of special mental functions.

West, William Harvey, Box 101, Fairfield, Nebr. *Botany*. Montgomery, Ala, Dec. 13, 02. A.B., Nebraska, 25, A.M, 27. Instr. bot, North Carolina, 25-26. Bot. Soc; Elisha Mitchell Sci. Soc. Anatomy of *Myosurus minimus*.

- Wester, P(eter) J(ohnson)**, Ballston, Va. *Tropical agriculture*. Arbrå, Sweden, Sept. 23, 77. Grad, Gefleborgs läns Högskola, 95. Horticulturist, Bur. Agr, P. I, 11-17, agr. adviser, Dept. Mindanao-Sulu, P. I, 17-19, Bur. Agr, P. I, 19-25. Contrib. ed., 'Philippine Agr. Rev.', 12-24. Exped. Java, 14. A.A.; Pomol. Soc.; Genetic Ass; Am. Geog. Soc.; Fla. Hort. Soc. Economic botany; plant breeding; the culture of tropical plants.
- Westergaard, Prof. H(arald) M(alcolm)**, University of Illinois, Urbana, Ill. *Mechanics*. Copenhagen, Denmark, Oct. 9, 88. B.S., Royal Col. Eng, Denmark, 11; Göttingen and Munich, 13, 14; Ph.D., Illinois, 16; D.Eng, Munich, 25. Designing engineer, Copenhagen, Hamburg and London, 11-14; instr. *theoret. and applied mech*, Illinois, 16-19, assoc, 19-21, asst. prof, 21-24, *assoc. prof*, 24- Special analyst, Bur. Pub. Roads, 23, 26; committee structural design of highways, advisory board highway research, Nat. Research Council, 22- Wason medal, Am. Concrete Inst, 22. Summer, concrete engineer, emergency fleet corp, U. S. Shipping Board, 18. Civil Eng; Concrete Inst; Danish Inst. Eng. Theory of probability; reinforced concrete; structural statics; theory of elasticity; method of least squares.
- Westfall, Dr. John Van Etten**, 393 Seventh Ave, New York, N. Y. *Mathematics*. Dresserville, N. Y, June 24, 72. B.S., Cornell, 95; Ph.D., Leipzig, 98. Instr. math, Iowa, 99-05; v. pres, *Equitable Life Assurance Soc*, 06-
- Westfall, Prof. W(ilhelmus) D(avid) A(llen)**, 802 Richmond Ave, Columbia, Mo. *Mathematics*. Montague, N. J, Jan. 27, 97. A.B., Yale, 01; Ph.D., Göttingen, 05. Instr. math, Yale, 02-03; *Missouri*, 05-07, asst. prof, 07-14, assoc. prof, 14-21, *prof*, 21- A.A.; Math. Soc.; Math. Verein; Circolo Mat. di Palermo. Analysis.
- Westgate, J(ohn) M(inton)**, Hawaii Agricultural Experiment Station, Honolulu, Hawaii. *Agriculture*. Kingston, N. Y, Feb. 17, 78. B.S., Kansas Col, 97, M.S., 99; Chicago, 01-03. Asst. bot, Kansas Col, 97-01; sand binding investigations, U. S. Dept. Agr, 03-05, in charge alfalfa and clover investigations, 05-11, agronomist in charge clover investigations, 11-14; *director*, *Hawaii Exp. Sta*, 15- Univ. Chicago bot. exped, northwest. United States, 01. A.A.; Bot. Soc.; Soc. Agron. Agronomy; sand dune fixation; breeding and adaptation of alfalfa and clover; agricultural crops and industries in Hawaii.
- Westgate, Prof. Lewis G(ardner)**, Delaware, Ohio. *Geology*. Phenix, R. I, Oct. 8, 68. A.B., Wesleyan, 90; A.B., Harvard, 91, A.M., 92, Ph.D., 96. Teacher, high sch, Ill, 93-00; *prof. geol*, *Ohio Wesleyan*, 00- Assoc. geologist, U. S. Geol. Surv. A.A.; fel. Geol. Soc. (v. pres, 25); Miner. Soc; Ohio Acad. (pres, 10). Areal geology in the Rocky Mountains; Devonian of Ohio.
- Westhafer, Prof. W(illiam) R**, College of Wooster, Wooster, Ohio. *Physics*. Uhrichsville, Ohio, July 8, 70. A.B., Ohio Wesleyan, 03, A.M., 07; Harvard, 09. Instr. math, Ohio Wesleyan, 06-07; *physics*, Amherst, 09-12, asst. prof, 12-14, assoc. prof, 14-18; *prof. and head dept*, *Wooster*, 18- A.A.; assoc. Physical Soc. Conductivity of molybdenite.
- Westinghouse, H(enry) H(erman)**, 150 Broadway, New York, N. Y. *Engineering*. Central Bridge, N. Y, Nov. 16, 53. Cornell, 71. Gen. agent, gen. manager, v. pres, pres. and *chairman*, *Westinghouse Air Brake Co*, 72- Past pres, Westinghouse, Church, Kerr and Co. A.A.; Acad. Polit. Sci; Mech. Eng. Westinghouse single-acting engine.
- Westman, Dr. A(lbert) E(rnest) R(oberts)**, University of Illinois, Urbana, Ill. *Ceramics*. Ottawa, Ont, Can, 00. B.A., Toronto, 21, M.A., 22, Ph.D., 24. *Research assoc. ceramics, eng. exp. sta*, Illinois, 24- Research, Carborundum Co, Niagara Falls; Mines Branch, Ottawa; asst, Toronto. Electrochem. Soc; Ceramic Soc; Soc. Glass Technol; assoc. Can. Inst. Chem; British Ceramic Soc. Physical chemistry; refractories; electric arcs.
- Weston, Edward**, Waverly Park, Newark, N. J. **Electrical engineering*. Bryn Castle, Eng, May 9, 50. English schools; LL.D., McGill, 03; Sc.D., Stevens, 04; Princeton, 10. Electrician, U. S. Elec. Light Co, 81-88; v. pres. and gen. manager, *Weston Elec. Instrument Co*, 88-05, *pres*, 05- Second v. pres, trustees, Stevens. Medals and honors, expositions. A.A.; Elec. Eng. (past pres); Physical Soc; Illum. Eng. Soc; hon. mem. Nat. Elec. Light Ass; Electrochem. Soc; Chem. Soc; Mech. Eng; Am. Geog. Soc; Royal Soc. Arts. Electrochemistry; electrometallurgy; electrical instruments; development of electrical measuring instruments of precision.
- Weston, Dr. Marion D(odge)**, Rhode Island College of Education, Providence, R. I. *Paleontology*. Atkinson, N. H, March 10, 84. A.B., Mt. Holyoke, 06, A.M., 09; Columbia, 09-10; Ph.D., Brown, 17. Asst. bot, Mt. Holyoke, 06-09; instr. biol, *R. I. Col. Educ*, 10, *prof. bot*. Paleobotany; Carboniferous flora of Rhode Island.
- Weston, Dr. Paul G(arfield)**, Jamestown, N. Y. *Pathology*. Pottsville, Pa, July 6, 81. M.D., Medico-Chirurg. Col. Phila, 08. Pathologist, Phila. Hosp. for Contagious Diseases, 08-10; assoc. prof. path. and bacter, Temple, 08-10; *pathologist*, *State Hosp*, 10- Ass. Path. and Bact; Col. Physicians; Chem. Soc. Bacteriology; immunity; chemistry of blood and spinal fluid; action of snake venom.
- Weston, Robert Spurr**, 14 Beacon St, Boston, Mass. *Sanitary science*. Concord, N. H, Aug. 1, 69. B.S., Amherst, 91, A.M., 04; Mass. Inst. Tech, 94-95; Berlin, 97. Asst. state and munic. sanit. investigations of water supplies, 95-99; asst. prof. pub. health eng, Mass. Inst. Tech, 12-16; *consulting sanit. engineer*, 99- Chem. Soc; Soc. Chem. Indust; Chem. Eng; Consult. Eng; Civil Eng; Pub. Health Ass; Water Works Ass; New Eng. Water Works Ass; Boston Soc. Civil Eng; Eng. Inst. Can. The character of water, sewage and industrial waste and methods for their purification; water supply and sewerage.
- Weston, Dr. William H(enry), Jr**, Harvard University, Cambridge, Mass. **Botany*. New York,

N. Y., Jan. 24, 90. A.B., Dartmouth, 11; A.M., Harvard, 12, Ph.D., 15. Instr. biol., Western Reserve, 15-17; path. inspector, fed. hort. board, U. S. Dept. Agr., 17-18, pathologist, cereal investigations, bur. plant indust., Philippines, 18-20, Washington, 20-21; asst. prof. bot., *Harvard*, 21-27, *assoc. prof.*, 27- Ropes Mem. lecturer, Salem, 22, 23, 26; lecturer, Lowell Inst., 27. Summers, Woods Hole, 16, 22, 23, special investigator, U. S. Dept. Agr., Fla. and Trop. Plant Research Foundation, Cuba, 24; agr. adviser, Cuba Sugar Club, 25. A.A.; Bot. Soc.; Phytopath. Soc.; Micros. Soc. Development and relationships of aquatic fungi; downy mildews of Gramineae; plant diseases of Guam; mosaic diseases of sugar cane in Cuba.

Westover, H(arvey) L(eroy), 4220 38th St., N. W., Washington, D. C. *Agronomy*. Austerlitz, N. Y. B.S., Cornell, 06. Sci. asst. soil surv., U. S. Dept. Agr., 06-13, *agronomist, forage crop investigations, bur. plant indust.*, 13- Visiting agronomist, U. S. Dept. Agr., to Argentina and Chile, 24. A.A.; Soc. Agron.; Forestry Ass.; Wash. Bot. Soc. Alfalfa; silage; forage crops in northern Great Plains.

Westveld, M(arinus), Northeastern Forest Experiment Station, Amherst, Mass. *Forestry*. Grand Rapids, Mich., July 2, 89. B.S., Mich. State Col., 13; M.F., Yale, 16. Forest asst., U. S. Forest Service, 13-15, examiner, 16-19, research officer in charge investigation dist. 3, 19-21, *assoc. silviculturist*, 23- Soc. Foresters. Factors affecting the establishment and development of spruce and fir reproduction in the northeast.

Westwater, W(aldo), University of Nebraska, Lincoln, Nebr. *Physical chemistry*. London, Eng., Sept. 7, 99. B.S., California, 22, Ph.D., 25. *Instr. chem., Nebraska*. A.A.; Chem. Soc. Internal pressures of liquid mixtures; solubilities in liquid mixtures.

Wetmore, Dr. (Frank) Alexander, U. S. National Museum, Washington, D. C. **Ornithology*. North Freedom, Wis., June 18, 86. A.B., Kansas, 12; M.S., George Washington, 16, Ph.D., 20. Asst. museum, Kansas, 05-10; agent, biol. surv., U. S. Dept. Agr., 10-12, asst. biologist, 13-24, biologist, 24; supt., Nat. Zool. Park, 24-25; *asst. sec'y, Smithsonian Inst.*, 25- Asst., Colo. Museum Nat. Hist., 09. Head, Tanager exped., Pacific, 23. A.A.; fel. Ornith. Union (pres, 26-); Soc. Mammal.; Am. Acad.; Paleont. Soc.; Cooper Ornith. Club; Wilson Ornith. Club; Baird Ornith. Club (v. pres, 23-); Wash. Acad. (pres, 27-); Wash. Biol. Soc. (v. pres, 23-); Wash. Biol. Field Club (v. pres, 24-); Royal Australasian Ornith. Union; Ornith. Gesell.; Soc. Ornith. del Plata. Economic and systematic ornithology; avian anatomy, paleontology and osteology; migration of birds.

Wetmore, Prof. R(alph) H(artley), Harvard University, Cambridge, Mass. *Botany, Morphology, Cytology*. Yarmouth, N. S., Can., April 27, 92. S.B., Acadia, 21; A.M., Harvard, 22, Ph.D., 24, Nat. Research Council fellow bot., 24-25. *Asst. prof. bot.*, Acadia, 25-26; *Harvard*, 26- Summer, botanist, Can. Govt. exped., Labrador, 21. A.A.; Bot. Soc.; Micros. Soc. Occurrence and significance of Parichni in certain conifers; or-

ganization and significance of lenticels; cytological studies in the genera *Aster* and *Solidago*.

Wetzel, Reinhard A(ugust), College of the City of New York, New York, N. Y. *Physics*. Germany, May 18, 73. B.S., Minnesota, 01; Chicago, 02, 03; Wisconsin, 04-07; Columbia, 07-09; Aachen, Germany, 14. Teacher, high sch., Minn., Iowa and N. Dak., 01-04; asst. *physics*, Wisconsin, 04-07; Columbia, 07-09; tutor, *Col. City of N. Y.*, 10-15, instr., 15-16, *supervisor*, *Townsend Harris Hall*, 16- A.A.; Physical Soc.; Optical Soc.; Math. Soc.; N. Y. Micros. Soc.; N. Y. Acad.; Physik. Gesell. Universal constant of gravitation; radiation pressure; principle of relativity; electric resolution of the spectral lines of the elements; photo-electricity; alpha rays.

Weyer, Prof. Edward M(offat), College Campus, Washington, Pa. *Psychology, Philosophy*. Portsmouth, Ohio, Oct. 1, 72. Wisconsin, 91-93; A.B., Yale, 95; Ph.D., Leipzig, 98. Asst. psychol. lab., Yale, 98-99; adjunct prof. *philos.*, *Washington and Jefferson*, 99-05, *prof.*, 05-, *dean and director exten. work*, 22- Psychol. Ass.; Philos. Ass. Time-threshold of psychophysical and mental processes; reaction time of animals; animal consciousness.

Weyl, Charles, 255 Harvey St., Philadelphia, Pa. *Electrical engineering*. Philadelphia, May 22, 96. B.S., Pennsylvania, 17. Instr. *elec. eng.*, *Pennsylvania*, 21-25, *asst. prof.*, 25- Eng. Standards Committee on Radio. Elec. Eng.; Radio Eng.; Franklin Inst. Application of X-ray to pathological physiological conditions; the pulse relay.

Weymouth, Prof. F(rank) W(alter), Stanford University, Calif. *Physiology, Zoology*. Seattle, Wash., June 17, 84. A.B., Stanford, 09, A.M., 11, Ph.D., 23. Instr. *physiol.*, Stanford, 11-12; asst., Hopkins, 12-13; asst. prof., *Stanford*, 13-22, *assoc. prof.*, 22- A.A.; Physiol. Soc.; Optical Soc.; Calif. Acad. Taxonomy and life history of Pacific coast Crustacea; life history and growth of Mollusca; blood clotting; physiology of eye and ocular muscles.

Weyssse, Dr. Arthur W(issald), 688 Boylston St., Boston, Mass. *Biology*. Machias, Maine, Nov. 16, 67. A.B., Harvard, 91, A.M., 92, Ph.D., 94; Leipzig, 94-95; Berlin, 95; Ecole de Méd., Paris, 95-96; Naples Zool. Sta., 96; M.D., Basle, 07. Asst. bot., Harvard, and zool., Radcliffe, 92-94; instr. biol., Mass. Inst. Tech., 96-07; *prof. exp. physiol. sch. med.*, *Boston*, 99-23, lecturer venereal diseases, 14-24, *biol.*, 04-, acting dean *grad. sch.*, 17-22, *dean*, 22- Lecturer, Am. Sch. for Physical Educ., 15-17. Mem. Vol., M.C., 18. A.A.; Soc. Nat.; Soc. Zool.; Ass. Anat.; Ass. Prof.; Am. Acad.; Boston Med. Library Ass.; Boston Soc. Nat. Hist.; Boston Soc. Med. Sci. Embryology of the Mammalia and other vertebrates; blood pressure.

Whedon, Dr. Arthur D(ewitt), North Dakota Agricultural College, Fargo, N. Dak. *Zoology*. Iowa City, Iowa, March 14, 79. A.B., Iowa, 07, M.S., 12; Ph.D., Pennsylvania, 18. Head dept. bot., high sch., Mo., 09-11; dept. biol., Minn. State Teachers Col., Mankato, 11-15; Pa. State Nor. Sch., West Chester, 15-23; instr. zool.,

- Pennsylvania, 16-23; *prof. zool. and physiol. and head dept. N. Dak. Col.*, 23- Extens. lecturer, Minnesota, 13-15. A.A.; Entom. Soc.; Soc. Parasitol.; Wilson Ornith. Club; N. Dak. Acad.; Phila. Acad. Zoology; insect anatomy; taxonomy of Odonata; cytology of metamorphosis and oögenesis in Hemimetabola.
- Wheeler, Dr. Alvin S(awyer)**, Chapel Hill, N. C. **Chemistry*. Holyoke, Mass, Nov. 2, 66. A.B., Beloit, 90; Chicago, 95; Cornell, 97; A.M., Harvard, 97, Ph.D., 00; Berlin, 10; Swiss Federal Polytech, 11. Teacher, high sch., Wash., 93-96; asst. *org. chem.*, Harvard, 97-00; assoc. prof., *North Carolina*, 00-12, *prof.*, 12- Summer, lecturer, Harvard, 05. A.A.; Chem. Soc. (pres, N. C. sect, 04); Chem. Gesell. Reduction of dehydromucic acid; condensations of aldehydes with aromatic amines; anthranilic acid derivatives; cellulose; Walden inversion; tautomerism of hydroxynaphthalenes; cymene derivatives; complex ethers; hydroxynaphthoquinone dyes.
- Wheeler, Mrs. Arthur Leslie (Dr. Anna Pell)**, Bryn Mawr, Pa. **Mathematics*. Hawarden, Iowa, May 5, 83. A.B., South Dakota, 03; A.M., Radcliffe, 05; Alice Freeman Palmer fellow, Wellesley, at Göttingen, 06-07; Ph.D., Chicago, 10. *Instr. math.*, Holyoke, 11-14, assoc. prof., 14-18; *Bryn Mawr*, 18-25, *prof.*, 25- Math. Soc. Integral equations; functions of infinitely many variables.
- Wheeler, E(dwain) B(ennett)**, 2059 Midlothian Drive, Pasadena, Calif. *Physics*. Detroit, Mich., Sept. 20, 73. B.S., Missouri, 01; Columbia, 04-07. *Instr. physics*, Union, 01-03; asst., Columbia, 04-07; *prof.*, Clarkson Tech., 08-14. A.A.; Physical Soc.
- Wheeler, Prof. George C(arlos)**, University of North Dakota, Grand Forks, N. Dak. *Entomology*. Bonham, Texas, April 10, 97. A.B., Rice Inst., 18; M.S., Harvard, 20, Sc.D., 21. *Instr. entom.*, Syracuse, 21-24, asst. *prof.*, 24-26; *prof. zool. and head dept. biol.*, *North Dakota*, 26- Summer, Barro Colo. Island Lab, Inst. for Research Trop. Amer. C. Z. and United Fruit Co., Panama and Costa Rica, 24. A.A.; Entom. Soc.; Soc. Zool. Ant. larvae.
- Wheeler, Prof. H(erbert) A(llen)**, Security Building, St. Louis, Mo. *Mining engineering*. Brooklyn, N. Y., 59. E.M., Columbia, 80. *Prof. mining*, Washington (St. Louis), 83-95; *consulting engineer*, 95- Asst. geologist, Mo. Geol. Surv., 90-95. Min. Eng.; Ceramic Soc. (pres, 99); St. Louis Acad.; St. Louis Eng. Club. Clays; economic and oil geology.
- Wheeler, Dr. H(omer) J(ay)**, 386 N. Fullerton Ave., Upper Montclair, N. J. **Agronomy*. Bolton, Mass, Sept. 2, 61. B.S., Mass. Col., 83; Ph.D., Göttingen, 89; hon. Sc.D., Brown, 11. Asst. chemist, Mass. Exp. Sta., 83-87; chemist, R. I. Exp. Sta., 89-05, agronomist, 97-12, director, 01-12, *prof. geol.*, R. I. Col., 89-12, acting pres, 02-03, *prof. agr. chem.*, 03-07; *manager agr. service bur.*, *Am. Agr. Chem. Co.*, 12- R. I. Conservation Commission; chairman, committee soils and fertilizers, Nat. Research Council, 17-19. A.A.; Soc. Agron. (pres); Chem. Soc.; Agr. Chem. (pres, 02); Am. Geog. Soc. Soils; manures; the occurrence of injurious acidity in upland soils; seaweeds; potato scab; crop rotations; grass manuring and composition of the crop; sodium salts and their functions in soils and plants; relations of lime and magnesia to plant growth.
- Wheeler, Dr. L(ynde) P(helps)**, U. S. Naval Research Laboratory, Washington, D. C. *Physics*. Bridgeport, Conn., July 27, 74. Ph.B., Yale, 94, Ph.D., 02. Lab. asst. physics, Sheffield Sci. Sch., Yale, 95-97, asst., 97-01, *instr.*, 01-06, asst. *prof.*, 06-23, assoc. *prof.*, 23-26; *physicist*, *U. S. Naval Research Lab.*, 26- A.A.; Physical Soc.; Eng. Educ.; Conn. Acad. Physical optics; thermodynamics; electrical theory; metallic reflection in various media; radioactivity; high frequency alternating current; thermionic vacuum tubes.
- Wheeler, Prof. N(athaniel) E(rnest)**, Colby College, Waterville, Maine. *Physics*. Dunbarton, N. H., June 29, 81. B.S., Colby, 09; M.Sc., McGill, 11. Demonstrator *physics*, McGill, 09-11, senior demonstrator, 11-14, lecturer, 14-18, asst. *prof.*, 18-20; assoc. *prof.*, *Colby*, 20-21, *prof.*, 21- A.A.; Physical Soc.; Eng. Educ. Thermal expansion of rock at high temperatures; graphite thermo-electric couples for high temperature measurements.
- Wheeler, Prof. Raymond H(older)**, University of Kansas, Lawrence, Kans. *Psychology*. Berlin, Mass., March 9, 92. A.B., Clark, 12, A.M., 13, fellow, 14-15, Ph.D., 15. *Instr. psychol.*, Oregon, 15-16, asst. *prof.*, 16-18, *prof.*, 19-25; *Kansas*, 25-, director laboratories, 22-25. Psychol. Ass. Experimental psychology; psychology of the blind; volition; learning; mental tests.
- Wheeler, Dr. Ruth**, Vassar College, Poughkeepsie, N. Y. *Nutrition*. Plains, Pa., Aug. 5, 77. A.B., Vassar, 99; Ph.D., Yale, 13. Teacher, high schools, Pa. and N. Y.; Pratt Inst.; dietetics and nutrition, Illinois, 12-13, assoc., 13-15, asst. *prof. household science*, 15-16; *prof. and head dept. home econ.*, Goucher, 18-21; *prof. and head dept. nutrition*, col. med., Iowa, 21-26; *prof. physiol. and nutrition*, *Vassar*, 26- Consultant, Presb. Hosp. and lecturer, dept. med., Columbia, 26- Past mem. ed. board, 'Jour. Home Econ'; ed. board, 'Jour. Am. Dietetics Ass.' Chairman, advisory committee on nutrition, Am. Red Cross, 17-; sect. human nutrition, Nat. Research Council. A.A.; Soc. Biol. Chem.; Home Econ. Ass.; Dietetic Ass. (pres, 24-); Hosp. Soc. Dietetics; nutrition education.
- Wheeler, Thorne L**, Arthur D. Little, Inc., Charles River Road, Cambridge, Mass. *Chemical engineering*. Chatham, N. Y., June 8, 88. A.B., Yale, 09; B.S., Mass. Inst. Tech., 11. Supt. refinery, South. Cotton Oil Co., N. J., 11-16, works manager, 16-17; partner, Wheeler and Woodruff, Chem. Engineers, N. Y., 19-25; *chem. engineer*, *Arthur D. Little, Inc.*, 25- Capt. and major, in charge develop. control lab, C.W.S., 17-19, consultant, 19- Chem. Soc.; Chem. Eng.; Soc. Cotton Products Analysts.
- Wheeler, Prof. W(illiam) A(rchie)**, 5503 33d St., N. W., Washington, D. C. *Botany*. Stockton, Minn., June 28, 76. B.Agr., Minnesota, 00, M.S., 01. Asst. hort. and forestry, Minnesota, 97-98,

bot, 98-00, instr, 00-01, sch. agr, 01-03; prof. bot. and entom, S. Dak. Col. and Exp. Sta, 03-07; sec'y, Dak. Improved Seed Co, 07-16; seed reporting service, bur. markets, U. S. Dept. Agr, 16-19, investigator on seed conditions in Europe, 19-20, in charge market information, 20-22, chief hay, feed and seed div, bur. agr. econ, 22- In charge herbarium work, Minn. Bot. Surv, 00-03; botanist, S. Dak. Geol. and Nat. Hist. Surv, 03-07. Fel. Minn. Bot. Soc. Agricultural botany; grasses and forage plants; seed-marketing investigations.

Wheeler, Prof. W(illiam) M(orton), Bussey Institution, Forest Hills, Boston, Mass. **Zoology*. Milwaukee, Wis, March 19, 65. German-American Nor. Col; Ph.D, Clark, 92; Würzburg and Liège, 93-94; Smithsonian table, Naples Zool. Sta, 93-94; Sc.D, Chicago, 16. Instr. embryol, Chicago, 92-96, asst. prof, 96-99; prof. zool, Texas, 99-03; curator invert. zool, Am. Museum Nat. Hist, 03-08; prof. econ. entom, Harvard, 08-26, entom, 26- Ed, 'Jour. N. Y. Entom. Soc'; assoc. ed, 'Biol. Bul'; 'Jour. Morphol'; 'Psyche.' Research assoc, Am. Museum Nat. Hist, 08- Nat. Acad; A.A; Soc. Nat; Soc. Zool. (pres, east. branch, 08); Entom. Soc. (pres, 08); Ecol. Soc. (v. pres, 16); Psychol. Ass; Philos. Soc; Am. Acad; Texas Acad; N. Y. Acad; Wash. Acad; cor. mem. Phila. Acad; Soc. biol. de France; Soc. Entom. de Belge. Embryology of insects; anatomy and embryology of animals, mainly invertebrates; habits and taxonomy of insects; comparative psychology; ants, their structure, development and behavior; ants of the world.

Wheeler, Dr. Homer, 5428 Kirkwood Place, Seattle, Wash. *Physiology*. San Jose, Calif, June 29, 88. A.B, Washington (Seattle), 11; M.S, St. Louis, 16, M.D, 18. Asst. zool, Washington (Seattle), 10-11; biol, Oregon, 11-12; physiol, St. Louis, 14-18, asst. prof, 18-21; house physician, Bethesda Hosp, St. Louis, 18-20. Summer, asst, Chicago, 14. Physiol. Soc; Col. Physicians; Ass. Study Int. Secretions; Am. Med. Ass. Clinical physiology; internal secretions; gastric and duodenal motility.

Wherry, Dr. Edgar T(heodore), U. S. Department of Agriculture, Washington, D. C. **Chemistry*. Philadelphia, Pa, Sept. 10, 85. B.S, Pennsylvania, 06, Ph.D, 09; Heidelberg, 10. Instr. miner, Lehigh, 08-10, asst. prof, 10-13; asst. curator miner. and petrol, dept. geol, U. S. Nat. Museum, 13-17; crystallographer, bur. chem, U. S. Dept. Agr, 17-22, chemist in charge crop chem. lab, 22-24, senior chemist, 24- Summer, asst, Pennsylvania, 08-10; lecturer, Wagner Free Inst, 08-13. Ed, 'Am. Mineralogist', 19-21. A.A; Chem. Soc; fel. Geol. Soc; Miner. Soc. (pres, 23); Ecol. Soc; Wash. Acad; Phila. Acad; Phila. Miner. Soc. Mineralogy; crystallography; plant ecology; hydrogen-ion concentration in relation to native-plant distribution; geology.

Wherry, Prof. W(illiam) B(uchanan), City Hospital, Cincinnati, Ohio. *Bacteriology*. Lodianna, India, Dec. 24, 75. A.B, Washington and Jefferson, 97; M.D, Rush Med. Col, 01. Asst. bacter, Chicago, 01-02, assoc, 02-03; bacteriologist, Govt. Laboratories, Manila, P. I, 03-05;

prof. bacter, Oakland Col. Med. and Surg, 07; bacteriologist, Board Health, San Francisco, and acting asst. surgeon, U. S. Pub. Health Service, 07-09; asst. prof. bacter, Ohio-Miami Med. Col, 09; assoc. prof. bacter, Cincinnati, 10-13, prof. bacter. and hygiene, 14- A.A; Pub. Health Ass. Etiology of disease; physiology of bacteria.

Whetzel, Prof. H(erbert) H(ice), Cornell University, Ithaca, N. Y. **Plant pathology*. Near Avilla, Ind, Sept. 5, 77. A.B, Wabash, 02, A.M, 06; Cornell. Asst. bot, Cornell, 02-04, instr, 04-06, asst. prof, col. agr, 06-07, plant path, 07-09, prof, 09- Fungi and plant disease investigation, Porto Rico, 16, 24; Bermuda, 21-22, 26. A.A; Phytopath. Soc. (pres); Bot. Soc; British Mycol. Soc. Diseases of ginseng; Botrytis diseases; dusting; taxonomy of Botrytis and Sclerotinia species.

Whipple, Dr. Allen O(ldfather), 41 E. 70th St, New York, N. Y. *Surgery*. Urmia, Persia, 81. B.S, Princeton, 04; M.D, col. physicians and surg, Columbia, 08. Prof. surg, col. physicians and surg, Columbia, and director surg. service, Presb. Hosp, 21- Surg. Ass; Col. Surg; Soc. Clin. Surg; Surg. Research Soc; Am. Med. Ass; Interurban Surg. Soc; N. Y. Surg. Soc; N. Y. Acad. Med; N. Y. Soc. Thoracic Surg.

Whipple, Dr. George H(oyt), University of Rochester School of Medicine and Dentistry, Rochester, N. Y. **Pathology*. Ashland, N. H, Aug. 28, 78. A.B, Yale, 00; M.D, Hopkins, 05. Asst. path, Hopkins, 05-06, instr, 06-07; pathologist, Ancon Hosp, Panama, 07-08; res. pathologist, Hopkins Hosp, 08-14, assoc. path, Hopkins, 08-10, assoc. prof, 10-14; director, Hooper Foundation and prof. research med, California, 14-21, dean med. sch, 20-21; prof. path. and dean sch. med. and dentistry, Rochester, 21- Trustee, Rockefeller Foundation, 27- A.A; Ass. Path. and Bact; Soc. Exp. Path. (pres, 25); Physiol. Soc; Am. Physicians; Am. Med. Ass; Soc. Exp. Biol. Tuberculosis; uncinariasis; black-water fever; pancreatic lesions; chloroform poisoning in animals; pigment metabolism; hemoglobin formation in anemia; biliary constituents.

Whipple, Dr. Guy Montrose, Danvers, Mass. **Psychology, Education*. Danvers, June 12, 76. A.B, Brown, 97; Clark, 97-98; Ph.D, Cornell, 00. Asst. psychol, Clark, 97-98; Cornell, 98-02, lecturer educ, 02-04, asst. prof, 04-11, educ. psychol, 11-14; assoc. prof. educ, Illinois, 14-15, prof, 15-18; acting director bur. salesmanship research, Carnegie Inst. Tech, 17-19, prof. applied psychol, 18-19; prof. exp. educ, Michigan, 19-25; lecturer, Harvard, 24-25. Acting prof, Missouri, 07-08; summers, Wisconsin, 09, 25, Columbia, 10, 15; Harvard, 22, 23; California, 26, 27. Co-operator ed. board, 'Jour. Applied Psychol'; 'Jour. Educ. Research.' Psychol. examining committee, U.S.A; director, Nat. Intelligence Tests. A.A. (v. pres, Q, 22); Psychol. Ass; Educ. Research Ass; Nat. Soc. Study Educ. (sec'y-treas, ed, 'Yearbooks'). Time order of disparate stimuli; synesthesia; analysis of recognitory judgment in discrimination of pitch after various time intervals; discrimination of pitch of chords and

- melodies; children's vocabularies; vocabulary and word-building tests; distribution of daily time of Cornell students; effect of practise on the range of attention; psychology of report; standardization of mental tests; the value of mental tests; effective methods of studying; education of gifted children.
- Whipple, Prof. Ralph W(heaton)**, Marietta College, Marietta, Ohio. *Geology*. Philadelphia, Pa., Oct. 5, 90. B.S. Amherst, 14, A.M., 17. Geol. staff, Amherst, 14-17; prof. geol. Marietta, 19-26, *Ebenezer Balwin Andreas prof. nat. science, and curator museum*, 26- U.S.A., 17-19. A.A.; fel. Am. Geog. Soc.; Ohio Acad. Anthropology.
- Whitaker, Douglas (Merritt)**, Stanford University, Calif. *Biology*. Stanford University, March 5, 04. A.B. Stanford, 26. *Stanford scholar*, 26- Summer, research assoc, Carnegie Tortugas Lab, 26. Experimental embryology and cell physiology; structure and physiology of protoplasm; micro-manipulation technique.
- Whitaker, Prof. Helen**, 1122 Taylor St, Topeka, Kans. *Astronomy*. Topeka, May 31, 97. A.B. Washburn, 19; A.M., Minnesota, 22. Instr. astron. Washburn, 21-23, asst. prof, 23- A.A.; Astron. Soc.
- Whitaker, Dr. M(ilton) C**, 271 Madison Ave, New York, N. Y. **Chemical engineering*. Frazesburg, Ohio, Dec. 16, 70. B.S., Colorado, 97, M.S., 00, LL.D., 13; D.Ch.Eng., Pittsburgh, 15. Instr. chem. Colorado, 98; Columbia, 02; chemist, Welsbach Co, 03, gen. supt, 03-10; prof. chem. eng. Columbia, 11-17; v. pres, U. S. Indust. Alcohol Co, and pres, U. S. Indust. Chem. Co, 17-27, *director and consultant*, 27-; *consulting chem. engineer*, 27- Director, Molybdenum Corp, 25. Ed., 'Jour. Indust. and Eng. Chem.', 11-16. Chem. Soc.; Soc. Chem. Indust. (chairman, N. Y. sect, 11); Chem. Eng. (pres, 14); N. Y. Chemists Club (pres, 15-17, trustee). Applied chemistry.
- Whitbeck, Miss Florence**, University of Rochester, Rochester, N. Y. *Geology, Geography*. Schuyler-ville, N. Y., May 25, 98. A.B., Deptsin, 19, fellow, 20-21, A.M., 21, Ph.D., 27. Descript. geog. and geol. Wellesley, 19-20; instr. geog. Porto Rico, 21-23; Bryn Mawr, 24; *geog. and geol. Rochester*, 24- Summers, research asst, div. mil. intelligence, War Dept, 18, draftsman, Wis. Geol. Surv, 19. Geography of Porto Rico.
- Whitbeck, Prof. R(ay) H(ughes)**, University of Wisconsin, Madison, Wis. *Geography*. Rochester, N. Y., April 2, 71. A.B., Cornell, 01. Prin. Pike Sem, N. Y., 92-96, high sch, 96-98; asst. physiog, Cornell, 00-01; supervisor, State Model Sch, N. J., 01-09; asst. prof. *physiog. and geog. Wisconsin*, 09-11, assoc. prof, 11-15, *prof*, 15- Summers, lecturer, Tennessee, 02, Adelphi, 06-09, Chicago, 16, Pa. State, 23-25, Cornell, 03-07, 13, 20, asst. prof, Wisconsin, 08-10; geographer, Wis. Geol. Surv. Ed., 'Jour. Geog.', 10-18. Ass. Geog. (pres, 25); Nat. Council Geog. Teachers (pres, 20). Economic geography; geography of Latin America.
- Whitby, Prof. G(eorge) Stafford**, McGill University, Montreal, Que. Can. *Organic chemistry*. Eng, May 26, 87. B.Sc., London, 07; M.Sc., McGill, Ph.D. Demonstrator, Imp. Col. Sci. London, 06-10; chief chemist, Soc. Financière des Caoutchoucs, 10-17; asst. prof. chem, McGill, 20-21, assoc. prof, 21-23, *prof. org. chem*, 23- Ed, rubber sect, Int. Critical Tables. Frank Hatton chem. prize, Royal Col. Sci; Gov.-Gen. silver medal for research, McGill. Chem. Soc; fel. Can. Inst. Chem. (councilor, 24-, pres, 27); Royal Soc. Can. Rubber; fats; organic anti-mony compounds; organic colloids.
- Whitcomb, W(illiam) H(enry)**, Box 606, New Haven, Conn. *Chemistry*. Boston, Mass, March 14, 80. B.S., Mass. Inst. Tech, 03, M.S., 06. Asst. physics, Mass. Inst. Tech, 03-06; asst. prof. chem, Miami, 06-08, assoc. prof, 08-13, prof, 13-17; *director lab. control, footwear div, U. S. Rubber Co*, 17- Chem. Soc; Soc. Test. Mat. Inorganic chemistry.
- White, Prof. Albert Easton**, University of Michigan, Ann Arbor, Mich. *Metallurgy*. Plainville, Mass, March 12, 84. A.B., Brown, 07, hon. Sc.D., 25; Harvard, 07-08. In charge research investigations, Jones and Laughlin Co, Pa, 08-11; instr. chem. eng, Michigan, 11-13, asst. prof, 13-17, *prof*, 19-, *director dept. eng. research*, 20- Head metal. branch, inspection div, ordnance dept, U.S.A., 17-19, head tech. staff, 19. Mech. Eng. (main research committee); Min. and Metal. Eng; Soc. Steel Treat. (pres, 20); Chem. Soc; Soc. Test. Mat. (committees); Elec. Light Soc. (prime movers committee); Mich. Eng. Soc; Detroit Eng. Soc. Metallurgy; condenser tubes; malleable iron; properties of metals at elevated temperatures.
- White, Prof. Alfred H(olmes)**, University of Michigan, Ann Arbor, Mich. **Chemical engineering*. Peoria, Ill, April 29, 73. McGill, 89-90; A.B., Michigan, 93, B.S., 04; Polytech, Zurich, 96-97. Asst. chem, Illinois, 93-96; instr. chem. technol, Michigan, 97-04, asst. prof, 04-07, junior prof. chem. eng, 07-11, *prof*, 11-, *head dept*, 14- Consulting engineer, U. S. Bur. Mines, 10- Capt. and lieut. col, chief research, tech. sect, assoc. chief nitrate div, ordnance dept, 17-19; consulting chem. engineer, ordnance dept, 19-, col, O.R.C., 25- Chem. Eng. (v. pres, 25-); Gas Inst; Gas Ass; Soc. Test. Mat; Ass. Pulp and Paper Indust. Volume changes in concrete; destructive distillation of coal and manufacture of illuminating gas; recovery of methyl alcohol from waste liquors of wood pulp mills; fixation of nitrogen.
- White, Dr. Benjamin**, 375 South St, Jamaica Plain, Boston 30, Mass. *Biochemistry*. Cooperstown, N. Y., Jan. 15, 79. Ph.B., Yale, 00, Robinson fellow, 00-03, Ph.D., 03; Berlin, Munich, Vienna and St. Mary's Hosp, London, 06-07. Asst. director dept. bacter, Hoagland lab, 03-07, director, 07-09, 11-14; asst, Saranac Lake Lab, 09-11; asst. director bacter. laboratories, New York Dept. Health, 14-18; *director div. biol. laboratories, Mass. Dept. Pub. Health*, 20-; in charge *Anti-toxin and Vaccine Lab, Forest Hills*, 20-; asst. pres. med. and hygiene, *Harvard Med. Sch*, 20-22, instr, 22-24, asst. *prof. bacter. and immunol*, 24-; *lecturer immunol. and instr. biol. assaying drugs, Mass. Col. Pharmacy*, 20-, assoc. prof, 22-24. Special lecturer, Inst. Politics, Williamstown, 25-; bacteriologist and chemist, Milk Commission, Med. Soc. Kings Co, 03-08; consultant bacter, L. I.

Col. Hosp, 11-14. Capt, Sanit.C, 18-19. A.A; Tuber. Ass; fel. Am. Acad; Ass. Path. and Bact; Soc. Bact; fel. Pub. Health Ass; Soc. Exp. Biol; Ass. Immunol; hon. mem. Mass. Med. Soc. Bacteriology; immunology; vaccine therapy; anthrax immunity; chemistry of tubercle bacillus; tuberculosis, smallpox and diphtheria immunity; the transmission of influenza.

White, (Charles) David, U. S. Geological Survey, Washington, D. C. **Paleobotany.* Palmyra, N. Y, July 1, 62. B.S, Cornell, 86; Sc.D, Cincinnati, Rochester, 23, Williams, 25. Asst. paleontologist, U. S. Geol. Surv, 86-94, asst. geologist, 94-00, geologist, 00-12, chief geologist, 12-22, senior geologist, 22- Assoc. curator paleobot, U. S. Nat. Museum. Chairman div. geol. and geog, Nat. Research Council, 24-27. Nat. Acad. (home sec'y, 23-27); A.A; Bot. Soc; Geol. Soc; Paleont. Soc. (v. pres, 09); Philos. Soc; Am. Acad; Wash. Acad; Wash. Geol. Biol. and Bot. Societies. Stratigraphic study of Paleozoic fossil plants; geological climate; flora of the Pottsville formation.

White, Prof. Charles E(dgar), New Concord, Ohio. *Mathematics.* Trafalgar, Ind, Oct. 25, 68. A.B, Indiana, 96, A.M, 07. Prin, high schools, Ind, 97-04; teacher *math*, Mishawaka, 04-06; instr, Vanderbilt, 08-09; *prof*, W. Va. Wesleyan, 09-20; *Muskingum*, 21- Math. Ass. Irreducible cases of equations; solutions of equations; remainder theorems; method of finding calendar date without a calendar.

White, Capt. Charles Henry, Mills Building, San Francisco, Calif. *Geology, Mining.* Yadkin Co, N. C, Aug. 13, 65. Peabody, 85-87; Vanderbilt, 88; B.S, North Carolina, 94; B.S, Harvard, 97, A.M, 01. Instr. geol, Tennessee, 95-96; asst, Harvard, 98, instr. mining and metal, 99-05, asst. prof, 05-15, prof, 15-17; *consulting geologist*, 17- Field asst, U. S. Geol. Surv, 98, 03; instr, George Crocker Sch. Practical Mining, Colo, 04. Capt, ordnance dept, 18-19, O.R.C, 19-24. Soc. Econ. Geol; fel. Am. Geog. Soc; Seismol. Soc; Min. Eng; Le Conte Geol. Club. Location of copper ore by study of outcroppings.

White, Prof. C(harles) J(ames), 259 Marlborough St, Boston, Mass. *Dermatology.* Boston, Dec. 26, 68. A.B, Harvard, 90, M.D, 93; Paris and Vienna, 93-95. Asst. physician *skin diseases*, Mass. Gen. Hosp, 95-03, physician, 03-25, chief physician, 25-; asst. dermat, Harvard, 98-02, instr, 02-11, asst. prof, 11-16, *prof*, 16- Consulting dermatologist, Boston Insane Hosp, 03-; Infants Hosp, 16-; Mass. Charitable Eye and Ear Infirmary; New Eng. Deaconess Hosp; Boston Psychopathic Hosp; past chairman, med. advisory board, Mass. Hosp. for Lepers. Ed. board, 'Archives of Dermat.' A.A; Am. Med. Ass. (chairman, dermat. sect, 10-12); Dermat. Ass. (sec'y and treas, 02-05, pres, 15); Ass. Path. and Bact; Ass. Cancer Research; New Eng. Soc. Dermat. (sec'y, 15-17); hon. fel. London Dermat. Soc; cor. hon. mem. British Royal Soc. Med; cor. for. mem. Soc. de Dermat. et de Syphil; cor. mem. Danish Dermat. Soc.

White, Prof. (Charles) Langdon, 10 E. Collins St, Oxford, Ohio. *Geography.* Denver, Colo, June 2, 97. B.S, Denison, 20; Chicago, 22-24; Ph.D, Clark, 25. Instr. econ. geog, Clark, 25;

Pittsburgh, 25-26; *assoc. prof. geog*, Miami, 26-Summer, asst. prof, Iowa State Teachers Col, 24. The agricultural geography and the insular integrity of industry of the Salt Lake Oasis; the insular integrity of industry; transhumance in the sheep industry of the Salt Lake region; the iron and steel industry of the Pittsburgh district.

White, Dr. C(ourtland) Y(ardley), (Jr), 6611 N. Tenth St, Philadelphia, Pa. *Pathology.* Philadelphia, Aug. 12, 73. Cent. High Sch. Phila, 90-92; M.D, Pennsylvania, 95; Vienna, 98. Instr. clin. med, Pennsylvania, 99-04, lecturer and demonstrator morbid anat, vet. dept, 99-10, asst. director, William Pepper Lab, 99-05. Pathologist, Phila. Zool. Garden, 01-06; Pa. Live Stock Sanit. Board, 03-10; Henry Phipps Inst. Tuberculosis, 05-08; director path. lab, Episcopal Hosp, Phila, 08; director lab. hygiene, Phila. Bur. Health, 10. A.A; Am. Med. Ass; Ass. Path. and Bact; Soc. Bact; fel. Pub. Health Ass; Phila. Col. Physicians; Phila. Acad; Phila. Path. Soc. (treas, 06-); Phila. Pediat. Soc. General and comparative pathology and bacteriology; the blood.

White, Dr. E(dith) Grace, Wilson College, Chambersburg, Pa. *Zoology.* Boston, Mass, May 16, 90. A.B, Mt. Holyoke, 12; A.M, Columbia, 13, Ph.D, 18. *Prof. biol*, Heidelberg (Ohio), 18-20; Shorter Col, 20-23; *Wilson Col*, 23- A.A. Electrical organs of *Astroscopus guttatus*; elasmobranch fishes.

White, Prof. E(dward) A(lbert), Cornell University, Ithaca, N. Y. *Horticulture.* Townsend, Mass, May 23, 72. B.S, Mass. Col, 95. Asst. horticulturist, Mass. Col, 95-97; horticulturist, Baron de Hirsch Sch, Woodbine, N. J, 97-99; asst. prof. hort, Agr. and Mech. Col. Texas, 99-02; prof. bot. forestry and landscape gardening, Conn. Col, 02-07; floricult, Mass. Col, 07-13; head dept. floricult. and ornamental hort, Cornell, 13- Soc. Hort. Sci. Mycology; floriculture.

White, Dr. Edwin C(harles), Brady Institute, Johns Hopkins Hospital, Baltimore, Md. *Chemistry.* Baltimore, Feb. 12, 92. A.B, Hopkins, 12; Ph.D, Wisconsin, 15. Junior physical chemist, U. S. Bur. Mines, 15-17; *chemist*, Brady Urol. Inst, Hopkins, 17-, *assoc. chem. urol*, 22-Chem. Soc. Theory of indicators; synthetic organic chemistry; chemotherapy.

White, Dr. Franklin W(arren), 322 Marlborough St, Boston, Mass. *Medicine.* Boston, Oct. 23, 69. B.S, Mass. Inst. Tech, 90; M.D, Harvard, 95. Prof. med, Dartmouth; *visiting physician*, Boston City Hosp; *instr. med*, Harvard. Am. Physicians; Am. Med. Ass. (chairman, sect. gastro-enterol); Gastro-Enterol. Ass. (pres). Diseases of the digestive organs.

White, Dean George C(leveland), Experiment Station, Storrs, Conn. *Dairy husbandry.* Harrisonville, Mo, May 25, 87. B.S, Missouri, 10, A.M, 12. Asst. dairy husbandry, Missouri, 10-11, instr, 11-12; asst. prof, Nebraska, 12-13; *prof*, Conn. Col, and dairy husbandman, Storrs Exp. Sta, 13-, dean div. agr, 25- Research, Cornell, 26-27. Assoc. ed, 'Jour. Dairy Sci,' 13- Committee on uniform standards, Am. Dairy Federation, 26. Dairy Sci. Ass. (chair-

- man, breed relations committee, 21-23, sec'y, official test. sect, 23-25, chairman, 25, sec'y, Ass, 26, v. pres, east. div, 26). Abortion of cattle; calf and dairy cattle feeding.
- White, Dr. George F(rederic)**, Bauer and Black, 2500 S. Dearborn St, Chicago, Ill. *Chemistry*. Melrose, Mass, June 15, 85. B.S, Mass. Inst. Tech, 06; fellow, Hopkins, 09-10, Ph.D, 10. Asst. chem, Mass. Inst. Tech, 06-08; assoc. prof, Richmond, 10-12; instr, asst. prof, assoc. prof. and prof. org. chem, Clark, 12-25, instr. biol. chem, 14-25; *director sci. dept, Bauer and Black, 25*— Summers, sci. asst, Bur. Fisheries, Woods Hole, 10-16, special expert, U. S. Pub. Health Service, 16-18, prof, William and Mary, 23. A.A.; Chem. Soc. Qualitative analysis; fisheries products; viscosity; vitamins; trinitrotoluol poisoning; liquid ammonia.
- White, Dr. G(ereshom) Franklin**, U. S. Department of Agriculture, Washington, D. C. *Pathology*. Hooksburg, Ohio, Dec. 22, 75. B.S, Ohio (Athens), 01; Ph.D, Cornell, 05; M.D, George Washington, 09. Asst. histol, embryol. and micros, Cornell, 01-02, comp. bacter. and path, 02-03, instr. comp. bacter, 03-06; expert animal bacter, bur. animal indust, U. S. Dept. Agr, 06-07, bur. entom, 07-17, *insect pathologist*, 19— Capt, M.C, 18-19. A.A.; Soc. Parasitol; Agr. Hist. Soc; Wash. Entom. Soc; Wash. Biol. Soc; Wash. Helminth. Soc. Diseases of honey bees and of other insects; creeping eruption.
- White, Prof. Goodrich C(ook)**, Emory University, Ga. *Psychology*. Griffin, Ga, Nov. 13, 89. A.B, Emory, 08; A.M, Columbia, 11. Prof. psychol. and educ, Wesleyan (Ga), 13-14; prof. mental and moral science, Emory, 14-18, assoc. prof. *psychol*, 19-20, *prof*, 20—, *dean col. science and arts*, 23— Second lieut, U.S.A, 18-19. A.A.; assoc. Psychol. Ass; S. Soc. Philos. and Psychol; Ga. Acad.
- White, Dr. H(arvey) L(ester)**, Washington University, St. Louis, Mo. *Physiology*. Carrollton, Ill, Feb. 27, 96. B.S, Washington (St. Louis), 18, M.D, 20. Asst. *physiol*, Washington (St. Louis), 20-21, instr, 21-22, assoc, 22-24, *assoc. prof*, 24— *Physiol. Soc*; Soc. Exp. Biol. Circulation; kidney function; secretion.
- White, Prof. H(enry) C(lay)**, University of Georgia, Athens, Ga. *Chemistry*. Baltimore, Md, Dec. 30, 48. B.S, C.E, M.E, Virginia, 70, Ph.D, 87; D.C.L, Sewanee, 04; LL.D, Illinois, 05; Columbia, 08; hon. Sc.D, Michigan, 07. *Prof. chem*, St. John's (Md), 71-72; *Georgia*, 72—; chemist and v. director, Ga. Exp. Sta, 89-13. State chemist, Ga, 80-90; pres, Ga. State, 90-07; sci. lecturer, Peabody Inst, Baltimore, 70-71. A.A.; Chem. Soc; Agr. Chem. (pres, 81); Ass. Agr. Col. (pres, 89); cor. mem. British Ass; fel. London Chem. Soc. Agricultural and physiological chemistry; proteids of cotton; nitrogen, phosphorus and potash feeding of cotton.
- White, Prof. H(enry) S(eely)**, Vassar College, Poughkeepsie, N. Y. *Mathematics*. Cazenovia, N. Y., May 20, 61. A.B, Wesleyan, 82; Ph.D, Göttingen, 90; LL.D, Northwestern, 15. Tutor math, Wesleyan, 84-87; asst. pure math, Clark, 90-92; assoc. prof. and Noyes prof, Northwestern, 92-05; *prof. math*, Vassar, 05— Assoc. ed, 'Annals of Math,' 99-06. Nat. Acad; A.A. (v. pres, 15); Math. Soc. (asst. ed, 'Trans,' 02-06, ed, 07-14, pres, 06-08). Theory of invariants; geometry of curves and surfaces; special types of (3, 3) correspondences; algebraic plane curves and twisted curves of low orders.
- White, Dr. I(srael) C**, Morgantown, W. Va. **Geology*. Monongalia Co, W. Va, Nov. 1, 48. A.M, West Virginia, 72, LL.D, 19; Ph.D, Arkansas, 80; Sc.D, Pittsburgh, 22. Asst. geologist, Pa. Geol. Surv, 75-84; U. S. Geol. Surv, 84-88; prof. geol, West Virginia, 77-92; *state geologist*, W. Va, 97— Assoc. ed, 'Am. Geologist.' Jury awards, Columbian Expos, 93; chief, Brazilian Coal Commission, 04-06; Conf. on Waste of Fuel Resources, 08. Delegate, Int. Geol. Cong, St. Petersburg, 97; Paris, 00. A.A. (v. pres, 97); Geol. Soc. (treas, 92-07, pres, 20); Ass. Petrol. Geol. (pres, 19); Philos. Soc; Wash. Geol. Soc; Wash. Acad. Stratigraphy; coal; petroleum; natural gas; the Appalachian coal fields.
- White, James**, 450 Wilbrod St, Ottawa, Ont, Can. *Geography*. Ingersoll, Ont, Feb. 3, 63. Grad, Royal Mil. Col. Topographer, Can. Geol. Surv, 84-94, geographer and chief draughtsman, 94-99, chief geographer, Can, 99-09; sec'y, Commission of Conservation of Can, 09-13, deputy minister and asst. chairman, 13-22; *tech. adviser justices*, Can, 22— Can. Geog. Board, 97, chairman, 26—; chairman, Advisory Board on Wild Life Protection, 19—; Alaska boundary convention, 03, Labrador boundary, 26— Fel. Royal Soc. Can; fel. Royal Geog. Soc. Atlas of Canada, 1906; maps of Canada; altitudes in Canada; derivation of place-names; treaties and boundary disputes affecting Canada.
- White, Prof. James F(rederick)**, 130 E. Bridge St, Berea, Ohio. *Chemistry*. Berea, Aug. 20, 99. A.B, Baldwin-Wallace, 20; A.M, Columbia, 22, Ph.D, 24. Asst. physics, Columbia, 20-21; tutor chem, Col. City of N. Y, 21-24; prof. chem, Soochow, 24-27, head dept, 25-27. Chem. Soc. Ionic migration using the moving boundary as a method of separating similar ions.
- White, Prof. Jesse H(ayes)**, 210 Darragh St, Pittsburgh, Pa. *Psychology*. Alamo, Ind, March 5, 77. A.B, Indiana, 03, A.M, 04; Ph.D, Clark, 08. Supt, schools, Ind, 04-06; *prof. psychol. and head dept*, Pittsburgh, 08— A.A.; Psychol. Ass; Pittsburgh Acad. Experimental, social and abnormal psychology; child psychology.
- White, Prof. John**, Rose Polytechnic Institute, Terre Haute, Ind. *Chemistry*. Poolesville, Md, Feb. 24, 66. A.B, Hopkins, 88, A.M, Ph.D, 91. Asst. chem, Cornell, 91-03; instr, Nebraska, 93-97, adjunct prof, 97-99, prof, 00-03; *prof. and head dept. chem. eng. and chem*, Rose, 03—, acting pres, 16-17, 19-21. Acting head dept. chem, Nebraska, 99-00. A.A.; Chem. Soc; Ass. Eng; Chem. Gesell. Dissociation of metallic oxides in metallic vapors; molecular weight determinations of the aldehydes and peroxides; the metallic suboxides; physical chemistry of the pyridin bases; the reactions involved in the

formation of certain complex salts of lead; Indiana coals.

White, Prof. Jonathan Winborne, State College, Pa. *Agronomy*. Greenville, N. C. March 28, 83. B.S., N. C. State, 03; M.S. Illinois, 12. Research chemist, 03-05; fertilizer chemist, Pa. Exp. Sta., 06-11, asst. prof. and assoc. prof. agron., Pa. State, 12-19, prof. soil technol., 19-A.A.; Soc. Agron.; Int. Soc. Soil Sci. Soil fertility and bacteriology; plot experiments; pot culture; soil composition.

White, Prof. Marsh W(illiam), 222 S. Gill St., State College, Pa. *Physics*. A.B., Park Col., 17; M.S., Pa. State, 20, Ph.D., 26. Engineer, 17-18; prof. physics, Pa. State, 18-26; Williams Col., 26-27; Pa. State, 27- A.A.; Physical Soc.; Eng. Educ.; Pa. Acad. Energy of high velocity electrons; the reflection of electrons from the anticathodes of X-ray tubes; wave-shape factor and meter; method for measuring e/m .

White, Dr. Orland E(mile), University of Virginia, University, Va. *Biology, Genetics*. Sibley, Iowa, April 25, 85. B.S., S. Dak. Col., 09, M.S., 11; Harvard, 12, Sc.D., 13. Asst. bot., S. Dak. Col., 07-09, instr., 10-11; asst. Radcliffe, 12, genetics, 13; collaborator, bur. plant indust., U. S. Dept. Agr., 15-18, 20-23, specialist, 19; asst. curator plant breeding, Brooklyn Bot. Garden, 13-16, curator, 16-24, plant breeding and econ. plants, 24-27; prof. agr. biol. and director, *Blandy Exp. Farm, Virginia*, 27- Ed. board, 'Am. Jour. Bot.', 20-21; ed. genetics sect., 'Bot. Abstracts', 22- Botanist, Mulford biol. explor., Amazon Basin, 21-22. A.A.; Soc. Nat.; Bot. Soc.; Soc. Exp. Biol.; Genetic Ass.; Acad. Polit. Sci. Experimental biology; physical basis of inheritance; tropical plants.

White, Dr. Paul D(udley), Massachusetts General Hospital, Boston, Mass. *Medicine*. Boston, June 6, 86. A.B., Harvard, 08, M.D., 11. Intern, Mass. Gen. Hosp., 11-13; Harvard traveling fellow, Europe, 13-14, teaching fellow med., *Harvard Med. Sch.*, 15-20, instr., 20-; house physician, *Mass. Gen. Hosp.*, 14-20, assoc. physician, 20- Harvard Med. Unit, B.E.F., 16; capt., M.C., U.S.A., 17-19; capt., A.R.C., Balkan Commission, 19. Am. Med. Ass.; Am. Physicians; Soc. Clin. Invest. Internal medicine; cardiac physiology; electrocardiography; heart disease.

White, Dr. Richard P(eregrine), New Jersey Agricultural Experiment Station, New Brunswick, N. J. *Plant pathology*. North Acton, Mass., Nov. 10, 96. B.S., Dartmouth, 18; Ph.D., Cornell, 26. Research specialist diseases of ornamentals, N. J. Agr. Exp. Sta., 27-

White, Dr. S(olon) Marx, Nicollet Clinic, 1009 Nicollet Ave., Minneapolis, Minn. *Medicine*. Hokan, Minn., July 16, 73. B.S., Illinois, 76; M.D., Northwestern, 97. Intern, Cook Co. Hosp., Chicago, 97-98; demonstrator path. and bacter., *Minnesota*, 98-00, asst. prof., 00-08, assoc. prof. med., 08-17, prof., 17-, chief dept. med., 21-25. Pathologist, St. Barnabas, Northwestern and City Hospitals, 08; Minn. Board Health, 19-, pres., 26-; Minn. Board Regents, 26. Am. Med. Ass.; Am. Physicians; fel. Col. Physicians; Ass. Path. and Bact.; Minn. Acad. Med.; Minn.

Path. Soc. Internal medicine; tuberculous glomerulitis; regeneration in the adrenal gland of guinea pigs; lymphosarcomatosis of the intestine; focal infections as related to systemic disease; Eggleston method of administering digitalis; *Digitalis lutea* and *D. thapsi*; block in branches of His bundle.

White, Dr. Walter P(orter), Geophysical Laboratory, Washington, D. C. **Physics*. Roxbury, Mass., Feb. 23, 67. A.B., Amherst, 87, A.M., 92; Harvard, 88; Mass. Inst. Tech., 89-90; Wisconsin, 01-02; Cornell, 02-04, fellow, 03-04, Ph.D., 04. Teacher, prep. and high schools, 87-01; physicist, geophys. lab., *Carnegie Institution*, 04-Physical Soc.; Wash. Philos. Soc. (pres., 23). Galvanometers; potentiometers; thermals; high temperature measurements; silicate equilibria; calorimetry.

White, Dr. William A(lanson), Government Hospital for the Insane, Washington, D. C. *Psychiatry*. Brooklyn, N. Y., Jan. 24, 70. Cornell, 85-89; M.D., L. I. Col. Hosp., 91; Munich, 10; hon. A.M., Georgetown, 21. Asst. physician, Binghamton State Hosp., 92-03; supt., *St. Elizabeth's Hosp.*, 03-; prof. nervous and mental diseases, *Georgetown*, 03-; *George Washington*, 04- Lecturer, Army and Navy Med. Schools. Assoc. ed., 'Jour. Nervous and Mental Diseases'; co-editor, 'Psychoanal. Rev.' Fed. Board Hospitalization; board trustees, Nat. Committee Mental Hygiene. U. S. delegate, Int. Cong. on Relief of Insane, Vienna, 08; Int. Cong. Psychiat., Neur., Psychol. and Nursing of Lunatics, Amsterdam, 07. A.A.; Am. Med. Ass.; Psychiat. Ass. (pres., 24); Psychopath. Ass.; Inst. Criminal Law and Criminol. (v. pres.); D. C. Med. Juris. Soc. (pres); Wash. Acad. Psychopathology.

White, Dr. W(illiam) Charles, 2334 19th St., Washington, D. C. *Medicine*. Woodstock, Ont., Can., Sept. 4, 74. M.B., Toronto, 98, M.D., 02. Prof. path., Central (Ind.), 00-05; prof. neuro-anat. and clin. psychiat., 05-07; asst. prof. med., Pittsburgh, 08-18; med. director, Pittsburgh Tuber. League, 19-23; *hygienic lab., U. S. Pub. Health Service*, 23- V. chairman med. div., Nat. Research Council, chairman committee research in infectious diseases. Chief bur. tuber, Red Cross, France, 17-18; director, Tuber. Commission to Italy, 18-19. Nat. Acad.; Am. Physicians; Climat. Ass.; Tuber. Ass. (chairman, research committee). Tuberculosis; pulmonary diseases; circulation; auscultation.

White, W(illiam) H(enry), U. S. Department of Agriculture, Washington, D. C. *Entomology*. Newtown, Md., Aug. 9, 92. B.S., Maryland, 13. Dept. bot., Md. Exp. Sta., 13-14; bur. entom., U. S. Dept. Agr., 14-18, assoc. entomologist, 19- Officer, Inf., U.S.A., 18-19. A.A.; Ass. Econ. Entom.; Wash. Entom. Soc. Truck crop insects; economic entomology of vegetable crops; greenhouse fumigation for control of vegetable insects; sugar beet thrips; control of slugs and snails; control of striped cucumber beetle with nicotine dust.

White, W(illiam) M(onroe), Allis-Chalmers Manufacturing Co., Milwaukee, Wis. *Engineering*. Valley Head, Ala., Nov. 20, 71. B.E., Tulane,

99. Asst. manager drainage commission, New Orleans, La, 01; hydraulic engineer, I. P. Morris Co, 01-11; *manager and chief engineer hydraulic dept, Allis-Chalmers Mfg. Co, 11-Mech. Eng; Civil Eng; Elec. Eng; Franklin Inst. Hydraulics; pitot tube; hydracone regainer.*
- Whiteford, Prof. G(ilbert) H(ayes)**, Fort Collins, Colo. *Chemistry*. Glen Morris, Md, Oct. 17, 76. B.S, Md. Col, 97; A.M, Columbia, 12; Ph.D, Hopkins, 17. Teacher, pub. schools, Md. and Ga, 99-05; instr. science, Anne Arundel Acad, 05-07; Bellefonte Acad, 07-11; *prof. chem, Albright, 11-14; Colo. Agr. Col, 17-A.A; Chem. Soc. Analytical chemistry.*
- Whitehead, Dean John B(oswell)**, 19 W. Cold Spring Lane, Baltimore, Md. **Applied electricity*. Norfolk, Va, Aug. 18, 72. E.E, Hopkins, 93, A.B, 98, Ph.D, 02. Electrician, Westinghouse Elec. and Mfg. Co, 93-96; Niagara Falls Power Co, 96-97; instr. applied elec, *Hopkins, 97-00, assoc, 01-04, assoc. prof, 04-10, prof, 10-, dean faculty eng, 20-* Lab. asst, Bur. Standards, 02; research asst, Carnegie Institution; exchange prof, France, 26-27. Elec. Eng. delegate, Nat. Research Council, 25-27. Montefiore prize, Liège, 21-25. Major, C.Eng, 17-19. A.A; fel. Elec. Eng. (chairman, committee on research, board directors, 24-28); Consult. Eng; Nat. Inst. Social Sci. Inductive electromotive force in transformers; magnetic effect of electric displacement; single phase railway system; alternating current-direct current transformations; reactance in armored cables; ionization due to alternating voltage; submarine detection; measurement of high alternating voltage; high voltage corona in air; gaseous ionization in built-up insulation; causes of phase difference in high voltage insulation.
- Whitehead, Prof. R(ichard) W(ilson)**, 4200 E. Ninth Ave, Denver, Colo. *Physiology*. Breckenridge, Colo, March 31, 96. A.B, Colorado, 19, M.D, 21. Instr. *physiol, Colorado, 21-22, asst. prof, 23-* Summer, asst, Chicago, 23. Action of digestive enzymes on pituitary extracts; changes in cardiac activity caused by administration of Alpha Lobelin intravenously.
- Whitehead, Dr. Walter L(ucius)**, Massachusetts Institute of Technology, Cambridge, Mass. *Geology*. Allegheny, Pa, July 5, 91. B.S, Mass. Inst. Tech, 13, Austin fellow, 14-16, Ph.D, 17. *Consulting mining geologist, 16-* Min. Eng; Min. and Metal. Eng; Soc. du Chrome chim. (founder); Boston Eng. Club. Mining and economic geology; geochemistry; origin of ore deposits; silver; copper; cobalt; nitrate; tin and chrome deposits.
- Whitehorne, Prof. W(illiam) R(isby)**, Bates College, Lewiston, Maine. *Physics*. Jamaica, W. I, Feb. 9, 73. A.B, Tufts, 95, Ph.D, 01. Instr. physics, Lehigh, 04-06; math, Pratt Inst, 06-07; *prof. physics, Bates Col, 07-* A.A; Physical Soc. Electricity; electrochemistry; color photography.
- Whitesell, Prof. W(illard) A(lexander)**, University of South Carolina, Columbia, S. C. *Chemistry*. Greenville, Va, July 27, 97. A.B, Randolph-Macon, 18; Ph.D, Hopkins, 23. *Assoc. prof. chem, South Carolina, 23-* Chem. Soc; S. C. Acad. Physical chemistry; catalytic oxidations.
- Whiteside, Dr. Beatrice**, Detroit College of Medicine, Detroit, Mich. *Histology*. Olean, N. Y, Oct. 2, 91. A.B, Vassar, 13; Ph.D, Zurich, 20. Instr. anat, sch. med, Washington (St. Louis), 21-24, histol. and neuroanat, 24-25; *assoc. prof. histol, Detroit Col. Med, 25-* A.A; Ass. Anat. Neuro-anatomy; endolymphatic system; gustatory apparatus.
- Whitfield, Dr. J(ames) Edward**, 406 Locust St, Philadelphia, Pa. *Metallurgy*. Albany, N. Y, Sept. 27, 59. Rensselaer, 80; hon. Ph.D, Nat. Col, 86. Asst, U. S. Geol. Surv, 80-88; *prof. chem, Nat. Col, Washington, D. C, 84-88; mem. firm, Booth, Garrett and Blair, Phila, 88-* A.A; Chem. Soc; Civil Eng; Philos. Soc. Meteorites; metallurgy of iron and steel.
- Whitford, Pres. Alfred E(dward)**, Milton College, Milton, Wis. *Mathematics, Physics*. Milton, Sept. 4, 75. A.B, Milton, 96; A.B, Chicago, 00; A.M, Wisconsin, 11; hon. Sc.D, Alfred, 26. Teacher, high sch, and prin, pub. sch, Wis, 96-99; *prof. physics, Milton, 01-11, math. and physics, 11-25, acting pres, 21-23, pres, 23-* A.A; Math. Ass. Electrical conductivity of bismuth-thallium alloys.
- Whitford, Prof. E(dward) E(verett)**, 3681 Broadway, New York, N. Y. *Mathematics*. Brookfield, N. Y, Jan. 31, 65. A.B, Colgate, 86, A.M, 90; Ph.D, Columbia, 12. Teacher, Colby Acad, N. H, 86-91; Keystone Acad, Pa, 91-98; cashier, C. Whitford's Bank, N. Y, 98-00; prin, high sch, 00-01; teacher, Pa, 02; N. Y, 02-03; tutor and instr. *math, Col. City of N. Y, 05-14, asst. prof, 14-* A.A; Math. Soc; Math. Ass. The Pell equation and its application to units of quadratic domains.
- Whitford, Dr. H(arry) N(ichols)**, Westchester Gardens, Mt. Vernon, N. Y. *Forestry*. Manhattan, Kans, March 11, 72. B.S, Kansas Col, 90, M.S, 00; Ph.D, Chicago, 03. Instr. biol, Armour, 98-00; asst. bot, Chicago, 00-04; bot. collector, Bur. Science, P. I, 04-06; chief div. investigation, Bur. Forestry, P. I, 06-12; asst. prof. silviculture, Philippines, 10-12; asst. forester, Commission of Conservation, Can, 13-16; asst. prof. trop. forestry, Yale, 16-23; chief crude rubber surv, U. S. Dept. Commerce, 23-25; *manager crude rubber div, Rubber Ass. of Amer, 25-* Collaborator, bur. forestry, U. S. Dept. Agr, 01-04, 17-; U. S. Dept. State econ. surv. exped, Guatemala and Honduras, 19. A.A; Soc. Foresters; Ecol. Soc. Forest botany and geography; forests of Michigan, Montana, Philippine Islands, British Columbia, South America and the West Indies; scientific utilization of tropical forests and lands.
- Whiting, Prof. Albert L(emuel)**, 2112 Madison St, Madison, Wis. *Agronomy*. Stoughton, Mass, May 12, 85. B.S, Mass. Col, 08; M.S, R. I. Col, 10; fellow, Illinois, 10-12, Ph.D, 12. Asst. agron. and instr. vet, R. I. Col, 08-10; asst. soil biol, Illinois, and Exp. Sta, 12-13, assoc, 13-16, asst. prof. and asst. chief, 17, assoc. prof, 18,

- prof. and chief, 19-24; *assoc. prof. agr. bacter.*, Wisconsin, 24- A.A.; Soc. Agron.; Soc. Bact.; Chem. Soc. Soil biology; nitrogen in legumes; solvent action of soil bacteria; nitrates; inoculation of canning peas, beans and other legumes.
- Whiting, Prof. P(hineas) W(escott)**, Bussey Institution, Boston, Mass. **Genetics*. Lowell, Mass, Oct. 28, 87. A.B, Harvard, 11, M.S, 12; Ph.D, Pennsylvania, 16. Harrison research fellow, Pennsylvania, 16-18; prof. biol, Franklin and Marshall, 18-20; St. Stephen's, 20-21; research prof. eugenics, Iowa Child Welfare Research Sta, 21-24; prof. biol, Maine, 24-27; *research investigator, Nat. Research Council, Bussey Institution*, 27- A.A.; Soc. Nat; Genetic Ass. (advisory committee); Soc. Zool; Eugenics Research Ass; Eugenics Soc. (advisory council, 26). Cytology and genetics of insects; parthenogenesis and sex-determination in *Habrobracon*.
- Whiting, Prof. S(arah) F(rances)**, Wilbraham, Mass. *Physics, Astronomy*. Wyoming, N. Y., Aug. 23, 46. A.B, Ingham; Mass. Inst. Tech, 76-79; Berlin, 89; Edinburgh, 96-97; hon. Sc.D, Tufts, 05. Prof. physics and physical astron, Wellesley, 76-12, director, *Whitin Observatory*, 04-16, *emer. director*, 16- A.A.; Astron. Soc; Physical Soc. [*Died*, 27.]
- Whiting, Dr. W(illiam) A(lonzo)**, 715 Eighth Ave, W, Birmingham, Ala. *Biology*. Meadville, Pa, June 15, 90. B.S, Allegheny, 14; Ph.D, Cornell, 21. Instr. biol, Allegheny, 13-14; prin. and teacher, high schools, 14-17; instr. bacter, Cornell, 17-21; *head dept. biol. and geol, Birmingham South. Col*, 22- Heckel biol. prize, Allegheny. A.A; Bot. Soc; Soc. Bact. Bacteriology.
- Whitley, Prof. Mary T(heodora)**, Teachers College, Columbia University, New York, N. Y. *Psychology*. London, Eng, Oct. 4, 78. B.S, Columbia, 05, A.M, 06, Ph.D, 11. Instr. educ. psychol, *Teachers Col, Columbia*, 10-14, *asst. prof. educ*, 14- A.A; Psychol. Ass. Education; tests; child psychology; religious information scale.
- Whitlock, Herbert P(ercy)**, American Museum of Natural History, New York, N. Y. *Mineralogy*. New York, July 31, 68. C.E, Columbia, 89. Asst. miner, Columbia, 92-00; N. Y. State Museum, 00-04, mineralogist, 04-17; *curator miner, Am. Museum Nat. Hist*, 17- Geol. Soc; Miner. Soc. (sec'y, 20-); Am. Acad; fel. N. Y. Acad; N. Y. Miner. Club (sec'y and curator, 18). Crystallography; calcite; crystal forms of minerals.
- Whitman, Prof. Alfred R(ussell)**, 716 N. Harvard Boulevard, Los Angeles, Calif. *Geology*. Oakland, Calif, April 11, 82. B.S, California, 11, M.S, 13, Ph.D, 21. Asst. geol. and miner, California, 12-13; *instr. geol, California at Los Angeles*, 22-23, *asst. prof*, 23- Instr. S.A.T.C, Columbia, 18-19. A.A; Geol. Soc; Min. and Metal. Eng; Miner. Soc; Seismol. Soc; Can. Min. Inst. Economic geology; geochemistry; petrology.
- Whitman, Dr. J(ames) L(aurence)**, University of Iowa, Iowa City, Iowa. *Chemistry*. Pendleton, Oregon, March 9, 92. A.B, Oregon, 14, M.S,
- 15; Ph.D, Iowa, 24. Teacher, high sch, 15-19; head dept. chem, Spokane, 19-21; *instr. anal. chem, Oregon*, 21-22; *physical chem, Iowa*, 24- Chem. Soc. Conductivity in mixed solvents; electrometric determination of reducing sugars; colloids.
- Whitman, Prof. Walter G(ordon)**, Standard Oil Co. of Indiana, Whiting, Ind. *Chemical engineering*. Winthrop, Mass, Nov. 30, 95. B.S, Mass. Inst. Tech, 17, M.S, 20. Instr. chem. eng, Mass. Inst. Tech, 17-20, *asst. prof*, 20-27, *asst. director research lab*, 22-27; *research, Standard Oil Co. of Ind*, 27- Director, Sta. Sch. Chem. Eng. Practice, Bangor, 20-21, Boston, 21-22. Chem. Soc. (sec'y, northeast. sect, 24-26); Chem. Eng; Soc. Test. Mat. Gas absorption; corrosion of metals; flow of heat; petroleum engineering.
- Whitmore, Prof. Eugene R(udolph)**, 2139 Wyoming Ave, N. W, Washington, D. C. *Parasitology, Pathology*. Lancaster, Wis, June 18, 74. B.S, Wisconsin, 96; M.D, Illinois, 99; D.P.H, Hopkins, 21. Intern, Cook Co. Hosp, and adjunct prof. chem, col. med, Illinois, 99-01; med. officer, 01-20; pathologist, Bur. Science, P. I, 08-10; lecturer trop. med. and instr. protozool, helminthol. and entom, N. Y. Post-Grad. Med. Sch, 13; prof. path. and bacter, Army Med. Sch, 13-19; prof. bacter. and prev. med, med. sch, George Washington, 20-24; *prof. bacter. and path, med. and dental schools, Georgetown*, 24- Curator, Army Med. Museum, 13-15. Pathologist, yellow fever commission, Int. Health Board, 16. Officer, Med. Corp. Sec'y, sect. VIII, Second Pan-Am. Sci. Cong, 15-16. A.A; fel. Am. Med. Ass; fel. Col. Physicians; Soc. Trop. Med; Ass. Path. and Bact; Soc. Parasitol. Parasitology; chemotherapy; biological action of radiant energy.
- Whitmore, Prof. Frank C(lifford)**, Northwestern University, Evanston, Ill. **Chemistry*. North Attleboro, Mass, Oct. 1, 87. A.B, Harvard, 11, A.M, 12, Ph.D, 14. Instr. org. chem, Williams, 16-17; Rice Inst, 17-18; *asst. prof*, Minnesota, 18-20; *prof. chem, Northwestern*, 20-, acting head dept, 24-25, *head dept*, 25- Ed. board, 'Chem. Bul,' 22-; assoc. ed, 'Org. Syntheses,' 23-26, ed, 26-28. V. chairman div. chem. and chem. technol, Nat. Research Council, 26-27, chairman, 27- Cent. Petroleum Committee, 27-; sec'y, Gen. Chem. Conf. Inst. Politics, 26. Willard Gibbs medal jury, 26- A.A; Chem. Soc. (councilor, 23-25, councilor-at-large, 26-, sec'y, org. div, 22, chairman, 23, permanent sec'y, 25-); Chem. Gesell. Organic chemistry; organic mercurials; metallo-organic and organic sulfur compounds.
- Whitnall, Prof. H(arold) O(rville)**, Hamilton, N. Y. *Geology*. Morristown, N. J, Aug. 3, 77. Ph.B, Colgate, 00, A.M, 07. Instr. geol. and biol, Colgate, 03-07, *asst. prof. geol*, 07-12, *assoc. prof. miner. and econ. geol*, 12-25, *prof. geol*, 25- Field expert, N. Y. Geol. Surv, 05-08; consulting geologist. A.A; Min. and Metal. Eng; Soc. Mammal. Dawn of mankind; dinosaurs and their world.
- Whitnall, Prof. S(amuel) E(rnest)**, McGill University, Montreal, Que, Can. *Anatomy*. Man-

- chester, Eng, March 30, 76. Manchester; M.A., Oxford, 07, B.Ch, 07, M.D, 07; L.R.C.P, London, 08. Demonstrator human anat, Oxford, 08-19; *prof. anat, McGill, 19- Welch prize, 03; Radcliffe prize, 13; Nettleship prize, 23. Anat. Soc. Gt. Britain and Ireland; Royal Col. Physicians. Ophthalmological anatomy.*
- Whitner, Dr. Thomas C(obb), Jr**, Standard Oil Co. of New Jersey, Elizabeth, N. J. *Chemistry.* Atlanta, Ga, Feb. 7, 93. B.S, Ga. Tech, 14, 16; Ph.D, Hopkins, 20. Chemist, South. Cotton Oil Co, 16-17, 20-21; instr. chem, Hopkins, 21-25, assoc, 25-27; *research chemist, Standard Oil Co. of N. J, 27- A.A; Chem. Soc. Aliphatic sulphides; aromatic nitro derivatives.*
- Whitney, Prof. A(lbert) W(urts)**, 120 W. 42d St, New York, N. Y. *Mathematics.* Geneva, Ill, June 20, 70. A.B, Beloit, 91; fellow, Chicago, 93-95, grad. student, 95-97. Instr. math, Nebraska, 97-98; Michigan, 98-99; California, 99-04, asst. prof. and assoc. prof. math. and insurance, 04-13; gen. manager, Nat. Workmen's Compensation Service Bur; *assoc. gen. manager and actuary, Nat. Bur. Casualty and Surety Underwriters.* Chairman, Am. Eng. Standards Committee, 22-24. Math. Soc; fel. Actuarial Soc; fel. Casualty Actuarial Soc. Theory of probabilities; actuarial science.
- Whitney, Prof. Alvin G(oodnow)**, New York State College of Forestry, Syracuse, N. Y. *Forestry, Zoology.* Hamilton, Ont, Can, March 2, 83. A.B, Dartmouth, 07; forest sch, Yale, 08-10. Asst. bot, Dartmouth, 06-08; biol. surv, U. S. Dept. Agr, 12; Bur. Fisheries, 12-14; instr. forest zool, N. Y. State Col. Forestry, Syracuse, 19-20, *asst. research prof. and asst. director, Roosevelt Wild Life Forest Exp. Sta, 20- A.A; Soc. Foresters; Ornith. Union; Soc. Mammal; Ecol. Soc. Ecology of birds and mammals; forest and park wild life surveys.*
- Whitney, Charles S(mith)**, 214 Mason St, Milwaukee, Wis. *Civil engineering.* Bradford, Pa, Nov. 4, 92. C.E, Cornell, 14, M.C.E, 15. *Consulting and designing engineer, 20- J. James R. Croes medal, Soc. Civil Eng, 25; Fuertes medal, Cornell, 25. Civil Eng. Reinforced concrete; analysis of concrete arches and other statically indeterminate structures.*
- Whitney, Prof. David D(ay)**, University of Nebraska, Lincoln, Nebr. **Zoology.* Brookfield, Vt, Aug. 6, 78. A.B, Wesleyan, 04; A.M, Columbia, 06, Ph.D, 09. Asst. zool, Columbia, 07-08; instr, Wesleyan, 08-11, assoc. prof, 11-16; *prof, Nebraska, 16- A.A; Soc. Nat; Soc. Zool; Nebr. Acad. (pres, 18). Sex and its regulation in rotifers.*
- Whitney, Prof. F(rancis) L(uther)**, University of Texas, Austin, Texas. *Paleontology.* Enfield, N. Y, Sept. 2, 78. A.B, Cornell, 06, A.M, 11. Asst. geol, Cornell, 03-07; asst. geologist, La. Geol. Surv, 05-07; acting prof. biol, Buchtel, 07-08; prof, Hastings, 08-09; instr. *geol. and paleont, Texas, 09-14, adjunct prof, 14-19, assoc. prof, 19-25, prof, 25- A.A; Paleont. Soc; Geol. Soc; Ass. Petrol. Geol; Southwest. Geol. Soc. The Cretaceous.*
- Whitney, Milton**, U. S. Department of Agriculture, Washington, D. C. *Soil physics.* Baltimore, Md, Aug. 2, 60. Hopkins. Asst. chemist, Conn. Exp. Sta, 83; supt. exp. farm, N. C. Exp. Sta, 86-88; prof. agr, South Carolina, and v. director, S. C. Exp. Sta, 88-91; soil physicist, Md. Exp. Sta, 91-94; *chief bur. soils, U. S. Dept. Agr, 94- Prof, Md. Col, 94-01. Wash. Geol. Soc. Correlation of soil types of the United States; adaptation of special crops to special soil types; causes of soil fertility. [Died, Nov. 11, 27.]*
- Whitney, Dr. Walter T(icknor)**, 988 N. Holliston Ave, Pasadena, Calif. *Physics.* Los Angeles, Calif, Dec. 26, 88. B.S, Pomona, 10, M.S, 12; Ph.D, Chicago, 16. Research fellow *physics, Calif. Inst, 17-19, instr, 19-20, asst. prof, 20- A.A; Physical Soc. Spectroscopy; earth tides.*
- Whitney, Prof. W(illis) R(odney)**, General Electric Co, Schenectady, N. Y. **Chemistry.* Jamestown, N. Y, Aug. 22, 68. B.S, Mass. Inst. Tech, 90; Ph.D, Leipzig, 06; hon. Ch.D, Pittsburgh, 19; Sc.D, Union, 19. Asst. instr. chem, Mass. Inst. Tech, 90-92, instr, 95-00, asst. prof, 11-04, non-res. assoc. prof. theoret. chem, 04-08, *non-res. prof. chem. research, 08-; director research lab, Gen. Elec. Co, 01- Chandler lecturer and medal, 20. Assoc. ed, 'Jour. Indust. and Eng. Chem,' 08- Advisory committee, Bur. Standards, 25- Nat. Research Council; Naval Consulting Board; mem. corp, Mass. Inst. Tech, 17-; board directors, Albany Med. Col; board governors, Union. Willard Gibbs medal, 16; Perkin medal, 21. Nat. Acad; A.A; Chem. Soc. (pres, 09); Electrochem. Soc. (pres, 12); Elec. Eng; Min. and Metal. Eng; Physical Soc; Min. Eng; Am. Acad; British Inst. Metals. Solubility; colloids; suspensions; corrosion of iron; chromium sulphate compounds.*
- Whitson, Prof. Andrew R(obinson)**, R. F. D. 7, Madison, Wis. *Soils.* Stanton, Minn, Oct. 9, 70. Wisconsin, 90-92; B.S, Chicago, 94, 94-95, 99-00. Principal, high sch, Wis, 95-99; asst. prof. agr. physics, Wisconsin, 00-01, *prof, 01-05, soils, 05- Field asst, U. S. Geol. Surv, 92-93. Wis. Acad. Nitrification in soils; relation of proteids in plants to soil; availability and losses of soil phosphates; soil survey.*
- Whittelsey, Dr. Theodore**, Old York Road, Ringoes, N. J. *Chemistry.* New Berlin, N. Y, May 15, 68. A.B, Williams, 90; Ph.D, Göttingen, 95. Asst. chem, Williams, 90-91; in charge chem. dept, Pacific, 91-93, 95-97; instr. chem, Cornell, 97-03; assoc. prof, Northwestern, 03-09; research chemist, dept. investigation, Continental-Mexican Rubber Co, 07-08; chief chemist, Rubber Regenerating Co, 09-13; director gen. laboratories, U. S. Rubber Co, 13-18, manager develop. dept. and chem. research, 18-20, mem. operating council, 17-20; v. pres. and treas, Rubber Regenerating Co, 18-20; *consulting chemist, 20- Eighth Int. Cong. Applied Chem. A.A; Chem. Soc; Soc. Chem. Indust.*
- Whittemore, C(harles) F(arnum)**, 240 S. Fifth Ave, La Grange, Ill. *Chemistry, Physics.* Pembroke, N. H, April 12, 89. B.S, New Hampshire, 11, M.S, 13. Asst. chem, New Hampshire, 11-13; junior chemist radioactivity, U. S. Bur. Mines,

- 13-15, asst. chemist, 15-16; Schlesinger Radium Co, 16-17; Radium Co. of Colo, 17-23; Radium Inst, Univ. Buenos Aires, 23-24; *chem. engineer, develop. branch, Hawthorne works, West. Elec. Co.*, 24- A.A.; assoc. mem. Physical Soc; Chem. Soc. Rare earths; radioactivity; industrial health hazards.
- Whittemore, H(erbert) L(ucius)**, U. S. Bureau of Standards, Washington, D. C. *Mechanical engineering*. Milwaukee, Wis, Oct. 1, 76. A.B, Wisconsin, 03, M.E, 10. Testing engineer, Watertown Arsenal, 10-12; instr. eng. mech, Columbia, 12-16; prof. mech, Oklahoma, 16-17; *chief sect. eng. mech, Bur. Standards*, 17- Asst. director, Am. Bur. Welding, New York; Nat. Advisory Committee for Aeronautics. Ass. Eng; Mech. Eng; Soc. Test. Mat; Welding Soc; Eng. Educ; Wash. Acad. Properties of welded joints in metals; strain-gage measurements of stress in metallic structures; properties and methods of testing metals and metallic structures.
- Whittemore, Prof. James K(elsey)**, Yale University, New Haven, Conn. **Mathematics*. Cambridge, Mass, April 13, 75. A.B, Harvard, 95, A.M, 96. Instr. *math*, Harvard, 95-97, 99-06, asst. prof. 06-11; Western Reserve, 11-14; instr, Yale, 16-20, asst. prof, 20-27, *assoc. prof*, 27- Ed, 'Annals of Math.', 07-11, *assoc. ed*, 17- Math. Soc; Math. Ass. Geometry.
- Whittemore, Laurens E(llis)**, 195 Broadway, New York, N. Y. *Physics*. Topeka, Kans, Aug, 20, 92. A.B, Washburn, 14; A.M, Kansas, 15. Instr. physics, Kansas, 14-17; radio lab, Bur. Standards, 17-23, *sec'y, interdept. radio advisory committee*, 23-24; *dept. develop. and research, Am. Tel. and Tel. Co.*, 25- De Forest lecturer, Yale, 23-24. Physical Soc; Radio Eng. (manager, 25-); Wash. Acad. Radio communication.
- Whitten, Dr. J(ohn) H(amilton)**, 7111 Normal Boulevard, Chicago, Ill. *Botany*. Bradford, Ill, Oct. 3, 73. A.B, Illinois, 11, A.M, 12, Ph.D, 14. Asst. *bot*, Illinois, 10-14; *teacher, Chicago Nor. Sch.*, 14- A.A; Ill. Acad. Plant physiology; education.
- Whittier, E(arle) O(vando)**, 3715 S St, N. W, Washington, D. C. *Chemistry*. New Sharon, Maine, March 26, 91. B.S, Maine, 11, M.S, 13, Ch.E, 23. Instr. chem, Maine, 11-15; Simmons, 15-18; research chemist, E. I. du Pont de Nemours and Co, 18-21; *chemist, bur. dairy indust, U. S. Dept. Agr.*, 21- Chem. Soc. Organic and physical chemistry; lactose; lactose fermentation; physical chemistry of bacterial growth.
- Whittle, Charles A(nderson)**, 710 Wynne-Claughton Building, Atlanta, Ga. *Soils*. Near Knoxville, Tenn, Feb. 29, 72. A.B, Tennessee, 92. Newspaper writer, 93-12; ed, Ga. Col. Agr, 12-17; *ed. manager, fertilizer association*, 17- A.A; Soc. Agron; Int. Soc. Soil Sci; Ass. South. Agr. Workers; Ass. Agr. Col. Editors (pres, 14). Principles of plant food; soil management; boll weevil control; fertilizers.
- Whittle, Charles L(ivy)**, 50 Congress St, Boston, Mass. *Geology*. Deering, N. H, Oct. 1, 62. Harvard, 87. U. S. Geol. Surv, 87-92; *mining geologist and manufacturer of Whittle Diamond Saws*, 92- Geology; lithology; ore deposits; ornithology.
- Whittlesey, Prof. Derwent S(tainthorpe)**, University of Chicago, Chicago, Ill. *Geography*. Pecatonica, Ill, Nov. 11, 90. Beloit; Ph.B, Chicago, 14, A.M, 15, Ph.D, 20. Acting asst. prof. hist, Denison, 15-16; instr. *geog, Chicago*, 19-22, asst. prof, 22-26, *assoc. prof*, 26- Instr, Army Service Schools, 17-18; U.S.A., 18-19. A.A; Ass. Geog. Political, regional and field geography.
- Wholey, Dr. C(ornelius) C(ollins)**, 4616 Bayard St, Pittsburgh, Pa. *Psychiatry*. Staunton, Va, 75. A.B, Rock Hill, 95, hon. A.M, 02; M.D, Virginia, 98, fellow, 98-99; Vienna, 00-01; Hopkins, 01-03. Instr. *psychiat, Pittsburgh*, 15-21, *asst. prof, sch. med*, 21- Psychiat. staff, St. Francis Hosp, Pittsburgh, 13-; asst. neurologist, W. Pa. Hosp, 15-; consultant neurologist, Homestead Hosp, 23; consultant psychiatrist, Allegheny Co. Hosp. for Insane, 20. Psychiatrist, Base Hospitals, U.S.A., 18-19. Psychiat. Ass; Psychopath. Ass; Psychoanal. Ass. (pres, 21); Am. Med. Ass; Pittsburgh Neur. Ass. (pres, 21-23). Nervous and mental diseases; neuropsychiatry.
- Whyburn, Gordon T(homas)**, 2207 Tom Green St, Austin, Texas. *Mathematics*. Lewisville, Texas, Jan. 7, 04. A.B, Texas, 25, A.M, 26, Ph.D, 27. Head tutor org. chem, Texas, 25-26, *instr. pure math*, 26- Math. Soc. Pure mathematics; point set theory; organic chemistry.
- Whyburn, W(illiam) M(arvin)**, 2614 Speedway St, Austin, Texas. *Mathematics*. Lewisville, Texas, Nov. 12, 01. A.B, Texas, 22, A.M, 23, Ph.D, 27. Asst. prof. *math, Agr. and Mech. Col. Texas*, 24-25; *assoc. prof, Texas Tech. Col.*, 25-26; *Lipsitz fellow, Texas*, 26- Nat. Research Council fellow, Harvard and Chicago, 27-28. Math. Soc; Math. Ass. (v. pres, Texas sect, 25-). Differential equations; pure mathematics.
- Whyman, L(awrence) O(liver)**, 510 E. Courtland Place, San Antonio, Texas. *Geology*. Adams, Nebr, Jan. 1, 93. A.B, Nebraska, 20, M.S, 21. *Geologist, Empire Gas and Fuel Co.*, 17-18, 22- Mid-North. Oil Co, 20, 22; consulting geologist, Enid, Okla, 21-22; asst. instr, Nebraska, 21-22. Ass. Petrol. Geol. The Garber oil field; geology of the Balcones fault zone, Texas.
- Whyte, Dr. Earle F(orrester)**, 7 George St, Halifax, N. S, Can. *Chemistry*. Truro, N. S, June 2, 89. B.A., Dalhousie, 20, M.A., 21; Ph.D, Clark, 23. Asst. chemist, Imperial Oil, Ltd, N. S, 20; lecturer, Queen's (Can), 23-24; *dominion analyst*, 25- Part-time lecturer, Dalhousie, 20; asst, Clark, 21-22. Chem. Soc; N. S. Inst. Feldspars; solutions; oxides of alkali metals.
- Wiancko, Prof. A(lfred) T(heodor)**, Purdue University, Lafayette, Ind. *Agronomy*. Ont, Can, Oct. 16, 72. B.S.A, Ont. Agr. Col, 95. Asst. librarian and instr. German, Ont. Agr. Col, 98-01; instr. agr, Nebraska and asst. agriculturist, Exp. Sta, 01-03; *prof. and head dept. agron, Purdue, chief dept, Exp. Sta.*, 03- A.A; Soc.

- Agron; Soil Surv. Ass. (pres, 22); Ind. Acad; Int. Soc. Soil Sci. Soil fertility; crop improvement.
- Wichers, Dr. Edward**, 113 W. Woodbine St, Chevy Chase, Md. *Chemistry*. Zeeland, Mich, March 25, 92. A.B. Hope, 13, hon. A.M. 16; M.S. Illinois, 15, fellow, 16-17, Ph.D. 17. Asst. chemist, *Bur. Standards*, 17-19, assoc. chemist, 19-22, *chemist*, 22- Chem. Soc. Inorganic chemistry; rare earths; platinum metals.
- Wick, Prof. Frances G(ertrude)**, Vassar College, Poughkeepsie, N. Y. *Physics*. Butler, Pa, Oct. 2, 75. A.B. Wilson, 97; Cornell, 05, A.M. 06, fellow, 07-08, Ph.D. 08. Instr. high sch, Pa, 98-04; instr. *physics*, Simmons, 08-10; *Vassar*, 10-15, asst. prof, 15-19, assoc. prof, 19-22, *prof*, 22- Acting asst. prof, Cornell, 18-19; Sarah Berliner research fellow, 21-22; Ellen Richards research grantee, Ass. Aid Sci. Research by Women, 23-24. Trustee, Wilson, 25-29. A.A.; Physical Soc. Electrical properties of silicon; the silicon detector; fluorescence; phosphorescence; luminescence; absorbing power; phosphorescence of hexagonite and fluorite; pressure and optical absorption; X-rays and thermo-luminescence.
- Wickenden, W(illiam) E(lgin)**, 33 W. 39th St, New York, N. Y. *Electrical engineering*. Toledo, Ohio, Dec. 24, 82. B.S. Denison, 04; Wisconsin, 05-08. Instr. physics, Mechanics' Inst, Rochester, N. Y. 04-05; asst, Wisconsin, 05-06, instr. elec. eng, 06-09; asst. prof, Mass. Inst. Tech, 09-17; personnel manager, West. Elec. Co, 17-22; asst. v. pres, Am. Tel. and Tel. Co, 22-24; *director investigation*, Soc. Prom. Eng. Educ, 24- Elec. Eng. Engineering education.
- Wickham, Prof. H(enry) F(rederick)**, State University, Iowa City, Iowa. *Entomology*. Shrewton, Eng, Oct. 26, 66. Iowa, 87-91, M.S. 94. *Asst. curator zool. museum*, Iowa, 91-, instr. and asst. prof. zool, 94-03, *prof. entom*, 03-, *applied zool*, 19- Temporary field asst, bur. entom, U. S. Dept. Agr, 14-16, 21, U. S. Biol. Surv, 17-20. A.A.; Entom. Soc; Iowa Acad; Wash. Entom. Soc; cor. mem. Davenport Acad; hon. mem. Ont. Entom. Soc; cor. mem. Ottawa Field Nat. Club; Soc. Entom. de Belg. Geographical distribution of Coleoptera; larvae of Coleoptera; Cicindelidae; fossil Coleoptera; desert fauna.
- Wickliff, Prof. E. L.**, Ohio State Department of Agriculture, Columbus, Ohio. *Zoology*. Columbus, 93. B.S. Ohio State, 17, B.S. Educ, 18, M.S. 20. Instr. zool, Ohio State, 19-25; *asst. chief div. fish and game*, Ohio State Dept. Agr, 25- Sci. fish surv, Ohio, 20, 21, 22, 25. A.A.; Ecol. Soc; Fisheries Soc; Ohio Acad. Fish of Ohio; ecology, distribution and food habits of fish; food of the young small mouth bass in Lake Erie.
- Widder, Dr. D(avid) V(ernon)**, 2401 Derry St, Harrisburg, Pa. *Mathematics*. Harrisburg, 98. A.B. Harvard, 20, Sheldon traveling fellow at Paris, 20-21, A.M. 23, Ph.D. 24. *Assoc. math*, *Bryn Mawr*, 24- Computer, Aberdeen Proving Ground, 18. Math. Soc. Mean value; remainder theorems.
- Widmann, Otto**, 5105 Enright Ave, St. Louis, Mo. *Ornithology*. Karlsruhe, Germany, June 15, 41. Ph.G. Karlsruhe, 64. Fel. Ornith. Union; Wilson Ornith. Club; Cooper Ornith. Club; St. Louis Acad. Geographic distribution and migration of birds; bird protection; catalogue of birds of Missouri; botany.
- Widtsoe, Dr. John A(ndreas)**, 47 E. S. Temple St, Salt Lake City, Utah. *Chemistry*. Island of Froyen, Norway, Jan. 31, 72. B.S. Harvard, 94; Ph.D. Göttingen, 99; Zurich, 99-00. Prof. chem, Utah Col, 95-98, 00-05; chemist, Exp. Sta, 94-98, director, 00-05, director sch. agr, Brigham Young, 05-07; pres, Utah Col, 07-16; Utah, 16-21. A.A.; Chem. Soc; Chem. Gesell. Carbohydrates; desert soils and vegetation; chemical development of plants; relations of soils and water to plant growth and composition; irrigation; dry-farming.
- Wiegand, Prof. E(rnest) H(erman)**, Oregon Agricultural College, Corvallis, Oregon. *Horticulture*. Danville, Ill, July 10, 86. B.S. Missouri, 14. *Prof. hort. products and in charge dept*, Oregon Col, 17- Drying fruit; walnut drying; standardizing prunes; commercial canning and preserving of fruit juice and beverages.
- Wiegand, Prof. K(arl) M(cKay)**, Cornell University, Ithaca, N. Y. **Botany*. Truxton, N. Y. June 2, 73. B.S. Cornell, 94, Ph.D. 98. *Asst. bot*, Cornell, 94-99, instr, 99-07; assoc. prof, Wellesley, 07-13; *prof*, Cornell, 13- A.A.; Bot. Soc. Taxonomy of plants; plant geography.
- Wieland, Dr. G(eorge) R(eber)**, Yale University, New Haven, Conn. **Paleontology*. Center Co, Pa, 65. B.S. Pa. State, 93; Ph.D. Yale, 00; Pennsylvania; Göttingen. Teacher, Pa, 95-98; *paleont. research*, Yale, 98-, *assoc. prof. paleobot*; *assoc. Carnegie Institution*. Paleontologist, Geol. Inst, Mex; explor, west. Amer, Mex. and S. Amer. Archduke Rainer gold medal, Vienna, 14. A.A.; Paleont. Soc; Geol. Soc; Bot. Soc; Soc. Geol. Mex; Bologna Acad. Sci. Testudinata; geological climatology and distribution; cycads and cycadeoids; Cretaceous turtles; polar climate as a controlling factor in the evolution of plants and animals; extinction.
- Wieman, Prof. H(arry) L(ewis)**, University of Cincinnati, Cincinnati, Ohio. *Zoology*. Cincinnati, June 13, 83. A.B. Cincinnati, 05, A.M. 06; Ph.D. Chicago, 09. Instr. science, Cincinnati, 05-07, asst. biol, 06-07; *zool*, Chicago, 07-08; instr, Cincinnati, 08-10, asst. prof, 10-14, assoc. prof, 14-18, *prof*, 18- A.A.; Soc. Nat; Soc. Zool; Ass. Anat. Cytology; histogenesis; embryology; general zoology.
- Wiener, Prof. Norbert**, 50 Buckingham St, Cambridge, Mass. **Mathematics, Logic*. Columbia, Mo, Nov. 26, 94. A.B. Tufts, 09; Cornell, 10-11; A.M. Harvard, 12, Ph.D. 13, Sheldon traveling fellow, 14-15; Cambridge, 13-15; Göttingen, 14; Columbia, 15. Asst. philos, Harvard, 15-16; instr. math, Maine, 16-17; staff writer, 'Ency. Americana,' 17-18; computer, Aberdeen Proving Ground, 18-19; instr. *math*, Mass. Inst. Tech, 19-24, *asst. prof*, 24- Docent-lecturer, Harvard, 15. Bowdoin prize, Harvard, 14. Math. Soc; London Math. Soc; Soc. math.

- de France. Postulate theory; foundations of mathematics; assemblages and functions of a real variable; epistemology; probability theory; trigonometric expansions; potential theory.
- Wigdor, Dr. M(eyer)**, 2080 Grand Ave, New York, N. Y. *Medicine, Zoology*. New York, June 26, 96. B.S, Cornell, 17, A.M, 17, M.D, 23. Asst. parasitologist, research lab, Parke, Davis and Co, Mich, 17-18; *acting asst. surgeon, U. S. Pub. Health Service*, 25- Summers, asst, bur. animal indust, U. S. Dept. Agr, 18-19. Army Lab. Sch, Yale, 18-19. A.A; Soc. Parasitol; Soc. Trop. Med; Am. Med. Ass; Mich. Acad. Parasitology.
- Wiggins, Prof. C(leo) C(lande)**, University of Nebraska, Lincoln, Nebr. *Horticulture*. Mercer Co, Mo, Oct. 20, 89. B.S.A, Missouri, 12, A.M, 13, Ph.D, 18. Asst. hort, Missouri, 13-15, instr, 15-18; research horticulturist, Del. Exp. Sta, 18-19; assoc. prof. hort, Nebraska, 19-24, *prof*, 24-, horticulturist, Exp. Sta, 24- Sec'y, Nebr. State Park Board. A.A. Fruitfulness in apples.
- Wiggins, Prof. R(oy) G(len)**, N. Y. State College of Agriculture, Ithaca, N. Y. *Plant breeding*. Mercer Co, Mo, May 12, 91. B.S.A, Missouri, 14; M.S, Cornell, 15, Ph.D, 19. Asst. farm crops, N. Y. State Col. Agr, Cornell, 14-15, instr, 15-16; asst. prof, Ohio, 16-17; instr, N. Y. State Col. Agr, Cornell, 17-19, *asst. prof*, 19, *plant breeding*, 19- A.A; Soc. Agron. Classification of barleys; morphological varieties of oats and barley; meadow and pasture plants; crop rotations and fertilization; in-breeding and variety testing of corn and sun-flowers; genetics of corn; maturity of corn and yield of forage.
- Wiggers, Dr. Carl J(ohn)**, Western Reserve University School of Medicine, Cleveland, Ohio. **Physiology*. Davenport, Iowa, May 28, 83. M.D, Michigan, 06. Instr. *physiol*, Michigan, 06-11; asst. prof, Cornell, 11-18; *prof*, Western Reserve, 18- A.A; Physiol. Soc; Soc. Pharmacol; Soc. Exp. Biol; Am. Med. Ass; Col. Physicians. Circulation under normal and pathological conditions.
- Wigglesworth, Dr. Edward**, 234 Berkeley St, Boston, Mass. *Geology*. Boston, Nov. 3, 85. A.B, Harvard, 08, A.M, 09, Ph.D, 17. Asst. geol, Harvard, 10-16, curator Gardner photographs, geol. museum, 09-17; *director and keeper geol. collections, Boston Soc. Nat. Hist.* A.A; Miner. Soc; Seismol. Soc; Ass. Med. Progress (sec'y); Boston Soc. Nat. Hist; Boston Geol. Soc; fel. Royal Meteor. Soc. Serpentine of Vermont; geology of Martha's Vineyard.
- Wigglesworth, Henry**, 292 Madison Ave, New York, N. Y. *Chemistry*. Belfast, Ireland, Nov. 2, 66. Robert Gordon Col, Aberdeen. Chemist, Nicholas Chem. Co, 89-90; director develop, Gen. Chem. Co, 90-10; chairman exec. committee, Nat. Aniline and Chem. Co; *mfg. chemist and consulting chem. engineer*. Special trade commissioner, Dept. Commerce, Peace Conf, 19. Chem. Soc; Soc. Chem. Indust; Inst. Chem; N. Y. Chemists Club. Chemical industry; manufacture of sulphuric acid, synthetic ammonia, metro benzol; aniline oil and coal tar intermediates.
- Wight, Frank C(linton)**, Tenth Ave. and 36th St, New York, N. Y. *Civil engineering*. Washington, D. C, Feb. 26, 82. C.E, Cornell, 04. Engineer dept, D. C, 04-07; assoc. ed, 'Eng. News,' 07-12, managing ed, 12-17, assoc. ed, 'Eng. News-Record,' 17-20, managing ed, 21-23, *ed*, 24- Civil Eng; Soc. Test. Mat; Concrete Inst.
- Wight, W(illiam) F(ranklin)**, P. O. Box 246, Palo Alto, Calif. *Botany*. Allegan, Mich, 74. B.S, Mich. State Col, 94; A.B, Stanford, 99, A.M, 00. Asst, dept. syst. bot, Stanford, 99-00; *bur. plant indust, U. S. Dept. Agr*, 00- Dept. Agr, Argentina, 12. A.A; Soc. Hort. Sci. Economic and systematic botany; flora of Alaska; agricultural exploration; fruit breeding; systematic pomology.
- Wightman, Dr. E(uene) P(inckney)**, Eastman Kodak Co, Rochester, N. Y. *Chemistry*. Baltimore, Md, Dec. 24, 88. B.S, Richmond, 08; Ph.D, Hopkins, 11. Carnegie research asst. chem, Hopkins, 11-14; instr, Washington (St. Louis), 14-15; fellow, Mellon Inst, 16; acting prof. chem, Richmond, 16-17; research chemist, Parke, Davis and Co, 17-20; *research chemist, Eastman Kodak Co*, 20- Fellow by courtesy, Hopkins, 11. Lieut, C.W.S, 18. A.A; Chem. Soc. (v. pres, Va. sect, 17); Royal Photog. Soc. Gt. Britain. Conductivity and dissociation of substances in water and water-alcohol mixtures; latent image in photography; preparation of diethylanilin; salicylic acid; sensitivity photographic emulsions.
- Wikoff, Dr. Helen L(andman)**, Ohio State University, Columbus, Ohio. *Biochemistry*. Columbus, July 9, 00. A.B, Ohio State, 21, M.S, 22, Ph.D, 24. Asst. chem, Ohio State, 21-24, *instr. physiol. chem*, 24- Chem. Soc. Yeast metabolism.
- Wilber, D(avid) T(ruxton)**, 508 University Ave, Ithaca, N. Y. *Physical chemistry*. Sherburne, N. Y, April 1, 88. A.B, Cornell, 10. Instr. miner. and crystallog, Cornell, 12-14; *research asst, Carnegie Institution*, 14- Instr, Cornell, 18-26. A.A; Physical Soc; Chem. Soc. Crystal chemistry; luminescence.
- Wilbur, Pres. R(ay) L(yman)**, Stanford University, Calif. *Medicine*. Boonesboro, Iowa, April 13, 75. A.B, Stanford, 96, A.M, 97; M.D, Cooper Med. Col, 99; London and Frankfurt-on-the-Main, 03-04; Munich, 09-10; LL.D, California and Arizona, 19, Pennsylvania, 25; Sc.D, Syracuse, 24. Asst. physiol, Stanford, 94-96, instr, 96-97; lecturer and demonstrator, Cooper Med. Col, 99-00; asst. prof, Stanford, 00-03; practising physician, 04-09; prof. med, Stanford, 09-16, dean med. sch, 11-16, *pres*, 16- Extern, City and Co. Hosp. San Francisco, 99-00; acting head dept. hygiene, Stanford, 01-02. Examining Board of Physicians, Calif, 02-03; trustee, Rockefeller Foundation, 23- Chairman, med. council, U. S. Veterans Bur, 24- A.A; Am. Med. Ass. (council on med. educ. and hospitals, pres, 23); Ass. Path. and Bact; Am. Acad. Med. (pres, 12); Ass. Med. Colleges (pres, 24); Calif. Acad. Med. (pres, 17); Calif. Acad. Acidosis; urobilin; botulism.

- Wilcox, Miss Alice W(ilson)**, Brenau College, Gainesville, Ga. *Biology*. Providence, R. I., June 25, 71. A.B., Vassar, 94; fellow, Chicago, 00-02; fellow, Brown, 05-06, A.M., 09. Instr. biol., Vassar, 96-00; zool., Wellesley, 02-05; biol. and eugenics, Woman's Col., Brown, 06-13; director, Fairbanks Museum Nat. Science, 13-17; instr. *biol.*, Hunter, 17-19; *prof.*, *Brenau*, 20- A.A.; Bot. Soc.; Soc. Baet.; Genetic Ass.; Nat. Ass. Audubon Societies; Eugenics Ass.; Social Hygiene Ass.; Ass. Mus.; N. Y. Zool. Soc.; N. Y. Hort. Soc. Fresh-water Bryozoa; locomotion in young colonies of *Pectinatella magnifica*; life history of *Pectinatella magnifica*.
- Wilcox, A(rthur) N(oble)**, University Farm, St. Paul, Minn. *Horticulture*. B.S., Wisconsin, 19; Caleb Dorr fellow, Minnesota, 21-22, M.S., 22. Asst. plant breeding, Minnesota, 20-21, asst. horticulturist, 22-23, *instr. hort. and asst. horticulturist*, 23- Soc. Hort. Sci. Plant breeding; field plot technique with strawberries; factors influencing the longevity and germination of pollen.
- Wilcox, Dr. E(arley) V(ernon)**, 33 W. Irving St., Chevy Chase, Md. *Entomology*, *Botany*. Busti, N. Y., Feb. 16, 69. A.B., Otterbein, 90; A.B., Harvard, 92, A.M., 94, Ph.D., 95. Asst. entom., Ohio Exp. Sta., 90; *prof. biol.*, Montana, 96-99; *assoc. ed.*, 'Exp. Sta. Record,' 99-08; special agent in charge, Hawaii Exp. Sta., 08-15; *special staff writer* *west. agr.*, 'Country Gentleman.' Ass. Econ. Entom.; Vet. Med. Ass. Cytology; entomology; poisonous plants; improvement of Hawaiian agricultural methods; agricultural economics.
- Wilcox, Dr. Edwin Mead**, John Crerar Library, Chicago, Ill. *Botany*. Busti, N. Y., May 21, 76. B.S., Ohio State, 96; Harvard, 97-99, A.M., 98, Ph.D., 99, fellow, 99-00. Asst. bot., Ohio State, 94-97; *prof. bot. and entom.*, Okla. Agr. and Mech. Col., 00-01; biol. and hort., Ala. Polytech., 01-04; *prof. bot. and plant physiologist and pathologist*, Ala. Exp. Sta., 04-08; *prof. agr. bot.*, Nebraska, botanist, Exp. Sta., and state botanist, 08-20; director, Santo Domingo Exp. Sta., 20-21; *prof. biol.*, Transylvania Col., 24-26; *asst.*, *John Crerar Library*, 26- A.A.; Soc. Nat. Plant pathology; agricultural botany.
- Wilcox, Prof. G(uy) M(aurice)**, Armour Institute of Technology, Chicago, Ill. *Physics*. Kansas City, Kans., Feb. 2, 70. A.B., Carleton Col., 91; A.M., Wisconsin, 02. Instr., high sch., Minn., 93-00; *physics*, Wisconsin, 01-03; *prof.*, *Armour*, 03- A.A.; Physical Soc.; Radio Eng. (chairman, Chicago sect.); Eng. Educ. Optical rotatory power of sugar in various solvents; solution in the surface layer of liquids; radio communication.
- Wilcox, Raymond B(oorman)**, U. S. Department of Agriculture, Washington, D. C. *Plant pathology*. Kiowa, Kans., Feb. 1, 89. B.S., Wisconsin, 12, M.S., 13. *Asst. pathologist, office fruit disease investigations, bur. plant indust.*, U. S. Dept. Agr., 13- A.A.; Phytopath. Soc.; Ohio Acad. Diseases of small fruits, especially raspberries.
- Wilcox, Dr. Reynold Webb**, Princeton, N. J. *Medicine*. Madison, Conn., March 29, 56. A.B., Yale, 78; hon. A.M., Hobart, 81; M.D., Harvard, 81; LL.D., Maryville, 92; D.C.L., Wittenberg, 15. Prof. med., N. Y. Post-Grad. Med. Sch., 90-08; *consulting physician*, *Nassau Hosp.*, 03-; *St. Mark's and Ossining Hospitals*, 10-; *N. J. State Hosp.*, 15- Ed. therapist, 'Am. Jour. Med. Sci.', 90-09. V. pres. convention and v. chairman, revision committee, U. S. Pharmacopoeia, 00-10. A.A.; fel. Am. Acad. Med.; Col. Physicians (pres., 15-21); Am. Cong. Internal Med. (pres., 15-17); Therapeut. Soc. (pres., 01); Ass. Med. Juris. (pres., 13-17); Ass. Mil. Surg.; Ass. Med. Reserve Corps (pres., N. Y. div., 14-15). Internal medicine.
- Wilcoxson, Frank**, Boyce Thompson Institute, Yonkers, N. Y. *Chemistry*. Cork, Ireland, Sept. 2, 92. B.S., Pa. Mil. Col., 17; M.S., Rutgers, 21; Ph.D., Cornell, 24. Chemist, Atlas Powder Co., 17-20; instr. chem., Rutgers, 20-22; asst. physical chem., Cornell, 22-24; Heckscher research asst., 24-25; *copper investigator*, *Crop Protection Inst.*, 25- Chem. Soc. Inorganic chemistry of nitrogen and sulphur; colloidal chemistry.
- Wilczynski, Prof. E(rnest) J(ulius)**, University of Chicago, Chicago, Ill. **Mathematics*. Hamburg, Germany, Nov. 13, 76. Ph.D., Berlin, 97. Computer, 'Nautical Almanac' Office, 98; instr. *math.*, California, 98-02, asst. prof., 02-06, *assoc. prof.*, 06-07; Illinois, 07-10; *Chicago*, 10-15, *prof.*, 15-27, *emer. prof.*, 27- Summer, instr., George Washington, 98; *prof.*, California, 16; research *assoc.*, Carnegie Institution, 05. Prize, Royal Acad., Belgium, 10. Nat. Acad.; A.A.; Math. Soc. (councilor, *assoc. ed.*, 'Trans'); Math. Ass. (v. pres. and mem. council); Circolo Mat. di Palermo. Solar rotation; theory of spiral nebulae; theory of differential equations; theory of ruled surfaces and congruences; projective differential geometry.
- Wilde, Prof. Norman**, University of Minnesota, Minneapolis, Minn. *Philosophy*. Dobbs Ferry, N. Y., June 12, 67. A.B., Columbia, 89, A.M., 90, Ph.D., 94; Berlin, 91-93; Harvard, 93-94. Asst. philos., Columbia, 94-98; instr., *Minnesota*, 98-00, asst. prof., 00-02, acting prof., 02-03, *prof. philos. and psychol.*, 03-10, *philos.*, 10- A.A.; Philos. Ass. (exec. committee, 17-18); West. Philos. Ass. (v. pres., 05, pres., 20). History of political philosophy.
- Wilder, Prof. Charles E(dward)**, Dartmouth College, Hanover, N. H. *Mathematics*. Boston, Mass., Aug. 21, 89. A.B., Harvard, 12, A.M., 13, Ph.D., 15. Instr. *math.*, Harvard, 13-14; Pa. State, 15-16; Northwestern, 16-18, *asst. prof.*, 19-22; *Dartmouth*, 22- A.A.; Math. Soc.; Math. Ass.; Circolo Mat. di Palermo. Analysis; degree of approximation to discontinuous functions by trigonometric sums; linear differential equations.
- Wilder, Dr. Frank A(lonzo)**, North Holston, Va. *Geology*. Akron, Ohio, Feb. 2, 70. A.B., Oberlin, Ohio, 92; Yale, 93; Royal Mining Sch., Freiberg, 01; Ph.D., Chicago, 02. Instr., high sch., Iowa, 97-00; asst. state geologist, Iowa, 01, state geologist, 04-06; *assoc. prof. geol.*, North Dakota, 02-03; *prof. econ. geol.*, Iowa, 03-06; pres., South. Gypsum Co., 06-27; *consulting geolo-*

- gist*, 27— A.A.; Geol. Soc.; fel. Soc. Econ. Geol.; fel. Miner. Soc.; Soc. Test. Mat. Lignite coal; gypsum.
- Wilder, Prof. Harris H (awthorne)**, Smith College, Northampton, Mass. **Zoology*. Bangor, Maine, April 7, 64. A.B., Amherst, 86; Ph.D., Freiburg, 91. Teacher, high schools, Ill, 86–92; *prof. zool. Smith*, 92— A.A.; Soc. Nat.; Soc. Zool. (v. pres, east. branch, 10, 19, pres, 22); Ass. Anat.; Anthropol. Ass.; Am. Acad.; Boston Soc. Nat. Hist. Vertebrate anatomy and embryology; epidermic markings of palms and soles of primates; vertebrate teratology; amphibian anatomy and taxonomy; anthropology.
- Wilder, Mrs. H. H. (Inez Whipple)**, Smith College, Northampton, Mass. *Zoology*. Diamond Hill, R. I., May 19, 71. Ph.B., Brown, 00; A.M., Smith, 04. Teacher biol., R. I. Nor. Sch., 93–97; high sch., Mass., 00–02; *instr. zool. Smith*, 02–14, assoc. prof., 14–22, *prof.*, 22— Soc. Zool. Epidermic markings of mammalian palms and soles; anatomy, embryology and life history of amphibians.
- Wilder, Prof. R. (aymond) L. (ouis)**, University of Michigan, Ann Arbor, Mich. *Mathematics*. Palmer, Mass., Nov. 3, 96. Ph.B., Brown, 20, M.S., 21; Ph.D., Texas, 23. Asst. *math.*, Brown, 20–21; *instr.*, Texas, 21–24; *asst. prof.*, Ohio State, 24–26; *Michigan*, 26— Math. Soc.; Math. Ass. Analysis situs; point sets.
- Wilder, Dr. Russell M (orse)**, Mayo Clinic, Rochester, Minn. *Medicine*. Cincinnati, Ohio, Nov. 24, 85. B.S., Chicago, 07, Ph.D., 12; M.D., Rush Med. Col., 12. *Instr. internal med.*, Rush Med. Col., 14–17, fellow, Sprague Mem. Inst., Chicago, 15–17; mem. staff, *Mayo Clinic*, 19, *head div. med.*; asst. *prof. med.*, *Mayo Foundation*, *Minnesota*, 19–24, *prof.*, 24— M.C., U.S.A., 17–19. Am. Med. Ass.; assoc. Am. Physicians; Soc. Clin. Invest.; Physiol. Soc.; Cent. Interurban Clin. Club; Chicago Inst. Med. Typhus fever; carbohydrate metabolism in diabetes; nutrition.
- Wildman, Dr. Edward E (mbree)**, 4331 Osage Ave., Philadelphia, Pa. *Zoology*. Selma, Ohio, Oct. 19, 74. B.S., Pennsylvania, 04, M.S., 08, Ph.D., 12. Asst. *instr. biol.*, Pennsylvania, 02–04; *prof. biol.*, Cent. High Sch., Phila., 06–12; head science dept., W. Phila. High Sch. for Girls, 12–26; *instr. zool.*, Pennsylvania, 19–21; *director div. science*, *Phila. Board Pub. Educ.*, 26— Summers, *instr.*, Woods Hole, 08–11, prin., Pa. Demonstration High Sch., 21–25. A.A.; Soc. Zool.; Am. Acad. Physiology and cytology in heredity; chromatic behavior.
- Wildman, Prof. E (rnest) A (tkins)**, Earlham College, Richmond, Ind. *Chemistry*. Chattanooga, Tenn., July 2, 89. B.S., Earlham, 12; M.S., Illinois, 14, Ph.D., 22. Chem. staff, Rockefeller Inst., 15–17; director chem. research, Eli Lilly and Co., 17–19; *prof. chem. and director dept.*, *Earlham*, 19— A.A.; Chem. Soc.; Ind. Acad. Organic chemistry; syntheses in the diphenylmethane series; chemotherapeutics; synthetic local anesthetics; structure of anthracene.
- Wiley, Prof. C (arroll) C (arson)**, University of Illinois, Urbana, Ill. *Civil engineering*. Edinburg, Ill., July 28, 84. B.S., Illinois, 04, C.E., 10. Instr. civil eng., *Illinois*, 06–14, assoc., 14–19, *asst. prof. highway eng.*, 19— Summer, *prof.*, Iowa Col., 23. Highway Research Council. Civil Eng. (sec'y-treas., Cent. Ill. sect., 24–26, v. pres, 27); Ill. Soc. Eng. Highway engineering; strength of pavement slabs; oiled earth roads; gravel roads.
- Wiley, Prof. Forbes B (agley)**, Granville, Ohio. *Mathematics*. Brighton, Mich., Feb., 80. A.B., Kalamazoo, 06; Chicago, 06, fellow, 13–14, Ph.D., 14. *Prof. math.* and head dept., Des Moines, 06–08; *instr.*, high sch., Mich., 08–10; *Denison*, 10–11, *asst. prof.*, 11–12, *prof. and head dept.*, 14— Asst., Chicago, 12–13; exchange *prof.*, Robert Col., Constantinople, 24–25. A.A.; Math. Soc.; Math. Ass. Finiteness of the modular covariants of systems of binary and ternary forms and cogredient points.
- Wiley, Dr. H (arvey) W (ashington)**, Cosmos Club, Washington, D. C. **Chemistry*. Kent, Ind., Oct. 18, 44. A.B., Hanover, 67, A.M., 70, Ph.D., 76, LL.D., 98; M.D., Indiana Med. Col., 71; B.S., Harvard, 73; LL.D., Vermont, 12; Sc.D., Lafayette, 13. *Prof. Latin and Greek*, Butler, 68–70; teacher, high sch., Indianapolis, 71; *prof. chem.*, Butler, 74; Purdue, and state chemist, Ind., 74–83; chief chemist, U. S. Dept. Agr., 83–12; *prof. agr. chem.*, *George Washington*, 99—; *director bur. foods, sanit. and health*, 'Good Housekeeping Magazine,' 12— Jury awards, Columbian Expos, 93; Paris Expos, 00; Jamestown Expos, 07. Consulting *prof.*, Brooklyn Polytech, 05. Medal, first class, Physico-Chem. Acad., Italy, 08; Elliott Cresson medal, Franklin Inst., 10. Chevalier, Mérite Agricole, 00; chevalier, Légion d'honneur, 09. U. S. delegate, Int. Cong. Applied Chem., Vienna, 98, Paris, 00, Berlin, 03, Rome, 06, London, 09; Int. Cong. Repression of Adulteration, Geneva, 08 (hon. pres); U. S. delegate, Soc. Univ. de la Croix blanche de Genève. A.A. (v. pres, 86, gen. sec'y, 91); Chem. Soc. (pres, 93, 94); Agr. Chem. (sec'y, 89—, life pres, 12—); Soc. Chem. Indust. (v. pres, 10); Soc. Biol. Chem.; Am. Med. Ass.; Pharmaceut. Ass. (chairman, pharmacy convention, 10–20); Pub. Health Ass.; Therapeut. Soc. (pres, 10); Electrochem. Soc.; Soc. Med. Juris; Philos. Soc.; hon. mem. Am. Brewing Inst.; Ind. Acad. (pres, 02); Wash. Acad. (v. pres, 09, 10); hon. mem. Franklin Inst.; Phila. Col. Pharmacy; London Soc. Pub. Analysts; British Federated Inst. Brewers; Chem. Gesell.; Verein Zuckertechniker; Soc. sci. d'Hygiène alimentaire; Physico-Chem. Acad., Italy; cor. mem. Sch. Chem. Sci., Museo de La Plata, Argentine. Cultivation of sugar-producing plants and the manufacture of sugar; effect of environment on the composition of plants; soil ferments and their importance in agriculture; principles and practices of agricultural analysis; adulteration of foods; effect of preservatives and colors on health and digestion; beverages and their adulteration; composition and changes in aging of distilled spirits; food tests.
- Wilgus, W (illiam) J (ohn)**, 233 Broadway, New York, N. Y. *Civil engineering*. Buffalo, N. Y., Nov. 20, 65. Diploma, Univ. State of N. Y.; hon. D.E., Stevens. Chicago Great West. Ry,

- 85-91; asst. engineer, N. Y. C. and H. R. Ry, 93-97, res. engineer and chief asst. engineer, 97-98, engineer maintenance of way, 98-99, chief engineer, 99-03, v. pres, 03-07; *consulting engineer*, 07- Chairman, Elec. Traction Commission, N. Y. C. and H. R. Ry; advisory board engineers, Detroit River Tunnel; board consulting engineers, Vehicular Tunnel, N. Y. and N. J.; consulting engineer, Narrows Tunnel, New York. Col, U.S.A., and deputy director gen. transportation, France. Officier, Légion d'honneur. Thomas Fitch Rowland prize, Soc. Civil Eng; Telford gold medal, British Inst. Civil Eng; D.S. medal. Civil Eng. (director, 02-04, past pres, N. Y. sect); Ry. Eng; Ry. Guild; St. Paul Soc. Civil Eng; British Inst. Civil Eng. Costs and economics of railroad operation and construction.
- Wilkes, Prof. Gordon B(all)**, Massachusetts Institute of Technology, Cambridge, Mass. *Physics*. Buffalo, N. Y., May 13, 89. B.S., Mass. Inst. Tech, 11. Instr. heat measurement, *Mass. Inst. Tech.*, 11-18, asst. prof, 18-24, *assoc. prof. indust. physics*, 24- Ceramic Soc. Heat; thermal conductivity; specific heat at high temperatures; refractories; thermal expansion at high temperatures.
- Wilkinson, Prof. John A(nderson)**, Iowa State College, Ames, Iowa. *Chemistry*. Sidney, Ohio, June 21, 80. B.S., Ohio State, 03; Ph.D., Cornell, 09. Asst. prof. anal. chem, Ohio State, 09-13; *assoc. prof. chem*, Iowa Col, 13-19, *prof. anal. and inorg. chem.*, 19- Capt, C.W.S. Chem. Soc. (pres, Ames sect, 14). Formaldehyde; adsorption; reactions in liquid hydrogen sulfide.
- Wilkinson, Prof. P(aul) D(eLassus)**, 1636 S. Fourth St, Terre Haute, Ind. *Chemistry*. St. Louis, Mo, Aug. 17, 96. B.S., Missouri, 19; M.S., Iowa Col, 21; fellow, Washington (St. Louis), 24-25. Asst. Mo. Sch. Mines, 16-19; instr, Iowa Col, 19-21; *assoc. prof.*, Ind. State Nor. Sch, 21- Summers, research asst, Mo. Sch. Mines, 19, acting prof, 20. Grignard reagent; oxidation of carbohydrates.
- Willaman, Prof. J(ohn) J(ames)**, University Farm, St. Paul, Minn. *Biochemistry*. Brodhead, Wis, Oct. 7, 89. B.S., Wisconsin, 12, M.S., 14; Ph.D., Chicago, 19. Instr. *agr. biochem.*, Minnesota, 13-16, asst. prof, 16-23, *assoc. prof.*, 23- Chem. Soc. (sec'y, Minn. sect, 23-25, chairman, 26, div. biol. chem, 25-); Soc. Exp. Biol; Soc. Plant Physiol. Plant chemistry; biochemistry of plant diseases; chemistry of sugars.
- Willard, Prof. A(rthur) C(utts)**, University of Illinois, Urbana, Ill. *Mechanical engineering*. Washington, D. C., Aug. 12, 78. B.S., Mass. Inst. Tech, 04. Teacher indust. chem, Calif. Sch. Mech. Arts, 04-06; asst. prof. mech. eng, George Washington, 06-09; asst. sanit. and heating engineer, Q.M.C, 09-11, sanit. and heating engineer, 11-13; asst. prof. *heating and ventilation*, Illinois, 13-17, *prof.*, 17-, *head dept. mech. eng.*, 20- Consultant to chief engineer, N. Y. State Bridge and Tunnel Commission and N. J. Interstate Bridge and Tunnel Commission, 20-; consulting mech. engineer, U. S. Bur. Mines, 21- Summer, consulting engineer, Nat. Army Cantonments, 17; consultant, C.W.S., U.S.A., 26- Mech. Eng; Heat. and Vent. Eng. (v. pres, 27, chairman, committee, div. III, 23, div. I and IX, 24-26, chairman, publications committee, and tech. advisory committee, 25); Eng. Educ. Heat transmission of building materials and steam radiators; flow of steam in heating mains and risers; warm-air furnace heating systems; tunnel ventilation.
- Willard, Prof. Bradford**, Brown University, Providence, R. I. *Geology*. New York, N. Y., May 17, 94. A.B., Lehigh, 21; A.M., Harvard, 22, Ph.D., 23. Instr. *geol.*, Brown, 23-25, *asst. prof.*, 25- Summer, paleontologist, S. Dak. Geol. and Nat. Hist. Surv, 24; geologist, Ill. Geol. Surv, 26- Exten. lecturer, Brown, 23-24. A.A.; Paleont. Soc; Boston Geol. Soc. Invertebrate paleontology and stratigraphy.
- Willard, Prof. C(harles) J(ulius)**, Ohio State University, Columbus, Ohio. *Agronomy*. Manhattan, Kans, Feb. 14, 89. B.S., Kansas Col, 08; B.S., Illinois, 10, M.S., 17; Ph.D., Ohio State, 26. Asst. prof. *farm crops*, Ohio State, 17-26, *prof. and assoc. agronomist*, Exp. Sta, 26- A.A.; Ecol. Soc; Agron. Soc; Ohio Acad. Forage crops, especially sweet clover, alfalfa and soybeans.
- Willard, Daniel E(verett)**, Northern Pacific Building, St. Paul, Minn. *Geology*. Nile, N. Y., Aug. 22, 62. A.B., Alfred, 88, A.M., 90; Chicago, 93-95. Prin, Albion Acad, 88-92; prof. nat. sciences, N. Dak. Nor. Sch, 95-03; geol, N. Dak. Col, 03-10; *North. Pacific Ry*, 10- Asst, U. S. Geol. Surv, 02-05. A.A; fel. Am. Geog. Soc. Artesian water; soil map of North Dakota; development of natural resources along the Northern Pacific Railway.
- Willard, Prof. Harley R(ichard)**, University of Maine, Orono, Maine. *Physics*, *Mathematics*. Sutton, Vt, March 13, 75. A.B., Dartmouth, 99, A.M., 02; fellow, Yale, 09-11, A.M., 10, Ph.D., 12. Prin, schools, Vt, 99-00; asst. physics, Dartmouth, 00-02; instr. *math.*, Kenyon Mil. Acad, 02-04; *Maine*, 04-07, asst. prof, 07-09, 12-13, *assoc. prof.*, 13-19, *prof.*, 19- Instr, Yale, 11-12. Statistician, Food Ad, and special expert, W.T.B, 17-19. Soc. astron. de France. Radiations emitted by a Righi vibrator; a family of oscillating orbits of short period.
- Willard, H(arold) F(rancis)**, P. O. Box 340, Honolulu, Hawaii. *Entomology*. Neillsville, Wis, Feb. 21, 84. B.S., Mass. Col, 11. Teacher agr, Mid-Pacific Inst, Honolulu, 11-12; *entomologist in charge field station*, Hawaii, bur. entom, U. S. Dept. Agr, 14- Hawaiian Entom. Soc. (sec'y-treas, 20-24, v. pres, 25, pres, 26). Biology and interrelations of parasites of *Ceratitis capitata* in Hawaii; biology of *Opius fletcheri*; work and parasitism of the Mediterranean fruit fly in Hawaii; parasites of the pink boll worm *Pectinophora gossypiella* in Hawaii.
- Willard, Dr. H(obart) H(urdt)**, 904 Oakland Ave, Ann Arbor, Mich. *Chemistry*. Erie, Pa, June 3, 81. A.B., Michigan, 03, A.M., 05; fellow, Harvard, 08-09, Ph.D., 09. Instr. *chem.*, Michigan, 05-06, 09-12, asst. prof, 12-18, *assoc. prof.*, 18-22, *prof.*, 22- A.A; Chem. Soc. (assoc. ed, 'Jour'); Electrochem. Soc; Chem. Gesell. Atomic weights of silver, lithium, chlorine and

antimony; perchloric and periodic acids and their salts; quantitative analysis; electrometric methods.

Willard, Prof. J(ulius) T(errass), Agricultural College, Manhattan, Kans. *Chemistry*. Wabunsee, Kans. April 9, 62. B.S., Kansas Col., 83, M.S., 86, hon. Sc.D., 08; Hopkins, 87-88. Asst. chem., *Kansas Col.*, 83-87, asst. prof., 90-96, assoc. prof., 96-97, *prof. applied chem.*, 97-01, *chem.*, 01-, *dean div. gen. science*, 09-, *v. pres.*, 18-, asst. chemist, Exp. Sta., 88-97, chemist, 97-18, director, 00-06, *v. director*, 07-18. Chemist, Kans. Board Agr., 97- A.A.; Chem. Soc.; Kans. Acad. (pres., 01). Composition and digestibility of foods and feeds; improvement of sorghum and corn by seed selection based on chemical analysis; soil moisture; nitric acid and ammonia of rain water; digestion and nutrition investigations; milling tests of wheat; baking qualities of flour in relation to chemical composition; food analysis; soil investigation.

Willard, Rex E(than), State College, Fargo, N. Dak. *Agricultural economics*. Friendship, N. Y., Sept. 6, 83. B.S., N. Dak. Col., 08. Teacher, schools, N. Dak., 02-03; field asst. geol. and soil surveys, N. Dak., 04-08; sci. asst., bur. soils, U. S. Dept. Agr., 08-10; soil physicist, N. Mex. Col., 10-12; asst. agriculturist and agriculturist, office farm management, U. S. Dept. Agr., 12-18; county agr. agent, N. Dak., 18-19; *farm economist*, *Exp. Sta.*, and *farm management demonstrator*, *exten. div.*, *N. Dak. Col.*, 19- Farm Econ. Ass. Farm management and accounting; cost production; farm credit; economic study of farming in southwestern North Dakota; agricultural regions of North Dakota.

Willard, Prof. W(illiam) A(lbert), University of Nebraska College of Medicine, Omaha, Nebr. *Anatomy*. Grinnell, Iowa, April 24, 73. A.B., Grinnell, 95; fellow, Tufts, 97-98, A.M., 98; A.M., Harvard, 99, Ph.D., 10. Acting prof. zool., Grinnell, 01-02; instr., *Nebraska*, 02-03, assoc. prof., 03-10, *prof. histol. and embryol.*, 08-14, *anat.*, 14- Mem. corp., Bermuda Biol. Sta. A.A.; Ass. Anat.; Soc. Zool. Vertebrate nervous system.

Willcox, Prof. M(ary) A(lice), 63 Oakwood Road, Newtonville, Mass. *Zoology*. Kennebunk, Maine, April 24, 56. Newnham Col., Eng., 80-83; Zurich, 96-98, Ph.D., 98. Teacher, high sch., Mass., 76-79; *prof. zool. and physiol.*, *Wellesley*, 83-10, *emer. prof.*, 10- Boston Soc. Nat. Hist. Comparative anatomy of mollusks; comparative anatomy of Acmaeidae.

Willcox, Dr. Oswin W(illiam), 61 Union St., Ridgewood, N. J. *Chemistry*. Austin, Texas, Oct. 11, 70. Fellow, B.S. Texas, 01; Loewenthal fellow, Chicago, 03-04, Ph.D., 04. Instr. chem., Utah, 01-02; asst. prof., Iowa Col., 04; asst. chemist, Sandy Hook Proving Ground, 04-08; manager, Sci. Sta. for Pure Products, 09-15; chief chemist and supt., Aetna Explosives Co., 15-18; *consulting chem. engineer*, 18- Ed., 'Pure Products.' Chem. Soc.; N. Y. Chemists Club. Organic and technical chemistry; geology; volatimetry; non-Hauyan crystallography.

Willcox, Prof. W(alter) F(rancis), Cornell University, Ithaca, N. Y. *Statistics*. Reading,

Mass., March 22, 61. A.B., Amherst, 84, A.M., 88, LL.D., 06; LL.B., Columbia, 87, Ph.D., 91. Instr. and assoc. prof., *Cornell*, 91-01, *prof. econ. and statistics*, 01- Dean col. arts and sciences, Cornell, 02-07; chief statistician, 12th U. S. Census, 99-02; statist. expert, censuses of Cuba and Porto Rico, War Dept., U.S.A., 99-00; expert special agent, U. S. Census Bur., 02-; consulting statistician, N. Y. State Dept. Health, 07-; Social Sci. Research Council, 23-26. U. S. delegate, Int. Cong. Hygiene and Demog., Brussels, 03, *v. chairman*, exec. committee and pres., sect. on demog., Washington, 12; Int. Statist. Inst., Berlin, 03, London, 05, Paris, 09, Brussels, 23, Rome, 25. A.A.; Statist. Ass. (pres., 11); Econ. Ass. (pres., 15); hon. fel. Royal Statist. Soc.; Int. Statist. Inst. (*v. pres.*, 23-). Divorce problem; negro problem; immigration; public health; population statistics.

Willett, Prof. H(ugh) C(arey), University of Southern California, Los Angeles, Calif. *Mathematics*. Rochester, Ont., Can., April 23, 86. A.M., Southern California, 09; Chicago. Asst. prof. Latin and math., *Southern California*, 08-10, assoc. prof., 10-14, assoc. prof. math., 14-21, *prof.*, 21- A.A.; Math. Soc.; Math. Ass.

Willey, Prof. A(rthur), McGill University, Montreal, Que., Can. *Zoology*. Scarborough, Eng., Oct. 9, 67. Fellow, Univ. Col., London, 11, D.Sc., 94; Balfour student, Cambridge, 94-99, hon. M.A., 98. Tutor zool., Columbia, 92-94; lecturer biol., Guy's Hosp. Med. Sch., London, 99-01; director, Colombo Museum, Ceylon, 02-10; *Strathcona prof. zool.*, *McGill*, 10- Lecturer, Ceylon Med. Col., 02-06; marine biologist, Ceylon Govt., 07-10. Exped., Peloro Faro, Messina, 89, 90; southwest Pacific, 94-97; Lake Mistassini, 24. Cor. mem. N. Y. Acad.; Royal Soc. Can.; fel. Royal Soc.; cor. mem. London Zool. Soc.; Cambridge Philos. Soc. Amphioxus; Tunicata; Peripatus; Enteropneusta; Ctenoplanea; Nautilus; Hematozoa; American beaver; convergence in evolution.

Williams, Dr. Albert M(orris), Fullerton Junior College, Fullerton, Calif. *Chemistry*. Pauls Valley, Okla., Jan. 20, 97. B.S., Oklahoma, 18, M.S., 19; Ph.D., California, 22. Research chemist, Gen. Petrol. Oil Co., 22-24; *instr.*, *Fullerton Junior Col.*, 24- Specific heats of metals at high temperatures.

Williams, Dr. Anna W(essels), Foot of E. 16th St., New York, N. Y. *Bacteriology*. N. J., 63. M.D., Woman's Med. Col., N. Y., 91. Instr. path. and hygiene, Woman's Med. Col., N. Y., 92; bacteriologist, *Dept. Health*, *New York*, 95-19, *asst. director*, 19- Lecturer, N. Y. Univ. A.A.; Ass. Path. and Bact.; Soc. Bact.; Am. Med. Ass.; Soc. Exp. Biol.; Pub. Health Ass.; Woman's Med. Ass. (pres., 15); N. Y. Acad. Med. Public health; etiology, diagnosis and treatment of infectious diseases.

Williams, Dr. Arthur R(obinson), University of California, Berkeley, Calif. *Mathematics*. Westport, Conn., July 8, 84. A.B., Yale, 07; Ph.D., California, 16. *Instr. math.*, *California*, 20- In charge, U. S. Shipping Board Navigation Sch., Portland, Oregon, 17-20. A.A.; Math. Soc.; Math. Ass. Analytic geometry.

Williams, Carlos F(rost), 118 Ashe Ave, Raleigh, N. C. *Horticulture*. Bristol, Conn, Oct. 28, 94. B.S., Pa. State, 17; M.S., N. C. State, 23. Farm supt, Bowne Mem. Hosp, Poughkeepsie, 19-20; *research horticulturist*, N. C. *Exp. Sta.*, 20-Committee hort. research, Ass. South. Agr. Workers, 26. Lieut, Inf, 17-19. A.A.; Genetic Ass; N. C. Acad. Grape breeding and inheritance of anatomical stem characters; morphology and ecological morphology of Savannah plants; physiology of the dewberry.

Williams, Prof. C(arlos) G(rant), 1004 N. Bever St, Wooster, Ohio. *Agronomy*. Gustavus, Ohio, Jan. 18, 63. Western Reserve Acad. Agronomist, *Ohio Exp. Sta.*, 83-21, *director*, 21-Non-res. prof, Ohio State, 17- Contrib. ed, 'Ohio Farmer,' 08- Ohio Agr. Commission, 13-14. A.A.; Soc. Agron. (pres, 25). Corn and wheat breeding; crop rotation.

Williams, Charles Burgess, North Carolina Agricultural Experiment Station, West Raleigh, N. C. *Agronomy*. Shiloh, N. C. Dec. 23, 71. B.S., N. C. State, 93, M.S., 96; Hopkins, 96-97; Nat. Summer Sch. Agr, Ohio State, 02. Instr. chem, N. C. State, 93, asst, Exp. Sta, 93-96; chemist, Fertilizer Control of N. C., 97-99; asst. state chemist, N. C., 99-07; director, N. C. Exp. Sta, 07-12, vice director and *chief dept. agron. exten. service*, N. C. State, and *Exp. Sta.*, 12-, dean, 17-23.

Williams, Prof. Clement C(larence), University of Iowa, Iowa City, Iowa. *Civil engineering*. Bryant, Ill, Feb. 21, 82. B.S., Illinois, 07; C.E., Colorado, 09. Asst. prof. civil eng, Colorado, 07-14; prof. railway eng, Kansas, 14-19, civil eng, 19-22; head dept, Illinois, 22-26; *dean col. eng*, Iowa, 26- A.A.; Civil Eng; Ry. Eng; Eng. Educ. Railway engineering; highway and masonry construction.

Williams, Clyde E, 215 Market St, San Francisco, Calif. *Metallurgy*. Salt Lake City, Utah, Sept. 8, 93. B.S., Utah, 15. Chemist, U. S. Smelting Co, 15-16; Union Assay Office, 16-17; research chemist, U. S. Bur. Mines, 17-19; metallurgist, Hooker Electrochem. Co, 19-20; supt, exp. sta, U. S. Bur. Mines, 20-25; iron and steel investigation, Argentine govt, 25-26; *chief metallurgist*, *Columbia Steel Corp*, 26- Chem. Soc; Electrochem. Soc; Min. and Metal. Eng; San Francisco Eng. Club. Electric smelting; iron and steel; refractories; ferroalloys.

Williams, Prof. Edward H(igginson), Jr, Woodstock, Vt. *Mining engineering*. Proctorsville, Vt, Sept. 30, 49. A.B., Yale, 72; A.C., Lehigh, 75, E.M., 76, LL.D., 14; Sc.D., Vermont, 13. Mining engineer, Wilkes-Barre, Pa, 76-79; supt. mines, Danville, Pa, 79-80; mining engineer, Cambria Iron Co, 80-81; prof. mining and geol, Lehigh, 81-02; *private work*, 02- Lecturer, Lehigh, 02- A.A.; Min. Eng; Geol. Soc; Philos. Soc. Geology; glacial geology of Pennsylvania.

Williams, Prof. E(imer) H(oward), 804 Michigan Ave, Urbana, Ill. *Physics*. Soldiers Grove, Wis, Dec. 29, 78. A.B., Wisconsin, 05, A.M., 06; fellow, Illinois, 09-10, Ph.D., 10. Asst. *physics*, Wisconsin, 05-07; instr, *Illinois*, 07-

12, assoc, 12-18, *asst. prof*, 18- A.A.; Physical Soc; Ill. Acad. Magnetism; electricity.

Williams, Ennion G(ifford), State Office Building, Richmond, Va. *Medicine*. Richmond, Jan. 31, 74. M.D., Virginia, 97. Prof. histol, bacter. and path, Med. Col. of Va, 02-08, prev. med, 14-22; *state health commissioner*, Va, 08-Pres, Conf. State and Provincial Boards Health, N. Amer, 16. Am. Med. Ass; Pub. Health Ass; Röntgen Ray Soc. (v. pres, 04); Va. Med. Soc. (pres, 17); Richmond Acad. Med. and Surg. (pres, 05). Public health.

Williams, Dr. Francis H(enry), 505 Beacon St, Boston, Mass. *Medicine*. Uxbridge, Mass, 52. B.S., Mass. Inst. Tech, 73; M.D., Harvard, 77; Europe, 77-79. Dispensary physician, 79-83; instr, Harvard Med. Sch, 84-86, asst. prof. mat. med. and therapist, 86-88, therapist, 88-91; out-patient dept, *Boston City Hosp*, 83-91, asst. visiting physician, 91-96, visiting physician, 96-13, head X-ray dept, 96-15, *senior physician*, 13- Asst, U. S. Transit of Venus exped, Japan, 74, 75. Trustee, Mass. Inst. Tech, 82-, exec. committee, 83-08; sec'y, corp, 91-07. M.R.C., 17-19. A.A.; Am. Med. Ass; Am. Physicians (pres, 17); Soc. Pharmacol; assoc. Pub. Health Ass; hon. mem. Röntgen Ray Soc; Radium Soc; Radiol. Soc; fel. Am. Acad; Soc. Radiol. Méd. de France; cor. mem. K. K. Gesell. der Aerzte, Wien. Diphtheria with antitoxin; Röntgen rays; treatment of skin diseases; measurement of X-rays, and of beta and gamma rays from radium by fluorescence; disturbance of the magnetic field by sound waves.

Williams, Prof. Frank B(lair), Clark University, Worcester, Mass. *Mathematics*. Warrensburg, Mo, Jan. 23, 71. C.E., Missouri, 90, fellow, 92-93, M.S., 93; fellow, Clark, 98-00, Ph.D., 00. Surveyor, Miss. River Commission, 90-92, 94-95; U. S. asst. engineer, Tenn. River Improv, 95-97; asst. prof. civil eng, Union, 00-05, eng. and math, 05-06, prof. eng. math, 06-07; asst. prof. *math*, Clark, 07-08, *prof*, 08- Sec'y, Y. M. C. A., France, 17-18. A.A.; Math. Soc; Eng. Educ. Geometry on ruled quartic surfaces; continuous groups in the plane; method of determining radius of curvature of bent beams; curves on quintic scrolls.

Williams, Prof. Frank E(rnest), University of Pennsylvania, Philadelphia, Pa. *Geography*. Liberty, Ill, May 4, 77. A.B., Wisconsin, 10, A.M., 12. Instr. geol, Wisconsin, 10-15, *asst. prof*, 15-20; *geog. and indust*, *Pennsylvania*, 20- Summers, geologist, Wis. Geol. Surv, 11, 13, 18; capt, mil. int. div, 18-19; with U. S. Shipping Board, 19. Nat. Geog. Soc. exped, Alaska, 10. Ass. Geog. Physiography; recent deposits in the Great Lakes; erosion in Alaska firds; business geography.

Williams, Dr. Frank M(artin), 90 State St, Albany, N. Y. *Engineering*. Durhamville, N. Y, April 11, 73. A.B., Colgate, 95, Sc.D., 97; LL.B., Syracuse, 97, M.E. Mem. firm, A. L. Norton and Co, 98; res. engineer, Stanwix Eng. Co, 99-00; N. Y. State Eng. Dept, 00-08, state engineer, 09-10; v. pres. and chief engineer, Coleman du Pont Road, Del, 11-12; chief engineer, Portage Co. Improvement Ass, 13-14; state

- engineer, N. Y., 15-22; *consulting engineer*, 22-
Chairman, Barge Canal Terminal Commission,
09-11; trustee, Colgate. Civil Eng.
- Williams, Gardner S(tewart)**, 905 Olivia Ave,
Ann Arbor, Mich. *Engineering*. Saginaw,
Mich., Oct. 22, 66. B.S., Michigan, 89, C.E., 99.
Engineer, water works, cities, 87-89; drafts-
man and engineer, Russel Wheel and Foundry
Co, Mich., 90-93; civil engineer, Board Water
Commissioners, Detroit, 93-98; engineer in
charge hydraul. lab. and prof. exp. hydraul,
Cornell, 98-04; prof. civil, hydraul. and sanit.
eng., Michigan, 04-11; *consulting engineer*, 98-
Int. Waterways Commission, 03-05; assoc. mem.
Naval Consulting Board, 16; exec. board, Am.
Eng. Council, 20, v. pres, 23- Norman medalist,
Civil Eng., 02. M.A.S., Eng.O.R.C., 17. Civil
Eng. (director, 08-11, v. pres, 14-15); Mech.
Eng.; Ass. Eng. Societies (manager, 97-13);
Water Works Ass; West. Soc. Eng; New Eng.
Water Works Ass; Mich. Eng. Soc; Detroit
Eng. Soc. (sec'y, 95-97). Civil, hydraulic and
sanitary engineering; water-borne typhoid fever
outbreaks in Detroit and elsewhere; flow of
water in pipes, channels and over weirs; effi-
ciency of turbines; consumption and distribution
of water; measurement of water by weirs,
floats, current meters and Pitot tube; water
power development; soft foundations; earthen
dams; concrete arch dams.
- Williams, Prof. George A(lbert)**, Jefferson Medi-
cal College, Philadelphia, Pa. *Physiological
chemistry*. Hazleton, Pa., Sept. 24, 93. A.B.,
Lebanon, 13; M.S., Iowa Col, 15; fellow, Yale,
23-24, grad. work, 23-26, Ph.D., 26. Instr., Iowa
Col, 13-16; prof. chem. and physics, Bethany
(W. Va.), 19-21; chem. and biol., Atlantic
Christian Col, 21-23; asst. physiol. chem., Yale,
24-25; *assoc. physiol. chem. and toxicol.*, *Jefferson
Med. Col.*, 25- C.W.S., U.S.A., 17-18. A.A.;
Chem. Soc; Phila. Physiol. Soc. The chemistry
of bran laxation.
- Williams, Dr. Gertha**, Detroit Teachers College,
Detroit, Mich. *Psychology*. Ionia, Mich., May
24, 84. A.B., Mt. Holyoke, 10; Ph.D., Pennsylv-
ania, 17. Instr. *psychol.*, *Detroit Teachers Col.*,
16-18, head dept, 19-26, *prof.*, 26-
- Williams, Prof. Guy Y(andall)**, University of
Oklahoma, Norman, Okla. *Chemistry*. Gaines-
ville, Texas, Sept. 7, 81. A.B., Oklahoma, 06,
A.M., 10; M.S., Chicago, 11; fellow, Illinois, 11-
13, Ph.D., 13. Instr. chem., *Oklahoma*, 06-08,
assoc. prof., 08-14, *prof. physical chem.*, 14-23,
chem. and director sch. chem. eng., 23- Acting
head dept. chem. and acting director, Okla. Pure
Food and Drug Lab, 13-14. Collaborating
chemist, bur. chem., Okla. Dept. Agr., 14-18;
director, Okla. Bur. Standards, 18-19. A.A.;
Chem. Soc; Electrochem. Soc; Okla. Acad.
Analytical methods; conductivity and viscosity.
- Williams, Henry E(ugene)**, 1330 Belmont St,
Washington, D. C. *Meteorology*. Bethel, Conn.,
April 3, 44. Pub. sch. and acad. Chief forecast
div, U. S. Weather Bur, 95-98, chief clerk,
98-03, asst. chief, 03-14, meteorologist in charge
forecast div, 14-20. Fel. Meteor. Soc; Wash.
Econ. Soc. The protection of food products
from injurious temperatures.
- Williams, Dr. Herbert U(pham)**, 24 High St.
Buffalo, N. Y. **Pathology, Bacteriology*. Buf-
falo, Nov. 28, 66. Michigan, 84-86; M.D., Buf-
falo, 89; M.D., Pennsylvania, 91; Hopkins, 95;
Göttingen, 99. *Prof. path. and bacter.*, *med.*
dept., *Buffalo*, 93-, dean, 12-15. Pathologist,
Buffalo Gen. and Buffalo City Hospitals.
A.A.; Ass. Path. and Bact. (pres, 13); Am.
Physicians; Soc. Exp. Biol; Ass. Cancer Re-
search; Anthropol. Ass. Trichinosis; pancreatitis;
fat necrosis; lymphomatous tumors of dog's
spleen; elastic fibers in carcinoma; hematzoa
of frog; sweat glands in kidney disease; in-
fections native to America; nephritis and
arteriosclerosis; prehistoric syphilis.
- Williams, Dr. H(oratio) B(urt)**, Columbia Univer-
sity, New York, N. Y. *Physiology*. Utica, N. Y.,
77. A.B., Syracuse, 00, M.D., 05, Sc.D., 25. In-
tern, N. Y. Hosp., 05-07; asst. *physiol.*, *med. col.*,
Cornell, 07-11; assoc., *Columbia*, 11-16, asst.
prof., 16-22, *Dalton prof. and director dept.*, 22-,
mem. univ. council, 25- Director, Cambridge
Instrument Co; council physical therapy, Am.
Med. Ass. A.A.; Physiol. Soc; Optical Soc; Soc.
Exp. Biol; Physical Soc; Soc. Mil. Eng; Harvey
Soc; N. Y. Acad. Med; London Physical Soc.
Animal calorimetry; electrophysiology; sounds;
nerve-action current phenomena; X-rays; theory
and design of string galvanometers; electrocardi-
ography.
- Williams, Ira A(braham)**, 821 Spalding Building,
Portland, Oregon. *Geology*. Worth Co, Iowa,
Dec. 24, 76. B.S., Iowa Col, 98, M.S., 03; fellow,
Columbia, 03-04, A.M., 04; Ohio State, 99-00.
Instr. geol., Iowa Col, 98-03, asst. prof. geol.
and mining, 03-06, assoc. prof. ceramic eng., 06-
13; prof. ceramics, Oregon Sch. Mines, 13-18;
geologist and ceramist, Oregon Bur. Mines and
Geol., 13-23; prof. ceramics, Washington (Seat-
tle), 18-19; consulting ceramist, U. S. Bur.
Mines, 18-21. Asst. geologist, Iowa Geol. Surv.,
99-13; U. S. Geol. Surv., 99-02. Managing ed.,
'Iowa Engineer,' 07-11. A.A.; Geol. Soc;
Ceramic Soc; Seismol. Soc; Northwest Sci. Ass;
Mus. Ass. Oregon (treas., 25-); Iowa Ass. Ce-
ment Users (sec'y, 04-12); Iowa Brick and
Tile Ass. (sec'y, 03); fel. Iowa Acad. Engi-
neering geology; ceramics.
- Williams, Dr. J. Harold**, 2007 Wilshire Boulevard,
Los Angeles, Calif. *Psychology*. Ainsworth,
Nebr., Dec. 21, 88. A.B., Stanford, 13, A.M., 14,
fellow, 14-16, Ph.D., 16. Prin. high sch., Nebr.,
08-11; science instr., Nebr. State Junior Nor.
Sch., 11; director, Calif. Bur. Juvenile Research,
15-23; *assoc. prof. educ.*, *California at Los
Angeles*, 23- Psychologist, Los Angeles Diag-
nostic Clinic, 23-; summers, acting asst. prof.,
Stanford, 20-27. Managing ed., 'Jour. Delin-
quency,' 16-23; ed., 'Educ. Measurement
Rev.,' 25- A.A.; Psychol. Ass; Ass. Clin.
Psychol; Ass. Study Feeble-Minded; Educ. Re-
search Ass. Education; sociology; delinquency;
feeble-mindedness; measurement of intelligence.
- Williams, Prof. J(ames) S(teele)**, 503 Lathrop
Road, Columbia, Mo. *Geology, Paleontology*.
Butler, Mo., Oct. 29, 96. A.B., Missouri, 21,
fellow, 22, A.M., 22, Ph.D., 24. Instr. *geol.*, *Miss-
ouri*, 21-24, asst. prof., 25- Devonian and

- Mississippian formations and faunas of Missouri.
- Williams, John Charles**, 39 High St, Passaic, N. J. *Metallurgy*. Butte, Mont, Dec. 7, 90. E.M. Colo. Sch. Mines, 13. Mill operator, Phelps-Dodge Corp, 13-14, chemist, 14-15; asst. supt, Nat. Radium Inst, 15-16; chemist, Von Schultz and Low, 16-17; asst. director dept. metal. research, Colo. Sch. Mines, 17-23; *flotation engineer*, Newport Chem. Works, 23- Min. Eng. Ore dressing.
- Williams, Prof. J(ohn) E(dward)**, Blacksburg, Va. *Mathematics*. Charlotte Co, Va, Sept. 17, 67. A.B, Hampden-Sidney, 92, LL.D, 25; fellow, Virginia, 97-99, A.M, Ph.D, 99. Prin. and asst. prin, high schools, Va, 92-95; licentiate math, Virginia, 97-03; *prof. math*, Va. Polytech, 03-, *dean faculty*, 24- A.A; Math. Soc; Math. Ass. Lie's transformation groups; approach curves; empirical curves; certain growth curves.
- Williams, Dr. J(ohn) W(arren)**, University of Wisconsin, Madison, Wis. *Physical chemistry*. Woburn, Mass, Feb. 10, 98. B.S, Worcester, 21; M.S, Wisconsin, 22, Ph.D, 25. *Asst. prof. physical chem*, Wisconsin, 25- Chem. Soc. Dielectric constants and specific heats of gases, liquids and solutions; thermodynamics; electrochemistry.
- Williams, Dr. J(ohn) Whitridge**, Johns Hopkins Hospital, Baltimore, Md. *Obstetrics, Gynecology*. Baltimore, Jan. 26, 66. A.B, Hopkins, 86; M.D, Maryland, 88, hon. Sc.D, 07; Berlin and Vienna, 88-89; Leipzig, Prague and Paris, 94-95; hon. Sc.D, Dublin, 12; LL.D, Pittsburgh, 15. Assoc. assoc. prof. and *prof. obstet*, Hopkins, 93-, *dean sch. med*, 10-23, *obstetrician-in-chief*, Hopkins Hosp, 99- A.A; Gynec. Soc. (pres, 14); Gynec. and Obstet. Soc. Glasgow (hon. pres, 12); hon. fel. Edinburgh Obstet. Soc; cor. mem. Gynaek. Gesell, München; hon. mem. Leipzig Gesell. für Geburtshilfe; cor. mem. Soc. d'Obstet. et de Gynec. de Paris. Anatomy, pathology and bacteriology of female generative tract; etiology of eclampsia and toxemia; development and diseases of human placenta; puerperal infection; metabolism and physiology of pregnancy; syphilis in relation to obstetrics.
- Williams, Dr. J(oseph) A**, South Dakota State College, Brookings, S. Dak. *Psychology*. Near Washington, Ind, Feb. 22, 79. A.B, Indiana, 06, A.M, 10, Ph.D, 24; Chicago, 19-20. Teacher, supt. and prin, high schools, 98-09; teaching fellow, Indiana, 09-11; prof. educ, Wis. State Nor. Sch, Superior, 11-17; acting prof. psychol, Indiana, 17-19; prof. educ, Hamline, 20-21; *prof. educ. and director summer sch*, S. Dak. Col, 21- A.A; Nat. Soc. Study Educ; Nat. Soc. Col. Teachers Educ; S. Dak. Acad. Form perception and learning in dogs; elementary psychology.
- Williams, Prof. K(enneth) P(owers)**, 523 E. Third St, Bloomington, Ind. *Mathematics*. Urbana, Ohio, Aug. 25, 87. A.B, Indiana, 08, A.M, 09; Ph.D, Princeton, 13. Instr. *math*, Indiana, 09-14, asst. prof, 14-19, assoc. prof, 19-24, *prof*, 24- Lieut. col, F.A, Ind. N. G. Math. Soc; Math. Ass; Ind. Acad; Soc. astron. de France; Circolo Mat. di Palermo. Difference equations; theory of functions; aerodynamics.
- Williams, Prof. L(eon) F(ranklin)**, North Carolina State College, West Raleigh, N. C. *Chemistry*. Merchant Mills, N. C, Aug. 27, 81. A.B, Trinity (N. C), 01, A.M, 02; Ph.D, Hopkins, 07. Asst. chem, Trinity (N. C), 00-02; instr, N. C. State, 07-09, asst. prof, 09-12, assoc. prof, 12-21, *prof. anal. chem*, 21-24, *org. chem*, 24- A.A; Chem. Soc. (v. pres, N. C. sect, 11, pres, 12); N. C. Acad. Acyl derivatives of ortho and paramino phenols; primary, secondary and tertiary amine derivatives of camphoroxalic acid; cotton seed hulls.
- Williams, Dr. L(ouis) L(aval)**, U. S. Public Health Service, Washington, D. C, or 46 Panola St, Asheville, N. C. *Medicine*. Georgetown, S. C, Oct. 26, 59. M.D, S. C. Med. Col, 80. Asst. surgeon, U. S. Pub. Health Service, 85-88, past asst. surgeon, 88-99, surgeon, 99-01, asst. surgeon gen, 01-05, senior surgeon, 16-20, *asst. surgeon gen. at large*, 20- A.A; Am. Med. Ass; Ass. Mil. Surg. Public health; medical aspects of immigration.
- Williams, Dr. M(erton) Y(arwood)**, University of British Columbia, Vancouver, B. C, Can. *Geology*. Bloomfield, Ont, June 21, 83. B.S, Queen's (Can), 09; Ph.D, Yale, 12. Teacher, pub. sch, 03-05; instr. geol. and physiog, forest sch, Yale, 10-12; junior geologist, Can. Geol. Surv, 12-14, geologist, 15-21; assoc. prof. *paleont. and stratigraphy*, British Columbia, 21-22, *prof*, 22- Summers, field asst, Can. Geol. Surv, 08-11; geologist, Hong Kong Govt, 24-25. Geol. Soc; Paleont. Soc; fel. Royal Soc. Can. Stratigraphic paleontology; Arisaig-Antigonish district of Nova Scotia; Silurian of southwestern Ontario; Ordovician rocks of Lake Timishaming; oil fields of Ontario; Franklin mountains of the Mackenzie district.
- Williams, Prof. N(eil) H(ooker)**, 1020 Olivia Ave, Ann Arbor, Mich. *Physics*. Almont, Mich, Oct. 23, 70. B.S.(E.E), Michigan, 93, M.S, 95, Ph.D, 12. Prin, high schools, Mich, 95-98; instr, high schools, Mich. and Ind, 98-03; instr. and asst. prof. *physics*, Rose, 03-08; asst. prof, Michigan, 08-17, assoc. prof, 17-18, *prof*, 18- Supt, munic. lighting system, Clinton, Mich, 93-94; inspector, elec. construction, Detroit; research lab, Gen. Elec. Co, N. Y, 23-24. A.A; Physical Soc. Magnetism; four electrode vacuum tubes; measurement of elementary electric charge by shot effect; Brownian fluctuation of thermionic emission under space charge conditions.
- Williams, Prof. R(ichard) H(ermon)**, Agricultural and Mechanical College of Texas, College Station, Texas. *Animal husbandry*. Ont, Can, April 13, 81. B.S.A, Toronto, 05; M.S, Illinois, 07, Ph.D, 12. Instr. *animal husbandry*, Ohio State, 07-09; asst. prof, Minnesota, 11-12; *prof*, Arizona, 14-24; *Agr. and Mech. Col. Texas*, 25- Soc. Animal Production. Feeding; range management; nutrition.
- Williams, Prof. R(obert) D(ay)**, R. R. 1, Claremont, Calif. *Psychology*. Marblehead, Mass,

- July 23, 81. B.S., Pomona, 03; California; A.M., Yale, 07, Ph.D., 09. Asst. bot., California, 03-04; instr. biol. and geol., Pomona, 04-06; asst. psychol., Yale, 08-09; asst. prof. philos., Pomona, 09-10, assoc. prof. philos. and psychol., 10-11, prof. psychol. and educ., 11-15; pres., Mid-Pacific Inst., Honolulu, 15-18; acting prof. philos., Pomona, 19, prof. philos. and exp. psychol., 20, *exp. psychol.*, 25-, *acting sec'y faculty*. Exchange lecturer, Harvard and Radcliffe, 24-25. Y. M. C. A., U.S.A., 19, head dept. psychol., A.E.F. Univ. Beaune, 19. A.A. Experimental psychology.
- Williams, Robert R.**, 627 Locust St., Roselle, N. J. *Chemistry*. Nellore, India, Feb. 16, 86. B.S., Chicago, 07, M.S., 08. Research chemist, Bur. Science, P. I., 08-15; bur. chem., U. S. Dept. Agr., 15-18; chemist, West. Elec. Co., N. Y., 19-24; *chem. director, Bell Telephone Laboratories, New York*, 25-. Chemist, Melco Chem. Co., Bayonne, N. J., 19; research assoc., Teachers Col., Columbia, 25-. Research chemist, C.W.S. and A.S., U.S.A., 18. Chem. Soc.; Soc. Biol. Chem.; Soc. Exp. Biol.; Soc. Test. Mat. Chemistry of vitamins; submarine insulation.
- Williams, Dr. R(obert) S(eaton)**, Massachusetts Institute of Technology, Cambridge, Mass. *Chemistry, Metallography*. Hartford, Conn., July 11, 80. B.S., Mass. Inst. Tech., 02; Ph.D., Göttingen, 07. Asst. anal. chem., *Mass. Inst. Tech.*, 02-05, instr., 07-12, asst. prof., 12-17, assoc. prof., 17-24, prof., 24-27, *prof. metallog.*, 27-. A.A.; Chem. Soc.; Min. and Metal. Eng.; Soc. Steel Treat.; Am. Acad.; British Inst. Metals.
- Williams, Prof. Roger J(ohn)**, 1926 Moss St., Eugene, Oregon. *Chemistry*. Ootacumund, India, Aug. 14, 93. B.S., Redlands, 14; M.S., Chicago, 18, Ph.D., 19. Research chemist, Fleischmann Co., Chicago; asst. prof. *chem., Oregon*, 20-21, *assoc. prof.*, 21-. Chem. Soc. (pres., Oregon sect., 25-27). Vitamins and yeast growth; ionization of alcohols and correlation of organic with inorganic compounds; phenolic compounds in pyroigneous acid; organic chemistry.
- Williams, Dr. Roy G(riffin)**, 2088 Heckle St., Augusta, Ga. *Anatomy*. La Plata, Mo., June 4, 99. A.B., Missouri, 21, A.M., 22; M.D., Harvard, 24. Asst. anat., Missouri, 21-22; Austin teaching fellow, Harvard, 23-24; *Nat. Research Council fellow*, 25-. The development of intrinsic blood vessels of the brain; experimental and functional neurology.
- Williams, Prof. S(amuel) R(obinson)**, Amherst College, Amherst, Mass. **Physics*. Marengo, Iowa, March 2, 79. Ph.B., Grinnell, 01; A.M., Nebraska, 03; Berlin, 03-05; Ph.D., Columbia, 06. Private research asst. to Prof. E. F. Nichols, 05-06; lecturer *physics*, Barnard, Columbia, 06-07, tutor, 07-08; assoc. prof., Oberlin, 08-10, *prof.*, 10-24; *Amherst*, 24-. A.A.; Physical Soc.; Optical Soc. Magnetism; optics.
- Williams, Prof. S(tephen) R(iggs)**, Oxford, Ohio. *Zoology*. Kalgan, N. China, Aug. 22, 70. A.B., Oberlin, 92, A.M., 93; A.M., Harvard, 98, Ph.D., 00. Teacher, high sch., Ohio, 94-96; asst. zool., Harvard, 98-00; *prof. zool., Miami*, 00-. Staff Lake Lab, 27. Bowdoin prize, 99; Walker prize, 03. A.A.; Soc. Zool.; Ass. Anat.; Ohio Acad. Life history of *Scutigera*; Myriopods.
- Williams, Prof. T(homas) B(owerman)**, 400 Lancaster Building, Calgary, Alta., Can. *Geology*. Picton, Ont., Oct. 27, 84. B.Sc., Queen's (Can.), 09, M.Sc., 13; Ph.D., Wisconsin, 24. Int. Coal and Coke Co. and Canmore Coal Co., 09-18; asst. prof. geol., Kansas Col., 24-26; *mining engineer and consulting geologist*, 26-. Summer, lecturer, Queen's (Can.), 22; Can. Geol. Surv., 09, 11, 23. Can. Min. Inst.; Can. Civil Eng. Manufacture of coke; nature of coal.
- Williams, Prof. W(alter) L(ong)**, Cornell University, Ithaca, N. Y. *Veterinary science*. Argenta, Ill., Feb. 26, 56. Illinois, 75-77; grad., Montreal Vet. Col., 79. Practising veterinarian, 79-91; prof. vet. science, Purdue, 91-93; Mont. Col., 93-96; vet. surg. and obstet., *Cornell*, 96-16, research prof. *diseases of breeding cattle*, 16-21, *emer. prof.*, 21-. Vet. Med. Ass. (pres., 92). Veterinary obstetrics; diseases of the genital organs of domestic animals.
- Williams, W(illiam) H(ill)**, Platteville, Wis. *Mathematics*. Kingsbury, N. Y., Nov. 6, 61. A.B., Williams, 84, A.M., 87; Göttingen and Erlangen, 92-94. Prin. acad., Port Byron, Ill., 85-87; master *math.*, Lake Forest Acad., 87-97; *instr., Wis. State Nor. Sch., Platteville*, 97-. Math. Soc. Relations between the minors of the Bezout-Sylvester determinants; algebra text books for high school.
- Williams, Prof. William Howell**, University of California, Berkeley, Calif. *Physics*. Buffalo, N. Y. Grad., U. S. Mil. Acad. *Assoc. prof. physics, California*, 22-. Col. F.A., 18-19. Physical Soc. Theoretical physics; quantum theory; relativity.
- Williams, Prof. W(illiam) L(loyd) G(arrison)**, McGill University, Montreal, Que., Can. *Mathematics*. Friendship, Kans., Oct. 3, 88. A.B., Haverford Col., 10; B.A., Oxford, 13, M.A., 16; Ph.D., Chicago, 20. Asst. prof. *math.*, Miami, 13-18; acting prof., Gettysburg Col., 13-19; prof., William and Mary, 19-20; asst. prof., Cornell, 20-24; asst. prof. and *assoc. prof., McGill*, 24-. Math. Soc. Algebra and theory of numbers.
- Williams, Dr. W(illiam) Whitridge**, Majestic Building, Denver, Colo. *Medicine*. Baltimore, Md., Sept. 1, 75. A.B., Hopkins, 95, M.D., 99. Res. physician, St. Joseph's Hosp., Baltimore, 99-00; asst. bacter., Prague, 01; path., Harvard, 02-03; grad. asst., out-patient dept., Mass. Gen. Hosp., 03-05; asst. pharmacol., Western Reserve, 05-08; director, Webb Tuberculosis Research Lab., Colorado Springs, Colo., 08-11; consultant, Cragmor Sanatorium, 10-14; *pathologist, St. Luke's and Woman's Hospitals*. Commanding officer, U.S.A. Gen. Hosp. No. 29; col., M.O.R.C. Int. Tuberculosis Cong., 08. Am. Med. Ass.; Soc. Clin. Path.; Ass. Path. and Bact.; Tuber. Ass. Aneurism; xanthoma; origin and character of exudation cells following experimental peritonitis; hydrastis; perfusion; iodine in thyroid; hematological studies in tuberculosis;

- altitude lymphocytosis; serum diagnosis of syphilis; tuberculosis, including immunity production by inoculation of living bacteria beginning with one organism; serum diagnosis of tuberculosis.
- Williamson, Prof. Charles S(amuel), Jr.**, Tulane University, New Orleans, La. *Chemistry*. Cullcooka, Tenn. Aug. 7, 79. B.S., Vanderbilt, 02, M.S., 03. *Prof. indust. chem. and head sch. chem. eng., Tulane, 13-* A.A.; Chem. Soc.; Chem. Eng. Industrial chemistry; chemical engineering.
- Williamson, Prof. Charles Spencer**, 25 E. Washington St., Chicago, Ill. *Medicine*. Cincinnati, Ohio, May 15, 72. B.S., Cincinnati, 93, M.S., M.D., 96; Leipzig, Berlin, Vienna and Paris, 97-00. Assoc. prof. med, *Illinois, 02-05*, prof. clin. med, 05, *prof. med. and head dept., 14-* Lieut. col, U.S.A., 17-19. Gold medal, Am. Med. Ass., 18. Am. Med. Ass.; Am. Physicians; Soc. Clin. Invest. Internal medicine; effects of age and sex on hemoglobin; animal hemoglobin; effects of exercise on the heart; pericarditis; sanitation.
- Williamson, E(dward) B(ruce)**, Bluffton, Ind. *Entomology*. Marion, Ind., July 10, 77. B.S., Ohio State, 98; fellow, Vanderbilt, 00-01. Asst. curator, Carnegie Museum, 98-99; teacher, high sch., Ohio, 99-00; *pres., Wells Co. Bank, Bluffton, Ind., 05-* Hon. curator Odonata, Michigan. A.A.; fel. Entom. Soc.; Ornith. Union; fel. Ind. Acad. (pres., 18); Ohio Acad. Dragon-flies.
- Williamson, Prof. Robert C(rozier)**, University of Wisconsin, Madison, Wis. *Physics*. Havana, Ill., 87. Ph.D., Wisconsin. *Asst. prof. physics, Wisconsin, 24-* Photoelectric effect in potassium vapor.
- Willier, Dr. B(enjamin) H(arrison)**, University of Chicago, Chicago, Ill. *Zoology*. Weston, Ohio, Nov. 2, 90. B.S., Wooster, 15; Ph.D., Chicago, 20. Instr. biol., Wooster, 15-16; *assoc. zool., Chicago, 19-20*, instr., 20-24, asst. prof., 24-27, *assoc. prof., 27-* Instr., Woods Hole, 23-26. A.A.; Soc. Zool.; Ass. Anat.; Micros. Soc.; Soc. Exp. Biol.; Ill. Acad. Endocrine glands and development in chicks; histochemical study of intracellular digestion; the cattle and the chick embryo.
- Willis, Prof. Bailey**, Stanford University, Calif. **Geology*. Cornwall, N. Y., May 31, 57. M.E., Columbia, 78, C.E., 79; hon. Ph.D., Berlin, 10. Special agent, tenth census, 79-81; geologist and seismologist, North. Transcont. Surv., 81-84; U. S. Geol. Surv., 84-16; consulting geologist, Arg. Ry., 11-14; *prof. geol., Stanford, 15-22*, *emer. prof., 22-* Lecturer, Hopkins, 95-02; Chicago, 09- U. S. delegate, Int. Committee on Int. Map, London, 09. Official positions, U. S. Geol. Surv. Geol. explor., East. Asia, Carnegie Institution, 03-04, earthquake studies, Chile, 23, Orient and Mediterranean, 26. Gold medal, Soc. géog. de France, 10. Nat. Acad.; A.A. (v. pres., E, 08); Geol. Soc.; Seismol. Soc. (pres., 21-27); Ass. Geog.; Min. Eng.; Philos. Soc.; Am. Acad.; Wash. Acad. (sec'y, 10); Wash. Geol. Soc.; hon. mem. Royal Geog. Soc. London; Berlin Gesell. für Erdkunde; hon. mem. Munich Wissensch.
- Gesell; hon. mem. Soc. Géol. de Belg. Stratigraphic and structural geology and physiography; the growth of mountains and continents; stratigraphy and physiography of North America, Europe and Asia as a record of continental development; seismology.
- Willis, Dr. H(enry) S(tuart)**, Johns Hopkins Hospital, Baltimore, Md. *Internal medicine*. High Point, N. C., July 19, 91. A.B., North Carolina, 14; M.D., Hopkins, 19, A.M., 20. Asst. med, Hopkins, 19-20, instr., 20-22, *assoc., 22-* Summer, lecturer, Louisiana, 25. A.A.; Ass. Path. and Bact.; Tuber. Ass.; Pub. Health Ass. Tuberculosis infection and immunity.
- Willis, John E(dwin)**, U. S. Naval Observatory, Washington, D. C. *Astronomy*. Baltimore, Md., Feb. 6, 01. Syracuse, 19; George Washington, 23. Computer, U. S. Naval Observatory, 20-24, junior astronomer, 24-27, *asst. astronomer, 27-* Astron. Soc. Positional astronomy; orbits; meteorology; physics; mathematical tables; computing.
- Willoughby, C(harles) C(lark)**, Peabody Museum, Cambridge, Mass. *Anthropology*. Hon. A.M., Bowdoin, 15. Austin teaching fellow, Harvard, 99-01; asst. anthrop., Chicago Expos, 92-93; chief asst., *Peabody Museum, Harvard, 94-99*, asst. curator, 99-13, asst. director, 13-15, *director, 15-* A.A.; Anthropol. Ass.; Ass. Mus.; Swedish Soc. Anthropol. and Geog. American archeology and ethnology.
- Willoughby, C(laude) H(ouston)**, 210 N. Roux St., Gainesville, Fla. *Animal husbandry*. Tamaroa, Ill., Jan. 2, 75. B.Agr., Missouri, 01; Cornell, 08; A.M., Peabody Col., 24. Dairyman and animal husbandman, Ga. Exp. Sta., 02-09; supt., Fern Crest Dairy, Ga., 09-11; *prof. animal husbandry and dairying, Florida, 12-* Summers, instr., Peabody Col., 18, 21, 25. Dept. ed., 'South. Ruralist,' 05-19. Ga. and Fla. Live Stock Associations (officer, 03-18). Animal breeding; milk production in the tropics.
- Wills, Dr. A(lbert) P(otter)**, Columbia University, New York, N. Y. *Physics*. Waltham, Mass., Feb. 25, 73. B.E.E., Tufts, 94, hon. Sc.D., 11; Ph.D., Clark, 97; Göttingen, 98-99. Assoc. physics, Bryn Mawr, 99-02; instr. mech., *Columbia, 03-05*, adjunct prof., 05-10, *prof. math. physics, 10-* A.A.; Physical Soc. Electricity; magnetism; hydrodynamics.
- Wills, J(ohn) G(orden)**, 122 State St., Albany, N. Y. *Veterinary science*. Chateaugay, N. Y., April 4, 79. B.S., Vermont, 03; D.V.M., Cornell, 06. First asst. veterinarian, N. Y. State Dept. Agr., 09-11, *chief veterinarian, 11-* Vet. Med. Ass. (chairman, sect. sanit. science, 16); U. S. Live Stock Sanit. Ass. (pres., 17); Pub. Health Ass.; N. Y. Vet. Med. Ass. (pres., 17). Bovine tuberculosis; anthrax; rabies; live stock sanitation; bovine abortion; agriculture.
- Willson, Dean C(harles) A(lbert)**, University of Tennessee, Knoxville, Tenn. *Animal husbandry*. North Branch, Mich., Aug. 29, 78. B.S.A., Mich. State Col., 06, M.Agr., 22; M.S.A., Missouri, 10. Instr. animal husbandry, Kansas Col., 06-07; asst. prof., Missouri, 07-10; *assoc. prof., Tennessee, 10-15*, prof., 15-20, vice-dean col. agr., 20-

- 23, dean, 23- Soc. Animal Production. The food value of forage crops and cottonseed meal; the Tennessee wooden-hoop silo; cattle feeding; the development of early spring lambs.
- Willson, Prof. Fred(eric)k N(ewton)**, Princeton, N. J. *Descriptive geometry*. Brooklyn, N. Y., Dec. 23, 55. C.E. Rensselaer, 79; hon. A.M. Princeton, 96. Instr. math, Troy Acad, 72-79; acting prof, Lake Forest, 79-80; prof. *descriptive geom. and tech. drawing*, Princeton, 81-23, emer. prof, 23- Foreign correspondent, Drexel, Morgan and Co, 80. A.A.; Math. Soc.; Mech. Eng; Civil Eng. Mathematics; kinematics; stereotomy; valve motion.
- Wilmore, Dean Jno. J(enkins)**, Auburn, Ala. *Mechanical engineering*. Winchester, Ind, Oct. 15, 64. B.M.E, Purdue, 88, M.E, 91. Asst, dept. mech, Ala. Polytech, 88-91, instr. mech. eng, 91-94, prof, 94-08, dean sch. eng, 08-A.A.; Mech. Eng; Eng. Educ.
- Wilmot, Sydney**, 33 W. 39th St, New York, N. Y. *Civil engineering*. Providence, R. I., Dec. 8, 87. B.S, Brown, 09; A.M, Columbia, 13. Govt. and munic. eng. work, 09-16; Turner Construction Co, N. Y., 16-18; asst. prof. eng, Brown, 18-23; tech. ed, Soc. Civil Eng, 23- Civil Eng; Eng. Educ. Use of convict labor on roads; engineering details of building laws.
- Wilsey, Rex B(ishop)**, Eastman Kodak Co, Rochester, N. Y. *Physics*. Ravenna, Nebr, July 27, 89. B.S, Nebraska, 13, A.M, 15. *Physicist*, Eastman Kodak Co, 15-18, 19- Photog. physicist, Bur. Aircraft Production, 18-19. Physical Soc; Optical Soc. X-rays; X-ray photography; crystal structure; photographic sensitometry.
- Wilson, Prof. A(lbert) H(arris)**, Haverford College, Haverford, Pa. *Mathematics*. Saundersville, Tenn, Feb. 4, 72. B.S, Vanderbilt, 92, fellow, 92-93, M.S, 93; Hopkins, 93-95; Göttingen, 99-00; Bonn, 03-04; Ph.D, Chicago, 11. Instr. math, Princeton, 95-03; Illinois, 04-05; Ala. Polytech, 05-10; assoc. prof, Haverford, 10- A.A.; Math. Soc; Math. Ass.
- Wilson, Prof. A(lexander) M(asey)**, University of Cincinnati, Cincinnati, Ohio. *Electrical engineering*. Stranraer, Scotland, Aug. 31, 76. B.S, Purdue, 01, M.E, 03. Instr. *mechanic arts*, Purdue, 01-04; asst. prof. and prof, Kentucky, 04-11; Cincinnati, 11- Elec. Eng. (committee on educ, 24); Mech. Eng; Eng. Educ; Nat. Elec. Light Ass. (committees); Ohio Elec. Light Ass. Transmission; distribution; radio interference from power circuits and apparatus.
- Wilson, Dr. Alfred W(illiam) G(unning)**, Department of Mines of Canada, Ottawa, Ont, Can. *Engineering*. Cobourg, Ont, Feb. 6, 73. Victoria (Ont), 89-92; B.A, Toronto, 93; A.M, Harvard, 99, Ph.D, 01; Columbia, 02; McGill, 02-04. Master science, Napanee Col. Inst, 96-98; geologist, Can. Geol. Surv, 01-02, 08; demonstrator geol, McGill, 02-06; consulting geologist and engineer, 06-09; engineer, Dept. Mines, Can, 09-10, chief div. mineral resources, 10- Tech. adviser, Can. W.T.B, 17-18. Min. and Metal. Eng; Geol. Soc; Eng. Inst. Can; Can. Inst. Min. and Metal; British Inst. Min. and Metal. Physiography and geology applied to engineering projects and mining; industrial and efficiency engineering; pyrites; copper deposits of Canada; copper smelting and spelter production in Canada; potash recovery at cement plants; development of chemical and metallurgical industries in Canada; technology of arsenic.
- Wilson, Alice E(velyn)**, Canadian Geological Survey, Ottawa, Ont, Can. *Paleontology*. Cobourg, Ont, Aug. 26, 81. B.A, Toronto, 11. Museum asst, Can. Geol. Surv, 11-19, asst. paleontologist, 19- Paleont. Soc. Ordovician invertebrate paleontology.
- Wilson, Prof. B(enjamin) D(unbar)**, Cornell University, Ithaca, N. Y. *Agronomy*. Lexington, Ky, Oct. 14, 89. B.S, Kentucky, 09, M.S, 14; Ph.D, Cornell, 17. Asst. chemist, Ky. Exp. Sta, 09-14; instr. agron, N. Y. State Col. Agr, Cornell, 17-19, asst. prof, 19- Soc. Agron; Int. Soc. Soil Sci. Nitrogen transformations in soil; crop residues and nitrate depression; movement of calcium in soil; lysimeter studies.
- Wilson, Prof. B(irton) N(eill)**, University of Arkansas, Fayetteville, Ark. *Mechanical engineering*. Philadelphia, N. Y., Nov. 16, 74. B.S, Ga. Tech, 96; M.E, Michigan, 09; M.M.E, Cornell, 17. Adjunct prof. mech. eng, Arkansas, 96-03, prof, 03-16, drawing and archit, 17- Mech. Eng. Arkansas fuels.
- Wilson, Dr. C(arl) L(ouis)**, Dartmouth College, Hanover, N. H. *Botany*. Springfield, Ohio, Aug. 9, 97. A.B, Denver, 19; A.M, Cornell, 21, Ph.D, 23. Asst. bot, Cornell, 19-22, instr, 22-24; Dartmouth, 24- A.A; Bot. Soc. Anatomy and histology of vascular plants.
- Wilson, C(ecil) C(line)**, 600 26th St, Sacramento, Calif. *Entomology*. La Crosse, Kans, Feb. 4, 96. B.S, Kansas Col, 24. Junior entomologist, bur. entom, U. S. Dept. Agr, 24- A.A; Ass. Econ. Entom. Cereal and forage insects.
- Wilson, Prof. Cha(rie)s B(ranch)**, State Normal School, Westfield, Mass. *Biology*. Exeter, Maine, Oct. 20, 61. A.B, Colby, 81, A.M, 83, hon. Sc.D, 08; Hopkins, 94-96, Ph.D, 10. Instr. bot, Colby, 81-84; private tutor, 84-91; prof. science, Maine State Nor. Sch, Gorham, 91-94; asst, Hopkins, 95-96; prof. biol, Mass. State Nor. Sch, Westfield, 96-97, head dept. science, 97- A.A; Soc. Nat; Soc. Zool; Boston Soc. Nat. Hist; Springfield Zool. Club (pres, 97, 02-14). Nemerteans and gephyreans of North America; development of frogs' eggs in various solutions; Argulidae; Caligidae; Ergasilidae; parasitic copepods; Chondracanthidae; Lernaëidae; Lernaëopodidae; influence of degeneration on classification; Sphyridae; dragon flies in relation to pond-fish culture; parasitic copepods; Dichelesthidae; water beetles; copepod nomenclature.
- Wilson, Prof. C(harles) E(arl)**, State Normal and Teachers College, Wayne, Nebr. *Entomology*. Brazil, Ind, Aug. 17, 90. A.B, A.M, Indiana, 14, 17-18. Asst. entomologist, Miss. Agr. and Mech. Col, 14-16; Fla. State Plant Board, 16-17; entomologist, U. S. Exp. Sta, St. Croix, Virgin Islands, 19-22; assoc. prof. biol. and act-

- ing head dept, Wake Forest, 22-25; *prof*, *Nebr. State Nor. Sch. and Teachers Col*, 25- Landor exped, Colombia, S. A., 12-13. A.A; Micros. Soc. Zoology; ichthyology.
- Wilson, Clarence Paret**, California Fruit Growers Exchange, Ontario, Calif. *Chemistry*. Baltimore, Md, Dec. 26, 85. B.S, George Washington, 07. Student asst, bur. chem, U. S. Dept. Agr, 03-05, lab. helper, 05-06, sci. asst, 07-10, asst. chemist, 11-16; chief chemist and gen. manager, Exchange Lemon Products Co, Calif, 16-20; *chemist in charge research lab, Calif. Fruit Growers Exchange*, 20- Asst. chemist, sugar factory, La, 07-08; lecturer, California. A.A; Chem. Soc; Chem. Eng. The development of citrus fruit products.
- Wilson, Prof. David Wright**, University of Pennsylvania, Philadelphia, Pa. *Physiological chemistry*. Knoxville, Iowa, Jan. 4, 89. B.S, Grinnell, 10; M.S, Illinois, 12; Ph.D, Yale, 14. Asst. and assoc. *physiol. chem*, Hopkins, 14-17, assoc. prof, 17-22; *prof*, *Pennsylvania*, 22- Soc. Biol. Chem; Physiol. Soc; Soc. Exp. Biol. Muscle extractives; parathyroid tetany; nitrogenous constituents of blood; Bence-Jones protein; urine after exercise.
- Wilson, Prof. Edmund Beecher**, Columbia University, New York, N. Y. **Biology*. Geneva, Ill, Oct. 19, 56. Antioch, 73-74; Chicago, 74-75, LL.D, 01; Ph.B, Yale, 78, LL.D, 01; fellow, Hopkins, 79-81, Ph.D, 81, LL.D, 02; Cambridge and Leipzig, 81-82; D.Sc, Cambridge, 09; hon. M.D, Leipzig, 09; Sc.D, Harvard, 24; Hon. Dr, Lwów, 26. Lecturer biol, Williams, 83-84; Mass. Inst. Tech, 84-85; prof, Bryn Mawr, 85-91; *zool*, *Columbia*, 91-14, *Da Costa prof*, 14-, dean faculty pure science, 05-06. Joseph Leidy lecturer, Pennsylvania, 13; Croonian lecturer, Royal Soc, 14. Nat. Acad; A.A. (pres, 13); Soc. Nat. (pres, 00); Soc. Zool. (pres, 95); Soc. Exp. Biol. (pres, 05); Am. Acad; fel. N. Y. Acad. (pres, 04); cor. mem. Phila. Acad; fel. Royal Micros. Soc; for. mem. Royal Soc. London; for. mem. London Linnean Soc; cor. mem. London Zool. Soc; hon. mem. Cambridge Philos. Soc; hon. fel. Royal Soc. Edinburgh; hon. mem. Soc. biol. de Paris; hon. mem. Soc. zool. de France; cor. mem. Acad. de Sci. de Paris; cor. mem. Royal Prussian Acad; cor. mem. Bavarian Acad; for. mem. Royal Bohemian Sci. Soc; assoc. Accad. dei Lincei; Royal Acad. Sci, Amsterdam; for. mem. Soc. Hollandaise, Harlem; for. mem. Christiania Acad; for. mem. Acad. Royale de Belg; for. mem. Soc. Royale de Zool. et Malacol. de Belg; hon. mem. Soc. Nat, Petrograd; hon. mem. Soc. Imp. d'Amis d'Hist. Nat, Moscow; hon. mem. Lisbon Portuguese Sci. Soc. Cytology; embryology; experimental morphology.
- Wilson, Dr. Edwin Bidwell**, Harvard School of Public Health, Boston, Mass. **Mathematics*. Hartford, Conn, April 25, 79. A.B, Harvard, 99; Ph.D, Yale, 01; Paris, 02-03. Instr. math, Yale, 00-06, asst. prof, 06-07; assoc. prof, Mass. Inst. Tech, 07-11, prof, 11-17, math. physics, and head dept. physics, 17-22; *prof. vital statist, sch. pub. health, Harvard*, 22- Lecturer, Harvard, 10-11, Lowell lecturer, 18.
- Int. Commission for Studying Vectorial Notations. Nat. Acad. (ed, 'Proc,' 14-); A.A; Math. Soc. (assoc. ed, 'Trans'); Physical Soc; Philos. Soc; Am. Acad. (pres, 27); Math. Verein; Soc. math. de France; Circolo Mat. di Palermo; Int. Ass. Prom. Quaternions. Vector analysis; geometry; multiple algebra; mechanics; advanced calculus; relativity; aeronautics; statistics.
- Wilson, Dr. Ernest Dana**, American Cyanamid Co, New York, N. Y. *Chemistry*. Harlan, Iowa, Nov. 2, 90. B.S, Nebraska, 13; Ph.D, Chicago, 15. Instr. chem, Nebraska, 13; research assoc. physical chem, Mass. Inst. Tech, 13-14; asst. chem, Chicago, 14-15; fellow, Mellon Inst, 16-18; chief engineer and asst. sales manager, Graton and Knight Mfg. Co, 18-20; chief commercial research dept, George Batten Co, 20-22; *sales manager, agr. chem. div, Am. Cyanamid Co*, 23- Chem. Soc; Chem. Eng; Leather Chem. Ass; Mech. Eng; Taylor Soc. Industrial chemistry; atomic structure; sulphur dioxide in smelter gases; power transmission by leather belting; currying of leather.
- Wilson, Ernest Henry**, Arnold Arboretum, Jamaica Plain, Boston, Mass. *Botany*. Chipping-Campden, Eng, Feb. 15, 76. Hon. A.M, Harvard, 16. Asst, *Arnold Arboretum, Harvard*, 06-19, asst. director, 19-27, *keeper*, 27- George Robert White medal, Mass. Hort. Soc. Royal Hort. Soc. Botanical exploration in China and Japan; introduction of woody plants.
- Wilson, Prof. Francis Daniel**, 1106 Union St, Schenectady, N. Y. *Chemistry*. Chatham, Va, Dec. 3, 71. B.S, Va. Polytech, 94, M.S, 96; Ph.D, Hopkins, 99. Instr. chem. and research asst. to Prof. Michael Tufts, 99-00; instr. chem. and miner, Va. Polytech, 00-01, asst. prof, 01-02, adjunct prof. chem, geol. and miner, 02-04, prof. chem, 04-12; *research chemist, Gen. Elec. Co*, 12- A.A; Chem. Soc. Comparative study of orthosulphaminebenzoic acid and orthocarbaminebenzene-sulphuric acid; the action of calcium carbonate and calcium bicarbonate on zinc sulphate solutions; linseed oil; bituminous substances.
- Wilson, Prof. Francis Henry**, University of Richmond, Richmond, Va. *Entomology*. Hebron, N. Y, Feb. 9, 02. B.S, Cornell, 23, M.S, 25. Acting prof. *bot*, *Richmond*, 25-27, *assoc. prof*, 27- Entom. Soc; Soc. Parasitol; Bot. Soc; Va. Acad. Mallophaga of New York state.
- Wilson, Dr. Frank Norman**, 804 Lawrence St, Ann Arbor, Mich. *Medicine*. Wayne Co, Mich, Nov. 19, 90. B.S, Michigan, 11, M.D, 13. Asst. internal med, med. sch, Michigan, 13-14, instr, 14-16; sch. med, Washington (St. Louis), 16-20; assoc. prof, med. sch, *Michigan*, 20-24, *prof. med*, 24- A.A; Am. Med. Ass; assoc. Am. Physicians; fel. Col. Physicians; Soc. Exp. Path; Soc. Clin. Invest; Heart Ass; assoc. Ornith. Union. Heart disease; electro-cardiography.
- Wilson, Prof. Frederick Weston**, 628 Wells Ave, Reno, Nev. *Animal husbandry*. Graham Co, Kans, Aug. 4, 82. B.S, Kansas Col, 05; M.S, Illinois, 13. From asst. *animal husbandry* to head dept, Arizona, 05-14; *Nevada*, 14- Sheep; beef cattle.

- Wilson, Prof. George Wade**, Loyola University School of Medicine, Chicago, Ill. *Pathology*. St. Louis, Mo, May 7, 91. A.B., 10, A.M., 13; M.D., St. Louis, 14. Asst. path, St. Louis, 15-17; fellow path. and bacter., Rockefeller Inst., 17-18, asst., 18-19; *prof. path. bacter. and prev. med.*, Loyola (Ill.), 19- Bacteriology; fluid substitutes for blood; epinephrin; cytotoxins; increased antibody production; effect of X-rays on cell-division; neurological syphilis.
- Wilson, Rev. Gilbert L(ivingstone)**, St. Paul, Minn. *Ethnology*. Clifton, Ohio, Oct. 5, 68. A.B., Wittenberg (Ohio), 96, A.M., 00; grad. theol. sem, Princeton, 99; Ph.D., Minnesota, 16. Assoc. prof. anthrop., Macalester, 20-25. Summers, research, Am. Museum Nat. Hist., N. Dak., 08-18. Ethnology and agriculture of the Hidatsa Indians; the horse and dog in Hidatsa culture.
- Wilson, Prof. Guy West**, Oskaloosa, Iowa. *Botany, Mycology*. Near Carmel, Ind., June 19, 77. B.S., De Pauw, 02, A.M., 03; M.S., Purdue, 06. Prof. biol., Mt. Union, 03-04; teacher, high sch., Ind., 04-05; aid, N. Y. Bot. Garden, 06-07; prof. biol., Upper Iowa, 07-10; asst. plant path., N. C. Exp. Sta., 10-12; asst. prof. mycol. and plant path., Iowa, 14-16; assoc. bot. and plant path., Clemson, 18-19; *prof. biol.*, Upper Iowa, 19-27; *bot.*, Penn., 27- A.A.; Phytopath. Soc.; Hist. Sci. Soc.; fel. Iowa Acad.; Kans. Acad. (sec'y, 18). North American Peronosporales; flora of Indiana; diseases of cotton, grains and chestnut; phycocomycetes; soil fungi of North America; parasitic fungi; fungi of Iowa.
- Wilson, Prof. H(arley) F(rost)**, University of Wisconsin, Madison, Wis. *Entomology*. Del Norte, Colo., April 14, 83. B.S., Colo. Agr. Col., 07; Illinois, 07-08; M.S., Oregon Col., 13. Special agent, bur. entom., U. S. Dept. Agr., 08-10; research asst. entom., Oregon Exp. Sta., 10-13; prof., Oregon Col. and entomologist, Exp. Sta., 13-15; *prof. econ. entom.*, Wisconsin, 15- Apiculture-custodian, Dr. Chas. C. Miller Mem. Apicultural Library. A.A.; Entom. Soc.; Ass. Econ. Entom.; Pacific Coast Ass. Econ. Entom. (pres, 15). Aphididae.
- Wilson, Prof. H(arold) A(lbert)**, Rice Institute, Houston, Texas. *Physics*. York, Eng., Dec. 1, 74. M.Sc., Leeds, 97; 1851 Exhib. scholar, London, 97-00, D.Sc., 00; Clerk-Maxwell student, Cambridge, 01-04, M.A., 04. Fellow, Trinity Col., Cambridge, 01-07; *prof. physics*, King's Col., London, 05-09; McGill, 09-12; Rice Inst., 12-24; nat. philos., Glasgow, 24-25; *physics*, Rice Inst., 25- A.A.; Physical Soc.; Philos. Soc.; Math. Soc.; fel. Royal Soc.; London Physical Soc.; Cambridge Philos. Soc.; Soc. de Physique. Electrical properties of flames and incandescent solids; discharge through gases at low pressures; induced electromotive force; ionic charge; heat conduction; optical properties of metals; perception of direction of sound; receivers for sound in water; diamagnetism; electromagnetic momentum; gravitation.
- Wilson, Prof. H(enry) V(an Peters)**, Chapel Hill, N. C. *Zoology*. Baltimore, Md., Feb. 16, 63. A.B., Hopkins, 83, fellow and Bruce fellow, 87-89, Ph.D., 88. Asst., U. S. Fish Commission, 89-91; prof. biol., North Carolina, 91-04, zool., 04-17, *Kenan prof.*, 17- Director, U. S. Fisheries Lab., Beaufort, N. C., 98-01; south. exchange lecturer, 15-16. Assoc. ed., 'Jour. Morphol. and Physiol.', 23-26; sect. ed., 'Biol. Abstracts,' 26- Nat. Acad.; A.A.; Soc. Nat. (exec. committee, 15-17); Soc. Zool. (v. pres, 08, pres, 11, exec. committee, 14-21); Boston Soc. Nat. Hist.; N. C. Acad. (pres, 12); Soc. Linnean de Lyon. Embryology and regeneration of sponges, coelenterates and lower vertebrates; classification of sponges.
- Wilson, Prof. H(erbert) C(ouper)**, 208 College Ave., Northfield, Minn. *Astronomy*. Northfield, Oct. 24, 58. A.B., Carleton Col., 79, A.M., 82; Ph.D., Cincinnati, 86. Asst. astronomer, Cincinnati Observatory, 81-82, astronomer pro tem, 82-84, asst. astronomer, 84-86; computer, Transit of Venus Commission, 86-87; asst. prof. astron., Carleton Col., 87-99, assoc. prof. math. and astron., 99-09, prof. and director, Goodsell Observatory, 09-26; *retired*, 26. Research asst., Lick Observatory, 10-11; Mt. Wilson Observatory, 20-21. Ed., 'Popular Astron.' Astron. Soc. Observations of double stars and comets; celestial photography; measurement of photographs for positions of asteroids; variable stars.
- Wilson, Prof. Ira T(emplin)**, 89 Clinton Ave., Tiffin, Ohio. *Zoology*. Jonesboro, Ind., Jan. 29, 95. Lake Forest; A.B., Indiana, 19, A.M., 21, Ph.D., 23. *Head dept. biol.*, Heidelberg (Ohio), 23- Summers, instr., Winona, 20, 21, 24, biol. sta., Indiana, 22, 23, 25. A.A.; assoc. Soc. Zool.; Ind. Acad.; Ohio Acad. Neoplastic growths; genetics; fresh water biology.
- Wilson, Prof. I(ri) D(onaker)**, Virginia Polytechnic Institute, Blacksburg, Va. *Zoology*. Rockwell City, Iowa, May 21, 88. D.V.M., Iowa Col., 14; M.S., Pa. State, 18. Instr., asst. prof., assoc. prof. and *prof. animal husbandry*, Pa. State, 16-22, prof. vet. science, 22-23; *Va. Polytech.*, 23-25, *zool. and animal path.*, 25- A.A.; Vet. Med. Ass.; U. S. Live Stock Sanit. Ass.; Va. Acad.; Va. Vet. Med. Ass. Animal pathology and husbandry.
- Wilson, Prof. J(ames) C(ornelius)**, 1509 Walnut St., Philadelphia, Pa. *Medicine*. Philadelphia, March 25, 47. A.M., Princeton, 67; M.D., Jefferson Med. Col., 69. Attending physician, Phila. Hosp., 76-90; German Hosp., 90-98; *prof. practise of med. and clin. med.*, Jefferson Med. Col., 91-11, *emer. prof.*, 11-; attending physician, Pa. Hosp., 95-11, *emer. physician*, 11-; *physician-in-chief*, Lankenau Hosp., 98- First lieut. and later capt., M.R.C. Am. Physicians (pres, 02); Am. Med. Ass.; Am. Acad. Med. (pres, 97); Philos. Soc.; Climat. Ass. (pres, 04); Therapeut. Soc. (pres, 09); Wash. Acad.; Phila. Co. Med. Soc. (pres, 95-96); Phila. Col. Physicians (pres, 13, 14); Phila. Path. Soc. (pres, 85, 86). Clinical medicine.
- Wilson, Dr. J(ames) Dean**, Ohio Agricultural Experiment Station, Wooster, Ohio. *Botany, Plant pathology*. Mason, Mich., Sept. 8, 95. B.S., Mich. State Col., 22; Ph.D., Hopkins, 26. Asst. plant physiologist, Hopkins, 23-26; *asst. pathologist*, Ohio Exp. Sta., 26- A.A.; Soc. Plant Physiol. Water relations of plants; influence of sunshine on evaporation and transpiration.

- Wilson, Prof. J(ames) K(enneth)**, 202 Dearborn Place, Ithaca, N. Y. *Soil technology*. Maryville, Mo, Aug. 5, 81. B.S. Okla. Agr. and Mech. Col, 06; Ph.D, Cornell, 15. Asst. bacteriologist, N. Y. Exp. Sta, Geneva, 06-12; asst. plant physiol, Cornell, 12-14, asst. prof. *soil technol*, 14-20, *prof*, 20- Soc. Bact. Soil technology; soil bacteriology; crops and nitrates; legume bacteria; ammonia oxidizing bacteria.
- Wilson, Prof. James W(ilbur)**, Brookings, S. Dak. *Animal husbandry*. Traer, Iowa, Feb. 12, 69. B.S.A, Iowa State, 96, M.S.A, 98. Asst. prof. animal husbandry, Iowa State, 97; private sec'y, Sec'y of Agr, 97-00; *prof. animal husbandry*, S. Dak. Col, and *director*, Exp. Sta, 02- Stock breeding and feeding.
- Wilson, John Arthur**, A. F. Gallun and Sons Co, Milwaukee, Wis. *Chemistry*. Chicago, Ill, Aug. 16, 90. N. Y. Univ. Leeds, Eng. Asst. chemist, Edison Chem. Works, 11; *A. F. Gallun and Sons Co*, 12-16, *chief chemist*, 16- Hon. research asst, Procter Int. Research Lab, Leeds, 15-16; consulting chemist, Milwaukee Sewerage Commission, 20-; lecturer, Chicago, 25; Columbia, 26. Colloid committee, Nat. Research Council, 20- A.A; Chem. Soc. (chairman, Milwaukee sect, 20, leather div, 21-, v. pres, 21-); Leather Chem. Ass. (v. pres, 20); Soc. de Chim. indust; Int. Verein Leder Indust. Chem; Int. Soc. Leather Trades Chem. Physical and colloid chemistry; leather; sanitation; proteins; enzymes; bacteria; tannins; histology of skin.
- Wilson, John B(oynton)**, 1339 Ingraham St, N. W, Washington, D. C. *Chemistry*. Steubenville, Ohio, June 2, 90. A.B, Ohio State, 11. Asst. chemist, *bur. chem*, U. S. Dept. Agr, 11-14, contracts lab, 14-21, animal physiol. chem, 21, *assoc. chemist*, 21, *water and beverage lab*, 21- Chem. Soc. Decomposition products of fish; analysis, detection and adulteration of flavoring materials; odorous constituents of fruits and related products.
- Wilson, Prof. J(ohn) Gordon**, 5755 Kenwood Ave, Chicago, Ill. *Anatomy, Physiology, Otolaryngology*. Edinburgh, Scotland, 66. A.M, Edinburgh, M.B, C.M, 90; Vienna and Berlin, 90-91. Instr. and asst. prof. anat, Chicago, 01-08; *prof. otol. and head dept*, Northwestern, 09- Otolaryngologist, Wesley Hosp, Chicago. Ass. Anat; Laryngol. Ass; Otol. Soc. Otolology; nerves and nerve endings in heart, larynx and ear; cranial connections of nerves of the ear; physiology of the vestibular mechanism; vertigo and nystagmus in intracranial lesions.
- Wilson, Dr. J(ohn) Howard**, Castine, Maine. *Anthropology*. Philadelphia, Pa, April 9, 71. A.B, Brooklyn Polytech, 95; A.M, Columbia, 05, Ph.D, 06. *Director and curator*, Wilson Museum, Castine. Cong. Int. d'Anthrop. et d'Archéol. prehist; Cong. prehist. de France. A.A; Am. Geog. Soc; Anthrop. Ass; N. Y. Acad. Geology; prehistoric archeology; glacial history of Nantucket and Cape Cod.
- Wilson, Prof. J(ohn) Hunt**, 531 Cattell St, Easton, Pa. *Chemistry*. Easton, Nov. 30, 85. B.S, Lafayette, 05; M.S, Harvard, 07, Ph.D, 08. Research asst. path, Harvard Med. Sch, 08-09; instr. *physical chem*, Lehigh, 10-16; *prof*, Lafayette, 16- Chem. Soc; Franklin Inst. Atomic weight of lead; energy changes in the dilution of amalgams.
- Wilson, Dr. L(evi) T(homas)**, U. S. Naval Academy, Annapolis, Md. *Mathematics*. Jonesboro, Ark, Dec. 24, 85. A.B, Washington and Lee, 09, A.M, 10; A.M, Columbia, 13; Ph.D, Harvard, 15. Instr. math, Washington and Lee, 09-10; Virginia, 10-11; instr. and asst. *math*, Columbia, 11-13; instr, Harvard, 13-15; Illinois, 15-17; U. S. Naval Acad, 17-20, asst. prof, 20-25, *assoc. prof*, 25- Math. Soc.
- Wilson, Dr. Louis B(lanchard)**, The Mayo Foundation, Rochester, Minn. *Pathology, Bacteriology*. Pittsburgh, Pa, Dec. 22, 66. Pa. State Nor. Sch, 86; M.D, Minnesota, 96. Teacher, high sch, St. Paul, 88-96; senior demonstrator path. and bacter, Minnesota, 97-04; *pathologist and director laboratories*, St. Mary's Hosp, 05-; clin. prof. surg. path, Minnesota, 05-14, *prof. path. and director*, Mayo Foundation, 15- First asst. bacteriologist, Minn. State Board Health, 96-04. Major, lieut. col and col, M.C, U.S.A, and asst. director lab. div, 18-19. D.S. medal. A.A; Ass. Path. and Bact; Am. Physicians; Am. Med. Ass; Pub. Health Ass; Ass. Mil. Surg; Minn. Path. Soc. (pres). Diphtheria and hemorrhagic septicemia groups; variations in morphology and virulence of Bacillus diphtheriae; etiology of the so-called spotted fever of the Rocky Mountains; pathology of goiter; relation of gastric ulcer to gastric cancer; tumors of the kidney; pathology of spleen and prostate; tumors of parotid; ballistics in relation to gunshot wounds; graduate medical education.
- Wilson, Dr. Lucy**, 51 Pine Ridge Road, Waban, Mass. *Physics*. Bloomington, Ill, Oct. 19, 88. A.B, Wellesley, 09; fellow, Hopkins, 16-17, Ph.D, 17. Asst. physics, Mt. Holyoke, 09-11, instr, 11-12, 13-14; physics and psychol, Wellesley, 17-20, asst. prof. *physics*, 20-24, *assoc. prof*, 24- A.A; Physical Soc. (Theories of vision; optics in pure physics; X-ray spectroscopy).
- Wilson, Mrs. L(ucy) L(angdon) W(illiams)**, 640 N. 32d St, Philadelphia, Pa. *Anthropology, Geography*. St. Albans, Vt, Aug. 18, 65. Ph.D, Pennsylvania, 97. *Prin*, S. Phila. High Sch, 16- Gold medal, Paris Expos, 00; Pan-Am. Expos, 01. A.A; Anthrop. Ass; Am. Geog. Soc; Archeol. Inst. Education; anthropo-geography; American archeology.
- Wilson, Dr. M(orley) E(vans)**, Geological Survey of Canada, Ottawa, Ont, Can. *Geology*. Bright, Ont, Feb. 8, 82. B.A, Toronto, 07; Ph.D, Yale, 12. *Geologist*, Can. Geol. Surv, 07- A.A; Geol. Soc; Soc. Econ. Geol; fel. Royal Soc. Can; Can. Inst. Min. and Metal. Precambrian geology; petrology; metamorphic, structural and economic geology.
- Wilson, Prof. N(orman) R(ichard)**, University of Manitoba, Winnipeg, Man, Can. *Mathematics*. Cobourg, Ont, March 23, 79. B.A, Toronto, 09, M.A, 01; Ph.D, Chicago, 08. Instr. *math*, Royal Mil. Col, Kingston, Ont, 99-00;

- lecturer, Wesley Col, 00-14; *prof*, Manitoba, 14-A.A.; Math. Soc. Analysis; algebra.
- Wilson, Prof. O(rville) T(urner)**, 2729 Hyde Park Ave, Cincinnati, Ohio. *Botany*. Winchester, Kans, Oct. 19, 86. A.B, Emporia, 07; A.M, Kansas, 12, fellow, 11-13; fellow, Wisconsin, 13-15, Ph.D, 15. Instr. and prin, acad, Emporia, 07-11; instr. bot, Kansas, 12-13; *Cincinnati*, 15-16, asst. prof, 16-20, *assoc. prof*, 20-Kans. Biol. Surv, 12-13; U. S. Dept. Agr, 18-Collaborator, 'Biol. Abstracts.' A.A.; Bot. Soc; Phytopath. Soc. Anatomy of seed plants; diseases of alfalfa, market fruits and vegetables; diatoms; algal successions.
- Wilson, P(ercy)**, 2779 Briggs Ave, New York, N. Y. *Botany*. South Orange, N. J, May 21, 79. High sch. Museum asst, N. Y. Bot. Garden, 99-03; asst. botanist, Cuban Exp. Sta, Santiago de las Vegas, 04; administrative asst, N. Y. Bot. Garden, 04-10, asst. curator, 11-13, *assoc. curator*, 14- Bot. expeditions, Ga, East Indies, P. R, Honduras, Cuba, Bahamas and Isle of Pines. Torrey Bot. Club (sec'y, 09, 10, chairman, field committee, 06, 07, 15-17). Flora of North America and the West Indies; Rutaceae; Typhaceae; Meliaceae; Phytolaccaceae; Aizoaceae; Basellaceae.
- Wilson, Dr. Ralph E(mer)**, Dudley Observatory, Albany, N. Y. *Astronomy*. Cincinnati, Ohio, April 14, 86. A.B, Carleton Col, 06; Ph.D, Virginia, 10. Acting director, Goodsell Observatory, Carleton Col, 10-11; asst, Lick Observatory, 11-13; asst. astronomer in charge, D. O. Mills exped, Chile, 13-15, acting astronomer, 15-18; *astronomer*, Carnegie Institution, 18-, *sec'y dept. meridian astron*, 23- Aeronautical engineer, Bur. Aircraft Production, 18. Gold medal, Danish Acad, 26. A.A; Astron. Soc. Double stars; star positions in the Orion nebula; spectroscopic binaries; radial velocities of stars, gaseous nebulae and Magellanic clouds; stellar motions; absolute magnitudes.
- Wilson, Dean Robert C(umming)**, University of Georgia, Athens, Ga. *Pharmacy*. Sparta, Ga, Oct. 27, 78. Phar.G, Univ. of South; Michigan; Georgia. Instr, prof, and *dean sch. pharmacy*, Georgia, 07- Pharmaceut. Ass; Ga. Pharmaceut. Ass. Inorganic chemistry as related to medicinal and pharmaceutical products.
- Wilson, Robert E(rastus)**, Standard Oil Co, Whit- ing, Ind. **Chemistry*. Beaver Falls, Pa, March 19, 93. Ph.B, Wooster Col, 14; B.S, Mass. Inst. Tech, 16. Research lab, Gen. Elec. Co, 16; re- search assoc. applied chem, Mass. Inst. Tech, 16-17, asst. director, 19-20, director and *assoc. prof*, chem. eng, 20-22; *asst. director research*, Standard Oil Co. of Ind, 22- Trustee, Wooster Col, 24- Consulting chem. engineer, U. S. Bur. Mines, 17-18; A. D. Little, Inc, 19-22. Capt. and major, C.W.S, 18-19. Chem. Soc. (coun- cilor); Chem. Eng; Automotive Eng; Soc. Test. Mat; Petrol. Inst. Vapor pressures; war gas absorbents; flow of liquids; lubrication; phys- ical properties of hydrocarbons; petroleum chem- istry; corrosion.
- Wilson, Prof. Robert North**, Durham, N. C. *Chemistry*. Lenoir, N. C, March 3, 75. A.B, Haverford, 98; M.S, Florida, 09. Prof. chem,
- Guilford, 98-10; asst. chemist, Fla. Exp. Sta, 07-09; asst. prof. chem, Trinity (N. C), 10-18, *prof*, 18- Asst. supt. exten. work, Florida, 10. A.A; Chem. Soc; N. C. Acad. Physiological chemistry.
- Wilson, Dr. Roy A(rthur)**, 420 W. Main St, Norman, Okla. *Geology*. Granite, Mont, Sept. 12, 91. B.S, Montana, 15, M.S, 16; Ph.D, Chicago, 21. Instr. geol, Montana, 18-19; Chi- cago, 19-20; asst. prof, Oklahoma, 20-21; *assoc. prof*, South Dakota, 21-22; Montana, 22-25; Oklahoma, 25-26. Geologist, S. Dak. Geol. Surv, 21-22, 24; geologist, Mont. Bur. Mines, 23. Soc. Petrol. Geol. Precambrian sedimentary rocks of western Montana; stratigraphy of Montana and South Dakota; paleogeography of the United States, especially of the mid-continent oil fields; stratigraphy of Mexico and Peru, South America.
- Wilson, Dr. Stanley D(avis)**, Yenching Univer- sity, Peking West, China. *Chemistry*. Waldo, Maine, Feb. 5, 81. A.B, Wesleyan, 09, A.M, 10; Swift fellow, Chicago, 13-14, Ph.D, 16. Instr. chem. and geol, Washburn, 10-12; chem, Kan- sas, 12; Chicago, 14-16; org. chem, Rice Inst, 16-17; instr. chem. and head dept, pre-med. sch, Peking Union Med. Col, 17-20, asst. prof, 20-25, dean, 22-23, 24-25; *prof. chem. and head dept*, Yenching Univ, 25- A.A; Chem. Soc; China Med. Ass; China A.A.S. Velocities of reactions; indicators; foods.
- Wilson, Prof. Thomas A(dam)**, Union College, Schenectady, N. Y. *Physical chemistry*. Mid- dletown, N. Y, Feb. 2, 97. A.B, Syracuse, 20; fellow, Illinois, 22-23, M.S, Ph.D, 23. Asst. chem, Syracuse, 19-20; physical and electro chem, Illinois, 20-22; instr. chem, Union (N. Y), 23-25, *asst. prof*, 25- Research physical chemist, Gen. Elec. research lab, 24- Chem. Soc. (sec'y- treas, East. N. Y. sect, 24-26). Ionization of hypochlorous acid; total and partial vapor pres- sure of aqueous ammonia solutions; absorption process of ammonia refrigeration; single crys- tals of metals; properties of liquid dielectrics; X-ray analysis; single crystals of polarizing salts.
- Wilson, W(allace) A(lvin)**, 1960 Chapel St, New Haven, Conn. *Mathematics*. Auburn, N. Y, Dec. 17, 84. A.B, Yale, 05, Ph.D, 11. Instr. math, Yale, 09-12, asst. prof, 12-21, *assoc. prof*, 21- Math. Ass; Math. Soc; Conn. Acad. Theory of aggregates.
- Wilson, Prof. W(ilbur) M**, University of Illinois, Urbana, Ill. *Civil engineering*. West Liberty, Iowa, July 6, 81. B.M.E, Iowa Col, 00, C.E, 14; Sibley fellow, Cornell, 03-04, M.M.E, 04. Instr. mech. eng, Iowa Col, 01-03, asst. prof, 04-06, *assoc. prof*, 06-07; structural detailer, designer and estimator, Ill. Steel Co, 08-11; chief designer, Strauss Bascule Bridge Co, 12- 13; asst. prof. structural eng, Illinois, 13-17, *assoc. prof*, 19-21, *research prof*, 21- Chanute medal, West. Soc. Eng, 15. Capt, major and lieutenant, C.Eng, 17-27. A.A; Civil Eng. (re- search committee on arches); Ry. Eng. (com- mittee on iron and steel structures); Eng. Educ; Soc. Test. Mat; West. Soc. Eng. Steam en- gines; spur gears; concrete arches; statically indeterminate structures; large rollers.

- Wilson, Prof. Wilford M(urry)**, 319 Dryden Road, Ithaca, N. Y. *Meteorology*. Espyville, Pa, Jan. 24, 60. Allegheny, 87; M.D. Memphis Med. Col. 95. U. S. *Weather Bur.*, 85-; emer. prof. *meteor.*, Cornell, 12- Meteor. Soc. (councilor, 20-23). Atmospheric moisture in relation to artificial heating.
- Wilson, Dr. William**, Jefferson Road, Short Hills, N. J. *Physics, Engineering*. Preston, Eng, March 29, 87. B.Sc., Victoria, 07, M.Sc., 08, D.Sc., 13; Giessen, 11; B.A., Cambridge, 12. Lecturer physics, Toronto, 12-14; *research physicist*, West. Elec. Co., 14-25, *Bell Telephone Laboratories*, New York, 25- A.A.; Physical Soc.; Elec. Eng; Franklin Inst; Radio Eng. Radioactivity; thermionics; vacuum tube development.
- Wilson, Prof. W(illiam) B.**, 748 Poplar St, Ottawa, Kans. *Botany*. Near Jonesboro, Tenn, March 7, 66. B.S., Ottawa (Kans), 97, M.S., 98; Chicago, 03, 07, 09; Friday Harbor, 12; hon. Sc.D., Hillsdale, 27. *Prof. math. and nat. science*, Indiana, 95-96; nat. science, Bethel (Ky), 97-03; *biol.*, Ottawa (Kans), 04-; *dean summer session*, 18- V. pres, Ottawa (Kans), 15-; summers, instr., Kansas, 15-19. A.A.; Bot. Soc; Kans. Acad. Morphology and pathology of plants.
- Wilson, William R(onald)**, Ohio State University, Columbus, Ohio. *Psychology*. Detroit, Minn, 95. A.B., Washington (Seattle), 17, M.S., 20, Ph.D., 25. Instr. *psychol.*, Washington (Seattle), 19-25; *asst. prof.*, Ohio State, 25- Educational psychology; higher education; mental tests.
- Wilson, Prof. Winter L(incoln)**, Bethlehem, Pa. *Civil engineering*. Cecil Co, Md, Dec. 29, 66. C.E., Lehigh, 88, M.S., 01; admitted to bar, 94. Practising civil engineer, 88-98; instr. civil eng, Lehigh, 98-01; *asst. prof. in charge dept. civil eng*, Tulane, 01-04; *asst. prof. civil eng*, Lehigh, 04-07, *prof. ry. eng. dept. civil eng*, 07-Summer, chief engineer, East Ry. of Ala, 02. Civil Eng; Ry. Eng. Virtual profiles; economic construction and operation of railroads.
- Wiltbank, Prof. R(utledge) T(hornton)**, Knox College, Galesburg, Ill. *Psychology*. Philadelphia, Pa, Dec. 26, 77. Ph.B., Bucknell, 98; Ph.D., Chicago, 17. Instr. *psychol.*, Washington (Seattle), 17-19; *asst. prof.*, Chicago, 19-21; *prof.*, Knox, 21- Comparative psychology.
- Winchell, Prof. A(lexander) N(ewton)**, University of Wisconsin, Madison, Wis. *Petrology, Mineralogy*. Minneapolis, Minn, March 2, 74. B.S., Minnesota, 96, M.S., 97; D.Sc., Paris, 00. Instr. high sch, Minn, 98; miner. expert, U. S. Commission, Paris Expos, 00; *prof. geol. and miner.*, Mont. Sch. Mines, 00-07; *asst. prof. miner. and petrol.*, Wisconsin, 07-08, *prof.*, 08-Field asst, U. S. Geol. Surv, 01-07, *asst. geologist*, 07-10. Director, Mont. mineral exhibits, La. Purchase Expos, 04; Mont. exhibits, Portland Expos, 05. A.A.; Geol. Soc; Soc. Econ. Geol; Miner. Soc; Min. Eng; Nat. Ass. State Mining Schools (sec'y-treas, 04); Mont. Soc. Eng; Wis. Acad. Petrography of Minnesota gabbroid rocks; optical mineralogy; mining districts of Dillon quadrangle, Montana; petrology and mineral resources of Jackson and Josephine counties, Oregon; rock classification on three coordinates; rocks of Bingham, Utah; petrology and mineral resources; chemical composition and optie properties of various isomorphous mineral groups.
- Winchester, Prof. George**, Rutgers University, New Brunswick, N. J. *Physics*. Elmore, Ill, May 22, 76. Ph.D., Chicago, 07. Acting prof. *physics* and head dept, Washington (Seattle), 06-07; *prof. and head dept.*, Washington and Jefferson, 07-19; *Rutgers*, 21- Lieut, U.S.A., 18-19. Assoc. Nat. Research Council, 19. A.A.; Physical Soc. Photoelectricity; surface tension; electron theory; solar radiation.
- Windle, Prof. Sir Bertram C(oghil) A(lan)**, 48 Roselawn Ave, Toronto, Ont, Can. *Anatomy, Anthropology*. Mayfield, Staffordshire, Eng, May 8, 58. B.A., Dublin, 80, M.B., 81, M.A., M.D., 83, D.Sc., 93; LL.D., Royal Univ; Birmingham; Boston; hon. Ph.D., Rome, 24. Prof. anat, Birmingham, 84-04; pres, University Col, Cork, 04-19; *prof. cosmol. and anthrop.*, Toronto, 19-Ingleby lecturer, Birmingham; Elliot Norton lecturer, Am. Anthropol. Inst, 20; lecturer, Toronto, 20- Gunning prize, Royal Victoria Inst, 19. Commissioner, Intermediate Educ, Ireland. Fel. Royal Soc. Vertebrate morphology; teratology.
- Windle, Prof. W(illiam) F(rederick)**, 2421 S. Dearborn St, Chicago, Ill. *Anatomy*. Huntington, Ind, Oct. 10, 98. B.S., Denison, 21; M.S., Northwestern, 23, Ph.D., 26. Asst. *anat. med. sch.*, Northwestern, 22-23, instr., 23-26, *asst. prof.*, 26- A.A.; Ass. Anat. Histology of the nervous system.
- Wing, Prof. Cha(rles) B(enjamin)**, Stanford University, Calif. *Civil engineering*. Clinton, N. Y, Jan. 18, 64. C.E., Cornell, 86, fellow, 86-87. Instr. civil eng, Cornell, 87-89, *asst. prof.*, 90-91; *prof. bridge and hydraul. eng.*, Wisconsin, 91-92; *structural eng.*, Stanford, 92- Asst. engineer, various companies, 87-90. Major and lieut. col, C.Eng, 17-19, lieut. col, O.R.C. Civil Eng; Int. Ass. Test. Mat. The flow of water in the six-foot steel and wood pipe line of the Pioneer Power Co; structural design.
- Wing, Prof. H(enry) H(iram)**, Cornell University, Ithaca, N. Y. *Agriculture*. New York, N. Y, Nov. 29, 59. B.Agr., Cornell, 81, M.S., 91. Asst. director, N. Y. Exp. Sta, Geneva, 82-84; adjunct prof. agr. and farm supt, Nebraska, 84-88; deputy director and sec'y, Exp. Sta, Cornell, 88-91, *asst. prof. animal and dairy husbandry*, 91-02, *prof. animal husbandry*, 03- A.A.; N. Y. State Agr. Soc; N. Y. Dairymen's Ass. (pres, 09); Nebr. Dairymen's Ass. (sec'y, 85-88). Feeding of animals; dairy manufacture.
- Wing, Prof. Monta E(ldo)**, 1012 Chapin St, Beloit, Wis. *Geology*. Columbus, Kans, Aug. 24, 97. A.B., Kansas, 20, A.M., 21; Ph.D., Chicago, 23. *Prof. geol.*, Beloit, 23- Paleontology and stratigraphy of the Silurian formations of northeastern Illinois and eastern Wisconsin.
- Wingard, Dr. S(amuel) A(ndrew)**, Virginia Agricultural Experiment Station, Blacksburg, Va. *Plant pathology*. Grady, Ala, Sept. 22, 95.

- B.S., Ala. Polytech, 16, M.S., 17; Ph.D., Columbia, 25. Asst. agron., Ala. Exp. Sta., 16-17; asst. plant pathologist, *Va. Exp. Sta.*, 17-22, *assoc. plant pathologist*, 22- A.A.; Bot. Soc.; Phytopath. Soc.; Va. Acad. Tobacco wildfire and blackfire; bean and cowpea rust; tomato soft rot; yeast-spot of lima bean; cytology of *Nematospora phaseoli*.
- Winger, Dr. E(oy) M(artin)**, University of Washington, Seattle, Wash. *Mathematics*. Crawford Co., Kans., Oct. 10, 85. A.B., Baker, 06; fellow, Hopkins, 11-12, Ph.D., 12. Instr. *math.*, Illinois, 12-13; asst. prof., Oregon, 13-16, prof., 16-18; asst. prof., *Washington (Seattle)*, 18-21, *assoc. prof.*, 21-25, *prof.*, 25- Math. Soc.; Math. Ass. Projective geometry; self projective curves; collineation groups.
- Winkenwerder, Prof. Hugo (August)**, University of Washington, Seattle, Wash. *Forestry*. Watertown, Wis., March 16, 78. B.S., Wisconsin, 02; M.F., Yale, 07. Instr. high sch., Wis., 02-05; chief sect. educ., U. S. Forest Service, 07-08; asst. prof. forestry, Colo. Col., 08-09; *assoc. prof.*, *Washington (Seattle)*, 09-12, *dean col. forestry*, 12- Collaborator, U. S. Forest Service, 08-13. A.A.; Soc. Foresters. Dendrology; forest mensuration; migration of birds.
- Winkler, Dr. Albert J(ulius)**, University Farm, Davis, Calif. *Horticulture*. The Grove, Texas, March 4, 94. A.B., Texas, 18; fellow, Missouri, 17-18, A.M., 18; Ph.D., California, 21. *Assoc. viticulture, California*, 21-23, instr., 23-25, *asst. viticulturist, Exp. Sta.*, 25- A.A.; Soc. Hort. Sci.; Bot. Soc. Viticulture; the internal browning of the yellow Newtown apple; sulfur dioxide and the marketing of grapes; the nutrition of the grape.
- Winkler, Prof. C(harles) H(erman)**, College Station, Texas. *Agriculture*. The Grove, Texas, Dec. 5, 78. Agr. and Mech. Col. Texas; B.S., Texas, 04, A.M., 14; fellow, Missouri, 15-16, Ph.D., 16. Instr. agr. educ., Texas, 09-16; asst. prof. and head dept., West Virginia, 16-17, prof. and state director vocational agr., 17-23; *prof. agr. educ. and dean sch. vocational teaching, Agr. and Mech. Col. Texas*, 23- Director summer sch., Agr. and Mech. Col. Texas, 24- Ass. Agr. Teaching (pres, 26); Vocational Ass. Agricultural education; horticulture.
- Winne, Dr. Charles K(nickerbacker), Jr.**, 151 Chestnut St., Albany, N. Y. *Medicine*. Sidney Barracks, Nebr., Sept. 30, 77. A.B., Hopkins, 97, M.D., 01. Extern and acting house officer, Hopkins Hosp., 01-03; asst., Bender Hygienic Lab., Albany, N. Y., 03-05; *assoc. med.*, *Albany Med. Col. Union*, 05- Summer, res. physician, Thos. Wilson Sanatorium, Mt. Wilson, Md., 03; attending physician to hospitals, Albany, N. Y., 05- A.A.; Ass. Path. and Bact.; Am. Med. Ass. Bacteriology.
- Winninghoff, Dr. W(ilford) J(oseph)**, 730 Grand St., Hoboken, N. J. *Physical chemistry*. Philipsburg, Mont., Nov. 11, 87. B.S., Montana, 10; Ph.D., Mass. Inst. Tech., 14. Physical Soc.; Chem. Soc. Solutions.
- Winslow, Arthur**, 131 State St., Boston, Mass. *Mining*. Salem, N. C., Aug. 5, 60. B.S., Mass. Inst. Tech., 81. Asst. geologist, Pa. Geol. Surv., 81-83; Ark. Geol. Surv., 87-89; state geologist, Mo., 89-94; *management of mining properties*, 94- Geol. Soc.; Min. Eng. Economic geology.
- Winslow, Arthur E(llsworth)**, Norwich University, Northfield, Vt. *Civil engineering*. Berlin, Vt., June 15, 77. B.S., Norwich, 98, C.E., 01; C.E., Dartmouth, 03. Asst. ry. engineer, C. V. Ry., 98; instr., Rose, 98-99; asst. city engineer, Everett, Mass., 99-00; *prof. and head dept. civil eng.*, *Norwich*, 00- Assoc. Civil Eng.; Eng. Educ.; Ry. Eng.; Vt. Soc. Eng. (past pres, sec'y, 26-).
- Winslow, Carlile P(atterson)**, Forest Products Laboratory, Madison, Wis. *Forestry*. Washington, D. C., Aug. 5, 84. Ph.B., Yale, 05. Construction engineer, Ont. Power Co., 05-07; *U. S. Forest Service*, 08-, asst. director forest products lab., 14-17, *director*, 17- Soc. Foresters; Civil Eng. Properties and uses of wood; wood waste and its by-products.
- Winslow, Prof. C(harles)-E(dward) A(mory)**, Yale University School of Medicine, New Haven, Conn. *Sanitary science*. Boston, Mass., Feb. 4, 77. B.S., Mass. Inst. Tech., 98, M.S., 99; hon. A.M., Yale, 15; D.P.H., N. Y. Univ., 18. Asst. health officer, Montclair, N. J., 98; asst. biol., Mass. Inst. Tech., 99-01, instr., 01-05, asst. prof., 05-10, biologist in charge sanit. research lab. and sewage exp. sta., 03-10; *assoc. prof. biol.*, *Col. City of N. Y.*, 10-14; *prof. pub. health, sch. med.*, *Yale*, 15- Summers, asst. engineer's office, Mass. State Board Health, 99-02; curator pub. health, Am. Museum Nat. Hist., 10-23; lecturer, Chicago, 10; chairman, N. Y. Commission on Ventilation, 13-; director pub. health activities, League of Red Cross Societies, Geneva, 21; expert assessor, health committee, League of Nations, 27- Medal, Inst. Polit. and Social Sci., 18. A.A.; Soc. Nat.; Pub. Health Ass. (pres, 25); Soc. Bact. (pres, 13); Soc. Exp. Biol.; Statist. Ass.; Mass. Ass. Boards of Health; New Eng. Water Works Ass.; Boston Soc. Civil Eng.; Boston Soc. Med. Sci. Industrial hygiene; ventilation; effect of mineral salts on the viability of bacteria; bacteriology of water, sewage and ice; sewage purification; etiology and epidemiology of typhoid fever; vital statistics; classification of Coccaceae.
- Winslow, Dr. Randolph**, 1900 Mt. Royal Terrace, Baltimore, Md. *Anatomy, Surgery*. Hertford, N. C., Oct. 23, 52. A.B., Haverford, 71, A.M., 74; M.D., Maryland, 73, LL.D., 24; St. John's, 09. Demonstrator anat., Maryland, 80-86; prof. surg., Woman's Med. Col. of Baltimore, 82-93; anat. and clin. surg., *Maryland*, 91-02, *surg.*, 02-20, *emer. prof.*, 20- Lecturer, Maryland, 86-91. Fel. Surg. Ass.; fel. Col. Surg.; fel. Am. Med. Ass.; S. Surg. Ass. (past pres); Int. Surg. Ass.
- Winston, John R(obinson)**, U. S. Department of Agriculture, Washington, D. C. *Plant pathology*. Hanover, Va., Jan. 27, 90. B.S., Va. Polytech, 11; fellow, Pa. State, 11-12, M.S., 12; Wisconsin, 15-16. Asst. plant path., N. C. Exp. Sta., 12-13; plant pathologist, Hood River Exp. Sta., 13-16; *pathologist, bur. plant indust.*, *U. S. Dept. Agr.*, 16- A.A.; Phytopath. Soc.; Bot. Soc.; Chem. Soc. Diseases of fruits.

- Winston, Prof. Lula G(aines)**, Meredith College, Raleigh, N. C. *Chemistry*. Richmond, Va. B.S., Richmond, 99; Ph.D., Hopkins, 11. *Head dept. chem.*, Va. State Teachers Col., Farmville, 02-20; *Meredith Col.*, 20- Trustee, Richmond, 20-A.A.; Chem. Soc.; N. C. Acad. (v. pres, 24). Physical chemistry.
- Wintemberg, W(illiam) J(ohn)**, National Museum of Canada, Ottawa, Ont., Can. *Archeology*. New Dundee, Ont., May 18, 76. Archeologist, Provincial Museum, Toronto, 02, asst., 03, collaborator, 03-10; *asst. archeologist, Can. Geol. Surv.*, 12- Anthropol. Ass; fel. Ethnol. Soc; Folk-Lore Soc; Can. Folk-Lore Soc. (gen. sec'y, 09-11); Ont. Archeol. Ass; Ont. Hist. Soc; Waterloo Hist. Soc; Ottawa Field Nat. Club; hon. mem. Hermann-Barth Gesell. Iroquois archeology; folk-lore.
- Winternitz, Dr. M(ilton) C(harles)**, 210 Prospect St., New Haven, Conn. **Pathology*. Baltimore, Md., Feb. 19, 85. A.B., Hopkins, 03, M.D., 07, fellow, 07-08; hon. A.M., Yale, 17. Asst. *path.*, Hopkins, 08-09, instr., 09-10, assoc. and assoc. prof., 10-17; *prof. sch. med., Yale*, 17-, *dean*, 20- Asst. res. pathologist, Hopkins Hosp., 10-13, assoc. res. pathologist, 13-17; pathologist, City Hosp., Baltimore, 10-17; New Haven Hosp., 17- Major, M.C., 18-19. Int. Cong. Tuber. A.A.; Ass. Path. and Bact; Soc. Exp. Path. The nucleic acid ferments; catalase; peroxidase; lipase; melanotic sarcoma; tuberculosis of the stomach; tuberculous cavities of the liver; the relation of duct changes to chronic pancreatitis; regeneration of the kidney; pathology of war gas; influenza; artificial production of pneumonia.
- Winters, Dr. N(athaniel) E(imer)**, Ministerio de Agricultura, Resistencia, Chaco, Argentina. *Agriculture*. Fall River, Kans., July 3, 86. B.S., Okla. Agr. and Mech. Col., 11; M.S., Agr. and Mech. Col. Texas, 18; Ph.D., Cornell, 23. Head dept. agr., Okla. State Nor. Sch., 11; asst. in charge boys' and girls' club work, Okla., 12; agronomist, Texas Exp. Sta., 12-18; exten. agronomist, N. C. State, 18-19; agronomist, Clemson Col. and Exp. Sta., 19-23; *chief cotton div., Argentine Dept. Agr.*, 24- Summers, cotton examiner for Argentine Govt, in Peru, 24, Paraguay, 25. A.A.; Soc. Agron. Soil bacteriology; cotton.
- Winters, Dr. E(hett) Y(oumans)**, Agricultural Experiment Station, West Raleigh, N. C. *Agronomy*. Society Hill, S. C., March 9, 86. B.S., Clemson, 06; M.S., Florida, 09; Ph.D., Cornell, 12. Asst. bot., Florida, 06-09; plant breeding, Cornell, 10, instr., 11-12; *N. C. Exp. Sta.*, 12-, *director research, sch. agr., N. C. State*. A.A.; Ass. South. Agr. Workers (sec'y, agron. sect., 19). Breeding of farm crops; community improvement of farm seeds.
- Winton, Dr. A(ndrew) L(incoln)**, Wilton, Conn. **Chemistry*. Westport, Conn., Jan. 26, 64. Ph.B., Yale, 84, Ph.D., 04; Graz. Chemist, Conn. Agr. Exp. Sta., 84-90, in charge anal. lab., 90-07; instr. prox. org. anal., Yale, 02-06; chief, Chicago food and drug lab., bur. chem., U. S. Dept. Agr., 07-14. Chem. Soc.; Agr. Chem. (pres, 98). Chemical and microscopical analysis of agricultural products; microscopic investigation of vegetable foods.
- Winton, Kate Barber (Mrs. A. L.)**, Wilton, Conn. *Histology*. Charlestown, R. I., Oct. 9, 82. B.S., R. I. Col., 03; Ph.D., Yale, 06. Microscopist, Conn. Exp. Sta., 06-07; microanalyst, bur. chem., U. S. Dept. Agr., 07-11. A.A. Histology of foods.
- Winton, Prof. W(ill) M(cClain)**, Texas Christian University, Ft. Worth, Texas. *Paleontology, Biology*. Santa Rosa, Calif., April 21, 85. B.S., M.S., Vanderbilt, 08. Prof. biol., Cent. State Nor. Sch., Okla., 08-11; instr., Agr. and Mech. Col. Texas, 11-13; *prof. biol. and geol., Texas Christian*, 13- Research fellow, Rice Inst., 14-15; summers, geologist, Texas State Bur., 20-25. A.A.; Soc. Ichthyol. and Herp; Ass. Petrol. Geol; Soc. géol. de France. Paleontology; physiology and ecology of Iguanidae; paleontology of Texas; Comanchean.
- Wise, Prof. L(ouis) E(lsberg)**, Syracuse University, Syracuse, N. Y. *Chemistry*. New York, N. Y., Jan. 29, 88. A.B., Columbia, 07, Ph.D., 11. Commercial research chemist, 11-12; instr. biochem., Columbia, 12-13; chem., Missouri, 13-14; biochemist, bur. chem., U. S. Dept. Agr., 14, 15, bur. plant indust., 15-18; research chemist, E. I. du Pont de Nemours and Co., 19-20; *prof. forest chem., N. Y. State Col. Forestry, Syracuse*, 20- Chemist, Bur. Aircraft Production, 18-19. Chem. Soc. (chairman, Univ. Mo. sect., 14, Syracuse sect., 22, councilor, 23-). P-aminobenzonitril; Chinawood oil; organic soil constituents; photo-sensitizing dyes from quinolin; micro-analytic methods; wood chemistry; cellulose.
- Wise, W(illis) Howard**, California Institute, Pasadena, Calif. *Physics*. La Bette, Kans., Feb. 18, 98. B.S., Mont. Col., 21; A.M., Oregon, 23. Asst. *physics*, Oregon, 21-23; *teaching asst., Calif. Inst.*, 23- Mobility of electrons in gases.
- Wislocki, Dr. George B(ernays)**, Johns Hopkins University Medical School, Baltimore, Md. *Anatomy*. San Jose, Calif., March 25, 92. A.B., Washington (St. Louis), 12; M.D., Hopkins, 16. Asst. anat., Hopkins, 16-17; Cabot fellow in charge lab. surg. research, Harvard Med. Sch., 18-20; assoc. *anat., sch. med., Hopkins*, 20-23, *assoc. prof.*, 23- Ed. board, 'Bul,' Hopkins Hosp. Lieut., M.C., 17-18. Ass. Anat; Physiologist. Ductless glands; vital dyes; physiology of embryo and fetus; comparative placentalogy.
- Wisner, G(eorge) M(onroe)**, 900 S. Michigan Ave., Chicago, Ill. *Civil engineering*. Detroit, Mich., Feb. 9, 70. B.S.(C.E.), Michigan, 92. Eng. dept, *Chicago Drainage Canal*, 92-07, *chief engineer*, 07- Civil Eng; Mech. Eng; West. Soc. Eng. Sewage disposal; trade wastes from stock yards and tanning industries.
- Wissler, Dr. Clark**, American Museum of Natural History, New York, N. Y. **Anthropology, Psychology*. Wayne Co., Ind., Sept. 18, 70. A.B., Indiana, 97, A.M., 99; fellow, Columbia, 00-01, Ph.D., 01. Asst. psychol., Indiana, 95-97; instr. psychol. and educ., Ohio Col., 97-99; asst. psychol., Columbia, 99-00; instr. pedag., N. Y. Univ., 01-02; asst. ethnol., Am. Museum Nat. Hist., 02-05; asst. anthrop., Columbia, 03-04, lecturer, 04-09;

- curator ethol, *Am. Museum Nat. Hist.*, 05-07, *anthrop.*, 07-; *prof. anthrop. inst. psychol.*, *Yale*, 24- Ed, *anthrop. publications*, *Am. Museum Nat. Hist.*, 07-21; chairman div. *anthrop.* and *psychol.*, *Nat. Research Council*, 20- A.A. (v. pres, 15); *Soc. Nat.*; *Psychol. Ass.*; *Anthrop. Ass.* (pres, 19); *fel. Ethnol. Soc.*; *Folk-Lore Soc.*; *fel. Am. Geog. Soc.*; *Am. Acad.*; *Philos. Soc.*; *fel. N. Y. Acad.* (v. pres, 13). Correlation of mental and physical tests; anthropometric investigations; anthropological research on American Indian; man and culture; the relation of nature to man.
- Witherspoon, Dr. T. C.**, 15 S. Excelsior St, Butte, Mont. *Médecine*. Natchez, Miss, May 25, 68. Grad, St. Louis Col. Pharmacy, 87; M.D., Missouri, 89. Prof. surg, med. dept, St. Louis, 94-97, clin. and operative surg, 97-06; *chief surgeon and pres.*, *Murray Hosp.*, 06- A.A.; *Am. Med. Ass.*; *fel. Col. Surg.*; *West. Surg.* and *Gynec. Ass.* *Anatomy*; *surgery*.
- Withrow, Prof. James R(enwick)**, Ohio State University, Columbus, Ohio. **Chemistry, Chemical engineering*. Philadelphia, Pa, Aug. 29, 78. B.S., Pennsylvania, 99, Ph.D, 05. Chemist, Barrett Mfg. Co, Pa, 99-00, in charge test. and research lab. and benzol and light-oil depts, 00-03; asst. instr. and instr. *chem.*, Illinois, 05-06; asst. prof, *Ohio State*, 06-09, assoc. prof, 09-11, *prof.*, 11-, *head dept. chem. eng.*, 23-, advisory council, Eng. Exp. Sta. Consulting engineer, Ohio. Mem. U. S. Naval Consulting Board, Ohio; consulting chem. engineer, U. S. Bur. Mines, 17-18. Ed. chem. eng. sect, 'Am. Year Book,' 14-21. Mem. joint committee eng. educ, Carnegie Foundation for Adv. of Teaching; exec. board, Am. Eng. Council. Instr. Sch. A.S., U.S.A., 17, C.W.S., 17-18. Consulting chem. engineer, 26- A.A.; *Chem. Soc.* (past councillor, chairman, lime and sugar ash committee, chairman lime symposium, 27); *Electrochem. Soc.*; *Chem. Eng.* (past director, mem. chem. educ. committee, 6 years); *Miner. Soc.*; *Eng. Educ.* (mem. committee, 11); *Phila. Miner. Club* (pres, 00); *Ohio Acad.*; *Columbus Eng. Club* (pres); hon. mem. *Alliance française*; *Chinese Student Alliance*. Rapid analysis of halids; electrolytic precipitation of gold, silver and copper; amalgams; chlorates and hypochlorates; brines; sulphur dioxide; methane; syrup from sugar beets; sugar refining; petroleum; wood distillation; sophistication of acids; insecticides; paints; industrial chemistry; electrochemistry; tantalum; industrial fumes; starch; activated carbon; lime.
- Withrow, Dr. L(loyd) L(eo)**, 803 State St, Madison, Wis. *Physical chemistry*. Van Buren, Ohio, Dec. 14, 99. A.B., Oberlin, 22; A.M., Wisconsin, 23, Ph.D, 25. *Instr. chem.*, *Wisconsin*, 22- *Chem. Soc.* Purification of acetic anhydride; preferential adsorption of gases on alumina.
- Witmer, Prof. Lightner**, University of Pennsylvania, Philadelphia, Pa. **Psychology*. Philadelphia, June 28, 67. A.B., Pennsylvania, 88, 88-91; Ph.D, Leipzig, 92. Asst. exp. psychol, *Pennsylvania*, 90-92, lecturer, 92-94, asst. prof, 92-04, *prof. psychol.*, 04- Lecturer, Bryn Mawr, 96-98; *prof.*, *Lehigh*, 04-06. *Psychologist*, Pa. Training Sch. for Feeble-Minded Children, Elwyn, 96-; Haddonfield Training Sch, 02. A.A.; *Psychol. Ass.*; *Soc. Sci. Educ.*; *Phila. Acad.* *Psychological esthetics*; comparative tests and measurements; the abnormal child; examination and pedagogical treatment of backward children; vocabulary and ideas of school children; the knee-jerk; comparative psychology.
- Witt, Dr. J(oshua) C(hitwood)**, 5834 Stony Island Ave, Chicago, Ill. *Chemical engineering*. Connersville, Ind, Aug. 5, 84. A.B., Butler, 08; B.S., Chicago, 09; M.S., Pittsburgh, 12, Ph.D, 15. Director laboratories, Robert Hunt and Co, Pittsburgh, 11-15; chief sect, *Bur. Science*, Manila, P. I., 15-17; tech. director, Rizal Cement Co, P. I., 17-20; in charge chem. research, *Portland Cement Ass.*, 20-24; *chem. engineer*, *Universal Portland Cement Co*, 24- Consulting staff, U. S. Bur. Mines, 22-23. Ed. staff, 'Philippine Jour. Sci,' 15-17; 'Chem. Abstracts,' 23- A.A.; *Chem. Soc.*; *Concrete Inst.*; *Mech. Eng.*; *Soc. Test. Mat.* *Oxidation and reduction*; colloids; ceramics; Portland cement.
- Wittenborg, Prof. A(ugust) H(ermsmeier)**, University of Tennessee College of Medicine, Memphis, Tenn. *Anatomy*. Matorf, Germany, Sept. 4, 83. Grad, Kaiser Wilhelm Gymnasium, Hanover; M.D., Tennessee, 10. *Prof. anat.*, *Tennessee*, 12-, dean col. med, 17-19. Ass. *Anat.* Gross anatomy.
- Witzemann, Dr. Edgar J(ohn)**, University of Wisconsin, Madison, Wis. *Chemistry*. Decatur, Ill, July 13, 84. A.B., Millikin, 07; fellow, Ohio State, 07-09, A.M., 09, Ph.D, 12. Instr. chem, Ohio State, 09-12; mem, *Sprague Mem. Inst.*, Chicago, 12-25; research chemist, Mayo Foundation, 25-27; asst. *prof. physiol. chem.*, *col. med.*, *Wisconsin*, 27- A.A.; *Chem. Soc.*; *Soc. Biol. Chem.*; *Ill. Acad.*; *Chem. Gesell.* *Synthetic organic chemistry*; colloid chemistry; organic oxidation.
- Wodehouse, R(oger) P(hilip)**, 10 Stone St, Yonkers, N. Y. *Biological chemistry*. Toronto, Ont, Can, Dec. 9, 89. B.A., Toronto, 13; A.M., Harvard, 14, 15-16. Teaching fellow zool, Toronto, 13; protein chemist to J. L. Goodale, Boston, Mass, 16; research chemist, Peter Bent Brigham Hosp, Boston, 16-17; *chemist*, *Arlington Chem. Co.* A.A.; *Chem. Soc.*; *Bot. Soc.* *Plant physiology*; permeability; anaphylaxis; morphology of pollen grains in relation to classification.
- Wodesdalek, Prof. J(erry) E(dward)**, University of Idaho, Moscow, Idaho. *Zoology*. Kewaunee, Wis, Aug. 5, 84. Ph.B., Wisconsin, 10, Ph.M., 11, fellow, 11-13, Ph.D, 13. Asst. zool, Wisconsin, 10-11; *prof. zool.* and *entom.* and head dept, *Idaho*, 13-21, *prof. zool.*, *director pre-med. and pre-nursing*, 25-, *dean grad. sch.*, 25- Chairman, Univ. Research Committee, 19-; summers, instr, Wisconsin, 11, 12. A.A.; *Soc. Nat.*; *Soc. Zool.*; *Ecol. Soc.*; *Micros. Soc.* *Animal behavior*; cytology; embryology; physiology of insects; sex-determination; social hygiene; genetics.
- Woglom, Dr. William H(enry)**, 1145 Amsterdam Ave, New York, N. Y. *Pathology*. Brooklyn, N. Y, Sept. 13, 79. M.D., Columbia, 01, B.S., 21. Asst. path, L. I. Col. Hosp, 07-08; pathologist,

- dept. health, New York, 08-09; asst. cancer research, Columbia, 09-12; asst. to director, Imp. Cancer Research Fund, London, 11-12; asst. prof. cancer research, Crocker Inst, Columbia, 12-17, *assoc. prof.*, 17- A.A.; Am. Med. Ass.; Ass. Path. and Bact.; Ass. Cancer Research (sec'y and treas, 17-); N. Y. Path. Soc. (pres, 24-26); N. Y. Acad. Med. Experimental cancer.
- Woglum, R(usell) S(age)**, 705 Arden Road, Pasadena, Calif. *Entomology*. North Bay, N. Y., Aug. 3, 82. A.B., Cornell, 04, M.S.A., 05. Asst. and acting state entomologist, N. C., 05-07; special agent, bur. entom., U. S. Dept. Agr., 07-12, entom. asst., 12-18, *entomologist*, 18-20; *Calif. Fruit Growers Exchange*, 20- Introduced hydrocyanic acid gas fumigation into Spain, 10; citrus white fly investigations, India and The Orient, 10-11. A.A.; Entom. Soc.; Ass. Econ. Entom. Citrus fruit insects; use of hydrocyanic acid gas in fumigation.
- Wohlenberg, Prof. Walter J(acob)**, Yale University, New Haven, Conn. *Engineering*. Lincoln, Nebr., Feb. 17, 88. B.S., Nebraska, 10; research fellow, Illinois, 12-14, M.S., 16. Apprentice and engineer, Westinghouse Machine Co., 10-12; instr. eng., Oklahoma and Montana, 14-18; *assoc. prof. mech. eng.*, Yale, 18- Consulting engineer on design of steam generators, 20- Mech. Eng. (chairman, fuel committee, 23-); Eng. Educ. Steam power; reheating in central stations; radiation in the pulverized fuel furnace; compound internal combustion engines; combustion at high pressures; boiler furnaces.
- Wohlleben, Prof. W(illiam) J(oseph)**, University of Dayton, Dayton, Ohio. *Organic chemistry*. Chicago, Ill., Jan. 19, 76. B.S., St. Mary's (Dayton), 02; A.M., Freiburg, 07, Ph.D., 08. Instr. high sch., Mo., 00-04; *head dept. chem. eng.*, Dayton, 09- A.A.; Chem. Soc. Halogen derivatives of the phenols.
- Wolbach, Dr. S(imeon) Burt**, Harvard Medical School, Boston, Mass. *Bacteriology, Pathology*. Grand Island, Nebr., 80. Lawrence Sci. Sch., Harvard, 97-99, M.D., Harvard, 03. Second asst. path., Boston City Hosp., 03-04, first asst., 04-05; asst., Harvard Med. Sch., 05-06, instr., 06-08; director, Bender Hygienic Lab, Albany, N. Y., 08-09; adjunct prof. bacter. and path., Albany Med. Col., 08-09; lecturer path. and director histol. lab., McGill, 09-10; asst. prof. bacter., *Harvard Med. Sch.*, 10-14, *assoc. prof. path. and bacter.*, 14, *Shattuck prof. path. anat.* Pathologist, L. I. Hosp., Boston, 05-07; Peter Bent Brigham Hosp.; director path. lab., Montreal Gen. Hosp., 09-10. Cancer Commission, Harvard; Typhus Research Commission, Warsaw, Poland. Commander, Order Polonia Restituta. Am. Physicians; Ass. Path. and Bact.; Soc. Exp. Path.; Soc. Exp. Biol.; Tuber. Ass.; Ass. Cancer Research (sec'y-treas, 11-14); Am. Acad.; cor. mem. Soc. de Path. exot. Human and bovine tubercle bacilli and specificity of their tuberculins; cutaneous blastomycosis and coccidioid granuloma; herniae of cerebrum and cerebellum due to ultra-cranial pressure; tumors; histogenesis of X-ray carcinoma; Rocky Mountain spotted fever; typhus fever; pathology of the avitaminoses.
- Wolcott, E(dson) R(ay)**, 917 Crenshaw Boulevard, Los Angeles, Calif. *Physics*. Sharon, Wis., April 22, 77. B.S., Wisconsin, 00, fellow, 01-02; Berlin, 02-03; Chicago, 04. Asst. physics, Wisconsin, 00-01; asst. prof. Colo. Sch. Mines, 03-04, prof. physics and electrometal, 04-07; consulting engineer, Chicago, 08-13; *research engineer, Los Angeles*, 14- Medal, Science Club, Wisconsin, 00. A.A.; Physical Soc.; Chem. Soc. Coharers; alternating currents; radioactivity; fixation of nitrogen; electrical precipitation of dust and fume; effects of dielectrics on sparking voltage; production and refining of petroleum.
- Wolcott, Dr. George N(orton)**, Box 175A, Port-au-Prince, Haiti, or Barneveld, N. Y. *Entomology*. Yorkville, N. Y., July 12, 89. B.S., Cornell, 09, M.S., 15, Ph.D., 25. Agent and expert, bur. entom., U. S. Dept. Agr., 10-12; traveling entomologist, Board Commissioners Agr., P. R., 12-14; entomologist, Insular Exp. Sta., 14-16, 21-24; mosaic disease of sugar-cane investigations, bur. entom., U. S. Dept. Agr., 19-20; *entomologist*, Exp. Sta., Haina, Santo Domingo, 20-24; *Service Technique d'Agr. d'Haiti*, 24- U.S.A., 17-19. A.A.; Ass. Econ. Entom.; Ecol. Soc.; Wash. Entom. Soc.; Int. Soc. Sugar-Cane Technologists. Insects of sugar-cane; insects of Porto Rico; termites; amount eaten by insects.
- Wolcott, Dr. Rob(ert) H(enry)**, University of Nebraska, Lincoln, Nebr. *Zoology*. Alton, Ill., Oct. 11, 68. B.L., Michigan, 90, B.S., 92, M.D., 93; A.M., Nebraska, 95. Asst. zool., *Nebraska*, 94-95, instr., 95-98, adjunct prof., 98-02, asst. prof. zool. and demonstrator anat., 02-03, *assoc. prof. zool. in charge anat. lab.*, 03-05, *prof. anat.*, 05-09, *zool. and chairman dept.*, 09-, acting dean col. med., 09-14. Summers, biol. surv., Mich. Fish Commission, 93-94, in charge biol., Missouri, 01, 04, 05, 07, 24, 25, Puget Sound Biol. Sta., 23, 26. A.A.; Soc. Zool.; Ornith. Union; Entom. Soc.; Ecol. Soc.; Micros. Soc. (sec'y, 04-08); Wilson Ornith. Club; Nebr. Acad. (pres, 06); Mich. Acad.; Nebr. Ornith. Union (pres, 24-26). Michigan and Nebraska Lepidoptera; ornithology; Acarina, especially Hydrachnidae; faunal distribution, especially in Nebraska; color variation in the tiger-beetles of Nebraska; economic zoology.
- Wold, Dr. P(eter) I(rving)**, Union College, Schenectady, N. Y. *Physics*. S. Dak., Nov. 27, 81. B.S., Oregon, 01, E.E., 02; White fellow, Cornell, 14-15, Ph.D., 15. Instr. physics, Oregon, 00-03; examiner in charge radio signaling, Patent Office, 03-05, 08-10; instr. physics, Cornell, 05-08; head dept. physics, Am. Indemnity Co., Peking, China, 10-14; physicist, West. Elec. Co., 15-20; *head dept. physics, Union (N. Y.)*, 20- Rockefeller Foundation visiting prof., China, 23-24. Adviser patent matters, Sig.C, U.S.A.; board instruction, Sig.E.R.C. A.A.; Physical Soc. Electron phenomena; velocity of sound.
- Wolesensky, Dr. Edward**, U. S. Bureau of Standards, Washington, D. C. *Chemistry*. Crete, Nebr., Jan. 19, 82. B.S., Doane, 03; A.M., Wisconsin, 06, Ph.D., 09. Instr. chem., Iowa, 09-16; *research chemist*, Nat. Aniline and Chem. Co., 16-18; Bur. Mines and C.W.S., 18-19; Barrett Co., 19-20; Edgewood Arsenal, 20-23; *Bur.*

Standards, 23- Chem. Soc. General, inorganic and industrial organic chemistry; dyestuffs and intermediates; coal-tar products; synthetic tanning materials; rubber.

Wolf, Prof. E. Alfred, University of Pittsburgh, Pittsburgh, Pa. *Zoology*. Zgierz, Poland, July 14, 82. Göttingen, 06-08; Ph.D, Breslau, 11; Chicago, 25-26. Marine Biol. Sta, Univ. Vienna, 10; *instr. biol.*, German Gym, Poland, 11-21; Elmhurst Col., 23-26; *zool.*, Pittsburgh, 26- Taste organs of Cetacea as compared with those of other aquatic mammals.

Wolf, Dr. Frederick A (dolphus), P. O. Box 1058, Orlando, Fla. *Botany*. Odell, Nebr., June 25, 85. A.B., 07; A.M., 08; fellow, Cornell, 10-11, Ph.D, 11. *Instr.*, Texas, 08-10; plant pathologist, Ala. Exp. Sta., 11-15; N. C. Exp. Sta., 16-25; *fruit disease investigations*, U. S. Dept. Agr., 25- A.A.; Bot. Soc.; Phytopath. Soc. Plant pathology; mycology.

Wolf, Prof. Harry J (ohn), 42 Broadway, New York, N. Y. *Mining engineering*. Philadelphia, Pa., Feb. 6, 81. E.M., Colo. Sch. Mines, 03, M.S., 13. Assayer, chemist, mining engineer, elec. engineer, supt. and director mines and concerns, 02-12; prof. mining, Colo. Sch. Mines, 12-13, prof. and head dept., 14-18; assoc. ed., 'Eng. and Mining Jour.', 19; *consulting engineer*, 20- A.A.; Min. and Metal. Soc.; Min. Eng.; Eng. Educ.; Electrochem. Soc.; Colo. Sci. Soc.; Colo. Metal Min. Ass. Chlorin cells; chlorination of sulphid ores; heat of formation; metal and coal mining; mine management; mine valuation; manganese silver; ten cardinal principles of trading.

Wolfe, Dr. Clyde (Lynne Earle), 401 S. Chester Ave., Pasadena, Calif. *Mathematics*. Morrison, Ill., April 9, 85. B.S., Occidental, 06, M.S., 07; A.M., Harvard, 08; Ph.D., California, 19. Acting prof. physics, Occidental, 12-16, assoc. prof. math, 16-17; teaching fellow, California, 17-19; dean, Junior Col., Santa Rosa, Calif., 19-20; *asst. prof. math.*, Calif. Inst., 20- Math. Soc.; Math. Ass. Theory of numbers.

Wolfe, Prof. Harold E (ichholtz), Bloomington, Ind. *Mathematics*. North Manchester, Ind., June 6, 91. A.B., Indiana, 13, fellow, 13-14, 16-18, A.M., 14, Ph.D., 18. *Instr. math.*, South Dakota, 14-16; *Indiana*, 19, *asst. prof.*, 19- *Instr.*, F. A. Cent. Officers' Training Sch., 18. Math. Ass.

Wolfe, Prof. H (erbert) S (now), West Virginia University, Morgantown, W. Va. *Botany*. Parkville, Mo., Sept. 14, 98. A.B., Park Col., 18; Trinity (Dublin), 20-21; Chicago, 22, 23, 24-26, M.S., 25. Teacher, high sch., Mo., 18-19; *instr. science*, Westminster (Utah), 19-20; *asst. prof. bot.*, Kentucky, 21-24; *asst. plant physiol.*, Chicago, 24-26; *asst. prof. bot.*, West Virginia, 26- A.A.; Bot. Soc.; Soc. Plant Physiol. Plant physiology; semi-permeability; soil surface forces; dormancy.

Wolfe, Dr. T (homas) K (ennerly), Virginia Polytechnic Institute, Blacksburg, Va. *Agronomy*. Elkton, Va., July 14, 92. B.S., Va. Polytech, 14, M.S., 15; Ph.D., Cornell, 21. *Asst. agron.* and *asst. agronomist*, Exp. Sta., Va. Polytech, 14-15,

instr. and asst. agronomist, 15-17, *assoc. prof. and assoc. agronomist*, 17-23, *prof. and agronomist*, 23- Soc. Agron. Plant breeding; soils.

Wolferth, Dr. C. C., 1704 Pine St, Philadelphia, Pa. *Medicine*. Clarksboro, N. J., 87. A.B., Princeton, 08; M.D., Pennsylvania, 12. *Assoc. med.*, Pennsylvania, 20- Soc. Clin. Invest.; Climat. and Clin. Soc.; Phila. Col. Physicians. Clinical cardiology; clinical and electro-cardiographic studies of heart disease.

Wolff, Prof. Frank A (fred), Bureau of Standards, Washington, D. C. **Physics, Electrical engineering*. Baltimore, Md., April 8, 71. A.B., Hopkins, 90, fellow, 92-93, Ph.D., 93; Leipzig, 94. Prof. physics and elec. eng., George Washington, 95-04, elec. eng., 04-08; assoc. physicist, Bur. Standards, 01-24, *senior physicist and chief telephone sect.*, 24- Physicist, div. soils, U. S. Dept. Agr.; examiner, Civil Service Commission; verifier, Office Standard Weights and Measures. Assoc. mem., Int. Committee Elec. Units and Standards. Assoc. Elec. Eng. Effect of magnetism on chemical action; the verification of electrical standards and electrical measuring apparatus; the accuracy of Ohm's law; standard cells; the international electrical units; telephone service standards; stabilization of the dollar.

Wolff, Dr. Irving, 322 Central Park West, New York, N. Y. *Physics*. New York, July 6, 94. B.S., Dartmouth, 16; Ph.D., Cornell, 23. *Instr.*, Iowa Col., 19-20; Cornell, 20-23; research, Heckscher Fund, Cornell, 23-24; *Radio Corp. of Amer.*, 24- A.A.; Physical Soc. Alternating current bridge measurements; polarization capacity; rapid sound spectrum measurements; the vibrations of cones.

Wolff, Dr. John E (liot), 360 S. Grand, Pasadena, Calif. **Mineralogy, Petrography*. Montreal, Que., Can., Nov. 21, 57. A.B., Harvard, 79, Ph.D., 89; Heidelberg, 84-85. *Asst. geologist*, U. S. Geol. Surv., 85-04; *instr. petrog.*, Harvard, 86-92, *asst. prof.*, 92-95, *prof. petrog. and miner.* and *curator miner. museum*, 95-23; *retired*, 23. A.A.; Geol. Soc.; Miner. Soc.; Boston Soc. Nat. Hist.; Miner. Gesell. Geology and petrography of Green Mountains, Vermont, of New Jersey and Montana and of San Gabriel Mountains, California.

Wolkoff, Dr. Michael Ivanovitch, Chicago, Ill. *Agronomy*. Tver, Russia, Sept. 13, 86. B.S., Mich. State Col., 15, M.S., 16; Ph.D., Rutgers, 18. Assoc. soil fertility, Illinois, 18-24; chemist, Darling and Co., 25-26. Assoc. ed., 'Russian Herald,' 24-25; ed., 'Russian Am.,' 26- A.A.; Chem. Soc. Soil fertility.

Woll, Prof. Frederic A., College of the City of New York, New York, N. Y. *Optics*. New York, July 8, 74. B.S., Teachers Col., Columbia, 11, A.M., 12; Ph.D., N. Y. Univ., 17. Tutor *hygiene*, Col. City of N. Y., 07-12, *instr.*, 13-16, *asst. prof.*, 17-19, *assoc. prof.*, 20-27, *prof.*, 27- Mem., N. Y. State Board Examiners in Optometry, 19- A.A.; Social Hygiene Ass.; hon. mem. Optometry Ass.; mem. Ala., Calif., Conn., Maine, Mass., N. C. and R. I. Optometric Societies. Technique of eye dissections.

- Wollstein, Dr. Martha**, 147 E. 60th St, New York, N. Y. *Pathology*. New York, Nov. 21, 68. M.D. Woman's Med. Col. N. Y., 89. Demonstrator histol, Woman's Med. Col. N. Y., 90-93, path, 93-99; assoc. Rockefeller Inst, 06-21; *pathologist, Babies Hosp*, 92-; *asst. pediat. col. physicians and surg, Columbia*. Trustee, N. Y. Infirmary for Women and Children. Ass. Path. and Bact; Soc. Exp. Biol; Harvey Soc; N. Y. Acad. Med; N. Y. Path. Soc. Experimental parotitis.
- Wolman, Abel**, 16 W. Saratoga St, Baltimore, Md. *Sanitary engineering*. Baltimore, June 10, 92. A.B., Hopkins, 13, B.S.E., 15. From asst. engineer to chief engineer, Md. State Dept. Health, 14-; *lecturer sanit. eng, Hopkins*, 21-; *Harvard*, 25- Assoc. ed, 'Am. Jour. Pub. Health,' 23-; ed-in-chief, 'Jour. Water Works Ass,' 21-; ed, 'Manual Water Works Practice,' 24- Advisory commission, U. S. Pub. Health Service, 23, 25-; Nat. Conf. City Planning. Pub. Health Ass. (chairman, pub. health eng. sect, 25); Water Works Ass; Ass. Eng; Statist. Ass; Soc. Munic. Improv; Econ. Ass; New Eng. Water Works Ass; Royal Inst. Pub. Health, London; Faraday Soc. General sanitation; stream pollution.
- Woltman, Dr. Henry W(illiam)**, Mayo Clinic, Rochester, Minn. *Neurology*. Westfield, Wis., June 16, 89. B.S., Minnesota, 11, M.D., 13, Ph.D., 17. *Assoc. neur, Mayo Clinic*, 17-; *assoc. prof. neur, Mayo Foundation, Minnesota*. A.A.; Am. Med. Ass; Neur. Soc; Psychiat. Ass; Cent. Neuro-psychiat. Ass; Minn. Path. Soc; Minn. Neur. Soc. Pathological and clinical neurology.
- Wong, Dr. B(ing) C(hin)**, 1933 Grant St, Berkeley, Calif. *Mathematics*. San Francisco, Calif., 80. A.B., California, 17, A.M., 20, Ph.D., 22. *Asst. math, California*, 20-21, teaching fellow, 21-22, instr, 22-27, *asst. prof*, 27- A.A.; Math. Soc; Math. Ass. Geometry.
- Wood, Prof. A(lbert) G(erard)**, Baker University, Baldwin City, Kans. *Plant physiology*. Waynetown, Ind., Jan. 20, 81. B.S., Valparaiso, 04; A.B., Indiana, 08; A.M., Nebraska, 16. Teacher, high sch, Colo., 10-16; *prof. biol, Trinity (Texas)*, 16-19; *bot. and bacter, Baker*, 19- City bacteriologist, Baldwin City. A.A.; Kans. Acad.
- Wood, Prof. Alfred C(onard)**, 2035 Walnut St, Philadelphia, Pa. *Surgery*. Hatboro, Pa., June 17, 63. Ph.G., Phila. Col. Pharmacy, 85; M.D., Pennsylvania, 88. *Asst. prof. surg, sch. med, Pennsylvania*, 03- Surgeon, Univ. Phila. Gen. Howard and other hospitals. Surg. Ass; Col. Surg; Am. Med. Ass; Ass. Genito-Urinary Surg; Phila. Acad. Surg.
- Wood, Dr. A(rthur) E(ugene)**, Mississippi College, Clinton, Miss. *Chemistry*. Fitzpatrick, Ga., Nov. 25, 87. B.S., Mercer, 07; M.S., Vanderbilt, 09, fellow, 09-11; Ph.D., Pittsburgh, 24. Head dept. science, Ala. State Nor. Sch., 12-17; *prof. chem, Agr. and Mech. Col. Texas*, 17-20; *Miss. Col*, 20- Instr, Pittsburgh, 23-24; summers, chemist, South. Cotton Oil Co, Ga., 18, Humble Oil Co, Texas, 20. Chem. Soc. Organic sulfur compounds in petroleum.
- Wood, Prof. Arthur J(ulius)**, State College, Pa. *Mechanical engineering*. Newark, N. J., Sept. 3, 74. M.E., Stevens, 96; M.S., Pa. State, 16. Assoc. ed, 'Railroad Gazette,' 96-00; instr. mech. eng, Worcester, 00-02; prof. mech. and elec. eng, Delaware, 02-04; asst. prof. exp. eng, Pa. State, 04-08, assoc. prof, 08-18, *prof. mech. eng*, 18-, in charge, Eng. Exp. Sta., 20-22. Nat. Research Council, 23- A.A.; Mech. Eng. (chairman, cent. Pa. sect, 22-24); Eng. Educ. (councilor); Refrig. Eng. (v. pres, 26-); Ry. Eng. Transmission of heat in building and insulating materials; locomotive operation; power development; refrigeration.
- Wood, Prof. Ben(jamin) D(eKalbe)**, Columbia University, New York, N. Y. *Psychology, Education*. Brownsville, Texas, Nov. 10, 94. A.B., Texas, 17; A.M., Columbia, 22, Ph.D., 23. *Asst. psychol, Columbia*, 19-21, asst. to dean, *Columbia Col*, 21-24, *asst. prof. educ. research*, 23-26, *assoc. prof*, 26- Summers, acting prof, Stanford, 21-22, Arizona, 23, California, 24, Teachers Col, Columbia, 25-27. Personnel Research Federation. Psychol. Ass; Vocational Guidance Ass; N. Y. Soc. Exp. Study Educ. Measurement in higher and secondary education; measurement of intelligence and achievement; technique of test construction; educational personnel administration.
- Wood, Prof. Casey A(lbert)**, Authors Club, 2 Whitehall Court, London, Eng. *Ophthalmology*. Wellington, Ont, Can, Nov. 21, 56. C.M., M.D., Bishop's Col. (Can), 77, hon. D.C.L., 98; M.D., C.M., McGill, 05, hon. LL.D., 22; Berlin, Vienna, Paris and London, two years. Prof. chem, Bishop's Col. (Can), 78-84; clin. ophthal, *Illinois*, 99-06, *emer. prof. ophthal*; head prof, Northwestern, 06-08; *retired*. Hon. collaborator birds, Smithsonian Inst. Col, M.R.C. A.A.; Am. Acad. Ophthal. (pres); Am. Acad. Med. (pres); Ornith. Union; British Ornith. Union; fel. London Zool. Soc. Anatomy and physiology of the visual apparatus; anatomy and physiology of the eyes of birds.
- Wood, Dr. Edward J(enner)**, 201 Chestnut St, Wilmington, N. C. *Medicine*. Wilmington, July 12, 78. B.S., North Carolina, 99; M.D., Pennsylvania, 02; diploma in trop. med; Royal Col. Physicians and Surg, 20. Asst. clin. med, Guy's Hosp, London, 19-20. Am. Physicians; Soc. Trop. Med; Soc. Gastro-Enterol; fel. Royal Soc. Trop. Med. and Hygiene. Tropical medicine; pellagra; sprue.
- Wood, Dr. Elvira**, 8 Chamberlain Terrace, Waltham, Mass. *Paleontology*. West Gouldsborough, Maine. Mass. Inst. Tech; A.M., Columbia, 08, Ph.D., 10. Instr. paleont, Mass. Inst. Tech, 99-03; asst. geol, U. S. Geol. Surv, 03-07; curator paleont, Columbia, 10-11; asst. curator museum comp. zool, Harvard, 11-14. Paleontology of Lancaster, N. Y.; Crinoidea; phylogeny of Gastropoda.
- Wood, Dr. Florence D(owden)**, 245 W. Fourth St, New York, N. Y. *Zoology*. Fairmont, W. Va., Sept. 5, 98. A.B., Sweet Briar, 21; Ph.D., Yale, 25. *Instr. micros. anat, sch. med, Loyola*, 25-26; *biol, N. Y. Univ*, 26- Soc. Zool. Autotomy in arthropoda.

- Wood, Dr. F(rancis) C(arter)**, 853 Seventh Ave, New York, N. Y. *Pathology*. Columbus, Ohio, Dec. 30, 69. B.S., Ohio State, 91; M.D., Columbia, 94; Berlin and Vienna, 96; hon. Sc.D., Tufts. Asst. clin. path, Columbia, 96-98, instr, 98-04, adjunct prof, 04-06, prof, 06-, director, *Inst. Cancer Research*, 12- Intern, St. Luke's Hosp, 94-96, pathologist, 97-, director laboratories, 10- A.A.; Am. Physicians; Ass. Path. and Bact; Soc. Exp. Biol; Ass. Cancer Research; N. Y. Path. Soc. (sec'y, 01-08, ed, 'Proc,' 02-09, treas, 11); Harvey Soc. (sec'y, 08-10). Pathology of endothelial tumors; blood regeneration after poisoning; precipitins produced by immunizing animals; effect of physical agents on bacteria; experimental cancer.
- Wood, Prof. Frank Edwin**, 909 Colfax St, Evanston, Ill. *Mathematics*. Wamego, Kans, Feb. 26, 91. A.B., Baker, 12; A.M., Kansas, 14; Ph.D., Chicago, 20. Instr. math, Northwestern, 15-16; assoc. prof, New Mexico, 16-17; acting head dept, Baker, 18; asst. prof, Mich. State Col, 21-22; Northwestern, 22- Science and research div, U.S.A., 17-18. Math. Soc; Math. Ass. Plane, projective and projective differential geometry.
- Wood, Prof. Fredrick**, Wesleyan College, Macon, Ga. *Mathematics*. Zionsville, Ind, Dec. 7, 89. A.B., Wisconsin, 15, A.M., 16, Ph.D., 23. Instr. math, Wisconsin, 15-17, 19-23; head dept. math, Pa. State Nor. Sch, Indiana, 23-24; Lake Forest Col, 24-25; Wesleyan, 25- A.A.; Math. Soc; Math. Ass. Group velocity; differential equations.
- Wood, Harry O(scar)**, 220 N. San Rafael Ave, Pasadena, Calif. *Seismology*. Gardiner, Maine, July 28, 79. A.B., Harvard, 02, A.M., 04. Asst. miner. and petrolog, Harvard, 02-04; instr. miner. and geol, California, 04-12; research assoc. seismol, Hawaiian Volcano Observatory, Mass. Inst. Tech, 12-17; acting and asst. sec'y, Nat. Research Council, 19-20; sec'y, Am. Geophys. Union, 19-20; research assoc. seismol, *Carnegie Institution*, 21- Capt, Eng.R.C. and C.Eng. Geophys. Union (sec'y, 19-21). A.A.; Seismol. Soc. (third v. pres. and board directors, 17-); Geol. Soc. Crystallography; seismic geology; vulcanology; general physical geology.
- Wood, Prof. Harry P(eterman)**, 398 45th St, Milwaukee, Wis. *Electrical engineering*. Muney, Pa, July 18, 78. B.S., Pa. State, 99, E.E., 03. Engineer, J. G. White and Co. and N. Y. Edison Co, 99-02; asst. prof. elec. eng, Pa. State, 02-06; Illinois, 06-07; prof, Ga. Tech, 07-17; exten. div, Wisconsin, 17- Elec. Eng.
- Wood, Dr. Horatio C(harles), Jr**, University of Pennsylvania, Philadelphia, Pa. *Pharmacology*. Philadelphia, Feb. 26, 74. Pennsylvania, 90-92, M.D., 96; Bern, 97-98. Demonstrator pharmacodynamics, Pennsylvania, 98-07, assoc. prof. pharmacol, 07-10; prof. pharmacol. and therapeut, Medico-Chirurg. Col. Phila, 10-17; sch. med, Pennsylvania, 17- Prof, Phila. Col. Pharmacy, 20. Ed, 'U. S. Dispensatory.' Revision committee, U. S. Pharmacopoeia, 10- A.A.; Soc. Pharmacol; Pharmaceut. Ass; Am. Med. Ass. (chairman, sect. pharmacol); Phila. Col. Physicians. Origin of the Traube waves; physiology of the pulmonary circulation; pharmacology of ether and chloroform, lecithin, ergot, apocynum, cannabium, veratrum, aspidosperm; rheumatic fever; caffeine; digitalis.
- Wood, Norman A(sa)**, University of Michigan, Ann Arbor, Mich. *Ornithology*. Ann Arbor, Aug. 19, 57. High sch. Taxidermist, *museum zool, Michigan*, 95-11, curator birds, 11- Exten. lecturer, Michigan; teacher, Ginling Col, Nan-king, China; Michigan Museum. Ornith. expeditions, Mich, China, 23-24. Ornith. Union; Cooper Ornith. Club; Wilson Ornith. Club. Birds and mammals of Michigan.
- Wood, Prof. R(obert) W(illiams)**, Johns Hopkins University, Baltimore, Md. *Experimental physics*. Concord, Mass, May 2, 68. A.B., Harvard, 91; Hopkins, 91-92; Chicago, 92-94; Berlin, 94-96; LL.D., Clark, 09, Birmingham, 13, Edinburgh, 21. Instr. physics, Wisconsin, 97-98, asst. prof, 98-00; prof. exp. physics, Hopkins, 01- Thomas Young lecturer, London Optical Soc, 10; Ernest Kempton Adams research fellow, Columbia, 12; Guthrie lecturer, London, 14. Rumford medal, Am. Acad, 09; gold medal, Soc. Ital. della Sci, Rome, 18; medals, London Soc. Arts and Franklin Inst. Major, Sig.O.R.C., 17-19. Nat. Acad; Physical Soc; Am. Acad; for. mem. Royal Soc; cor. mem. British Ass; hon. mem. Royal Micros. Soc; London Optical Soc; cor. mem. Göttingen Königl. Gesell; for. mem. Accad. dei Lincei. Physical optics.
- Wood, Dr. Ruth G(oulding)**, Crescent St, Northampton, Mass. *Mathematics*. Pawtucket, R. I., Jan. 29, 75. B.L., Smith, 98; fellow, Yale, 00-01, Ph.D., 01; Göttingen, 08-09. Instr. math, Mt. Holyoke, 01-02; Smith, 02-09, assoc. prof, 09-14, prof, 14- Math. Soc. Non-Euclidean geometry.
- Wood, Dr. Thomas D(enison)**, Columbia University, New York, N. Y. *Physical education*. Sycamore, Ill, Aug. 2, 65. A.B., Oberlin, 88, A.M., 91; M.D., Columbia, 91. Prof. hygiene and org. training, Stanford, 91-01; physical educ, *Teachers Col, Columbia*, 01-27, health educ, 27- Int. Commission Physical Educ, 10. A.A.; Physical Educ. Ass; Am. Med. Ass. (chairman, committee on health problems in educ); Child Health Ass. (v. pres); fel. N. Y. Acad. Med. School hygiene; health education.
- Wood, Prof. William P(latt)**, Ann Arbor Hills, Ann Arbor, Mich. *Metallurgy*. Ypsilanti, Mich, May 26, 88. A.B., Michigan, 12, B.Ch.E., 14, M.S., 16. Instr. and asst. prof. chem, Mich. State Col, 14-18; asst. prof. chem. eng, Michigan, 19-21, metal. eng, 21- Consulting metallurgist, Cook Spring Co; supervisor materials, Bur. Aircraft Production, 18-19. Chem. Soc; Soc. Steel Treat. Volume changes in steel during heat treatment; effect of low drawing temperatures upon hardened steel; corrosion of iron and steel; heat treatment of mechanical springs; location of the ferrite solubility curve in the iron-carbon system.
- Woodall, Dr. Cha(rlie)s S(impson)**, Harvard Medical School, Boston, Mass. *Biochemistry*. Aberdeen, Miss, Sept. 16, 93. A.B., A.M., Mer-

- cer, 13; M.D. Harvard, 24. Nat. Research Council fellow, 24-26.
- Woodard, Dr. Helen Quincy**, 190 Old Army Road, Scarsdale, N. Y. *Chemistry*. Detroit, Mich, Aug. 8, 00. B.S., J. B. Stetson, 20; A.M., Columbia, 21, Ph.D., 25. *Research chemist, Mem. Hosp. New York*, 26- Bredig and Kohl-schutter silver solutions; Bredig lead solutions.
- Woodward, Prof. John**, North Carolina State College, Raleigh, N. C. *Plant physiology*. Walker, Iowa, Feb. 13, 82. B.S., Missouri, 11, A.M., 14; gypsum indust. fellow, Chicago, 19-20, Ph.D., 23. Soil surv., Ill. Exp. Sta., 11-13; Ohio Exp. Sta., 14-15; Ont. Agr. Col., 16-18; Ill. Exp. Sta., 20-22; prof. agr., Mt. Morris, 18-19; instr. bot., Illinois, 22-24; asst. prof. biol., Kans. State Teachers Col., 24-25; assoc. prof., Park, 25-26; research hort., Chicago, 26-27; asst. prof. *plant physiol.*, N. C. State, 27- A.A.; Bot. Soc.; Ecol. Soc. Plant physiology; ecology; soils; sulphur in soil fertility; origin of prairies and soils.
- Woodbury, Carl Vose**, Norwich University, Northfield, Vt. *Physics*. Skowhegan, Maine, Aug. 18, 77. A.B., Bowdoin, 99; A.M., Norwich, 09. Prin., high sch., Maine, 99-00; instr., *Norwich*, 00-01, asst. prof., 01-16, *prof. and head dept. physics*, 16- Major, Vt. Nat. Guard. General physics.
- Woodbury, C(harles) G(oodrich)**, National Cannery Association, Washington, D. C. *Horticulture*. Portland, Mich, April 30, 84. B.S., Mich. State Col., 04, M.S., 06. Asst. horticulturist, Purdue Exp. Sta., 06-08, assoc., 08, asst. prof. hort., Purdue, 09-11, head dept. hort., 11-17, director, Exp. Sta., 17-20; *director bur. raw products research, Nat. Cannery Ass.*, 20- A.A.; Soc. Hort. Sci.; Pomol. Soc. Pomology.
- Woodbury, Dwight A(ugustus)**, Ohio State University, Columbus, Ohio. *Physics*. Beverly, Mass, Jan. 11, 87. B.S., Maine, 09; M.S., Dartmouth, 11. Asst. *physics*, Dartmouth, 09-11; *instr.*, Ohio State, 11- Physical Soc. The temperature and surface conditions which affect the positive ionization from heated platinum.
- Woodcock, Prof. Edward F(red)**, East Lansing, Mich. *Botany*. Pittsford, Vt, Feb. 13, 85. B.S., Vermont, 09; A.M., Yale, 12, fellow, 13, Ph.D., 17. Head dept. biol., Juniata Col., 09-10; asst., Yale, 10-12; instr. *bot.*, West Virginia, 13-14; *Mich. State Col.*, 14-17, asst. prof., 17-26, *assoc. prof.*, 26- Summers, field asst., plant disease surv., 18-20. A.A.; Bot. Soc.; Mich. Acad. Plant morphology; development and germination of seeds.
- Woodford, Prof. A(lfred) O(swald)**, Pomona College, Claremont, Calif. *Geology*. Upland, Calif, Feb. 27, 90. A.B., Pomona, 13; Ph.D., California, 23. Instr. *geol.*, Pomona, 16-19, asst. prof., 20-25, *assoc. prof.*, 25-27, *prof.*, 27- A.A.; Ass. Petrol. Geol.; Paleont. Soc.; Miner. Soc.; Seismol. Soc.; Calif. Acad. The Catalina facies of the Franciscan series; the San Onofre breccia; fauna of the type Meganos.
- Woodhead, Arthur E**, University of Michigan, Ann Arbor, Mich. *Parasitology*. Rochdale, Mass, Dec. 21, 88. A.B., Clark, 14; A.M., Michigan, 26. Instr., high schools, N. J. and Pa., 14-18; head dept. biol. and chem., Western Maryland, 18-24; *instr. zool.*, Michigan, 24- Parasitology.
- Woodhull, Prof. John F(rancis)**, 206 Bonair Ave., La Jolla, Calif. *Physical science*. Westport, N. Y., July 2, 57. A.B., Yale, 80; Ph.D., Columbia, 99. Teacher, high sch., N. J., 81-82; prin., Mass, 83-85; teacher science, N. Y. State Nor. Sch., New Paltz, 86-87; prof. *physical sciences*, Teachers Col., Columbia, 88-22, *emer. prof.*, 22- Lecturer, Martha's Vineyard Summer Sch., Nat. Summer Sch. and Chautauqua, 87-94. A.A.; fel. N. Y. Acad.; N. Y. State Sci. Teachers Ass. (pres, 06); N. Y. Physics Club (pres, 07). The teaching of physical science in secondary schools.
- Woodman, Prof. A(lpheus) G(rant)**, Massachusetts Institute of Technology, Cambridge, Mass. *Chemistry*. Kingston, Mass, Oct. 30, 73. B.S., Mass. Inst. Tech., 97. Asst. chem., *Mass. Inst. Tech.*, 97-00, instr., 00-08, asst. prof. *food anal.*, 08-14, *assoc. prof.*, 14- Asst. chemist, State Board Health, Mass; sci. asst., U. S. Dept. Agr., 06-07. A.A.; Chem. Soc.; Am. Acad. Water purification; sewage disposal; food economy and analysis.
- Woodman, Prof. J(oseph) Edmund**, New York University, New York, N. Y. *Geology*. Newbury, Mass, July 3, 73. B.S., Harvard, 96, A.M., 00, Sc.D., 02. Asst. geol., Harvard and Radcliffe, 96-02; asst. prof. geol. and miner., Dalhousie, 02-06, *prof.*, 06-09; *geol. and director geol. museum, N. Y. Univ.*, 09- Summers, instr., Harvard, 97-05; geologist, N. S. Dept. Mines, 98; geologist in charge investigations of iron resources of N. S., Dom. Dept. Mines, 06-10; prof., Vassar, 19-20. Geol. Soc.; Min. Eng.; Meteor. Soc.; Am. Geog. Soc.; N. Y. Acad. (v. pres, sect. 11); Wash. Acad. Physiography of seacoasts; glacial history of maritime provinces; gold-bearing rocks, iron ores and metallurgical limestones of Nova Scotia; history of the coal basins of Nova Scotia; geology and origin of bedded iron ores; density of iron ores and limestones, and its relation to other properties; origin and history of rocks of southern New York.
- Woodman, Prof. L(eon) E(lmer)**, Missouri School of Mines, Rolla, Mo. *Physics*. Claremont, N. H., Nov. 14, 77. A.B., Dartmouth, 99, A.M., 02; fellow, Columbia, 07-08, Ph.D., 10. Asst. *physics*, Dartmouth, 01-02; instr., high sch., N. H., 02-04; Maine, 04-05; asst., Columbia, 05-08; asst. prof., Maine, 08-12, *assoc. prof.*, 12-19, *prof.*, 19; *Mo. Sch. Mines*, 19- A.A.; Physical Soc. Electric waves.
- Woodring, Dr. Wendell P(hillips)**, California Institute, Pasadena, Calif. *Geology*. Reading, Pa., June 13, 91. A.B., Albright, 10; fellow, Hopkins, 15-16, Ph.D., 16. Geol. aid, U. S. Geol. Surv., 13-15, junior geologist, 15-16; research asst., Hopkins, 16-19; *assoc. geologist*, U. S. Geol. Surv., 19-20, geologist, 20-27; *prof. invert. paleont.*, Calif. Inst., 27- Geologist, Sinclair Cent. Am. Oil Corp., 16-17; Trop. Oil Co., 23-24. A.A.; Geol. Soc.; Paleont. Soc.; Wash. Acad.; Wash. Geol. Soc. Stratigraphy and invertebrate paleontology.
- Woodrow, Prof. Herbert**, University of Oklahoma, Norman, Okla. *Psychology*. Chillicothe, Ohio,

Feb. 25, 83. A.B, Michigan, 04; Paris, 04-05; Ph.D, Columbia, 09. Demonstrator exp. psychol, Princeton, 07; Barnard, Columbia, 07-09; instr, asst. prof. and assoc. prof. *psychol*, Minnesota, 09-27; *prof. and head dept, Oklahoma, 27-* Lecturer, California, 21-22; summers, Teachers Col, Columbia, 23-26. A.A; Psychol. Ass. Association, learning, character and intelligence in children; measurement of rhythm, attention, sensation; physiological age and transference of training.

Woodrow, Prof. J(ay) W(alter), 2322 Baker St, Ames, Iowa. *Physics*. Rock Co, Minn, April 3, 84. A.B, Drake, 07; Rhodes scholar, Oxford, 07-10, B.A, 10; Illinois, 11-12; fellow, Yale, 12-13, Ph.D, 13. Instr. *physics*, Illinois, 10-12; research engineer, West. Elec. Co, 13-14; instr. *physics*, Colorado, 14-15, asst. prof, 15-18, *prof*, 18-21; *Iowa Col, 21-* A.A; Physical Soc; Eng. Educ; Iowa Acad. Photoelectricity; columnar ionization by alpha-particles; high vacua; biophysics.

Woodrow, Katherine Ludgate (Mrs. Herbert Woodrow), Norman, Okla. *Psychology*. Portland, Oregon. A.B, Washington (Seattle), 17, M.S, 18; Ph.D, Chicago, 21. Instr. *psychol*, Minnesota, 21-25, lecturer, 25-26. Summer, instr. and tutor, Bryn Mawr Sch. for Women Workers in Indust, 22, 23. Psychol. Ass. Learning.

Woodruff, E(imer) G(rant), 321 Kennedy Building, Tulsa, Okla. *Geology*. Bradford Co, Pa, 72. B.S, Nebraska, 01, fellow, 03-04, A.M, 04; Austin fellow, Harvard, 06-07. Instr. miner, Oklahoma, 04, in charge dept. geol, 05; asst, *U. S. Geol. Surv*, 04, 05, *geologist*, 07-; *chief geologist*, Texas Co, 14-18; *Okla. Producing and Ref. Co*. Consulting geologist. Wash. Geol. Soc; Nebr. Acad. Coal deposits of Wyoming and Montana; sulphur deposits of Wyoming; the coal and oil fields of the Wind River Basin, Wyoming; oil resources of Utah and Colorado.

Woodruff, Dr. E(ugene) C(yrus), State College, Pa. *Physics*. St. Clair, Mich, April 8, 71. B.S, Michigan, 94, M.S, 96, Ph.D, 00. Teacher, high sch, Mich, 94-97; Chicago, 97-98; chem, Mont. Col, 00-01; high sch, Ill, 01-04; *prof. physics and elec. eng*, James Millikin, 04-13; *elec. eng*, *Pa. State*, 13- A.A; Elec. Eng; Am. St. and Inter-urban Ry. Ass; Cent. Ass. Sci. and Math. Teachers (treas, 02-04). Organic color reactions with nitric acid; elasticity of metals and temperature; tuning-forks; dissociation in gas batteries; stroboscopic oscillograph; automatic control of electric cars; electrical control of motor cars.

Woodruff, Prof. Lorande Loss, Yale University, New Haven, Conn. **Zoology*. New York, N. Y, July 14, 79. A.B, Columbia, 01, A.M, 02, Ph.D, 05; hon. A.M, Yale, 15. Asst. biol, Williams, 03-04, instr, 04-07; biol, *Yale*, 07-09, asst. prof, 09-15, *prof*, 15-22, *protozool*, 22- Instr, Woods Hole, 05-14, trustee, 24- Assoc. ed, 'Jour. Morphol,' 22-24. Nat. Research Council, 25- Consulting physiologist, C.W.S, 18. Nat. Acad; A.A; Soc. Nat. (v. pres, 23); Soc. Zool. (sec'y-treas, east. branch, 08-10, v. pres, 18); Physiol. Soc; Soc. Exp. Biol. Life history of Protozoa; rhythms in the reproduction of Paramecium and

other Infusoria; physiology of conjugation; endomixis; history of biology.

Woods, Dr. Albert F(red), Berwyn, Md. **Botany*. Belvidere, Ill, Dec. 25, 66. B.S, Nebraska, 90, A.M, 92, Agr.D, 13. Asst. bot, Nebraska, 90-93; asst. chief div. veg. physiol. and path, U. S. Dept. Agr, 94-00, chief, 01-10; dean and director dept. agr, Minnesota, 10-17; pres, Md. Col, 17-20, Maryland, 20-26; *director sci. work*, *U. S. Dept. Agr*, 26- Pathologist and physiologist and asst. chief bur. plant indust, U. S. Dept. Agr, 01; exec. officer, Md. Board Agr, 17-26; officer committees, Nat. Research Council, 17- U. S. delegate, Int. Conf. Agr, Rome, 05; Int. Bot. Cong, Vienna, 05. A.A; Bot. Soc. (v. pres, 09); Phytopath. Soc. (v. pres, 10); Wash. Acad; Wash. Bot. Soc. (pres). Plant pathology; plant nutrition; enzymes, especially in relation to pathology; oxidation processes in plant cells; oxidizing enzymes in plant and animal cells; causes of increasing or decreasing resistance of plants to certain diseases.

Woods, Prof. B(aldwin) M(unger), University of California, Berkeley, Calif. *Mathematics, Mechanics*. Lampasas, Texas, Sept. 22, 87. E.E, Texas, 08; M.S, California, 09, Mackay fellow, 08-10, Ph.D, 12; Paris and Munich, 12-13. Instr. and asst. prof. theoreti. mech. and *prof. aerodynamics, California, 18-*, asst. dean, 23-25, *assoc. dean*, 25-, *rep. educ. relations*, 25-, pres, acad. board, sch. mil. aeronautics, 17-19. Mech. Eng. Logarithms of hyperbolic functions to twelve significant places; aeronautics.

Woods, Dr. Elizabeth L(indley), Los Angeles Public Schools, Los Angeles, Calif. *Psychology*. Streator, Ill, March 3, 85. A.B, Oregon, 05, A.M, 10; Ph.D, Clark, 13. Instr. *psychol*, R. I. Nor. Sch, 13-14; Vassar, 14-16, asst. prof, 16; clin. psychologist, pub. schools, Calif, 16-17; director special educ, Wis. State Dept. Pub. Instr, 17-25; *director dept. psychol. and educational research, Los Angeles Pub. Schools, 25-* A.A; Psychol. Ass. Clinical and experimental psychology; memory; recognition; intelligence tests; educational measurements; pre-school education.

Woods, Dr. Ella, University of Idaho, Moscow, Idaho. *Nutrition*. Boise, Idaho. B.S, Idaho, 11; A.M, Columbia, 19, Ph.D, 24. Instr, Montana, 15-18; asst. home demonstration agent in charge research, Florida State, 19-21; research asst. food chem, Columbia, 21-25; asst. prof. *home econ*, Wisconsin, 25-27; *research, Idaho, 27-* Chem. Soc; Soc. Biol. Chem.

Woods, Dr. F(rederick) Adams, 1006 Beacon St, Brookline, Mass. **Biology*. Boston, Mass, Jan. 29, 73. Mass. Inst. Tech; M.D, Harvard, 98. Asst. *histol. and embryol*, Harvard, 98-01, instr, 01-02; *lecturer, Mass. Inst. Tech*, 03- Instr, Harvard Vet. Sch, 99-01. Acting ed, 'Jour. Heredity,' 18-19, co-editor, 19-20. Int. Eugenics Commission, 12-17; Nat. Research Council, 22- A.A; Soc. Nat; Genetic Ass. (councilor, chairman, eugenics sect, 12-17); Galton Soc; fel. Am. Acad; Am. Hist. Ass. Origin of the germ cells; physical heredity; mental and moral heredity in royalty; influence of environment; heredity of coloration in ani-

- mals; heredity and sex; mental and moral correlations; relation of heredity to history; formation of aristocracies; recent changes in the human face; historiometry; measurements in physiognomy; biology of war.
- Woods, Prof. F(rederick) S(henstone)**, Massachusetts Institute of Technology, Cambridge, Mass. **Mathematics*. Monson, Mass, March 8, 64. A.B., Wesleyan, 85, A.M., 88; Ph.D., Göttingen, 94. Asst. physics and astron., Wesleyan, 85-86; teacher *math*, Genesee Sem, Lima, N. Y., 86-90; instr., *Mass. Inst. Tech.*, 90-95, asst. prof., 95-03, assoc. prof., 03-06, *prof.*, 06- Lecturer, Harvard, 98-99. Ed., 'Annals of Math.', 00-11. *Math. Soc.*; *Math. Ass.*; *Am. Acad.*; *Soc. math. de France*. Geometry.
- Woods, Dean H(arry) I(rwin)**, Chickasha, Okla. *Astronomy*. New Hamburg, Pa., July, 70. A.B., Lafayette, 95; Columbia, 99-00; Pennsylvania, 00-01. Tutor *math.* and *Latin*, Lafayette, 95-99; instr. *math.*, Pennsylvania, 01-02; prof. physics and astron., Washburn, 02-18; dean, *Chickasha Junior Col.*, 24- Observer, U. S. Coast and Geod. Surv. U.S.A., 18-20. Double star measures.
- Woods, Dr. Hiram**, 842 Park Ave, Baltimore, Md. *Ophthalmology*. Baltimore, Nov. 11, 57. A.B., Princeton, 79; M.D., Maryland, 82, LL.D., 24. *Practising surgeon*, 90-; prof. eye and ear diseases, Maryland, 94-20. Surgeon, Univ. Hosp. and Union Protestant Infirmary, Baltimore; consulting eye surgeon, city and state institutions; Md. Board State Aid and Charities, 14-16. A.A.; Am. Med. Ass. (chairman, sect. ophthal., 13); Ophthal. Soc. (pres, 20); Acad. Ophthal. and Oto-Laryngol.; Col. Surg.; Md. Med. and Chirurg. Faculty (pres, 06). Clinical ophthalmology.
- Woods, Dr. Ozro T(heo)**, Baylor University College of Medicine, Dallas, Texas. *Pathology*. Danbury, Nebr., April 8, 95. A.B., Nebraska, 21, M.D., 24. Asst. prof. *path.*, Baylor, 24-26, *assoc. prof.*, 26- Am. Med. Ass. The bacteriophage and its clinical use.
- Woods, Prof. Roscoe**, 517 S. Lucas St, Iowa City, Iowa. *Mathematics*. Mayo, Ky., Aug. 10, 89. A.B., Georgetown, 14; A.M., Maine, 16; Ph.D., Illinois, 20. Asst. *math.*, Maine, 14-15, instr., 15-17; asst., Illinois, 17-20; instr., Iowa, 20-22, *assoc.*, 22-25, *asst. prof.*, 25- *Math. Soc.*; *Math. Ass.* The elliptic modular functions associated with the elliptic norm curve E' ; chochlioid.
- Woods, Dr. William C(olcord)**, St. Andrew's Rectory, Kent, Conn. *Entomology*. Middletown, Conn., May 9, 93. A.B., Wesleyan, 13; Ph.D., Cornell, 17. Instr. *biol.*, Wesleyan, 17-18, *assoc. prof.*, 19-24; *master*, *Kent Sch. Conn.*, 24- Lab. worker, U.S.A., 18-19. A.A.; Entom. Soc.; Ass. Econ. Entom. Biological and histological entomology.
- Woodward, Dr. Alvalyn E(unice)**, University of Michigan, Ann Arbor, Mich. *Physiology*. Niagara, N. Dak., May 29, 84. Ph.B., Rochester, 05, M.S., 11; fellow, Michigan, 12-15, Ph.D., 18. Teacher *biol.*, high schools, 05-10; asst., Rochester, 10-11; acting head dept., Cent. State Nor. Sch., Mich., 11-12; asst., Vassar, 15-16; instr., Simons, 16-20; demonstrator, Amherst, 20-23; asst. prof., N. C. Col. for Women, 23-25; *assoc. prof.*, Maine, 25-27; *Michigan*, 27- A.A.; Soc. Zool.; Mich. Acad. Orthoptera; physiological effects of egg-secretions; parthenogenesis.
- Woodward, Dr. Harold E(dward)**, Box 525, Wilmington, Del. *Chemistry*. Worcester, Mass., July 5, 88. A.B., Amherst, 10; Goldschmidt fellow, Columbia, 11-12, Ph.D., 12. Bur. chem., U. S. Dept. Agr., 12-18; *Jackson lab.*, E. I. du Pont de Nemours and Co., 18- A.A.; Chem. Soc. Surface tension of blood serum; surface tension and hemolytic activity of saponins; volatile amines; azo colors.
- Woodward, Prof. K(arl) W(ilson)**, University of New Hampshire, Durham, N. H. *Forestry*. Detroit, Mich., July 24, 81. A.B., Cornell, 03; M.F., Yale, 04. Forest inspector, U. S. Forest Service, 04-15; head dept. *forestry*, New Hampshire, 15- Special investigation forest resources, Dominican Republic, 09. A.A.; Soc. Foresters (sec'y, 08); N. H. Acad. (exec. committee, 23). Valuation of forest land; forest history.
- Woodward, Prof. Sherman M(elville)**, Iowa City, Iowa. *Hydraulics*. Richfield, Minn., May 11, 71. M.S., Washington (St. Louis), 93; A.M., Harvard, 96. Prof. *math.* and *mech.*, Arizona, 96-04; steam eng., Iowa, 04-05; irrig. and drainage engineer, U. S. Dept. Agr., 05-08; *prof. mech. and hydraul.*, Iowa, 08- Consulting engineer, Miami Conservancy Dist., Dayton, Ohio, 13-20. A.A.; Mech. Eng.; Eng. Educ.; Civil Eng.; Iowa Acad.; Iowa Eng. Soc. Pumping machinery; internal combustion engines; hydrodynamics.
- Woodward, Dr. W(illiam) C(reighton)**, 1535 E. 60th St, Chicago, Ill. *Public health*. Washington, D. C., Dec. 11, 67. M.D., Georgetown, 89, LL.M., 00, LL.D., 25. Health officer, D. C., 94-18; health commissioner, Boston, 18-22; *sec'y*, *bur. legal med. and legislation*, Am. Med. Ass., 22- Prof., Georgetown; Howard; Loyola; lecturer, Chicago. Pres, Conf. State and Provincial Boards Health of N. Amer., 12; hon. mem. Conf. State and Provincial Health Authorities of N. Amer. Fel. Am. Med. Ass.; Pub. Health Ass. (pres, 13); Child Health Ass. (pres, 16); hon. mem. Vet. Med. Ass.; hon. mem. Int. Ass. Milk Inspectors. Legal medicine.
- Woodworth, Prof. C(harles) W(illiam)**, University of California, Berkeley, Calif. *Entomology*. Champaign, Ill., April 8, 65. B.S., Illinois, 85, M.S., 86; Harvard, 86-88, 00-01. Asst., Ill. State Lab. Nat. Hist., 84-86; entomologist and botanist, Ark. Exp. Sta., 88-91; asst. prof. *entom.*, California, 91-04, *assoc. prof.*, 04-13, *prof.*, 13- Lecturer, Univ. Nanking, 18; director, Bur. Entom., Kiangsu Province, and hon. prof., Nat. S. E. Univ., Nanking, 22-24. A.A.; Entom. Soc.; Ass. Econ. Entom.; Pacific Slope Ass. Econ. Entom. (pres); Calif. Acad.; Science Soc. China. Economic entomology; wing veins of insects; pathology of insecticide poisoning; microscope theory.
- Woodworth, C(lyde) M(elvin)**, University of Illinois, Urbana, Ill. *Agronomy*. Canton, Ill., Feb. 28, 88. B.S., Okla. Agr. and Mech. Col., 10; M.S., Wisconsin, 14, Ph.D., 20. Asst. agron., S.

Dak. Col, 10-12; sci. asst, U. S. Dept. Agr, 12-13; asst. and instr. genetics, Wisconsin, 13-19; asst. pathologist, bur. plant indust, U. S. Dept. Agr, 19-20; *assoc. prof. plant breeding and agron., Illinois, 20-* A.A.; Soc. Agron; Genetic Ass. Inheritance in soy beans; soy bean and corn breeding; small grain improvement.

Woodworth, Dr. Philip B(ell), 7 S. Dearborn St, Chicago, Ill. *Engineering*. Auburn, N. Y., Oct. 19, 65. B.S, Mich. State Col, 86, Sc.D, 20; M.E, Cornell, 90; Berlin, 91-92. Prof. physics, Mich. State Col, 92-99; elec. eng, Lewis Inst, 96-06, dean eng, 07-18; pres, Rose, 21-24; *consulting engineer, Rummel, Rummel and Woodworth, 24-* War plans div, gen. staff, U.S.A., 18-21. Elec. Eng. (committee-man, 10-12); West. Soc. Eng. (v. pres, 10); Chicago Elec. Ass. (pres, 03-05). Physics.

Woodworth, Prof. R(obert) S(essions), Columbia University, New York, N. Y. **Psychology*. Belchertown, Mass, Oct. 17, 69. A.B, Amherst, 91; A.B, Harvard, 96, A.M, 97; Ph.D, Columbia, 99; Edinburgh, 00; fellow, Liverpool, 02. Teacher, high sch, N. Y., 91-93; instr. math, Washburn, 93-95; asst. physiol, Harvard Med. Sch, 97-98; instr. Univ. and Bellevue Hosp. Med. Col, 99-02; demonstrator, Liverpool, 02-03; instr. *psychol, Columbia, 03-05*, adjunct prof, 05-09, *prof, 09-* Ed, 'Archives of Psychol.' Chairman, div. anthrop. and psychol, Nat. Research Council, 24-25; Social Science Research Council, 25- Nat. Acad; A.A. (v. pres, 08, 24); Psychol. Ass. (acting sec'y, 07, pres, 14); fel. N. Y. Acad. Psychology of movement and training; fatigue; physiology of muscle and nerve; racial differences; imagery and thought; association tests; memory; motivation.

Woody, Dr. McIver, 405 Westminster Ave, Elizabeth, N. J. *Surgery*. Louisville, Ky, March 6, 86. A.B, Richmond, 05; Harvard, 07, M.D, 12. Asst. physician, Butler Hosp, Providence, 12-13; intern, Boston City Hosp, 13-14; Austin teaching fellow surg, Harvard, 14-19, sec'y, faculty med, 17-18; dean and prof. surg, sch. med, Tennessee, 20-21. Out-patient surgeon, Boston City Hosp, 15-19. Major, M.R.C. A.A.; Am. Med. Ass; Ass. Mil. Surg; Pub. Health Ass. Osteomyelitis; industrial surgery.

Woodyatt, Dr. R(ollin) T(urner), University of Chicago, Chicago, Ill. **Medicine*. Chicago, June 3, 78. B.S, Chicago, 06, M.D, Rush Med. Col, 02. *Asst. prof. internal med, Rush Med. Col, Chicago, 11-*; *mem. staff, Sprague Mem. Inst, Chicago, 11-* Attending physician, Presb. Hosp. Harvey lecturer, 16. Major, M.C, 18-19. A.A.; Am. Physicians; Ass. Path. and Bact; Soc. Exp. Path; Soc. Clin. Invest; Soc. Biol. Chem. Carbohydrate metabolism; diabetes; fever.

Woodard, Edgar W(illiam), U. S. Weather Bureau, Washington, D. C. *Physics, Meteorology*. El Paso, Texas, Jan. 6, 99. Colorado; A.B, George Washington, 23, A.M, 26. *Meteorologist, U. S. Weather Bur, 19-* A.A.; Physical Soc; Meteor. Soc; Math. Soc; Math. Ass; Astron. Soc; Wash. Philos. Soc; Wash. Acad. Mathematical statistics; meteorological optics.

Woollett, Prof. G(uy) H(aines), Box 460, University, Miss. *Organic chemistry*. Minneapolis, Minn, July 14, 88. B.S, Minnesota, 10, M.S, 16, Ph.D, 18. Asst. prof. *chem, Mississippi, 16-18*; instr, Minnesota, 18-20; *assoc. prof, Mississippi, 20-* Chem. Soc. The decomposition and decomposition products of salts of halogenated phenols.

Woolley, Dr. Paul G(erhardt), Las Encinas, Pasadena, Calif. *Pathology*. Paris, Ill, April 7, 75. B.S, Chicago, 96; M.D, Hopkins, 00; fellow, McGill, 01-02. Res. house officer, Hopkins Hosp, 00-01; bacteriologist and pathologist, Bur. Science, P. I, 02-06; director, Govt. Serum Lab, Siam, 06-07, chief inspector health, Siam, 07-08; *assoc. prof. path, Nebraska, 08-09*; prof, col. med, Cincinnati, and director lab, Cincinnati Hosp, 09-20; Nat. Path. Lab, Mich, 20-23; pathologist, Angelus, California Lutheran, Good Samaritan, Kaspere Cohn and Santa Fe Hospitals; consulting pathologist, Kern Gen. Hosp. Assoc. ed, 'Jour. Lab. and Clin. Med.' Delegate for Siam, Int. Cong. Tuber, 08. A.A.; Ass. Path. and Bact; Soc. Bact; Am. Med. Ass; Int. Ass. Med. Mus. Medical education; epidemiology; tropical medicine; parasitology; pathological anatomy.

Woolley, Mrs. Paul G. (Dr. Helen Bradford Thompson), Teachers College, Columbia University, New York, N. Y. **Psychology*. Chicago, Ill, Nov. 6, 74. Ph.B, Chicago, 97, fellow, 97-00, Ph.D, 00, Ass. Col. Alumnae fellow, 00-01. Prof. psychol. and director lab, Mt. Holyoke, 02-05; exp. psychologist, Bur. Educ, P. I, 05-06; instr. philos, Cincinnati, 10-12; director vocation bur. pub. schools, Cincinnati, 14-21; fellow, Helen S. Trounstine Foundation, Cincinnati, 21-22; psychologist and asst. director, Merrill-Palmer Sch, Detroit, 22-26; *prof. educ. and director, Inst. Child Welfare Research, Teachers Col, Columbia, 26-* Psychol. Ass. The mental traits of sex; affective processes; judgment of area on the skin; structure of the cortex; theory of the judgment; peripheral color vision; color perceptions of an infant; mental and physical measurements of working children; vocational guidance; psychology of the pre-school child; nursery school education; parental education.

Woolrich, Prof. W(illis) R(aymond), University of Tennessee, Knoxville, Tenn. *Mechanical engineering*. Mineral Point, Wis, March 1, 89. B.S, Wisconsin, 11, M.E, 23. Instr. design and hydraul, De Paul, 11-12; director schools, Deering Harvester, Int. Harvester Co, 12-14, efficiency engineer, 14-16; *prof. mech. eng, Tennessee, 16-* Mfg. apprentice, West. Elec. Co, Ill, 12-13. Mech. Eng. (sec'y, Knoxville sect, 22-); hon. mem. Nat. Ass. Sta. Eng. Mine power; fusibility of ash of southern Appalachian coals; sherardizing; power and labor resources of southern Appalachian slopes; steam engineering; refrigeration.

Woolsey, Dr. George, 117 E. 36th St, New York, N. Y. *Surgery*. New Haven, Conn, May 2, 61. A.B, Yale, 81; M.D, Columbia, 85. *Prof. anat. and clin. surg, N. Y. Univ, 90-98*; *Cornell, 98-09, clin. surg, 09-* Consulting surgeon, Bellevue Hosp. Surg. Ass; Soc. Clin. Surg; Am. Med.

Ass; fel. N. Y. Acad. Med; Int. Surg. Soc. Surgical anatomy; abdominal surgery.

Woolsey, Theodore S(alisbury), Jr, 242 Prospect St, New Haven, Conn. *Forestry*. New Haven, Oct. 2, 79. A.B., Yale, 01, M.F., 03. U. S. Forest Service, 00-15, inspector, 07-08, asst. dist. forester, 08-15. Advisory board, forest sch, Yale, 08-15, lecturer, 12. Assoc. ed, 'Forestry Quarterly,' 13- Major and lieut. col, U.S.A. D.S.O.; Chevalier, Légion d'honneur; Chevalier, Order of Leopold. Ecol. Soc; Soc. Foresters; Am. Geog. Soc. Forest management; silviculture; western yellow pine; French forestry.

Wooster, Prof. L(yman) O(hild), 1017 Union St, Emporia, Kans. *Geology, Biology*. Hammond, N. Y., Aug. 1, 49. Milton, 65-67, hon. Ph.D., 98; State Nor. Sch, Whitewater, Wis, 70-73; Beloit, 73-75; Yale, 81-82; Chicago, 97. Asst. geologist, Wis. Geol. Surv, 73-79; prof. nat. science, Wis. State Nor. Sch, Whitewater, 78-81; asst. geologist, U. S. Geol. Surv, 81-84; prof. nat. science, N. Dak. State Nor. Sch, Mayville, 93-95; *biol. and geol. Kansas State Teachers Col, Emporia*, 97- Supt, Kans. educ. exhib, Columbian Expos, 93. Kans. Acad. (pres, 05). Drift; Potsdam sandstone; coal measures; geology of Kansas; plant and animal instincts; science in education.

Wooten, Prof. Benjamin A(hen), Washington and Lee University, Lexington, Va. *Physics*. Jefferson, Ala, July 29, 90. B.S., Ala. Polytech, 11, E.E., 12; A.M., Columbia, 15, Ph.D., 17, Tyndall fellow. Instr. elec. eng, Ala. Polytech, 12-14, asst. prof. *physics*, 15-16, prof, 19-21; instr, Col. City of N. Y., 17-19; *McCormick prof, Washington and Lee*, 22- Summers, teacher, Col. City of N. Y., volunteer research asst, Yerkes Observatory, 26. Physical Soc; Optical Soc; Va. Acad. X-ray spectroscopy and spectroscopy of light.

Wooten, E(lmer) O(ttis), U. S. Department of Agriculture, Washington, D. C. *Biology*. Kokomo, Ind, Sept. 19, 65. B.S., Earlham, 89, A.M., 96; Columbia, 96-98. Prof. bot, N. Mex. Col, 90-96, 98-00, *biol*, 00-11; asst. agriculturist and agriculturist, office farm management, *U. S. Dept. Agr*, 11-20, asst. agr. economist, 20-25, *assoc. econ. analyst, bur. agr. econ*, 25- Botanist, N. Mex. Exp. Sta, 90-96, 98-11; summers, agent and expert, bur. forestry, U. S. Dept. Agr, 00, 01, 02, special agent, 09, 10. A.A.; Farm Econ. Ass; Econ. Ass; Acad. Polit. Sci; Wash. Bot. Soc; Wash. Biol. Soc; Wash. Acad. Utilization of arid grazing lands and semi-arid crop lands.

Worcester, Prof. Dean A(mory), Ohio State University, Columbus, Ohio. *Psychology*. Thetford, Vt, March 21, 89. A.B., Colorado, 11, A.M., 21; Ph.D., Ohio State, 26. Supervisor, dist. of Zamboanga, P. I, 13-14; prof. psychol, New Mexico, 14-18; prin, high sch, Wyo, 18-20; asst. prof. psychol. and director bur. educ. measurements and standards, Kansas Col, 20-24; *instr. psychol, Ohio State*, 24- Summers, asst. prof, Colorado, 23, Ohio State, 26. Mem. Psychol. Corp. A.A.; Educ. Research Ass; Nat. Soc. Col. Teachers Educ; Kans. Acad. Educa-

tional psychology; learning and retention; problems relating to curriculum construction and to effectiveness of teaching in higher education.

Worcester, Dean P(hilip) G(eorge), 1065 11th St, Boulder, Colo. *Geology*. Thetford, Vt, May 5, 84. A.B., Colorado, 09, A.M., 11; Ph.D., Chicago, 24. Instr. *geol, Colorado*, 12-14, asst. prof, 14-18, assoc. prof, 18-25, *prof, 25-, dean men*, 20- Geologist, Colo. Geol. Surv, 12- Midwest Ref. Co, 19. A.A.; Meteor. Soc. Physiography and geography of Colorado; molybdenum deposits.

Worden, Edward C(hauncey), Milburn, N. J. *Chemistry*. Ypsilanti, Mich, April 17, 75. Ph.C., Michigan, 96; B.S., N. Y. Univ, 06, A.M., 08. Chemist, N. Y. Exp. Sta, Geneva, 96-98; mem. firm, Crane and Worden, 99-00; chemist, Celluloid Zapon Co. and Boston Artificial Leather Co, 00-02; Clark Thread Co. and J. and P. Coats, 03-13; *chemist, Worden Lab, Milburn, and consulting chemist cellulose and explosive indust*, 13- Asst. ed, 'Kunststoffe'; 'Caoutchouc et Gutta percha.' Chem. Soc; Soc. Chem. Indust; Chem. Eng; fel. London Chem. Soc; Chem. Verein; Chem. Gesell; Soc. chim. de France. Analytical chemistry; explosives; nitrocellulose industry; technology cellulose esters; carbohydrate carboxylates; cellulose acetate.

Work, Lincoln T(homas), Columbia University, New York, N. Y. *Chemical engineering*. Hartford, Conn, Dec. 28, 98. A.B., Columbia, 18, Ch.E., 21, A.M., 24. Instr. *chem. eng, Columbia*, 21- Consulting engineer, 21- A.A.; Chem. Soc; Electrochem. Soc; Eng. Educ; N. Y. Chemists Club. Cement; activated carbon; particle size.

Work, Paul, 310 Elmwood Ave, Ithaca, N. Y. *Horticulture*. Kerrmoor, Pa, June 18, 86. A.B., Tennessee, 07; B.S., Pa. State, 10; M.S.A., Cornell, 13; Ph.D., Minnesota, 21. Instr. hort, Cornell, 10-13, *veg. gardening* and supt. dept, 13-17, acting prof, 17-20, *prof, 20-* Assoc. ed, 'Market Growers Jour,' 21- C.Eng, U.S.A., 17-19. A.A.; Soc. Hort. Sci. Celery; tomato nutrition; taxonomy; varieties of vegetables.

Working, Dr. Earl B(ooth), Kansas State Agricultural College, Manhattan, Kans. *Chemistry*. Fort Collins, Colo, Feb. 20, 97. A.B., Denver, 17, A.M., 19; Ph.D., Arizona, 22. Junior chemist, bur. chem, U. S. Dept. Agr, 17-18; teaching fellow, Minnesota, 19-20; research asst, Desert Lab, Carnegie Institution, 21-23; *assoc. prof. milling indust, Kansas Col*, 23- A.A. (sec'y, southwest. div, 22); Chem. Soc; Ass. Cereal Chem. Cereal and plant chemistry; plant physiology.

Wormser, F(elix) E(dgar), 25 W. 43d St, New York, N. Y. *Mining engineering*. Santa Barbara, Calif, Oct. 31, 94. E.M., Columbia, 16. Mining engineer, Cornucopia Mines Co, and Baker Mines Co, Oregon, 16-18; U. S. mineral surveyor, 17-20; mining engineer, U. S. Bur. Mines, 19-20; ed. staff, 'Eng. and Min. Jour,' 20-25; gen. manager, Can. Mines Merger, Ltd, Kaslo, B. C, 25-27; *consulting mining engineer*, 27- Min. and Metal. Eng; Econ. Ass. Marketing of metals and minerals.

Worrall, Prof. David E(bridge), Tufts College, Mass. *Chemistry*. Westerly, R. I., Aug. 2, 86. B.S., R. I. Col., 10; A.M., Harvard, 11, Ph.D., 19. Austin teaching fellow, Harvard, 12-14; instr. chem., Smith, 14-18; asst. prof. *org. chem.*, Tufts, 19-24, *prof.*, 24- Visiting lecturer, Radcliffe. Lieut. C.W.S., 18-19. A.A.; Chem. Soc. Addition reactions of organic chemistry.

Worsham, Prof. E(rnest) Lee, 332 State Capitol, Atlanta, Ga. *Entomology*, *Plant pathology*. Forsyth, Ga., March 27, 80. B.S., Georgia, 04; Cornell, 06-07. Instr. biol., Georgia, 04-06; special agent, bur. entom., U. S. Dept. Agr., 07; *state entomologist*, Ga., 07- A.A.; Ass. Econ. Entom.; Entom. Soc.; Ass. Hort. Inspectors. The codling moth; the Hessian fly; peach leaf curl; the plum curculio; the cotton red spider; black root diseases of cotton; cotton anthracnose.

Worsham, Prof. W(illiam) A(rcher), Hunter College, New York, N. Y. *Chemistry*. Monroe Co., Ga., March 9, 78. B.S., Georgia, 03; A.M., Harvard, 08; Ph.D., Columbia, 24. Teaching fellow, Harvard, 08-09; asst. state chemist, Ga., 09-10; asst. prof. agr. chem., Georgia, 10-11, *prof.*, 11-21; lecturer, *Hunter Col.*, 21-22, *assoc. prof. chem.*, 22- A.A. (sec'y, council, 13, gen. sec'y, 14); Chem. Soc.; Soc. Agron. Soil types of Georgia; the stability of magnesium ammonium phosphate.

Worshall, Robert A(rthur), 2500 W. Railroad Ave., Evanston, Ill. *Chemistry*. Zanesville, Ohio, April 18, 75. B.S., Case, 97, M.S., 98. Instr. chem., Purdue, 97-00; supt., Glidden Varnish Co., 00-01; Chicago Varnish Co., 01-08; *varnish specialist*, 08- Chem. Soc.; Soc. Chem. Indust. Varnishes; nitration and sulphonation of paraffines, resins and oils.

Worthen, Prof. E(dmund) L(ouis), Cornell University, Ithaca, N. Y. *Agronomy*. Wilcox Township, Ill., Oct. 5, 82. B.S., Illinois, 04; M.S.A., Cornell, 08. Asst., Illinois, 04-06; scientist, soil surv., bur. soils, U. S. Dept. Agr., 06-09, in charge soil investigations in N. C., 09-12; asst. prof. and assoc. prof. agron., Pa. State, 12-19; *prof. soil technol.*, Cornell, 19- A.A.; Soc. Agron. Soil extension and improvement.

Worthing, Dr. A(rchie) G(arfield), University of Pittsburgh, Pittsburgh, Pa. **Physics*. Le Roy, Wis., Feb. 6, 81. A.B., Wisconsin, 04, 04-06; Iowa, 08-09; Ph.D., Michigan, 11. Asst. physics, Wisconsin, 04-06; instr., Iowa, 06-09; asst. physicist, Nat. Elec. Lamp Ass., 10-12, physicist, 12-14; Nela Research Lab., 14-25; *prof. physics and head dept.*, Pittsburgh, 25- A.A.; Physical Soc.; Optical Soc.; Illum. Eng. Soc. Thermodynamic properties of gases; vapor tension; cosine law for tungsten and carbon; brightness measurements; temperature distribution in an incandescent lamp filament; thermal conductivities of tungsten, tantalum and carbon; Thomson effect at incandescent temperatures; ballistic galvanometers; emissivities and true temperature scales of tungsten, molybdenum, tantalum and other metals; atomic heats at incandescent temperatures.

Worthington, Dr. Euphemia R., University of California at Los Angeles, Los Angeles, Calif. *Mathematics*. Troy, N. Y., Dec. 22, 81. A.B.,

Wellesley, 04; Ph.D., Yale, 08. Instr. math., Wellesley, 09-18; eng. dept., Gallaudet Aircraft Corp., 18-22; *asst. prof. math.*, California at Los Angeles, 22- Math. Soc.

Worthley, Prof. H(arlan) N(oyes), 526 Pugh St., State College, Pa. *Entomology*. Boston, Mass., Feb. 6, 95. B.S., Mass. Col., 20, M.S., 23. Investigator entom., Mass. Exp. Sta., 20-24, asst. res. prof., 24-25; *asst. prof. entom. exten.*, Pa. State, 25- A.A.; Entom. Soc.; assoc. Ass. Econ. Entom. Control of the squash vine borer in Massachusetts; biology of *Trichopoda pennipes* Fab; liberation of nicotine from nicotine sulphate sprays.

Wrather, W(illiam) E(mbry), 6044 Bryan Parkway, Dallas, Texas. *Geology*. Brandenburg, Ky., 83. Ph.B., Chicago, 08. Geologist, Gulf Production Co. and J. M. Guffey Petrol. Co., 08-16; *consulting geologist*, 16- Lecturer, Chicago, 22; Texas, 27. Assoc. ed., 'Econ. Geol.' Div. geol. and geog., Nat. Research Council. A.A.; fel. Geol. Soc.; Soc. Econ. Geol.; Ass. Petrol. Geol. (sec'y-treas., 18, pres., 22, chairman, research committee, 23-); Min. and Metal. Eng. (director, 21-23); Seismol. Soc. Oil geology; Permian stratigraphy of the southwest; geology of northern Texas oil fields; petroleum geology.

Wren, Dean Frank G(eorge), Tufts College, Mass. *Mathematics*. Sharon, Mass., March 15, 74. A.B., Tufts, 94, A.M., 97. Instr. math., Tufts, 94-99, asst. prof., 99-04, *Walker prof.*, 04-, *dean dept. arts and sciences*, 07- A.A.; Math. Soc.

Wrenshall, Prof. Richard, University of Hawaii, Honolulu, Hawaii. *Chemistry*. Edgeworth, Pa., May 30, 89. Ph.B., Yale, 11, Ph.D., 15. Instr. chem., Yale, 14-16; chief chemist, Sterling Varnish Co., 16, v. pres., 16-17; *prof. chem.*, Univ. Hawaii, 19- Hydantoins; synthesis of alpha-amino-delta-phenylvalerianic acid; chaulmoogric and hydnocarpic acids in the treatment of leprosy.

Wright, Dr. A(lbert) H(azen), Ithaca, N. Y. *Zoology*, *Ecology*. Hilton, N. Y., Aug. 15, 79. A.B., Cornell, 04, A.M., 05, Ph.D., 08. Asst. *vert. zool.*, Cornell, 05-08, instr., 08-15, asst. prof., 15-25, *prof.*, 25- A.A.; Soc. Nat.; Soc. Zool.; Ecol. Soc.; Soc. Mammal; Ornith. Union; Soc. Ichthyol. and Herp.; Fisheries Soc.; Am. Hist. Ass.; Wash. Biol. Soc. Distribution of fish; life histories of Amphibia; primitive North American fauna; vertebrates of the Cayuga Lake Basin; life histories of North American Anura; biology and history of Okefinokee Swamp; North American reptiles and vertebrates.

Wright, Alexander Holland, McElree Road, Washington, Pa. *Chemistry*. Pittsburgh, Pa., Nov. 23, 74. A.B., Washington and Jefferson, 98, A.M., 01; Ph.D., Columbia, 21. *Prof. chem.*, Muskingum Col., 03-16; *Washington and Jefferson*, 20- Chem. Soc. Minor problems in viscosity; H₂ electrode and analysis of magnesium.

Wright, Charles Allen, National Carbon Co., Cleveland, Ohio. *Electrical engineering*. Vicksburg, Miss., Sept. 13, 84. B.E., Tulane, 06, E.E., 09; M.E.E., Harvard, 10. Inspector, U. S.

- Engineers, 06-07; tester, Gen. Elec. Co, 07-08; instr. elec. eng, Harvard, 08-09; engineer, Am. Tel. and Tel. Co, 10-15; assoc. prof. elec. eng, Iowa Col, 15-18; prof, Ohio State, 18-26, director broadcasting sta, 25-26; *research laboratories, Nat. Carbon Co, 26-* A.A.; Elec. Eng; Radio Eng; Eng. Educ. Electrical communication.
- Wright, Charles Will, 1**, Corso Buonorotti, Trento, Italy. *Mining geology*. Marquette, Mich, May 15, 79. Heidelberg, 97-98; Bergakad, Freiberg, 98-00; B.S, Mich. Col. Mines, 02, E.M, 03. Instr. miner, Mich. Col. Mines, 01-03; geol. aid, U. S. Geol. Surv, 03-05, asst. geologist, 05-09; gen. manager mines, Soc. di Pertusola, Sardinia, 09-19; *gen. manager, Soc. Atesina Esplorazioni Minerarie, 20-*; *Wright and Co, 27-* Comendatore, Corona d'Italia, 19- Major, A.R.C, 17-19. A.A; Geol. Soc; Min. Eng; Wash. Geol. Soc; British Inst. Min. and Metal. Geology of southeastern Alaska; geology and mining in Sardinia.
- Wright, Prof. Frank J(ames)**, Granville, Ohio. *Physiography*. Bridgewater, Va, Nov. 22, 88. A.B, Bridgewater, 08; A.M, Virginia, 11; Ph.D, Columbia, 18. Prof. geol. and biol, Bridgewater, 11-16; assoc. *geol*, Bryn Mawr, 18; *prof*, Bridgewater, 19-24; *Denison, 24-* From field asst. to asst. geologist, Va. Geol. Surv, 12-24; visiting assoc, Columbia, 23-24. Summer, instr, 18, 20- A.A; Am. Geog. Soc; N. Y. Acad; Ohio Acad. Physiography of Upper James River Basin; Southern Appalachians.
- Wright, Dr. Fred(erick) E(ugene)**, Geophysical Laboratory, Washington, D. C. **Geology*. Marquette, Mich, Oct. 16, 77. Ph.D, Heidelberg, 00. Instr. petrog, Mich. Col. Mines, 01-04; asst. geologist, U. S. Geol. Surv, 04-06, geologist, 06-17; *petrologist, geophys. lab, Carnegie Institution, 06-* Asst. state geologist, Mich, 02-04. Capt, ordnance dept, O.R.C, 17-18, major, 18-19, lieut. col, 19-; army rep, mil. optical glass and instrument sect, W.I.B, 18-19. Geophys. Union. Nat. Acad. (v. pres, 27); A.A; Geol. Soc; Miner. Soc; Min. Eng; Physical Soc; Philos. Soc; Optical Soc. (pres, 18); Am. Acad; Wash. Acad. (cor. sec'y, 16); Wash. Geol. Soc. (pres, 24); Wash. Philos. Soc; for. cor. London Geol. Soc; London Miner. Soc; London Optical Soc. Physical crystallography; experimental petrology; geophysics.
- Wright, Dean Harry Noble**, 606 Southwest A St, Richmond, Ind. *Mathematics*. Shelbyville, Ind, Oct. 3, 81. B.S, Earlham, 04; M.S, California, 11, fellow, 12-13, Ph.D, 13. Prof. *math*, Pacific (Oregon), 04-05; Whittier, 08-10; asst, Calif, 10-12, instr, 13-17; prof, Whittier, 17-23, dean, 17-18, pres, 18-23; lecturer, California, 23-24; *dean and prof, Earlham, 24-* A.A; Math. Ass; Pacific Astron. Soc. Number theory; analytical geometry; synthetic projective geometry.
- Wright, Howard V**, Edgewood Arsenal, Edgewood, Md. *Chemical engineering*. Indianola, Iowa, June 4, 92. A.B, Simpson (Iowa), 17; M.S, Iowa Col, 23. Asst. prof. chem. eng, Iowa Col, 18-24; *chief dept. eng, C.W.S, Edgewood Arsenal, 25-* Chem. Soc. The manufacture of chemical warfare service materials and munitions.
- Wright, Dr. James H(omer)**, Massachusetts General Hospital, Boston, Mass. **Pathology*. Pittsburgh, Pa. A.B, Hopkins, 90; M.D, Maryland, 92, hon. Sc.D, 07; fellow, Pennsylvania, 92-93; A.M, Harvard, 95, hon. Sc.D, 05. Asst. *path, Harvard Med. Sch, 93-96*, instr, 96-07, *asst. prof, 07-*; director path. lab, *Mass. Gen. Hosp, 96-25*, *consulting pathologist, 25-* Pathologist in charge free diagnosis service, cancer commission, Harvard Med. Sch, 17- Gross prize, Phila. Acad. Surg, 05; Boylston med. prize, Harvard, 08. Emer. mem. Am. Physicians. Pathological anatomy, histology and bacteriology.
- Wright, Dr. J(ames) R(emus)**, Standard Oil Co, Elizabeth, N. J. *Physics*. Carrollton, Ohio. B.S, Westminster (Pa), 05; fellow, Chicago, 08-09, Ph.D, 11. Asst, Chicago, 10-11; prof. physics and chief dept, Philippines, 11-19; chief physicist, Standard Oil Co. of Ind, 19-21; *research physicist and chief engine research lab, Standard Oil Co. of N. J, 21-* A.A. Emission of electrons from metals; radium emanation content of the atmosphere and of soil gas; ionization of the atmosphere; radioactivity of waters.
- Wright, Dr. J(essie) Gertrude**, University of Toronto, Toronto, Ont, Can. *Botany*. Toronto, 89. B.A, Toronto, 13, M.A, 15, Ph.D, 23. Asst. demonstrator and *lecturer bot, Toronto, 14-* Exchange asst. lecturer, Western Australia, 25-26. A.A; Royal Soc. Can. Plant anatomy.
- Wright, Dr. J(ohn) F(rank)**, Geological Survey, Ottawa, Ont, Can. *Geology*. Moncton, N. B, Sept. 25, 94. B.A, Acadia, 17; Ph.D, Chicago, 23. Asst. geologist, *Can. Geol. Surv, 22-24*, *assoc. geologist, 24-* A.A; Can. Inst. Min. and Metal. Petrology; economic geology; areal geology of Precambrian areas.
- Wright, Dr. John K(irtland)**, American Geographical Society, Broadway at 156th St, New York, N. Y. *Geography*. Cambridge, Mass, Nov. 30, 91. A.B, Harvard, 13, A.M, 14, Ph.D, 22. *Librarian, Am. Geog. Soc, 20-* Assoc. ed, 'Isis.' Ass. Geog; Hist. Sci. Soc; Hist. Ass. History of geography; geographical bibliography.
- Wright, John S(hepard)**, Care Eli Lilly and Co, Indianapolis, Ind. *Botany, Pharmacognosy*. Clermont, Ind, Oct. 17, 70. B.S, Purdue, 92. Field asst, N. Dak. Bot. Surv, 91; botanist, Eli Lilly and Co, 92-04. Lecturer, Med. Col. of Ind, 96-04. A.A; Ind. Acad. (sec'y, 95-04, pres, 04). Histology of crude drugs and of vegetable articles of diet; microscopy of powders, starches and other vegetable commodities; pharmacology of drugs of vegetable origin.
- Wright, Dr. Jonathan**, Pleasantville, N. Y. *Medicine*. Springboro, Ohio, Feb. 2, 60. Grad, Miami Valley, 78; M.D, Columbia, 83. Director path. lab, Manhattan Eye, Ear and Throat Hosp, 02-11; director laboratories, N. Y. Post-Grad. Med. Sch, 11-15; *prof. laryngol, Woman's Med. Col, N. Y;* *surgeon, Manhattan Eye, Ear and Throat Hosp; Brooklyn Eye and Ear Hosp;*

- out-patient dept., Roosevelt Hosp.* A.A.; Am. Med. Ass.; Ass. Path. and Bact.; Laryngol. Ass.; Anthropol. Ass.; Archeol. Inst.; Am. Geog. Soc.; Genetic Ass.; Hist. Sci. Soc.; N. Y. Path. Soc.; fel. N. Y. Acad.; N. Y. Acad. Med.; cor. mem. Royal Soc. Med.; British Classical Ass.; British Soc. Prom. Hellenic Studies; Gesell für Geschichte Med.; Soc. d'Hist. de Méd. de France. Laryngology; pathology; history of medicine.
- Wright, Dr. Orville**, 15 N. Broadway, Dayton, Ohio. *Aeronautics*. Dayton, Aug. 19, 71. Hon. Sc.D, Royal Tech. Col. Munich, 09; hon. B.S, Earlham, 09; LL.D, Oberlin, 10; hon. Sc.D, Trinity (Conn.), 15, Cincinnati, 17; hon. M.S, Yale, 19; D.Eng, Michigan, 24. Pres, Wright Co, 12-15. Nat. advisory committee for aeronautics; exec. committee, Daniel Guggenheim Fund for Prom. Aeronautics; chairman, advisory committee, Daniel Guggenheim Sch. Aeronautics, N. Y. Univ. Chevalier, Légion d'honneur, 09, officier, 24. Gold medal, French Aero Club, 08; British Aero Club, 08; French Acad. Sports, 08; Aeronaut. Soc. Gt. Britain, 08; U. S. Cong, 09; State of Ohio, 09; Aero Club of Amer, 09; French Acad, 09; Langley medal, Smithsonian Inst, 10; Cresson medal, Franklin Inst, 14; John Fritz medal, 20; Albert medal, Royal Soc. Arts, 17; bronze medal, Int. Peace Soc; John Scott medal, 25; Washington award, 27. Aeronaut. Soc; hon. mem. Mech. Eng; Automotive Eng; hon. mem. Aero Club; Franklin Inst; hon. mem. Flying Club; hon. mem. Dayton Eng. Club (past pres); hon. mem. Aeronaut. Soc. Gt. Britain; hon. mem. British Aero Club; hon. mem. Verein Flügtech; hon. mem. Oester. Flügtech. Verein; hon. mem. Sarthe Aero Club, France. Construction and development of the airplane.
- Wright, Dr. Ralph G (arrigue)**, Bishop Place, New Brunswick, N. J. *Chemistry*. St. Louis, Mo, April 29, 75. B.S, Columbia, 99; Polytech, Zurich, 99-02; Ph.D, Basel, 02. Private asst, Columbia, 04-05; *prof. chem.*, Washington and Jefferson, 05-07; *Rutgers*, 07- Chem. Soc; Chem. Gesell. Structure of dyestuffs; fluorescence of certain carbon compounds; oxidation.
- Wright, (Robert) C (laude)**, 1311 Floral St, N. W, Washington, D. C. *Agriculture*. London, Ohio, Sept. 29, 85. B.S, Ohio State, 08, M.S, 12. *Bur. plant indust., U. S. Dept. Agr.*, 09- A.A; Bot. Soc. Fruit and vegetable storage.
- Wright, Prof. R (obert) Ramsey**, 9 Moreton Road, Oxford, Eng. *Biology*. Alloa, Scotland, Sept. 23, 52. M.A, Edinburgh, 71, B.S, 73, LL.D, 12; LL.D, Toronto; hon. M.A, Oxford, 13. Prof. nat. hist, Univ. Col, Toronto, 74-87, biol, Toronto, 87-12, v. pres, 01-12. Mem. board trustees, biol. stations, Can. Marine and Fisheries Dept; mem, Int. Commission on Zool. Nomenclature. Soc. Nat; Soc. Zool; fel. Royal Soc. Can; fel. London Zool. Soc; fel. Royal Micros. Soc; hon. mem. Moscow Nat. Hist. Soc. Anatomy of fishes; plankton of the Nova Scotian coast.
- Wright, Prof. Sewall**, University of Chicago, Chicago, Ill. *Zoology*. Melrose, Mass, Dec. 21, 89. B.S, Lombard, 11; M.S, Illinois, 12; Sc.D, Harvard, 15. Senior animal husbandman, animal genetics, bur. animal indust, U. S. Dept. Agr, 15-25; *assoc. prof. zool.*, Chicago, 26- Soc. Zool; Soc. Nat; Genetic Ass. (sec'y, 24); Soc. Animal Production. Genetics; inheritance of coat characters; abnormalities, fertility, growth and resistance to tuberculosis in guinea-pigs; inbreeding and crossbreeding; biometry; statistical consequences of Mendelian heredity.
- Wright, Sydney L (ongstreth), Jr**, Endsmeet Farm, Glenside, Pa. *Chemistry*. Philadelphia, Pa, Oct. 9, 96. B.S, Princeton, 18, fellow, 19-20, 21-22, A.M, 20. *Research chemist*, Barrett Co, Frankford, Pa, 20-21; *Ayer Clin. Lab., Pa. Hosp.*, Phila, 23- A.A; Chem. Soc; Franklin Inst; Phila. Physiol. Soc; Phila. Acad. Physical and physiological chemistry; elevation of boiling point; blood chemistry.
- Wright, Prof. W (alter) L (ivingston)**, Lincoln University, Pa. *Mathematics*. Juliustown, N. J, Feb. 3, 72. A.B, Princeton, 92, fellow, 92-93, A.M, 95. *Prof. math.*, Lincoln, 93-, *acting pres.*, 25- Army educ. corps, 19. A.A; Math. Soc; Math. Ass.
- Wright, Prof. W (illiam) H (ammond)**, Lick Observatory, Mt. Hamilton, Calif. *Astronomy*. San Francisco, Calif, Nov. 4, 71. B.S, California, 93, fellow, 94-96; fellow, Chicago, 96-97. Asst. astronomer, *Lick Observatory*, 97-08, *astronomer*, 08- Acting astronomer in charge D. O. Mills exped. to south. hemisphere, 03-06. Nat. Acad; A.A; Astron. Soc; Pacific Astron. Soc; assoc. Royal Astron. Soc. Spectroscopic study of stellar motions; new stars and nebulae; planetary photography.
- Wright, Prof. W (illiam) J (oseph)**, N. Y. State College of Agriculture, Ithaca, N. Y. *Horticulture*. Plainfield, Mich, June 6, 81. B.S, Mich. State Col, 04; M.S, Pa. State, 12. Practical hort. work, 04-07; asst. to pres, Mich. State Col, 07-09; asst. prof. hort, Pa. State, 09-12; director, N. Y. State Col. Agr, Alfred, 12-18; *prof. exten.*, N. Y. State Col. Agr, Cornell, 18- Ass. Agr. Teaching. The injurious effects of lime on small fruits; greenhouse construction and equipment.
- Wright, Dr. W (illiam) J (osiah)**, Bear River, N. S, Can. *Geology*. Bear River, Feb. 4, 81. B.Sc, Acadia; A.B, Yale, 08, A.M, 12, Ph.D, 15. Asst. geologist, Can. Geol. Surv, 12-15; *prof. geol.*, Acadia, 18-19; *assoc. geologist*, Can. Geol. Surv, 19; *geologist*, Whitehall Petrol. Corp, 20-22; *Standard Oil Co. of N. J.*, 22- Officer, C.E.F, 16-18. Geology of the New Ross and Moncton map areas; oil shale of Canada.
- Wright, Prof. Winthrop R (obins)**, Swarthmore, Pa. *Physics*. Trenton, N. J, May 11, 88. A.B, Michigan, 09, Ph.D, 17; Tyndall fellow, Columbia, 13-15. Instr. physics, Ga. Tech, 09-12; Michigan, 15-17; asst. physicist, Bur. Standards, 17-19; asst. prof. *physics*, Swarthmore, 19-24, *assoc. prof.*, 24- Physical Soc. Solar eclipses; spectrum of hydrogen.
- Wroth, Prof. B (enjamin) B (lackiston)**, Georgia School of Technology, Atlanta, Ga. *Chemistry*. Chestertown, Md, Nov. 10, 87. A.B, Washington (Md), 08; Ph.D, Hopkins, 16. Instr. *chem.*,

- Ga. Tech, 16-18; acting head dept, Earlham, 18-19; asst. prof, *Ga. Tech*, 19-22, assoc. prof, 22-27, *prof*, 27- Chem. Soc; Eng. Educ. Physical chemistry; partition of the lower alcohols between water and cottonseed oil; solubilities of liquids in liquids.
- Wulling, Prof. Frederick J(ohn)**, University of Minnesota, Minneapolis, Minn. *Pharmacology*. Brooklyn, N. Y., Dec. 24, 66. Ph.G, N. Y. Col. Pharmacy, 87; Munich, Berlin, Paris and Göttingen, 88-89; Phar.D, Minnesota, 94, LL.B, 96, LL.M, 98; Edinburgh, Cambridge and Oxford, 93-94; hon. Phar.M, Phila. Col. Pharmacy, 17. Asst. prof. and quiz master, N. Y. Col. Pharmacy, 87-91; prof. pharmacodynamics, Brooklyn Col. Pharmacy, 91-92; *dean faculty and prof. pharmacol. col. pharmacy, Minnesota*, 92- Managing chemist, Dr. S. F. Speir's Laboratories, Brooklyn, 87-91. Assoc. ed, 'Pharmacy Record,' 86-90. U. S. Pharmacopeia Revision Convention (trustee, 20-). A.A; Chem. Soc; Pharmaceut. Ass. (pres, northwest branch, 07-10, pres, 17); Conf. Pharmaceut. Faculties (pres, 15); Minn. Pharmaceut. Ass. Medical and pharmaceutical inorganic and organic chemistry.
- Wulzen, Dr. Rosalind**, 2447 Carlton St, Berkeley, Calif. *Physiology*. Oakland, Calif, 82. M.S, California, 10, Ph.D, 14. Head dept. biol. Mills, 09-13; instr. *physiol. California*, 14-26, *assoc*, 26- Physiol. Soc. Tropic reactions; nutrition of invertebrates.
- Wurts, Prof. A(lexander) J(ay)**, 1164 Shady Ave, Pittsburgh, Pa. **Electrical engineering*. Carbondale, Pa, March 3, 62. Ph.B, Yale, 83; M.E, Stevens, 84; Polytech, Hanover, 86. On technical staff, Westinghouse Elec. and Mfg. Co, 87-98; manager, Nernst Lamp Co, 98-04; elec. engineer, Westinghouse Elec. and Mfg. Co, 04-05; *prof. applied elec. and head dept, Carnegie Inst. Tech*, 05- John Scott medal, 94. Elec. Eng; Philos. Soc; Pittsburgh Acad. The non-arcing metals; lightning arresters; the Nernst lamp.
- Wuth, Dr. Otto**, Johns Hopkins Hospital, Baltimore, Md. *Psychiatry*. Ramsbottom, Eng, May 19, 85. M.D, Munich, 12. Asst. Müller's Clinic, 12-14; Kaiser Wilhelm Inst, Berlin, 18; asst. physician, psychiat. clinic, Munich, and director biochem. lab, 18-25; *asst. psychiatrist in charge lab. internal med, Hopkins Hosp*, 25- Lecturer, Munich, 18-25, prof, 25. Epilepsy, schizophrenia, morphinism and metabolism in psychoses.
- Wyatt, Prof. F(rank) A(rehibald)**, University of Alberta, Edmonton, Alta, Can. *Agronomy*. Wellsville, Utah, Feb. 22, 86. B.S, Utah Col, 10; M.S, Illinois, 13, fellow, 13-15, Ph.D, 15. Asst. exten, Utah Col, 10-11; soil fertility, Illinois, 15-16, assoc, 16-17, asst. prof, 17-18; *prof. soils, Alberta*, 18- Soc. Agron; Can. Soc. Tech. Agr. Soils; agricultural chemistry.
- Wyatt, Prof. Tyree C(heatham)**, 309 Orange St, Syracuse, N. Y. *Pathology*. Winterville, N. C, Oct. 20, 99. A.B, Wake Forest, 20; M.D, Syracuse, 22. Instr. *path. col. med, Syracuse*, 22-24, *asst. prof*, 24- Prof, Wake Forest, 24. Experimental benzol poisoning; liver changes in rabbits following subcutaneous administration of coal tar.
- Wyckoff, Dr. John**, 75 E. 55th St, New York, N. Y. *Medicine*. Tindivanan, India, Nov. 12, 81. M.D, N. Y. Univ, 07; hon. A.M, Rutgers, 20. House staff, Bellevue Hosp, 07-10; res. physician, Minturn Hosp, 10; instr. therapeut. and med, *Univ. and Bellevue Hosp. Med. Col*, 11-19, *clin. prof. med*, 19- Asst. visiting physician, Bellevue Hosp, 16- Fel. N. Y. Acad. Med; N. Y. Tuber. and Health Ass. (director, chairman, heart committee). Heart disease; digitalis.
- Wyckoff, Dr. Ralph W(alter) G(aystone)**, Rockefeller Institute for Medical Research, New York, N. Y. **Physical chemistry*. Geneva, N. Y, Aug. 9, 97. B.S, Hobart, 16; Ph.D, Cornell, 19. Instr. anal. chem, Cornell, 17-19; physical chemist, geophys. lab, Carnegie Institution, 19-27; *assoc. mem. div. biophys, Rockefeller Inst. Med. Research*, 27- Research assoc, Calif. Inst, 21-22. Miner. Soc; Wash. Acad. Structure of solids.
- Wyer, Samuel S**, Hartman Building, Columbus, Ohio. *Engineering*. Wayne Co, Ohio, Feb. 18, 79. M.E, Ohio State, 03. *Consulting engineer*, 05- Chief nat. gas conservation, Fuel Ad; consulting engineer, Bur. Standards, 18; U. S. Bur. Mines, 20. A.A; Mech. Eng; Min. Eng; Am. Gas Inst. Public utilities.
- Wylie, Dr. A(rthur) R(ufus) T(rego)**, Grafton, N. Dak. *Psychology*. Condit, Ohio, 71. A.B, Harvard, 93; Ph.D, Wooster, 94; fellow, Clark, 01-02; M.D, Minnesota, 06. Instr. Hiawatha Acad, Kans, 96-98; psychologist, Minn. Sch. for Feeble-Minded, 98-02, first asst. physician, 06-10; *supt. Inst. for Feeble-Minded, Grafton, N. Dak*, 10- A.A; Am. Med. Ass; Psychiat. Ass; Ass. Study Feeble-Minded (v. pres, 09, pres, 11-26). Psychology of the feeble-minded; pedagogy of the blind.
- Wylie, Dr. C(harles) C(layton)**, University of Iowa, Iowa City, Iowa. *Astronomy*. Idana, Kans, June 18, 86. A.B, Park, 08; A.M, Missouri, 12; Ph.D, Illinois, 22. Prof. math, Buena Vista, 09-11; asst, Missouri, 11-13; U. S. Naval Observatory, 13-19; Illinois, 20-22, assoc, 22-25, acting head dept. *astron*, 22-23; *asst. prof, Iowa*, 25- U. S. eclipse exped, Oregon, 18. A.A; Astron. Soc; Math. Ass. Practical astronomy; stellar photometry.
- Wylie, Prof. C(harles) Elmer**, University of Tennessee, Knoxville, Tenn. *Dairying*. Cincinnati, Ohio, April 30, 90. B.S, Ohio State, 15; A.M, Missouri, 16. Asst. *dairying, Tennessee*, 16-18, assoc. prof, 18-24, *prof*, 24-, *head dairy dept. Dairy Sci. Ass. (chairman, advanced registry sect, 25, south. sect, 23). Factors affecting milk and fat production in cow's milk; removal of onion flavors in creamery operation.*
- Wylie, Prof. C(larence) R(aymond)**, 77 Parkhurst Place, Detroit, Mich. *Electrical and mechanical engineering*. Saginaw, Mich, May 18, 83. M.E, Cornell, 05. Mech. engineer, Am. Window Glass Co, 05; designing elec. and meech. engineer, Commonwealth Edison Co, 06-07; instr. elec. eng, Cincinnati, 07-11, asst. prof, 11-18; director research lab, Remy Elec. Co, 18; *sec'y-treas, United Eng. Corp*, 19-; *indust. en-*

- gineer, *Briggs Mfg. Co.*, 20- A.A. Centrifugal blowers; thermal expansion of piping; high tension switching and transmission; searchlights; soundproofing qualities of building materials; transmission design; control of sub-stations; color harmony; automotive research; D. C. armatures; anti-rust oils; soluble oils; lacquer thinners; spray booth ventilation.
- Wylie, Dr. Harry H(anes)**, Geneva College, Beaver Falls, Pa. *Psychology*. New Concord, Ohio, July 3, 79. A.B., Muskingum, 05; A.M., Harvard, 12; Ph.D., Chicago, 17. Prin. high sch., Ohio, 05-08; *prof. psychol. Geneva*, 19- Capt., Sanit.C, 18-19. Psychol. Ass. Learning.
- Wylie, Prof. R(obert) B(radford)**, State University of Iowa, Iowa City, Iowa. *Botany*. Maquoketa, Iowa, March 28, 70. B.S., Upper Iowa, 97, L.L.D., 25; Minnesota, 98; Chicago, 99, fellow, 00-01, 02-04, Ph.D., 04. Prof. biol., Morningside, 96-97; asst. prof. bot., Iowa, 06-08, prof. morphol. bot., 08-19, head dept. bot., 19- Summers, instr., East. Ill. State Nor. Sch., 01; asst., Woods Hole, 05; Chicago, 02-04; Friday Harbor, 08, 13; director, Iowa Lakeside Lab, 19- U. S. kelp exped., Alaska, 13; Univ. Iowa Fiji-New Zealand exped., 22. A.A. (sec'y, G, 20-24, v. pres, 25); Bot. Soc; fel. Iowa Acad. (pres, 22); Int. Ass. Bot. Morphology of seed plants and Monocotyledons; cicatrization of foliage leaves.
- Wyman, Jeffries, Jr.**, 31 Hawthorn St, Cambridge, Mass. *Physiology*. West Newton, Mass., June 21, 01. A.B., Harvard, 23; Cambridge; Ph.D., London, 26. Nat. Research Council fellow, 24-27; *tutor biol. and instr. zool., Harvard*, 27-Cilia; the physiology of muscular contraction.
- Wyman, Dr. J(ennie) Benson**, University Heights, Vancouver, B. C., Can. *Psychology, Physics*. New Zealand, April 6, 86. A.B., New Zealand, 06, B.Sc., 08, M.Sc., 09; A.M., Stanford, 21, Ph.D., 24. Head sci. mistress, high sch., 10-18; research asst. psychol., Stanford, 22-24; assoc. Child Welfare Sta., Iowa, 24-26; *assoc. prof. psychol. and educ., British Columbia*, 26- A.A. Spectrum analysis; reading ability and measurement of interests of children; association test methods; measurement of social traits.
- Wyman, Prof. Leland C(lifton)**, 19 Perham St, West Roxbury, Mass. *Physiology*. Livermore Falls, Maine, Feb. 20, 97. A.B., Bowdoin, 18; Ph.D., Harvard, 22. Austin teaching fellow, Harvard, 20-22; instr. *physiol. sch. med., Boston*, 22-23, *asst. prof.*, 23- Bacteriologist, M.C., U.S.A., 18-19. Soc. Mammal; Physiol. Soc. Physiology of chromatophores; vasomotor responses and blood alkali; relation of adrenals to immunity.
- Wymore, F(loyd) H(oward)**, University of California, Davis, Calif. *Entomology, Parasitology*. Pawnee, Nebr., Sept. 9, 92. B.S., California, 22, M.S., 23. *Research asst. entom., California*, 22- A.A.; Ass. Econ. Entom. Biology and control of simphlyids.
- Y**
- Yalden, J(ames) Ernest G(rant)**, 120 Woodridge Place, Leonia, N. J. *Astronomy*. London, Eng., Feb. 6, 70. B.S., N. Y. Univ., 93. Supt., *Baron de Hirsch Trade Sch., New York*, 94-22, *adviser and counselor*, 22- Instr., Mine Sweeping Base, S. I., 16-18. A.A.; Astron. Soc; Ass. Variable Star Observers (pres, 25); Nat. Soc. Prom. Indust. Educ. (manager and founder); British Astron. Ass. Variable stars; methods of prediction for eclipses and occultations.
- Yamanouchi, Dr. Shigéo**, care of Tokyo Kotoshihan Gakko, Otsanka Kubomachi, Koishikawa-Ku, Tokyo, Japan. **Botany*. Tokyo, Sept. 7, 78. M.S., Tokyo Teachers' Col., 98; Ph.D., Chicago, 07. Asst. bot. and instr. biol., *Tokyo Teachers' Col.*, 98-00, asst. prof. bot., 00-04, *prof.*, 04- Asst., Chicago, 07. A.A.; Bot. Soc; Bot. Gesell. Cytology; the life history of Polysiphonia; centrosome in Liliun; apogamy in Nephrodium; mitosis in Fucus; cytology of Thallophytes.
- Yampolsky, Cecil**, 230 Franklin Ave, Grantwood, N. J. *Botany*. Kiev, Russia, April 21, 86. B.S., Wisconsin, 13; Columbia, 14-17; Ph.D., Zurich, 20. Research asst. bot., Columbia, 14-16; asst. prof. biol., Toledo, 17-18; botanist and plant pathologist, N. Dak. Col., 18-19; botanist, Exp. Sta., A. V. R. O. S., Medan, Sumatra, 20-22; research on the oil palm, Gen. Exp. Sta. Agr., Java, 22. Bot. Soc; Bot. Gesell. Genetics; cytology; tropical botany.
- Yanney, Prof. B(enjamin) F(ranklin)**, Wooster, Ohio. *Mathematics*. Dundee, Ohio, Sept. 11, 59. A.B., Mt. Union, 85, A.M., 88; Ph.D., Chicago, 23. Instr., Mt. Union, 86-88, *prof. Latin*, 88-92, *math.*, 94-11; *Wooster*, 11- A.A.; Math. Soc; Math. Ass; Circolo Mat. di Palermo. Teaching and history of mathematics; theory of numbers; modular invariants; modern geometry.
- Yanovsky, Dr. Elias**, 519 W. 143d St, New York, N. Y. *Organic chemistry*. Leningrad, Russia, June 10, 86. Grad., St. Petersburg, 11; A.M., Clark, 12, Ph.D., 13. Bur. chem., U. S. Dept. Agr., 13-18; research chemist, Norwalk Tire and Rubber Co., Conn., 19-23; in charge chem. lab., Bridgeport, 23-25; *chief chemist, Bergman Laboratories*, 25- A.A.; Chem. Soc. Chemistry of sugars.
- Yant, William P(arks)**, 4800 Forbes St, Pittsburgh, Pa. *Chemistry*. East Sparta, Ohio, Nov. 12, 94. B.S., Wooster; Pittsburgh. Instr. chem., Wooster, 19-20; *supervising chemist, health lab. sect. dept. commerce, U. S. Bur. Mines*, 20- C.W.S., 18. Chem. Soc. (ed., 'Crucible,' 24-26); Coal Min. Inst; Pub. Health Ass. Toxicology and physiological action of gases; lead poisoning; gas problems; analytical procedures for gases; ventilation of vehicular tunnels; diving and caisson disease; mine gases; mine and atmospheric dusts; physiological effects of atmospheric conditions, temperature and humidity.
- Yapp, Dr. W(illiam) W(odin)**, University of Illinois, Urbana, Ill. *Dairy husbandry*. Mansfield, Ill., June 30, 88. B.S., Illinois, 11, M.S., 14; hon. fellow, Wisconsin, 19-20, Ph.D., 23. *Prof. dairy husbandry, Illinois*, 11- Dairy Sci. Ass; Soc. Animal Production. Inheritance of physical and physiological characteristics of dairy cattle; a dimension weight index for cattle.
- Yarborough, Prof. J(oseph) U(ssery)**, Southern Methodist University, Dallas, Texas. *Psychol-*

- ogy. Lynnville, Tenn, Oct. 27, 86. A.B, Texas, 15, A.M, 16; Ph.D, Chicago, 20; Europe, 23-24. Instr. *psychol*, Texas, 16-20; assoc. prof, South. Methodist, 20-22; lecturer, Carnegie Inst. Tech, 22-23; *prof*, South. Methodist, 24- Int. Cong. Psychol. A.A; Psychol. Ass.
- Yates, Dr. Anna Baker**, Western Reserve University, Cleveland, Ohio. *Physiology*. Jamestown, N. Y, Jan. 11, 91. A.B, Mt. Holyoke, 13; A.M, Columbia, 15, Ph.D, 20. Instr. *physiol*, Wellesley, 19-20; assoc. *biol*, Bryn Mawr, 20-25; *fellow physiol, sch. med*, Western Reserve, 25- Biochemistry; metabolism; central nervous system.
- Yates, Prof. Dorothy (Maud) Hazeltine**, State Teachers College, San Jose, Calif. *Educational psychology*. Morristown, N. J, June 23, 88. A.B, Wellesley, 10, 10-11; Washington, 15; Mary E. Horton fellow, Wellesley, at California, 18-19, A.M, 19, Ph.D, 21. Asst. *philos.* and *psychol*, Wellesley, 10-11; instr. *English, hist.* and *psychol*, St. Helen's (Portland), 11-12; senior teacher, sch, Can, 12-13; teacher, high sch, Wash, 13-14; mem, Stanford research staff, study of gifted children, 21-22; instr. *psychol*, San Jose State Teachers Col, 22-23, *asst. director research*, 22-, *asst. prof*, 23-24, *assoc. prof*, 24- A.A; Psychol. Ass; Educ. Research Ass; West. Psychol. Ass; Int. Council Educ. Exceptional Children. Exceptional children; adolescents; child psychology; applied psychology.
- Yates, Prof. J(ames) A(nderson)**, Kansas State Teachers College, Pittsburg, Kans. *Chemistry, Geology*. Bush, Ky, Oct. 24, 65. B.S, Kentucky, 90, M.S, 99. Prin, Laurel Sem, 90-92; *prof. nat. science*, Cumberland Col, 92-97; Ottawa, 97-07; *head dept. chem. and physical science and director chem, elec. and mining eng*, Kans. State Teachers Col, Pittsburg, 07-Summer, mem, Union Pacific fossil field exped, 99; chairman, Board Pub. Welfare, Pittsburg, Kans, 14-16. A.A; Chem. Soc; Pharmaceut. Ass; Eng. Educ; Am. Geog. Soc; Kans. Acad. (pres, 07). Industrial engineering; physics; vocational and technical education; vocational guidance.
- Yates, Dr. J(ohn) L(awrence)**, 141 Wisconsin St, Milwaukee, Wis. *Medicine*. Milwaukee, Feb. 27, 73. Ph.B, Yale, 94; B.S, Wisconsin, 95; M.D, Hopkins, 99. Asst. *path*, Hopkins, 01-02; *asst. demonstrator*, Pennsylvania, 02-03. Senn medal, 05; Gross prize, 15. Am. Med. Ass; Surg. Ass; Ass. Thoracic Surg; Milwaukee Surg. Soc; Chicago Surg. Soc. Morbid physiology of the peritoneum; Hodgkin's disease; normal and morbid physiology of the lungs and pleura; cancer.
- Yeager, A(Ibert) F(ranklin)**, Agricultural College, Fargo, N. Dak. *Horticulture*. Bazaar, Kans, Feb. 12, 92. B.S, Kansas Col, 12; M.S, Oregon Col, 16. Instr, high sch, Nebr, 16-17; hort, Pa. State, 17-19; *horticulturist*, N. Dak. Col. and Exp. Sta, 19- Field asst, Pa. Chestnut Tree Blight Commission. Hort. Soc; Soc. Hort. Sci; Potato Ass; Rose Soc. (v. pres, 25); N. Dak. State Hort. Soc. (sec'y). The breeding of fruit, vegetables and flowers.
- Yeaton, Prof. Chester H(enry)**, 106 S. Cedar Ave, Oberlin, Ohio. *Mathematics*. Richmond, Maine, Nov. 1, 86. A.B, Bowdoin Col, 08; A.M, Harvard, 09; Ph.D, Chicago, 15. Instr. *eng. math*, Union (N. Y), 10-11; instr. and *asst. prof. math*, Northwestern, 11-13, 15-17; *prof*, Milwaukee, 19-21; *asst. prof. and assoc. prof*, Oberlin, 21-27, *prof*, 27- Temporary instr, Minnesota, 19. S.C. and F.A, U.S.A, 17-18. A.A; Math. Soc; Math. Ass. Projective differential geometry; surfaces characterized by certain special properties of their directrix congruences.
- Yeaton, Prof. Walter J(ames)**, 249 Grand St, Morgantown, W. Va. *Geology*. St. Paul, Minn, March 11, 88. A.B, Minnesota, 10; fellow, Northwestern, 11; M.S, Chicago, 22; Columbia, 24-25. In charge *chem. and geol*, Okla. Inst. Tech, 12-15; *petrol. geologist*, 15-16; in charge *physiog*, high sch, Mo, 17-19; instr. *geol. and miner*, Illinois, 20-25; *asst. prof. geol*, West Virginia, 25- Summers, *asst*, Minn. Geol. Surv, 09, *petrol. geologist*, 17-19, *assoc. geologist*, 20-21; Texas Geol. Surv, 22; N. Y. Geol. Surv, 23-25. Miner. Soc. Mineralogy; metamorphism; sedimentary petrography.
- Yensen, T(rygve) D(ewey)**, Westinghouse Electric and Manufacturing Co, Pittsburgh, Pa. *Metallurgy*. Drammen, Norway, Jan. 30, 84. B.S, Illinois, 07, M.S, 12, E.E, 13; Ph.D, Calif. Inst, 27. Engineer, Gen. Elec. Co, 07-08; instr. *elec. eng*, Illinois, 08-09; *elec. engineer*, Shawinigan Water and Power Co, 09-10; research *asst*, *eng. exp. sta*, Illinois, 10-15, research *asst. prof*, 15-16; *research engineer*, Westinghouse Elec. and Mfg. Co, 16- Calif. Inst, 25-27. Min. and Metal. Eng; Elec. Eng; Physical Soc. Metallurgy of magnetic materials; magnetic properties of iron and iron alloys; magnetism.
- Yerkes, Prof. Robert M(earns)**, Yale University, New Haven, Conn. **Psychology*. Bredysville, Pa, May 26, 76. A.B, Ursinus, 97, LL.D, 23; A.B, Harvard, 98, A.M, 99, Ph.D, 02; Sc.D, Wesleyan, 23. Asst. *psychol*, Harvard, 99-01, teaching fellow, 01-02, instr. *comp. psychol*, 02-08, *asst. prof*, 08-17; *psychologist*, Psychopathic Hosp, Boston, 13-17; *prof. psychol. and director psychol. lab*, Minnesota, 17-19; chairman research information service, Nat. Research Council, 19-24; *prof. psychol, inst. psychol*, Yale, 24- Chief div. *psychol*, Office of Surgeon Gen, U.S.A, 17-19. Nat. Acad; A.A; Soc. Nat; Psychol. Ass. (pres, 16); *Physiol. Soc*; Soc. Exp. Biol; Soc. Mammal; Galton Soc; Am. Acad. Animal behavior; methods of mental measurement; psychobiology of anthropoid apes.
- Yntema, Dr. L(eonard) F(rancis)**, University of Illinois, Urbana, Ill. *Chemistry*. St. Johns, Mich, July 29, 92. A.B, Hope, 15; A.M, Illinois, 17, Ph.D, 21. Nat. Research Council fellow *chem*, Illinois, 21-22, *instr*, 23- Chem. Soc. (treas, Ill. sect, 25). Inorganic chemistry; rare earths.
- Yoakum, Dr. Clarence S(tone)**, University of Michigan, Ann Arbor, Mich. *Psychology*. Leavenworth Co, Kans, Jan. 11, 79. B.S, Campbell, 01, A.B, 02; fellow, Chicago, 06-08, Ph.D, 08. Asst. *English*, Campbell, 01-02, instr.

- philos. and educ, 02-03; science, Hiawatha Acad, 03-05; psychol, Texas, 08-17; prof. applied psychol. and director bur. personnel research, Carnegie Inst. Tech, 19-24; *prof. personnel management, Michigan, 24-* Major, div. psychol, Sanit.C, 17-19. A.A; Psychol. Ass. Applied psychology; industrial research; mental fatigue; complication experiment; persistent complexes; behavior of squirrels.
- Yocom, Prof. H(arry) B(arclay)**, University of Oregon, Eugene, Oregon. *Zoology*. Pennsville, Ohio, July 12, 88. A.B, Oberlin, 12; A.M, California, 16, Ph.D, 18. Instr. zool, Wabash, 12-13; asst, Kansas Col, 13-14, instr, 14-15; asst, California, 15-17; prof, Washburn, 17-18; *asst. prof. biol*, Col. City of N. Y, 19-20; *zool, Oregon, 20-* Lieut, Sanit.C, 18. A.A; Soc. Zool. Cytology; protozoology.
- Yocum, Dr. L(awson) Edwin**, North Carolina College for Women, Greensboro, N. C. *Botany*. Catawissa, Pa, Aug. 10, 90. B.S, Pa. State, 16; M.S, Iowa Col, 20, Ph.D, 24. Instr, Iowa Col, 16-18; Pa. State, 18-19; Iowa Col, 19-20; *prof. bot, N. C. Col. for Women, 21-* Collaborator, plant disease surv, U. S. Dept. Agr. A.A; Bot. Soc. Absorption in corn stalk tissue and biocolloids; comparison of the structure of garden pea and white sweet clover seed coats; translocation of the food material of the wheat seedling.
- Yoder, Lester**, Chemistry Section, Experiment Station, Ames, Iowa. *Chemistry*. Stuttgart, Ark, June 27, 92. B.S, Purdue, 16, M.S, 17. Asst. chemist, Iowa Exp. Sta, 17-20; asst. research chemist, Parke, Davis and Co, Detroit, 20-23; *Iowa Exp. Sta, 25-* Chem. Soc. Organic chemistry; biochemistry.
- Yoder, Dr. P(eter) A**, 2503 Hall Place, N. W, Washington, D. C. *Chemistry*. Shipshewana, Ind, Aug. 21, 67. A.B, Indiana, 94, A.M, 96; Chicago, 96-97; Ph.D, Göttingen, 01. Asst. chem. and physics, Ind. State Nor. Sch, 91-93; instr. chem, Indiana, 94-96; teacher physical sciences, Minn. State Nor. Sch, Mankato, 97-98; teacher, high sch, Minn, 98-99; assoc. prof. chem, Utah Col, 01-05, prof, 05-07, assoc. chemist, Exp. Sta, 01-05, director and chemist, 05-07; research chemist, La. Sugar Exp. Sta, 08-10; asst. chemist, bur. chem, U. S. Dept. Agr, 10-13, *sugar cane technologist, 13-* Silver medal, La. Purchase Expos, 04. A.A; Chem. Soc; Soc. Agron; Wash. Acad. Dehydromucic acid and its derivatives; centrifugal soil elutriator; incubation of chickens in a dry climate; formaldehyde in sugar house products; polariscopic methods for estimating malic acid; acid constituents of sugar cane and sugar house products; effect of environmental influences on composition of cereals; determination of cholin in wheat and cottonseed meal; sugar cane culture for sirup; improvements in sirup evaporator; cane-stripping comb; occurrence and distribution of mosaic disease in sugar cane.
- Yoe, Prof. John H(owe)**, University, Va. *Chemistry*. Oxford, Ala, July 19, 92. Birmingham Col, 08-10; B.S, Vanderbilt, 13, M.S, 14; Chicago, 13; A.M, Princeton, 17, Ph.D, 23. Asst. chem, Vanderbilt, 11-13, instr. biol, 13-14, instr.
- biol. and chem, 14-15; asst, Princeton, 15-17; chem. engineer, U. S. Bur. Mines, 17-18; research chemist, Pa. Trojan Powder Co, 19; asst. prof. chem, Virginia, 19-23, assoc. prof, 23-27, *prof, 27-* Summers, instr, Peabody Col, 14, 15-18; chemist, Va. Geol. Surv, 25- Lieut, C.W.S, 18-19. A.A; Chem. Soc. Protection against industrial gases; anhydrous yellow ferric oxide; reduction of vat dyes by sodium hydrosulfite; adsorption of arsenious acid by hydrous aluminum oxide; drying agents; colloids; colorimetry and nephelometry; hydrous aluminum oxide; hydrogen-ion concentration on viscosity of hydrosols of aluminum, chromic and ferric acids.
- York, Prof. Harlan H(arvey)**, Conservation Commission, Albany, N. Y. *Botany*. Plainfield, Ind, Sept. 8, 75. B.S, De Pauw, 03; A.M, Ohio State, 05; fellow, Columbia, 05-06; Ph.D, Hopkins, 11. Asst. bot, Ohio State, 03-05; instr, Texas, 06-09; assoc. prof. and in charge dept, Brown, 11-19; prof. bot, West Virginia, 19-23; forest pathologist, in charge sci. investigations, white pine blister rust, bur. plant indust, U. S. Dept. Agr, 23; *forest pathologist, Conservation Commission, Albany, 23-* Assoc, Cold Spring Harbor, 06-15; summers, bur. plant indust, U. S. Dept. Agr, 16-22. A.A; Bot. Soc; Phytopath. Soc; Soc. Foresters; Ohio Acad. Morphology; anatomy; histological technique; North American Malvaceae; embryology of Nelumgolutea; the flora of Texas; anatomy and biological aspects of the American mistletoe; the wintering-over of Cronartium ribicola; late aecia of Cronartium ribicola; white pine blister rust.
- Yothers, M(errill) A(rthur)**, U. S. Department of Agriculture, Yakima, Wash. *Entomology*. Ashton, Ill, Dec. 18, 83. B.S, Idaho, 07; M.S, Wash. Col, 14. Asst. entom, Mich. State Col, 08-10; instr. entom, Wash. Col, and asst. entomologist, Exp. Sta, 10-17; *assoc. entomologist, bur. entom, U. S. Dept. Agr, 17-* A.A; Entom. Soc; Ass. Econ. Entom. Economic entomology; deciduous fruit insect control.
- Yothers, W(illiam) W(alter)**, Orlando, Fla. *Entomology*. Ashton, Ill, Sept. 15, 79. B.S, Idaho, 03; A.B, Cornell, 04. Dist. hort. inspector, Idaho, 01-03; special field agent and entom. asst, bur. entom, U. S. Dept. Agr, 04- A.A; Entom. Soc; Ass. Econ. Entom; Texas Acad; Wash. Entom. Soc. Hibernation of the boll weevil; fumigation with hydrocyanic gas for controlling the citrus white fly; spraying of citrus trees; mites attacking citrus trees in Florida; effects of freeze on insects; colloidal clays as emulsifiers for mineral oils; Bordeaux-oil emulsion.
- Youden, Dr. W(illiam) J(ohn)**, 1086 N. Broadway, Yonkers, N. Y. *Physical chemistry*. Townsville, Australia, April 12, 00. B.S, Rochester, 21; fellow, Columbia, 22-23, A.M, 23, Ph.D, 24. Instr. chem, Rochester, 21-22; *physical chemist, Boyce Thompson Inst, 24-* Chem. Soc. Gravimetric determination of zirconium.
- Youmans, Dr. John B(arlow)**, 1307 Forrest Ave, Ann Arbor, Mich. *Internal medicine*. Mukwonago, Wis, Sept. 3, 93. A.B, Wisconsin, 15, M.S, 16; M.D, Hopkins, 19. Director, Wis. State Coop. Lab. Hygiene, 16-17; intern, Mil-

- waukee Children's Hosp, Wis, 19; med. house officer, Mass. Gen. Hosp, Boston, 20-21; asst. med, Hopkins, 21-22; instr. *internal med, Michigan*, 22-24, *asst. prof*, 24- Summer, asst. pharmacologist, U. S. Bur. Mines, C.W.S., 17. Am. Med. Ass; fel. Col. Physicians; Soc. Clin. Invest. Arphenamine; acid-base equilibrium; calcification of pericardium; liver injury in thyrotoxicosis; chemotherapy of arthritis.
- Young, Dr. Albert G(ayland)**, University of Michigan, Ann Arbor, Mich. *Pharmacology*. Beaver Park, Colo, May 12, 98. D.V.M., Colo. Agr. Col, 20; Ph.D., Wisconsin, 24. Asst. instr, Colo. Agr. Col, 19-20; *instr. bact*, Wisconsin, 20-22, *pharmacol*, 22-24; *Michigan*, 24- Soc. Pharmacol. Chemotherapy of organic arsenicals; poisoning by anilin and anilin compounds; use of O-iodoxy benzoic acid in the treatment of chronic arthritis; a test for small amounts of mercury in the urine and tissues; pharmacology of O-iodoxy benzoic acid and allied compounds.
- Young, Prof. Anne S(ewell)**, Mt. Holyoke College, South Hadley, Mass. *Astronomy*. Bloomington, Wis, Jan. 2, 71. B.L., Carleton Col, 92, M.S., 97; Chicago, 98, 02; Ph.D., Columbia, 06. Instr. math, Whitman, 92-93, *prof*, 93-95; *astron*, Mt. Holyoke, and *director*, Williston Observatory, 99- A.A.; Astron. Soc; Ass. Variable Star Observers; Royal Astron. Soc. Variable stars; measurement of astronomical photographs.
- Young, Prof. B(enjamin) P(ercy)**, 117 Parkway, Ithaca, N. Y. *Entomology*. Kansas City, Kans, Feb. 27, 87. B.S., Kansas, 08; Ph.D., Cornell, 19. Prin, high sch, and city supt, schools, 08-15; instr. entom, Kansas, 15-17; *Cornell*, 17-19, *asst. prof. zool*, 19- A.A. Spring canker worm; embryology of the honey bee; attachment of the thorax to the abdomen in Diptera.
- Young, Dr. Charles O(tis)**, Carbide and Carbon Chemicals Corp, South Charleston, W. Va. *Chemistry*. Mexico City, Mex, June 21, 92. B.S., Haverford, 13; Ph.D., Pittsburgh, 18. Chemist, bur. chem, U. S. Dept. Agr, 15-17; instr. chem, Pittsburgh, 17-18; fellow, Mellon Inst, 19-21; Union Carbide and Carbon Research Lab, 21-25; *Carbide and Carbon Chemicals Corp*, 25- Chem. Soc; Chem. Eng. Organic chemistry.
- Young, Prof. C(larence) R(ichard)**, 98 Hilton Ave, Toronto 10, Ont, Can. *Structural engineering*. Near Picton, Ont, Feb. 4, 79. B.A.Sc., Toronto, 05, C.E., 14. Detailer and designer, offices Dominion Bridge Co, Ltd, Montreal, 02-04; Can. Foundry Co, Ltd, Toronto, 06-07; res. engineer, Toronto and N. Y. Radial Ry, 05-06; *consulting engineer*, Toronto, 07-; from lecturer to *prof. structural eng*, Toronto, 07- Civil Eng; Concrete Inst; Can. Inst. Eng. (councilor, 21-23, chairman, Toronto branch, 24). Torsional strength of steel I sections and of rectangular sections of reinforced concrete; net section of riveted tension members; economic properties of steel transmission towers.
- Young, Dr. C(lifford) C(audy)**, State Department of Health, Lansing, Mich. *Bacteriology, Immunology*. Manhattan, Kans, Jan. 9, 87. B.S., Kansas, 09, A.B., 10, Ph.D., 24. Asst. prof. chem. and bacter, Kansas, 09-18; *director lab-oratories, Mich. State Dept. Health*, 18- Pub. Health Ass. (councilor, 25); Chem. Soc; Water Works Ass; Soc. Bact; Soc. Exp. Biol. Chemistry; applied immunology.
- Young, Prof. C(linton) M(ason)**, University of Kansas, Lawrence, Kans. *Mining engineering*. Hiram, Ohio, 76. B.S., Hiram, 98; Case, 04, E.M., 09. Chemist, Gates Co, 04-05; assoc. prof. mining eng, Kansas, 06-14; specialist, C.Eng., 14; ed, 'Colliery Engineer,' 15; assoc. ed, 'Coal Age,' 16; asst. prof. mining research, Illinois, 16-19; *prof. mining eng, Kansas*, 19- Min. Eng; Eng. Educ; Petrol. Inst; Kans. Acad. Causes of coal mine explosions; decomposition products of explosives; metallurgy of copper and nickel; detection of methane in mine air; percentage of coal extracted in mining; surface subsidence.
- Young, Dr. D(onnell) B(rooks)**, University of Maine, Orono, Maine. *Zoology*. North Hanover, Mass, April 25, 88. B.S., Amherst, 11; Ph.D., Columbia, 23. Prof. biol, Int. Y. M. C. A. Col, 16-18; Dalhousie, 19-20; asst. prof., Carleton Col, 20-25; assoc. prof. and *head dept*, Arizona, 25-26, *prof*, 26-27; *zool*, Maine, 27- Summers, William and Mary, 15-16, instr, Woods Hole, 20- A.A.; N. S. Acad. Protozoa; invertebrate morphology.
- Young, Prof. E(lrid) Gordon**, Dalhousie University, Halifax, N. S., Can. *Biochemistry*. Que, Jan. 5, 97. B.A., McGill, 16, M.Sc., 19, Ramsay Memorial fellow, 19-21; Ph.D., Cambridge, 21. *Prof. biochem*, Western Ontario, 21-23; *Dalhousie*, 23- A.A.; Soc. Biol. Chem; Biochem. Soc. England. Creatine and purine metabolism; chemistry of proteins; metabolism of bacteria.
- Young, Prof. E(rnest) C(harles)**, 33 W. Oak St, West Lafayette, Ind. *Agricultural economics*. Grove City, Pa, Sept. 29, 92. B.S., Grove City Col, 14; Ph.D., Cornell, 21. Instr. agr. econ, Cornell, 16-21; asst. prof, *Purdue*, 21-23, *assoc. prof*, 24- Farm Econ. Ass. The movement of farm population; systems of farming in Indiana; cost of producing soy beans.
- Young, Dr. G(eorge) A(lbert)**, Geological Survey, Ottawa, Ont, Can. *Geology*. Montreal, Que, March 6, 78. B.S., McGill, 98, M.S., 01; Ph.D., Yale, 04. Geologist, *Can. Geol. Surv.*, 07-24, *chief geologist*, 24- A.A.; Royal Soc. Can. (hon. librarian and hon. treas, 25). Petrography and areal geology.
- Young, Prof. Geo(rge) J(oseph)**, 833 Mission St, San Francisco, Calif. *Mining*. San Francisco, Oct. 3, 76. B.S., California, 99. Anal. asst, dept. mining, California, 99-00; asst. prof. metal, Nevada, 00-03, prof. mining and metal, 03-08, in charge Mackay Sch. Mines, 08-13; prof. mining, Minnesota, 13-16; metal, Colo. Sch. Mines, 16-17; asst. ed-in-chief, 'Eng. and Min. Jour,' 18-19, *assoc. ed*, 19- Min. and Metal. Soc. Metallurgy; mine ventilation; cyanid process; mining of unstratified deposits.
- Young, Prof. G(ilbert) A(mos)**, 739 Owen St, Lafayette, Ind. *Mechanical engineering*. Owosso, Mich, June 24, 72. B.S., S. Dak. Col, 94; B.S.,

- Purdue, 99, M.E. 03; M.M.E., Harvard, 10. Instr. and prof. *mech. eng.*, S. Dak. Col., 94-98; instr. *Purdue*, 99-02, asst. prof., 02-06, assoc. prof., 06-09, *prof.*, 10-, acting head sch. *mech. eng.*, 11-12, *head and director eng. laboratories*, 12- *Mech. Eng.*; Soc. *Automotive Eng.*; *Eng. Educ.*; *Ind. Eng. Soc.* Power plant work, engines, boiler and turbines; automotive research; heat flow through internal combustion engines; piston rings; fire possibilities of locomotive sparks.
- Young, Dr. Harry C(urtils)**, Ohio Agricultural Experiment Station, Wooster, Ohio. *Botany*. Millersburg, Ohio, Nov. 14, 88. B.S., Ohio, 13; M.S., N. C. State, 15; Lackland fellow, Washington (St. Louis), 15-16, Ph.D., 23. Instr. bot., N. C. State, 13-15; Mich. State Col. 16-18. research asst. plant *physiol.*, 18-22; fellow, Crop Protection Inst., 22-23; *chief dept. bot. and path.*, *Ohio Exp. Sta.*, 23- *Serologist*, U.S.A. Hosp., New Haven, Conn., 18-19. A.A.; Bot. Soc.; *Phytopath. Soc.*; Ohio Acad. *Fungicidal coefficients*; seed sterilization; complement fixation tests for tuberculosis; Wassermann reaction in tuberculosis; nutritive deficiencies in plants; toxic property of sulphur; colloidal sulphur as a fungicide; spray injury; growth of parasitic fungi in synthetic culture media; toxin product by *Fusarium*.
- Young, Dr. Hugh Hampton**, Johns Hopkins Hospital, Baltimore, Md. *Surgery*. San Antonio, Texas, Sept. 18, 70. A.B., A.M., Virginia, 93, M.D., 94. *In charge dept. urol.*, *Hopkins*, 97-, *clin. prof. and visiting urologist*, *Hopkins Hosp.*, 14- Pres., Md. State Lunacy Commission, 08- Senior consultant urol., U.S.A.; col., M.C.; retired. A.A.; Ass. Genito-Urinary Surg. (pres., 10); Urol. Ass. (pres., 09); Md. Med. and Chirurg. Faculty (pres., 13); hon. mem. Urol. Gesell.; hon. mem. Ass. française d'Urol.; hon. mem. Soc. Ital. d'Urol.; Soc. Int. d'Urol. (pres., 27). *Bacteriology*; *pathology*; urological surgery; chronic cystitis; pathology of the prostate gland; prostatectomy; urogenital tuberculosis; diverticula; epispadias; antisepsis; intravenous germicides; infectious diseases and the intravenous injection of mereurochrome.
- Young, Prof. Jacob W(illiam) A(lbert)**, 5422 Blackstone Ave., Chicago, Ill. **Mathematics*. York, Pa., Dec. 28, 65. A.B., Bucknell, 87, A.M., 90; Berlin, 88-89; Ph.D., Clark, 92. Instr. *math.*, *Bucknell Acad.*, 87-88; *assoc.*, *Chicago*, 92-94, instr., 94-97, asst. prof. *pedag. of math.*, 97-08, *assoc. prof.*, 08-26, *emer. prof.*, 26- Studied, schools, Prussia, 97-98; France, 01, 03-04; Italy and Austria, 06, 08. Int. Commission on Teaching of Math. Math. Soc.; Math. Ass. The theory of groups; teaching of mathematics in European schools and in American secondary schools and colleges.
- Young, Dr. James H(oward)**, Mellon Institute, Pittsburgh, Pa. *Chemical engineering*. Kansas City, Kans., 92. B.S., Kansas Col., 14; M.S., Ohio State, 16, Ph.D., 18. Asst. eng. exp. sta., Kansas Col., 12-14; instr. chem., Ohio State, 16-18; *fellow*, *Mellon Inst.*, 18-; *director research*, *H. H. Robertson Co.*, 22- *Chem. Soc.*; *Chem. Eng.*; *Soc. Test. Mat.* Bituminous products; asphalt; building materials.
- Young, Prof. Jessica M(ay)**, 4511 N. 20th St., St. Louis, Mo. *Astronomy*. St. Louis, March 21, 93. A.B., Washington (St. Louis), 14; M.S., California, 15, fellow, 15-17, fellow, Lick Observatory, 17, Ph.D., 20. Prof. *math. and physics*, Col. St. Teresa, 18; instr. *astron. and math.*, Northwestern, 18-19, *astron.*, 19-20; *math. and astron.*, *Washington (St. Louis)*, 20-23, *asst. prof.*, 23- A.A.; Astron. Soc.; Math. Soc.; Math. Ass. Comet orbits; the cause of the non-appearance of periodic comets; orbits of visual binary stars.
- Young, Prof. John F(rancis) T(odd)**, University of Manitoba, Winnipeg, Man., Can. *Physics*. Mimico, Ont., Dec. 21, 93. B.A., Toronto, 16, M.A., 17, Ph.D., 23. *Demonstrator physics*, Toronto, 16-17; fellow, Nat. Research Council of Canada, 20-23; demonstrator and research asst., 23-24; *asst. prof.*, *Manitoba*, 24- *Physicist*, dept. sci. research, The Admiralty, London, Eng., 17-19. James Loudon gold medal, Toronto, 16. Physical Soc.; Winnipeg Sci. Club. Ultraviolet spectroscopy with applications to series relationships; crystal structures by X-ray methods.
- Young, Prof. John W(esley)**, Hanover, N. H. **Mathematics*. Columbus, Ohio, Nov. 17, 79. Ph.B., Ohio State, 99, fellow, 99-00; A.M., Cornell, 01, fellow, 01-02, Ph.D., 04. Asst. *math.*, Cornell, 02-03; instr., Northwestern, 03-05; preceptor, Princeton, 05-08; asst. prof., Illinois, 08-10; prof. and head dept., Kansas, 10-11; *prof.*, *Dartmouth*, 11- Chief examiner geom., Col. Entrance Exam. Board, 13-15; chairman, Nat. Committee on Math. Requirements, 16-22. Math. Soc. (ed., 'Bul.' councilor, 07-25); Math. Ass. (v. pres., 18); Math. Verein; *Circolo Mat. di Palermo*. Automorphic functions; group theory; foundations of geometry; theory of approximations; n -dimensional chains; application of synthetic methods to analysis; geometry associated with Cremona groups; projective geometry; fundamental concepts of algebra and geometry.
- Young, Prof. Kimball**, University of Wisconsin, Madison, Wis. *Sociology*. Provo, Utah, Oct. 26, 93. A.B., Brigham Young, 15; A.M., Chicago, 18; research fellow, Stanford, 20, Ph.D., 21. Prof. *English and ethics*, Weber Nor. Sch., Ogden, Utah, 17-18; asst. prof. *psychol.*, Oregon, 20-22; Clark, 22-23; *assoc. prof.*, Oregon, 23-26; social *psychol. and sociol.*, *Wisconsin*, 25-26, *sociol.*, 26- Lecturer, exten. div., Mass. State Board Educ., 22-23; summer, prof., Colo. State Nor. Col., 25. A.A.; Psychol. Ass.; Anthropol. Ass.; Sociol. Soc. Psychology; psychology of religion and personality.
- Young, Prof. Leigh J(arvis)**, 911 Forest Ave., Ann Arbor, Mich. *Forestry*. Albia, Iowa, March 31, 83. Columbia; A.B., Michigan, 09, M.S.F., 11. Instr. *forestry*, *Michigan*, 11-14, asst. prof., 14-20, *assoc. prof.*, 20- Summers, forest asst., U. S. Forest Service, 11, 12, field asst., silvical investigations, 16, Can. Pacific Ry., 13, in charge investigations, Bur. Plant Indust., Mich., 17, 18, New Eng. and N. Y., 20, in charge Mich. Land Econ. Surv., 22. A.A.; Soc. Foresters. Forest nursery and planting; effects of thinning in forest; cuttings for natural reproduction; rate of growth and yield of trees; correlation be-

tween soil conditions and existing plant associations.

Young, Dr. P(aul) A(llen), Montana State College of Agriculture, Bozeman, Mont. *Plant pathology*. Concordia, Kans, May 31, 98. A.B., Wabash, 21; A.M., Illinois, 23, fellow bot, 24-25, Ph.D., 25; Cornell, 21. Asst. bot, Wabash, 18-21; Illinois, 21-24; *asst. bot, bacter. and research*, Mont. Agr. Exp. Sta., 25- Summers, field asst, U. S. Dept. Agr, 19-20; inspector, wheat flag smut, Ill. Dept. Agr, 21; botanist, Ill. plant disease surv, 22-24. Collaborator, U. S. plant disease surv, 22- A.A.; Bot. Soc.; Phytopath. Soc.; Micros. Soc. Facultative parasitism, host ranges and infection in fungi; wheat stem rust; a *Marasmius* parasitic on wheat; aseptic seeds of wheat; the germination of wheat at different temperatures; potato virus diseases; *Sclerotinia* sunflower wilt; red plum curl.

Young, Prof. Paul Thomas, University of Illinois, Urbana, Ill. *Psychology*. Los Angeles, Calif, May 26, 92. A.B., Occidental, 14; A.M., Princeton, 15; Ph.D., Cornell, 18. Instr. *psychol*, Minnesota, 19-21; assoc, Illinois, 21-25, *asst. prof*, 25- Psychol. Ass. Experimental, physiological and theoretical psychology.

Young, Dr. Reynold K(enneth), University of Toronto, Toronto, Ont, Can. *Astrophysics*. Binbrook, Ont. B.A., Toronto, 09; Lick Observatory fellow, California, 09-12, Ph.D., 12. Instr. astron, Kansas, 12-13; observer, Dominion Observatory, 13-18; astronomer, Dominion Astrophys. Observatory, 18-24; *assoc. prof. astron*, Toronto, 24- A.A.; Astron. Soc; Royal Astron. Soc. Can; Royal Soc. Can. Spectroscopy.

Young, Prof. Robert T(hompson), University, N. Dak. *Zoology*. Philadelphia, Pa, Feb. 14, 74. B.S., Pennsylvania, 96; fellow, Nebraska, 04-06, Ph.D., 06. Field asst, U. S. Biol. Surv, 97; asst, U. S. Fish Commission, 98; asst. zool, Michigan, 98; science teacher, high sch, Cripple Creek, Colo, 03; instr. *zool*, North Dakota, 06-09, asst. prof, 09-14, *prof*, 14-, asst. director, N. Dak. Biol. Sta, 09-14, *director*, 14- A.A.; Soc. Zool. Histogenesis of cestodes; nuclei of *Paramecium*; protective coloration.

Young, Prof. S(tewart) W(oodford), Stanford University, Calif. **Chemistry*. Orient, N. Y, March 14, 69. B.S., Cornell, 90; Leipzig, 99-00. Asst. chem, Cornell, 90-91; Swarthmore, 91-93; asst, instr. and asst. prof, Stanford, 99-00, assoc. prof, 00-04, *prof. physical chem*, 04- A.A.; Chem. Soc; San Francisco Mechanics Inst. Complex tin compounds; inhibition of rate of oxidation; modifications of sodium thiosulphates; spontaneous crystallization of supercooled solutions and fusions; mechanical stimulus to crystallization; recovery of sulphur from smelter fumes; passivity of iron; colloidal solutions; fractional distillation; artificial enrichment of copper sulphid ores; autointoxication; oils and oil shales.

Young, Dr. T(homas) F(raser), University of Chicago, Chicago, Ill. *Physical chemistry*. Sumter, S. C, Sept. 28, 97. A.B., California, 20, Ph.D., 23. Asst. chem, California, 20-21, teaching fellow, 21-23; *instr*, Chicago, 23- A.A.; Chem. Soc. Specific heats; electrostatic charges

on insulated surfaces; thermodynamics; surface tension.

Young, Prof. V(ive) H(all), University of Arkansas, Fayetteville, Ark. *Botany*. Whitewater, Wis, Dec. 5, 87. Ph.B., Wisconsin, 13, Ph.M., 14, fellow, 15-16, Ph.D., 16. Asst. bot, Wisconsin, 13-15; asst. prof, Iowa, 16-18; asst. pathologist, bur. plant indust, U. S. Dept. Agr, 18; prof. bot, Idaho, and plant physiologist, Exp. Sta, 18-23; *prof. plant path, Arkansas, and plant pathologist, Exp. Sta, 23-* A.A.; Bot. Soc; Phytopath. Soc. Plant physiology and pathology; enzymes in fungi; relation of plant diseases to environment.

Young, Prof. W(alter) J(orgensen), Winthrop College, Rock Hill, S. C. *Psychology*. Owensboro, Ky, June 27, 83. A.B., Richmond, 07; B.D., Crozer Theol. Sem, 10; A.M., Pennsylvania, 10, Ph.D., 11; Columbia. Prof. philos. and educ, Hampden-Sidney, 11-13; Richmond, 13-18; acting supt, schools, Suffolk, Va, 18-19; *prof. biol*, Va. State Teachers Col, 19-26; *psychol*, Winthrop Col, 26- Philosophy; education; practise and habit; genetic ethics.

Youngblood, Dr. B(onney), College Station, Texas. *Agriculture*. Milan Co, Texas, July 31, 81. B.S., Agr. and Mech. Col. Texas, 02, M.S., 07; Ph.D., Wisconsin, 21. Prin, high schools, Texas, 03-06; supt, schools, Okla, 06-07; agriculturist, office farm management, U. S. Dept. Agr, 07-11; *director, Texas Exp. Sta, 11-* Senior agr. economist, U. S. Dept. Agr, 26-28. U. S. rep, Brazilian Cent. Expos, Second Am. Cong. Econ. Expansion, and Second Int. Cotton Cong, Rio de Janeiro, 22. A.A.; Soc. Agron; Ass. Agr. Legislation; Genetic Ass; fel. Am. Geog. Soc; Agr. Hist. Soc; Farm. Econ. Ass; Ass. Land Grant Col; Texas and Southwest. Cattle Raisers Ass; Texas Sheep and Goat Raisers Ass; Texas Pecan Growers Ass. Farm and ranch economics; farm management; farm housing; grazing; cotton economics and technology; marketing.

Youngburg, Dr. Guy E(dgar), 24 High St, Buffalo, N. Y. *Biochemistry*. Volga, S. Dak, Feb. 1, 84. B.S., S. Dak. Col, 06, Ph.G., 09, M.S., 10; Ph.D., Harvard, 22. Asst. chem, S. Dak. Col. and Exp. Sta, 10-16; asst. *biochem*, Harvard Med. Sch, 16-18; asst. prof, *med. sch, Buffalo*, 18-20, *prof. and head dept*, 20- A.A.; Chem. Soc; Soc. Biol. Chem; assoc. Buffalo Acad. Med. Phosphorus and pentose metabolism; effect of seasonal variations on general metabolism, particularly of protein.

Youngken, Prof. Heber W(ilkinson), 12 Woodland St, Arlington, Mass. *Botany, Pharmacognosy*. Bucks Co, Pa, Oct. 31, 85. Ph.G., Medico-Chirurg. Col. Phila, 05, 09-11; A.B., Bucknell, 09, A.M., 12; M.S., Pennsylvania, 14, Ph.D., 15; Phar.M., Phila. Col. Pharmacy, 19. Demonstrator biol, pharmacog. and bacter, Medico-Chirurg. Col. Phila, 09-11, instr. bot. and pharmacog, 11-12, asst. prof, 12-15, adjunct prof, 15-16, prof, 16; asst. prof, Phila. Col. Pharmacy, 16-17, prof. and director micros. laboratories and bot. garden, 17-23; *prof. mat. med. and bot, Mass. Col. Pharmacy, 23-* Prof, Ursinus, 18-19. Board control, 'Bot. Abstracts.'

Chairman, committee on phar. bot. and pharmacog, Nat. Research Council, 22— Revision committee, U. S. Pharmacopœia. Ebert medal, 25. Exec. sec'y, sect. K, Fourth Int. Bot. Cong, 26. A.A.; Bot. Soc.; Pharmaceut. Ass. (chairman, sci. sect, 21); New Eng. Bot. Club; Phila. Acad.; cor. mem. Phila. Bot. Club. Pharmaceutical botany; aconites; viburnums.

Youtz, Prof. Lewis A(ddison), 843 E. South St, Appleton, Wis. *Chemistry*. Canton, Ohio, July 21, 64. Ph.B, Simpson, 90, Ph.M, 93, M.S, 02; Ph.D, Columbia, 02. Instr, high sch, Iowa, 91-93; assoc. prof. science, Simpson, 93-99; *prof*, Mont. Wesleyan, 99-00; *chem*, Lawrence, 02— Chem. Soc.; Soc. Chem. Indust; Wis. Acad. The determination of antimony; antimony compounds; the purity and volatility of precipitated antimony sulphid.

Youtz, Merrill A(rthur), 7348 Coles Ave, Chicago, Ill. *Organic chemistry*. Indianola, Iowa, Dec. 9, 94. A.B, Lawrence, 16; M.S, Mass. Inst. Tech, 21, Ph.D, 22. Research asst, Mass. Inst. Tech, 19-22, assoc, 22-23; *research lab*, *Standard Oil Co. of Ind*, 23— Research div, C.W.S, U.S.A, 18. Chem. Soc. Organic electrochemistry; petroleum.

Yowell, Dr. Everett I(rving), Corbett and Griest Aves, Cincinnati, Ohio. *Astronomy*. Cincinnati, Jan. 2, 70. C.E, Cincinnati, 91, M.S, 93, Ph.D, 11; Göttingen, 94-95. Instr. math, Cincinnati, 91-94, 95-97; asst, Cincinnati Observatory, 95-01; computer, U. S. Naval Observatory, 01-06; instr. math, U. S. Naval Acad, 06-09; *first asst*, *Cincinnati Observatory*, 09— Mem, U. S. Naval Observatory eclipse exped, 05; int. latitude observer, 10-16. A.A; Math. Soc; Astron. Soc. Meridian circle observations; variation of latitude; proper motion of stars; orbits of comets and asteroids.

Yu, Dr. Ch'ing-Sung, Lick Observatory, Mount Hamilton, Calif. *Astrophysics*. Amoy, China, April 9, 97. St. John's Univ. (Shanghai), 12-17; Tsing Hua Col, 17-18; C.E, Lehigh, 21; M.S, Pittsburgh, 23; fellow, California, 23-24, James M. Goewey fellow, 24-25, Ph.D, 25. Engineer, McClintic-Marshall Construction Co, Pa, 21-22; *Martin Kellogg fellow*, *California*, 25— Astron. Soc; Sci. Soc. China; Chinese Eng. Soc. Photometry; spectrophotometry; continuous absorption of hydrogen; stellar energy curves; effective temperatures; temperature changes in cepheid variables; spectroscopic parallax of A-type stars; light-curve and orbit of the eclipsing binary CG Cygni; elements of minor planet 1923 PE; ionization in stellar atmospheres.

Yunker, Prof. T(ruman) G(eorge), Greencastle, Ind. *Botany*. Carson City, Mich, March 20, 91. B.S, Mich. State Col, 14; A.M, Nebraska, 15; fellow, Illinois, 19, Ph.D, 19. Asst. bot, Illinois, 17-18; asst. prof. biol, *De Pauw*, 19-20, assoc. prof, 20, *prof. bot*, 21— A.A; Bot. Soc; Torrey Bot. Club; Mich. Acad; Ind. Acad. Convolvulaceae; revision of Cuscuta.

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Zahn, Prof. A(lbert) F(rancis), Cosmos Club, Washington, D. C. **Physics*. New Lexington, Ohio. A.M, Notre Dame, 85, LL.D, 17; M.E,

Cornell, 92; Ph.D, Hopkins, 98. Prof. math, Notre Dame, 85-89, math. and mech, 90-92; mech, Catholic Univ, 95-08; *director aerodynamical lab*, *U.S.N*, 17— Int. Conf. Aerial Navigation (gen. sec'y, 93, official delegate, 00). Laetare medal. Mech. Eng; Wash. Philos. Soc. Aerodynamics; precise measure of air velocity and pressure; airplane stress analysis; periodic stresses in gyroscopic bodies; resistance of air below 1,000 feet per second; a chronograph for small intervals of time; aerial navigation; skin friction of air up to 30 miles an hour; lift and drift of arched surfaces; law of interference of superposed planes; stability of airplanes; mechanics of high-speed balloons.

Zahn, Prof. Charles T(homas), Princeton University, Princeton, N. J. *Physics*. Westminster, Md, Aug. 6, 98. B.E, Hopkins, 19; Charlotte Elizabeth Procter fellow, Princeton, 23-24, Ph.D, 24. Asst. physicist, Bur. Standards, 20-21; instr. *physics*, *Princeton*, 21-23, Nat. Research Council fellow, 24-25, *asst. prof*, 25— Physical Soc. Molecular structure; dielectric constants.

Zaikowsky, W(ladimir) M(ichel), 346 S. Michigan Ave, Pasadena, Calif. *Physics*. Mzensk, Russia, Dec. 8, 84. Michel's Artil. Acad, Petrograd, 11. Research officer, Main Artil. Board, Russia, 11-14; Imp. Russian Commission, 15-18, v. pres, Artil, 17; Anglo-Russian Subcommittee, 18-20; *research fellow*, *Calif. Inst*, 22— Repetitor, Russian Artil. Acad, 14. Physical Soc; Imp. Russian Tech. Soc. External ballistics; motor fuel.

Zanetti, Prof. J(oaquin) Enrique, Columbia University, New York, N. Y. *Chemistry*. Santo Domingo, W. I, Jan. 20, 85. A.B, Harvard, 06, A.M, 07, Ph.D, 09. Austin teaching fellow org. chem, Harvard, 07-09; instr. chem, Columbia, 09-12; director Lab. Indust. Chem, Montevideo, Uruguay, 12-13; asst. prof. *chem*, *Columbia*, 13-23, *assoc. prof*, 23— Chairman div. chem. and chem. technol, Nat. Research Council, 23-24, exec. committee, 24-25; delegate to Int. Union Pure and Applied Chem, Cambridge, 23, Copenhagen, 24. Capt, ordnance dept, U.S.A, 17-18; major, C.W.S, 18, lieut. col, 18-19; sec'y for the U. S. Interallied Commission for Chem. Warfare Supplies, 18-19. Légion d'honneur; D.S. medal; D.S.O; officer, Order of the Crown, Italy. A.A; Chem. Soc; Soc. de Chim. indust. (v. pres, Am. sect, 20, pres, 21). Hydrocarbons; furoyl acetic ester; action of silicon tetrachlorid on fatty acids; thermal decomposition of natural gas condensate, benzene, propant-butane and ethane-butane; furfuran series.

Zanstra, Dr. H(erman), California Institute, Pasadena, Calif. *Physics*. Heerenveen, Holland, Nov. 3, 94. Ch.E, Delft, Holland, 17; Ph.D, Minnesota, 23. Asst. and teacher, schools, Holland, 16-21; instr. physics, Minnesota, 21-23; *Nat. Research Council fellow*, Chicago, 23-24; Hamburg, 24-25; *Calif. Inst*, 25— Relativation of motion; internal gravity forces; luminosity of nebulae.

Zapffe, Carl, Brainerd, Minn. *Geology*. Milwaukee, Wis, April 23, 80. B.S, Wisconsin, 07, M.S, 08. Geologist and field asst. to Prof. C. K.

- Leith, 06-07; geologist, *North. Pacific Ry.*, 08-25, *manager iron ore properties*, 25- Pres, Water and Light Board, Brainerd, 15- A.A.; Soc. Econ. Geol.; Min. and Metal. Eng. (iron and steel committee, committee on iron ore and mining methods, 22-); Lake Superior Min. Inst. Lake Superior geology and iron ores; coal; oil; water supply.
- Zebrowski, Prof. George, Villanova College, Villanova, Pa. *Parasitology*. Warsaw, Poland, Nov. 27, 95. B.S., Purdue, 21, M.S., 23. Asst. *biol.*, Purdue, 21-23; *prof.*, Villanova Col., 23- Summers, lecturer, Winona Lake, Ind., 22-23, Villa Maria Col. and Villanova Col., 23- A.A.; Soc. Parasitol.; Ind. Acad.; Pa. Acad. Hog lungworms; morphology of the American dog-tick.
- de Zeeuw, Prof. Richard, 533 Evergreen Ave, East Lansing, Mich. *Botany*. Alton, Iowa, March 15, 80. A.B., Hope, 06, hon. A.M., 09; A.B., Michigan, 07, Ph.D., 09. Instr. *bot.*, Mich. State Col., 09-10, asst. prof., 10-15, *assoc. prof.*, 15- A.A.; Bot. Soc.; Mich. Acad. (sec'y, 11-17). Comparative viability of seeds; seed sterilization; botanical technique.
- Zehring, Prof. William A(rthur), Purdue University, Lafayette, Ind. *Mathematics*. Germantown, Ohio, Dec. 6, 76. A.B., Otterbein, 98, A.M., 03; A.B., Harvard, 03. Prof. *math.*, Eastern, 98-02; Campbell, 03-05; *assoc. prof.*, Purdue, 05-27, *prof.*, 27- Math. Soc.; Math. Ass.; Ind. Acad.
- Zeigler, Prof. Washington H(ayne), Medical College of the State of South Carolina, Charleston, S. C. *Pharmacology*, *Materia medica*. Orangeburg, S. C., Feb. 9, 76. Ph.G., 96; Phar.D., 14. Lecturer *bot.* and *pharmacog.*, *sch. pharmacy*, Med. Col. State of S. C., 03-13, *prof. pharmacol. and mat. med.*, 13- Revision committee, Tenth U. S. Pharmacopoeia. Pres, Conf. Pharmaceut. Faculties. S. C. Pharmaceut. Ass. (past pres). Oil of chenopodium; sparteine sulphate; pharmacology of Pyrethri Flores; acute bichloride of mercury poisoning.
- Zierer, Clifford M(aynard), 855 N. Vermont St., Los Angeles, Calif. *Geography*. Batesville, Ind., July 4, 98. A.B., Indiana, 22, A.M., 23; fellow, Chicago, 23-25, Ph.D., 25. Asst. *geog.*, Indiana, 22-23; Chicago, 23-25; *asst. prof.*, California at Los Angeles, 25- Summer, instr., Cincinnati, 25. Economic geology.
- Zeisberg, Fred(erick) C(lemens), E. I. du Pont de Nemours and Co, Wilmington, Del. *Chemistry*. Jefferson City, Mo., May 13, 88. Virginia. Chemist, Mathieson Alkali Works, 07-08; E. I. du Pont de Nemours and Co, 09-17, manager intelligence div. and elementary process div, chem. dept., 18-21, *in charge chem. and chem. eng. investigations*, 21- Chem. Soc. (sec'y, Del. sect., 19, chairman, 21); Chem. Eng. (director, 24-). Chemical engineering; oxidation of ammonia; sulphuric acid manufacture; explosives; nitric acid manufacture and concentration; fixation of nitrogen; high pressure gas technique.
- Zeisler, Dr. Ernest Bloomfield, Cooper Carlton Hotel, Chicago, Ill. *Mathematics*. Chicago, Aug. 23, 99. B.S., Chicago, 19, Ph.D., 22. As-
- soc. math., Chicago, 20-22. Invariants; relativity.
- Zeit, Prof. F(rederick) Robert, 303 E. Chicago Ave, Chicago, Ill. *Pathology*. Switzerland, March 13, 64. Gymnasium, Elberfeld, Cologne, Düsseldorf; M.D., Western Reserve, 87. Asst. and instr. *path.* and *bacter.*, Northwestern, 99-00, *prof.*, 00-01; Post-Grad. Med. Sch., Chicago, 00-18; *path.*, Northwestern, 02- Asst. and later collaborator of Prof. Edwin Klebs, 97-00; pathologist, Wesley, Provident, Alexian Brothers and Grant Hospitals. A.A.; Ass. Path. and Bact.; Am. Med. Ass.; Chicago Path. Soc. (pres, 04). Pathology of tumors; effect of electric currents on bacteria; longevity of typhoid bacilli in lake and river water; pathology and bacteriology of uretero-intestinal anastomosis; congenital atresia of esophagus; acute glands in man; etiology of syphilis; histogenesis of endothelial tumors.
- Zeldin, Dr. S(amuel) D(emitry), Massachusetts Institute of Technology, Cambridge, Mass. *Mathematics*. Smoliani, Russia, Sept. 18, 94. Grad. Real. Sch., Russia, 13; Ph.D., Clark, 17. Instr. *math.*, Col. of Hawaii, 17-18; *prof. math.* and *physics*, Olivet, 18-19; *instr. math.*, Mass. Inst. Tech., 19- Reader *math.*, Col. Entrance Exam. Board, 19- Math. Soc.; Math. Ass.; Circolo Mat. di Palermo. Continuous groups.
- Zeleny, Prof. Anthony, University of Minnesota, Minneapolis, Minn. **Physics*. Racine, Wis., April 20, 70. B.S., Minnesota, 92, M.S., 93, Ph.D., 07; Chicago, 00; Göttingen, 12; Princeton, 15-16. Instr. *physics*, Minnesota, 97-06, *asst. prof.*, 06-09, *prof.*, 09- A.A. (v. pres, 14); Physical Soc.; Optical Soc.; for. mem. Masaryk Acad. Electric condensers; induction; moving coil galvanometer; thermoelectric couples; low temperatures; moisture in materials.
- Zeleny, Prof. Charles, University of Illinois, Urbana, Ill. **Zoology*. Hutchinson, Minn., Sept. 17, 78. B.S., Minnesota, 98, M.S., 01; Ph.D., Chicago, 04. Instr. *zool.*, Indiana, 04-05, *asst. prof.*, 06-07, *assoc. prof.*, 07-09; *asst. prof.*, Illinois, 09-10, *assoc. prof.*, 10-15, *prof.*, 15- A.A.; Soc. Nat.; Soc. Zool. Regeneration; experimental embryology; internal factors controlling regeneration; ontogenetic and regeneratory development; localization of developmental factors in the egg; dimorphism of spermatozoa; effect of selection; character of germinal changes.
- Zeleny, Prof. John, 44 Cold Spring St, New Haven, Conn. **Physics*. Racine, Wis., March 26, 72. B.S., Minnesota, 92, Ph.D., 06; B.A., Cambridge, 99; Berlin, 97; hon. A.M., Yale, 15. Instr. *physics*, Minnesota, 92-96, *asst. prof.*, 96-00, *assoc. prof.*, 00-08, *prof.*, 08-15, acting dean grad. sch., 12-13; *prof.*, Yale, 15- A.A. (sec'y, B, 01, sec'y, council, 10, gen. sec'y, 11); Physical Soc. (assoc. ed., 'Rev.', 13, councilor, 11-14); Philos. Soc.; Am. Acad. Conduction of electricity through gases; photo-electric effect; mobilities of ions; properties of ionized gases; vapor pressures of solid and liquid carbonic acid; cold mixtures; propagation of smell; electrical discharges from pointed conductors; instability of electrified liquids; electrical discharges from

liquid surfaces; sensitive points; electromagnetic relations; striated discharges in gases.

- Zeller, Dr. Sanford M(yron)**, Oregon Agricultural College, Corvallis, Oregon. *Botany*. Coldwater, Mich., Oct. 19, 85. B.S., Greenville, 09; A.B., Washington (Seattle), 12, A.M., 13; fellow, Washington (St. Louis), 14-17, Ph.D., 17. Instr. science, Pacific (Wash.), 09-12; asst. bot., Washington (Seattle), 12-13, instr., 13-14; special investigator dendropathology, Mo. Bot. Garden, 17-19; asst. prof. plant path., *Oregon Col.*, and asst. plant pathologist, *Exp. Sta.*, 19-20, assoc. prof. and assoc. plant pathologist, 20-24, *prof. plant path. research and plant pathologist*, 24-Summer, kelp investigation exped., Alaska, bur. soils, U. S. Dept. Agr., 13. A.A.; Bot. Soc.; Phytopath. Soc. (pres, Pacific div., 22-24, advisory board, 25-28). Forest pathology; plant physiology; mycology; pathology of fruit trees.
- Zener, Dr. Karl E(dward)**, Princeton University, Princeton, N. J. *Psychology*. Indianapolis, Ind., April 22, 03. Ph.B., Chicago, 23; A.M., Harvard, 24, Ph.D., 26. Asst. *psychol.*, Harvard, 24-26; Nat. Research Council fellow, 26-27; *instr.*, Princeton, 27- A.A. The perception of finality in simple tonal sequences as determined by pitch.
- Zerban, Dr. F(rederick) W(illiam)**, 80 South St., New York, N. Y. *Chemistry*. Oppenheim, Germany, Oct. 20, 80. Ph.D., Munich, 03. Asst. chem., Col. City of N. Y., 04-06; chemist, La. Sugar Exp. Sta., 06-08; director, Sugar Exp. Sta., Lima, Peru, 08-09; subdirector, Agr. Exp. Sta., Tucuman, Argentina, 09-10; research chemist, P. R. Sugar Planters Exp. Sta., 11-12; manager agr. office, Potash Syndicate, 13-17; research chemist, La. Sugar Exp. Sta., 17-20; director research, Penick and Ford, Ltd., 20-23; *chemist in charge*, N. Y. Sugar Trade Lab., 23-Asst. ed., 'Chem. Abstracts.' A.A.; Chem. Soc.; Ass. chim. de Sucre et de Dist. de France. Carbohydrate chemistry; decolorizing carbons; rare earths; radioactivity.
- Zern, E(dward) N(athan)**, 29 Lincoln Ave., Crafton, Pa. *Mining*. Coaldale, Pa., March 11, 79. B.S., Pa. State, 03; E.M., Pittsburgh, 12. Instr. mining and miner, Pa. State, 03-05; mining engineer and supt. mines, Ky, Pa. and W. Va., 05-11; asst. prof. coal mining, Pittsburgh, 11-12; prof. mining eng., West Virginia, 12-17; ed., 'Coal Catalog,' 17- Min. and Metal. Eng.; hon. mem. Coal Min. Inst. (past pres); hon. mem. W. Va. Coal Min. Inst. Coal mining.
- Zetek, James**, Drawer C, Ancon, C. Z. *Entomology*. Chicago, Ill., Dec. 12, 86. A.B., Illinois, 11. Entomologist, Isthmian Canal Commission, 11-13; entomologist, Panama Govt., 14-15, director, Nat. Expos., Panama, 15-16; prof. biol. and hygiene, Nat. Inst., 16-18; entomologist, Panama Canal, 18-20; *specialist trop. insects*, *bur. entom.*, U. S. Dept. Agr., 20- Custodian, Barro Colo. Isl. biol. lab., Inst. for Research in Trop. Amer., 23- Gold medal, Nat. Inst., Panama, 15, 16, 17; grand prize, Nat. Expos., 16. A.A.; Entom. Soc.; Ass. Econ. Entom.; Soc. Parasitol.; Ecol. Soc.; Ill. Acad.; London Malacol. Soc. Medical, sanitary and tropical economic entomology; behavior; ecology; Anopheles and malaria; fruit-flies; forest-inhabiting mollusks; Mollusca of Panama.
- Zies, Dr. Emanuel G(eorge)**, Geophysical Laboratory, Washington, D. C. *Chemistry*. Baltimore, Md., Sept. 26, 83. A.B., Hopkins, 06, fellow, 08-09, Ph.D., 09. *Chemist*, Standard Lime and Stone Co., 09-13; *geophys. lab.*, Carnegie Institution, 13- Nat. Geog. Soc. exped., Mt. Katmai, Alaska, 19. A.A.; Chem. Soc.; Wash. Acad. Osmotic pressure; secondary copper sulphid enrichment; mineralogical chemistry; volcanology.
- Zigler, Prof. M(ichael) J(acob)**, 8 Tappan Road, Wellesley, Mass. *Psychology*. Broadway, Va., Nov. 6, 92. A.B., Bridgewater Col., 16; A.M., Clark, 17, fellow, 17-18; Ph.D., Cornell, 20. Instr. *psychol.*, Cornell, 18; Wells Col., 19; assoc. prof., Bridgewater Col., 20-21; instr., Princeton, 21-24; asst. prof., Wellesley, 24-27, *assoc. prof.*, 27- Summers, teacher, Pa. State, 22-24, Ohio State, 26, California at Los Angeles, 27. Psychol. Service, U.S.A., 18. A.A. Visual form; analysis of touchblends; tactual perception of form; tactual dispersion as a function of intensity; the qualitative differences of binocular and unocular impressions.
- Zimmer, M(eade) L(afayette)**, National Observatory, Cordoba, Argentina, S. A. *Astronomy*. Schoharie, N. Y., May 3, 80. Ph.B., 06, A.M., 08; Ph.D., Michigan, 26. Asst. astronomer, Dudley Observatory, 06-08; Carnegie Institution sci. exped., San Luis, Argentina, 09-13; *first astronomer*, Nat. Observatory of Argentina, 12- Astron. Soc.; Royal Astron. Soc.
- Zimmerli, Dr. William F(rederick)**, B. F. Goodrich Co., Akron, Ohio. *Chemistry*. New York, N. Y., Jan. 2, 88. B.S., Brooklyn Polytech., 09; Ph.D., Heidelberg, 12. Research chemist, B. F. Goodrich Co., 12-14; asst. prof. chem., Akron, 14-16; chief chemist, Pfaunder Co., 16-19; Howe Rubber Corp., 20-24; *technical div.*, B. F. Goodrich Co., 24- Chem. Soc. (chairman, Rochester sect., 19); Chem. Eng. Rubber chemistry.
- Zimmerman, Dr. P(ercy) W(hite)**, Boyce Thompson Institute, Yonkers, N. Y. *Botany*. Manito, Ill., Feb. 23, 84. B.S., Chicago, 15, M.S., 16, Ph.D., 25. Asst. bot., Chicago, 16; assoc. prof., Maryland, 16-17, acting dean div. plant indust., 17-18, prof. and dean col. agr., 18-25; *in charge veg. plant propagation*, Boyce Thompson Inst., 25- A.A.; Bot. Soc. Plant propagation with special reference to cuttings; vegetative plant propagation.
- Zimmerman, R(ufus) E(icher)**, American Sheet and Tin Plate Co., Pittsburgh, Pa. *Chemistry*, *Engineering*. Mt. Pleasant, Pa., Nov. 26, 86. Ph.B., Franklin and Marshall, 08; B.S., Mass. Inst. Tech., 11. Instr. theoret. chem., Mass. Inst. Tech., 13-14; asst. director research lab., *Am. Sheet and Tin Plate Co.*, 15-17, director, 18-22, *asst. to v. pres.*, 22- Metal. Advisory Board, U. S. Bur. Mines and Carnegie Inst. Tech. Chem. Soc. (chairman, Pittsburgh sect., 19, councilor, 20); Electrochem. Soc. (chairman, Pittsburgh sect., 18, mem. board, 19-21); Am. Iron and Steel Inst.; Min. and Metal. Eng.; West. Pa. Eng. Soc. Steel; tin plate; zinc coatings; by-products.

- Zinn, Dr. John B(rown)**, Gettysburg College, Gettysburg, Pa. *Chemistry*. Gettysburg, Aug. 20, 88. B.S., Gettysburg Col. 09; Ph.D., Hopkins, 13. Instr. chem., Amherst, 13-16, assoc. prof., 16-19; prof., Worcester, 19-24; *head dept., Gettysburg Col.*, 24- A.A.; Chem. Soc. Osmotic pressure measurements of cane sugar solutions at higher temperatures.
- Zinsser, Dr. Frederick George**, Hastings-on-Hudson, N. Y. *Chemistry*. New York, N. Y., March 20, 68. Columbia; Göttingen; A.M., Ph.D., Heidelberg, 91. Chemist and works manager, *W. Zinsser and Co.*, 91-97, chem. manufacturer, 97-Major, C.W.S., 18-19, col. O.R.C.; asst. food anal. to Prof. Chas. Blas, Louvain, and Belgium Board Health. Chem. Soc.; Soc. Chem. Indust.; Soc. de Chim. indust. Photographic chemicals; intermediates; dyes.
- Zinsser, Dr. Hans**, Harvard Medical School, Boston, Mass. *Bacteriology*. New York, N. Y., Nov. 17, 78. A.B., Columbia, 99, A.M., M.D., 03. House staff, Roosevelt Hosp., 03-05, bacteriologist, 05-06; asst. bacter., Columbia, 05-06; asst. pathologist, St. Luke's Hosp., 07-10; instr. bacter., Columbia, 08-10; assoc. prof., Stanford, 10-11, prof., 11-13; Columbia, 13-23; *Harvard Med. Sch.*, 23- Bacteriologist, Presb. Hosp., 13-; Red Cross exped. Serbia, 15. Major, lieut. col. and col. M.C., 17-19. Sanit. commissioner to Russia, League of Nations, 23. D.S. medal. Nat. Acad.; Soc. Bact.; Ass. Path. and Bact.; Soc. Exp. Path.; Soc. Exp. Biol.; Soc. Immunol. (pres, 19); Soc. Cancer Research; Harvey Soc.; N. Y. Path. Soc. (pres, 15). Epidemiology; immunology; serology.
- Zirkle, Dr. Conway**, Bussey Institution, Forest Hills, Boston, Mass. *Botany*. Richmond, Va., Oct. 28, 95. B.S., M.S., Virginia, 21; King's Col., London, 23; Geneva, 24; Ph.D., Hopkins, 25. Instr. biol., Virginia, 20-21; asst. bot., Hopkins, 21-23; *Nat. Research Council fellow biol.*, Harvard, 25- Summers, instr., Virginia, 21-25. Bot. Soc. Structure of the chloroplast; effects of mass selection upon polyhybrid stocks.
- Ziwet, Prof. Alexander**, 532 Packard St., Ann Arbor, Mich. *Mathematics, Mechanics*. Breslau, Germany, Feb. 8, 53. C.E., Polytech., Karlsruhe, 80. Asst. U. S. Lake Surv., 80-82; U. S. Coast and Geod. Surv., 82-87; instr. asst. prof., junior prof. and *prof. math.*, Michigan, 88- A.A.; Math. Soc. (assoc. ed., 'Bul'); Math. Ass.
- Zobel, Dr. Otto Julius**, 195 Broadway, New York, N. Y. *Physics*. Ripon, Wis., Oct. 20, 87. A.B., Ripon, 09; A.M., Wisconsin, 10, fellow, 11-12, Ph.D., 14. Asst. physics, Wisconsin, 10-11, instr., 13-15; Minnesota, 15-16; *Am. Tel. and Tel. Co.*, 16- Assoc. Physical Soc.; Math. Soc. Mathematical physics; theory of heat conduction; electrical transmission.
- Zoethout, Dr. W(illiam) D(owwes)**, 7115 W. 31st St., Berwyn, Ill. *Physiology*. Netherlands, Aug. 19, 71. A.B., Hope, 93; Ph.D., Chicago, 98. *Head dept. physiol.*, Chicago Col. Dental Surg., Loyola, 12- A.A. Muscle irritability.
- Zoller, Harper F(lyer)**, 12105 N. Lawn Ave., Detroit, Mich. *Chemistry*. Sand Springs, Iowa, April 13, 89. B.S., Lenox, 10; M.S., Illinois, 13. Research asst., Illinois, 11-13; prof. physical sciences, Puget Sound, 13-15; asst. prof. chem., Kansas Col., 15-17; org. chemist, dairy div, bur. animal indust., U. S. Dept. Agr., 17-21; chief chemist, Nizer Laboratories Co., 21-25; *director laboratories, Arctic Dairy Products Co.*, 25- A.A.; Chem. Soc.; Soc. Biol. Chem. Bromin in kelp; caramel; constituents of grape fruit; indole; milk by-products; sodium hypochlorite; sodium caseinate.
- Zon, Raphael**, University Farm, St. Paul, Minn. *Forestry*. Simbirsk, Russia, Dec. 1, 74. A.B., Gymnasium, Simbirsk, 92; B.S., Univ. of Kazan, 96; Brussels, 97-98; F.E., Cornell, 01. Forest asst., U. S. Forest Service, 01-07, chief forest investigations, 07-19, *director, Lake States Forest Exp. Sta.*, 23- Ed., 'Jour. Forestry.' Nat. Research Council. A.A.; Soc. Foresters (v. pres); Forestry Ass.; Bot. Soc.; Ecol. Soc.; Ass. Geog.; Wash. Acad. Forest ecology; light in relation to forest trees; forest meteorology; forests and stream flow; forest resources of the world.
- Zons, Dr. Frederick W(illiam)**, 2778 Claflin Ave., New York, N. Y. *Chemistry*. A.B., Columbia, 07, A.M., 10, fellow, 10-11, Ph.D., 11. Instr. physics, Col. City of N. Y., 07-09, chem., 09-10; chief chemist, Westinghouse Lamp Co., 11-16; chemist and manager, New Process Gas Mantle Co., 16-19; *research chemist*, 19- Chairman dept. science, evening high sch., New York, 14-16; director, Newark Sci. Research Lab., 14-16. Capt., U.S.R.C. A.A.; Chem. Soc. (sec'y, North Jersey sect., 23-); Electrochem. Soc.; N. J. Chem. Soc. (chairman, pub. committee, ed., 'Bul,' 19-26, 'The Indicator,' 26-, 'Year Book,' 20). Determination of rare earths; manufacture of rare earth and rare metal products; carbon and tungsten lamps; tungsten; molybdenum; chromium; tantalum; thorium; electronic devices; high blood pressure specific; the pharmaceutical application of chlorine.
- Zook, L(eslie) L(ewis)**, Experimental Substation, North Platte, Nebr. *Agriculture*. Kearney, Nebr., June 21, 80. B.S., Nebraska, 07. Instr. agron., Nebraska, 07-08; sci. asst. corn investigations, bur. plant indust., U. S. Dept. Agr., 08-13, *physiologist*, 13-14, *dry land agr.*, 15- A.A.; Soc. Agron.; Nebr. Acad. Agronomy.
- Zowski-Zwierzchowski, Prof. S(tanislaus) J(an)**, Politechnic, Warsaw, Poland. *Mechanical engineering*. Srem, Poland, April 27, 80. Dipl. Ing., Charlottenburg, Germany. Designer, Dayton Globe Iron Works Co., 05; Allis Chalmers Co., 06; Allis Chalmers Bullock Co., 07; instr. mech. eng., Michigan, 08-09, asst. prof., 09-10, junior prof., 11-12, prof., 13-22; *Politechnic, Warsaw*, 22- Mech. Eng.; Eng. Educ.; Turbinentech. Gesell. Applied hydromechanics; water turbines; centrifugal pumps.
- Zufall, Prof. C(halmers) J(oseph)**, 2504 Main St., Lafayette, Ind. *Pharmacy*. Frankfort, Ind., May 1, 85. B.S., Purdue, 07, M.S., 14. Teacher, high sch., Ohio, 07-13; pharmacognosist, Eli Lilly and Co., Ind., 13-16; bur. chem., Port of New York, 16-20; *asst. prof. mat. med.*, Purdue, 20- Pharmaceut. Ass.; Ind. Pharmaceut. Ass.; Ind. Acad.; N. Y. Micros. Soc. Microscopic structure

and chemical constituents of drug plants; naturalization of foreign drug plants.

Zuker, Prof. W(illiam) B(erdetto), 1395 McCormick St, Dubuque, Iowa. *Chemistry*. Minneapolis, Kans, Sept. 13, 87. B.S, Highland Park Col, 10; M.S, Chicago, 21. Assoc. prof. *chem*, Highland Park Col, 10-12, prof, 12-17; Des Moines, 17-19; *head dept*, Dubuque, 21-Summers, canning factory inspector, Nat. Canners Ass. A.A; Chem. Soc. Boiler feed waters; anodic oxidation of metals in liquid ammonia.

Zumstein, Dr. R(obert) V(ictor), University of Michigan, Ann Arbor, Mich. *Physics*. Wellandport, Ont, Can, Dec. 26, 96. B.A, Toronto, 17, M.A, 18; Ph.D, Iowa, 24. Instr. *physics*, Iowa, 20-23; *Nat. Research Council fellow*, Michigan, 24- Physical Soc. Tungsten X-ray spectrum; absorption spectra of metallic vapors in the ultra-violet.

Zundel, Prof. George L(orenzo Ingram), Agricultural Experiment Station, New Haven, Conn. *Plant pathology*. Brigham City, Utah, Dec. 23, 85. B.S.A, Utah Col, 11; M.S, Cornell, 15; Yale, 27. Instr. hort. and bot, Utah Col, 11-12; high sch, 12-13; asst. prof. biol, Brigham Young, 15-17; asst. pathologist, U. S. Dept. Agr, 17-19; exten. plant pathologist, Wash. Col, 19-27; *grad*.

asst. to G. P. Clinton, Conn. Exp. Sta, 27-Summer, special research, U. S. Dept. Agr, Idaho, 16. A.A; Phytopath. Soc. Ustilaginales; control of bunt in wheat; diseases of potatoes.

Zwick, Dr. Karl G(eorge), 3444 Cornell Place, Clifton, Cincinnati, Ohio. *Medicine*. Covington, Ky, July 10, 68. Royal Gym, Stuttgart, 86; Ph.C, Michigan, 88; Ph.D, Wurzburg, 99; M.D, Cincinnati, 03. Chief, Dermatol. Clinic, Bern, 15-17; res. dermatologist, Lakeside Hosp, Cleveland, Ohio, 22-23. A.A; Am. Med. Ass; Pharmaceut. Ass; Cincinnati Acad; Cleveland Acad; Cincinnati Dermatol. Soc; assoc. mem. Cleveland, Chicago and St. Louis Dermatol. Societies; Schweiz. Naturforsch. Verein; Schweiz. Dermatol. Verein; Schweiz. Neurol. Verein; Med. Gesell. Basel; Naturforsch. Gesell. Basel; Soc. des Med. Alien. et Neurol. de France; Paris Soc. des Dermat. Chemistry; hygiene.

Zwillinger, Max, 1020 Potomac Ave, S. E, Washington, D. C. *Optics*. Troppau, Czecho-Slovakia, May 7, 78. C.E, Polytech, Vienna, 02. Ry. engineer, 03-09; bridge designer, 09-10; *designer optical instruments and systems*, 10-; *in charge sci. dept, optical shop, Navy Yard*. Optical Soc. Telescopic optics applied to the construction of military and surveying instruments; photographic and projection lenses.

AMERICAN MEN OF SCIENCE WHO HAVE DIED SINCE JANUARY 1, 1921

The names of those who died between January 1, 1903, and December 31, 1920, will be found in the third edition.

- Abbot, Henry Larcom. *Physics*. 31-27.
 Abbott, James Francis. *Zoology*. 76-26.
 Adami, John George. *Pathology*. 62-26.
 Alden, George Ira. *Mechanical eng.* 43-26.
 Allen, Joel Asaph. *Vertebrate zoology*. 38-21.
 Allen, John Robins. *Mechanical eng.* 69-20.
 Anderegg, Frederick. *Mathematics*. 52-22.
 Argall, Philip. *Metallurgy*. 54-22.
 Armsby, Henry Prentiss. *Nutrition*. 53-21.
 Armstrong, Gordon Nelson. *Mathematics*. 75-26.
 Babcock, Earle Jay. *Chemical engineering*. 65-25.
 Babcock, William Henry. *Ethnology*. 49-22.
 Bacon, Nathaniel Terry. *Chemistry*. 58-26.
 Bailey, Charles Hervey. *Pathology*. 81-26.
 Bailey, Frederick Randolph. *Histol, Path.* 71-23.
 Bailey, Loring Woart. *Biology, Geology*. 39-25.
 Bailey, Pearce. *Neurology*. 65-22.
 Baker, Charles Fuller. *Botany*. 72-27.
 Baker, Ira Osborn. *Civil engineering*. 53-25.
 Baker, Smith. *Neurology*. 50-22.
 Balch, Edwin Swift. *Geography, Ethnol.* 56-27.
 Baldwin, William James. *Engineering*. 44-24.
 Bancroft, Frank Watts. *Physiol, Zool.* 71-23.
 Barnard, Edward Emerson. *Astronomy*. 57-23.
 Barrows, Walter Bradford. *Zoology*. 55-23.
 Barton, Samuel Marx. *Mathematics*. 59-26.
 Base, Daniel. *Chemistry*. 69-26.
 Baskerville, Charles. *Chemistry*. 70-22.
 Bass, Edgar Wales. *Mathematics*. 43-18.
 Bates, George Andrew. *Embryology*. 47-25.
 Beach, Spencer Ambrose. *Horticulture*. 60-24.
 Beal, William James. *Botany*. 33-24.
 Beates, Henry. *Medicine*. 57-26.
 Beauchamp, William Martin. *Archeology*. 30-25.
 Behr, Arno. *Chemistry*. 46-21.
 Bell, Alexander Graham. *Physics*. 47-22.
 Bell, Louis. *Physics*. 64-23.
 Beman, Wooster Woodruff. *Mathematics*. 50-22.
 Benzenberg, George Henry. *Engineering*. 47-25.
 Bethel, Ellsworth. *Botany*. 63-25.
 Betts, Joseph Barton. *Pathology*. 72-21.
 Beyer, George Eugene. *Biology*. 61-26.
 Bicknell, Eugene Pintard. *Bot, Ornith.* 1-25.
 Bigelow, Frank Hagar. *Meteorology*. 51-24.
 Biggs, Hermann M. *Medicine*. 59-23.
 Bird, William Warren. *Mech. eng.* 66-26.
 Black, Homer Van Valkenburgh. *Chem.* 77-21.
 Blessing, George Frederick. *Engineering*. 75-21.
 Blodgett, Frederick Harvey. *Botany*. 72-26.
 Blunt, Stanhope English. *Ord, Artil.* 50-26.
 Boltwood, Bertram Borden. *Chemistry*. 70-27.
 Booraem, John Van Vorst. *Mech. eng.* 38-23.
 Booraem, Robert Elmer. *Mining eng.* 56-18.
 Booth, Mary Ann. *Microscopy*. 43-22.
 Borden, Raymond Franklin. *Mathematics*. 92-27.
 Bottomley, John Taylor. *Surgery*. 69-25.
 Bouton, Charles Leonard. *Mathematics*. 69-22.
 Boutroux, Pierre. *Mathematics*. 80-22.
 Bowditch, Charles Pickering. *Archeology*. 42-21.
 Bradford, Edward Hickling. *Surgery*. 48-26.
 Brainerd, Ezra. *Botany*. 44-24.
 Brandegee, Townshend Stith. *Botany*. 43-25.
 Branner, John Casper. *Geology*. 50-22.
 Brayton, Alembert Winthrop. *Medicine*. 48-26.
 Brennan, Martin Stanislaus. *Astron, Geol.* 45-27.
 Bridge, Norman. *Pathology*. 44-25.
 Bridgman, Herbert Lawrence. *Geog.* 44-24.
 Brigham, William Tufts. *Anthropology*. 41-26.
 Brill, Nathan Edwin. *Medicine, Biology*. 60-25.
 Brookover, Charles. *Zoology*. 70-22.
 Brooks, Alfred Hulse. *Geology*. 71-24.
 Brooks, William Robert. *Astron, Physics*. 44-21.
 Brown, Charles Sumner. *Mech. eng.* 60-26.
 Brown, Mabel Mary. *Botany*. 90-27.
 Brown, Samuel Boardman. *Geology*. 60-26.
 Brown, Stewardson. *Botany*. 67-21.
 Brown, Stimson Joseph. *Astronomy*. 54-23.
 Brunel, Roger Frederic. *Chemistry*. 81-24.
 Buck, Albert Henry. *Otology*. 42-22.
 Bullard, Warren Gardner. *Mathematics*. 67-27.
 Bumstead, Henry Andrews. *Physics*. 70-20.
 Burbank, Luther. *Plant evolution*. 49-26.
 Burbeck, Allan Beal. *Astronomy*. 82-20.
 Burckhalter, Charles. *Astronomy*. 49-23.
 Burgess, Thomas Joseph Workman. *Botany*. 49-1.
 Burnham, Sherburne Wesley. *Astronomy*. 38-21.
 Burrows, Charles William. *Physics, Eng.* 74-25.
 Cady, LeRoy. *Horticulture*. 79-23.
 Caldwell, John Williamson. *Chemistry*. 42-23.
 Campbell, Edward DeMille. *Chemistry*. 63-25.
 Campbell, Harry Huse. *Metallurgy*. 59-1.
 Campbell, William Francis. *Surgery*. 65-26.
 Cannon, George Lyman. *Geology*. 60-22.
 Carhart, Daniel. *Mathematics, Civil eng.* 39-26.
 Carleton, Mark Alfred. *Agronomy*. 66-25.
 Carmichael, Henry. *Chemistry*. 46-24.

- Carpenter, Frederic Walton. *Zoology*. 76-25.
 Carrigan, William Thomas. *Astronomy*. 65-22.
 Carroll, Alexander Mitchell. *Archeology*. 70-25.
 Carter, Benjamin Edward. *Mathematics*. 66-26.
 Carter, Carnie Blake. *Chemistry*. 90-26.
 Carter, Henry Rose. *Medicine*. 52-25.
 Casey, Thomas Lincoln. *Entom., Paleont.* 57-25.
 Cathcart, William Ledyard. *Engineering*. 55-26.
 Cattell, William Ashburner. *Civil eng.* 63-20.
 Chamberlain, Montague. *Ornith., Anthropol.* 44-24.
 Chandler, Charles Frederick. *Chemistry*. 36-25.
 Chapin, Henry Edgerton. *Biology*. 59-22.
 Chapman, James Crosby. *Exp. educ.* 89-25.
 Chauvenet, Regis. *Chemistry*. 42-20.
 Chauvenet, William Marc. *Min., Chem.* 55-26.
 Clark, Harold H. *Elec. eng.* 76-25.
 Clark, John Goodrich. *Surgery*. 67-27.
 Clark, Wayland Blair. *Chemistry*. 75-24.
 Clarke, John Mason. *Paleont., Geol.* 57-25.
 Climenko, Hyman. *Neurology*. 75-20.
 Clinton, Louis Adelbert. *Agronomy*. 68-23.
 Cocks, Reginald Wodehouse Somers. *Bot.* 63-26.
 Cogswell, William Browne. *Chemistry*. 34-21.
 Coit, James Milnor. *Physics, Chem.* 45-25.
 Coit, Judson Boardman. *Astronomy*. 49-21.
 Cole, Frank Nelson. *Mathematics*. 61-27.
 Colvin, Stephen Sheldon. *Psychology*. 69-23.
 Comstock, William James. *Chemistry*. 60-22.
 Cook, Frank Cummings. *Chemistry*. 77-23.
 Courtis, William Munroe. *Metal, Botany*. 42-22.
 Cox, Guy Henry. *Geology*. 81-22.
 Craig, Alexander Righter. *Medicine*. 68-22.
 Craig, Joseph Davis. *Anatomy*. 56-23.
 Crandall, Irving Bardshar. *Physics*. 90-27.
 Crary, George Waldo. *Dermatology*. 64-26.
 Crawford, Albert Cornelius. *Pharmacol.* 69-21.
 Creighton, James Edwin. *Philosophy*. 61-24.
 Cresson, Ezra Townsend. *Entomology*. 38-26.
 Crocker, Francis Bacon. *Elec. eng.* 61-21.
 Crosby, William Otis. *Geology*. 50-25.
 Cross, Charles Robert. *Physics*. 48-21.
 Crump, Malcolm Hart. *Eng., Geology*. 49-25.
 Cunningham, Susan J. *Math, Astron.* 42-21.
 Curme, Henry Russell. *Chemistry*. 94-27.
 Curtis, Benjamin Farquhar. *Surgery*. 57-24.
 Curtis, George Carroll. *Geog., Geol.* 72-1.
 Cushing, Henry Platt. *Geology*. 60-21.
 Dall, William Healey. *Paleontology*. 45-27.
 Dalrymple, William Haddock. *Vet. med.* 56-25.
 Darling, Samuel Taylor. *Tropical med.* 72-25.
 Davis, Charles Henry. *Astronomy*. 45-21.
 Davis, Nathan Smith, Jr. *Medicine*. 58-20.
 Davis, Nathaniel French. *Mathematics*. 47-21.
 Day, David Talbot. *Geol., Chem., Min.* 59-25.
 Delany, Patrick Bernard. *Elec. eng.* 45-24.
 Dennett, William Sawyer. *Ophthalmology*. 49-25.
 Derr, Louis. *Physics*. 68-23.
 Dewey, Frederic Perkins. *Chem., Metal.* 55-21.
 Dexter, Franklin. *Anatomy*. 57-27.
 Dickerson, Edgar Leek. *Entomology*. 78-23.
 Dickerson, Mary Cynthia. *Zoology*. 66-23.
 Dodge, Austin Richardson. *Engineering*. 69-25.
 Dolley, David Hough. *Pathology*. 78-27.
 Doolittle, Roscoe Edward. *Chemistry*. 74-26.
 Doremus, Charles Avery. *Chemistry*. 51-25.
 Dowling, Donaldson Bogart. *Geology*. 58-25.
 Draper, William Kinnicutt. *Medicine*. 63-26.
 Dryer, Charles Redway. *Geography*. 50-27.
 Dudley, Plimmon Henry. *Civil eng., Metal.* 43-24.
 Duke, Frank Williamson. *Mathematics*. 71-25.
 Dumble, Edwin Theodore. *Geology*. 52-27.
 Dunham, Edward Kellogg. *Pathology*. 60-22.
 Dunne, John Augustine. *Astronomy*. 71-20.
 Durand, Elias Judah. *Botany*. 70-22.
 Eddy, Henry Turner. *Math, Mech. eng.* 44-21.
 Edes, Robert Thaxter. *Pathology*. 38-22.
 Eigenmann, Carl H. *Zoology*. 63-27.
 Elder, Elwood Waite. *Physics*. 67-27.
 Eliot, Charles William. *Educ., Chem., Math.* 34-26.
 Elliott, John Asbury. *Botany*. 87-23.
 Emerson, Charles Franklin. *Phys., Astron.* 43-22.
 Emerson, William Henry. *Chemistry*. 60-24.
 Emery, Albert Hamilton. *Engineering*. 34-26.
 Ernst, Harold Clarence. *Bacteriology*. 56-22.
 Evans, Percy Norton. *Chemistry*. 69-25.
 Ewing, Ephraim MacDonald. *Physiology*. 89-25.
 Eycleshymer, Albert Chauncey. *Anatomy*. 67-25.
 Fall, Delos. *Chemistry*. 48-21.
 Farabee, William Curtis. *Anthropology*. 65-25.
 Fernald, Charles Henry. *Entomology*. 38-21.
 Fernow, Bernhard Eduard. *Forestry*. 51-23.
 Field, Herbert Haviland. *Zoology*. 68-21.
 Field, Irving Angell. *Zoology*. 79-21.
 Fink, Bruce. *Botany*. 61-27.
 Fischer, Charles Albert. *Mathematics*. 84-22.
 Fischer, Louis Albert. *Physics*. 64-21.
 Fitzgerald, Desmond. *Engineering*. 46-26.
 Fitz-Randolph, Raymond Bernard. *Bacter.* 72-22.
 Flather, John Joseph. *Mech. eng.* 62-26.
 Fletcher, Alice Cunningham. *Anthropol.* 45-23.
 Flint, Albert Stowell. *Astronomy*. 53-23.
 Foote, James Stephen. *Pathology*. 1-25.
 Forbes, Charles. *Physics*. 44-17.
 Ford, Francis Chipman. *Anatomy*. 65-22.
 Foster, Shirley Watson. *Entomology*. 84-23.
 Foster, William Silliman. *Psychology*. 86-26.
 Frear, William. *Agricultural chemistry*. 60-22.
 Frost, Elliott Park. *Psychology*. 84-26.
 Fuertes, Louis Agassiz. *Ornithology*. 74-27.
 Fullerton, George Stuart. *Philosophy*. 59-25.

- Fussell, Milton Howard. *Medicine*. 55-21.
 Fyles, Thomas William. *Zoology*. 32-1.
- Garman, Samuel. *Zoology*. 43-27.
 Garvin, John Brewer. *Chemistry*. 61-24.
 Gaylord, Harvey Russell. *Pathology*. 72-24.
 Gerster, Arpad Geyza. *Surgery*. 48-23.
 Gerhard, William Paul. *Civil engineering*. 54-27.
 Gilpin, Joseph Elliott. *Chemistry*. 66-24.
 Goldsmith, Edward. *Chemistry*. 33-25.
 Goodale, George Lincoln. *Botany*. 39-23.
 Gordin, Harry Mann. *Chemistry*. 54-23.
 Gordon, George Byron. *Archeology*. 70-27.
 Gossard, Harry Arthur. *Entomology*. 68-25.
 Gould, George Milbry. *Biol., Ophthal.* 48-22.
 Gray, Alexander. *Elec. eng.* 82-21.
 Greenway, John Campbell. *Engineering*. 72-26.
 Griffin, Edward Gray. *Chemistry*. 89-22.
 Griffin, John Joseph. *Chemistry*. 59-21.
 Guiteras, Juan. *Tropical diseases*. 52-25.
 Gulick, John Thomas. *Biology*. 32-23.
- Haines, Walter Stanley. *Toxicol., Chem.* 50-23.
 Hale, Albert Cable. *Chemistry, Physics*. 45-21.
 Hall, Arthur Graham. *Mathematics*. 65-25.
 Hall, Granville Stanley. *Psychology*. 46-24.
 Halstead, Albert Edward. *Surgery*. 68-26.
 Halsted, George Bruce. *Math, Logic*. 53-22.
 Halsted, William Stewart. *Surgery*. 52-22.
 Hamerschlag, Arthur Arton. *Education*. 72-27.
 Hamilton, Hugh. *Medicine*. 47-1.
 Hargitt, Charles Wesley. *Zoology*. 52-27.
 Harkness, James. *Mathematics*. 64-23.
 Harrison, John Burchmore. *Chem, Geol.* 56-26.
 Harshman, Walter Scott. *Astronomy*. 59-24.
 Harte, Richard Hickman. *Surgery*. 55-25.
 Harvey, LeRoy Harris. *Botany*. 79-22.
 Hayford, John Fillmore. *Geodesy*. 68-25.
 Hays, I. Minis. *Medicine*. 47-25.
 Heath, George Lincoln. *Chem, Metal.* 66-22.
 Henchman, Annie Parker. *Zool., Histol.* 52-26.
 Henderson, George R. *Mech. eng.* 61-21.
 Henderson, Martin Perry. *Plant path.* 74-23.
 Hendrixson, Walter Scott. *Chemistry*. 59-25.
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 Hering, Carl. *Electrical engineering*. 60-26.
 Hering, Rudolph. *Engineering*. 47-23.
 Hess, Henry. *Mechanical engineering*. 63-22.
 Hewitt, Peter Cooper. *Elec. and mech. eng.* 61-21.
 Hewlett, Albion Walter. *Medicine*. 74-25.
 Hice, Richard Roberts. *Geology*. 65-25.
 Hill, George Andrews. *Astronomy*. 58-27.
 Hillebrand, William Francis. *Chemistry*. 53-25.
 Hills, Richard Charles. *Geology*. 48-23.
 Hinds, John Iredelle Dillard. *Chemistry*. 47-21.
 Hinrichs, Gustavus Detlef. *Chemistry*. 36-23.
 Hitchcock, Edward, Jr. *Hygiene, Physiol.* 54-25.
- Hite, Bert Holmes. *Chemistry*. 66-21.
 Hodgkins, William Candler. *Geodesy*. 54-22.
 Hofman, Heinrich Oscar. *Metallurgy*. 52-24.
 Holland, Clifford Milburn. *Civil eng.* 83-24.
 Holland, James William. *Medicine*. 49-22.
 Hollister, Ned. *Mammalogy*. 76-24.
 Holman, Minard Lafever. *Mech. eng.* 52-25.
 Holmes, Mary Elizabeth. *Chemistry*. 70-27.
 Holt, Luther Emmett. *Diseases of children*. 55-24.
 Holt, Norman Edward. *Chemistry*. 88-27.
 Holway, Edward Willet Dorland. *Botany*. 53-23.
 Hopkins, Samuel Augustus. *Bacteriology*. 58-21.
 Hortvet, Julius. *Chemistry*. 63-27.
 Hoskins, William Horace. *Vet. juris*. 60-21.
 Hotchkiss, Lucius Wales. *Surgery*. 59-26.
 Hough, Romeyn Beck. *Dendrology*. 57-24.
 Hough, Theodore. *Physiology*. 65-24.
 Houlehan, Arthur Earl. *Chemistry*. 85-24.
 Hovey, Edmund Otis. *Geology*. 62-24.
 Howard, Orson. *Natural science*. 53-21.
 Howe, Henry Marion. *Metallurgy*. 48-22.
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 Howe, Raymond Miller. *Chemistry*. 94-24.
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 Hughes, Howard Robert. *Engineering*. 69-24.
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 Hunter, Walter David. *Entomology*. 75-25.
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- Jackson, Holmes Condict. *Physiology*. 75-27.
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 Johnnott, Edwin Sheldon. *Physics*. 68-25.
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 Judson, William Voorhees. *Engineering*. 65-23.
- Kahn, Max. *Biochemistry, Medicine*. 87-26.
 Kammer, Glenn Donald. *Chemistry*. 88-27.
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 Keith, Nathaniel Shepard. *Electrochem.* 38-25.
 Keller, Harry Frederick. *Chemistry*. 61-24.
 Keller, William Simpson. *Civil eng.* 74-25.
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 Kelly, John Forrest. *Elec. eng.* 59-22.
 Kemp, James Furman. *Geology*. 59-26.
 Kenyon, Alfred Monroe. *Mathematics*. 69-21.

- Kershner, Jefferson E. *Math, Phys.* 54-22.
 Killam, Samuel Douglas. *Applied Math.* 88-23.
 Kimball, Arthur Lalanne. *Physics.* 56-23.
 Kinney, Abbot. *Forestry.* 50-20.
 Kirk, Edwin Garvey. *Surgical path.* 80-26.
 Klotz, Otto Julius. *Astronomy.* 52-23.
 Knowlton, Frank Hall. *Paleontology.* 60-26.
 Kraemer, Henry. *Pharmacognosy.* 68-24.
 Krohn, William Otterbein. *Psychol, Med.* 68-27.
 Kruesi, August H. *Electrical engineering.* 76-25.
 Kurtzweil, Carl. *Plant pathology.* 91-21.
- Ladd, Edwin Fremont. *Chemistry.* 59-25.
 Ladd, George Trumbull. *Psychol, Philos.* 42-21.
 Lambert, Preston Albert. *Mathematics.* 62-25.
 Lang, William Robert. *Chemistry.* 1-25.
 Larkin, Edgar Lucien. *Astronomy.* 47-24.
 Leavitt, Henrietta Swan. *Astronomy.* 1-21.
 LeConte, Robert Grier. *Surgery.* 65-24.
 Lederle, Ernst Joseph. *Sanit. eng.* 65-21.
 Ledoux, Albert Reid. *Metallurgy.* 52-23.
 Lee, Willis Thomas. *Geology.* 64-26.
 Lefevre, George. *Zoology.* 69-23.
 Lenher, Victor. *Chemistry.* 73-27.
 Lenox, Lionel Remond. *Chemistry.* 65-27.
 Leonard, Fred Eugene. *Physical educ.* 66-22.
 Levison, Wallace Gould. *Chemistry.* 46-24.
 Levy, Max. *Photography.* 57-26.
 Lewis, Exum Percival. *Physics.* 63-26.
 Lewis, Lowery Laymon. *Bacteriology.* 69-22.
 Lewis, Nelson Peter. *Engineering.* 56-24.
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THE ORDER OF SCIENTIFIC MERIT AND THE VALIDITY OF VOTES¹

IN selecting groups of one thousand American men of science for statistical study in 1903 and 1909, the workers in each of twelve sciences were arranged in the order of merit for their work by ten of their leading colleagues.² The average positions gave the order, and, as there were ten observations of the position of each individual, its probable error could be calculated.

As the writer of this paper is a psychologist and the ultimate object of the work is the study of behavior with a view to advancing scientific research, the psychologists may be used for illustrations of method. William James was placed first in 1903 by the independent judgment of each of the ten observers. The psychologist who stood second had an average position of 3.7 with a probable error of 0.5; the chances are even that his position was between 3.2 and 4.2. The psychologists who stood third, fourth and fifth were assigned, respectively, positions of 4.0, 4.4 and 7.5, with probable errors of 0.5, 0.6 and 1.0. It follows that the relative order of Nos. II, III and IV is not determined definitely, whereas the chances are some 10,000 to 1 that each of these stood below No. I and above No. V. The probable errors increase in size as the work of the men becomes less significant; it is on the average 0.65 places for the first ten of the fifty psychologists and 10.7 places for the last ten. Consequently No. XL on the list would have about one chance in four of falling out of the group of fifty, if the number participating in the arrangement had been very large.

The figures determine not only the validity of the positions, but also the differences in scientific merit among the psychologists, these varying inversely as the probable errors. As men who are about 6 ft. 2 in. tall are likely to differ from each other about ten times as much as

men who are about 5 ft. 8 in. tall, so the more distinguished scientific men at the top of the list differ from each other about ten times as much as those toward the bottom, and a unit can be adopted for measuring the differences. This method for converting relative positions into degrees of quantitative differences, which was first used by the writer³ to measure subjective differences in the intensity of lights, has proved to be of wide application.

For a third selection of our thousand leading men of science it seemed desirable, in order to avoid the inbreeding that might occur through selection by a limited group, to obtain a general vote from those competent, and, as before, the new methodological problems have proved to be of interest. The validity of votes appears not to have been considered, yet the problem is wide-reaching and is closely related to the drawing of balls from an urn, which has largely occupied students of the theory of probabilities.

If, for example, the council of the American Psychological Association, which consists of eight members, decides without consultation in favor of a given measure by a vote of 6 to 2, how likely is this to represent the majority opinion of the 432 members? We do not know the distribution of this "population," but if from an urn containing 216 white and 216 black balls 8 are drawn, the chances are about one in nine that 6 will be white and about one in seven that 6 or more will be white. These may be regarded as approximately the chances that when the membership is about evenly divided a vote of that character will be obtained from the council; and on this basis the desirability of a plebiscite vote may be decided.

In 1916 Mr. Wilson was elected president by the vote in California, which was in his favor

¹ Reprinted from *Science*, Nov. 10, 1922, Vol. LVI, No. 1454, pages 541-547.

² *Science*, November 23, November 30 and December 6, 1906, "American Men of Science," The Science Press, 1910.

³ *Philosophische Studien*, 1902. See also "Studies by the Method of Relative Position," H. L. Hollingworth, in "The Psychological Researches of James McKeen Cattell," a review by some of his pupils, on the occasion of the twenty-fifth anniversary of his professorship. New York, 1914.

by 466,300 to 462,394, giving him a majority of 3,906. It might be supposed that this small majority would readily have been reversed by an indefinitely large electorate, but if the population were equally divided this would probably occur only once if an election were held every day for a hundred years.

If the members of a jury reached their decision without consultation and stood eleven to one for conviction, many would conclude that the chances are eleven to one that the defendant is guilty. As a matter of fact if the total population is divided in the same ratio and the legal fiction is followed that a man is proved guilty or innocent only by unanimous vote of twelve peers, the chance of obtaining a jury which without consultation will be unanimous for conviction are about one in three, of obtaining a jury unanimous for acquittal, only one in many billions. The practise of the courts must ultimately adjust itself to such conditions, and learn whether the unanimous vote of three or five jurymen without consultation is more or less valid than the unanimous vote of twelve after consultation. It must be decided on what probabilities a man shall be convicted and to what extent the chances of innocence shall be considered in imposing sentence.

When our rulers are selected and their legislation is determined by votes, it seems strange that knowledge concerning the variable and constant errors is so completely lacking. A decision of the supreme court, which may involve the welfare of hundreds of thousands of children or taxation amounting to billions of dollars, is equally binding whether the vote is unanimous or by a majority of one. It would apparently be as reasonable to require a three fourths vote of the supreme court to invalidate a law passed by both houses of the congress and signed by the president, as to require a unanimous vote of a jury to award petty damages.

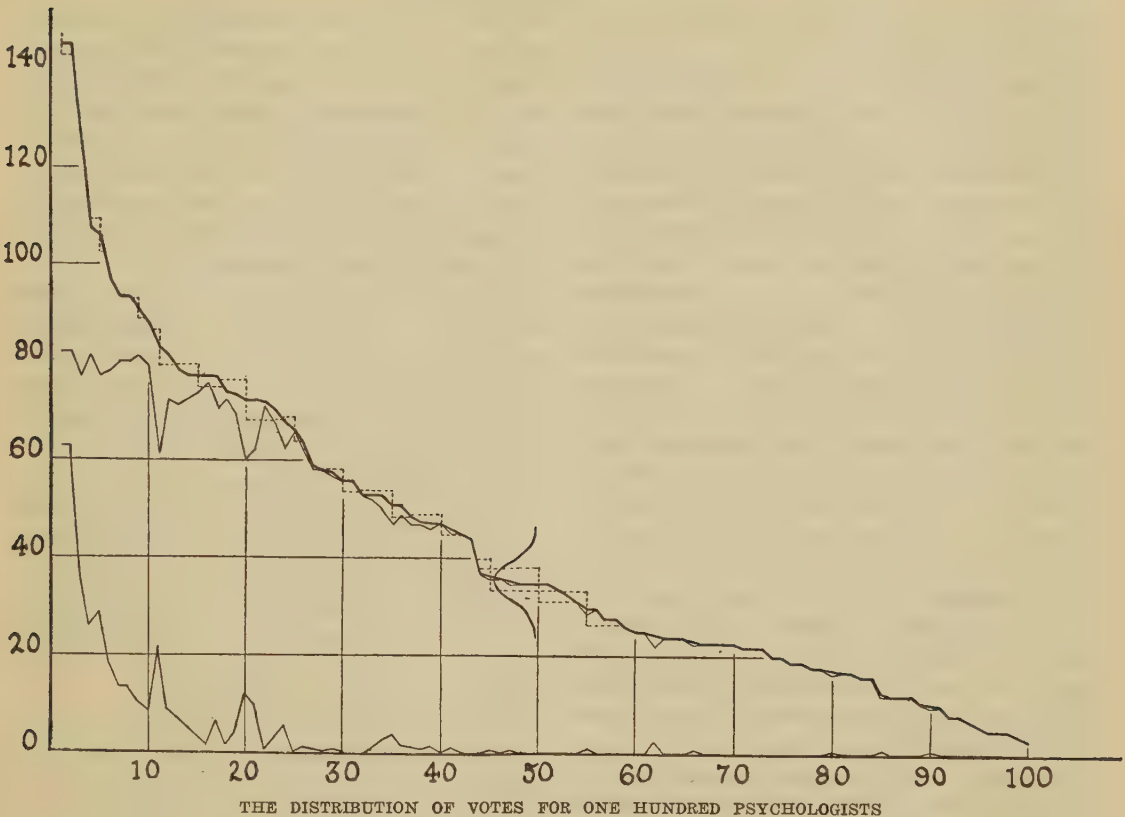
The method of voting used to select scientific men might have useful applications in industry. For example, if a bank employs 100 clerks, some of whom will be promoted from time to time, all of them might be asked to check the fifty per cent. and the five per cent. most deserving of promotion. From the records an order of merit for promotion would be obtained, together with the relative value of the men to

the bank and the salaries deserved. The data would also throw light on those voting, for the value of the judgment of each is measured by its departure from the average; if any were prejudiced or unfair in their treatment of friends or rivals this would be discovered. The combined judgment of associates is probably a more valid method of selection than the choice of a superior and would presumably lead to better service.

In like manner a group of factory workers or of laboring men might select a boss or leader by vote. If the employer would agree to take one of the five men receiving the most votes, the employees would understand and probably approve the method. Not only would a good selection free from favoritism be made, but the men would share in the control of their work and would be more loyal and more efficient.

The writer has proposed a compromise between the competitive and the semi-communistic systems for payment of the salaries of university professors, according to which, say, five super-professorships with relatively large salaries and large freedom should be established. The difficulty under our present method is that the appointments would be by favor of the administration. If, however, a vote of the teachers in the university, and perhaps of the students, were taken on the basis of desert for research, teaching and service, a method of selection would be used probably more accurate than the choice of the president and at the same time more conducive to cooperation and goodwill.

In the selection by votes of one thousand scientific men the same number for each of the twelve sciences was retained as in the two previous studies, this being nearly proportional to the total number of workers in each science. In the first edition of "American Men of Science" there were listed about 4,000 scientific men, in the second edition about 5,500, and in the present edition, published some fifteen years after the first, the number is about 9,600. The present writer was in 1888 the only professor of psychology in the world. The number of members of the American Psychological Association, which has a professional qualification, increased from 127 in 1903, when the first selection was made, to 432 in 1920. The average number of doctorates conferred in psychology during the



THE DISTRIBUTION OF VOTES FOR ONE HUNDRED PSYCHOLOGISTS

five years prior to 1903 was 12.6; it was 40 in 1920. Competition for inclusion among our fifty leading psychologists or among our thousand leading men of science is thus much more severe at present than was the case when the selections were first made. There are now about 500 working psychologists and about 10,000 scientific men in the United States; the present selection consists approximately of those who form in each science the upper tenth in merit of their work.

In the case of the psychologists, here used as an example, those in the two earlier groups of fifty (except five no longer occupied with psychology or no longer residents of the United States), numbering 48, were asked to send the names of 10 or a smaller number of others whose work warranted their inclusion in such a group. Then those who received two or more nominations were in like manner asked to propose 10 or fewer names. The 52 who received the most votes were added to the original 48 to form a group of 100. These names were placed

in alphabetical order on a list, which was sent to them all, with the request to "check (✓) about 50 (namely, about one half) of the names to indicate those who have done the best work in psychology, placing a double check (✓✓) before about five of those whose work has been the most important." Eighty-three (besides one who replied too late) of the 100 returned the blank and, as each was asked not to consider himself, there were 82 votes. When more than five double checks were assigned they were weighted inversely as the number. The result of the votes can be conveniently shown by curves such as are here reproduced. The middle curve gives the distribution of the 82 votes for the 100 psychologists, the vertical ordinates representing the number of votes, while the individuals are ranged serially along the horizontal axis. The bottom curve shows the number of double checks for each individual, namely, the opinion that he is one of the five psychologists whose work is the most important. The top curve represents the sum of two votes, and

the individuals are arranged in order in accordance with this vote.⁴

As indicated on the curve and shown on the tables (which it seems unnecessary in this place to print) two and only two psychologists were included among the fifty leading psychologists by unanimous vote of their eighty-two colleagues. The psychologist at the bottom of the fifty received 35 votes; three were given for the psychologist who stands last in the hundred. Sixty-two of the 82 voting include among the five whose work has been most important the two psychologists who received a unanimous vote for inclusion among the fifty and 20 do not. Such differences in judgment are legitimate and significant. Thus the psychologist placed eleventh is held by 22 of his colleagues to belong to the first five and by 21 not to belong to the group of 50, and similar conditions obtained for the one placed twentieth. The names could be guessed by one familiar with the situation. They are men of distinction whose more important work is by some judged not to fall within the field of psychology.

The attitude of those voting is of scientific significance, for it measures the validity of judgments. If we assume the average judgment of the 82 psychologists to be nearly correct, the departure from this average measures the competence of the individuals to form such judgments. There do not appear to be group dif-

ferences dependent on distinction or age, but individuals, as shown in the previous study, differ in the ratio of about two to one. There will be an extraordinary change in our attitude toward political, social and business problems when we learn to look upon our observations, recollections, beliefs and judgments objectively, measuring the probability of their correctness and assigning probable errors to them.

The top curve represents the sum of the two votes and the order there given is the one used. A different weighting of the two votes would not considerably affect the order. The vote for the five leading psychologists in the main discriminates only the positions of the men in the upper quartile. In place of the double vote for the five and the fifty per cent. of the 100 psychologists whose work has the most merit, a satisfactory distribution might be obtained by a vote for 25, or one fourth of the whole number. In view of the constant use of votes for elections and decisions, the problems involved deserve more complete investigation.

A probable error can be found for the positions of the individuals by a method that was apparently first used by the present writer. When eighty of those voting are divided into ten groups of eight each, we have the separate votes of each of these groups and from their variation the probable error of the average vote can be calculated. Thus the psychologist No. 1, in the ten groups of eight votes each received, respectively, 4, 4, 2, 1, 4, 7, 4, 3, 2, and 2 votes. The probable error is 0.363, and for the group of eighty votes it is 3.63. The position on the curve assigned by each of the small groups can also be found and a probable error calculated from these ten positions.

The probable errors based on 80 votes (as a rule for each fifth individual) are indicated by the broken vertical line on the curve and when referred to the order of merit by the broken horizontal lines. The probable errors of the votes of the five psychologists last in the fifty are, respectively, 3.4, 2.8, 2.8, 3.1 and 3.6, an average of 3.14. The curve from No. X to No. C is nearly a straight line, the vote decreasing from 79 for No. X to 3 for No. C. Consequently the probable error of the vote when referred to the order is increased by about one sixth. The probable error of position at the

⁴ Similar results have been obtained in each of the twelve sciences, the number of scientific men ranging from 175 chemists to 20 anthropologists. The returns, however, were most complete for psychology, the writer being personally acquainted with nearly all psychologists and a second request having been sent to those who did not reply to the first. There were in all some 130,000 votes to be collected, counted and tabulated. For the treatment of this material I am mainly indebted to my daughter, Miss Psyche Cattell. Dr. Dean R. Brimhall and Dr. Alexander Weinstein have also assisted in the revision of the material and in the computations.

I am under very great obligations to Professor Raymond L. Pearl, of the Johns Hopkins University, and to Professor H. L. Rietz, of the State University of Iowa, for their kindness in reading the manuscript of the paper and for the useful suggestions that they have made. This acknowledgement should not, of course, be construed as involving responsibility on their part.

bottom of the group of fifty is 3.6; there are thus only three or four for whom there would be as much as one chance in four of being dropped from the list if the arrangement were made by an indefinitely large electorate of the same character.

In the first study of the psychologists, the probable error at the lower end of the fifty was 10.7, that is, there were 10 or 11 for whom there was one chance in four that they should not be included on the list. There were then ten arrangements in order of merit; now there are eighty votes. The probable error decreases as the square root of the number of observations, and the probable errors in the two cases, other things being equal, should be about as 3:1, which is in fact almost exactly the case. The probable error of a single vote for the psychologists low in the group of fifty at the present time is thus the same as by order of merit in the group of 1903.

In the first study, however, we were concerned with the upper quartile, and we are now concerned with the upper decile of the group of American psychologists. If we assume distributions in accordance with the curve of error, the men who now stand at the bottom of the fifty in the present selection will be as able as those who stood about twenty in the first arrangement. An examination of the relative positions of the individuals who are in each of the two arrangements indicates that this tends to be the case. The probable error at the bottom of the fifty selected by votes should be in the neighborhood of those who stood about twenty in the first arrangements. This would make a single vote one half as valid (the ratio of the probable errors in the first arrangement for those near the bottom of the fourth hundred and in the tenth hundred of the thousand being 64:125) as a single judgment of order of merit. The figures given should, however, be regarded as indications of method rather than as exact determinations, for they are subject to various errors.

The average position of the survivors of the first group of psychologists in the arrangement of 1903 was (after deaths have been eliminated) 4; it is now for the same individuals 14.8. Those in the four following groups of ten have dropped, respectively, from 11.5 to 18.1; 20 to 27.4; 29.5 to 59.2, and 39.5 to 64.9. This drop

in position is on the average less than would be expected if the 10,000 scientific men of to-day are as able and have as good opportunity as the 4,000 scientific men of 1903. The inference is that as the total number increases the proportion of men of distinction decreases. This may be due to the fact that men of special ability find their level apart from the size of the group or because the scientific career attracts less able men or gives them less opportunity than formerly. Both factors are probably present; it is apparent that the situation deserves further investigation. In the previous study it was shown that in the increased competition of a five-year period, those between 40 and 44 years of age remained on the average about stationary; those below 40 gained; those above 44 lost, the loss being in direct proportion to the age.

As the work of the men becomes more important, the differences between the individuals as measured by the probable error of position become greater, the distribution corresponding in a general way to the upper end of the curve of error. In the case of the votes there are complications, for the votes for different men do not have the same weight. The ten who receive the most votes receive nearly all the votes, and in the cases of the few who do not vote for them poor judgment or an error in checking is indicated. Some votes mean that a psychologist stands first or near the top of the list, whereas others mean that he is barely included. Consequently the order and the probable errors in the case of such a vote for one half of the group do not have great validity for the upper part of the distribution. The order is obtained in a satisfactory manner by the double vote, but this introduces further complications in the probable error. In all cases of votes, we have asymmetrical distributions and skew curves. The quantitative relations should be worked out in the first instance for less complicated material than that with which we are here concerned.

In nearly all cases in which probable errors have been applied to psychological data, the determinations are more exact than common sense would presuppose. Thus the writer found⁵ that in grading traits of character by ten individuals on a scale of 100, a position was

⁵ Address of the president of the American Society of Naturalists, *Science*, April 10, 1903.

assigned with probable errors varying from 4.6 for physical health and cheerfulness to 3 for originality and efficiency. All other traits, such as energy, courage, judgment and integrity, were assigned positions with intermediate probable errors, the average being 4, which is nearly the same as the probable error of position as determined by 80 votes of the psychologists near the middle of the 100 in order of merit.

The comparatively small probable errors appear to be due to the fact that there are constant errors which affect the whole group. The psychologists who vote are subject to the same kind of influences, not making in fact independent judgments, but being influenced as a group by the knowledge of what others think and by all sorts of conditions, conventions and restrictions. If a similar vote were taken ten years hence the work of the same psychologists would be viewed from new standpoints and the positions would change to a much greater degree than the probable errors warrant. "Constant" errors are in fact more inconstant and variable than "variable" errors.

In the case of a vote (as in any series of measurements) there are two factors entering into the probable error, one dependent on the quantitative conditions prescribed in advance, the other on the behavior of the individuals. The former may be called the deductive probable error and when the latter is determined by experiment and added to it the whole is the inductive or actual probable error. Thus, if from an indefinitely large number of balls equally distributed between black and white some are drawn, the most frequent distribution will be an equal number of black and white, but the average departure from equality will increase as the square root of the number drawn and the ratio of departure from equality will decrease as the square root of the number.

If large numbers of white and black balls are distributed in the ratio of 33 white to 47 black, and we draw 80 balls, the most probable number of white balls will be 33. The standard deviation from 33 in a large number of draws will be 4.40, and the quartile deviation or probable error will be 2.97; that is, in one case out of four there will be more than three white balls. The psychologist at the bottom of the fifty received 33 votes out of a possible 80. If

an indefinitely large number of psychologists were distributed in this ratio the deductive probable error or error of sampling would be 2.97. The actual probable error, namely, 3.63, is composed of (the square root of the sum of the squares of the two) this deductive probable error and an error or deviation due to the groupings of the psychologists into different "species" with different points of view. The psychologist who stood XIL had a probable error of 3.1. The deductive probable errors are approximately the same for the two individuals, but it is more difficult to form a judgment regarding No. I than regarding No. XIL.⁶

The situation may be illustrated by an instance of general importance. Death rates, birth rates and marriage rates are continually used, but always without probable errors. Thus, for example, the Bureau of the Census issues weekly a bulletin that contains the death rates of the leading cities of the United States, but the figures have no meaning because one does not know whether the different rates are due to chance fluctuations with a limited population or to causes such as a large proportion of infants or an epidemic of influenza.⁷ If the average death rate is 12 per thousand, in a city of 100,000 population there will be about 23 deaths in a week. If black and white balls in indefinitely large numbers are distributed in the ratio of 23 black to 99,977 white and 100,000 are drawn, the most probable number of black balls is 23, but one time in four there will be more than 27. Thus the recorded death rate for a week for a city of 100,000 will normally fluctuate. If it is on the average 12, it will in half the weeks be approximately either as large as 15 or as small as 9.

⁶In these cases the actual and the deductive probable errors have probable errors of the order of magnitude of the differences between them, and these differences have only moderate validity. The writer has purposely "not minded his p's and his q's," for it seems that equations are not becoming to one who is not a mathematician.

⁷In the last report received (for the week ending September 2, 1922) the death rate of New Haven is given as 5.8 and of Houston as 13.9. In the same week a year ago the death rate of New Haven was 10 and of Houston 7.6. Without probable errors these figures give no useful information in regard to the conditions in the two cities.

If the death rate exceeds 15 in two consecutive weeks then the chances are fifteen out of sixteen that it is due to some cause such as an epidemic. The conditions are obviously of practical importance for physicians and health officers. The situation for death rates is nicely illustrated by the illustration that has been used of the distribution of black and white balls in an urn. If the population of the country were 100,000,000 and the death rate were 12 (as it should be, but is not), then 1,200,000 people would die during a year. Among 100,000,000 black and white balls there are 1,200,000 black. But if we draw 100,000 (*i.e.*, take a town of that population) there will be a chance fluctuation as described above. It is also the case that the balls are not completely mixed, there being more black balls in some part of the urn than others. In some places we shall draw a larger proportion of black balls. When there is a negro population or a tenement house population or a large population of very young or very old people, there are relatively more black balls. There are temporarily more black balls

in one place when there is an epidemic or the like. In that case we have the analogy of the black balls attracting one another.

This paper has been written to explain the methods used to select the thousand leading American men of science by votes. The psychologists have been taken as an example; if space and time permitted tables and curves might be given for the other sciences and a study of the data might yield results of interest. Such treatment must, however, be postponed or left to others. The object of the present paper will be accomplished if it makes clear that the scientific men have been selected and placed in the order of merit for their work by valid objective methods and that the methods used have wide application. In a subsequent paper the distribution of the scientific men will be considered with special reference to the changes that have occurred in the course of ten years.

J. McKEEN CATTELL

THE PSYCHOLOGICAL CORPORATION,
AUGUST 1, 1922

THE DISTRIBUTION OF AMERICAN MEN OF SCIENCE IN 1927

IN the fourth edition of the Biographical Directory of American Men of Science it seems desirable to add stars to the subjects of research of those who since the publication of the third edition have attained positions among our thousand leading men of science. A contemporary group was also wanted for studies of changes in distribution which make possible the measurement of movements in the history of science. It may be that in the future the development of science and the economic and social changes caused by it will be seen to be more important for civilization than any political or military event.

A determination of those who should be added to the list of our thousand leading men of science was consequently made in 1926. The 250 scientific men who had the greatest claim to be included among those previously selected were found and arranged in the order of merit. The methods of selection were similar to those used in the third edition, but were simplified by not undertaking to find the positions of the new names among the old or to determine those of the earlier group who in the competition would be dropped from it.

The simpler method was used mainly for economy, including the saving of the time of the large number of scientific men who have assisted. It is further the case that the selections can be made more accurately when only the new names are considered. It is easier to decide which 25 botanists among 50 have done the best work than to make the selection of 100 from 200. The former group is not only smaller, but also more homogeneous in age and performance.

The drawbacks of the simpler method are that it does not give us a contemporary list of the thousand leading men of science and makes only an approximation to the numbers that should be added in each science. It is, however, equally correct in so far as the stars in the book are concerned, for these indicate all those who have been included in the groups of a thousand in the four selections covering a period

of 23 years. It has frequently been suggested that the stars should be removed in the case of those who do not maintain their positions. This would be scientifically correct, but needlessly invidious, as would be dropping from the membership of the National Academy of Sciences those who have not maintained their positions among our 250 leaders in science.

The names of those added, each of whom is probably among the thousand leading scientific men of the United States, are distributed among the sciences in accordance with the numbers found in 1903 as roughly proportional to the total numbers of those who had published research work in each science. The proportions were only approximate and there have been changes in the activity of the different sciences in the course of the past 23 years, so certain sciences are over or under represented. A more exact distribution could now be obtained by classifying the some 13,500 entries in the fourth edition of the Biographical Directory, but these were not ready when the selections were made, and for purposes of comparison it is better to retain in each science the same numbers as in the preceding studies. It may be that there should be more or fewer than 100 botanists among our thousand leading men of science, but the 100 botanists are those who are regarded as having done the best work in that science by the most expert contemporary judgment.

It is arbitrary to divide the whole range of science into twelve separate sciences. For example, anatomy, physiology, pathology and zoology might be combined into animal biology, or zoology might be divided into entomology, ornithology, parasitology, embryology, cytology, animal genetics, animal ecology, systematic zoology, animal behavior, etc. The separation of the sciences is conventional, each representing the subjects that can be mastered by an individual and in which there are groups of workers concerned with related problems. The number of sciences increases continually with the progress of science; the most fruitful fields

for research are those in which two or more of the traditional sciences are involved.

If many sciences had been taken in this classification, then there would have been much overlapping, if but few, then scientific men would not have been acquainted with the whole field. In the present study the applied sciences of medicine, engineering, agriculture and education, as such, are not included, nor are the historical, social, political and philological sciences. Geography, mineralogy, geophysics and pharmacology have no separate places, apart from geology, physics, chemistry and physiology; workers in these sciences are discriminated against. It should be remembered that Canadians, though included in the Biographical Directory, are not considered in the selection, unless they were at the time residents of the United States.

In July, 1926, a memorandum similar to the following was sent to those (with the exceptions noted) in each science who had received a place in any one of the three preceding selections. Each scientific man was asked to nominate one fifth (or fewer) of the number included in the thousand in that science. Then each of those who received two or more votes was asked to make similar nominations. The memorandum for botany reads:

MEMORANDUM

For designation in the fourth edition of the Biographical Directory of American Men of Science it is necessary to obtain the names of those who should now be included among our hundred leading botanists and thousand leading men of science. The selection can be made most accurately and objectively by those included in this group in the previous editions and it is hoped that all or most of them will assist.

Will you therefore send the names of twenty or a smaller number of botanists who should probably be added? It is expected that a certain preference shall be given to those who are working in lines similar to your own, or with whom you have been personally associated. From all lists it will be possible to obtain an objective selection of those whose subjects of research should be starred in the new edition of the book.

There may be room for question as to the desirability of such a list, but the preponderance of argument appears to be in its favor. If it is prepared, this should be done with the greatest possible care, for it is a matter of importance to those

concerned. The list will also be used for further statistical studies of the distribution and work of scientific men, which was the original object of the selection.

There is enclosed a list of those included in the three previous arrangements beginning in 1902, with the exception of those who have died and several no longer active. The names and addresses are wanted of twenty other men and women living in the United States who are of nearly the same rank in their contributions to science. The individual lists will be regarded as strictly confidential.

J. McKEEN CATTELL

3939 Grand Central Terminal

New York, N. Y.

July 21, 1926

The names with the addresses of those who received the most votes in each science were then arranged in alphabetical order, the number taken being twice as many as would be added to the thousand. Thus, for example, there are 100 botanists in the thousand and 25 were to be added. There were 334 botanists nominated and the 50 who received the largest number of independent nominations were placed with their addresses in alphabetical order on the list. This was then sent to botanists included in the previous thousands and to the fifty new names on the list with the following memorandum:

MEMORANDUM

The fifty botanists on this list are those who have received the most votes for inclusion among the hundred leading botanists and the thousand leading men of science of the United States whose subjects of research will be indicated by an asterisk in the fourth edition of the Biographical Directory of American Men of Science. In order that there may be a final and authoritative vote, please be so kind as to check (✓) the names of about twenty-five of those whose work in botany has been of the greatest value and return the list to J. McKeen Cattell, 3939 Grand Central Terminal, New York, N. Y.

This list is from, ...

In Table I there is given the number in each science of those who took part in the selection together with information in regard to the votes. Two thousand and sixty-five scientific men received the blank printed above and 1,357 sent in nominations in the different sciences of those who should finally be added to the number

TABLE I. THE NUMBER OF THOSE IN EACH SCIENCE WHO TOOK PART IN THE SELECTION OF THE 250 SCIENTIFIC MEN, AND THE NUMBER NOMINATED, TOGETHER WITH THE NUMBER OF VOTES FOR INDIVIDUALS

	Number asked to nominate	Number nominating	Number nominated	Number asked to vote	Number of ballots	Number selected	Largest vote	Vote just selecting	Smallest vote
Mathematics	136	109	91	135	95	20	89	35	12
Physics	238	147	204	231	161	37	136	57	14
Chemistry	340	208	450	264	193	44	161	67	26
Astronomy	70	60	45	74	60	13	58	24	7
Geology	226	145	251	146	117	25	90	45	13
Botany	293	179	334	154	134	25	98	53	29
Zoology	348	207	402	233	183	37	114	72	25
Physiology	98	74	103	66	54	10	42	25	8
Anatomy	50	47	37	55	39	6	31	19	10
Pathology	156	82	190	99	65	15	46	30	4
Anthropology	29	29	27	36	29	5	23	13	4
Psychology	81	70	67	79	66	13	57	32	15
Total	2,065	1,357	2,201	1,572	1,196	250	—	—	—

designated and be included among the thousand leading scientific men of the United States. The 2,065 asked to make nominations consisted of 1,058 scientific men from the previous lists of a thousand and 1,007 who received two or more votes. A reply from two thirds of those addressed is satisfactory. It is unlikely that any scientific men who should be considered would not be proposed under these conditions, and any bad judgment, prejudice or favoritism is self-eliminating.

There were in all 2,201 nominations for the 250 places. Those asked to vote in the selection numbered 1,572, which included 1,072 on the previous lists of 1,000 and the five hundred nominees who received the most votes. The ballot was returned by 1,196 with the distribution among the sciences shown in the table. The last three columns give for each science the largest vote cast for an individual, the vote that just selected for inclusion in the 250 and the vote for the individual who received the fewest votes.

Thus, for example, the memorandum was sent to 154 botanists and was returned by 134; 98 votes were cast for the botanist who received the most, 29 for the one who received the fewest. The botanist who stood lowest among those included received 53 votes, the one next following 51. It is possible by methods previously proposed to calculate the probable errors of

these numbers. The calculations have not been made again as the earlier work applies approximately to this case. It seems that time is often wasted in calculating probable errors and correlations by the method of least squares when only an approximation is wanted. The distributions are such as to make the methods inexact and constant errors are much larger and more disturbing than the variable error. The probable error of position of the botanists at the bottom of the list of those included in the 25 selected is about three places and there are four botanists not on the list who would have as much as one chance in four of being included among our leading 100 botanists and 1,000 leading men of science if the electorate had been indefinitely large. They would, however, have had positions near the bottom of the list.

The methods of selection are thus accurate and the degree of accuracy can be measured. Indeed the exact determination has a certain brutality in view of the human interests involved. All those who voted have competence, though in varying degree. Thus in the first study it was found that if we assume the average result to be correct, the validity of the judgments of the different individuals varied as about 2:1. This appears to be of interest because the validity of judgments was then for the first time measured and because the range of individual differences for normal individuals

in other traits, such as time of reaction, accuracy of discrimination and correctness of memory, had been found in laboratory experiments to be about the same. There was no significant difference between the average judgments of those more or less eminent in science, nor between the older and the younger men. If what we mean by judgment could be further analyzed, differences might be found; thus the more eminent and the older groups might have had more experience but less information in regard to contemporary conditions.

A distinguished mathematician argues that his judgment has greater validity than the average of the judgments of 100 mathematicians less eminent and presumably less well informed, holding that when there is a difference of opinion he is likely to be right and the group wrong. He voted for nineteen of the forty, naming four of those not selected by the majority and failing to name five of those so selected. The chances are somewhat over 4 to 1 that if he had voted for 20, he would have voted for 80 per cent. of the selected list. This is in fact a satisfactory agreement, giving what the probable error would predict. The variable error would lead us to assume that the combined vote of 100 mathematicians would be about ten times as correct as the vote of one of them, which would be reduced to five times if his judgment were twice as accurate as the average of the other individuals. The majority might, however, be subject to a constant error sufficiently large to outweigh the variable error.

A plebiscite vote may have no validity when the voters are uninformed and are moved by mob emotions. Thus when Cook claimed that he had reached the North Pole, and Peary was supposed to have been ungentlemanly because he questioned the claim, a newspaper in the Middle West obtained a vote of its readers on the two questions: "Did Cook reach the North Pole? Did Peary reach the North Pole?" The vote that Cook did reach the Pole was overwhelming and a smaller majority voted that Peary did not. It would not be feasible to determine whether man has descended from a lower order of animals by a popular vote in Kentucky. But it is also undesirable to leave the decision of every question to a Lenin or a Mussolini. The conditions are best when a

democracy is sufficiently intelligent to choose its experts. It is the business of science to determine the validity of votes, judgments and decisions, a difficult task, but not more so than other problems of lesser human consequence which it has solved.

The 250 new names added in 1927 to the thousand of 1921 are about the number that would have won places to fill vacancies caused by deaths, to meet variation due to the probable error of selection, and as a result of competition with those on the list. There were on the list of 1910, 269 new names; on the list of 1921 (the interval having been prolonged by the war), 351 new names. The residences and positions of the scientific men are of January 1, 1906, 1910, 1921 and 1927. There is of course an interval between the time at which the selection of the names is begun and the completion of the final result. In the first arrangement this interval was about three years; in the last it has been reduced to five months. A statistical study of the names added in 1921 (whose subjects of research are prefixed by a star in the 1921 edition of the Biographical Directory) was made with the assistance of Miss (now Dr.) Psyche Cattell, Dr. Dean R. Brimhall and Dr. Alexander Weinstein, but the work was not published. The 351 names selected in 1920 and the 250 selected during the latter half of 1926 have now been combined and the 601 scientific men (with the residences and positions of January 1, 1927) are treated in the present study and compared with the list of 1906. In this compilation Jaques Cattell and Mrs. Quinta Cattell Kessel have assisted.

The increase since 1906 in the number of scientific men who have contributed by research to the advancement of science is notable. According to the sketches in the Biographical Directory there were about 4,000 in 1906, about 5,500 in 1910, about 9,500 in 1921, about 13,500 in 1927. The names may have been more completely selected in later editions, but this is perhaps counterbalanced by the greater difficulty in dealing with the larger numbers.

The question as to whether contributions to science, including notable advances, are increasing as rapidly as the number of scientific men is of fundamental importance. It appears that while scientific publication increases in

proportion to the number of workers, the number of great men of science and of notable contributions does not so increase, if indeed there are as many such men and as many such contributions as there were 25 or 50 years ago. There are more than ten times as many scientific men as when Joseph Henry, Louis Agassiz and Willard Gibbs lived. We do not have thirty men so distinguished; do we have three? Are there ten contributions or is there one, to be later recognized, as in the case of the work of Willard Gibbs?

Among those high on the list of 1906 who are no longer living are: *Astronomy*, Simon Newcomb, G. W. Hill and E. C. Pickering; *Physics and invention*, S. P. Langley and A. Graham Bell; *Chemistry*, Ira Remsen, E. W. Morley, O. W. Gibbs and J. W. Mallett; *Geology*, G. K. Gilbert, C. R. Van Hise and Charles D. Walcott; *Botany*, W. G. Farlow; *Zoology*, W. K. Brooks, C. O. Whitman and Alexander Agassiz; *Physiology*, H. P. Bowditch, S. J. Meltzer and Jacques Loeb; *Anatomy*, Charles S. Minot and F. P. Mall; *Pathology and medicine*, William Osler; *Psychology*, William James. There are men of science now living who in 1906 stood equally high. The question is whether in this period there have arisen men to replace those who were then the leaders. We do not have three times as many, although the supply of scientific men is more than three times as great. Probably in some sciences we have now men of as high distinction as we had 21 years ago, in others not; in none do we seem to surpass obviously the earlier period. It appears that the situation is similar in England, Germany and France.

In Table II there is shown by states the birth place and residence of the 601 scientific men of the lists of 1921 and 1927. In their production New York leads with 67, followed by Ohio with 49, Massachusetts with 48, Illinois with 45, and Pennsylvania with 41. The group of states next following consists of Iowa 27, Wisconsin 24, Missouri 21. The position of the North Central States is noteworthy, and is further emphasized by the situation in states having a productivity between 10 and 20, namely, Indiana 18, Connecticut 16, Minnesota 14, Maryland 13, Michigan 13, California 11, Kansas 11. The number of scientific men com-

TABLE II. BIRTHPLACE AND RESIDENCE BY STATES
WITH THE ESTIMATED INCREASE OR
DECREASE SINCE 1906

	Birthplace		Residence	
North Atlantic				
Maine	6	- 19	1	- 2
New Hampshire	7	- 3	3	- 3
Vermont	6	- 8	0	- 2
Massachusetts	48	- 54	57	- 49
Rhode Island	1	- 3	4	- 1
Connecticut	16	- 13	20	- 10
New York	67	- 71	122	+ 11
New Jersey	8	- 15	18	- 5
Pennsylvania	41	+ 2	38	- 2
South Atlantic				
Delaware	2	+ 1	1	+ 1
Maryland	13	- 4	23	- 9
Dist. Columbia	3	+ 2	77	+ 9
Virginia	8	0	3	- 5
West Virginia	4	+ 6	2	0
North Carolina	5	+ 3	2	- 3
South Carolina	4	+ 2	1	+ 2
Georgia	3	+ 2	0	- 1
Florida	0	0	0	0
South Central				
Kentucky	5	0	1	- 1
Tennessee	4	+ 1	3	+ 2
Alabama	2	+ 1	0	- 2
Mississippi	2	+ 2	0	0
Louisiana	1	+ 1	1	+ 1
Texas	1	- 1	8	+ 6
Oklahoma	1	+ 2	1	+ 2
Arkansas	2	+ 3	0	0
North Central				
Ohio	49	+ 7	20	- 1
Indiana	18	+ 2	5	- 4
Illinois	45	+ 33	52	+ 24
Michigan	13	- 5	18	+ 3
Wisconsin	24	+ 5	11	- 5
Minnesota	14	+ 19	18	+ 17
Iowa	27	+ 25	4	0
Missouri	21	+ 21	8	- 8
North Dakota	1	+ 2	0	- 2
South Dakota	3	+ 5	0	- 2
Nebraska	6	+ 8	2	- 6
Kansas	11	+ 11	5	+ 3
Western				
Montana	2	+ 3	0	- 2
Wyoming	2	+ 3	2	+ 2
Colorado	1	- 1	2	- 5
New Mexico	0	0	0	- 2
Arizona	0	0	4	+ 5
Utah	3	+ 5	0	0
Nevada	0	0	0	0
Idaho	0	0	0	0
Washington	0	- 1	1	+ 2
Oregon	1	+ 2	0	0
California	11	+ 7	47	+ 23
Porto Rico	0	0	1	+ 2

TABLE II.—(Continued)

	Birthplace		Residence	
Canada	18	- 4	3	+ 3
Cuba	0	0	0	- 1
West Indies	0	- 1	0	0
Brazil	0	0	0	- 1
England	21	+10	0	- 1
Wales	0	- 1	0	0
Scotland	4	- 2	0	0
Ireland	1	- 1	0	0
Australia	1	+ 2	0	0
South Africa	1	+ 2	1	+ 2
Germany	7	- 7	0	0
Austria	4	+ 1	0	0
Norway	0	- 1	0	0
Sweden	3	+ 2	0	0
Denmark	1	0	0	0
Holland	3	+ 5	0	0
Belgium	1	+ 2	0	0
Switzerland	5	0	0	0
Italy	0	- 1	0	0
Russia	8	+ 7	0	0
Poland	2	+ 3	0	0
Turkey	2	+ 3	0	- 1
Syria	2	+ 3	0	0
India	0	- 4	0	0
China	0	- 2	0	0
Siam	0	0	1	+ 2
Japan	2	+ 3	0	0
Unknown	3	—	0	—
Dead	0	—	10	—
Total	601		601	

ing from the South Atlantic, South Central and Western divisions is small, though there has been some gain since 1903.

Of the leading thousand scientific men selected in 1903, Massachusetts produced 134 and Connecticut 40. At the time of their birth Boston was the intellectual center of the country. New York in proportion to its population had then produced about half as many scientific men as Massachusetts and Connecticut, the North Central States about one third as many. The situation had changed for the list of 1910. Reduced to comparable figures the birth rate of leading scientific men per million of population had fallen in Massachusetts from 109 to 85, in Connecticut from 87 to 57. In Michigan it had increased from 37 to 74, in Minnesota from 23 to 59, in Wisconsin from 45 to 54. The intellectual fecundity of the North Central States, as compared with New England, has now further increased, extending westward and southward to Iowa, Missouri and Kansas.

The situation is shown in the table by increasing the 601 scientific men to 1,000 proportion-

ately distributed, which is approximately the result that would have been obtained if 1,000 had been selected. Under these conditions the gains or losses of each state are given. The situation in New England is ominous for the future. Every state has lost and it appears that the rural population is becoming intellectually sterile. Of the thousand leading scientific men in 1903, Maine had produced 29, of whom 19 ranked in the first 500. Of 601 scientific men mostly born less than 50 years ago, the state has produced six; if a thousand had been selected the most probable number would have been ten. It has consequently lost 19, two thirds of its productivity. Massachusetts has lost 54. Analogous conditions obtain in all the New England States and southward along the Atlantic. The losses of New York, New Jersey and Maryland, in spite of, or it may be because of, their enormous increase in wealth, are startling. Pennsylvania and Delaware remain nearly stationary; there are small gains in most of the South Atlantic and South Central States.

The losses of the eastern states are counterbalanced by the gains of the central states, notably Illinois, Minnesota, Iowa, Missouri, Kansas and Nebraska. All the central states have gained except Michigan, though the gains in Ohio and Indiana are small. These three are the most eastern of the states and appear to be following in the wake of the Atlantic seaboard. Further to the west there tend to be moderate gains which predict a large future development. So indeed westward does the course of science take its way, but it is not gratifying if the eastern states do not equal the cultural nations of Europe before losing their leadership. This may indicate a waning of the world's great era in science.

Ten of the scientific men on the list of 1921 have died, giving an annual death rate of 4.7 per thousand which is about normal for men of that age. Of the 591 remaining on the two lists, 122 live in New York, 57 in Massachusetts, 52 in Illinois and 47 in California. If the numbers are increased to 1,000 and proportionately distributed, it appears that in comparison with the thousand of 1906 Massachusetts has lost 49, whereas Illinois has gained 24 and California 23. Every New England state,

as also New Jersey, Maryland, Virginia and North Carolina, have a smaller proportion of these leading scientific men than they had 21 years ago. New York has gained 11; Pennsylvania has lost two. Next to Illinois and California, Minnesota has the largest gain. The smaller gains or losses in other states show the real situation at the time and are significant, especially in view of the grouping by regions.

When we compare the birthplaces and residences we find that New York has acquired 55 more of the scientific men than it has produced, the individuals of course not always being the same. Massachusetts has gained 9, Connecticut 4, New Jersey 10 and Maryland 10, these representing men called to the universities. Illinois for the same reason has gained 7, Michigan 5 and Minnesota 4. In the other central states the loss has been large. One hundred and sixty, more than one fourth, of the scientific men were born in them and only 55 reside there. There are but few scientific men born in Washington while many are employed in that city by the government. Of the new group, three were born in the District of Columbia and 77 reside there. Eighty-six of the scientific men were born abroad, so they more than supply the excess in Washington and the balance remains nearly even for the different states.

In 1906 one half (501/1,000) of the leading scientific men of the United States resided in the North Atlantic States and somewhat more than one half (518/993) had been born there. In the short period of 26 years the proportion of those born in these states has fallen to one third (200/598) and the percentage of those residing there to 44.5 per cent. (263/591). The cities of the eastern seaboard depend in large measure on Europe for their population, on the central west for their wealth and for their leaders. They will face a difficult situation when immigration is nearly cut off and centers of wealth and culture develop toward the west. It might be supposed that as wealth increases in the hands of a plutocracy, so scientific and other culture would increase in its centers. There has obviously been no change in native ability in the course of a few years. The only suggestion here made is that the state universities and denominational colleges of the central and western states are more nearly in touch

with the people than the privately controlled universities of the east and have proved to be the better agencies for the selection and training of those having ability and ideal interests.

The eastern universities provide education for more men who become leaders in science than the states produce. As American students formerly went to Germany for advanced work, so in a later period they tended to congregate in the endowed universities of the Atlantic seaboard. The first degree of doctor of philosophy in the United States was given by Yale University in 1861, the first scientific man to receive it being Josiah Willard Gibbs in 1863. Prior to 1876, Yale had given 18 doctorates in the sciences, Harvard 4, Columbia and Cornell 2 each. Then was established the Johns Hopkins University, opening a new era of higher education and scientific research in the United States. In the following 20 years the Johns Hopkins conferred 179 doctorates in the sciences and 84 of the recipients (some had died) were on the list of 1,000 scientific men of 1910. During this period Columbia conferred 67 such degrees, Harvard 66, Yale 56, Cornell 33, Pennsylvania 22, Clark (opened in 1888) 21, Chicago (opened in 1892) 8, all other universities 66.¹

Up to and including 1910, the universities of the United States had conferred 2,513 doctorates for work in the sciences, the distribution being: Johns Hopkins 434, Chicago 276, Yale 271, Columbia 268, Harvard 267, Cornell 222, Pennsylvania 172, Clark 150, all others 453. Thus eight endowed universities awarded more than four fifths of these degrees. In 1926 according to data compiled for the National Research Council by Callie Hull and Clarence J. West there were 740 doctorates conferred in the sciences, the numbers for the leading institutions being: Chicago 78, Wisconsin 53, Johns Hopkins 50, Columbia 49, Illinois 44, Cornell 43, California 38, Yale 38, Harvard 35, Washington 32, Minnesota 30, Iowa 28, Ohio State 25. Thus Chicago in the central west is far in

¹ These statistics concerning doctorates in the sciences are from an unpublished study. From 1898 to 1915 there was printed each year in *SCIENCE* an article on doctorates conferred by American universities, including the names of the recipients and the subjects of the theses in the natural and exact sciences.

advance of the eastern privately controlled universities and the seven eastern universities which had conferred prior to 1910 nearly three quarters of all the degrees in 1926 conferred fewer than seven state universities of the north central states and California.

TABLE III. INSTITUTIONS FROM WHICH FIVE OR MORE OF THE 601 SCIENTIFIC MEN RECEIVED THEIR DEGREES

	A.B. or B.S.	Ph.D	M.D.	Total
Harvard	41	62	3	106
Chicago	20	68	4	92
Hopkins	12	40	20	72
Columbia	15	46	4	65
Yale	15	25	2	42
Pennsylvania	14	19	5	38
Cornell	16	21	0	37
California	20	13	1	34
Michigan	13	7	2	22
Minnesota	11	11	0	22
Princeton	5	16	0	21
Mass. Inst.	16	4	0	20
Wisconsin	12	6	0	18
Stanford	11	6	0	17
Indiana	14	1	1	16
Kansas	13	2	0	15
Illinois	9	5	0	14
Ohio State	11	1	0	12
Brown	4	4	0	8
Iowa	4	4	0	8
Missouri	6	2	0	8
Wesleyan	8	0	0	8
Clark	0	6	0	6
George Wash.	2	3	1	6
Nebraska	5	1	0	6
Dartmouth	5	0	0	5
C. C. N. Y.	5	0	0	5
Wooster	5	0	0	5
Williams	5	0	0	5

Table III gives the institutions from which five or more of the 601 scientific men received their degrees. Harvard with 41 bachelors, 62 doctors of philosophy and three doctors of medicine, stands foremost as it did in 1903. It is, however, now surpassed by Chicago in the number of doctorates, as it was by the Johns Hopkins at the earlier period. After these three universities comes Columbia, followed by Yale, Pennsylvania, Cornell and California. The institutions whose graduates are in the twenties are Michigan, Minnesota, Princeton and the Massachusetts Institute; ranging from 18 to 12 are Wisconsin, Stanford, Indiana, Kansas, Illinois and Ohio State. The privately endowed universities still lead in the number of

scientific men for whose education they were responsible usually some twenty to twenty-five years ago. They probably do not do so for the men graduated to-day, but we must wait another twenty years before the figures will be at hand. Many of the 41 bachelors who received degrees from Harvard and the 15 from Columbia and from Yale went to these universities from other institutions after they had planned their careers and the influence of the eastern endowed universities in the creation of scientific men is not large. The private colleges are also losing the influence that they formerly had. In the thousand of 1906 there were 23 graduates of Princeton and of Amherst, 16 of Wesleyan, 14 of Williams, 10 of Dartmouth and of Oberlin. For the contemporary list of 601 men the numbers are: Wesleyan 8, Princeton, Dartmouth and Williams 5, Amherst 4, Oberlin 2.

Another change that can not be regarded as wholly auspicious is the small number of the younger scientific men who have studied at foreign universities. In so far as this means such advance in our own institutions that it is needless to go abroad for special work it is gratifying. But it may result in lesser devotion to the ideals of scholarship and research that had their florescence in the German university of the nineteenth century. Of the thousand of 1906, 117 had studied in Berlin, 84 in Leipzig, 69 in Göttingen, 56 in Heidelberg, and a large proportion had received degrees from these and other German universities. Of the contemporary 601 only one has a degree from Berlin. There is none from Leipzig, which before had 39. This refers, of course, to men working in the period preceding the war. Perhaps now the various systems of unattached fellowships may lead to a larger international interchange of students. Before graduate students can afford to study abroad, we must, however, find a method by which younger scientific men receive positions in accordance with their ability rather than through the influence of the professors with whom they work.

The majority of scientific men still find their careers in universities. As shown in Table IV, 358.5 (the decimal here and elsewhere referring to a divided position) of the 591 men hold academic positions and in the main earn their salaries by teaching. There are 95 connected

TABLE IV. OCCUPATION OF THE 601 SCIENTIFIC MEN

	Teaching	Research Institutions	Government Work	Applied Science	Amateur	Deceased	Total
Mathematics	49	0	0	1	0	0	50
Physics	48	6	13	22	0	1	90
Chemistry	54	7	8	31	0	1	101
Astronomy	13	19	1	0	0	1	34
Geology	27	3	22	3	0	4	59
Botany	28.5	13.5	14	0	0	2	58
Zoology	48.5	15	12.5	2	0	0	78
Physiology	22.5	3.5	1	0	0	0	27
Anatomy	10	2	0	0	0	0	12
Pathology	26	16	3	1	0	1	47
Anthropology	5	8	0	0	1	0	14
Psychology	27	2	0	2	0	0	31
Total	358.5	95	74.5	62	1	10	601

with the research institutions that are the most notable development in scientific investigation of the present century. The Smithsonian Institution (including government bureaus), museums, etc., are here placed under research institutions. Sixty-two are engaged in industrial work, largely in the research laboratories of the corporations, where their work is not confined to applied science and will doubtless be more and more extended to the fundamental problems whose cultivation and by-products have an economic value far beyond their cost. Such work is besides only a proper return to society for the wealth acquired by monopoly. A public service corporation such as the American Telephone and Telegraph Company, whose profits are limited only by legal regulations, could easily and properly support and give the best facilities to scientific men engaged in research in physics, chemistry, mathematics and psychology. 74.5 of the men are employed by the government. Here again the work is largely but not wholly in applied science, and here again the most beneficial use of money collected by taxation would be the support of research that of all services is the most important for the nation and for the world.

Of these scientific men 60.7 per cent. hold academic positions as compared with 73.8 per cent. of those in the list of 1910. It has been recognized that there has been since the war a movement of scientific men from the universities to the research and industrial laboratories

and we have here a measure of its extent. If the numbers are, as above explained, increased to a thousand we find that of this younger group the universities and colleges have lost 133. The research institutions have gained 88.5; the industrial laboratories and applied science 46; the government services 14.5. There is only one who may be classed as an amateur in the present list, as compared with 18 in 1910. We have never had in America a group of men, such as was represented in England by Darwin, Galton, Rayleigh and Huggins, who devoted themselves to scientific work without occupying scientific positions. The specialization of science and democratic institutions have led to the practical disappearance of those who contribute significantly to the advancement of science without being professionally engaged in scientific or educational work. But we now have men who are professionally engaged in research.

The figures for the separate sciences given in the table show that nearly all mathematicians are teachers. Astronomy and pathology are especially well represented in the research institutions; geology and to a lesser extent physics, botany and zoology in the government work; physics and chemistry in the industrial laboratories and in applied science.

Table V gives the number of scientific men connected with institutions where there are three or more. As we are here in the main concerned with the present strength of the institutions rather than with changes in distribution all the scientific men are included. They are divided in the table into three groups: (1) the scientific men of the list of 1910 who were retained in the list of 1921; (2) those added in 1921; and (3) those now added to the list. The numbers in the three groups, respectively, are 585, 341 and 250. We have consequently 1,176 scientific men instead of 1,000 as in the earlier lists. The competition for inclusion is now, however, more severe, for the list of 1906 included about one fourth of the scientific men of the country, whereas the present list includes only about one twelfth. The figures given in the table are consequently relative. An increase of 17.6 per cent. means that an institution has remained stationary in its relation to other institutions.

TABLE V. THE NUMBER OF THE SCIENTIFIC MEN
CONNECTED WITH INSTITUTIONS WHERE THERE ARE
THREE OR MORE, TOGETHER WITH THE PRO-
PORTIONAL GAIN OR LOSS SINCE 1906

	1910	1921	1927	Total
Harvard	47.5	21	21	89.5 +23
Chicago	25.5	13	15	53.5 +14.5
Carnegie	19	13	15	47 +40
Columbia	26.5	13	7	46.5 -13.5
Yale	27.5	10	5	42.5 +16
California	24.5	7	9	40.5 +13.5
Hopkins	22.5	10	8	40.5 +10
Cornell	18.5	12	4	34.5 + 1
Michigan	15	10	6	31 +11
Geological Survey	13.5	6	9	28.5 - 3.5
Wisconsin	18	5	5	28 +10
Dept. of Agr.	12	9	6	27 - 5
Illinois	13.5	8.5	4	26 +20
Stanford	13.5	6.5	6	26 +10
Pennsylvania	8.5	8	9	25.5 + 8.5
Princeton	12	7	5	24 + 9.5
Smithsonian	10.5	6	6	22.5 + .5
Bur. of Stand.	9	8	5	22 +14
Mass. Inst.	13	3	4	20 + .5
Rockefeller Inst.	8	6	5	19 +16
Minnesota	4.5	9	5	18.5 + 8.5
Wash. (St. Louis) ...	8	6	2	16 +11
American Museum ...	6	5	2	13 + 5
Ohio State	5	5	3	13 + 3
General Electric	3	6	2	11 + 7
Bell Laboratories	0	3	7	10 *
Iowa State Univ.	4.5	3	1	8.5 + 1.5
N. Y. Bot. Garden ...	6	0	2	8 + 2
Pittsburgh	3.5	3	1	7.5 *
Brown	3	3	1	7 + 2
California Inst.	2	2	3	7 *
Cincinnati	4	3	0	7 + 1
Dartmouth	5	0	2	7 + 1
U. S. Health	1	3	3	7 *
Northwestern	2	2.5	2	6.5 - 2.5
Bryn Mawr	4	2	0	6 0
North Carolina	4	1	1	6 + 1
New York	1.5	2	2	5.5 - 4
Clark	2	3	0	5 - 2
Eastman Kodak	0	1	4	5 *
Indiana	4	1	0	5 - 1
Kansas	1	1	3	5 0
Missouri	4	1	0	5 - 4
Western Reserve	2	2	1	5 + 1
Texas	0	2	3	5 0
Rochester	1.5	2	1	4.5 *
Boyce Thompson	1	1	2	4 *
Virginia	1	1	2	4 - 3
Amherst	1.5	1	1	3.5 + .5
Mayo Clinic	0	1.5	2	3.5 *
Nat. Res. Council	2	1	0	3 *
Rice Institute	0	2	1	3 *
Syracuse	1	0	2	3 - 4
U. S. Navy	1	1	1	3 - 5
Vassar	3	0	0	3 0
Wesleyan	1	2	0	3 - 4
Wistar	2	0	1	3 *

* Fewer than three in 1906.

Harvard has on its faculties 89.5 of these leading scientific men and its supremacy is un-

challenged. Under the existing system of university administration honor should be given to Mr. Eliot and Mr. Lowell for maintaining high academic traditions. It is a remarkable circumstance that Harvard should have gained 23 scientific men of distinction during the period in which New England has been failing in the production of scientific men and the centers of scientific research have been moving westward. In 1906 Harvard had 66.5 of our thousand leading scientific men, Columbia 60, and Chicago 39. Now of 1,176 leading scientific men Harvard has 89.5, Chicago 53.5, and Columbia 46.5. It should also be noticed that Harvard has 21 of the younger men of the group of 250, as compared with 15 at Chicago and 7 at Columbia. Following these three universities are Yale with 42.5 and California and the Johns Hopkins bracketed with 40.5. Cornell, which comes next, has lost relatively. There then follow the three state universities, Michigan, Wisconsin and Illinois, of which Illinois has gained the most. Next come four endowed institutions, Stanford, Pennsylvania, Princeton and the Massachusetts Institute of Technology. Washington (St. Louis) is in the same group and has the largest gain. The only other universities having ten or more of these leading scientific men are Minnesota and the Ohio State. Apart from Columbia the universities that have lost most relatively are Missouri, Syracuse, Wesleyan, New York and Virginia.

The past twenty-six years have witnessed the development of endowed research institutions and the Carnegie Institution of Washington now stands next to Harvard and Chicago in the number of its scientific men of distinction. The Rockefeller Institute, limited to medical research, has also attained a high position. In this period the Carnegie Institution has grown from 7 to 47; the Rockefeller Institute from 3 to 19. The Boyce Thompson Institute, the Wistar Institute and the Mayo Clinic attain places on the list. The American Museum of Natural History and the New York Botanical Garden, with respectively 13 and 8 of the scientific men, rank before most universities and show a gain since 1906. It is of interest that these institutions can flourish under support and control partly private and partly public.

The industrial laboratories of the corporations, like the endowed institutions for research,

have enjoyed a notable growth which is scarcely measured by the 11 men recorded for the General Electric Company, the 10 for the Bell Laboratories and other parts of the Telephone System, and the 5 for the Eastman Kodak Company. Industrial research, like advances in engineering, is not always recorded in scientific papers, and is often a cooperative undertaking for which credit is not assigned to individuals. It is, however, to be noted that the number of leading scientific men under these three corporations has greatly increased and of 26 all but three belong to the two groups consisting mainly of younger scientific men.

The Bureau of Standards has during the period increased the number of leading scientific men in its laboratories from 8 to 22. The Geological Survey, with 28.5, is the strongest group in a single science, but relatively it has

lost ground somewhat since 1906, as has also the Department of Agriculture. The Smithsonian Institution, with its government supported subsidiaries, has remained stationary, but this means a moderate relative loss. The U. S. Public Health Service has gained and some states and municipalities are now cooperating in this work.

In Table VI the ten strongest departments in each science are given, the men in them being weighted in accordance with the methods described in the previous study. Those on the lower part of the list being taken as a unit, a scale has been adopted of increasing weights up to 4 for the 25 at the head of the list. This scale corresponds in a general way with the range of merit and the average salaries received. The 250 men added to the list have been arranged in order of merit and interpolated in

TABLE VI. THE TEN STRONGEST DEPARTMENTS IN EACH SCIENCE TOGETHER WITH THEIR RELATIVE GAIN OR LOSS SINCE 1906

Mathematics		Physics		Chemistry		Astronomy	
Chicago	20.6 + 6.6	Bur. Stand. ..	26.2 +13.7	Harvard ...	17.8 + 4.0	Carnegie ...	19.8 +16.6
Harvard	15.6 + 2.4	Harvard ...	22.4 + 8.9	Yale	13.7 + 4.5	California ..	11.0 + 1.1
Princeton ...	10.7 + 6.5	Gen. Electric.	13.9 †	Mass. Inst. .	13.3 + 0.2	Harvard ...	7.1 + 0.6
Illinois	10.4 +10.4	Chicago	11.3 + 6.1	Illinois ...	10.7 + 9.7	Chicago	4.2 - 2.8
Columbia	7.9 - 1.8	Bell Tel.	11.2 †	Cornell	9.5 - 0.1	Pittsburgh .	
Yale	7.1 + 0.2	Hopkins	10.1 + 3.9	Columbia ..	9.3 + 2.2	Princeton ..	
Cornell	6.7 - 0.1	Columbia	9.5 - 8.5	Gen. Electric	8.9 †	Wisconsin ..	
Michigan	6.0 †	Calif. Inst. .	9.0 †	Carnegie ...	8.7 †	Yale	
Mass. Inst. .	5.7 + 3.5	Cornell	7.9 - 2.0	Hopkins ...	8.4 + 1.0	Michigan ..	
California ...	5.3 †	Yale	7.8 †	Princeton ...	7.8 †	Virginia ...	
Geology		Botany		Zoology		Physiology	
Geol. Surv. .	37.9 - 7.7	Dept. Agr. .	22.4 - 2.2	Harvard ...	25.5 + 6.8	Harvard ...	12.0 + 2.2
Harvard	10.7 + 1.6	Harvard	15.0 - 0.1	Chicago	14.2 + 2.0	Hopkins ...	8.5 + 1.3
Yale	8.5 - 0.7	Carnegie	12.0 +12.0	Am. Mus. .	12.9 - 0.6	Yale	5.1 + 0.2
Carnegie	8.2 †	N. Y. Bot. ...	12.0 - 1.5	Hopkins ...	12.8 †	W. Reserve .	4.9 + 4.9
Stanford ...	7.3 *	California ...	9.4 †	Nat. Mus. .	12.0 †	Wash. (St. L.)	4.8 †
Chicago	6.8 - 1.9	Cornell	9.2 + 2.0	Columbia ..	11.2 - 5.5	Cornell	4.4 *
Wisconsin ...	5.7 + 1.5	Boyce Thomp.	7.6 †	Carnegie ...	11.1 †	Chicago	
Hopkins	5.4 + 2.3	Chicago	6.4 - 4.2	Penna.	10.8 †	Columbia ..	
Michigan	4.0 †	Mo. Bot.	6.3 + 2.5	Yale	9.1 + 3.1	Rockefeller .	
Smithsonian .	4.0 †	Michigan	5.6 †	Princeton ..	8.1 + 4.5	Michigan ..	
Anatomy		Pathology		Anthropology		Psychology	
Chicago	4.5 *	Rockefeller .	25.2 +20.6	Smithsonian.	6.6 - 6.8	Columbia ..	14.2 + 4.6
Wistar		Harvard	15.1 + 2.7	Am. Mus. .	5.4 *	Yale	6.7 †
Minnesota ...		Hopkins	11.7 + 1.2	California .	4.0 *	Harvard ...	5.6 - 4.6
Rockefeller ..		Chicago	8.8 + 3.8	Harvard ...		Stanford ...	4.6 *
Hopkins		Columbia	6.2 + 0.2	Columbia ..		Chicago ...	4.3 *
Michigan		Pennsylvania.	5.1 0.0	Field Mus. .		Cornell	4.0 *
California ...		Michigan		Heye Mus. .		Princeton ..	
Wisconsin ...		Stanford		Chicago		California ..	
Columbia		N. Y. Univ. .		Carnegie ...		Iowa	
Wash. (St. L.)		Wash. (St. L.)		Penna.		Michigan ..	

† Not included among the first ten institutions in the 1906 list.

* Figure not given in 1906 because it was below four.

the list of 1921 in accordance with the distribution found in the previous arrangements. The probable errors of the figures given in the table, which are small, and the constant errors, which in some cases may be considerable, are discussed in the earlier publication. Owing to the possibility of injustice to certain departments there has been some hesitation as to the desirability of publishing the figures, but they are in the main correct and significant. The figures are omitted in cases where the strength of a department is less than 4 in order to avoid giving possible information in regard to the standing of individuals.

Harvard here shows its leadership not only as a whole but in nearly every department. It stands first among universities in physics, chemistry, geology, botany, zoology, physiology and pathology, second in mathematics, third in

astronomy and psychology, fourth in anthropology. There has been a gain since 1906 in every department except anatomy and psychology, though in several cases the gains are due only to the increased number of individuals on the present list. Chicago stands first in mathematics and second in zoology. Columbia stands first in psychology, but does not in any other science have a rank higher than fifth. The U. S. Bureau of Standards leads in physics and the Bureau of Entomology in anthropology. By a wide margin the Carnegie Institution leads in astronomy, the U. S. Geological Survey in geology, the U. S. Department of Agriculture in botany and the Rockefeller Institute in pathology.

J. McKEEN CATTELL

GARRISON, N. Y.

NOVEMBER 1, 1927

THE SCIENTIFIC MEN OF THE WORLD¹

THERE has for a long time been planned a study of the scientific men of the world on the lines of the statistical work on American men of science. International directories in the several sciences were taken up, those in psychology and zoology having been partly prepared, the latter in cooperation with Professor T. D. A. Cockerell. In connection with the third edition of the Biographical Directory of American Men of Science it was proposed to select by objective methods the thousand leading scientific men of the world. With such a list it would be possible to determine among other things the value of the contributions of each country to each science, both in quantity of work accomplished and in fundamental advances.

In order to obtain preliminary data I wrote in June, 1914, to the scientific academies of different countries asking for their membership lists. These were mailed from most of the German and other academies after war had begun. It was obviously impossible to continue the work at that time; it was indeed necessary to postpone the preparation of the third edition of American Men of Science. We have scarcely yet reached a situation where international cooperation and unprejudiced judgments are feasible; but the methods used enable us to measure validity of judgments and prejudice, so that the study might at the present time be of special interest from that point of view. We could, for example, measure the normal distortion of judgment through nationality, its excessive manifestation during war and its subsequent waning.

In connection with the study begun some years ago I counted up the scientific men of different countries in "Who's Who in Science," edited by H. H. Stephenson and published in England by Churchill. There has been no edition of the book since 1914, and the figures just before the war are no longer valid, but they have sufficient interest to warrant their publication, more especially in view of the recent widely quoted remark by Secretary Hoover to the effect that the United States is behind most European

countries in its contributions to pure science and the statement of the National Research Endowment of the National Academy of Sciences to the effect that "the United States, which already occupies a leading position in industrial researches, should rank with the most enlightened nations in the advancement of pure science."

The scientific men whose biographies are included in "Who's Who in Science" and whose numbers are given in the table were probably selected somewhat at random, those of Great Britain and its colonial empire being the most completely represented and the United States coming next. Perhaps 800 from Great Britain and 1,200 from the United States would be a fairer basis for comparison with other countries than the 1,729 given from the former and the 1,845 from the latter. In that case Germany would be in the lead. The numbers from the non-English speaking nations may be regarded as comparable, though they doubtless vary with the sources of information.

If we take the figures as they stand, the United States, Great Britain and Germany were in 1914 far in advance of other nations in the numbers of their scientific men. France had 504, as compared with 1,334 from Germany; the then Austria-Hungary with 467 was nearly equal to France; Italy had 246. There then follow Switzerland with 215, Norway with 170 and Holland with 159. Sweden has 124 and Denmark 97.

According to the figures in the table referring to the several sciences, the United States stands higher in the so-called pure sciences than in medicine and engineering. We indeed stand first in all the natural and exact sciences except chemistry (largely on applied science) and geography. It is naturally gratifying to the present writer that psychology is the science in which we are most decidedly in the lead. We have 95 of the world's leading psychologists as compared with 30 in Great Britain, 37 in Germany and 12 in France. Geography is the science in which we are most deficient, 18 geographers being attributed to the United States, as

¹ Reprinted from THE SCIENTIFIC MONTHLY, November, 1926, Vol. XXIII, pages 468-471.

THE DISTRIBUTION OF SCIENTIFIC MEN ACCORDING TO "WHO'S WHO IN SCIENCE," 1914

	Medicine Surgery	Chemistry	Engineering	Zoology	Mathematics	Geology Mineralogy	Physics	Botany	Physiology Pharmacology	Astronomy Meteorology	Pathology	Anatomy	Agriculture Forestry	Psychology	Geography	Anthropology	Total	Per million ca. 1860	Per million ca. 1920
United States	206	245	201	184	126	135	131	114	86	75	69	54	76	95	18	30	1845	58.7	17.4
Great Britain	252	295	349	118	86	90	104	78	53	64	51	37	59	30	42	21	1729	59.4	36.6
Germany	221	144	128	90	115	93	104	76	59	63	39	53	48	37	44	21	1334	35.0	22.3
France	109	52	23	32	32	27	39	16	33	16	39	24	8	12	16	16	504	13.7	12.8
Austria-Hungary..	67	56	42	27	39	31	40	21	24	22	22	31	7	14	18	6	467	13.5	8.8
Asia	40	39	47	16	9	9	14	21	16	14	6	8	21	3	6	0	269	—	—
Italy	37	17	8	13	29	18	18	10	16	14	21	11	1	12	16	5	246	9.8	6.3
Switzerland	33	26	13	16	19	12	9	11	15	5	13	9	6	10	9	4	215	86.0	55.1
Norway	34	15	21	18	8	14	9	11	8	7	3	3	8	6	3	2	170	106.2	65.4
Holland	18	14	3	39	9	8	12	10	13	7	9	6	0	6	4	1	159	48.2	23.4
Canada	16	18	19	9	7	29	13	5	7	6	6	3	7	2	1	5	153	45.0	17.4
Australasia	12	11	30	10	10	19	8	7	4	8	5	4	10	3	1	3	145	120.0	19.4
Russia	19	17	10	12	12	10	9	9	5	8	5	8	0	6	3	3	136	2.0	1.3
Sweden	20	17	6	10	8	9	5	11	6	8	2	9	0	4	7	2	124	32.6	21.0
Denmark	11	11	14	9	7	4	3	9	8	3	4	4	4	2	4	0	97	60.6	29.4
Belgium	20	9	7	8	6	3	3	5	7	2	10	4	0	2	3	1	90	19.1	12.0
Africa	11	4	15	11	6	8	2	8	1	10	2	1	8	0	1	0	88	—	—
Spain	6	7	1	4	4	4	5	1	2	5	7	6	0	2	1	3	58	3.7	2.7
S. & C. America..	5	2	3	5	2	8	2	3	1	10	3	0	3	2	1	2	52	—	—
Portugal	6	2	1	3	7	4	4	3	3	1	4	4	0	2	2	1	47	13.0	7.8
Bulgaria	0	3	0	3	2	2	1	1	0	1	0	0	0	0	0	1	14	7.0	2.8
Roumania	0	1	0	1	2	0	1	0	1	1	0	1	0	0	0	0	8	2.0	.5
Greece	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	2	1.8	.4
Servia	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	2	2.0	.4
Malta	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	7.1	4.4
Total	1158	1006	941	638	546	537	536	429	369	351	320	280	266	250	201	127	7955		
U. S. Per cent. . . .	.18	.24	.21	.29	.23	.25	.24	.27	.23	.21	.22	.19	.29	.38	.08	.24	.23		

compared with 44 to Germany and 42 to Great Britain. After psychology we are strongest in zoology, botany, agriculture and geology. This is what I guessed in a preceding discussion² of the subject, but I then added astronomy to psychology, zoology, botany and geology as the subjects in which we were probably in the van. The sciences in which we make relatively the poorest showing in the table, apart from the applied sciences and geography, are anatomy and astronomy. The differences in the percentages for the different sciences are, however, not large and would probably fall within the probable errors of sampling if these could be determined.

The figures in the table relate to a period preceding 1914. They do not have great validity even for that time, and the years that have since elapsed have been significant for international changes. The edition of *American Men of Science* published in 1910 contains about 5,500 biographies of those who are supposed to have made contributions to science, the edition now in course of preparation will contain in the neighborhood of 14,000. The increase may to

some extent be due to more complete representation, but in the main it measures the increase in the number of scientific workers. They have probably about doubled since the data were compiled for "Who's Who in Science." The increase has been much less elsewhere; indeed there may have been none in some nations, such as France and Italy. With the possible exception of Germany the United States is now far in advance of every other nation in the number of its scientific men and in the number of its contributions to science.

It does not follow that the number of great men of science and the significant contributions are proportional to the total number of workers and the total amount of publication, although this is perhaps the most probable situation if there is no information to the contrary. It seems that England and ancient Greece have produced more than their share of the greatest men and this was indeed found to be the case in my study of the eminent men in the world's history.³ It may be that at the present time Holland with 12 physicists attributed to it is making more

² "Scientific Research in the United States," *Science*, February 12, 1926.

³ "A Statistical Study of Eminent Men," *The Popular Science Monthly*, February, 1903.

important contributions to that science than the United States with 131. In psychology, which is the only subject on which I can speak with adequate information, we appear to lead in importance as well as in quantity of work.

In the last two columns of the table are given the numbers of scientific men in proportion to the populations of the different countries. The first column gives the numbers per million in 1860, which was about the average time at which they were born; the second column gives the numbers in relation to the present populations. In France, with a nearly stationary population, the figures in the two columns are of course nearly the same. In the United States and the British Dominions, with rapidly increasing populations, the proportion is much smaller in relation to the existing population than to the birth rate. For a given stock and civilization, if scientific productivity were wholly due to the innate constitution of the individual, the numbers should be proportional to the population at the time of their birth; if wholly due to opportunity it should be proportional to the existing population. An adequate study might contribute toward the solution of this problem.

Taking either the one figure or the other in the table, it is obvious that while in total productivity we may surpass every other nation, this is far from being the case in proportion to our population. This situation is still less creditable to us when wealth and opportunities for higher education are taken into consideration. It should, however, be noted that the lower figures can be attributed in part to the large Negro and immigrant populations and to an unproductive South. Our scientific men appear now to be increasing about four times as rapidly as the population, and the figures in the table have for this and other reasons (including redistribution of populations after the war) only a limited application. When allowance is made for disturbing factors, the number of scientific men of standing in proportion to the present population appears to be nearly the same in the United States, Great Britain and Germany, about half as large in France and a quarter as large in

Italy. Norway and Switzerland have by far the largest proportion, followed among the smaller nations by Denmark, Holland and Sweden. I should have expected Holland to stand first, and it may, for the figures collected from the book have inconsiderable validity.

The greater relative productivity of the smaller cultural nations in science—the same situation probably holding in literature and in art—is a matter of considerable interest. It goes back to the Greek democracies and to the Italian states of the renaissance. In this country we had a local development in Massachusetts and Connecticut, in which, according to my statistics, the birth rate per million population of scientific men more highly selected than those on the international list was 109 and 87, respectively. If these figures are increased to make up for the number of scientific men given in the table, they become, respectively, 201 and 160, a much larger birth rate of scientific men than that of any foreign nation. It is probable that a similar situation now holds in California and in parts of the central west.

We apparently need regional cultivation of special fields with a group and a community interest in the work. The situation is difficult, for with the increasing complexity of science and in our existing competitive system there must be support of research through taxation or gifts. But control from Washington, whether by the national government, or by a group of men who administer philanthropic funds, may do more to suppress research than to forward it, the rarer flowers of genius being particularly apt to wither when frost and sunlight are artificially controlled.

We are so ignorant of the causes of scientific productivity that it is possible for Galton to attribute it almost wholly to heredity in superior lines of descent, for Odin to claim that genius is in things, not in men. Yet it is a subject of fundamental importance both from the point of view of constructive science and for the applications of science to human welfare. The field is nearly untilled and for that very reason may prove to be fertile.



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